UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)
☑ ANNUAL REPORT PURSUANT TO SECTION 13 or 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

Or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission File number 1-6659

ESSENTIAL UTILITIES, INC.
(Exact name of registrant as specified in its charter)

Pennsylvania	23-1702594
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
762 W Lancaster Avenue, Bryn Mawr, Pennsylvania	19010-3489
(Address of principal executive offices)	(Zip Code)

(610) 527-8000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value $0.50 per share	**WTRG**	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☑ Yes ☐ No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☑ No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☑ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☑ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "small reporting company," and "emerging growth company" in Rule 12(b)-2 of the Exchange Act.:

Large accelerated filer ☑ Accelerated filer ☐
Non-accelerated filer ☐ Small reporting company ☐
Emerging growth company ☐
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D.1(b) . ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). ☐ Yes ☑ No

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30,2022: $12,000,477,582

The number of shares outstanding of the registrant's common stock as of February 17, 2023: 264,141,265

DOCUMENTS INCORPORATED BY REFERENCE

(1) Portions of the definitive Proxy Statement, relating to the 2023 annual meeting of shareholders of registrant, to be filed within 120 days after the end of the fiscal year covered by this Form 10-K, have been incorporated by reference into Part III of this Form 10-K

TABLE OF CONTENTS

Part I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K, or this Annual Report are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that are made based upon, among other things, our current assumptions, expectations, plans, and beliefs concerning future events and their potential effect on us. These forward-looking statements involve risks, uncertainties and other factors, many of which are outside our control that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. In some cases you can identify forward-looking statements where statements are preceded by, followed by or include the words "believes," "expects," "estimates", "anticipates," "plans," "future," "potential," "probably," "predictions," "intends," "will," "continue," "in the event" or the negative of such terms or similar expressions. Please refer to the Summary in Item 1A – Risk Factors in this Annual Report for a description of the types of forward-looking statements in this Annual Report. These factors are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors could also have material adverse effects on future results.

Given these risks and uncertainties, you should not place undue reliance on any forward-looking statements. You should read this Annual Report completely and with the understanding that our actual future results, performance and achievements may be materially different from what we expect. These forward-looking statements represent assumptions, expectations, plans, and beliefs only as of the date of this Annual Report. Except for our ongoing obligations to disclose certain information under the federal securities laws, we are not obligated, and assume no obligation, to update these forward-looking statements, even though our situation may change in the future. For further information or other factors which could affect our financial results and such forward-looking statements, see Item 1A – Risk Factors. We qualify all of our forward-looking statements by these cautionary statements.

PART I

Item 1. *Business*

The Company

Essential Utilities, Inc. (formerly known as Aqua America, Inc.) (referred to as Essential Utilities, Essential, the Company, we, us, or our), a Pennsylvania corporation, is the holding company for regulated utilities providing water, wastewater, or natural gas services to an estimated five million people in Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, Virginia, West Virginia, and Kentucky under the Aqua and Peoples brands. One of our largest operating subsidiaries, Aqua Pennsylvania, Inc., (Aqua Pennsylvania) accounted for approximately 56% of operating revenues and approximately 73% of income for our Regulated Water segment in 2022. As of December 31, 2022, Aqua Pennsylvania provided water or wastewater services to approximately one-half of the total number of water and wastewater customers we serve. Aqua Pennsylvania's service territory is located in the suburban areas in counties north and west of the City of Philadelphia and in 27 other counties in Pennsylvania. Our other regulated water or wastewater utility subsidiaries provide similar services in seven additional states. Additionally, commencing on March 16, 2020 with the completion of the Peoples Gas Acquisition, the Company began to provide natural gas distribution services to customers in western Pennsylvania, Kentucky, and West Virginia. Approximately 93% of the total number of natural gas utility customers we serve are in western Pennsylvania. The Company also operates non-regulated market-based activities that are supplementary and complementary to our regulated utility businesses. Aqua Resources offers, through a third-party, water and sewer line protection solutions and repair services to households. Other non-regulated subsidiaries of Peoples provide utility service line protection services to households and operate gas marketing and production businesses.

For many years, starting in the early 1990s, our business strategy was primarily directed toward the regulated water and wastewater utility industry, where we have more than quadrupled the number of regulated customers we serve, and have extended our regulated operations from southeastern Pennsylvania to include our current regulated utility operations throughout Pennsylvania and in seven additional states. On March 16, 2020, we completed our acquisition of a natural gas distribution company consisting of Peoples Natural Gas Company LLC, Peoples Gas Company LLC, Peoples Gas WV LLC, Peoples Gas KY LLC, PNG Gathering LLC, and Delta Natural Gas Company Inc., expanding the Company's regulated utility business to include natural gas distribution. This acquisition is referred to as the "Peoples Gas Acquisition," and collectively these businesses are referred to as "Peoples." Peoples serves approximately 750,000 gas utility customers in western Pennsylvania, West Virginia, and Kentucky. During 2010 through 2013, we sold our utility operations in six states, pursuant to a portfolio rationalization strategy, to focus our operations in areas where we have critical mass and economic growth potential. During the fourth quarter of 2022, the Company signed an agreement to sell its regulated natural gas utility assets in West Virginia, which represent approximately two percent of the Company's regulated natural gas customers. Currently, the Company seeks to acquire businesses in the U.S. regulated sector, which includes water and wastewater utilities and other regulated utilities, and to pursue growth ventures in market-based activities, such as infrastructure opportunities that are supplementary and complementary to our regulated utility businesses.

The descriptions of our business and operations, financial results, and operational data included in this Annual Report do not include historical results for Peoples prior to the acquisition date of March 16, 2020.

The following table reports our operating revenues, by principal state, for our Regulated Water segment, which includes both water and wastewater utility services, Regulated Natural Gas segment, and Other and eliminations for the year ended December 31, 2022:

	Operating Revenues (000's)	Operating Revenues (%)
Pennsylvania	$ 610,964	26.7%
Ohio	118,245	5.2%
Texas	86,802	3.8%
Illinois	92,545	4.0%
North Carolina	71,713	3.1%
Other states (1)	102,703	4.5%
Regulated Water segment total	1,082,972	47.3%
Pennsylvania	1,071,119	46.8%
Other states (2)	72,243	3.2%
Regulated Natural Gas segment total	1,143,362	50.0%
Other and eliminations	61,698	2.7%
Consolidated	$ 2,288,032	100.0%

(1) Includes our water operating subsidiaries in the following states: New Jersey, Indiana, and Virginia.
(2) Includes our natural gas operating subsidiaries in West Virginia and Kentucky.

The Company has identified twelve operating segments and has two reportable segments, the Regulated Water segment and the Regulated Natural Gas segment. The Regulated Water segment is comprised of eight operating segments for our water and wastewater regulated utility companies, aligned with the states where we provide these services. These operating segments are aggregated into one reportable segment since each of the Company's operating segments has the following similarities: economic characteristics, nature of services, production processes, customers, water distribution or wastewater collection methods, and the nature of the regulatory environment. The Regulated Natural Gas segment is comprised of one operating segment representing natural gas utility companies, acquired in the Peoples Gas Acquisition, for which the Company provides natural gas distribution services. In addition to the Company's two reportable segments, the Company includes three of its operating segments in "Other". These businesses represent our non-regulated water, wastewater, and natural gas operations, which are not quantitatively significant to be reportable and therefore are included as a component of "Other". In addition, "Other" and eliminations include corporate costs that have not been allocated to the Regulated Water and Regulated Natural Gas segments, because they would not be recoverable as a cost of utility service, and intersegment eliminations. Information concerning revenues, net income, identifiable assets and related financial information for the Regulated Water and Regulated Natural Gas segments and Other and eliminations for 2022, 2021, and 2020, is set forth in *Management's Discussion and Analysis of Financial Condition and Results of Operations* and in Note 18 – *Segment Information* in the Notes to Consolidated Financial Statements which is contained in Item 8 of this Annual Report.

The following table summarizes our operating revenues, by utility customer class, for the Regulated Water and Regulated Natural Gas segments and Other and eliminations for the year ended December 31, 2022:

	Operating Revenues (000's)	Operating Revenues (%)
Residential water	$ 607,473	26.6%
Commercial water	168,460	7.4%
Fire protection	38,970	1.7%
Industrial water	32,581	1.4%
Other water	55,389	2.4%
Total water	902,873	39.5%
Wastewater	165,383	7.2%
Customer rate credits	-	0.0%
Other utility	14,716	0.6%
Regulated Water segment total	1,082,972	47.3%
Residential gas	720,490	31.5%
Commercial gas	149,653	6.6%
Industrial gas	5,636	0.2%
Gas transportation	205,825	9.0%
Customer rate credits	-	0.0%
Other utility	61,758	2.7%
Regulated Natural Gas segment total	1,143,362	50.0%
Other and eliminations	61,698	2.7%
Consolidated	$ 2,288,032	100.0%

Customers

Our water utility customer base is diversified among residential water, commercial water, fire protection, industrial water, other water, wastewater customers, and other utility customers (consisting of contracted services that are associated with the utility operations). Residential water and wastewater customers make up the largest component of our water utility customer base, with these customers representing approximately 68%, 69%, and 71%, of our water and wastewater revenues for 2022, 2021, and 2020, respectively. Substantially all of our water utility customers are metered, which allows us to measure and bill for our customers' water consumption. Water consumption per customer is affected by local weather conditions during the year, especially during late spring, summer, and early fall. In general, during these seasons, an extended period of dry weather increases consumption, while above-average rainfall decreases consumption. Also, an increase in the average temperature generally causes an increase in water consumption. On occasion, abnormally dry weather in our service areas can result in governmental authorities declaring drought warnings and imposing water use restrictions in the affected areas, which could reduce water consumption. See "Business – *Water Utility Supplies, and Facilities and Wastewater Utility Facilities*" for a discussion of water use restrictions that may impact water consumption during abnormally dry weather. The geographic diversity of our water utility customer base reduces the effect of our exposure to extreme or unusual weather conditions in any one area of our service territories. Water usage is also affected by changing consumption patterns by our customers, resulting from such causes as increased water conservation and the installation of water saving devices and appliances that can result in decreased water usage. It is estimated that, in the event we experience a 0.50% decrease in residential water consumption, it would result in a decrease in annual residential water revenue of approximately $3,000,000, which would likely be partially offset by a reduction in incremental water production expenses such as chemicals and power.

Our natural gas utility customer base is diversified among residential gas, commercial gas, industrial gas, gas transportation, and other utility. Substantially all of our natural gas utility customers are metered, which allows us to measure and bill for our customers' natural gas usage. Natural gas usage per customer is affected by local weather conditions during the year, especially during the fall, winter, and early spring. These patterns reflect the higher demand for natural gas for heating purposes during the colder months. Our regulated natural gas revenues and expenses are also affected by the cost of gas. We are generally able to pass the cost of gas through to our customers using a purchased gas adjustment clause; therefore, fluctuations in the cost of purchased gas impact revenues on a dollar-for-dollar basis. Since regulated natural gas revenues are affected by the cost of gas, higher gas costs, as well as general economic conditions, may cause customers to conserve usage, or seek alternative energy sources. In addition, higher gas costs result in an increase to our purchased gas inventory, which requires additional borrowings under credit facilities, resulting in higher interest expense.

The Company's growth in revenues over the past five years is primarily a result of the 2020 Peoples Gas Acquisition, increases in water and wastewater rates, increase in the cost of natural gas in 2021 and 2022, and customer growth. See *Economic Regulation* for a discussion of water, wastewater, and natural gas rates. The increase in our utility customer base has been due to customers added through acquisitions, partnerships with developers, and organic growth (excluding dispositions) as shown below:

Year	Utility Customer Growth Rate
2022	1.7%
2021	1.2%
2020	42.9%
2019	2.1%
2018	2.3%

In 2022, 2021, and 2020, our customer count increased by 31,537, 21,246, and 772,099 customers, respectively, primarily due to the water and wastewater utility systems that we acquired, organic growth, and in 2020, due to the Peoples Gas Acquisition that resulted to the addition of approximately 750,000 natural gas utility customers. Overall, for the five year period of 2018 through 2022, our utility customer base, adjusted to exclude customers associated with utility system dispositions, increased at an annual compound rate of 13.5%. During the five year period ended December 31, 2022, our utility customer base including customers associated with utility system acquisitions and dispositions increased from 982,849 at January 1, 2018 to 1,851,586 at December 31, 2022.

Acquisitions and Other Growth Ventures

We believe that acquisitions will continue to be an important source of customer growth for us. We intend to continue to pursue acquisitions of government-owned and regulated water and wastewater systems that provide services in areas near our existing service territories or in new service areas. We engage in continuing activities with respect to potential acquisitions, including calling on prospective sellers, performing analyses of and due diligence on acquisition candidates, making preliminary acquisition proposals, and negotiating the terms of potential acquisitions. Further, we are also seeking other potential business opportunities, including but not limited to, partnering with public and regulated utilities to invest in infrastructure projects, growing our market-based activities by acquiring businesses that provide water and wastewater or other utility-related services, and investing in infrastructure projects.

Based on the 2021 U.S. Census American Housing Survey, approximately 89% of the U.S. population obtains its water from public or private water utility systems, and 11% of the U.S. population obtains its water from individual wells. With approximately 50,000 public or private water systems in the U.S. (81% of which serve less than 3,300 customers), the water industry is the most fragmented of the major utility industries (telephone, natural gas, electric, water and wastewater). The majority of these community water systems are government-owned. The nation's water systems range in size from large government-owned systems, such as the New York City water system, which serves approximately 8.8 million people, to small systems, where a few customers share a common well. In the states where we operate regulated water utilities, we believe there are approximately 14,000 public or private water utility systems of widely-varying size, with the majority of the population being served by government-owned water systems.

Although not as fragmented as the water industry, the wastewater industry in the U.S. also presents opportunities for consolidation. Based on the 2021 U.S. Census American Housing Survey, approximately 84% of the U.S. population relies on public or private sewer systems, and 16% of the U.S. population relies on septic tank, cesspool or other sewer options. A majority of wastewater facilities are government-owned rather than regulated utilities. In the states where we operate regulated water utilities, we believe there are approximately 4,000 wastewater facilities in operation, with the majority of the population being served by government-owned wastewater systems.

Because of the fragmented nature of the water and wastewater utility industries, we believe there are many potential water and wastewater system acquisition candidates throughout the U.S. We believe the factors driving consolidation of these systems are:

the benefits of economies of scale;
the increasing cost and complexity of environmental regulations;
the need for substantial capital investment;
the need for technical and managerial expertise;
the desire to improve water quality and service;
limited access to cost-effective financing;
the monetizing of public assets to support, in some cases, the declining financial condition of municipalities; and
the use of system sale proceeds by a municipality to accomplish other public purposes.

We are actively exploring opportunities to expand our utility operations through acquisitions or other growth ventures. During the five-year period ended December 31, 2022, we expanded our utility operations by completing 28 acquisitions of water or wastewater utilities or other similar assets. Additionally, in March 2020, we completed our acquisition of Peoples, which expanded the Company's regulated utility business to include natural gas distribution.

Supply and Facilities

Water Utility Supplies and Facilities and Wastewater Utility Facilities - Our water utility operations obtain their water supplies from surface water sources, underground aquifers, and water purchased from other water suppliers. Our water supplies are primarily self-supplied and processed at twenty-three surface water treatment plants located in five states, and numerous well stations located in the states in which we conduct business. Approximately 5.9% of our water supplies are provided through water purchased from other water suppliers. It is our policy to obtain and maintain the permits necessary to obtain and treat the water we distribute.

In September 2021, Hurricane Ida made landfall in Pennsylvania, and the Company had to temporarily shut down two of its water treatment plants, in Chester County, Pennsylvania, which had been damaged due to heavy rainfall, flooding and loss of power. These plants serve a significant portion of Aqua Pennsylvania's service territory in southeastern Pennsylvania. The Company was able to maintain supply to most of its customers by ramping up production at some of its other treatment plants. However, due to low water pressure in some locations, Aqua Pennsylvania asked customers to adopt voluntary water conservation measures during a two-week period. The damage to the facilities occurred despite our prior efforts to shore up the facilities to prevent such floodwater occurrences.

We believe that the capacities of our sources of supply, and our water treatment, pumping and distribution facilities, are generally sufficient to meet the present requirements of our customers under normal conditions. We plan system improvements and additions to capacity in response to normal replacement and renewal needs, changing regulatory standards, changing patterns of consumption, and increased demand from customer growth. The various state utility commissions have generally recognized the operating and capital costs associated with these improvements in setting water and wastewater rates.

On occasion, drought warnings and water use restrictions are issued by governmental authorities for portions of our service territories in response to extended periods of dry weather conditions. The timing and duration of the warnings and restrictions can have an impact on our water revenues and net income. In general, water consumption in the summer months is more affected by drought warnings and restrictions because discretionary and recreational use of water is at its highest during the summer months. At other times of the year, warnings and restrictions generally have less of an effect on water consumption. Drought warnings and watches result in the public being asked to voluntarily reduce water consumption.

We believe that our wastewater treatment facilities are generally adequate to meet the present requirements of our customers under normal conditions. Additionally, we own several wastewater collection systems that convey the wastewater to municipally-owned facilities for treatment. Changes in regulatory requirements can be reflected in revised permit limits and conditions when permits are renewed, typically on a five year cycle, or when treatment capacity is expanded. Capital improvements are planned and budgeted to meet normal replacement and renewal needs, anticipated changes in regulations, needs for increased capacity related to projected growth, and to reduce inflow and infiltration to collection systems. The various state utility commissions have generally recognized the operating and capital costs associated with these improvements in setting wastewater rates for current and new customers. It is our policy to obtain and maintain the permits necessary for the treatment of the wastewater that we return to the environment.

Natural Gas Supply and Transportation Facilities - Our natural gas supply strategy is to ensure a dependable gas supply that is economically priced and which is available for delivery when needed. We purchase natural gas from intrastate, interstate and local sources, and transport natural gas supplies through various intrastate and interstate pipelines under contracts with remaining terms, including extensions, varying from one month to 15 years. We anticipate that these gas supply and transportation contracts will be renewed or replaced prior to their expiration.

The regulations of the states in which we operate natural gas utilities allow us to pass through changes in the cost of natural gas to our customers under purchased gas adjustment provisions in our tariffs. Depending upon the jurisdiction, the purchased gas adjustment factors are updated periodically, ranging from quarterly to annually. The changes in the cost of gas billed to customers are subject to review by the applicable regulatory bodies.

We use various third-party storage services or owned natural gas storage facilities to meet peak-day requirements and to manage the daily changes in demand due to changes in weather.

We own and operate underground natural gas storage facilities with capacity of 10.5 billion cubic feet (Bcf). Total working capacity is 5.2 Bcf for use during the heating season with a maximum daily withdrawal rate of 115.5 million cubic feet (MMcf). Additionally, we have contracted for off-system storage from interstate pipelines. The total amount of off-system storage under contract is 35.6 Bcf with a maximum daily withdrawal rate of 598.6 MMcf.

On an ongoing basis, we enter into contracts to provide sufficient supplies and pipeline capacity to meet our customers' natural gas requirements. However, it is possible for limited service disruptions to occur from time to time due to weather conditions, transportation constraints, and other events. As a result of these factors, supplies of natural gas may become unavailable from time to time, or prices may increase rapidly in response to temporary supply constraints or other factors. We enter into firm agreements with suppliers, including major producers and marketers, intended to provide flexibility to meet the temperature-sensitive needs of its customers. In Pennsylvania, our distribution system is connected to six interstate pipelines, where we maintain capacity we believe is sufficient to meet our customers' gas requirements. In Kentucky, our distribution system is connected to four interstate pipelines, where we maintain capacity we believe is sufficient to meet our customers' gas requirements. In West Virginia, our distribution system is connected to one interstate pipeline, as well as local production, where we maintain capacity we believe is sufficient to meet our customers' gas requirements.

Natural Gas Gathering - Our Pennsylvania Regulated Natural Gas service territory is situated in the Marcellus Shale production region. Approximately 28% of the natural gas supply on the system is from locally produced gas, which we gather and transport into our distribution system. Our gathering system is regulated by the Pennsylvania Public Utility Commission which includes various safety, environmental and, in some circumstances, anti-discrimination requirements, and in some instances complaint-based rate regulation. Our gathering operations may be subject to ratable take and common purchaser statutes in the states in which we operate.

Our Regulated Natural Gas gathering operations could be adversely affected should they be subject in the future to the application of state or federal regulation of rates and services. Our gathering operations could also be subject to additional safety and operational regulations relating to the design, construction, testing, operation, replacement, and maintenance of gathering facilities. We cannot predict what effect, if any, such changes might have on our operations, but our Regulated Natural Gas segment could be required to incur additional capital expenditures and increased costs depending on future legislative and regulatory changes. Refer to further discussion below in the *Environmental, Health and Safety Regulation and Compliance* section.

Economic Regulation

Most of our utility operations are subject to regulation by their respective state utility commissions, which have broad administrative power and authority to regulate billing rates, determine franchise areas and conditions of service, approve acquisitions, and authorize the issuance of securities. The utility commissions also establish uniform systems of accounts and approve the terms of contracts with affiliates and customers, business combinations with other utility systems, and loans and other financings. The policies of the utility commissions often differ from state to state, and may change over time. A small number of our water and wastewater utility operations are subject to rate regulation by county or city governments. The profitability of our utility operations is influenced to a great extent by the timeliness and adequacy of rate allowances we are granted by the respective utility commissions or authorities in the various states in which we operate.

Rate Case Management Capability – We maintain a rate case management capability, the objective of which is to provide that the tariffs of our utility operations reflect, to the extent practicable, the timely recovery of increases in costs of operations, capital expenditures, interest expense, taxes, energy, materials, and compliance with environmental regulations as well as a return on equity. We file rate increase requests to recover and earn a fair return on the infrastructure investments that we make in improving or replacing our facilities and to recover expense increases. In the states in which we operate, we are primarily subject to economic regulation by the following state utility commissions:

State	Utility Commission
Pennsylvania	Pennsylvania Public Utility Commission
Ohio	Public Utilities Commission of Ohio
North Carolina	North Carolina Utilities Commission
Texas	Public Utility Commission of Texas
Illinois	Illinois Commerce Commission
New Jersey	New Jersey Board of Public Utilities
Kentucky	Public Service Commission of Kentucky
Virginia	Virginia State Corporation Commission
Indiana	Indiana Utility Regulatory Commission
West Virginia	Public Service Commission of West Virginia

Our water and wastewater operations are comprised of 47 rate divisions, and our natural gas operations are comprised of four rate divisions. Each of our utility rate divisions require a separate rate filing for the evaluation of the cost of service, including the recovery of investments, in connection with the establishment of rates for that rate division. When feasible and beneficial to our utility customers, we will seek approval from the applicable state regulatory commission to consolidate rate divisions to achieve a more even distribution of costs over a larger customer base. All of the states in which we operate permit us to file a revenue requirement for some form of consolidated rates for all, or some, of the rate divisions in that state.

In Ohio, Virginia, North Carolina, and Kentucky, we may bill our utility customers, in certain circumstances, in accordance with a rate filing that is pending before the respective regulatory commission, which would allow for interim rates. As of December 31, 2022, we have no billings under interim rate arrangements for rate case filings in progress. Furthermore, some utility commissions authorize the use of expense deferrals and amortization in order to provide for an impact on our operating income by an amount that approximates the requested amount in a rate request. In these states, the additional revenue billed and collected prior to the final regulatory commission ruling is subject to refund to customers based on the outcome of the ruling. The revenue recognized and the expenses deferred by us reflect an estimate as to the final outcome of the ruling. If the request is denied completely or in part, we could be required to refund to customers some or all of the revenue billed to date and write-off some or all of the deferred expenses.

Revenue Surcharges – Eight states in which we operate water and wastewater utilities, and two states, Pennsylvania and Kentucky, in which we operate natural gas utilities permit us to add an infrastructure rehabilitation surcharge to their respective bills to offset the additional depreciation and capital costs associated with capital expenditures related to replacing and rehabilitating infrastructure systems. Without this surcharge, a utility absorbs all of the depreciation and capital costs of these projects between base rate increases. The gap between the time that a capital project is completed and the recovery of its costs in rates is known as regulatory lag. This surcharge is intended to substantially reduce regulatory lag, which could act as a disincentive for utilities to rehabilitate their infrastructure. In addition, our subsidiaries in some states use a surcharge or credit on their bills to reflect changes in costs, such as changes in state tax rates, other taxes and purchased water costs, until such time as the new cost levels are incorporated into base rates.

The infrastructure rehabilitation surcharge typically adjusts periodically based on additional qualified capital expenditures completed or anticipated in a future period, and is capped at a percentage of base rates, generally at 5% to 12.75%, and is reset to zero when new base rates that reflect the costs of those additions become effective or when a utility's earnings exceed a regulatory benchmark. These surcharges provided revenues of $26,902,294 in 2022, 33,771,486 in 2021, and $13,038,555 in 2020.

In the majority of our natural gas service territories, the public utility commissions have authorized bare steel and cast-iron replacement programs. In Pennsylvania, we filed a Long-Term Infrastructure Replacement program with the Pennsylvania Public Utility Commission where we have committed to the replacement of bare steel and cast-iron pipe. On February 14, 2012, the Governor of Pennsylvania signed into law Act 11 of 2012, which provided a Distribution System Improvement Charge (DSIC) mechanism for certain utilities to recover costs related to repair, replacement or improvement of eligible distribution property that has not previously been reflected in rates or rate base. Through this Pennsylvania DSIC, subject to an earnings test, a utility may recover the fixed costs of eligible infrastructure incurred during the three months ended one month prior to the effective date of the charge, thereby reducing the historical regulatory lag associated with cost recovery through the traditional rate-making process. In Kentucky, we have a pipe replacement program tariff, which allows adjustment of regulated rates annually to earn a return on capital expenditures incurred subsequent to our last rate case which were associated with the replacement of bare steel and vintage plastic pipe.

Gas costs incurred to serve our natural gas customers represent a significant operating expense. Our regulated natural gas rates, in all jurisdictions, contain a Purchased Gas Adjustment (PGA), which is reflected in our tariffs. The PGA allows us to timely charge for changes in the cost of purchased gas, inclusive of unaccounted for gas expense based on actual experience. PGA procedures involve periodic filings and hearings before the state regulatory commissions to establish price adjustments for a designated future period. The procedures also provide for inclusion in later periods of any variances between actual recoveries representing the estimated costs and actual costs incurred. The PGA is subject to periodic review and audit by the state regulatory commissions who also have the authority to disallow previously incurred costs.

In Pennsylvania, the gas cost component of uncollectible accounts expense, gas procurement costs, and certain costs to maintain a supplier choice program, where customers can elect their natural gas supplier, are recovered by mechanisms outside of typical base rate recovery. Additionally, in Pennsylvania, we recover the costs related to universal service programs, whereby customers who meet certain income guidelines receive assistance toward paying their monthly bill, weatherization services, and other programs. In Kentucky, the gas cost component of uncollectible accounts expense is recovered by a recovery mechanism outside of base rate recovery.

Income Tax Accounting Change – In 2012, Aqua Pennsylvania adopted an income tax accounting method change, implemented on Essential Utilities' 2012 federal income tax return. This accounting method change allows a tax deduction for qualifying utility asset improvements that were formerly capitalized for tax purposes, and was implemented in response to a June 2012 rate order issued by the Pennsylvania Public Utility Commission. The Pennsylvania rate order requires use of the flow-through method of income tax benefits which results in a reduction in current income tax expense through the recognition of income tax benefits resulting from the accounting method change. In the first rate order since 2012, Aqua Pennsylvania received a 2019 rate case order that provided for $158,864,688 of income tax deductions, for its water customers, annually, from the flow-through recognition of the Aqua Pennsylvania income tax accounting change, subject to a collar of $3,000,000 above or below; with the cumulative differences either refunded or recovered in the subsequent rate case. In May 2022, Aqua Pennsylvania received a rate case order that provided for a base rate increase that provides a target deduction of $159,060,000 and a collar-mechanism of $4,000,000.

On March 16, 2020, the Company completed the Peoples Gas Acquisition. In March 2020 and June 2022, the Company changed the method of tax accounting for certain qualifying infrastructure investments at its Peoples Natural Gas and Peoples Gas subsidiaries, respectively. In the fourth quarter of 2022, the Company made a similar change for its Aqua New Jersey subsidiary, beginning with the current tax year. These changes allow a tax deduction for qualifying utility asset improvement costs that were formerly capitalized for tax purposes. Consistent with the Company's accounting for differences between book and tax expenditures for its Aqua Pennsylvania subsidiary, the Company is utilizing the flow-through method to account for this timing difference. For Peoples Natural Gas, the Company calculated the income tax benefits for qualifying capital expenditures made prior to March 16, 2020 (catch-up adjustment) and has recorded a regulatory liability for $160,655,000 for these income tax benefits. In May 2021, the Pennsylvania Public Utility Commission approved a settlement petition that allows Peoples Natural Gas to continue to use flow-through accounting for the current tax repair benefit and allows for the catch-up adjustment be given to its customers. These benefits are being provided back to customers over a five-year period through a credit on customer bills which commenced in August 2021. In addition, the settlement petition required the contribution of $500,000 to a customer-bill payment assistance program, completed in July 2021, and $5,000,000 in relief to past-due accounts for natural gas customers impacted by the COVID-19 pandemic, completed in December 2021. For Peoples Gas, the Company calculated the catch-up adjustment

from the periods prior to the 2021 tax year and recognized a regulatory liability of $13,808,000 for these income tax benefits. The Company will maintain this regulatory liability on its consolidated balance sheet until accounting treatment is determined in its next base rate case.

Fair Market Value Legislation – In April 2016, Pennsylvania enacted legislation allowing the public utility commission to utilize fair market value to set ratemaking rate base instead of the depreciated original cost of water or wastewater assets for certain qualifying municipal acquisitions. The legislation includes a process for engaging two independent utility valuation experts to perform appraisals that are filed with the public utility commission and then averaged and compared to the purchase price. The ratemaking rate base is the lower of the average of the appraisals or the purchase price and is subject to regulatory approval. Illinois, Indiana, New Jersey, North Carolina, Ohio, Virginia, and Texas also have legislation that allows the use of fair market value under varying rules and circumstances. We believe that this legislation encourages consolidation in the water and wastewater industry, providing municipalities with an option for exiting the business if they are dealing with challenges associated with their aging, deteriorating water and wastewater assets, do not have the expertise or technical capabilities to continue to comply with ever-increasing environmental regulations, or simply want to focus on other community priorities.

Revenue Stability Mechanisms – Revenue stability mechanisms separate the volume of water sold from our ability to meet our cost of service and infrastructure costs. These mechanisms allows us to recognize revenue based on a target amount established in the last rate case, and then record either a regulatory asset or liability based on the cumulative difference over time, which results in either a refund due to customers or a payment from customers. In Illinois, our operating subsidiary utilizes a revenue stability mechanism. Additionally, a weather-normalization adjustment (WNA) mechanism is in place for our natural gas customers served in Kentucky. The WNA serves to minimize the effects of weather on the Company's results for its residential and small commercial natural gas customers. This regulatory mechanism adjusts revenues earned for the variance between actual and normal weather and can have either positive (warmer than normal) or negative (colder than normal) effects on revenues. Customer bills are adjusted in the December through April billing months, with rates adjusted for the difference between actual revenues and revenues calculated under this mechanism billed to the customers.

Competition

In general, we believe that Essential Utilities and its water, wastewater, and natural gas subsidiaries have valid authority, free from unduly burdensome restrictions, to enable us to carry on our business as presently conducted in the franchised or contracted areas we now serve. The rights to provide water, wastewater, or natural gas service to customers in a particular franchised service territory are generally non-exclusive, although the applicable utility commissions usually allow only one regulated utility to provide service to customers in a given area. In some instances, another water utility provides service to a separate area within the same political subdivision served by one of our subsidiaries. Additionally, our larger natural gas customers may bypass gas distribution services by gaining distribution directly from interstate pipelines, other gas distributors, or other energy sources. As a regulated utility, we believe there is little competition for the daily water, wastewater, and natural gas service we provide to our customers.

Although our natural gas subsidiaries are not currently in significant direct competition with any other distributors of natural gas in its service areas, we do compete with suppliers of other forms of energy such as fuel oil, electricity, propane, coal, wind, and solar. Competition can be intense among the energy sources with price being the primary consideration. This is particularly true for industrial customers who have the ability to switch to alternative fuels. Natural gas generally benefits from a competitive price advantage over oil, electricity, and propane. Competition from renewable energy sources such as solar and wind is likely to increase as the political environment currently favors these energy sources through incentives or by placing restrictions on emissions from the burning of fossil fuels.

Water and wastewater utilities may compete for the acquisition of other water and wastewater utilities or for acquiring new customers in new service territories. Competition for these acquisitions generally comes from nearby utilities, either other regulated utilities or municipal-owned utilities, and sometimes from strategic or financial purchasers seeking to enter or expand in the water and wastewater industry. We compete for new service territories and the acquisition of other utilities on the following bases:

- economic value;
- economies of scale;
- our ability to provide quality water, wastewater, and natural gas service;
- our existing infrastructure network;
- our ability to perform infrastructure improvements;
- our ability to comply with environmental, health, and safety regulations;
- our technical, regulatory, and operational expertise;
- our ability to access capital markets; and
- our cost of capital.

The addition of new service territories and the acquisition of other utilities by regulated utilities such as the Company are generally subject to review and approval by the applicable state utility commissions.

In a very small number of instances in one of our southern states, where there are municipally-owned water or wastewater systems near our operating divisions, the municipally-owned system may either have water distribution or wastewater collection mains that are located adjacent to our division's mains or may construct new mains that parallel our mains. In these rare circumstances, the municipally-owned system may attempt to voluntarily offer service to customers who are connected to our mains, resulting in our mains becoming surplus or underutilized without compensation.

In the states where our water subsidiaries operate, it is possible that portions of our subsidiaries' operations could be acquired by municipal governments by one or more of the following methods:

- eminent domain;
- the right of purchase given or reserved by a municipality or political subdivision when the original franchise was granted; and,
- the right of purchase given or reserved under the law of the state in which the subsidiary was incorporated or from which it received its permit.

The price to be paid upon such an acquisition by the municipal government is usually determined in accordance with applicable law under eminent domain. In other instances, the price may be negotiated, fixed by appraisers selected by the parties, or computed in accordance with a formula prescribed in the law of the state or in the particular franchise or charter. We believe that our operating subsidiaries would be entitled to fair market value for any assets that are condemned, and we believe the fair market value would be in excess of the book value for such assets.

Despite maintaining a program to monitor condemnation interests and activities that may affect us over time, one of our primary strategies continues to be to acquire additional water and wastewater systems, to maintain our existing systems where there is a business or a strategic benefit, and to actively oppose unilateral efforts by municipal governments to acquire any of our operations, particularly for less than the fair market value of our operations or where the municipal government seeks to acquire more than it is entitled to under the applicable law or agreement. On occasion, we may voluntarily agree to sell systems or portions of systems in order to help focus our efforts in areas where we have more critical mass and economies of scale or for other strategic reasons.

Environmental, Health and Safety Regulation and Compliance

The Company's mission is "to sustain life and improve economic prosperity by safely and reliably delivering Earth's most essential resources to customers and communities". We are committed to protecting the environment and the health and safety of our employees, customers, and the public and continue to adhere to applicable regulatory standards. We

integrate environmental, health, and safety requirements into planning, decision-making, construction, operating, and maintenance activities that we perform.

Provision of water and wastewater services is subject to regulation under the federal Safe Drinking Water Act, the Clean Water Act, and related state laws, and under federal and state regulations issued under these laws. These laws and regulations establish criteria and standards for drinking water and for wastewater discharges. Environmental, health and safety, and water quality regulations are complex and may vary from state to state. In some instances, a state has adopted a standard that is more stringent than the federal standard. For example, while the EPA has announced the intention to propose drinking water regulations for two PFAS compounds (perfluorooctanoic acid, or PFOA, and perfluorooctane sulfonic acid, or PFOS) and issued non-enforceable lifetime and Interim Health Advisory Levels for PFOA, PFOS and two other PFAS compounds, the New Jersey Department of Environmental Protection has already established enforceable drinking water standards for three PFAS compounds (PFOA, PFOS, and perfluorononanoic acid, or PFNA) and the Pennsylvania Department of Environmental Protection also recently enacted enforceable drinking water standards for PFOA and PFOS in advance of the federal EPA proposed regulations. In addition, we are subject to federal and state laws and other regulations relating to solid waste disposal, dam safety, and other aspects of our operations. Capital expenditures and operating costs required as a result of water quality standards and environmental requirements have been traditionally recognized by state utility commissions as appropriate for inclusion in establishing rates.

From time to time, Essential Utilities has acquired, and may acquire, systems that have environmental compliance issues. Environmental compliance issues also arise in the course of normal operations or as a result of regulatory changes. Essential Utilities attempts to align capital budgeting and expenditures to address these issues in due course. We believe that the capital expenditures required to address outstanding environmental compliance issues in our water and wastewater systems have been budgeted in our capital program and represent approximately $118,984,000, or less than 5% of our expected total water and wastewater capital expenditures over the next five years (2023-2027). We are parties to agreements with regulatory agencies in Pennsylvania, Texas, Virginia, and Illinois under which we have committed to make improvements for environmental compliance. These agreements are intended to provide the regulators with assurance that problems covered by these agreements will be addressed, and the agreements generally provide protection from fines, penalties, and other actions while corrective measures are being implemented. We are working with state environmental officials in Pennsylvania, Texas, Virginia, and Illinois to implement or amend regulatory agreements as necessary.

Our Regulated Natural Gas utility operations are subject to stringent and complex laws and regulations pertaining to the environment. Legislative and regulatory actions to address climate change are in various phases of review or implementation in the United States. These measures could include emissions limits, reporting requirements, carbon taxes, and incentives or mandates to conserve energy or use renewable energy sources. As an owner or operator of natural gas pipelines, distribution systems and storage, and the facilities that support these systems, we must comply with these laws and regulations at the federal, state, and local levels. Failure to comply with these laws and regulations may trigger a variety of administrative, civil, and criminal enforcement measures, including the assessment of monetary penalties, the imposition of remedial actions, and the issuance of orders enjoining future operations. Certain environmental statutes impose strict, joint and several liability for costs required to assess, clean up, and restore sites where hazardous substances have been stored, disposed or released.

Safe Drinking Water Act - The Safe Drinking Water Act establishes criteria and procedures for the U.S. Environmental Protection Agency (EPA) to develop national quality standards for drinking water. Regulations issued pursuant to the Safe Drinking Water Act set standards regarding the amount of microbial and chemical contaminants and radionuclides in drinking water. Current requirements under the Safe Drinking Water Act are not expected to have a material impact on our business, financial condition, or results of operations as we have made and are making investments to meet existing water quality standards. We may, in the future, be required to change our method of treating drinking water at some sources of supply and make additional capital investments if additional regulations become effective.

Clean Water Act - The Clean Water Act regulates discharges from drinking water and wastewater treatment facilities into lakes, rivers, streams, and groundwater. It is our policy to obtain and maintain all required permits and approvals for the discharges from our water and wastewater facilities, and to comply with all conditions of those permits and other regulatory requirements. A program is in place to monitor facilities for compliance with permitting, monitoring and reporting for wastewater discharges. From time to time, discharge violations may occur which may result in fines. These

fines and penalties, if any, are not expected to have a material impact on our business, financial condition, or results of operations. We are also parties to agreements with regulatory agencies in several states where we operate while improvements are being made to address wastewater discharge issues. The EPA has identified leveraging wastewater discharge permitting and application of biosolids, or sewage sludge, containing PFAS as areas of focus in its PFAS Strategic Roadmap.

Solid Waste Disposal - The handling and disposal of waste generated from water and wastewater treatment facilities is governed by federal and state laws and regulations. A program is in place to monitor our facilities for compliance with regulatory requirements, and we are not aware of any significant environmental remediation costs necessary from our handling and disposal of waste material from our water and wastewater operations.

Dam Safety - Our subsidiaries own 30 dams, of which 14 are classified as high hazard dams that are subject to the requirements of the federal and state regulations related to dam safety, which undergo regular inspections and an annual engineering inspection. After a thorough review and inspection of our dams by professional outside engineering firms, we believe that all 14 dams are structurally sound and well-maintained, except as described below. These inspections provide recommendations for ongoing rehabilitation which we include in our capital improvement program. The Company has approximately $25,680,000 in capital improvements budgeted between 2023 and 2027 for dam improvements.

We performed studies of our dams that identified five high hazard dams in Pennsylvania and one high hazard dam in Ohio requiring capital improvements. These capital improvements result from the adoption by state regulatory agencies of revised formulas for calculating the magnitude of a possible maximum flood event. The most significant capital improvement remaining to be performed in our dam improvement program is on one dam in Pennsylvania at a total estimated cost of $10,290,000. Design for this dam commenced in 2013 and construction is expected to be completed in 2027.

A previously-owned Ohio dam requiring capital improvements was no longer used for water supply and was sold to a third party in December 2020. In connection with the sale, we contractually agreed to complete certain dam capital improvements after the sale for an estimated cost of $2,100,000. The repairs were completed in 2022.

Lead and Copper Rule – The events in Flint, Michigan, which commenced in 2014, and other communities have brought attention to the issue of lead in drinking water from home plumbing. Lead in drinking water can come from lead that leaches from service lines, home plumbing solder, and fixtures or faucets. Since the Lead and Copper Rule in 1992, we have been working to prevent lead leaching from home plumbing sources by reducing water corrosivity and adding chemicals that can prevent leaching of lead in pipes and homes. We have a program to evaluate all changes in water sources and/or treatment prior to initiating a change in water supply. We also focus on identifying and removing lead service lines and encouraging customers to replace the customer-owned portion of the service line if it is lead as they are identified during our main replacement program or during other maintenance activities. We support the recommendations of The Lead Service Line Replacement Collaborative, a collaborative of leading water industry, housing, and health organizations that has recommended full replacement of lead service lines as a “best practice” to reduce lead in drinking water, but we generally only have control over the company-owned portion of each service line. In cases where we are replacing a company-owned lead service line, our standard approach is to replace the company-owned portion and advise and encourage the customer to replace the customer-owned portion of the service line, all the way to the customer’s home. In Pennsylvania, we have the legal and regulatory authority to replace the customer-owned portion of the service line and will attempt to obtain customer permission to do so. We also advise customers of the potential health impacts of lead in drinking water, and conduct lead testing at homes following replacement of a lead service line.

On January 15, 2021 the EPA published the Lead and Copper Rule Revisions (LCRR) that included deadlines for lead service line inventories and replacement plans, and then signed a final rule on June 10, 2021 to extend the effective date of the LCRR to December 16, 2021. This action extends the LCRR requirement to submit a lead service line inventory and a lead service line replacement plan to the respective states or agencies by October 16, 2024. We are continuing to enhance our lead service line inventory and refine our lead service line replacement plans which we expect to complete by the deadline. Additionally, EPA is developing a new regulation, the Lead and Copper Rule Improvements (LCRI), to better protect communities from exposure to lead in drinking water. The LCRI is expected to delay the due dates for lead service line replacement plans and result in modifications to other parts of the LCRR. We are executing an implementation plan to comply with the initial LCRR requirement to complete a lead service line inventory. Capital

expenditures and operating costs associated with compliance with any of these rule revisions will be determined once the EPA finalizes the rule.

Partnership for Safe Water Program – Essential Utilities is a proud participant in the American Water Works Association's (AWWA) Partnership for Safe Water Program. This voluntary program is a commitment to excellence within the drinking water community above and beyond EPA's stringent treatment goals. All of our active surface water treatment plants (within Pennsylvania, Ohio, Illinois, and Virginia) maintain good standing in the program which includes many awards of achievement. The honors include the "Director's Award" (achieved at seven systems) which recognizes plants that have: 1) completed a comprehensive self-assessment report, 2) created an action plan for continuous improvement, and 3) provided several evaluations of performance demonstrating operational excellence. Several of our systems have met these criteria annually and have received 5, 10, 15, and 20 year subscriber awards. Furthermore, our Roaring Creek Pennsylvania treatment plant has received the Phase IV Excellence Award, the highest honor achieved in the Partnership Program.

Safety Standards - Our facilities and operations may be subject to inspections by representatives of the Occupational Safety and Health Administration from time to time. We maintain safety policies and procedures to comply with the Occupational Safety and Health Administration's rules and regulations, but violations may occur from time to time, which may result in fines and penalties, which are not expected to have a material impact on our business, financial condition, or results of operations. We endeavor to correct such violations promptly when they come to our attention.

Pipeline Safety Improvement Act- In December 2006, Congress enacted the Pipeline, Inspection, Protection, Enforcement and Safety Act of 2006 (2006 Act), which reauthorized the programs adopted under the Pipeline Safety Improvement Act of 2002 (2002 Act). These programs included several requirements related to ensuring pipeline safety, and a requirement to assess the integrity of pipeline transmission facilities in areas of high population concentration.

Pursuant to the 2006 Act, the Pipeline and Hazardous Materials Safety Administration (PHMSA), an agency of the US Department of Transportation (DOT), issued regulations, effective February 12, 2010, requiring operators of gas distribution pipelines to develop and implement integrity management programs similar to those required for gas transmission pipelines, but tailored to reflect the differences in distribution pipelines. Operators of natural gas distribution systems were required to write and implement integrity management programs by August 2, 2011. Peoples' natural gas distribution systems met this deadline.

Pursuant to the 2002 Act and the 2006 Act, PHMSA has adopted a number of rules concerning, among other things, distinguishing between gathering lines and transmission facilities, requiring certain design and construction features in new and replaced lines to reduce corrosion, and requiring pipeline operators to amend existing written operations and maintenance procedures and operator qualification programs. PHMSA also updated its reporting requirements for natural gas pipelines effective January 1, 2011.

In December 2011, Congress passed the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (2011 Act). This act increased the maximum civil penalties for pipeline safety administrative enforcement actions; required the DOT to study and report on the expansion of integrity management requirements and the sufficiency of existing gathering line regulations to ensure safety; required pipeline operators to verify their records on maximum allowable operating pressure; and imposed new emergency response and incident notification requirements. In 2016, the Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2016 (2016 Act) reauthorized PHMSA's pipeline safety programs through 2019 and provided limited new authority, including the ability to issue emergency orders, to set inspection requirements for certain underwater pipelines and to promulgate minimum safety standards for natural gas storage facilities, as well as to provide increased transparency into the status of as-yet-incomplete PHMSA actions required by the 2011 Act.

In June 2021, PHMSA issued an advisory bulletin to address a self-executing mandate as part of the 2016 Act. This Leak Detection and Reduction (LDAR) bulletin requires operators to update standard operating procedures to address leaks and gas releases which may be hazardous to public safety and the environment.

In November 2021, PHMSA published the final gathering line rule, with a tentative effective date of May 2022. This rule will require preventative and mitigative measures on gathering lines of certain diameters and operating pressures.

Compliance with PHMSA's regulations, performance of the remediation activities by our natural gas distribution companies and intrastate pipelines and verification of records on maximum allowable operating pressure will continue to require increases in both capital expenditures and operating costs. The level of expenditures will depend upon several factors, including age, location and operating pressures of the facilities. In particular, the cost of compliance with the DOT's integrity management rules will depend on integrity testing and the repairs found to be necessary by such testing. Changes to the amount of pipe subject to integrity management, whether by expansion of the definition of the type of areas subject to integrity management procedures or of the applicability of such procedures outside of those defined areas, may also affect incurred costs. Implementation of the 2011 and 2016 Acts by PHMSA may result in other regulations or the reinterpretation of existing regulations that could impact compliance costs. In addition, we may be subject to the DOT's enforcement actions and penalties if it fails to comply with pipeline regulations.

Inflation Reduction Act - On August 16, 2022, the Inflation Reduction Act of 2022 ("IRA") was enacted into law, which among other things, includes a provision to implement an annual waste emissions charge beginning with calendar year 2024 (to be paid in 2025) on applicable oil and gas facilities that exceed certain methane emission thresholds. Currently, the Company has gathering facility assets that could exceed the minimum thresholds and potentially be subject to the waste emissions charge. We are continuing to assess the future impact of the provisions of the IRA on our consolidated financial statements and on the Company's gathering assets. As a regulated utility, required capital expenditures and operating costs, including taxes, have been traditionally recognized by state utility commissions as appropriate for inclusion in establishing rates.

Security

We maintain security measures at our facilities, and collaborate with federal, state and local authorities and industry trade associations regarding information on possible threats and security measures for water, wastewater, and natural gas utility operations. The costs incurred are expected to be recoverable in customer rates and are not expected to have a material impact on our business, financial condition, or results of operations.

We also maintain cyber security protection measures with respect to our information technology, including our customer data, and, in some cases, the monitoring and operation of our treatment, storage, pumping, and pipeline infrastructure. We rely on our information technology systems in connection with the operation of our business, especially with respect to customer service and billing, accounting and, in some cases, the monitoring and operation of our treatment, storage, pumping, and pipeline infrastructure. In addition, we rely on our systems to track our utility assets and to manage maintenance and construction projects, materials and supplies, and our human resource functions.

Environmental Sustainability

The way we do business at Essential reflects our commitment to a sustainable, safe, and healthy environment for all our stakeholders. Sustainability is deeply engrained in our business strategy. We integrate environmental requirements into the planning, decision-making, engineering, construction, operating, and maintenance activities that we perform.

We understand the urgency of the Paris Agreement and the United Nations Intergovernmental Panel on Climate Change's science-based target of limiting the global temperature increase to well below 2 degrees Celsius. Of our Scope 1 and 2 GHG emissions, 79% are driven by our gas distribution business. Early in 2021, we announced that by 2035 we will reduce our Scope 1 and 2 GHG emissions by 60% from our 2019 baseline. This is consistent with the rate of reduction necessary through 2035 to keep on track with the Paris Agreement. This will be achieved by extensive gas pipeline replacement, renewable energy purchasing, accelerated methane leak detection and repair, and various other currently planned initiatives that are highly feasible with proven technology. In 2021, we have achieved 6% emissions reduction from our 2019 baseline. Subsequently, in 2022, we began procuring nearly 100% renewable electricity for our water and wastewater operations in Illinois, New Jersey, Ohio, and Pennsylvania.

The Company's environmental sustainability initiatives and strategy are discussed further in our environmental, social, and governance reporting, which can be found on our website at www.esg.essential.co. Such reports are not incorporated by reference and should not be considered part of this Form 10-K.

Human Capital Management

The Company values its workforce as one of its most important assets. The Company is dedicated to creating a sustainable working atmosphere for its employees to attract and retain the best employees. Human capital measures and objectives that the Company focuses on in managing its business include the health and safety of its employees, succession planning, voluntary attrition rate, and diversity, equity and inclusion initiatives.

As of December 31, 2022, we employed a total of 3,187 full-time employees. Our subsidiaries are parties to 20 labor agreements with labor unions covering 1,619 employees. The labor agreements expire at various times up until 2027.

Health and Safety - Safety is the foundation of our business and guides all our employees' actions. The Company continues to invest in safety improvements, implement policies and procedures, develop technical training and guidelines for our employees, and leverage new tools and technology to improve our maps, records and infrastructure performance. The Company's Safety Council leads our safety efforts and is supported by state and facility committees and leaders that operate at the local site level. Hazards in the workplace are actively identified, and management tracks incidents so remedial actions can be taken to improve workplace safety. To encourage managers to promote a safe environment, related metrics are incorporated in management's incentive compensation plans.

The Company provides access to a variety of innovative, flexible, and convenient employee health and wellness programs. We proactively conduct communications outreach to our employees and their family members on relevant health topics. With the focus on mental health becoming more of a central part of an employee's well-being, we have added additional resources and counseling access for employees and their families to utilize to ensure they take care of themselves.

Employee Development and Training - The Company continues to invest in training and development programs for employees so that they may evolve and enhance their skills in their areas of expertise. We also offer tuition reimbursement to all regular, full-time employees. At Essential, we believe in an integrated talent development approach. We utilize the "70/20/10 model" for development, which holds that 70% of learning happens on the job through stretch goals and critical assignments, 20% of learning occurs through mentoring and coaching and involvement in professional and industry related activities, and 10% of learning occurs within a virtual or live learning environment. We align our development model to support our vision, mission, and competencies, with a balanced approach to developing our workforce that leads us to the development of a confident, committed, and high-performance culture.

Succession Planning - Under the Company's Corporate Governance Guidelines, the Board of Directors is responsible for the development and periodic review of a management succession plan for the Chief Executive Officer and other executives. Annually, the Board of Directors reviews the Company's succession planning process for the Chief Executive Officer and the named executive officers. During this review, the directors review succession candidates on an immediate basis and more developmental candidates to ensure that the Company is well-prepared for the future.

Voluntary Attrition and Turnover - The Company measures turnover rates of its employees in assessing the Company's overall human capital. The Company's voluntary attrition rate (not including retirements) for 2022 was 3% at the executive and senior management level, 9% at the mid-level manager level, 14% at the professional level, and 9% across all other employees. These voluntary attrition rates increased from 2021. We believe issues related to the COVID-19 pandemic, a strong labor market, and the large national increase in employee retirements and attrition impacted us as well as other companies. We are working to develop programs focused on retaining our workforce.

Diversity, Equity and Inclusion - Diversity of backgrounds, ideas, thoughts, and experiences is essential to our culture and the way we do business. Creating an environment where our differences are valued and where every person feels a sense of belonging and engagement supports a thriving organization that cares about our customers and ensures our continued long-term success. In order to promote a culture of diversity and inclusion, we have conducted educational workshops to foster better understanding of different points of view and how pre-conceived notions impact relationships at work. We also support diverse segments of our workforce through employee resource groups, such as the Black Resource Group, LGBTQ+ Pride Resource Group, and Women's Resource Group. These groups welcome participation from all employees in order to learn from a cultural perspective and support each other through allyship.

Diversifying the workforce continues to be a focus at all levels of the Company. Beginning in 2021, we added an employee diversity component (5% weighting) to our short term incentive plan. Our focus on attracting and retaining diverse talent has resulted in growth in the number of our diverse employees from 15% in 2021 to 16% in 2022. Diversity

at the management level has also remained steady in 2022, with 10% of the management team comprised of minorities, and 22% of the management team comprised of women by the end of 2022. We have a range of diverse recruitment tactics and believe we can achieve our multiyear plan of reaching 17% employees of color.

We also believe diversity in our Board of Directors is critical for effective governance. Candidates for nomination to the Board are considered by the Corporate Governance Committee based on their personal abilities, qualifications, independence, knowledge, judgment, character, leadership skills, education, background (including, but not limited to race, gender, and national origin), and their expertise and experience in fields and disciplines relevant to the Company. In October 2021, we were recognized as a Champion of Board Diversity by The Forum of Executive Women for having one-third of our board comprised of women. In June, 2022, we were named a 2022 Vibrant Pittsburgh Champion being recognized as one of the exceptional organizations who is leading the way in diversity and inclusion in the region.

Communication and Engagement –We believe that our employees are critical to our business, and it is essential to have an environment of high engagement and inclusivity in which employees thrive. We value feedback from our employees, as it helps us gain a deeper understanding of areas where we are doing well and where we need improvement. In 2022, we have invited all employees to participate in a bi-annual culture assessment by completing an anonymous survey. We have worked with various functional areas to create and implement action plans to address areas of employee concern. Executive management also regularly conducts town hall-style meetings with employees, where they have the opportunity to ask questions, voice opinions, and share feedback.

Citizenship – As a mission-based organization, we are driven to improve the quality of life and livelihood of our customers and the communities we serve. Through our charitable giving program, employees are encouraged to engage in philanthropy through the United Way campaign and matching gift program. At various times throughout the year, the Company supports its employees in volunteering their time and talents to give back to their communities.

Supplier Diversity

We acknowledge that supplier diversity is critical for our communities as well as for our business. We are committed to increasing our work with qualified and certified diverse suppliers from the communities and neighborhoods where we live, work, and operate each day and suppliers that use reasonable efforts to minimize pollution and improve environmental protection and sustainability. As such, we announced a multi-year plan to increase diverse supplier spend to 15% of controllable spend, which excludes spend where there is no opportunity to include diverse suppliers or spend that cannot be sourced from a diverse supplier due to a policy or law (items like power, purchased water and some one-time payments). Beginning in 2021, we added a supplier diversity component (5% weighting) to our short-term incentive plan. We also have a Supplier Code of Conduct that defines the basic requirements for suppliers of goods and services and their responsibilities to the environment and their stakeholders. We also expect our suppliers to subscribe to the principles of nondiscrimination, follow high standards of business ethics and professional conduct and adhere to our Human Rights Policy.

Management and Board Oversight

Our Board of Directors has various committees including an audit committee, an executive compensation committee, a corporate governance committee, and a risk mitigation and investment policy committee. Each of these committees has a formal charter. We also have Corporate Governance Guidelines and a Code of Ethical Business Conduct. Copies of these charters, guidelines, and codes can be obtained free of charge from our *Investor Relations* page on our web site, www.essential.co. In the event we amend or waive any portion of the Code of Ethical Business Conduct that applies to any of our directors, executive officers, or senior financial officers, we will post that information on our web site.

Available Information

We file annual, quarterly, current reports, proxy statements, and other information with the Securities and Exchange Commission (SEC). You may obtain our SEC filings from the SEC's web site at www.sec.gov.

Our internet web site address is www.essential.co. We make available free of charge through our web site's *Investor Relations* page all of our filings with the SEC, including our annual report on Form 10-K, quarterly reports on Form 10-Q,

current reports on Form 8-K, and other information. These reports and information are available as soon as reasonably practicable after such material is electronically filed with the SEC.

In addition, you may request a copy of the foregoing filings, at no cost by writing or telephoning us at the following address or telephone number:

Investor Relations Department
Essential Utilities, Inc.
762 W. Lancaster Avenue
Bryn Mawr, PA 19010-3489
Telephone: 610-527-8000

The references to our web site and the SEC's web site are intended to be inactive textual references only, and the contents of those web sites are not incorporated by reference herein and should not be considered part of this or any other report that we file with or furnish to the SEC.

Item 1A. *Risk Factors*

In addition to the other information included in this Annual Report, the following factors should be considered in evaluating our business and future prospects. Any of the following risks, either alone or taken together, could materially harm our business, financial condition, and results of operations. If one or more of these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, our business, financial condition, and results of operations could be materially harmed.

Risk Factor Summary

Our business is subject to many risks and uncertainties. The following are the types of forward-looking statements we make throughout this Annual Report, including in these Risk Factors, and a summary of the types of risks that could impact us and cause actual results to differ from those described in such forward-looking statements:

opportunities for future acquisitions, both within and outside the water and wastewater industries, the success of pending acquisitions and the impact of future acquisitions;
acquisition-related costs and synergies;
the sale of water, wastewater, and gas subsidiaries;
the impact of conservation awareness of customers and more efficient fixtures and appliances on water and natural gas usage per customer;
the impact of our business on the environment, and our ability to meet our climate change goals;
our authority to carry on our business without unduly burdensome restrictions;
our capability to pursue timely rate increase requests;
the capacity of our water supplies, water facilities, wastewater facilities, and natural gas supplies and storage facilities;
the impact of decisions of governmental and regulatory bodies, including decisions to raise or lower rates and decisions regarding potential acquisitions;
the impact of public health threats, such as the COVID-19 pandemic, or the measures implemented by the Company as a result of these threats;
developments, trends and consolidation in the water, wastewater, and natural gas utility and infrastructure industries;
the impact of changes in and compliance with governmental laws, regulations and policies, including those dealing with the environment, health and water quality, taxation, and public utility regulation;
the development of new services and technologies by us or our competitors;
the availability of qualified personnel;
the condition of our assets;
recovery of capital expenditures and expenses in rates;
projected capital expenditures and related funding requirements;
the availability and cost of capital financing;
dividend payment projections;
the impact of geographic diversity on our exposure to unusual weather;
the continuation of investments in strategic ventures;
our ability to obtain fair market value for condemned assets;
the impact of fines and penalties;
the impact of legal proceedings;
general economic conditions, including inflation;
the impairment of goodwill resulting in a charge to earnings;
the impact of federal and/or state tax policies and the regulatory treatment of the effects of those policies; and
the amount of income tax deductions for qualifying utility asset improvements and the Internal Revenue Service’s ultimate acceptance of the deduction methodology.

Because forward-looking statements involve risks and uncertainties, there are important factors that could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including but not limited to:

the success in the closing of, and the profitability of future acquisitions;
changes in general economic, business, credit and financial market conditions;
our ability to manage the expansion of our business;
changes in environmental conditions, including the effects of climate change;
our ability to integrate and otherwise realize all of the anticipated benefits of businesses, technologies or services which we may acquire;
the decisions of governmental and regulatory bodies, including decisions on regulatory filings, including rate increase requests and decisions regarding potential acquisitions;
our ability to file rate cases on a timely basis to minimize regulatory lag;
the impact of inflation on our business and on our customers;
abnormal weather conditions, including those that result in water use restrictions or reduced or elevated natural gas consumption;
the seasonality of our business;
our ability to treat and supply water or collect and treat wastewater;
our ability to source sufficient natural gas to meet customer demand in a timely manner;
the continuous and reliable operation of our information technology systems, including the impact of cyber security attacks or other cyber-related events, and risks associated with new systems implementation or integration;
impacts from public health threats, such as the COVID-19 pandemic, including on consumption, usage, supply chain, and collections.
changes in governmental laws, regulations and policies, including those dealing with taxation, the environment, health and water quality, and public utility regulation;
the extent to which we are able to develop and market new and improved services;
the effect of the loss of major customers;
our ability to retain the services of key personnel and to hire qualified personnel as we expand;
labor disputes;
increasing difficulties in obtaining insurance and increased cost of insurance;
cost overruns relating to improvements to, or the expansion of, our operations;
inflation in the costs of goods and services;
the effect of natural gas price volatility, including the potential impact of high commodity prices on usage or rate case outcomes;
civil disturbance or terroristic threats or acts;
changes to the rules or our assumptions underlying our determination of what qualifies for an income tax deduction for qualifying utility asset improvements;
changes in, or unanticipated, capital requirements;
changes in our credit rating or the market price of our common stock;
changes in valuation of strategic ventures;
changes in accounting pronouncements;
litigation and claims; and
restrictions on our subsidiaries' ability to make dividends and other distributions.

Risks Related to Acquisitions

One of the important elements of our growth strategy is the acquisition of regulated utility systems. Any acquisition we decide to undertake may involve risks. Further, competition for acquisition opportunities from other regulated utilities, governmental entities, and strategic and financial buyers may hinder our ability to grow our business. Lastly, competition and industry trends could impact our ability to retain existing customers or acquire new customers, which could have an adverse impact on our business, results of operations and financial condition.

One important element of our growth strategy is the acquisition and integration of regulated utility systems in order to broaden our service areas. We will not be able to acquire other businesses if we cannot identify suitable acquisition opportunities or reach mutually agreeable terms with acquisition candidates. It is our intent, when practical, to integrate any businesses we acquire with our existing operations. Investing in and integrating acquisitions could require us to incur significant costs and cause diversion of our management's time and resources, and we may be unable to successfully integrate our business with acquired businesses or to realize anticipated benefits of acquisitions. Acquisitions by us could also result in:

dilutive issuances of our equity securities;
incurrence of debt, contingent liabilities, and environmental liabilities;
unanticipated capital expenditures;
failure to maintain effective internal control over financial reporting;
recording goodwill and other intangible assets for which we may never realize their full value and may result in an asset impairment that may negatively affect our results of operations;
fluctuations in quarterly results;
other acquisition related expenses; and
exposure to unknown or unexpected risks and liabilities.

Some or all of these items could harm our business, financial condition, results of operations, and cash flows, and our ability to finance our business and to comply with regulatory requirements. The businesses we acquire may not achieve sales and profitability that would justify our investment, and any difficulties we encounter in the integration process, including in the integration of processes necessary for internal control and financial reporting, could interfere with our operations, reduce our operating margins and harm our internal controls.

Some states in which we operate allow the respective public utility commissions to use fair market value to set ratemaking rate base instead of the traditional depreciated original cost of water or wastewater assets for certain qualifying municipal acquisitions. Depending on the state, there are varying rules and circumstances in which fair value is determined. A number of states' regulations allow ratemaking rate base to equal the lower of the average of the appraisals or the purchase price, subject to regulatory approval. There may be situations where we may pay more than the ultimate fair value of the utility assets as set by the regulatory commission, despite the fair value legislation suggesting its full recovery. In these situations, goodwill may be recognized to the extent there is an excess purchase price over the fair value of net tangible and identifiable intangible assets acquired through a business acquisition. Our financial condition and results of operations could be harmed by an inability to earn a return on, and recover our purchase price as a component of rate base. Regulatory actions or changes in significant assumptions, including discount and growth rates, utility sector market performance and comparable transaction multiples, projected operating and capital cash flows, and fair value of debt, could also potentially result in future impairments which could be material.

We compete with governmental entities, other regulated utilities, and strategic and financial buyers, for acquisition opportunities. As consolidation becomes more prevalent in the utility industry and competition for acquisitions increases, the prices for suitable acquisition candidates may increase to unacceptable levels and limit our ability to grow through acquisitions. In addition, our competitors may impede our growth by purchasing utilities near our existing operations, thereby preventing us from acquiring them. Governmental entities or environmental / social activist groups have challenged, and may in the future challenge our efforts to acquire new service territories, particularly from municipalities or municipal authorities. Additionally, on occasion we have entered into agreements to acquire water or wastewater utility systems that have been challenged by municipalities or other parties, or where referenda are required, which may impact our ability to complete the acquisition. Higher purchase prices and resulting rates may limit our ability to invest additional capital for system maintenance and upgrades in an optimal manner. Our growth could be hindered if we are not able to compete effectively for new companies and/or service territories with other companies or strategic and financial buyers that have lower costs of operations or capital, or that submit more attractive bids. Any of these risks may harm our business, financial condition, and results of operations.

We face the risk that large natural gas customers may bypass gas distribution services by gaining distribution directly from interstate pipelines, other gas distributors, or other energy sources. Increased competition or other changes in legislation, regulation, or policies could have a material adverse effect on our business, financial condition, or results of operations. Moreover, changes in wholesale natural gas prices compared with prices for electricity, fuel oil, coal, propane, or other energy sources may affect the retention of natural gas customers and may adversely impact our future financial condition and results of operations.

The integration of acquisitions can be a multi-year activity depending upon the complexity and significance of the acquisition.

One element of our strategic plans is our growth through acquisition strategy. Acquisitions in the utility industry are time consuming and complex, with the number of regulatory approvals needed. A significant acquisition can require significant time and resources, including devotion of management time, to integrate the acquired business.

Risks Related to Health and Safety and Environmental Concerns

Some scientific experts are predicting a worsening of weather volatility in the future, possibly created by climate change due to greenhouse gases. Changing severe weather patterns could require additional expenditures to reduce the risk associated with any increasing storm, flood, and drought occurrences.

The issue of climate change is receiving ever increasing attention worldwide. Many climate change predictions, if true, present several potential challenges to utilities, such as: increased frequency and duration of droughts, increased precipitation and flooding, potential degradation of water quality, and changes in demand for services. We maintain an ongoing facility planning process, and this planning or the enactment of new standards may result in the need for additional capital expenditures or raise our operating costs. Because of the uncertainty of weather volatility related to climate change, we cannot predict its potential impact on our business, financial condition, or results of operations. Although any potential expenditures and operating costs may be recovered in the form of higher rates, there can be no assurance that the various state utility commissions that govern our business would approve rate increases to enable us to recover such expenditures and costs. Without adequate rate recovery, our costs of complying with climate change weather related measures may negatively impact our business, financial condition, or results of operations.

Climate change laws and regulations have been passed and are being proposed that require compliance with greenhouse gas emissions standards, as well as other climate change initiatives, which could impact our business, financial condition or results of operations.

Climate change is receiving ever increasing attention worldwide. Many scientists, legislators, and others attribute global warming to increased levels of greenhouse gases (GHG), including carbon dioxide. Climate change laws and regulations enacted and proposed could limit and impose costs tied to GHG emissions from covered entities and require additional monitoring/reporting. They could also provide a cost advantage to alternative energy sources and impact the competitive position of natural gas. We produce an environmental, social, and governance report, which provides an overview of our energy usage and GHG emissions. At this time, the existing GHG laws and regulations are not expected to materially

harm the Company's operations or capital expenditures; however, the uncertainty of future climate change regulatory requirements still remains. We cannot predict the potential impact of future laws and regulations on our business, financial condition, or results of operations. Although these future expenditures and costs for regulatory compliance may be recovered in the form of higher rates, there can be no assurance that the various state utility commissions that govern our business would approve rate increases to enable us to recover such expenditures and costs. Another potential risk related to climate change could be more frequent and more severe weather events, which could increase our costs to repair damaged facilities and restore service to our customers. If we are unable to provide utility services to our customers, our financial results would be impacted by lost revenues, and we would have to seek regulatory approval to recover restoration costs.

Climate change and other environmental, social, and governance matters are increasingly important to many investors, and we may fail to provide information desired by all investors or achieve our ESG goals.

Climate change and other environmental, social, and governance, or ESG, matters are increasingly important to many investors, including our current investors. We have focused attention on ESG matters and the communication of our ESG goals, targets, and activities to investors. These goals and targets reflect our current plans and aspirations. Our ability to achieve such goals and aspirations is subject to numerous risks and uncertainties, many of which rely on the collective efforts of others or may be outside of our control. As such, we cannot offer assurances that the results reflected or implied by any such statements will be realized or achieved. Moreover, standards and expectations for ESG matters continue to evolve and may be subject to varying interpretations, which may result in significant revisions to our goals or progress. We may also be unable to satisfactorily meet evolving standards, regulations, and disclosure requirements related to ESG. Any failure, or perceived failure, to meet evolving stakeholder expectations, additional regulations and industry standards and disclosures, or achieve our ESG goals and targets could have an adverse effect on our business, results of operations, financial condition, or stock price.

Our water supply, including water provided to our customers, is subject to various potential contaminants which may result in disruption in our services, additional costs, loss of revenue, fines, laws and/or regulations, and litigation which could harm our business, reputation, financial condition, and results of operations.

Our water supplies, including water provided to our customers, are subject to possible contaminants, including those from:

naturally occurring compounds or man-made substances;
chemicals and other hazardous materials;
lead and other materials;
pharmaceuticals and personal care products; and

possible deliberate or terrorist attacks.

Depending on the nature of the water contamination, we may have to interrupt the use of that water supply until we are able to substitute, where feasible, the flow of water from an uncontaminated water source, including if practicable, the purchase of water from other suppliers, or continue the water supply under restrictions on use for drinking or broader restrictions against all use except for basic sanitation and essential fire protection. We may experience a loss of revenue and incur significant costs, including, but not limited to, costs for water quality testing and monitoring, "do not consume" expenses, treatment of the contaminated source through modification of our current treatment facilities or development of new treatment methods, the purchase of alternative water supplies, or litigation related matters, including governmental enforcement actions. In addition, the costs we could incur to decontaminate a water source or our water distribution system and dispose of waste could also be significant. The costs resulting from the contamination may not be recoverable in rates we charge our customer, or may not be recoverable in a timely manner. Further, we may incur a loss of revenue in the event we elect to waive customers' water and wastewater charges. If we are unable to adequately treat the contaminated water supply or substitute a water supply from an uncontaminated water source in a timely or cost-effective manner, there may be an adverse effect on our business, reputation, financial condition, and results of operations. We could also be subject to:

claims for consequences arising out of human exposure to contamination and/or hazardous substances in our water supplies, including toxic torts;
claims for other environmental damage;
claims for customers' business interruption as a result of an interruption in water service;
claims for breach of contract;
criminal enforcement actions;
regulatory fines; or
other claims.

We incur substantial costs on an ongoing basis to comply with all laws and regulations. New or stricter laws and/or regulations could increase our costs. Although we may seek to recover these costs through an increase in customer rates, there is no guarantee that the various state regulators would approve such an increase.

The events in Flint, Michigan, which commenced in 2014, and other communities have brought attention to the issue of lead in drinking water from home plumbing. We have been working to prevent lead leaching from home plumbing sources by reducing water corrosivity and adding chemicals that can prevent leaching of lead in pipes and homes. We have a program to evaluate all changes in water sources prior to initiating a change in water supply. We also focus on identifying and removing lead service lines and encouraging customers to replace the customer-owned portion of the service line if it is lead as they are identified during our main replacement program or during other maintenance activities. In 2019, we initiated a "do not consume" advisory for some of our customers served by our Illinois subsidiary, which resulted in a loss of revenues and increased operating costs and for which we anticipate an additional recovery of other costs and losses. The do not consume advisory was lifted in 2019 and, in 2022, the water system was determined to be in compliance with the federal Lead and Copper Rule. We filed a claim with our insurance carrier for costs and losses incurred in 2019 related to the do not consume advisory, for which we recovered a portion of the costs and losses and for which we anticipate an additional recovery of other costs and losses.

We are devoting our attention to various emerging contaminants, including the Per- and Polyfluoroalkyl Substances (PFAS) family of chemicals and other chemicals and substances that do not have any regulatory standard in drinking water. We comply with governmental agency guidance that recommends the standard of protection from these contaminants, and we monitor proposed standards and other governmental agency guidance regarding these contaminants. Additionally, commencing in 2020, we initiated a company-wide program to address these contaminants uniformly across our regulated water utilities by selecting standards adopted or proposed by New Jersey, which are the most stringent standards adopted in any state in which we do business. As a result, we are planning a capital program in the range of tens of millions of dollars over several years to install mitigation technology at our water treatment facilities where the source water is found to exceed the standard we have determined to follow. There is no guarantee that the various state regulators would approve the costs associated with our treatment of the emerging contaminants without the establishment of treatment standards by the appropriate governmental entities, or for standards set by other governmental entities. Accordingly, we have commenced legal action, and anticipate filing additional legal actions, aimed at recovering the costs associated with the treatment in our systems of emerging contaminants from polluting entities.

We may incur costs to defend our position and/or incur reputational damage even if we are not liable for consequences arising out of human exposure to contamination and/or hazardous substances in our water supplies, other environmental damage, or our customer's business interruption. Our insurance policies may not be sufficient to cover the costs of our defense or, in the event we are liable, these claims, and losses incurred may make it difficult for us to secure insurance in the future at acceptable rates. Such claims or actions could harm our business, reputation, financial condition, and results of operations.

In the future, we expect Federal regulations establishing national limits on PFAS chemicals. If these limits are more stringent than our standards, we would expect to comply with the Federal regulations and file for recovery of any incremental capital or operating expenses in our routine regulatory proceedings.

Transporting, distributing and storing natural gas involves numerous risks that may result in accidents and other operating risks and costs.

Natural gas transportation, distribution and storage activities inherently involve a variety of hazards and operational risks, such as leaks, accidental explosions, damage caused by third parties and mechanical problems, which could cause substantial financial losses. These risks could result in serious personal injury, loss of human life, significant damage to property, environmental pollution, impairment of operations, and substantial losses. The location of pipelines and storage facilities near populated areas, including residential areas, commercial business centers and industrial sites, could increase the level of damages resulting from these risks. These activities may also subject the Company to litigation or administrative proceedings. Such litigation or proceedings could result in substantial monetary judgments, fines or penalties against the Company or otherwise be resolved on unfavorable terms.

We are subject to federal and state laws and regulations requiring the Company to maintain certain safety and system integrity measures by identifying and managing storage and pipeline risks. In addition, companies that supply and transport gas to Peoples are also subject to similar regulations and other restrictions related to their activities. Compliance with these laws and regulations, or future changes in these laws and regulations, may, directly or indirectly, result in increased capital, operating, and other costs which may not be recoverable in a timely manner or at all from customers in rates. In accordance with customary industry practices, we maintain insurance against a significant portion, but not all, of these risks and losses. To the extent any of these events occur or regulations change, it could adversely affect our business, reputation, financial condition, and results of operations.

Risks Related to the Operation and Regulation of our Business

General economic conditions may affect our financial condition and results of operations.

A general economic downturn may lead to a number of impacts on our business and may affect our financial condition and results of operations. Such impacts may include:

- a reduction in discretionary and recreational water use by our residential water customers, particularly during the summer months when such discretionary usage is normally at its highest;
- a reduction in natural gas use by our residential customers, particularly during the winter months when such usage is normally at its highest;
- a decline in usage by industrial and commercial customers as a result of decreased business activity or a shift to alternative energy sources;
- an increased incidence of customers' inability to pay or delays in paying their utility bills, or an increase in customer bankruptcies, which may lead to higher bad debt expense, increased financing costs, and reduced cash flow;
- a lower natural customer growth rate due to a decline in new housing starts; and
- a decline in the number of active customers due to housing vacancies.

General economic turmoil may also lead to an investment market downturn, which may result in our pension and other post-retirement plans' asset market values suffering a decline and significant volatility. A decline in our plans' asset market values could increase our required cash contributions to the plans and expense in subsequent years. Inflation

levels in excess of historical levels could also lead to regulatory lag and thus impact our earned returns and financial results.

Moreover, inflation and rising interest rates have recently become areas of increasing economic concern. Changes in the cost of providing our products and services, including price increases in operating and capital costs, as well as increases in labor costs or borrowing costs, may negatively impact our financial condition and results of operations. We review the adequacy of our rates as approved by public utility commissions in relation to the increasing cost of providing services and the inherent regulatory lag in adjusting those rates. Rate increases are not retroactive and often lag increases in costs caused by inflation. On occasion, our regulated utility companies may enter into rate settlement agreements, which require us to wait for a period of time to file the next base rate increase request. These agreements may result in regulatory lag whereby inflationary increases in expenses or higher borrowing costs may not be reflected in rates, and may not yet be requested, or a gap may exist between when a capital project is completed and the start of its recovery in rates. Even during periods of moderate inflation, the effects of inflation can have a negative impact on our operating results. The ability to control operating expenses is an important factor that will influence future results.

The rates we charge our customers are subject to regulation. If we are unable to obtain government approval of our requests for rate increases or if approved rate increases are untimely or inadequate to recover and earn a return on our capital investments, to recover expenses or taxes, or to take into account changes in water, wastewater, or natural gas usage, our profitability may suffer.

The rates we charge our customers are subject to approval by utility commissions in the states in which we operate. We file rate increase requests, from time to time, to recover our investments in utility plant and expenses. Our ability to maintain and meet our financial objectives is dependent upon the recovery of, and return on, our capital investments and expenses through the rates we charge our customers. Once a rate increase petition is filed with a utility commission, the ensuing administrative and hearing process may be lengthy and costly, and our costs may not always be fully recoverable. The timing of our rate increase requests are therefore partially dependent upon the estimated cost of the administrative process in relation to the investments and expenses that we expect to recover through the rate increase. In addition, the amount or frequency of rate increases may be decreased or lengthened as a result of many factors including changes in regulatory oversight in the states in which we operate utilities and income tax laws, including regulations regarding tax-basis depreciation as it applies to our capital expenditures or qualifying utility asset improvements. We can provide no assurances that any future rate increase request will be approved by the appropriate utility commission; and, if approved, we cannot guarantee that these rate increases will be granted in a timely or sufficient manner.

In Virginia, North Carolina and Kentucky, we may bill our water utility customers, in certain circumstances, in accordance with a rate filing that is pending before the respective regulatory commission, which would allow for interim rates. Furthermore, some utility commissions authorize the use of expense deferrals and amortization in order to provide for an impact on our operating income by an amount that approximates the requested amount in a rate request. The additional revenue billed and collected prior to the final ruling is subject to refund to customers based on the outcome of the ruling. The revenue recognized and the expenses deferred by us reflect an estimate as to the final outcome of the ruling. If the request is denied completely or in part, we could be required to refund to customers some or all of the revenue billed to date, and write-off some or all of the deferred expenses.

Changes in our earnings may differ from changes in our rate base.

Our business is capital intensive and requires significant capital investments for additions to or replacement of property, plant and equipment. These capital investments create assets that are used and useful in providing regulated utility service, and as a result, increase our rate base, on which we generate earnings through the regulatory process. Changes in our reported earnings, however, may differ from changes in our rate base in a given period due to several factors, including rate case timing and the terms of such rate cases; over-or under-earnings in a given period due to changes in operating costs; the effects of tax rates or tax treatment of capital investments, including the effect of repair tax; capital expenditures that are not eligible for a DSIC between rate cases; acquisitions which have not yet been included in rate base; and issuances of equity. We anticipate that we may experience periods in which growth in earnings is less than growth in rate base; such differences may be material and may persist over multiple reporting periods.

Our ability to meet customers' natural gas requirements may be impaired if contracted natural gas supplies and interstate pipelines services are not available, are not delivered in a timely manner or if federal regulations decrease its available capacity, which may result in a loss of customers and an adverse effect on our financial conditions and results of operations.

We are responsible for acquiring sufficient natural gas supplies, interstate pipeline capacity and storage capacity to meet current and future customers' peak, annual and seasonal natural gas requirements. We rely on third-party service providers, as we purchase a portion of our natural gas supply from interstate sources and rely on interstate pipelines to transport natural gas to our distribution system, in addition to local production that is delivered directly into our pipeline system. The Federal Energy Regulatory Commission (FERC) regulates the transportation of the natural gas received from interstate sources, and any change in regulatory policies could increase our transportation costs or decrease our available pipeline capacity. A decrease in interstate pipeline capacity available, an increase in competition for interstate pipeline transportation service or other interruptions to pipeline gas supplies could reduce our normal interstate supply of natural gas. Additionally, federal or state legislation could restrict or limit natural gas drilling, which could decrease the supply of available natural gas. If we are unable to maintain access to a reliable and adequate natural gas supply or sufficient pipeline capacity to deliver that supply, we may be unable to meet our customers' requirements, resulting in a loss of customers and an adverse effect on our financial conditions and results of operations.

Peoples has traditionally used local production as a source of supply to fulfill a portion of its supply requirements. In order to absorb local gas into its system, Peoples has in place a network of pipelines and related facilities that move the gas either to customers located where gas is produced or to the more populated areas of the service territory where the greatest level of consumption occurs, and, in summer months, to Peoples' on-system and off-system storage facilities. This network of facilities includes gathering lines, compressor stations, and transmission lines. Peoples has entered into gas purchase agreements with various producers to supply this local production. A decrease in this supply could occur, for example, if the local gas producers no longer drill wells to offset natural well production decline or if such producers decide to cease production or produce into another pipeline. State and federal legislation or regulations could also limit drilling activities and in turn limit gas supply. If supply is limited, we would be faced with purchasing gas supplies likely at a higher cost, may be unable to find alternative gas supply, and accordingly, may be unable to meet customer requirements, resulting in a loss of customers and an adverse effect on our financial condition and results of operations.

Any failure of our water and wastewater treatment plants, network of water and wastewater pipes, or water reservoirs could result in damages that may harm our business, financial condition, and results of operations.

Our operating subsidiaries treat water and wastewater, distribute water, and collect wastewater through an extensive network of pipes, and store water in reservoirs. A failure of a major treatment plant, pipe, or reservoir could result in claims for injuries or property damage. The failure of a major treatment plant, pipe, or reservoir may also result in the need to shut down some facilities or parts of our network in order to conduct repairs. Such failures and shutdowns may limit our ability to supply water in sufficient quality and quantities to our customers or collect and treat wastewater in accordance with standards prescribed by governmental regulators, including state utility commissions, and may harm our business, financial condition, and results of operations. Any business interruption or other losses might not be covered by insurance policies or be recoverable in rates, and such losses may make it difficult for us to secure insurance in the future at acceptable rates.

Our facilities could be the target of a possible terrorist or other deliberate attack which could harm our business, financial condition and results of operations.

In addition to the potential contamination of our water supply or deliberate gas explosions as described in separate risk factors herein, we maintain security measures at our facilities and have heightened employee and public safety official awareness of potential threats to our utility systems. We have and will continue to bear increases in costs for security precautions to protect our facilities, operations, and supplies, most of which have been recoverable under state regulatory policies. While the costs of increases in security, including capital expenditures, may be significant, we expect these costs to continue to be recoverable in utility rates. Despite our security measures, we may not be in a position to control the outcome of terrorist events, or other attacks on our utility systems, should they occur. Such an event could harm our business, financial condition, and results of operations.

Our business is impacted by weather conditions and is subject to seasonal fluctuations, which could harm demand for water and natural gas services and our business, financial condition, and results of operations.

Demand for our water during the warmer months is generally greater than during cooler months due primarily to additional requirements for water in connection with irrigation systems, swimming pools, cooling systems, and other outside water use. Throughout the year, and particularly during typically warmer months, demand will vary with temperature, rainfall levels, and rainfall frequency. In the event that temperatures during the typically warmer months are cooler than normal, if there is more rainfall than normal, or rainfall is more frequent than normal, the demand for our water may decrease and harm our business, financial condition, and results of operations. In Illinois, our operating subsidiary has adopted a revenue stability mechanism which allows us to recognize state PUC authorized revenue for a period which is not based upon the volume of water sold during that period, and effectively reduces the impact of weather and consumption variability.

Peoples' revenues are seasonal and temperature sensitive and vary from year-to-year, depending on weather conditions, with a substantial portion of Peoples' revenue occurring in the first and fourth quarters of the year due to colder temperatures and increased heating needs. In 2022, this amounted to 74%, for the first and fourth quarters. This has the effect of reducing our quarterly revenues in the spring and summer months. In addition, warmer-than-normal-weather conditions can decrease the amount of natural gas Peoples sells in any year, which could adversely affect our business, financial condition, and results of operations. Finally, significantly colder-than-normal weather conditions can materially increase natural gas usage, resulting in challenges for our operations and our ability to serve our customers.

Decreased residential customer water and natural gas usage as a result of conservation efforts, and the impact of more efficient appliances and furnaces, may harm demand for our utility services and may reduce our revenues and earnings.

There has been a general decline in water usage per residential customer as a result of an increase in conservation awareness, and the impact of an increased use of more efficient plumbing fixtures and appliances. These gradual, long-term changes are normally taken into account by the utility commissions in setting rates, whereas short-term changes in water usage, if significant, may not be fully reflected in the rates we charge. We are dependent upon the revenue generated from rates charged to our residential customers for the volume of water used. If we are unable to obtain future rate increases to offset decreased residential customer water consumption to cover our investments, expenses, and return for which we initially sought the rate increase, our business, financial condition, and results of operations may be harmed.

In addition, over time, average customer gas consumption has declined, as more energy efficient appliances and furnaces have been installed and conservation programs have been implemented. If we are unable to compete effectively or if customers further reduce their gas needs, we may lose existing customers, sell less gas to our customers and/or fail to acquire new customers, which could have a material adverse effect on our business, financial condition, and results of operations.

Drought conditions and government imposed water use restrictions may impact our ability to serve our current and future customers, and may impact our customers' use of our water, which may harm our business, financial condition, and results of operations.

We depend on an adequate water supply to meet the present and future demands of our customers. Drought conditions could interfere with our sources of water supply and could harm our ability to supply water in sufficient quantities to our existing and future customers. An interruption in our water supply could harm our business, financial condition, and results of operations. Moreover, governmental restrictions on water usage during drought conditions may result in a decreased demand for our water, even if our water supplies are sufficient to serve our customers during these drought conditions, which may harm our business, financial condition, and results of operations.

The failure of, or the requirement to repair, upgrade or dismantle any of our dams or reservoirs may harm our business, financial condition, and results of operations.

Several of our water systems include impounding dams and reservoirs of various sizes. Although we believe our dam review program, which includes regular inspections and other engineering studies, will ensure our dams are structurally sound and well-maintained, the failure of a dam could result in significant downstream damage and could result in claims for property damage or for injuries or fatalities. We periodically inspect our dams and purchase liability insurance to cover such risks, but depending on the nature of the downstream damage and cause of the failure, the policy limits of insurance coverage may not be sufficient, and losses incurred may make it difficult for us to secure insurance in the future at acceptable rates. A dam failure could also result in damage to, or disruption of, our water treatment and pumping facilities that are often located downstream from our dams and reservoirs. Significant damage to these facilities, or a significant decline in the storage of the raw water impoundment, could affect our ability to provide water to our customers until the facilities and a sufficient raw water impoundment can be restored. The estimated costs to maintain our dams are included in our capital budget projections and, although such costs to date have been recoverable in rates, there can be no assurance that rate increases will be granted in a timely or sufficient manner to recover such costs in the future, if at all.

Our operations are geographically concentrated in Pennsylvania, which make us susceptible to risks affecting Pennsylvania.

Although we operate water, wastewater, and natural gas utility infrastructure in a number of states, our operations are concentrated in Pennsylvania. As a result, our financial results are largely subject to political, resource supply, labor, utility cost and regulatory risks, economic conditions, natural disasters, and other risks affecting Pennsylvania.

Federal and state environmental laws and regulations impose substantial compliance requirements on our operations. Our operating costs could be significantly increased in order to comply with new or stricter regulatory standards imposed by federal and state environmental agencies.

Our water, wastewater, and natural gas services are governed by various federal and state environmental protection and health and safety laws and regulations, including the federal Safe Drinking Water Act, the Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act and similar state laws, and federal and state regulations issued under these laws by the EPA and state environmental regulatory agencies. These laws and regulations establish, among other things, criteria and standards for drinking water and for discharges into the waters of the U.S. as well as dam safety, air emissions, and residuals management. Pursuant to these laws, we are required to obtain various environmental permits from environmental regulatory agencies for our operations. The Company routinely seeks to acquire wastewater systems, some of which may have combined wastewater and stormwater systems which may overflow and be subject to increased regulation by the U.S. EPA. We cannot assure you that we will be at all times in total compliance with these laws, regulations and permits. If we fail to comply with these laws, regulations or permits, we could be fined or otherwise sanctioned by regulators and such noncompliance could result in civil suits. Environmental laws and regulations are complex and change frequently. These laws, and the enforcement thereof, have tended to become more stringent over time. While we have budgeted for future capital and operating expenditures to comply with these laws and our permits, it is possible that new or stricter standards could be imposed that will require additional capital expenditures or raise our operating costs. Although these expenditures and costs may be recovered in the form of higher rates, there can be no assurance that the various state utility commissions that regulate our business would approve rate increases to enable us to

recover such expenditures and costs. In summary, we cannot assure you that our costs of complying with, current and future environmental and health and safety laws will not harm our business, financial condition, and results of operations.

Additionally, following the Peoples Gas Acquisition, the discovery of presently unknown environmental conditions, including former manufactured gas plant sites, and claims under environmental laws and regulations may result in expenditures and liabilities, which could be material, and could materially harm our business, financial condition and results of operations.

We are increasingly dependent on the continuous and reliable operation of our information technology systems, including those of our third-party vendors, and a disruption of these systems, resulting from cyber security attacks, risks associated with new systems implementation or integration, or other events, could harm our business.

We rely on our information technology systems, including those of our third-party vendors, in connection with the operation of our business, especially with respect to customer service and billing, accounting and, in some cases, the monitoring and operation of our treatment, storage and pumping facilities, and our natural gas pipelines. In addition, we rely on our systems to track our utility assets and to manage maintenance and construction projects, materials and supplies, and our human resource functions. A loss of these systems, or major problems with the operation of these systems, could harm our business, financial condition, and results of operations. We could also be adversely affected by system or network disruptions if new or upgraded information technology systems are defective, not installed properly, or not properly integrated into operations. In addition, our information technology systems may be vulnerable to damage or interruption from the following types of cyber security attacks or other events:

power loss, computer systems failures, and internet, telecommunications or data network failures;
operator negligence or improper operation by, or supervision of, employees;
physical and electronic loss of data;
computer viruses, cyber security attacks, intentional security breaches, hacking, denial of service actions, misappropriation of data and similar events;
difficulties in the implementation of upgrades or modification to our information technology systems; and
hurricanes, fires, floods, earthquakes and other natural disasters.

Although we do not believe that our systems are at a materially greater risk of cyber security attacks than other similar organizations, our information technology systems may be vulnerable to damage or interruption from the types of cyber security attacks or other events listed above or other similar actions, and such incidents may go undetected for a period of time. Such cyber security attacks or other events may result in:

the loss or compromise of customer, financial, employee, or operational data;
disruption of billing, collections or normal field service activities;
disruption of electronic monitoring and control of operational systems;
delays in financial reporting and other normal management functions; and
disruption in normal system operations.

Possible impacts associated with a cyber security attack or other events may include: remediation costs related to lost, stolen, or compromised data; repairs to data processing or physical systems; increased cyber security protection costs; adverse effects on our compliance with regulatory and environmental laws and regulation, including standards for drinking water; litigation; loss of revenue; and reputational damage. We maintain insurance to help defray costs associated with cyber security attacks or other events, but we cannot provide assurance that such insurance will provide coverage for any particular type of incident or event or that such insurance will be adequate, and losses incurred may make it difficult for us to secure insurance in the future at acceptable rates.

We have a cyber security controls framework in place. We monitor our control effectiveness in an increasing threat landscape and continuously take action to improve our security posture. We cannot assure you that, despite such measures, a form of system failure or data security breach will not have a material adverse effect on our financial condition and results of operations.

Our water or wastewater utility systems may be subject to condemnations or other methods of taking by governmental entities.

In the states where our subsidiaries operate water or wastewater utility systems, it is possible that portions of our subsidiaries' operations could be acquired by municipal governments by one or more of the following methods:

eminent domain;
the right of purchase given or reserved by a municipality or political subdivision when the original franchise was granted; and
the right of purchase given or reserved under the law of the state in which the subsidiary was incorporated or from which it received its permit.

The price to be paid upon such an acquisition by the municipal government is usually determined in accordance with applicable law under eminent domain. In other instances, the price may be negotiated, fixed by appraisers selected by the parties or computed in accordance with a formula prescribed in the law of the state or in the particular franchise or charter. We believe that our operating subsidiaries would be entitled to receive fair market value for any assets that are condemned. However, there is no assurance that the fair market value received for assets condemned would be in excess of book value.

In a very small number of instances, in one of our southern states where there are municipally-owned water or wastewater systems near our operating divisions, the municipally-owned system may either have water distribution or wastewater collection mains that are located adjacent to our division's mains or may construct new mains that parallel our mains. In these circumstances, on occasion, the municipally-owned system may attempt to offer service to customers who are connected to our mains, resulting in our mains becoming surplus or underutilized without compensation.

The final determination of our income tax liability may be materially different from our income tax provision.

Significant judgment is required in determining our provision for income taxes. Our calculation of the provision for income taxes is subject to our interpretation of applicable business tax laws in the jurisdictions in which we file. In addition, our income tax returns are subject to periodic examination by the Internal Revenue Service and other taxing authorities. In December 2012, Aqua Pennsylvania changed its tax method of accounting to permit the expensing of qualifying utility asset improvement costs that were previously being capitalized and depreciated for tax purposes. Subsequently, the Company's Ohio and North Carolina regulated subsidiaries similarly changed their tax method of accounting, in March 2020 Peoples Natural Gas changed its tax method of accounting, and in 2022 Peoples Gas Company and Aqua New Jersey changed their tax methods of accounting. Our determination of what qualifies as a capital cost versus a tax deduction for utility asset improvements is subject to subsequent adjustment and may impact the income tax benefits that have been recognized.

Although we believe our income tax estimates, including any tax reserves for uncertain tax positions or valuation allowances on deferred tax assets are appropriate, there is no assurance that the final determination of our income tax liability will not be materially different; either higher or lower, from what is reflected in our income tax provision. In the event we are assessed additional income taxes, our business, financial condition, and results of operations could be harmed.

Wastewater operations entail significant risks and may impose significant costs.

Wastewater collection and treatment involve various unique risks. If collection or treatment systems fail or do not operate properly, or if there is a spill, untreated or partially treated wastewater could discharge onto property or into nearby streams and rivers, causing various damages and injuries, including environmental damage. These risks are most acute during periods of substantial rainfall or flooding, which are the main causes of wastewater overflow and system failure.

Liabilities resulting from such damages and injuries could harm our business, financial condition, and results of operations.

Work stoppages and other labor relations matters could harm our operating results.

Approximately 51% of our Regulated Water and Regulated Natural Gas segments' workforce are unionized under 20 labor contracts with labor unions, which expire between at various times up until 2027. In light of rising costs for healthcare and retirement benefits, contract negotiations in the future may be difficult. We are subject to a risk of work stoppages and other labor actions as we negotiate with the unions to address these issues, which could harm our business, financial condition, and results of operations. We cannot assure you that issues with our labor forces will be resolved favorably to us in the future or that we will not experience work stoppages.

Workforce-related risks may affect our results of operations.

We are subject to various workforce-related risks, including the risk that we will be unable to attract and retain qualified personnel for our water, wastewater, and natural gas operations, that we will be unable to effectively transfer the knowledge and expertise of an aging workforce to new personnel as those workers retire, and that we will be unable to reach collective bargaining arrangements with the unions that represent certain of our workers, which could result in work stoppages. Additionally, we rely on outside resources to supplement our workforce, including construction crews which are key to our infrastructure replacement program. We face the same risks associated with these outside resources as we do with our own workforce. As a result, we may be unable to hire or retain an adequate number of individuals who are knowledgeable about public utilities, water or the natural gas industry or face a lengthy time period associated with skill development and knowledge transfer. Failure to address these risks may result in increased operational and safety risks as well as increased costs. Even with reasonable plans in place to address succession planning and workforce training, we cannot control the future availability of qualified labor. If we are unable to successfully attract and retain an appropriately qualified workforce, it could adversely affect our financial condition and results of operations.

Significant or prolonged disruptions in the supply of important goods or services from third parties could harm our business, financial condition, and results of operations.

We are dependent on a continuing flow of important goods and services from suppliers for our businesses. A disruption or prolonged delays in obtaining important supplies or services, such as maintenance services, purchased water, chemicals, utility pipe, valves, hydrants, electricity, or other materials, could harm our utility services and our ability to operate in compliance with all regulatory requirements, which could harm our business, financial condition, and results of operations. In some circumstances, we rely on third parties to provide important services (such as customer bill print and mail activities, payment processing, or utility service operations in some of our divisions) and a disruption in these services could harm our business, financial condition, and results of operations. Some possible reasons for a delay or disruption in the supply of important goods and services include:

- our suppliers may not provide materials that meet our specifications in sufficient quantities;
- our suppliers may provide us with water that does not meet applicable quality standards or is contaminated;
- our suppliers may provide us with natural gas not meeting quality standards or is of insufficient volume or pressure;
- our suppliers may face production or shipping delays due to the COVID-19 pandemic, natural disasters, strikes, lock-outs, political disputes, or other such actions;
- one or more suppliers could make strategic changes in the lines of products and services they offer; and
- some of our suppliers, such as small companies, may be more likely to experience financial and operational difficulties than larger, well-established companies, because of their limited financial and other resources.

As a result of any of these factors, we may be required to find alternative suppliers for the materials and services on which we rely. Accordingly, we may experience delays in obtaining appropriate materials and services on a timely basis and in sufficient quantities from such alternative suppliers at a reasonable price, which could interrupt services to our customers and harm our business, financial condition, and results of operations.

We depend significantly on the services of the members of our management team, and the departure of any of those persons could cause our operating results to suffer.

Our success depends significantly on the continued individual and collective contributions of our management team. The loss of the services of any member of our management team or the inability to hire and retain experienced management personnel could harm our business, financial condition, and results of operations.

We may incur significant costs and liabilities resulting from pipeline integrity and other similar programs and related repairs.

Certain of Peoples' pipeline operations are subject to pipeline safety laws and regulations. The Department of Transportation's Pipeline and Hazardous Materials Safety Administration has adopted regulations requiring pipeline operators to develop integrity management programs, including more frequent inspections and other measures, for transmission pipelines located in "high consequence areas," which are those areas where a leak or rupture could do the most harm. The regulations require pipeline operators, including Peoples, to, among other things:

perform ongoing assessments of pipeline integrity;
develop a baseline plan to prioritize the assessment of a covered pipeline segment;
identify and characterize applicable threats that could impact a high consequence area;
improve data collection, integration, and analysis;
develop processes for performance management, record keeping, management of change and communication;
repair and remediate pipelines as necessary; and
implement preventative and mitigating action.

We are required to maintain pipeline integrity testing programs that are intended to assess pipeline integrity. Peoples is also required to establish and maintain a Distribution Integrity Management Program for all distribution assets. This program requires protocols for identifying risks and threats to the distribution systems. The program incorporates a relative risk model to measure risk reduction to these threats. Any repair, remediation, preventative or mitigating actions may require significant capital and operating expenditures. Should we fail to comply with applicable statutes and related rules, regulations and orders, we could be subject to significant penalties and fines.

Our liquidity and, in certain circumstances, results of operations may be adversely affected by the cost of purchasing natural gas during periods in which natural gas prices are rising significantly.

The Peoples' regulated companies purchase their natural gas supply primarily through a combination of requirements contracts, some of which contain minimum purchase obligations, monthly spot purchase contracts and forward purchase contracts. The price paid for natural gas acquired under forward purchase contracts is fixed prior to the delivery of the natural gas. Additionally, a portion of natural gas purchases is injected into natural gas storage facilities in the non-heating months and withdrawn from storage for delivery to customers during the heating months.

Our short-term borrowing requirements and liquidity are also significantly affected by the seasonal nature of the natural gas business. Changes in the price of natural gas due to, for example, extreme weather events, geopolitical forces, or regulatory policy changes, and the amount of natural gas needed to supply customers' needs due to, for example, colder than expected seasonal temperatures, could significantly affect the price and amount of natural gas we are required to purchase and the timing of such purchases, and, in turn, affect our borrowing requirements and liquidity position. If we fail to secure sufficient natural gas supplies at appropriate prices (due to, for example, more extreme winter conditions), we may be required to purchase additional natural gas supplies or purchase natural gas at elevated prices, which could adversely affect our borrowing levels, liquidity and financial condition.

Peoples' tariff rate schedules contain Purchased Gas Adjustment (PGA) clauses that permit filings for rate adjustments to recover the cost of purchased gas. Subject to regulatory approval, as described below, changes in the cost of purchased gas are flowed through to customers and may affect uncollectible amounts and cash flows and can therefore impact our financial condition and results of operations.

The state regulatory commissions approve the PGA changes on an interim basis, subject to refund and the outcome of a subsequent audit and prudence review. Due to such review process, there is a risk of a disallowance of full recovery of these costs. We are also subject to regulations and standards regarding the amount of lost and unaccounted for gas that may be recovered from customers. Any material disallowance of purchased gas costs would adversely affect our financial condition and results of operations.

Increases in the prices that we charge for gas may also adversely affect our business because increased prices could lead customers to reduce usage and cause some customers to have difficulty paying the resulting higher bills. These higher prices may increase bad debt expenses and ultimately reduce earnings. Additionally, rapid increases in the price of purchased gas may result in an increase in short-term debt.

Our non-regulated natural gas operations purchase natural gas utilizing a combination of requirements contracts, some of which contain minimum purchase obligations, monthly spot purchase contracts and forward purchase contracts. Although price risk for the non-regulated companies is mitigated to a degree by efforts aimed at balancing supply and demand, there are practical limitations on the ability to accurately predict demand and any failure to do so could adversely affect our financial condition and results of operations.

An impairment in the carrying value of our goodwill could negatively impact our consolidated results of operations and net worth.

We have significant amounts of goodwill resulting from the acquisition of utility systems and businesses. As of December 31, 2022, the net carrying value of goodwill amounted to $2,340,792,000 or 15% of our total assets. Of the balance, $2,277,447,000 relates to our Regulated Natural Gas reporting unit. Goodwill is initially recorded at fair value, not amortized and reviewed for impairment at least annually or more frequently if impairment indicators arise. Indicators that are considered significant include changes in performance relative to expected operating results, significant negative industry or economic trends, including rising interest rates, or a significant decline in our stock price and/or market capitalization for a sustained period of time. If certain factors arise, we may be required to record a significant non-cash charge to earnings in our consolidated financial statements during the period in which an impairment of our goodwill is determined. Any such non-cash charge could have a material adverse impact on our results of operations and net worth.

Risk Related to Public Health Threats

Global or regional health pandemics, epidemics or similar public health threats, including the COVID-19 pandemic, could negatively impact our business, outlook, financial condition, results of operations and liquidity.

Public health threats, such as the COVID-19 pandemic, and the measures implemented to contain its spread, continue to have widespread impacts on the global economy, our employees, customers, and third-party business partners. Public health threats could, in the future, materially impact our business in numerous ways, including, but not limited to, those outlined below:

- reduced demand from our commercial customers and shifts in demand for our regulated utility services;
- delay the timeliness of our service to customers because of shutdowns and/or illness and travel restrictions among our employees or employees of other companies on whom we rely;
- negatively impact the financial condition of our customers and their ability to pay for our products and services, and our ability to disconnect service for non-payment may be limited, and state regulators may impose bill deferral programs;
- may limit or curtail significantly or entirely the ability of public utility commissions to approve or authorize applications and other requests we may make with respect to our regulated water and natural gas businesses; and
- delays in our supply chain and our ability to complete maintenance, repairs, and capital programs, which could result in disruptions and increased costs.

These and other impacts of the COVID-19 pandemic or other global or regional health pandemics, epidemics or similar public health threats could also have the effect of heightening many of the other risks described in "Risk Factors" in this Annual Report and the other reports we file from time to time with the SEC. We might not be able to predict or respond to all impacts on a timely basis to prevent near- or long-term adverse impacts to our results of operations, financial condition and liquidity. The ultimate impact of public health threats, such as the COVID-19 pandemic, on our business depends on factors beyond our knowledge or control, including the duration and severity of the outbreak as well as third-party actions taken to contain its spread and mitigate its public health effects. Any of these factors could have a negative impact on our business, outlook, financial condition, and results of operations, which impact could be material.

Risks Related to the Company's Capital Needs and Common Stock

We have substantial indebtedness, as a result, it may be more difficult for the Company to pay or refinance its debts or take other actions, and the Company may need to divert cash to fund debt service payments.

The Company has incurred significant additional indebtedness to finance the Peoples Gas Acquisition and to fund the debt refinancing of the Company's outstanding existing debt (the Company Debt Refinancing). Additionally, in connection with the Peoples Gas Acquisition, the Company assumed approximately $1,106,000,000 of Peoples' indebtedness. As of December 31, 2022, we had $6,617,395,000 of long-term debt outstanding.

The substantial indebtedness could:

- make it more difficult and/or costly for the Company to pay or refinance its debts as they become due, particularly during adverse economic and industry conditions, because a decrease in revenues or increase in costs could cause cash flow from operations to be insufficient to make scheduled debt service payments;
- limit the Company's flexibility to pursue other strategic opportunities or react to changes in its business and the industry sectors in which it operates and, consequently, put the Company at a competitive disadvantage to its competitors that have less debt;
- require a substantial portion of the Company's available cash to be used for debt service payments, thereby reducing the availability of its cash to fund working capital, capital expenditures, development projects, acquisitions, dividend payments, and other general corporate purposes, which could harm the Company's prospects for growth;
- result in a downgrade in the credit ratings on the Company's indebtedness, which could limit the Company's ability to borrow additional funds on favorable terms or at all and increase the interest rates under its credit facilities and under any new indebtedness it may incur;
- make it more difficult for the Company to raise capital to fund working capital, make capital expenditures, pay dividends, pursue strategic initiatives or for other purposes;
- result in higher interest expense, which could be further increased in the event of increases in interest rates on the Company's current or future borrowings; and
- require that additional materially adverse terms, conditions or covenants be placed on the Company under its debt instruments, which covenants might include, for example, limitations on additional borrowings and specific restrictions on uses of its assets, as well as prohibitions or limitations on its ability to create liens, pay dividends, receive distributions from its subsidiaries, redeem or repurchase its stock or make investments, any of which could hinder its access to capital markets and limit or delay its ability to carry out its capital expenditure program or otherwise limit its flexibility in the conduct of its business and make it more vulnerable to economic downturns and adverse competitive and industry conditions.

Based on the current and expected results of operations and financial condition of the Company, the Company believes that its cash flows from operations, together with the proceeds from borrowings, and issuances of equity and debt securities in the capital markets will generate sufficient cash on a consolidated basis to make all of the principal and interest payments when such payments are due under the Company's and its current subsidiaries' existing credit facilities, indentures and other instruments governing their outstanding indebtedness. However, the Company's expectation is based upon numerous estimates and assumptions and is subject to numerous uncertainties.

Our business requires significant capital expenditures that are partially dependent on our ability to secure appropriate funding. Disruptions in the capital markets may limit our access to capital. If we are unable to obtain sufficient capital, or if the cost of borrowing increases, it may harm our business, financial condition, results of operations, and our ability to pay dividends.

Our business is capital intensive. In addition to the capital required to fund customer growth through our acquisition strategy, on an annual basis, we invest significant sums for additions to or replacement of property, plant and equipment. We obtain funds for our capital expenditures from operations, contributions and advances by developers and others, debt issuances, and equity issuances. We have paid dividends consecutively for 78 years, and our Board of Directors recognizes the value that our common shareholders place on both our historical payment record and on our future anticipated dividend payments. Our ability to continue our growth through acquisitions and to maintain and meet our financial objectives is dependent upon the availability of adequate capital, and we may not be able to access the capital markets on favorable terms or at all. Additionally, if in the future, our credit facilities are not renewed or our short-term borrowings are called for repayment, we would need to seek alternative financing sources; however, there can be no assurance that these alternative financing sources would be available on terms acceptable to us. In the event we are unable to obtain sufficient capital, we may need to take steps to conserve cash by reducing our capital expenditures or dividend payments and our ability to pursue acquisitions may be limited. The reduction in capital expenditures may result in reduced potential earnings growth, affect our ability to meet environmental laws and regulations, and limit our ability to improve or expand our utility systems to the level we believe appropriate. There is no guarantee that we will be able to obtain sufficient capital in the future on reasonable terms and conditions for expansion, construction, and maintenance. In addition, delays in completing major capital projects could delay the recovery of the capital expenditures associated with such projects through rates.

If the cost of borrowing increases, we might not be able to recover increases in our cost of capital through rates. The inability to recover higher borrowing costs through rates, or the regulatory lag associated with the time that it takes to begin recovery, may harm our business, financial condition, results of operations and cash flows.

Our inability to comply with debt covenants under our loan and debt agreements could result in prepayment obligations.

We are obligated to comply with debt covenants under some of our loan and debt agreements. Failure to comply with covenants under our loan and debt agreements could result in an event of default, which if not cured or waived, could result in us being required to repay or finance these borrowings before their due date, limit future borrowings, cause us to default on other obligations, and increase borrowing costs. If we are forced to repay or refinance (on less favorable terms) these borrowings, our business, financial condition, and results of operations could be harmed by reduced access to capital and increased costs and rates.

The price of our common stock may be volatile. This volatility may affect the price at which one could sell our common stock, and the sale or resale of substantial amounts of our common stock could adversely affect the market price of our common stock.

The sale or issuance of substantial amounts of our common stock, or the perception that additional sales or issuances could occur, could adversely affect the market price of our common stock, even if the business is doing well. In addition, the availability for sale of substantial amounts of our common stock could adversely impact its market price. Any of the foregoing may also impair our ability to raise additional capital through the sale of our equity securities.

Item 1B *Unresolved Staff Comments*

None

Item 2. *Properties*

Our Regulated Water properties consist of water transmission and distribution mains and wastewater collection pipelines, water and wastewater treatment plants, pumping facilities, wells, tanks, meters, pipes, dams, reservoirs, buildings, vehicles, land, easements, rights-of-way, and other facilities and equipment used for the operation of our systems, including the collection, treatment, storage, and distribution of water and the collection and treatment of wastewater. Substantially all of our treatment, storage, and distribution properties are owned by our subsidiaries, and a substantial portion of our property is subject to liens of mortgage or indentures. These liens secure bonds, notes and other evidences of long-term indebtedness of our subsidiaries. For some properties that we acquired through the exercise of the power of eminent domain and other properties we purchased, we hold title for water supply purposes only. We own, operate and maintain approximately 14,350 miles of transmission and distribution mains, 23 surface water treatment plants, many well treatment stations, and 203 wastewater treatment plants. A small portion of the properties are leased under long-term leases.

Our Regulated Natural Gas properties consist of approximately 15,400 miles of natural gas distribution mains, varying in size from one-half inch to 36 inches in diameter, 1,700 miles of gathering pipeline, and 300 miles of intrastate transmission/storage pipeline. Further, in each of the cities, towns, and rural areas where we serve natural gas customers, we own the underground gas mains and service lines, metering, and regulating equipment located on customers' premises and the district regulating equipment necessary for pressure maintenance. With a few exceptions, the measuring stations at which we receive gas from third parties are owned, operated, and maintained by others, and our distribution facilities begin at the outlet of the measuring equipment. These facilities, including odorizing equipment, are usually located on land owned by suppliers.

The following table indicates our net property, plant and equipment, in thousands of dollars, as of December 31, 2022 in the principal states where we operate:

	Net Property, Plant and Equipment	
Pennsylvania	$ 7,991,598	71.8%
Ohio	629,446	5.7%
Illinois	612,888	5.5%
North Carolina	507,503	4.6%
Texas	575,454	5.2%
Other (1)	814,057	7.2%
Consolidated	$ 11,130,946	100.0%

(1) Consists primarily of our operating subsidiaries in the following states: New Jersey, Indiana, Virginia, West Virginia, and Kentucky.

We believe that our properties are generally maintained in good condition and in accordance with current standards of good water, wastewater, and natural gas industry practice. We believe that our facilities are adequate and suitable for the conduct of our business and to meet customer requirements under normal circumstances.

Our corporate offices are leased from our subsidiary, Aqua Pennsylvania, and are located in Bryn Mawr, Pennsylvania.

Item 3. *Legal Proceedings*

There are various legal proceedings in which we are involved. Although the results of legal proceedings cannot be predicted with certainty, there are no pending legal proceedings to which we or any of our subsidiaries is a party or to which any of our properties is the subject that we believe are material or are expected to materially harm our business, operating results, reputation, or financial condition.

Item 4. *Mine Safety Disclosures*

Not applicable.

PART II

Item 5. *Market for the Registrant's Common Stock, Related Stockholder Matters and Purchases of Equity Securities*

Our common stock is traded on the New York Stock Exchange under the ticker symbol WTRG. As of February 17, 2023, there were approximately 20,212 holders of record of our common stock.

The following table shows the cash dividends per share for the periods indicated:

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year
2022					
Dividend paid per common share	$ 0.2682	$ 0.2682	$ 0.2870	$ 0.2870	$ 1.1104
Dividend declared per common share	0.2682	0.2682	0.2870	0.5740*	1.3974
2021					
Dividend paid per common share	$ 0.2507	$ 0.2507	$ 0.2682	$ 0.2682	$ 1.0378
Dividend declared per common share	0.2507	0.2507	0.2682	0.2682	1.0378

**includes dividends declared in December 2022 that are payable to shareholders on March 1, 2023*

We have paid dividends consecutively for 78 years. On August 2, 2022, our Board of Directors authorized an increase of 7.0% in the September 1, 2022 quarterly dividend over the dividend Essential Utilities paid in the previous quarter. As a result of this authorization, beginning with the dividend payment in September 2022, the annualized dividend rate increased to $1.1480 per share. This is the 32nd dividend increase in the past 31 years and the 24th consecutive year that we have increased our dividend in excess of five percent. We presently intend to pay quarterly cash dividends in the future, on March 1, June 1, September 1, and December 1, subject to our earnings and financial condition, restrictions set forth in our debt instruments, regulatory requirements and such other factors as our Board of Directors may deem relevant. In 2022, our dividends paid represented 62.0% of net income.

Information with respect to restrictions set forth in our debt instruments is disclosed in Note 11 – *Long-term Debt and Loans Payable* in the *Notes to Consolidated Financial Statements* which is contained in Item 8 of this Annual Report.

During the fourth quarter of 2022, the Company did not repurchase any of its equity securities under any repurchase plan or program.

The following table summarizes the Company's purchases of its common stock under its equity incentive plans for the quarter ending December 31, 2022:

	Issuer Purchases of Equity Securities			
Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plan or Programs
October 1-31, 2022	118	$ 42.70	-	-
November 1-30, 2022	-	$ -	-	-
December 1-31, 2022	2,720	$ 48.35	-	-
Total	2,838	$ 48.12	-	-

(1) These amounts consist of 2,838 shares acquired from employees associated with the withholding of shares to pay certain withholding taxes upon the vesting of stock-based compensation under the plan. This feature of our equity compensation plan is available to all employees who receive stock-based compensation under the plan. We purchased these shares at their fair market value, as determined by reference to closing price of our common stock on the day prior to award vesting.

Item 6. *[RESERVED]*

(In thousands of dollars, except per share amounts)

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

OVERVIEW

The following discussion and analysis of our financial condition and results of operations should be read together with our Consolidated Financial Statements and accompanying Notes included in this Annual Report. This discussion contains forward-looking statements that are based on management's current expectations, estimates, and projections about our business, operations, and financial performance. All dollar amounts are in thousands of dollars, except per share amounts.

The Company

Essential Utilities, Inc., (Essential Utilities, the Company, we, us, or our), a Pennsylvania corporation, is the holding company for regulated utilities providing water, wastewater, or natural gas services to an estimated five million people in Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, Virginia, West Virginia, and Kentucky under the Aqua and Peoples brands. One of our largest operating subsidiaries, Aqua Pennsylvania, Inc. (Aqua Pennsylvania), provides water or wastewater services to approximately one-half of the total number of water or wastewater customers we serve. These customers are located in the suburban areas in counties north and west of the City of Philadelphia and in 27 other counties in Pennsylvania. Our other regulated water or wastewater utility subsidiaries provide similar services in seven additional states. Additionally, commencing on March 16, 2020, with the completion of the Peoples Gas Acquisition, the Company began to provide natural gas distribution services to customers in western Pennsylvania, Kentucky, and West Virginia. Approximately 93% of the total number of natural gas utility customers we serve are in western Pennsylvania. In December 2022, we entered into a definitive agreement to sell our regulated natural gas utility assets in West Virginia, which serve approximately 13,000 customers. This sale is conditioned on regulatory approval and is expected to close in mid-2023. The completion of this transaction will conclude our regulated utility operations in West Virginia. Lastly, the Company's market-based activities are conducted through Aqua Infrastructure, LLC and Aqua Resources, Inc. and certain other non-regulated subsidiaries of Peoples. Prior to our October 30, 2020 sale of our investment in a joint venture, Aqua Infrastructure provided non-utility raw water supply services for firms in the natural gas drilling industry. Following the October 30, 2020 closing, Aqua Infrastructure does not provide any services to the natural gas drilling industry. Aqua Resources offers, through a third-party, water and sewer service line protection solutions and repair services to households. Other non-regulated subsidiaries of Peoples provide utility service line protection services to households and operate gas marketing and production businesses.

Recent Developments

In 2022, we experienced inflationary cost increases in our materials, labor and other operating costs, higher interest rates, as well as supply chain pressures, primarily as a result of the COVID-19 pandemic and global uncertainties associated with the current conflict in Ukraine and sanctions imposed in response to this conflict. The price of natural gas substantially increased and resulted in the significant increase in the revenue and expenses of our Regulated Natural Gas business in 2022, as compared to last year. We expect these pressures to continue throughout 2023. We continue to review the adequacy of our rates as approved by public utility commissions in relation to the increasing cost of providing services and the inherent regulatory lag in adjusting those rates. We also continue to work with our suppliers to monitor and address the risks present in our supply chain. While we have experienced some delays in certain materials, we have been able to adjust our purchasing procedures to secure and stock the necessary materials without materially impacting our operations or capital investment program. We continue to monitor the COVID-19 pandemic and take steps to mitigate the potential risks to our business. To date, there has not been a significant impact on our ability to serve our customers or secure necessary supplies. While the pandemic presents risks to the Company's business, as further described in Part I, Item 1A — Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, the Company has not experienced any material financial or operational impacts related to the COVID-19 pandemic. Despite our efforts, the potential for a material negative impact on the Company exists as the COVID-19 pandemic also depends on factors beyond our knowledge, control, or ability to predict, including the duration and severity of this pandemic, the emergence of new variants of the virus, the development and availability of effective treatments and vaccines, as well as third party actions taken to contain its spread and mitigate its public health effects.

On August 16, 2022, the Inflation Reduction Act of 2022 ("IRA") was enacted into law, which among other things, implements a 15% minimum tax on book income of certain large corporations, and a 1% excise tax on net stock repurchases after December 31, 2022. The alternative minimum tax would not be applicable in our next fiscal year because it is based on a three-year average annual adjusted financial statement income in excess of $1,000,000. Also included in the IRA is a provision to implement an annual waste emissions charge beginning with calendar year 2024 (to be paid in 2025) on applicable oil and gas facilities that exceed certain methane emission thresholds. Currently, the Company has gathering facility assets that could exceed the minimum thresholds and potentially be subject to the waste emissions charge. We are continuing to assess the future impact of the provisions of the IRA on our consolidated financial statements and on the Company's gathering assets. As a regulated utility, required capital expenditures and operating costs, including taxes, have been traditionally recognized by state utility commissions as appropriate for inclusion in establishing rates.

In December 2022, the Company signed an agreement to sell its regulated natural gas utility assets in West Virginia, which are used to serve approximately 13,000 customers or less than two percent of the Company's regulated natural gas customers. This sale is conditioned on regulatory approval and is expected to close in mid-2023. The completion of this transaction will conclude our regulated utility operations in West Virginia and allow the Company to focus on the growth of its utilities in states where it has scale.

Economic Regulation

Most of our utility operations are subject to regulation by their respective state utility commissions, which have broad administrative power and authority to regulate billing rates, determine franchise areas and conditions of service, approve acquisitions, and authorize the issuance of securities. The utility commissions also generally establish uniform systems of accounts and approve the terms of contracts with affiliates and customers, business combinations with other utility systems, and loans and other financings. The policies of the utility commissions often differ from state to state and may change over time. A small number of our operations are subject to rate regulation by county or city government. Over time, the regulatory party in a particular state may change. The profitability of our utility operations is influenced to a great extent by the timeliness and adequacy of rate allowances in the various states in which we operate. One consideration we may undertake in evaluating on which states to focus our growth and investment strategy is whether a state provides for consolidated rates, a surcharge for replacing and rehabilitating infrastructure, fair value treatment of acquired utility systems, and other regulatory policies that promote infrastructure investment and efficiency in processing rate cases.

Rate Case Management Capability **–** The mission of the regulated utility industry is to provide quality and reliable utility service at reasonable rates to customers, while earning a fair return for shareholders. We strive to achieve the industry's mission by effective planning, efficient investments, and productive use of our resources. We maintain a rate case management capability to pursue timely and adequate returns on the capital investments that we make in improving our distribution system, treatment plants, information technology systems, and other infrastructure. This capital investment creates assets that are used and useful in providing utility service and is commonly referred to as rate base. Timely and adequate rate relief is important to our continued profitability and in providing a fair return to our shareholders; thus, providing access to capital markets to help fund these investments. In pursuing our rate case strategy, we consider the amount of net utility plant additions and replacements made since the previous rate decision, the changes in the cost of capital, changes in our capital structure, and changes in operating and other costs. Based on these assessments, our utility operations periodically file rate increase requests with their respective state utility commissions or local regulatory authorities. In general, as a regulated enterprise, our utility rates are established to provide full recovery of utility operating costs, taxes, interest on debt used to finance capital investments, and a return on equity used to finance capital investments. Our ability to recover our expenses in a timely manner and earn a return on equity employed in the business helps determine the profitability of the Company.

As of December 31, 2022, the Company's rate base is estimated to be $9,300,000, which is comprised of:

- $6,400,000 in the Regulated Water segment; and
- $2,900,000 in the Regulated Natural Gas segment.

(In thousands of dollars, except per share amounts)

As of December 31, 2022, the regulatory status of the Company's rate base is estimated to be as follows:

$8,100,000 filed with respective state utility commissions or local regulatory authorities; and
$1,200,000 not yet filed with respective state utility commissions or local regulatory authorities.

Our water and wastewater operations are composed of 47 rate divisions, and our natural gas operations are comprised of four rate divisions. Each of our utility rate divisions require a separate rate filing for the evaluation of the cost of service and recovery of investments in connection with the establishment of tariff rates for that rate division. When feasible and beneficial to our utility customers, we have sought approval from the applicable state utility commission to consolidate rate divisions to achieve a more even distribution of costs over a larger customer base. All of the eight states in which we operate water and wastewater utilities currently permit us to file a revenue requirement using some form of consolidated rates for some or all of the rate divisions in that state.

Our operating subsidiaries received rate increases representing estimated annualized revenues of $81,610 in 2022 resulting from seven base rate decisions, $3,390 in 2021 resulting from six base rate decisions, and $4,480 in 2020 resulting from five base rate decisions. Annualized revenues in aggregate from all of the rate increases realized in the year of grant were $51,163 in 2022, $2,995 in 2021, and $1,594 in 2020.

Revenue Surcharges – Each of our states in which we operate water, wastewater, and natural gas utilities, permit us to add an infrastructure rehabilitation surcharge to their respective bills to offset the additional depreciation and capital costs associated with capital expenditures related to replacing and rehabilitating infrastructure systems. Prior to allowing for such surcharges, utilities absorbed all of the depreciation and capital costs of these projects between base rate increases without the benefit of additional revenues. The gap between the time that a capital project is completed and the recovery of its costs in rates is known as regulatory lag. This surcharge is intended to substantially reduce regulatory lag, which could act as a disincentive for utilities to rehabilitate their infrastructure. In addition, some states permit our subsidiaries to use a surcharge or credit on their bills to reflect allowable changes in costs, such as changes in state tax rates, other taxes and purchased water costs, until such time as the new costs are fully incorporated in base rates. Additional information regarding revenue surcharges is provided in Note 17 – *Rate Activity* in this Annual Report.

Inflation and Operating Costs – Most elements of operating costs are subject to the effects of inflation and changes in the number of customers served. Several elements are subject to the effects of changes in water or gas consumption, weather conditions, and the degree of water treatment required due to variations in the quality of the raw water. The principal elements of operating costs are purchased gas, labor and employee benefits, electricity, chemicals, transportation, maintenance expenses, insurance and claims costs, and costs to comply with environmental regulations. Electricity and chemical expenses vary in relationship to water or gas consumption, raw water quality, wastewater volumes, and price changes. Maintenance expenses are sensitive to extremely cold weather, which can cause utility mains to rupture and natural gas service lines to freeze, resulting in additional costs to repair the affected mains.

Materials and supplies, freight, chemicals, purchased power, and labor inflation resulted in increased costs in fiscal 2022, and we expect this trend will continue in fiscal 2023. Recovery of the effects of inflation through higher customer rates is dependent upon receiving adequate and timely rate increases. However, rate increases are not retroactive and often lag increases in costs caused by inflation. On occasion, our regulated utility companies may enter into rate settlement agreements, which require us to wait for a period of time to file the next base rate increase request. These agreements may result in regulatory lag whereby inflationary increases in expenses may not be reflected in rates, and may not yet be requested, or a gap may exist between when a capital project is completed and the start of its recovery in rates. Even during periods of moderate inflation, the effects of inflation can have a negative impact on our operating results.

Our natural gas distribution operations are also affected by the cost of natural gas. We are able to generally pass the cost of gas to our customers without markup under purchase gas cost adjustment mechanisms; therefore, increases in the cost of gas are offset by a corresponding increase in revenues. However, higher gas costs may adversely impact our accounts receivable collections, resulting in higher bad debt expense. This risk is currently mitigated by rate design that allows us to collect from our customers a portion of our bad debt expense. Additionally, higher gas costs may require us to increase borrowings under our credit facilities, resulting in higher interest expense. A typical residential natural gas bill includes

charges for the cost of gas, delivery, and other charges. As of January 1, 2023, the annual portion of a typical Peoples Natural Gas residential bill related to gas costs is approximately 56%. In periods when we experience market increases in natural gas costs, such as in 2022, customer affordability and usage may be reduced. Customer conservation measures may occur that can reduce natural gas revenues, either temporarily or over time.

Income Tax Accounting Change - In March 2020 and in June 2022, the Company changed the method of tax accounting for certain qualifying infrastructure investments at its Peoples Natural Gas and Peoples Gas Company subsidiaries, respectively. In December 2022, the Company made a similar change for its Aqua New Jersey subsidiary beginning with the current tax year. These changes allow a tax deduction for qualifying utility asset improvement costs that were formerly capitalized for tax purposes. The Company is utilizing the flow-through method to account for these timing differences. For Peoples Natural Gas, the Company calculated the income tax benefits for qualifying capital expenditures made prior to March 16, 2020 (catch-up adjustment) and has recorded a regulatory liability for $160,655 for these income tax benefits. In May 2021, the Pennsylvania Public Utility Commission approved a settlement petition that allows Peoples Natural Gas to continue to use flow-through accounting for the current tax repair benefit and allows for the catch-up adjustment be given to its customers. These benefits are being provided back to customers over a five-year period through a credit on customer bills which commenced in August 2021. In addition, the settlement petition required the contribution of $500 to a customer-bill payment assistance program, completed in July 2021, and $5,000 in relief to past-due accounts for natural gas customers impacted by the COVID-19 pandemic, completed in December 2021. For Peoples Gas, the Company calculated the catch-up adjustment for periods prior to the 2021 tax year and recognized a regulatory liability of $13,808 for these income tax benefits. The Company will maintain this regulatory liability on its consolidated balance sheet until the accounting treatment is determined in its next base rate case.

Growth-Through-Acquisition Strategy

Part of our strategy to meet the industry challenges is to actively explore opportunities to expand our utility operations through acquisitions of water, wastewater, and other utilities either in areas adjacent to our existing service areas or in new service areas, and to explore acquiring market-based businesses that are complementary to our regulated utility operations. To complement our growth strategy, we routinely evaluate the operating performance of our individual utility systems, and in instances where limited economic growth opportunities exist or where we are unable to achieve favorable operating results or a return on equity that we consider acceptable, we will seek to sell the utility system and reinvest the proceeds in other utility systems. Consistent with this strategy, we are focusing our acquisitions and resources in states where we have critical mass of operations in an effort to achieve economies of scale and increased efficiency. Our growth-through-acquisition strategy allows us to operate more efficiently by sharing operating expenses over more utility customers and provides new locations for future earnings growth through capital investment. Another element of our growth strategy is the consideration of opportunities to expand by acquiring other utilities, including those that may be in a new state if they provide promising economic growth opportunities and a return on equity that we consider acceptable. Our ability to successfully execute this strategy historically and to meet the industry challenges has largely been due to our core competencies, financial position, and our qualified and trained workforce, which we strive to retain by treating employees fairly and providing our employees with development and growth opportunities.

On March 16, 2020, we completed the acquisition of Peoples Natural Gas (the Peoples Gas Acquisition), which expanded the Company’s regulated utility business to include natural gas distribution, serving approximately 750,000 natural gas utility customers in western Pennsylvania, West Virginia, and Kentucky.

During 2022, we completed three acquisitions of water and wastewater systems, which along with the organic growth in our existing systems, represents 31,537 new customers. During 2021 we completed two acquisitions of water and wastewater systems, which along with the organic growth in our existing systems, represents 21,364 new customers. During 2020, in addition to the Peoples Gas Acquisition, we completed six acquisitions of water and wastewater systems, which along with the organic growth in our existing systems, represents 24,169 new customers.

(In thousands of dollars, except per share amounts)

The Company currently has eight signed purchase agreements for additional water and wastewater systems that are expected to serve approximately 218,600 equivalent retail customers or equivalent dwelling units and total approximately $380,000 in purchase price in four of our existing states. This includes the Company's agreement to acquire the Delaware County Regional Water Quality Control Authority (DELCORA) for $276,500. DELCORA, a Pennsylvania sewer authority, serves approximately 198,000 equivalent dwelling units in the Philadelphia suburbs. Refer to Note 2 – *Acquisitions* in this Annual Report for further discussion.

As of December 31, 2022, the pipeline of potential water and wastewater municipal acquisitions the company is actively pursuing represents approximately 400,000 total customers or equivalent dwelling units. The Company remains on track to, on average, annually increase customers between 2% and 3% through acquisitions and organic customer growth.

Performance Measures Considered by Management

We consider the following financial measures (and the period to period changes in these financial measures) to be the fundamental basis by which we evaluate our operating results:

earnings per share;
water and wastewater operating revenues;
gas operating revenues, net of purchased gas costs;
earnings before interest, taxes, and depreciation (EBITD);
earnings before income taxes;
net income; and
the dividend rate on common stock.

In addition, we consider other key measures in evaluating our utility business performance within our Regulated Water and Regulated Natural Gas segments:

our number of utility customers;
the ratio of operations and maintenance expense compared to operating revenues (this percentage is termed "operating expense ratio");
return on revenues (net income divided by operating revenues);
rate base growth;
return on equity (net income divided by stockholders' equity); and
the ratio of capital expenditures to depreciation expense.

Some of these measures, like EBITD and gas operating revenues, net of purchased gas costs, are non-GAAP financial measures. The Company believes that the non-GAAP financial measures provide management the ability to measure the Company's financial operating performance across periods and are more comparable to measures reported by other companies. We believe EBITD is a relevant and useful indicator of operating performance, as we measure it for management purposes because it provides a better understanding of our results of operations by highlighting our operations and the underlying profitability of our core businesses.

We review these measurements regularly and compare them to historical periods, to our operating budget as approved by our Board of Directors, and to other publicly-traded utilities. Additionally, our Regulated Natural Gas segment is affected by the cost of natural gas, which is passed through to customers using a purchased gas adjustment mechanism and includes commodity price, transportation and storage costs. These costs are reflected in the consolidated statement of operations and comprehensive income as purchased gas expenses. Therefore, fluctuations in the cost of purchased gas impact operating revenues on dollar-for-dollar basis. Management uses gas operating revenues, net of purchased gas costs, a non-GAAP financial measure, to analyze the financial performance of our Regulated Natural Gas segment. Management believes this measure provides a meaningful basis for evaluating our natural gas utility operations since purchased gas expenses are included in operating revenues and passed through to customers.

(In thousands of dollars, except per share amounts)

Our operating expense ratio is one measure that we use to evaluate our operating efficiency and management effectiveness of our regulated operations. Our operating expense ratio is affected by a number of factors, including the following:

Regulatory lag – Our rate filings are designed to provide for the recovery of increases in costs of operations (primarily labor and employee benefits, electricity, chemicals, transportation, maintenance expenses, insurance and claim costs, and costs to comply with environmental regulations), capital, and taxes. The revenue portion of the operating expense ratio can be impacted by the timeliness of recovery of, and the return on capital investments. The operating expense ratio is further influenced by regulatory lag (increases in operations and maintenance expenses not yet recovered in rates or a gap between the time that a capital project is completed and the start of its cost recovery in rates). The operating expense ratio is also influenced by decreases in operating revenues without a commensurate decrease in operations and maintenance expense, such as changes in customer usage as impacted by adverse weather conditions, or conservation trends. During periods of inflation, our operations and maintenance expenses may increase, impacting the operating expense ratio, as a result of regulatory lag, since our rate cases may not be filed timely and are not retroactive.

Acquisitions – In general, acquisitions of smaller undercapitalized utility systems in some areas may initially increase our operating expense ratio if the operating revenues generated by these operations do not reflect the true cost of service and are accompanied by a higher ratio of operations and maintenance expenses as compared to other operational areas of the company that are more densely populated and have integrated operations. In these cases, the acquired operations are characterized as having relatively higher operating costs to fixed capital costs, in contrast to the majority of our operations, which generally consist of larger, interconnected systems, with higher fixed capital costs (utility plant investment) and lower operating costs per customer. For larger acquisitions, such as the Peoples Gas Acquisition, we have incurred significant transaction expenses, which increase operations and maintenance expenses in periods prior to and in the period of the closing of the acquisition. In addition, we operate market-based subsidiary companies consisting of our non-regulated natural gas operations, Aqua Resources, and Aqua Infrastructure. The cost-structure of these market-based companies differs from our utility companies in that, although they may generate free cash flow, these companies may at times have a higher ratio of operations and maintenance expenses to operating revenues and a lower capital investment and, consequently, a lower ratio of fixed capital costs versus operating revenues in contrast to our regulated operations. As a result, the operating expense ratio is not comparable between the businesses. These market-based subsidiary companies are not a component of our Regulated Water or Regulated Natural Gas segments.

We continue to evaluate initiatives to help control operating costs and improve efficiencies.

Other Operational Measures Considered by Management

Sendout - Sendout represents the quantity of treated water delivered to our distribution systems. We use sendout as an indicator of customer demand. Weather conditions tend to impact water consumption, particularly during the late spring, summer, and early fall when discretionary and recreational use of water is at its highest. Consequently, a higher proportion of annual Regulated Water segment operating revenues are realized in the second and third quarters. In general, during this period, an extended period of hot and dry weather increases water consumption, while above-average rainfall and cool weather decreases water consumption. Conservation efforts, construction codes that require the use of low-flow plumbing fixtures, as well as mandated water use restrictions in response to drought conditions can reduce water consumption. We believe an increase in conservation awareness by our customers, including the increased use of more efficient plumbing fixtures and appliances, may continue to result in a long-term structural trend of declining water usage per customer. These gradual long-term changes are normally taken into account by the utility commissions in setting rates, whereas significant short-term changes in water usage, resulting from drought warnings, water use restrictions, or extreme weather conditions, may not be fully reflected in the rates we charge between rate proceedings. In Illinois, our operating subsidiary has a revenue stability mechanism which allows us to recognize state PUC-authorized revenue for a period which is not based upon the volume of water sold during that period, and effectively lessens the impact of weather and consumption variability.

On occasion, drought warnings and water use restrictions are issued by governmental authorities for portions of our service territories in response to extended periods of dry weather conditions, regardless of our ability to meet unrestricted

(In thousands of dollars, except per share amounts)

customer water demands. The timing and duration of the warnings and restrictions can have an impact on our water revenues and net income. In general, water consumption in the summer months is affected by drought warnings and restrictions to a higher degree because discretionary and recreational use of water is highest during the summer months, particularly in our northern service territories. At other times of the year, warnings and restrictions generally have less of an effect on water consumption. Drought warnings and watches result in the public being asked to voluntarily reduce water consumption.

The geographic diversity of our utility customer base reduces the effect of our exposure to extreme or unusual weather conditions in any one area of the country. During the year ended December 31, 2022, our operating revenues for our Regulated Water segment were derived principally from the following states: approximately 56% in Pennsylvania, 11% in Ohio, 9% in Illinois, 8% in Texas, and 7% in North Carolina.

Heating Degree Days – The regulated natural gas utility business is subject to seasonal fluctuations with the peak usage period occurring in the heating season which generally runs from October to March. A heating degree day (HDD) is each degree that the average of the high and the low temperatures for a day is below 65 degrees Fahrenheit in a specific geographic location. Particularly during the heating season, this measure is used to reflect the demand for natural gas needed for heating based on the extent to which the average temperature falls below a reference temperature for which no heating is required (65 degrees Fahrenheit). HDDs are used in the natural gas industry to measure the relative coldness of weather and to estimate the demand for natural gas. Normal temperatures are based on a historical twenty-year average heating degree days, as calculated from data provided by the National Weather Service for the same geographic location. During the year ended December 31, 2022, we experienced actual HDDs of 5,648 days, which was colder by 3.9% than the average or normal HDDs for Pittsburgh, Pennsylvania, which we use as a proxy for our western Pennsylvania service territory.

RESULTS OF OPERATIONS

Consolidated financial and operational highlights for the years ended December 31, 2022, 2021 and 2020 are presented below. For discussion of our results of operations and cash flows for 2021 compared with 2020, refer to Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for our fiscal year ended December 31, 2021, filed with the SEC on March 1, 2022.

Years ended December 31,	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Operating revenues:					
Regulated water segment	$ 1,082,972	$ 980,203	$ 938,540	$ 102,769	$ 41,663
Regulated gas segment	1,143,362	859,902	506,564	283,460	353,338
Other and eliminations	61,698	38,039	17,594	23,659	20,445
Consolidated operating revenues	$ 2,288,032	$ 1,878,144	$ 1,462,698	$ 409,888	$ 415,446
Operations and maintenance expense	$ 613,649	$ 550,580	$ 528,611	$ 63,069	$ 21,969
Net income (1)	$ 465,237	$ 431,612	$ 284,849	$ 33,625	$ 146,763
Capital expenditures	$ 1,062,763	$ 1,020,519	$ 835,642	$ 42,244	$ 184,877
Operating Statistics					
Selected operating results as a percentage of operating revenues:					
Operations and maintenance	26.8%	29.3%	36.1%	-2.5%	-6.8%
Depreciation and amortization	14.0%	15.9%	17.6%	-1.9%	-1.7%
Taxes other than income taxes	3.9%	4.6%	5.2%	-0.7%	-0.6%
Interest expense, net of interest income	10.2%	10.9%	12.5%	-0.7%	-1.6%
Net income (1)	20.3%	23.0%	19.5%	-2.7%	3.5%
Return on Essential Utilities stockholders' equity (1)	8.7%	8.3%	6.1%	0.4%	2.2%
Ratio of capital expenditures to depreciation expense	3.4	3.5	3.3	-0.1	0.2
Effective tax rate	(3.2%)	(2.3%)	(7.5%)	(0.9%)	5.2%

(In thousands of dollars, except per share amounts)

(1) Reflects Peoples Gas Acquisition transaction-related expenses of $20,925 ($25,573 pre-tax) in 2020 and utility customer rate credits issued in 2020 of $23,004 (or $16,357 net of tax).
(2) Peoples Gas' operating results are included since its acquisition on March 16, 2020.

Consolidated Results of Operations Comparison for 2022 and 2021

Operating revenues - Operating revenues increased by $409,888 or 21.8% for the year ended December 31, 2022 compared to the year ended December 31, 2021. Revenues from our Regulated Water segment increased by $102,769, Regulated Natural Gas segment by $283,460 and other revenues by $23,659. A detailed discussion of the factors contributing to the changes in segment net revenue is included below under the section, Segment Results of Operations.

Our other revenues consist of market-based revenues at Aqua Resources, Aqua Infrastructure, and our non-regulated natural gas operations amounting to $61,698 in 2022, $38,435 in 2021, and $17,776 in 2020. The increase in other revenues is primarily due to higher revenues from our non-regulated natural gas operations driven by higher gas prices.

Operating expenses - Operations and maintenance expenses increased in 2022, as compared to 2021, by $63,069 or 11.5%, primarily due to:

increase in employee related costs of $17,129 driven by an increase in labor rates, other compensation, including a one-time compensation payment for non-officer level employees, and benefits to employees;
increase in production costs for water and wastewater operations of $6,339, primarily due to higher chemical prices and an increase in wholesale water costs;
additional operating costs associated with acquired and pending acquisitions of water and wastewater utility systems and higher customer base of $6,872;
increase in customer assistance surcharge costs of $12,778 in our Regulated Natural Gas segment, which has an equivalent offsetting amount in revenues. These revenues and offsetting expenses increased mainly due to the increase in average gas prices during 2022 compared to last year;
increase in insurance expense of $6,911 due to higher insurance claims, which includes the impact of a favorable insurance reserve adjustment of $2,426 during the first quarter of 2021;
increase in legal expenses of $2,779;
increase in materials and supplies of $3,417, and outside services and maintenance expenses of $22,175 largely due to inflationary cost pressures and increased maintenance activity; offset by,
reduction of expenses in 2022 of $454 associated with remediating an advisory for some of our water utility customers served by our Illinois subsidiary. We expect the expenses associated with remediating the advisory to continue into 2023;
decrease in repairs expense of $2,820 as 2021 included costs incurred to restore and repair the property damaged by Hurricane Ida;
lower asset impairment charge of $2,900 associated with the write down of the right of use assets of our Regulated Natural Gas segment's leased office space to fair value in 2022 as compared with 2021; and,
a decrease in expenses of $7,386 in our Regulated Gas segment due to higher capitalization as a result of greater capital spend in the current year.

Purchased gas increased by $261,733 or 76.9% in 2022 compared to 2021. Purchased gas represents the cost of gas sold by Peoples for the regulated and non-regulated gas business and has a corresponding offset in revenue. This expense increased for the regulated natural gas business and non-regulated business by $237,619 and $24,114, respectively, as a result of the increase in natural gas prices.

Depreciation and amortization expense increased by $23,225 or 7.8%, in 2022 over 2021, principally due to continued capital expenditures to expand and improve our utility facilities, upgrade our information systems, our acquisitions of new utility systems, and additional rate case filings. Expenses associated with filing rate cases are deferred and amortized over periods that generally range from one to three years.

(In thousands of dollars, except per share amounts)

Taxes other than income taxes totaled $90,024 in 2022 and $86,641 in 2021, and has increased by $3,383 or 3.9% in 2022 as compared to 2021 principally due to increase in pumping fees of $2,120.

Other expense, net - Interest expense was $238,116 in 2022 and $207,709 in 2021. Interest expense increased in 2022 primarily due to an increase in average borrowings, and an increase in average interest rates. The weighted average cost of fixed rate long-term debt was 3.78% at December 31, 2022 and 3.61% at December 31, 2021. The weighted average cost of fixed and variable rate long-term debt was 3.94% at December 31, 2022 and 3.49% at December 31, 2021.

Allowance for funds used during construction (AFUDC) was $23,665 in 2022 and $20,792 in 2021, and varies as a result of changes in the average balance of utility plant construction work in progress, to which AFUDC is applied, changes in the AFUDC rate which is based predominantly on short-term interest rates, changes in the balance of short term-debt, and changes in the amount of AFUDC related to equity. The increase in 2022 is primarily due to an increase in the average balance of utility plant construction work in progress, to which AFUDC is applied. The amount of AFUDC related to equity was $17,618 in 2022 and $16,282 in 2021.

Gain on sale of other assets totaled $991 in 2022 and $976 in 2021, and consists of the sales of property, plant and equipment.

Other totaled $494 in 2022, and $(2,848) in 2021, and largely consists of the non-service cost component of our net benefit cost for pension benefits and unrealized gains and losses on investments associated with our non-qualified pension plan. In 2022, the fair values of our investments associated with our non-qualified plan declined and we recognized a loss of $895 in 2022 compared to a gain of $(607) in 2021.

Income tax benefit - Our effective income tax rate was (3.2)% in 2022, and (2.3)% in 2021. The Company's provision for income taxes represents an income tax benefit due to the effects of tax deductions recognized for certain qualifying infrastructure investments. The decrease in the effective tax rate is primarily attributed to the increase in our income tax benefit associated with the tax deduction for qualifying infrastructure investments.

Net income -

	Years ended December 31,		
	2022	2021	2020
Operating income	$ 661,187	$ 602,709	$ 434,686
Net income	465,237	431,612	284,849
Diluted net income per share	1.77	1.67	1.12

The changes in diluted net income per share in 2022 over the previous year were due to the aforementioned changes.

Although we have experienced increased income in the recent past, continued adequate rate increases reflecting increased operating costs and new capital improvements are important to the future realization of improved profitability.

Segment Results of Operations Comparison for 2022 and 2021

We have identified twelve operating segments, and we have two reportable segments based on the following:

Eight segments are composed of our water and wastewater regulated utility operations in the eight states where we provide these services. These operating segments are aggregated into one reportable segment, Regulated Water, since each of these operating segments has the following similarities: economic characteristics, nature of services, production processes, customers, water distribution and/or wastewater collection methods, and the nature of the regulatory environment.

Our Regulated Natural Gas segment is composed of natural gas utility companies in three states acquired in the Peoples Gas Acquisition. These utilities provide natural gas distribution services, and their operating results subsequent to the March 16, 2020 acquisition date are reported in the Regulated Natural Gas segment.

(In thousands of dollars, except per share amounts)

Three segments are not quantitatively significant to be reportable and are composed of our non-regulated natural gas operations, Aqua Resources, and Aqua Infrastructure. These segments are included as a component of "Other," in addition to corporate costs that have not been allocated to the Regulated Water and Regulated Natural Gas segments, because they would not be recoverable as a cost of utility service, and intersegment eliminations. Corporate costs include general and administrative expenses, and interest expense.

Regulated Water Segment

The following tables present the selected operating results and customers served for our Regulated Water segment, for and as of the year ended December 31,:

	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Sendout (in millions of gallons)					
Pennsylvania	42,666	42,198	41,683	468	515
Ohio	14,604	13,971	14,020	633	(49)
Illinois	8,784	8,764	8,651	20	113
Texas	8,606	7,212	7,393	1,394	(181)
North Carolina	5,934	5,984	5,780	(50)	204
Other states	6,272	6,191	6,299	81	(108)
Subtotal	86,866	84,320	83,826	2,546	494
Elimination	(141)	(154)	(65)	13	(89)
Total sendout by state	86,725	84,166	83,761	2,559	405
Utility customers:					
Residential water	850,673	842,200	832,902	8,473	9,298
Commercial water	43,119	42,864	42,535	255	329
Industrial water	1,286	1,331	1,338	(45)	(7)
Other water	18,446	17,932	18,561	514	(629)
Wastewater	181,721	162,478	151,965	19,243	10,513
Total water and wastewater utility customers	1,095,245	1,066,805	1,047,301	28,440	19,504
Operating revenues:					
Residential water	$ 607,473	$ 561,996	$ 567,485	$ 45,477	$ (5,489)
Commercial water	168,460	151,071	143,479	17,389	7,592
Industrial water	32,581	30,230	29,764	2,351	466
Other water	94,359	89,472	67,712	4,887	21,760
Wastewater	165,312	132,316	121,117	32,996	11,199
Customer rate credits	-	-	(4,080)	-	4,080
Other utility	14,787	15,118	13,063	(331)	2,055
Total operating revenues	$ 1,082,972	$ 980,203	$ 938,540	$ 102,769	$ 41,663
Operating expenses:					
Operations and maintenance expense	$ 370,850	$ 332,598	$ 309,608	$ 38,252	$ 22,990
Depreciation and amortization	$ 201,392	$ 182,074	$ 171,152	$ 19,318	$ 10,922
Taxes other than income taxes	$ 64,472	$ 63,264	$ 60,505	$ 1,208	$ 2,759
Other expense, net	$ 84,396	$ 81,931	$ 91,001	$ 2,465	$ (9,070)
Provision for income tax	$ 47,510	$ 26,633	$ 22,481	$ 20,877	$ 4,152
Segment net income	$ 314,352	$ 293,703	$ 283,793	$ 20,649	$ 9,910

Operating revenues - The growth in our Regulated Water segment's revenues over the past three years is primarily a result of increases in our water and wastewater rates and our customer base. Water and wastewater rate increases, including infrastructure rehabilitation surcharges, implemented during the past three years have provided additional operating revenues of $63,367 in 2022, $27,421 in 2021, and $32,660 in 2020. The number of customers increased at an annual compound rate of 2.2% over the past three years due to acquisitions and organic growth, adjusted to exclude customers associated with utility system dispositions. Acquisitions in our Regulated Water segment have provided additional water and wastewater revenues of $16,145 in 2022, $6,750 in 2021, and $10,951 in 2020.

Our Regulated Water segment also includes operating revenues of $11,477 in 2022 and $13,358 in 2021, and $8,781 in 2020, associated with revenues earned primarily from fees received from telecommunication operators that have put

(In thousands of dollars, except per share amounts)

cellular antennas on our water towers, fees earned from municipalities for our operation of their water or wastewater treatment services or to perform billing services, and fees earned from developers for accessing our water mains.

Operating expenses - Operations and maintenance expense for the year ended December 31, 2022 was $370,850 compared to $332,598 in the prior period. The increase of 38,252 or 11.5% was primarily due to the following:

- increase in employee related costs of $7,279 driven by an increase in labor rates, other compensation and benefits to employees;
- increase in production costs for water and wastewater operations of $6,339;
- additional operating costs resulting from acquired water and wastewater utility systems and higher customer base of $6,872;
- increase in legal expenses of $3,059;
- increase in outside services and maintenance expenses of $17,196 in our Regulated Water segment as compared with the prior period; offset by,
- reduction of expenses in 2022 of $454 associated with remediating an advisory for some of our water utility customers served by our Illinois subsidiary. We expect the expenses associated with remediating the advisory to continue into 2023; and,
- offset by a decrease in repairs expense of $2,820 as 2021 included costs incurred to restore and repair the property damaged by Hurricane Ida.

Depreciation and amortization increased by $19,318 or 10.6% primarily due to continued capital spend.

Other expense, net – Interest expense, net, increased by $3,582 or 3.3% primarily due to the increase in average borrowings and higher interest rate on our revolving line of credit in 2022.

AFUDC increased by $1,692 or 8.8% due to the increase in the average balance of utility plant construction work in progress, to which AFUDC is applied.

Provision for income tax – The effective income tax rate for our Regulated Water segment was 13.1% in 2022, compared to 8.3% in 2021. The change in the effective tax rate is primarily due to a decrease in the amortization of certain regulatory liabilities associated with deferred taxes.

(In thousands of dollars, except per share amounts)

Regulated Natural Gas Segment

The following tables present the selected operating results and customers served for our Regulated Natural Gas segment for and as of the year ended December 31,:

	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Gas utility customers:					
Residential gas	695,198	692,174	690,642	3,024	1,532
Commercial gas	59,684	59,595	59,424	89	171
Industrial gas	1,459	1,475	1,436	(16)	39
Total gas utility customers	756,341	753,244	751,502	3,097	1,742
Delivered volumes (thousand cubic feet)					
Residential gas	61,093,372	56,542,038	33,675,963	4,551,334	22,866,075
Commercial gas	37,240,382	33,403,899	20,082,555	3,836,483	13,321,344
Industrial gas	49,017,036	49,726,237	37,936,661	(709,201)	11,789,576
Total delivered volumes	147,350,790	139,672,174	91,695,179	7,678,616	47,976,995
Heating Degree Days [(b)]	5,648	5,139	3,013	509	2,126
Average Heating Degree Days [(c)]	5,438	5,466	2,973	(28)	2,493

	2022	2021	2020	2022 vs. 2021	2021 vs. 2020
Operating revenues:					
Residential gas	$ 720,490	$ 530,338	$ 314,274	$ 190,152	$ 216,064
Commercial gas	149,653	99,596	50,239	50,057	49,357
Industrial gas	5,636	3,427	6,923	2,209	(3,496)
Gas transportation	205,825	198,195	133,685	7,630	64,510
Customer rate credits	-	(5,000)	(18,924)	5,000	13,924
Other utility	61,758	33,346	20,367	28,412	12,979
Total operating revenues	$ 1,143,362	$ 859,902	$ 506,564	$ 283,460	$ 353,338
Operating expenses:					
Operations and maintenance expense	$ 239,506	$ 226,194	$ 198,383	$ 13,312	$ 27,811
Purchased gas	$ 551,009	$ 313,390	$ 154,103	$ 237,619	$ 159,287
Depreciation and amortization	$ 118,955	$ 113,238	$ 84,201	$ 5,717	$ 29,037
Taxes other than income taxes	$ 22,642	$ 20,801	$ 13,307	$ 1,841	$ 7,494
Other expense, net	$ 87,916	$ 78,099	$ 25,252	$ 9,817	$ 52,847
Income tax benefit	$ (61,942)	$ (40,013)	$ (25,133)	$ (21,929)	$ (14,880)
Segment net income	$ 185,276	$ 148,193	$ 56,451	$ 37,083	$ 91,742

[(a)] Includes operating results since the completion of the Peoples Gas Acquisition on March 16, 2020.

[(b)] Unit of measure reflecting temperature-sensitive natural gas consumption, calculated by subtracting the average of a day's high and low temperatures from 65 degrees Fahrenheit.

[(c)] Based on historical twenty-year average heating degree days, as calculated from data provided by the National Weather Service for the same geographic location.

Operating revenues – Operating revenues from the Regulated Natural Gas segment increased by $283,460 or 33.0% due to:

impact of higher gas cost of $237,619 in 2022 as compared to 2021;
higher gas usage of $27,237;
increase of $13,682 due to higher rates and other surcharges; and,
increase in customer assistance surcharge of $12,778, which has an equivalent offsetting amount in operations and maintenance expense. These revenues and offsetting expenses increased mainly due to the increase in average gas prices in 2022 compared to the last year; and,
offset by the increase in tax repair surcredits to customers of $18,304.

(In thousands of dollars, except per share amounts)

Operating expenses – Operations and maintenance expense for the year ended December 31, 2022 increased by $13,312 or 5.9% primarily due to the following:

increases in employee related costs of $5,413 driven by an increase in labor rates, other compensation and benefits to employees;
increase in customer assistance surcharge costs of $12,778, which has an equivalent offsetting amount in revenues;
increase in outside services and maintenance expenses of $4,841; offset by,
lower asset impairment charge of $2,900 associated with the write down of the right of use assets of our Regulated Natural Gas segment's leased office space to fair value in 2022 as compared with 2021; and,
a decrease in expenses of $7,386 in our Regulated Gas segment due to higher capitalization as a result of greater capital spend in the current year.

Our Regulated Natural Gas segment is affected by the cost of natural gas, which is passed through to customers using a purchased gas adjustment clause and includes commodity price, transportation and storage costs. These costs are reflected in the consolidated statement of operations and comprehensive income as purchased gas expenses. Therefore, fluctuations in the cost of purchased gas impact operating revenues on dollar-for-dollar basis. Purchased gas increased by $237,619 or 75.8% due to an increase of 78.2% in the average gas commodity prices in 2022 as compared to the prior year.

Depreciation and amortization increased by $5,717 or 5.0% primarily due to continued capital spend.

Taxes other than income taxes increased by $1,841 or 8.9% mainly due to to an increase in sales and use taxes and regulatory fees in 2022.

Other expense, net – Interest expense, net, increased by $11,558 or 15.3% for 2022 compared to 2021 due to additional borrowings and a higher interest rate on our revolving line of credit in 2022.

AFUDC increased by $1,181 or 77.0% due to the increase in the average balance of utility plant construction work in progress, to which AFUDC is applied.

Income tax benefit – The effective income tax rate was a benefit of 50.2% in 2022, compared to a benefit of 37.0% in 2021. The change in the effective tax rate is primarily attributed to an increase in the income tax benefit associated with the tax deduction for qualifying infrastructure investment and an increase in the amortization of the tax repair catch-up adjustment in our Regulated Natural Gas segment.

LIQUIDITY AND CAPITAL RESOURCES

Consolidated Cash Flow and Capital Expenditures
Net operating cash flows, dividends paid on common stock, capital expenditures, including allowances for funds used during construction, and expenditures for acquiring utility systems were as follows for the years ended December 31:

	Net Operating Cash Flows	Dividends	Capital Expenditures	Acquisitions
2020	$ 508,024	$ 232,571	$ 835,642	$ 3,501,835
2021	644,679	258,650	1,020,519	36,326
2022	600,306	288,632	1,062,763	116,891
	$ 1,753,009	$ 779,853	$ 2,918,924	$ 3,655,052

Net cash flows from operating activities decreased from 2021 to 2022 largely due to the increase in accounts receivable, unbilled revenues and inventory- gas stored. Average cost of gas stored in inventories and associated recoveries of gas costs from customers was higher in 2022 than in 2021.

(In thousands of dollars, except per share amounts)

Included in capital expenditures for the three year period are: expenditures for the rehabilitation of existing utility systems, the expansion of our utility systems, modernization and replacement of existing treatment facilities, meters, office facilities, information technology, vehicles, and equipment. During this three year period, we received $36,563 of customer advances and contributions in aid of construction to finance new utility mains and related facilities that are not included in the capital expenditures presented in the above table. In addition, during this period, we have made repayments of debt, which includes the net effect of borrowings and repayments under our long-term revolving credit facility of $1,965,289 and have refunded $21,068 of customers' advances for construction. Dividends increased during the past three years as a result of annual increases in the dividends declared and paid and increases in the number of shares outstanding.

Our planned 2023 capital program, excluding the costs of new mains financed by advances and contributions in aid of construction is estimated to be approximately $1,123,000 in infrastructure improvements for the communities we serve. The 2023 capital program is expected to include approximately $747,000 for infrastructure rehabilitation surcharge qualified projects. Our planned 2023 capital program in Pennsylvania for our water and natural gas utilities is estimated to be approximately $761,000, a portion of which is expected to be eligible as a deduction for qualifying utility asset improvements for Federal income tax purposes. Our overall 2023 capital program along with $199,356 of debt repayments and $365,432 of other contractual cash obligations, as reported in the section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations – *Contractual Obligations*", has been, or is expected to be, financed through internally-generated funds, our revolving credit facilities, and the issuance of long-term debt and equity.

Future utility construction in the period 2024 through 2025, including recurring programs, such as the ongoing replacement or rehabilitation of utility meters and mains, water treatment plant upgrades, storage facility renovations, pipes, service lines, and additional transmission mains to meet customer demands, excluding the costs of new mains financed by advances and contributions in aid of construction, is estimated to require aggregate expenditures of approximately $2,115,000. We anticipate that approximately one-half of these expenditures will require external financing. We expect to refinance $221,345 of long-term debt during this period as it becomes due with funds from new issues of long-term debt, issuances of equity, internally-generated funds, and our revolving credit facilities. The estimates discussed above do not include any amounts for possible future acquisitions of utility systems or the financing necessary to support them.

Our primary sources of liquidity are cash flows from operations (including the allowed deferral of Federal income tax payments), borrowings under various short-term lines of credit and other credit facilities, and customer advances and contributions in aid of construction. Our cash flow from operations, or internally-generated funds, is impacted by the timing of rate relief, utility operating revenues, and changes in Federal tax laws, and accelerated tax depreciation or deductions for utility construction projects. We fund our capital and typical acquisitions through internally-generated funds, supplemented by short-term lines of credit. Over time, we partially repay or pay-down our short-term lines of credit with long-term debt. The ability to finance our future construction programs, as well as our acquisition activities, depends on our ability to attract the necessary external debt and equity financing and maintain internally-generated funds. Timely rate orders permitting compensatory rates of return on invested capital will be required by our operating subsidiaries to achieve an adequate level of earnings and cash flow to enable them to secure the capital they will need to operate and to maintain satisfactory debt coverage ratios.

Acquisitions

As part of the Company's growth-through-acquisition strategy, as of December 31, 2022, the Company has entered into purchase agreements to acquire the water or wastewater utility system assets of seven municipalities and a private company for a total combined purchase price in cash of approximately $380,000. The purchase price for these pending acquisitions is subject to certain adjustments at closing, and the pending acquisitions are subject to regulatory approvals, including the final determination of the fair value of the rate base acquired. Closings for these acquisitions are expected to occur in 2023 or early 2024, which is subject to the timing of the various regulatory approval processes. These acquisitions are expected to add approximately 218,600 equivalent retail customers in four of the states in which the Company operates.

In November 2022, the Company acquired the water system of Oak Brook, DuPage County, Illinois, which serves 2,037 customers, for a cash purchase price of $12,500. In August 2022, the Company acquired the municipal wastewater assets of East Whiteland Township, Chester County, Pennsylvania, which serves 4,018 customers, for a cash purchase price of $54,374. In March 2022, the Company acquired the wastewater system of Lower Makefield Township, which serves 11,323 customer connections in Lower Makefield, Falls, and Middletown townships, and Yardley Borough, Bucks County, Pennsylvania, for a cash purchase price of $53,000.

In August 2021, the Company acquired the water utility system assets of The Commons Water Supply, Inc., which serves 992 customers in Harris County, Texas, and the wastewater utility system assets of the Village of Bourbonnais, which serves approximately 6,500 customers in Kankakee County, Illinois. The total cash purchase prices for these utility systems were $4,000 and $32,100, respectively.

On March 16, 2020, the Company completed the Peoples Gas Acquisition, which expanded the Company's regulated utility business to include natural gas distribution, serving approximately 750,000 natural gas utility customers in western Pennsylvania, West Virginia and Kentucky. The Company paid cash consideration of $3,465,344, which was subject to adjustment based upon the terms of the purchase agreement. The Company financed this acquisition through the April 2019 issuances of $1,293,750 of common stock, $900,000 of senior notes (of which $436,000 was for this acquisition), $690,000 of tangible equity units, and the issuance of $750,000 of common stock through a private placement, and borrowings on our revolving credit facility. Additionally, during 2020, we completed six acquisitions of water and wastewater utility systems for $63,279 in cash in four of the states in which we operate, adding 10,585 customers.

Excluding the Peoples Gas Acquisition, during the past three years, we have expended cash of $216,496 related to the acquisition of both water and wastewater utility systems. We continue to pursue the acquisition of water and wastewater utility systems and explore other utility acquisitions that may be in a new state. Our typical acquisitions are expected to be financed with short-term debt with subsequent repayment from the proceeds of long-term debt, retained earnings, or equity issuances.

Assets Held for Sale and Disposition
We routinely review and evaluate areas of our business and operating divisions and, over time, may sell utility systems or portions of systems. In December 2022, the Company signed an agreement to sell its regulated natural gas utility assets in West Virginia which serve less than two percent of the Company's regulated natural gas customers. This sale is conditioned on regulatory approval and is expected to close in mid-2023. The completion of this transaction will conclude our regulated utility operations in West Virginia.

In October 2020, the Company also sold its investment in a joint venture. Its investment represented its 49% investment in a joint venture that operates a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale of north central Pennsylvania, and recorded a charge of $3,700 associated with the sale. Refer to Note 3 – *Asset Held for Sale and Disposition* in this Annual Report for additional information.

Sources of Capital
Since net operating cash flow plus advances and contributions in aid of construction have not been sufficient to fully fund our cash requirements including capital expenditures and our growth through acquisitions program, which included financings for a portion of the Peoples Gas Acquisition, we issued $5,542,246 of long-term debt, and obtained other short-term borrowings during the past three years. At December 31, 2022, we have a $1,000,000 unsecured long-term revolving credit facility that expires in December 2027, of which $19,041 was designated for letter of credit usage, $490,959 was available for borrowing, and $490,000 of borrowings were outstanding at December 31, 2022. This credit facility was established in December 2022, replacing a similar facility that was expiring in December 2023, and was used to repay all indebtedness and fees under our prior unsecured revolving credit facility, and for other general corporate purposes. In addition, we have short-term lines of credit of $435,500 of which $207,000 was available as of December 31, 2022. Included in the short-term lines of credit is an Aqua Pennsylvania $100,000 364 day unsecured revolving credit facility and a Peoples Natural Gas $300,000 364 day unsecured revolving credit facility. These short-term lines of credit are subject to renewal on an annual basis. Although we believe we will be able to renew these facilities, there is no assurance that they will be renewed, or what the terms of any such renewal will be.

(In thousands of dollars, except per share amounts)

In January 2023 and October 2022, Aqua Pennsylvania issued $75,000 and $125,000 of first mortgage bonds, due in 2043 and 2052, and with interest rates of 5.60% and 4.50%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

On October 14, 2022, the Company entered into at-the market sales agreements ("ATM") with third-party sales agents, under which the Company may offer and sell shares of its common stock, from time to time, at its option, having an aggregate gross offering price of up to $500,000 pursuant to the Company's effective shelf registration statement on Form S-3 (File No. 333-255235). The Company intends to use the net proceeds from the sales of shares through the ATM for working capital, capital expenditures, water and wastewater utility acquisitions and repaying outstanding indebtedness. As of December 31, 2022, the Company has issued 1,321,994 shares for net proceeds of $63,040 under the ATM. In January 2023, the Company has issued 399,128 shares for net proceeds of $19,294 under the ATM.

On June 30, 2022, the Peoples Natural Gas Companies amended its 364-day revolving credit agreement primarily to increase the amount of the facility from $100,000 to $300,000 and to update the termination date of the facility to June 29, 2023. Aqua Pennsylvania also amended its $100,000 364-day revolving credit agreement primarily to update the termination date to June 29, 2023 to coincide with the term of the Peoples Natural Gas Companies' facility.

On May 20, 2022, the Company issued $500,000 of long-term debt (the "Senior Notes"), less expenses of $5,815, due in 2052 with an interest rate of 5.30%. The Company used the net proceeds from the issuance of Senior Notes to (1) to repay $49,700 of borrowings under Aqua Pennsylvania's 364-day revolving credit facility and $410,000 of borrowings under the Company's existing five year unsecured revolving credit facility, and (2) for general corporate purposes.

On April 15, 2021, our operating subsidiary, Aqua Ohio, Inc., issued $100,000 of first mortgage bonds, of which $50,000 is due in 2031 and $50,000 is due in 2051, with interest rates of 2.37% and 3.35%, respectively. The proceeds from these bonds were used for general corporate purposes and to repay existing indebtedness. Further, on April 19, 2021, the Company issued $400,000 of long-term debt, with expenses of $4,010, which is due in 2031 with an interest rate of 2.40%. The Company used the proceeds from this issuance to repay $50,000 of borrowings under the Aqua Pennsylvania revolving credit facility, and the balance was used to repay in full the borrowings under its existing five-year unsecured revolving credit agreement.

In August 2020, we entered into a forward equity sale agreement for 6,700,000 shares of common stock with a third party (the "forward purchaser"). In connection with the forward equity sale agreement, the forward purchaser borrowed an equal number of shares of our common stock from stock lenders and sold the borrowed shares to the public. We did not receive any proceeds from the sale of our common stock by the forward purchaser until settlement of the forward equity sale agreement. On August 9, 2021, the Company settled the forward equity sale agreement in full by physical share settlement. The Company issued 6,700,000 shares and received cash proceeds of $299,739 at a forward price of $44.74 per share. Pursuant to the agreement, the forward price was computed based upon the initial forward price of $46.00 per share, adjusted for a floating interest rate factor equal to a specified daily rate less a spread and scheduled dividends during the term of the agreement. The Company used the proceeds received upon settlement of the forward equity sale agreement to fund general corporate purposes, including for water and wastewater acquisitions, working capital and capital expenditures. The forward equity sale agreement has now been completely settled, and there are no additional shares subject to the forward equity sale agreement.

Our consolidated balance sheet historically has had a negative working capital position, whereby routinely our current liabilities exceed our current assets. Management believes that internally-generated funds along with existing credit facilities and the proceeds from the issuance of long-term debt and common equity will be adequate to provide sufficient working capital to maintain normal operations and to meet our financing requirements for at least the next twelve months.

Our loan and debt agreements require us to comply with certain financial covenants, which among other things, subject to specific exceptions, limit the Company's ratio of consolidated total indebtedness to consolidated total capitalization, and require a minimum level of earnings coverage over interest expense. During 2022, we were in compliance with our debt covenants under our credit facilities. Failure to comply with our debt covenants could result in an event of default, which could result in us being required to repay or refinance our borrowings before their due date, possibly limiting our future borrowings, and increasing our borrowing costs.

(In thousands of dollars, except per share amounts)

In April 2021, the Company filed a universal shelf registration statement through a filing with the SEC to allow for the potential future offer and sale by the Company, from time to time, in one or more public offerings, of an indeterminate amount of our common stock, preferred stock, debt securities, and other securities specified therein at indeterminate prices. In April 2019, March 2020 and August 2020, we issued common stock, including common stock in connection with a forward equity sale agreement, long-term debt and tangible equity units in several offerings under this shelf registration statement. Refer to Note 11 – *Long-term Debt and Loans Payable* and Note 13 – *Stockholders' Equity* in this Annual Report for further information regarding these financings.

In addition, we have an acquisition shelf registration statement, which was filed with the SEC on February 27, 2015, to permit the offering from time to time of an aggregate of $500,000 of our common stock and shares of preferred stock in connection with acquisitions. The balance remaining available for use under the acquisition shelf registration as of December 31, 2022 is $487,155.

We will determine the form and terms of any further securities issued under the universal shelf registration statement and the acquisition shelf registration statement at the time of issuance.

We offer a Dividend Reinvestment and Direct Stock Purchase Plan (the Plan) that provides a convenient and economical way to purchase shares of the Company. Under the direct stock purchase portion of the Plan, shares are issued throughout the year. The dividend reinvestment portion of the Plan offers a five percent discount on the purchase of shares of common stock with reinvested dividends. As of the December 2022 dividend payment, holders of 5.1% of the common shares outstanding participated in the dividend reinvestment portion of the Plan. The shares issued under the Plan are either original issue shares or shares purchased by the Company's transfer agent in the open-market. During the past three years, we have sold 1,132,080 original issue shares of common stock for net proceeds of $49,940 through the dividend reinvestment portion of the Plan, and we used the proceeds to invest in our operating subsidiaries, to repay short-term debt, and for general corporate purposes. In 2022, 2021 and 2020, we sold 368,278, 374,824 and 388,978 original issues shares of common stock for net proceeds of $16,619, $16,799 and $16,522, respectively, through the dividend reinvestment portion of the plan.

Off-Balance Sheet Financing Arrangements

We do not engage in any off-balance sheet financing arrangements. We do not have any interest in entities referred to as variable interest entities, which includes special purpose entities and other structured finance entities.

Contractual Obligations

The following table summarizes our contractual cash obligations as of December 31, 2022:

		Payments Due By Period			
	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Long-term debt	$ 6,617,395	$ 199,356	221,345	751,512	5,445,182
Interest on fixed-rate, long-term debt (1)	250,143	8,149	9,953	39,570	192,471
Operating leases (2)	60,348	8,923	17,233	13,429	20,763
Unconditional purchase obligations (3)	18,216	4,716	9,142	3,238	1,120
Gas purchase obligations (4)	2,813,168	234,950	485,784	485,507	1,606,927
Other purchase obligations (5)	84,632	84,632	-	-	-
Pension plan obligations (6)	20,343	20,343	-	-	-
Other obligations (7)	11,825	3,719	2,737	3,293	2,076
Total	$ 9,876,070	$ 564,788	$ 746,194	$ 1,296,549	$ 7,268,539

(In thousands of dollars, except per share amounts)

(1) Represents interest payable on fixed rate, long-term debt. Amounts reported may differ from actual due to future refinancing of debt.

(2) Represents minimum lease payments for long-term operating leases of land, office facilities, office equipment, and vehicles.

(3) Represents our commitment to purchase minimum quantities of water as stipulated in agreements with other water purveyors. We use purchased water to supplement our water supply, particularly during periods of peak customer demand. Our actual purchases may exceed the minimum required levels.

(4) Represents our commitment to purchase minimum quantities of natural gas stipulated in agreements with various producers of natural gas to meet regulated customers' natural gas requirements.

(5) Represents an approximation of the open purchase orders for goods and services purchased in the ordinary course of business.

(6) Represents contributions to be made to the Company's retirement plans.

(7) Represents expenditures estimated to be required under legal and binding contractual obligations.

In addition to the contractual obligations table above, we have the following obligations:

Refunds of customer's advances for construction – We pay refunds on customers' advances for construction over a specific period of time based on operating revenues related to developer-installed utility mains or as new customers are connected to and take service from such mains. After all refunds are paid, any remaining balance is transferred to contributions in aid of construction. The refund amounts are not included in the above table because the refund amounts and timing are dependent upon several variables, including new customer connections, customer consumption levels and future rate increases, which cannot be accurately estimated. Portions of these refund amounts are payable annually through 2031 and amounts not paid by the contract expiration dates become non-refundable.

Asset Retirement Obligations – We recognize asset retirement obligations associated with retirements of production, storage wells and other pipeline components at fair value, as incurred, or when sufficient information becomes available to determine a reasonable estimate of the fair value of the retirement activities to be performed. Expected obligations are not included in the above table because the amounts and timing are dependent upon several variables, which cannot be accurately estimated.

Uncertain tax positions – We have uncertain tax positions of $18,217. Although we believe our tax positions comply with applicable law, we have made judgments as to the sustainability of each uncertain tax position based on its technical merits. Due to the uncertainty of future cash outflows, if any, associated with our uncertain tax positions, we are unable to make a reasonable estimate of the timing or amounts that may be paid. See Note 7 – *Income Taxes* in this Annual Report for further information on our uncertain tax positions.

We will fund these contractual obligations with cash flows from operations and liquidity sources held by or available to us.

The Company is routinely involved in legal matters, including both asserted and unasserted legal claims, during the ordinary course of business. See Note 9 – *Commitments and Contingencies* in this Annual Report for a discussion of the Company's legal matters. It is not always possible for management to make a meaningful estimate of the potential loss or range of loss associated with such litigation. Also, unanticipated changes in circumstances and/or revisions to the assessed probability of the outcomes of legal matters could result in expenses being incurred in future periods as well as an increase in actual cash required to resolve the legal matter.

(In thousands of dollars, except per share amounts)

Capitalization
The following table summarizes our capitalization as of December 31, 2022 and 2021:

December 31,	2022	2021
Long-term debt (1)	55.2%	53.4%
Essential Utilities stockholders' equity	44.8%	46.6%
	100.0%	100.0%

(1) Includes current portion, as well as our borrowings under a variable rate revolving credit agreement of $490,000 at December 31, 2022, and $300,000 at December 31, 2021.

Over the past two years, the changes in the capitalization ratios primarily resulted from the issuance of debt to finance our acquisitions and capital program, changes in net income, the issuance of common stock, and the declaration of dividends.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our financial condition and results of operations are impacted by the methods, assumptions, and estimates used in the application of critical accounting policies. The following accounting policies are particularly important to our financial condition or results of operations and require estimates or other judgments of matters of uncertainty. Changes in the estimates or other judgments included within these accounting policies could result in a significant change to the financial statements. We believe our most critical accounting policies include the use of regulatory assets and liabilities, revenue recognition, the valuation of our long-lived assets (which consist primarily of utility plant in service, regulatory assets, and goodwill), our accounting for post-retirement benefits, and our accounting for income taxes. We have discussed the selection and development of our critical accounting policies and estimates with the Audit Committee of the Board of Directors.

Regulatory Assets and Liabilities ─ We defer costs and credits on the balance sheet as regulatory assets and liabilities when it is probable that these costs and credits will be recognized in the rate-making process in a period different from when the costs and credits were incurred. These deferred amounts, both assets and liabilities, are then recognized in the consolidated statement of operations in the same period that they are reflected in our rates charged for utility service. We make significant judgments and estimates to record regulatory assets and liabilities, such as for amounts related to income taxes, pension and postretirement benefits, acquisitions and capital projects. For each regulatory jurisdiction with regulated operations, we evaluate at the end of each reporting period, whether the regulatory assets and liabilities continue to meet the probable criteria for future recovery or refund. The evaluation considers factors such as regulatory orders or guidelines, in the same regulatory jurisdiction, of a specific matter or a similar matter, as provided to us in the past or to other regulated utilities. In addition, the evaluation may be impacted by changes in the regulatory environment and pending or new legislation that could impact the ability to recover costs through regulated rates. There may be multiple participants to rate or transactional regulatory proceedings who might offer different views on various aspects of such proceedings, and in these instances may challenge our prudence of business policies and practices, seek cost disallowances or request other relief.

In the event that our assessment as to the probability of the inclusion in the rate-making process is incorrect, the associated regulatory asset or liability would be adjusted to reflect the change in our assessment or change in regulatory approval.

Revenue Recognition ─ Our utility revenues recognized in an accounting period include amounts billed to customers on a cycle basis and unbilled amounts based on estimated usage from the last billing to the end of the accounting period. The estimated usage is based on our judgment and assumptions; our actual results could differ from these estimates, which would result in operating revenues being adjusted in the period that the revision to our estimates is determined.
In Virginia, North Carolina, and Kentucky, we may bill our utility customers, in certain circumstances, in accordance with a rate filing that is pending before the respective regulatory commission, which would allow interim rates before the final commission rate order is issued. The revenue recognized reflects an estimate based on our judgment of the final outcome of the commission’s ruling. We monitor the applicable facts and circumstances regularly and revise the estimate as

(In thousands of dollars, except per share amounts)

required. The revenue billed and collected prior to the final ruling is subject to refund based on the commission's final ruling.

Valuation of Long-Lived Assets, Goodwill and Intangible Assets ─ We review our long-lived assets for impairment, including utility plant in service and investment in joint venture. We also review regulatory assets for the continued application of the FASB accounting guidance for regulated operations. Our review determines whether there have been changes in circumstances or events, such as regulatory disallowances, or abandonments, that have occurred that require adjustments to the carrying value of these assets. Adjustments to the carrying value of these assets would be made in instances where their inclusion in the rate-making process is unlikely. For utility plant in service, we would recognize an impairment loss for any amount disallowed by the respective utility commission.

Our long-lived assets, which consist primarily of utility plant in service, operating lease right-of-use assets and intangible assets, are reviewed for impairment when changes in circumstances or events occur. These circumstances or events could include a decline in the market value or physical condition of a long-lived asset, an adverse change in the manner in which long-lived assets are used or planned to be used, a change in historical trends, operating cash flows associated with the long-lived assets, changes in macroeconomic conditions, industry and market conditions, or overall financial performance. When these circumstances or events occur, we determine whether it is more likely than not that the fair value of those assets is less than their carrying amount. If we determine that it is more likely than not (that is, the likelihood of more than 50 percent), we would recognize an impairment charge if it is determined that the carrying amount of an asset exceeds the sum of the undiscounted estimated cash flows. In this circumstance, we would recognize an impairment charge equal to the difference between the carrying amount and the fair value of the asset. Fair value is estimated to be the present value of future net cash flows associated with the asset, discounted using a discount rate commensurate with the risk and remaining life of the asset. This assessment requires significant management judgment and estimates that are based on budgets, general strategic business plans, historical trends and other data and relevant factors. These estimates include significant inherent uncertainties, since they involve forecasting future events. If changes in circumstances or events occur, or estimates and assumptions that were used in this review are changed, we may be required to record an impairment charge on our long-lived assets. Refer to Note 1 – *Summary of Significant Accounting Policies – Impairment of Long-Lived Assets* in this Annual Report for additional information regarding the review of long-lived assets for impairment.

We test the goodwill attributable for each of our reporting units for impairment at least annually, or more often, if circumstances indicate a possible impairment may exist. When testing goodwill for impairment, we may assess qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, and entity specific events, for some or all of our reporting units to determine whether it's more likely than not that the fair value of a reporting unit is less than its carrying amount. Alternatively, based on our assessment of the qualitative factors previously noted, or at our discretion, we may perform a quantitative goodwill impairment test by determining the fair value of a reporting unit by weighting the results from the income approach and the market approach. These valuation approaches consider a number of factors that include, but are not limited to, prospective financial information, growth rates, terminal value, discount rates, and comparable multiples from publicly traded companies in our industry and require us to make certain assumptions and estimates regarding industry economic factors and future profitability of our business. If we perform a quantitative test and determine that the fair value of a reporting unit is less than its carrying amount, we would record an impairment loss for the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill. The assessment requires significant management judgment and estimates that are based on budgets, general strategic business plans, historical trends and other data and relevant factors. If changes in circumstances or events occur, or estimates and assumptions that were used in our impairment test change, we may be required to record an impairment charge for goodwill. Refer to Note 1 – *Summary of Significant Accounting Policies – Goodwill* in this Annual Report for further information.

In 2022, we changed our annual goodwill impairment test date from July 31 to October 1, which is a change in accounting principle that management believes is preferable as the new test date better aligns with our long-term planning and forecasting process. The change did not delay, accelerate or avoid an impairment charge nor did it change our requirement to assess goodwill on an interim date between scheduled annual testing dates if triggering events are present. To ensure that no lapse in an assessment occurred since the prior period, we performed an impairment test as of July 31, 2022, during the third quarter of 2022 for all reporting units and noted no impairment.

(In thousands of dollars, except per share amounts)

During the fourth quarter of 2022, as part of the October 1, 2022 annual goodwill assessment, we elected to perform a quantitative goodwill impairment assessment on the goodwill attributable to our Regulated Natural Gas reporting unit and a qualitative assessment for our Regulated Water and Other reporting units. Based on our analysis, we determined that none of the goodwill of our reporting units was impaired. The headroom, which we defined as the percentage difference between the excess of fair value over carrying value, of our Regulated Natural Gas reporting unit was 15% as of the date of the most recent estimated fair value determination. We generally assumed operating margins in future years would increase as we continue to integrate and implement our rate base growth strategy. However, if overall market conditions further deteriorate, or market interest rates increase, future non-cash impairment charges may result which could be material. If we were to assume changes in certain of our key assumptions used to determine the fair value of our Regulated Gas reporting unit, the following would be the effect on headroom:

Sensitivity Analysis[1]	Percentage points (ppts) decrease in Regulated Gas Reporting Unit Headroom
Increase in discount rate by 100 basis points	6 ppts
Decrease in Market Multiples by 1x	7 ppts
Reduction in terminal value EBITDA[2] by 10%	8 ppts

[1] Each assumption used in the sensitivity analysis is independent of the other assumptions

[2] Defined as earnings before interest, taxes, depreciation and amortization

Accounting for Post-Retirement Benefits ─ We maintain a qualified and a non-qualified defined benefit pension plan and plans that provide for post-retirement benefits other than pensions. Accounting for pension and other post-retirement benefits requires an extensive use of assumptions including the discount rate, expected return on plan assets, the rate of future compensation increases received by our employees, mortality, turnover and medical costs. Each assumption is reviewed annually with assistance from our actuarial consultant, who provides guidance in establishing the assumptions. The assumptions are selected to represent the average expected experience over time and may differ in any one year from actual experience due to changes in capital markets and the overall economy. These differences will impact the amount of pension and other post-retirement benefits expense that we recognize.

Our discount rate assumption, which is used to calculate the present value of the projected benefit payments of our post-retirement benefits, was determined by selecting a hypothetical portfolio of high quality corporate bonds appropriate to match the projected benefit payments of the plans. The selected bond portfolio was derived from a universe of Aa-graded corporate bonds. The discount rate was then developed as the rate that equates the market value of the bonds purchased to the discounted value of the projected benefit payments of the plans. A decrease in the discount rate would generally increase our post-retirement benefits expense and benefit obligation. After reviewing the hypothetical portfolio of bonds, we selected a discount rate of 5.51% for our pension plan, and 5.45% for our other post-retirement benefit plans as of December 31, 2022, which represent a 260 and 249 basis-point increase as compared to the discount rates selected at December 31, 2021, respectively. Our post-retirement benefits expense under these plans is determined using the discount rate as of the beginning of the year, which was 2.91% for our pension plan and 2.96% for our other-postretirement benefit plan for 2022. As of September 30, 2022, settlement accounting was triggered by the amount of lump-sum payments by our qualified pension plan to retirees and other separated employees exceeding the threshold of service and interest cost for the period. As a result, we remeasured our qualified pension plan assets and liabilities using a discount rate of 5.58%, and the remeasurement did not have a material impact to our consolidated financial statements.

Our expected return on plan assets is determined by evaluating the asset class return expectations with our advisors as well as actual, long-term, historical results of our asset returns. The Company's market-related value of plan assets is equal to the fair value of the plans' assets as of the last day of its fiscal year and is a determinant for the expected return on plan assets, which is a component of post-retirement benefits expense. The allocation of our plans' assets impacts our expected return on plan assets. The expected return on plan assets is based on a targeted allocation of 50% to 70% return seeking assets and 30% to 50% liability hedging assets. Our post-retirement benefits expense increases as the expected return on plan assets decreases. We believe that our actual long-term asset allocations on average will approximate our targeted allocations. Our targeted allocations are driven by our investment strategy to earn a reasonable rate of return

while maintaining risk at acceptable levels through the diversification of investments across and within various asset categories. For 2022, we used a 5.4% expected return on plan assets assumption, and are currently reviewing this assumption for 2023 and expect it may remain unchanged in 2023.

Funding requirements for qualified defined benefit pension plans are determined by government regulations and not by accounting pronouncements. In accordance with funding rules and our funding policy, during 2023 our pension contribution is expected to be $20,343. Future years' contributions will be subject to economic conditions, plan participant data and the funding rules in effect at such time as the funding calculations are performed, though we expect future changes in the amount of contributions and expense recognized to be generally included in customer rates.

Accounting for Income Taxes ─ We estimate the amount of income tax payable or refundable for the current year and the deferred income tax liabilities and assets that results from estimating temporary differences resulting from the treatment of specific items, such as depreciation, for tax and financial statement reporting. Generally, these differences result in the recognition of a deferred tax asset or liability on our consolidated balance sheet and require us to make judgments regarding the probability of the ultimate tax impact of the various transactions we enter into. Based on these judgments, we may record tax reserves or adjustments to valuation allowances on deferred tax assets to reflect the expected realization of future tax benefits. Actual income taxes could vary from these estimates and changes in these estimates can increase income tax expense in the period that these changes in estimates occur.

Our determination of what qualifies as a capital cost versus a tax deduction, for qualifying utility asset improvements, as it relates to our income tax accounting method, is subject to subsequent adjustment as well as IRS audits, changes in income tax laws, including regulations regarding tax-basis depreciation as it applies to our capital expenditures, or qualifying utility asset improvements, the expiration of a statute of limitations, or other unforeseen matters could impact the tax benefits that have already been recognized. We establish reserves for uncertain tax positions based upon management's judgment as to the sustainability of these positions. These accounting estimates related to the uncertain tax position reserve require judgments to be made as to the sustainability of each uncertain tax position based on its technical merits. We believe our tax positions comply with applicable law and that we have adequately recorded reserves as required. However, to the extent the final tax outcome of these matters is different than our estimates recorded, we would then need to adjust our tax reserves which could result in additional income tax expense or benefits in the period that this information is known.

IMPACT OF RECENT ACCOUNTING PRONOUNCEMENTS

We describe the impact of recent accounting pronouncements in Note 1 – *Summary of Significant Accounting Policies* in this Annual Report.

Item 7A. *Quantitative and Qualitative Disclosures About Market Risk*

We are subject to market risks in the normal course of business, including changes in interest rates, gas commodity prices and equity prices. Volatile equity market conditions arising from the COVID-19 pandemic and global uncertainties associated with the current conflict in Ukraine and sanctions imposed in response to this conflict, may result in our pension and other post-retirement plans' assets market values suffering a decline, which could increase our required cash contributions to the plans and expense in subsequent years. The exposure to changes in interest rates is a result of financings through the issuance of fixed rate long-term debt. Such exposure is typically related to financings between utility rate increases, since generally our rate increases include a revenue level to allow recovery of our current cost of capital. Interest rate risk is managed through the use of a combination of long-term debt, which is at fixed interest rates; short-term debt, which is at floating interest rates; and at times in the past interest rate swap agreements. As of December 31, 2022, the debt maturities by period, in thousands of dollars, and the weighted average interest rate for long-term debt are as follows:

	2023	2024	2025	2026	2027	Thereafter	Total	Fair Value
Long-term debt:								
Fixed rate	$ 199,356	71,785	149,560	21,605	239,907	5,445,182	$ 6,127,395	$ 5,038,131
Variable rate					490,000		490,000	490,000
Total	$ 199,356	$ 71,785	$ 149,560	$ 21,605	$ 729,907	$ 5,445,182	$ 6,617,395	$ 5,528,131
Weighted average interest rate	4.08%	4.23%	4.98%	7.37%	5.29%	3.55%	3.94%	

From time to time, we make investments in marketable equity securities. As a result, we are exposed to the risk of changes in equity prices for the marketable equity securities. As of December 31, 2022, we have assets of, in thousands of dollars, $24,962 to fund our deferred compensation and non-qualified pension plan liabilities. The market risk of the deferred compensation plan assets are borne by the participants in the deferred compensation plan.

Our natural gas commodity price risk, driven mainly by price fluctuations of natural gas, is mitigated by our purchased-gas cost adjustment mechanisms. We also use derivative instruments to economically hedge the cost of anticipated natural gas purchases during the winter heating months that seeks to offset the risk to our customers from upward market price volatility. These instruments include requirements contracts and spot purchase contracts to meet our regulated customers' natural gas requirements and these instruments may have fixed or variable pricing. The variable price contracts qualify as derivative instruments; however, because the contract price is the prevailing price at the future transaction date the contract has no determinable fair value. The fixed price contracts and firm commitments to purchase a fixed quantity of gas in the future qualify for the normal purchases and normal sales exception that is allowed for contracts that are probable of delivery in the normal course of business and, as such, are accounted for under the accrual basis and not recorded at fair value in the Company's consolidated financial statements. We also manage gas commodity price risk and supply risk by injecting natural gas into storage during the summer months and withdrawing the natural gas during the winter heating season.

Item 8. *Financial Statements and Supplementary Data*

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Essential Utilities, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets, including the consolidated statements of capitalization, of Essential Utilities, Inc. and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive income, of equity, and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes and schedule of condensed parent company financial statements as of December 31, 2022 and 2021 and for each of the three years in the period ended December 31, 2022 appearing after the signature pages (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accounting for Rate Regulation

As described in Notes 1 and 6 to the consolidated financial statements, most of the operating companies of the Company that are regulated public utilities are subject to regulation by the utility commissions of the states in which they operate. Some of the operating companies that are regulated public utilities are subject to rate regulation by county or city government. As of December 31, 2022, regulatory assets were $1.4 billion and regulatory liabilities were $0.8 billion. Regulated public utilities follow the Financial Accounting Standards Board's accounting guidance for regulated operations, which provides for the recognition of regulatory assets and liabilities as allowed by regulators for costs or credits that are reflected in current rates or are considered probable of being included in future rates. The regulatory assets represent costs that are probable to be fully recovered from customers in future rates while regulatory liabilities represent amounts that are expected to be refunded to customers in future rates or amounts recovered from customers in advance of incurring the costs. The regulatory assets or liabilities are then relieved as the cost or credit is reflected in the Company's rates charged for utility service. If, as a result of a change in circumstances, it is determined that a regulated operating company no longer meets the criteria to apply regulatory accounting, the operating company would have to discontinue regulatory accounting and write-off the respective regulatory assets and liabilities. Management makes significant judgments and estimates to record regulatory assets and liabilities. For each regulatory jurisdiction with regulated operations, management evaluates at the end of each reporting period whether the regulatory assets and liabilities continue to meet the probable criteria for future recovery or refund. The evaluation considers factors such as regulatory orders or guidelines, in the same regulatory jurisdiction, of a specific matter or a similar matter, as provided to the Company in the past or to other regulated utilities. In addition, the evaluation may be impacted by changes in the regulatory environment and pending or new legislation that could impact the ability to recover costs through regulated rates. There may be multiple participants to rate or transactional regulatory proceedings who might offer different views on various aspects of such proceedings and, in these instances, may challenge the prudence of business policies and practices, seek cost disallowances or request other relief.

The principal considerations for our determination that performing procedures relating to management's accounting for rate regulation is a critical audit matter are the significant judgment by management when assessing the impact of regulation on the accounting for regulatory assets and liabilities, which in turn led to a high degree of auditor judgment and effort in performing procedures and in evaluating audit evidence related to whether the regulatory assets will be recovered and liabilities will be refunded.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's evaluation of regulatory matters impacting regulatory assets and liabilities, including controls over the recovery of regulatory assets and the refund of regulatory liabilities. These procedures also included, among others (i) obtaining the Company's correspondence with regulators and assessing the reasonableness of management's judgments regarding the recovery of regulatory assets and refund of regulatory liabilities, (ii) assessing the reasonableness of management's accounting judgments related to new and updated regulatory orders and guidelines, and (iii) testing the calculation of regulatory assets and liabilities based on provisions outlined in regulatory correspondence.

/s/ PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
March 1, 2023

We have served as the Company's auditor since 2000.

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands of dollars, except per share amounts)

	December 31,	
	2022	2021
Assets		
Property, plant and equipment, at cost	$ 13,737,387	12,610,376
Less: accumulated depreciation	2,606,441	2,358,510
Net property, plant and equipment	11,130,946	10,251,866
Current assets:		
Cash and cash equivalents	11,398	10,567
Accounts receivable, net	206,324	141,025
Unbilled revenues	170,504	119,896
Inventory – materials and supplies	46,592	33,756
Inventory – gas stored	153,143	75,804
Current assets held for sale	11,167	-
Prepayments and other current assets	39,759	36,597
Regulatory assets	19,272	20,150
Total current assets	658,159	437,795
Regulatory assets	1,342,753	1,429,840
Deferred charges and other assets, net	166,653	141,955
Funds restricted for construction activity	1,342	1,313
Goodwill	2,340,792	2,340,815
Non-current assets held for sale	32,124	-
Operating lease right-of-use assets	41,734	48,930
Intangible assets	4,604	5,764
Total assets	$ 15,719,107	$ 14,658,278

See accompanying notes to consolidated financial statements.

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS (continued)
(In thousands of dollars, except per share amounts)

	December 31, 2022	December 31, 2021
Liabilities and Equity		
Essential Utilities stockholders' equity:		
Common stock at $0.50 par value, authorized 600,000,000 shares, issued 266,973,321 and 256,102,388 as of December 31, 2022 and December 31, 2021	$ 133,486	$ 128,050
Capital in excess of par value	3,793,262	3,705,814
Retained earnings	1,534,331	1,434,201
Treasury stock, at cost, 3,236,237 and 3,234,765 shares as of December 31, 2022 and December 31, 2021	(83,693)	(83,615)
Total stockholders' equity	5,377,386	5,184,450
Long-term debt, excluding current portion	6,418,039	5,815,211
Less: debt issuance costs	46,982	35,707
Long-term debt, excluding current portion, net of debt issuance costs	6,371,057	5,779,504
Commitments and contingencies (See Note 9)		
Current liabilities:		
Current portion of long-term debt	199,356	132,146
Loans payable	228,500	65,000
Accounts payable	238,843	192,932
Book overdraft	28,694	81,722
Accrued interest	47,063	40,815
Accrued taxes	34,393	37,924
Liabilities related to assets held for sale	3,263	-
Regulatory liabilities	35,276	384
Dividends payable	75,808	-
Other accrued liabilities	130,673	124,140
Total current liabilities	1,021,869	675,063
Deferred credits and other liabilities:		
Deferred income taxes and investment tax credits	1,345,766	1,406,537
Customers' advances for construction	114,732	103,619
Regulatory liabilities	778,754	769,617
Asset retirement obligations	843	1,256
Operating lease liabilities	37,666	48,230
Non-current liabilities related to assets held for sale	974	-
Pension and other postretirement benefit liabilities	31,244	50,226
Other	28,562	43,666
Total deferred credits and other liabilities	2,338,541	2,423,151
Contributions in aid of construction	610,254	596,110
Total liabilities and equity	$ 15,719,107	$ 14,658,278

See accompanying notes to consolidated financial statements.

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME
(In thousands, except per share amounts)

	Years ended December 31,		
	2022	2021	2020
Operating revenues	$ 2,288,032	$ 1,878,144	$ 1,462,698
Operating expenses:			
Operations and maintenance	613,649	550,580	528,611
Purchased gas	601,995	340,262	165,745
Depreciation	315,811	292,191	251,443
Amortization	5,366	5,761	5,616
Taxes other than income taxes	90,024	86,641	76,597
Total operating expenses	1,626,845	1,275,435	1,028,012
Operating income	661,187	602,709	434,686
Other expense (income):			
Interest expense	238,116	207,709	188,435
Interest income	(3,675)	(2,384)	(5,363)
Allowance for funds used during construction	(23,665)	(20,792)	(12,687)
Gain on sale of other assets	(991)	(976)	(661)
Equity loss in joint venture	-	-	3,374
Other	494	(2,848)	(3,383)
Income before income taxes	450,908	422,000	264,971
Income tax benefit	(14,329)	(9,612)	(19,878)
Net income	$ 465,237	$ 431,612	$ 284,849
Comprehensive income	$ 465,237	$ 431,612	$ 284,849
Net income per common share:			
Basic	$ 1.77	$ 1.68	$ 1.14
Diluted	$ 1.77	$ 1.67	$ 1.12
Average common shares outstanding during the period:			
Basic	262,246	257,487	249,768
Diluted	262,868	258,180	254,629

See accompanying notes to consolidated financial statements.

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CAPITALIZATION
(In thousands of dollars, except per share amounts)

		December 31,	
		2022	2021
Essential Utilities stockholders' equity:			
Common stock, $0.50 par value		$ 133,486	$ 128,050
Capital in excess of par value		3,793,262	3,705,814
Retained earnings		1,534,331	1,434,201
Treasury stock, at cost		(83,693)	(83,615)
Total stockholders' equity		5,377,386	5,184,450
Long-term debt of subsidiaries (substantially collateralized by utility plant):			
Interest Rate Range	Maturity Date Range		
0.00% to 0.99%	2023 to 2033	1,875	2,341
1.00% to 1.99%	2023 to 2039	8,369	9,341
2.00% to 2.99%	2022 to 2058	209,755	312,751
3.00% to 3.99%	2022 to 2056	1,351,432	1,359,284
4.00% to 4.99%	2023 to 2059	1,403,313	1,286,024
5.00% to 5.99%	2023 to 2052	14,357	16,119
6.00% to 6.99%	2022 to 2036	31,000	32,475
7.00% to 7.99%	2022 to 2027	28,378	28,980
8.00% to 8.99%	2025	2,116	2,772
9.00% to 9.99%	2026	11,800	11,800
		3,062,395	3,061,887
Notes payable to bank under revolving credit agreement, variable rate, due 2027		490,000	300,000
Unsecured notes payable:			
Amortizing notes at 3.00% due 2022		-	20,470
Notes at 2.40% due 2031		400,000	400,000
Notes at 2.704% due 2030		500,000	500,000
Notes ranging from 3.01% to 3.57%, due 2029 through 2050		1,125,000	1,125,000
Notes at 4.28%, due 2049		500,000	500,000
Notes at 5.30%, due 2052		500,000	-
Notes at 5.95%, due 2023 through 2034		40,000	40,000
Total long-term debt		6,617,395	5,947,357
Current portion of long-term debt		199,356	84,353
Long-term debt, excluding current portion		6,418,039	5,863,004
Less: debt issuance costs		46,982	35,707
Long-term debt, excluding current portion, net of debt issuance costs		6,371,057	5,827,297
Total capitalization		$ 11,748,443	$ 11,011,747

See accompanying notes to consolidated financial statements.

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(In thousands of dollars, except per share amounts)

	Common stock	Capital in excess of par value	Retained earnings	Treasury stock	Total
Balance at December 31, 2019	$ 111,935	$ 2,636,555	$ 1,210,072	$ (77,702)	$ 3,880,860
Net income	-	-	284,849	-	284,849
Dividends declared and paid ($0.97 per share)	-	-	(232,571)	-	(232,571)
Issuance of common stock from private placement (21,661,095 shares)	10,831	718,470	-	-	729,301
Issuance of common stock from stock purchase contracts (2,335,654 shares)	1,168	(1,168)	-	-	-
Issuance of common stock under dividend reinvestment plan (388,978 shares)	194	16,328	-	-	16,522
Repurchase of stock (82,320 shares)	-	-	-	(4,365)	(4,365)
Equity compensation plan (239,512 shares)	120	(120)	-	-	-
Exercise of stock options (74,832 shares)	37	1,552	-	-	1,589
Stock-based compensation	-	8,276	(488)	-	7,788
Other	-	(836)	-	740	(96)
Balance at December 31, 2020	$ 124,285	$ 3,379,057	$ 1,261,862	$ (81,327)	$ 4,683,877
Net income	-	-	431,612	-	431,612
Dividends declared and paid ($1.0378 per share)	-	-	(258,650)	-	(258,650)
Issuance of common stock from stock purchase contracts (127,749 shares)	64	(64)	-	-	-
Issuance of common stock under dividend reinvestment plan (374,824 shares)	187	16,612	-	-	16,799
Issuance of common stock from forward equity sale agreement (6,700,000 shares)	3,350	296,389	-	-	299,739
Repurchase of stock (76,732 shares)	-	-	-	(3,291)	(3,291)
Equity compensation plan (206,163 shares)	103	(103)	-	-	-
Exercise of stock options (122,297 shares)	61	4,111	-	-	4,172
Stock-based compensation	-	9,998	(623)	-	9,375
Other	-	(186)	-	1,003	817
Balance at December 31, 2021	$ 128,050	$ 3,705,814	$ 1,434,201	$ (83,615)	$ 5,184,450
Net income	-		465,237	-	465,237
Dividends declared and paid ($1.1104 per share)	-		(288,632)	-	(288,632)
Dividends of March 1, 2023 declared ($0.287 per share)	-		(75,808)	-	(75,808)
Issuance of common stock from stock purchase contracts (9,029,461 shares)	4,515	(4,515)	-	-	-
Issuance of common stock under dividend reinvestment plan (368,278 shares)	184	16,435	-	-	16,619
Issuance of common stock from at-the-market sale agreements (1,321,994 shares)	661	62,379	-	-	63,040
Repurchase of stock (25,037 shares)	-	-	-	(1,192)	(1,192)
Equity compensation plan (81,516 shares)	41	(41)	-	-	-
Exercise of stock options (69,684 shares)	35	2,440	-	-	2,475
Stock-based compensation	-	12,094	(667)	-	11,427
Other	-	(1,344)		1,114	(230)
Balance at December 31, 2022	$ 133,486	$ 3,793,262	$ 1,534,331	$ (83,693)	$ 5,377,386

See accompanying notes to consolidated financial statements.

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands of dollars, except per share amounts)

	Years ended December 31,		
	2022	2021	2020
Cash flows from operating activities:			
Net income	$ 465,237	$ 431,612	$ 284,849
Adjustments to reconcile net income to net cash flows from operating activities:			
Depreciation and amortization	321,177	297,952	257,059
Deferred income taxes	(23,045)	(8,514)	(17,782)
Provision for doubtful accounts	27,631	27,336	32,325
Stock-based compensation	12,206	10,078	8,160
Gain on sale of utility system and other assets	(991)	(1,589)	(642)
Net change in receivables, deferred purchased gas costs, inventory and prepayments	(223,335)	(109,605)	(35,348)
Net change in payables, accrued interest, accrued taxes and other accrued liabilities	53,761	5,190	(1,819)
Pension and other postretirement benefits contributions	(22,027)	(15,135)	(20,282)
Other	(10,308)	7,354	1,504
Net cash flows from operating activities	600,306	644,679	508,024
Cash flows from investing activities:			
Property, plant and equipment additions, including the debt component of allowance for funds used during construction of $6,047, $4,510 and $4,434	(1,062,763)	(1,020,519)	(835,642)
Acquisitions of utility systems and other, net	(116,891)	(36,326)	(3,501,835)
Net proceeds from the sale of utility systems and other assets	1,081	1,819	2,115
Other	271	(1,032)	1,696
Net cash flows used in investing activities	(1,178,302)	(1,056,058)	(4,333,666)
Cash flows from financing activities:			
Customers' advances and contributions in aid of construction	11,714	15,264	9,585
Repayments of customers' advances	(5,006)	(7,725)	(8,337)
Net proceeds (repayments) of short-term debt	163,500	(13,350)	(129,407)
Proceeds from long-term debt	1,646,742	1,095,171	3,366,838
Repayments of long-term debt	(977,175)	(769,546)	(1,820,571)
Change in cash overdraft position	(53,028)	37,719	33,059
Proceeds from issuance of common stock under dividend reinvestment plan	16,619	16,799	16,522
Proceeds from issuance of common stock from private placement	-	-	729,301
Proceeds from issuance of common stock from forward equity sale agreement	-	299,739	-
Proceeds from issuance of common stock from at-the-market sale agreement	63,040	-	-
Proceeds from exercised stock options	2,475	4,172	1,589
Repurchase of common stock	(1,192)	(3,291)	(4,365)
Dividends paid on common stock	(288,632)	(258,650)	(232,571)
Other	(230)	817	(96)
Net cash flows from financing activities	578,827	417,119	1,961,547
Net increase (decrease) in cash and cash equivalents	831	5,740	(1,864,095)
Cash and cash equivalents at beginning of year	10,567	4,827	1,868,922
Cash and cash equivalents at end of year	$ 11,398	$ 10,567	$ 4,827
Cash paid during the year for:			
Interest, net of amounts capitalized	$ 225,820	$ 201,792	$ 169,048
Income taxes	11,269	5,692	4,853
Non-cash investing activities:			
Property, plant and equipment additions purchased at the period end, but not yet paid	$ 102,129	$ 95,945	$ 98,569
Non-cash utility property contributions	35,698	36,882	36,181

See accompanying notes to consolidated financial statements.

Refer to Note 2 – *Acquisitions*, Note 11 – *Long-term Debt and Loans Payable*, and Note 15 – *Employee Stock and Incentive Plan* for a description of non-cash activities.

Note 1 – *Summary of Significant Accounting Policies*

Nature of Operations ─ Essential Utilities, Inc. ("Essential Utilities," the "Company," "we," "our", or "us") is the holding company for regulated utilities providing water, wastewater, or natural gas services concentrated in Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, Virginia, West Virginia, and Kentucky under the Aqua and Peoples brands. One of our largest operating subsidiaries is Aqua Pennsylvania, Inc., which accounted for approximately 56% of our Regulated Water segment's operating revenues and approximately 73% of our Regulated Water segment's income for 2022. As of December 31, 2022, Aqua Pennsylvania provided water or wastewater services to approximately one-half of the total number of Regulated Water customers we serve. Aqua Pennsylvania's service territory is located in the suburban areas north and west of the City of Philadelphia and in 27 other counties in Pennsylvania. The Company's other regulated water or wastewater utility subsidiaries provide similar services in seven additional states. Additionally, commencing on March 16, 2020 with the completion of the Peoples Gas Acquisition, the Company began to provide natural gas distribution services to customers in western Pennsylvania, Kentucky, and West Virginia. Approximately 93% of the total number of natural gas utility customers we serve are in western Pennsylvania. In December 2022, the Company entered into a definitive agreement to sell its regulated natural gas utility assets in West Virginia, which serve approximately 13,000 customers. This sale is conditioned on regulatory approval and is expected to close in mid-2023. The completion of this transaction will conclude our regulated utility operations in West Virginia. Lastly, the Company's market-based activities are conducted through Aqua Infrastructure LLC, and Aqua Resources, Inc., and certain other non-regulated subsidiaries of Peoples. Prior to our October 2020 sale of our investment in a joint venture, Aqua Infrastructure provided non-utility raw water supply services for firms in the natural gas drilling industry. Aqua Resources offers, through a third-party, water and sewer line protection solutions and repair services to households. Other non-regulated subsidiaries of Peoples provide utility service line protection services to households and operate gas marketing and production businesses.

Regulation ─ Most of the operating companies that are regulated public utilities are subject to regulation by the utility commissions of the states in which they operate. The respective utility commissions have jurisdiction with respect to rates, service, accounting procedures, issuance of securities, acquisitions and other matters. Some of the operating companies that are regulated public utilities are subject to rate regulation by county or city government. Regulated public utilities follow the Financial Accounting Standards Board's ("FASB") accounting guidance for regulated operations, which provides for the recognition of regulatory assets and liabilities as allowed by regulators for costs or credits that are reflected in current rates or are considered probable of being included in future rates. Costs, for which the Company has received or expects to receive prospective rate recovery, are deferred as a regulatory asset and amortized over the period of rate recovery in accordance with the FASB's accounting guidance for regulated operations. The regulatory assets or liabilities are then relieved as the cost or credit is reflected in Company's rates charged for utility service. If, as a result of a change in circumstances, it is determined that a regulated operating company no longer meets the criteria to apply regulatory accounting, the operating company would have to discontinue regulatory accounting and write-off the respective regulatory assets and liabilities. See Note 6 - *Regulatory Assets and Liabilities* for further information regarding the Company's regulatory assets.

The Company makes significant judgments and estimates to record regulatory assets and liabilities. For each regulatory jurisdiction with regulated operations, the Company evaluates at the end of each reporting period, whether the regulatory assets and liabilities continue to meet the probable criteria for future recovery or refund. The evaluation considers factors such as regulatory orders or guidelines, in the same regulatory jurisdiction, of a specific matter or a similar matter, as provided to the Company in the past or to other regulated utilities. In addition, the evaluation may be impacted by changes in the regulatory environment and pending or new legislation that could impact the ability to recover costs through regulated rates. There may be multiple participants to rate or transactional regulatory proceedings who might offer different views on various aspects of such proceedings, and in these instances, may challenge the prudence of our business policies and practices, seek cost disallowances or request other relief.

Use of Estimates in Preparation of Consolidated Financial Statements ─ The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Basis of Presentation – The consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany accounts and transactions have been eliminated.

Property, Plant and Equipment and Depreciation ─ Property, plant and equipment consist primarily of utility plant. The cost of additions includes contracted cost, direct labor and fringe benefits, materials, overheads, and for additions meeting certain criteria, allowance for funds used during construction. Utility systems acquired are typically recorded at estimated original cost of utility plant when first devoted to utility service and the applicable depreciation is recorded to accumulated depreciation. Further, utility systems acquired under fair value regulations would be recorded based on the valuation of the utility plant as approved by the respective utility commission. The difference between the estimated original cost, less applicable accumulated depreciation, and the purchase price may be recorded as an acquisition adjustment within utility plant as permitted by the applicable regulatory jurisdiction. At December 31, 2022 and 2021, utility plant includes a net credit acquisition adjustment of $6,076 and $9,055, respectively, which is generally being amortized from 10 to 53 years. Amortization of the acquisition adjustments totaled $2,788 in 2022, $2,842 in 2021, and $2,895 in 2020.

Utility expenditures for maintenance and repairs, including major maintenance projects and minor renewals, are charged to operating expenses when incurred in accordance with the system of accounts prescribed by the utility commissions of the states in which the company operates. The cost of new units of property and betterments are capitalized. Utility expenditures for water main cleaning and relining of pipes are deferred and are presented in net property, plant and equipment in accordance with the FASB's accounting guidance for regulated operations. As of December 31, 2022, $1,635 of these costs have been incurred since the last respective rate proceeding and the Company expects to recover these costs in future rates.

The cost of software upgrades and enhancements are capitalized if they result in added functionality, which enables the software to perform tasks it was previously incapable of performing. Information technology costs associated with major system installations, conversions and improvements, such as software training, data conversion and business process reengineering costs, are deferred as a regulatory asset if the Company expects to recover these costs in future rates. If these costs are not deferred, then these costs are charged to operating expenses when incurred. As of December 31, 2022, $41,400 of these costs have been deferred since the last respective rate proceeding as a regulatory asset, and the deferral is reported as a component of net property, plant and equipment.

When units of utility property are replaced, retired or abandoned, the recorded value thereof is credited to the asset account and such value, together with the net cost of removal, is charged to accumulated depreciation. To the extent the Company anticipates recovery of the cost of removal or other retirement costs through rates after the retirement costs are incurred, a regulatory asset is recorded as those costs are incurred. In some cases, the Company recovers retirement costs through rates during the life of the associated asset and before the costs are incurred. These amounts, which are not yet utilized, result in a regulatory liability being reported based on the amounts previously recovered through customer rates.

The straight-line remaining life method is used to compute depreciation on utility plant. Generally, the straight-line method is used with respect to transportation and mechanical equipment, office equipment and laboratory equipment.

Impairment of Long-Lived Assets - Long-lived assets of the Company, which consist primarily of utility plant in service, operating lease right-of-use assets and intangible assets, are reviewed for impairment when changes in circumstances or events occur. These circumstances or events could include a decline in the market value or physical condition of a long-lived asset, an adverse change in the manner in which long-lived assets are used or planned to be used, a change in historical trends, operating cash flows associated with the long-lived assets, changes in macroeconomic conditions, industry and market conditions, or overall financial performance. When these circumstances or events occur, the Company determines whether it is more likely than not that the fair value of those assets is less than their carrying

amount. If the Company determines that it is more likely than not (that is, the likelihood of more than 50 percent), the Company would recognize an impairment charge if it is determined that the carrying amount of an asset exceeds the sum of the undiscounted estimated cash flows. In this circumstance, the Company would recognize an impairment charge equal to the difference between the carrying amount and the fair value of the asset. Fair value is estimated to be the present value of future net cash flows associated with the asset, discounted using a discount rate commensurate with the risk and remaining life of the asset. During the years ended December 31, 2022 and 2021, the Company recorded an impairment loss to write down a portion of the operating lease right-of-use asset for office space not used in operations to fair value. Refer to Note 10 – *Leases*, for further details.

Regulatory assets are reviewed for the continued application of the FASB accounting guidance for regulated operations. The Company's review determines whether there have been changes in circumstances or events, such as regulatory disallowances, or abandonments, that have occurred that require adjustments to the carrying value of these assets. Adjustments to the carrying value of these assets would be made in instances where their inclusion in the rate-making process is unlikely. For utility plant in service, we would recognize an impairment loss for any amount disallowed by the respective utility commission.

Allowance for Funds Used During Construction ─ The allowance for funds used during construction ("AFUDC") represents the capitalized cost of funds used to finance the construction of utility plant. In general, AFUDC is applied to construction projects requiring more than one month to complete. No AFUDC is applied to projects funded by customer advances for construction, contributions in aid of construction, or applicable state-revolving fund loans. AFUDC includes the net cost of borrowed funds and a rate of return on other funds when used and is recovered through rates as the utility plant is depreciated. The amount of AFUDC related to equity funds in 2022 was $17,618, 2021 was $16,282, and 2020 was $8,253. No interest was capitalized by our market-based businesses.

Lease Accounting ─ The Company evaluates the contracts it enters into to determine whether such contracts contain leases. A contract contains a lease if the contract conveys the right to control the use of identified property, plant or equipment for a period of time in exchange for consideration. We enter into operating lease contracts for the right to utilize certain land, office facilities, office equipment, and vehicles from third parties. For contracts that extend for a period greater than 12 months, we recognize a right of use asset and a corresponding lease liability on our consolidated balance sheet. The present value of each lease is based on the future minimum lease payments in accordance with Accounting Standards Codification ("ASC") 842 and is determined by discounting these payments using an incremental borrowing rate.

Recognition of Revenues ─ The Company recognizes revenue as utility services are provided to our customers, which happens over time as the services are delivered and the performance obligation is satisfied. The Company's utility revenues recognized in an accounting period includes amounts billed to customers on a cycle basis and unbilled amounts based on estimated usage from the last billing to the end of the accounting period. Unbilled amounts are calculated by deriving estimates based on average usage of the prior month. The Company's actual results could differ from these estimates, which would result in operating revenues being adjusted in the period that the revision to our estimates are determined.

Generally, payment is due within 30 days once a bill is issued to a customer. Sales tax and other taxes we collect on behalf of government authorities, concurrent with our revenue-producing activities, are primarily excluded from revenue.

The following table presents our revenues disaggregated by major source and customer class for the years ended December 31,:

2022	Water Revenues	Wastewater Revenues	Natural Gas Revenues	Other Revenues
Revenues from contracts with customers:				
Residential	$ 607,473	$ 122,612	$ 720,490	$ -
Commercial	168,460	30,340	149,653	-
Fire protection	38,970	-	-	-
Industrial	32,581	1,755	5,636	-
Gas transportation	-	-	205,825	-
Other water	55,389	-	-	-
Other wastewater	-	10,676	-	-
Other utility	-	-	61,393	11,478
Revenues from contracts with customers	902,873	165,383	1,142,997	11,478
Alternative revenue program	3,309	(71)	365	-
Other and eliminations	-	-	-	61,698
Consolidated	$ 906,182	$ 165,312	$ 1,143,362	$ 73,176

2021	Water Revenues	Wastewater Revenues	Natural Gas Revenues	Other Revenues
Revenues from contracts with customers:				
Residential	$ 561,996	$ 99,931	$ 530,338	$ -
Commercial	151,071	22,060	99,596	-
Fire protection	35,984	-	-	-
Industrial	30,230	1,729	3,427	-
Gas transportation	-	-	198,195	-
Other water	53,488	-	-	-
Other wastewater	-	8,860	-	-
Customer rate credits	-	-	(5,000)	-
Other utility	-	-	32,812	13,358
Revenues from contracts with customers	832,769	132,580	859,368	13,358
Alternative revenue program	1,760	(264)	534	-
Other and eliminations	-	-	-	38,039
Consolidated	$ 834,529	$ 132,316	$ 859,902	$ 51,397

2020	Water Revenues	Wastewater Revenues	Natural Gas	Other Revenues
Revenues from contracts with customers:				
Residential	$ 567,486	$ 95,051	$ 314,274	$ -
Commercial	143,479	19,062	50,239	-
Fire protection	35,340	-	-	-
Industrial	29,764	1,619	6,923	-
Gas transportation	-	-	133,685	-
Other water	32,372	-	-	-
Other wastewater	-	5,385	-	-
Customer rate credits	(3,757)	(323)	(18,924)	-
Other utility	-	-	20,243	12,861
Revenues from contracts with customers	804,684	120,794	506,440	12,861
Alternative revenue program	87	114	124	-
Other and eliminations	-	-	-	17,594
Consolidated	$ 804,771	$ 120,908	$ 506,564	$ 30,455

On March 16, 2020, the Company completed the Peoples Gas Acquisition, which expanded the Company's regulated utility business to include natural gas distribution. The natural gas revenues of Peoples are included for the period since the date of the acquisition.

Revenues from Contracts with Customers – These revenues are composed of four main categories: water, wastewater, natural gas, and other. Water revenues represent revenues earned for supplying customers with water service. Wastewater revenues represent revenues earned for treating wastewater and releasing it into the environment. Natural gas revenues represent revenues earned for the gas commodity and delivery of natural gas to customers. Other revenues are associated fees that relate to our utility businesses but are not water, wastewater, or natural gas revenues. Refer to the description below for a discussion of the performance obligation for each of these revenue streams.

Tariff Revenues – These revenues are categorized by customer class: residential, commercial, fire protection, industrial, gas transportation, other water, and other wastewater. The rates that generate these revenues are approved by the respective state utility commission, and revenues are billed cyclically and accrued for when unbilled. The regulated natural gas rates are set and adjusted for increases or decreases in our purchased gas costs through purchased gas adjustment mechanisms. Purchased gas adjustment mechanisms provide us with a means to recover purchased gas costs on an ongoing basis without filing a rate case. Other water and other wastewater revenues consists primarily of fines, penalties, surcharges, and availability lot fees. Our performance obligation for tariff revenues is to provide potable water, wastewater treatment service, or delivery and sale of natural gas to customers. This performance obligation is satisfied over time as the services are rendered. The amounts that the Company has a right to invoice for tariff revenues reflect the right to consideration from the customers in an amount that corresponds directly with the value transferred to the customer for the performance completed to date.
Other Utility Revenues – Other utility revenues represent revenues earned primarily from: antenna revenues, which represents fees received from telecommunication operators that have put cellular antennas on our water towers; operation and maintenance and billing contracts, which represent fees earned from municipalities for our operation of their water or wastewater treatment services or performing billing services; and fees earned from developers for accessing our water mains, miscellaneous service revenue from gas distribution operations, gas processing and handling revenue, sales of natural gas at market-based rates and contracted fixed prices, sales of gas purchased from third parties, and other gas marketing activities. The performance obligations vary for these revenues, but all are primarily recognized over time as the service is delivered.

Alternative Revenue Program:

- Water / Wastewater Revenues – These revenues represent the difference between the actual billed utility volumetric water and wastewater revenues for Aqua Illinois and the revenues set in the last Aqua Illinois rate case. In accordance with the Illinois Commerce Commission, we recognize revenues based on the target amount established in the last rate case, and then record either a regulatory asset or liability based on the cumulative annual difference between the target and actual amounts billed, which results in either a payment from customers or a refund due to customers. The cumulative annual difference is either refunded to customers or collected from customers over a nine-month period.

- Natural Gas Revenues – These revenues represent the weather-normalization adjustment ("WNA") mechanism in place for our natural gas customers served in Kentucky. The WNA serves to minimize the effects of weather on the Company's results for its residential and small commercial natural gas customers. This regulatory mechanism adjusts revenues earned for the variance between actual and normal weather and can have either positive (warmer than normal) or negative (colder than normal) effects on revenues. Customer bills are adjusted in the December through April billing months, with rates adjusted for the difference between actual revenues and revenues calculated under this mechanism billed to the customers.

These revenue programs represent a contract between the utility and its regulators, not customers, and therefore are not within the scope of the FASB's accounting guidance for recognizing revenue from contracts with customers.

Other and Eliminations – Other and eliminations consist of our market-based revenues, which comprises: our non-regulated natural gas operations, Aqua Infrastructure, and Aqua Resources (described below), and intercompany eliminations for revenue billed between our subsidiaries. Our non-regulated natural gas operations consist of utility service line protection solutions and repair services for households and the operation of gas marketing and production entities. Revenue is recognized and the performance obligation is satisfied over time as the service is delivered.

Aqua Infrastructure is the holding company for our former 49% investment in a joint venture that operated a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale of north central Pennsylvania. Prior to our October 30, 2020 sale of our investment in the joint venture, the joint venture earned revenues through providing non-utility raw water supply services to natural gas drilling companies which enter into water supply contracts. The performance obligation was to deliver non-potable water to the joint venture's customers. Aqua Infrastructure's share of the revenues recognized by the joint venture was reflected, net, in equity earnings in joint venture on our consolidated statements of operations and comprehensive income. Aqua Resources earned revenues by providing non-regulated water and wastewater services through an operating and maintenance contract, which concluded in 2020, and continues to earn revenue through third-party water and sewer service line protection and repair services. For the contract operations and maintenance business, the performance obligations were performing agreed upon contract services to operate the water and wastewater system. For the service line protection business, the performance obligations are allowing the use of our logo to a third-party water and sewer service line repair provider. Revenues are primarily recognized over time as service is delivered.

Cash and Cash Equivalents ─ The Company considers all highly liquid investments with an original maturity of three months or less, which are not restricted for construction activity, to be cash equivalents.

The Company had a book overdraft, which represents transactions that have not cleared the bank accounts at the end of the period, for specific disbursement cash accounts of $28,694 and $81,722 at December 31, 2022 and 2021, respectively. The Company transfers cash on an as-needed basis to fund these items as they clear the bank in subsequent periods. The balance of the book overdraft is reported as book overdraft and the change in the book overdraft balance is reported as cash flows from financing activities, due to our ability to fund the overdraft with the Company's credit facility.

Accounts Receivable ─ Accounts receivable are recorded at the invoiced amounts, which consists of billed and unbilled revenues. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in our existing accounts receivable and is determined based on lifetime expected credit losses and the aging of account balances. The Company reviews the allowance for doubtful accounts quarterly. Account balances are written off against the allowance when it is probable the receivable will not be recovered. When utility customers request extended payment terms, credit is extended based on regulatory guidelines, and collateral is not required.

Inventories – Materials and Supplies – Inventories are stated at cost. Cost is determined using the first-in, first-out method.

Inventory – Gas Stored – The Company accounts for gas in storage inventory using the weighted average cost of gas method.

Investment in Joint Venture – The Company used the equity method of accounting to account for our former 49% investment in a joint venture with a firm in the natural gas industry for the construction and operation of a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale in north-central Pennsylvania, which commenced operations in 2012. In 2020, the Company sold its investment in joint venture and recorded a charge of $3,700 associated with the sale. Our share of equity loss in the joint venture was reported in the consolidated statements of operations and comprehensive income as equity loss in joint venture. During 2020, we received distributions of $2,137.

Assets Held for Sale — When the Company makes a decision to sell an asset or to stop some part of its business, the Company assesses if such assets should be classified as an asset held for sale. Assets held for sale are measured at the lower of their carrying amount or fair value less cost to sell. For long-lived assets or disposal groups that are classified as held for sale but do not meet the criteria for discontinued operations, the assets and liabilities are presented separately on the consolidated balance sheet of the initial period in which it is classified as held for sale. The major classes of assets and liabilities classified as held for sale are disclosed in the notes to the consolidated financial statements. See *"Note 3 – Assets Held for Sale and Disposition"*.

Goodwill — Goodwill represents the excess cost over the fair value of net tangible and identifiable intangible assets acquired through acquisitions. Goodwill is not amortized but is tested for impairment annually, or more often, if circumstances indicate a possible impairment may exist. When testing goodwill for impairment, we may assess qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, and entity specific events, for some or all of our reporting units to determine whether it's more likely than not that the fair value of a reporting unit is less than its carrying amount. Alternatively, based on our assessment of the qualitative factors previously noted or at our discretion, we may perform a quantitative goodwill impairment test by determining the fair value of a reporting unit. If we perform a quantitative test and determine that the fair value of a reporting unit is less than its carrying amount, we would record an impairment loss for the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the reporting unit's carrying amount of goodwill.

Impairment testing for goodwill is done at the reporting unit level. A reporting unit is an operating segment or one level below an operating segment (also known as a component). A component of an operating segment is a reporting unit if the component constitutes a business for which discrete financial information is available, and segment management regularly reviews the operating results of that component. We assigned assets and liabilities to each reporting unit based on either specific identification or by using judgment for the remaining assets and liabilities that are not specific to a reporting unit. Goodwill was assigned to the reporting units based on a combination of specific identification and relative fair values.

Determining the fair value of our reporting units involves the use of significant estimates and assumptions and considerable management judgment. We base our fair value estimates on assumptions we believe to be reasonable at the time, but such assumptions are subject to inherent uncertainty. We estimated the fair value of reporting units by weighting results from the market approach and the income approach. These valuation approaches consider a number of factors that include, but are not limited to, prospective financial information, growth rates, terminal value, discount rates, and comparable multiples from publicly traded companies in our industry. Changes in market conditions, changes in the regulatory environment, pending or new legislation that could impact the ability to recover costs through regulated rates or other factors outside of our control, could cause us to change key assumptions and our judgment about a reporting unit's prospects. Similarly, in a specific period, a reporting unit could significantly underperform relative to its historical or projected future operating results. Either situation could result in a meaningfully different estimate of the fair value of our reporting units, and a consequent future impairment charge.

In 2022, we changed the date of our annual goodwill impairment test date from July 31 to October 1, which is a change in accounting principle, that management believes is preferable as the new test date better aligns with our long-term planning and forecasting process. The change did not delay, accelerate or avoid an impairment charge nor did it change our requirement to assess goodwill on an interim date between scheduled annual testing dates if triggering events are present. To ensure that no lapse in an assessment occurred since the prior period, during the third quarter of 2022, we performed qualitative tests as of July 31, 2022, for all reporting units and determined that it was more likely than not that the fair value of each of the reporting unit's fair values exceeded their carrying values at the time of the change in impairment test date.

During the fourth quarter of 2022, as part of the annual goodwill assessment as of October 1, 2022, we elected to perform a quantitative goodwill impairment assessment on the goodwill attributable to our Regulated Natural Gas reporting unit and a qualitative assessment for our Regulated Water and Other reporting units. Based on our analysis, we determined that none of the goodwill of our reporting units was impaired.

The following table summarizes the changes in the Company's goodwill:

	Regulated Water	Regulated Natural Gas	Other	Consolidated
Balance at December 31, 2020	$ 58,659	$ 2,261,047	$ 4,841	$ 2,324,547
Goodwill acquired	-	-	-	-
Measurement period purchase price allocation adjustments	-	16,400	-	16,400
Reclassifications to utility plant acquisition adjustment	(132)	-	-	(132)
Balance at December 31, 2021	58,527	2,277,447	4,841	2,340,815
Goodwill acquired	-	-	-	-
Reclassifications to utility plant acquisition adjustment	(23)	-	-	(23)
Balance at December 31, 2022	$ 58,504	$ 2,277,447	$ 4,841	$ 2,340,792

The measurement period purchase price allocation adjustments resulted from the completion of the Peoples Gas Acquisition on March 16, 2020, which resulted in goodwill of $2,277,447 which was subject to adjustment over the one year measurement period that ended on March 15, 2021. Refer to Note 2 – *Acquisitions* for information about the goodwill attributed to our Regulated Natural Gas segment.

The reclassification of goodwill to utility plant acquisition adjustment results from either a regulatory order or a mechanism approved by the applicable utility commission. A regulatory order may provide for the one-time transfer of certain acquired goodwill. The mechanism provides for the transfer over time, and the recovery through customer rates, of goodwill associated with some acquisitions upon achieving specific objectives.

Intangible assets – The Company's intangible assets consist of customer relationships for our non-regulated natural gas operations, and non-compete agreements with certain former employees of Peoples. These intangible assets are amortized on a straight-line basis over their estimated useful lives of fifteen years for the customer relationships and five years for the non-compete agreements.

Derivative Instruments – The Company's natural gas commodity price risk, driven mainly by price fluctuations of natural gas, is mitigated by its purchased-gas cost adjustment mechanisms. The Company also uses derivative instruments to economically hedge the cost of anticipated natural gas purchases during the winter heating months that seeks to offset the risk to the Company's utility customers from upward market price volatility. These strategies include requirements contracts, spot purchase contracts and underground storage to meet regulated customers' natural gas requirements that may have fixed or variable pricing. The variable price contracts qualify as derivative instruments; however, because the contract price is the prevailing price at the future transaction date the contract has no determinable fair value. The fixed price contracts and firm commitments to purchase a fixed quantity of gas in the future qualify for the normal purchases and normal sales exception that is allowed for contracts that are probable of delivery in the normal course of business and, as such, are accounted for under the accrual basis and are not recorded at fair value in the Company's consolidated financial statements.

Deferred Charges and Other Assets ─ Deferred charges and other assets consist primarily of assets held to compensate employees in the future who participate in the Company's deferred compensation plan, prepaid pension and other post-retirement benefit plans assets, and the non-current portion of Peoples' financing notes receivable, which amounted to $24,962, $43,827 and $63,204 as of December 31, 2022; and $28,576, $25,978, and $65,744 as of December 31, 2021, respectively. The assets of the deferred compensation plan are invested in mutual funds which are carried on the consolidated balance sheet at fair market value, and changes in fair value are included in other expense (income), refer to Note 12 – *Fair Value of Financial Instruments* for further details. Refer to Note 16 – *Pension Plans and Other Post-Retirement Benefit Plans* for further information on the prepaid pension and other post-retirement benefit plan assets.

Pursuant to agreements entered into by Peoples in 2019, Peoples committed to design, construct, and operate over a 20-year period, three onsite natural gas fueled energy plants on customer-owned property in the western Pennsylvania area. Under the provisions of ASC 842, *Leases*, the Company determined that indicators of control over the assets

constructed were not met, as such this failed sale-leaseback transaction was accounted for as a financing arrangement in accordance with ASC Topic 310, *Receivables*. During 2021, when construction was completed and the plants became on-line and began generation activity, the accumulated balance of the projects included in property, plant and equipment of $71,665 was reclassified as a note receivable and included within deferred charges and other assets in the consolidated balance sheet. Amounts becoming due for payment by the customer in the current year are included within prepayments and other current assets in the consolidated balance sheets, which amounted to $2,517 and $2,423 as of December 31, 2022 and 2021, respectively. Interest income is recognized on these financing notes receivable using an imputed interest rate ranging from 3.4% to 4.3% and is recorded as interest income in the consolidated statements of operations and comprehensive income. For the year ended December 31, 2022 and 2021, interest income on financing note receivable amounted to $2,639 and $1,971, respectively.

Income Taxes ─ The Company accounts for some income and expense items in different time periods for financial and tax reporting purposes. Deferred income taxes are provided on specific temporary differences between the tax basis of the assets and liabilities, and the amounts at which they are carried in the consolidated financial statements. The income tax effect of temporary differences not currently included in rates is recorded as deferred taxes with an offsetting regulatory asset or liability. These deferred income taxes are based on the enacted tax rates expected to be in effect when such temporary differences are projected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount more likely than not to be realized. Investment tax credits are deferred and amortized over the estimated useful lives of the related properties. Judgment is required in evaluating the Company's Federal and state tax positions. Despite management's belief that the Company's tax return positions are fully supportable, the Company establishes reserves when it believes that its tax positions are likely to be challenged and it may not fully prevail in these challenges. The Company's provision for income taxes includes interest, penalties and reserves for uncertain tax positions.

Customers' Advances for Construction and Contributions in Aid of Construction ─ Utility mains, other utility property or, in some instances, cash advances to reimburse the Company for its costs to construct utility mains or other utility property, are contributed to the Company by customers, real estate developers and builders in order to extend utility service to their properties. The value of these contributions is recorded as customers' advances for construction. Over time, the amount of non-cash contributed property will vary based on the timing of the contribution of the non-cash property and the volume of non-cash contributed property received in connection with development in our service territories. The Company makes refunds on these advances over a specific period of time based on operating revenues related to the property, or as new customers are connected to and take service from the applicable water main. After all refunds are made, any remaining balance is transferred to contributions in aid of construction for our regulated water business. Contributions in aid of construction include direct non-refundable contributions and the portion of customers' advances for construction that become non-refundable. For our regulated gas business, non-refundable contributions are netted against the cost of the related utility mains or other utility property.

Based on regulatory conventions in states where the Company operates, generally our subsidiaries depreciate contributed property and amortize contributions in aid of construction at the composite rate of the related property. Contributions in aid of construction and customers' advances for construction are deducted from the Company's rate base for rate-making purposes, and therefore, no return is earned on contributed property.

Stock-Based Compensation ─ The Company records compensation expense in the financial statements for stock-based awards based on the grant date fair value of those awards. Stock-based compensation expense includes an estimate for pre-vesting forfeitures and is recognized over the requisite service periods of the awards on either a straight-line basis, or the graded vesting method, which is generally commensurate with the vesting term.

Fair Value Measurements – The Company follows the FASB's accounting guidance for fair value measurements and disclosures, which defines fair value and establishes a framework for using fair value to measure assets and liabilities. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are as follows:

Level 1: unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access;

Level 2: inputs other than Level 1 that are observable, either directly or indirectly, such as quoted market prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in non-active markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; or

Level 3: inputs that are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. Additionally, assets that are measured at fair value using the net asset value ("NAV") per share practical expedient are not classified in the fair value hierarchy. There have been no changes in the valuation techniques used to measure fair value or asset or liability transfers between the levels of the fair value hierarchy for the years ended December 31, 2022 and 2021.

Recent Accounting Pronouncements ─

Pronouncements to be adopted upon the effective date:

In October 2021, the FASB issued accounting guidance on accounting for acquired revenue contracts with customers in a business combination. The guidance specifies for all acquired revenue contracts, regardless of their timing of payment, the circumstances in which the acquirer should recognize contract assets and contract liabilities that are acquired in a business combination, as well as how to measure those contract assets and contract liabilities. The updated accounting guidance is effective for fiscal years beginning after December 15, 2022 with early adoption permitted. The Company adopted this guidance effective January 1, 2023, and will apply it prospectively to business combinations occurring on or after that date.

Pronouncements adopted during the fiscal year:

In August 2020, the FASB issued updated accounting guidance on accounting for convertible instruments and contracts in an entity's own equity. The updated guidance reduces the number of accounting models for convertible debt and convertible preferred stock instruments and makes certain disclosure amendments intended to improve the information provided to users. Additionally, the guidance also amends the derivative guidance for the "own stock" scope exception, which exempts qualifying instruments from being accounted for as derivatives if certain criteria are met. Further, the standard changes the way certain convertible instruments are treated when calculating earnings per share. As permitted, we adopted this updated guidance on January 1, 2022, which did not have a material impact on our consolidated financial statements.

Recently issued accounting standards or pronouncements not disclosed above have been excluded as they are not relevant to the Company.

Note 2 – *Acquisitions*

Peoples Gas Acquisition

On March 16, 2020 (the "Closing Date"), the Company completed the acquisition of Peoples Natural Gas (the "Peoples Gas Acquisition"), which expanded the Company's regulated utility business to include natural gas distribution, serving approximately 750,000 natural gas utility customers in western Pennsylvania, West Virginia, and Kentucky. The Company paid cash consideration of $3,465,344, which was subject to adjustment based upon the terms of the purchase agreement. Purchase price adjustments included the completion of a closing balance sheet, which was provided to the seller, and an adjustment for utility capital expenditures made by the seller during the period between November 1, 2018 and the Closing Date. There was a dispute between the parties regarding this adjustment for utility capital expenditures. In November 2021, the dispute between the parties regarding the adjustment for utility capital expenditures was resolved in accordance with the provisions of the purchase agreement and an inconsequential payment was made between the parties. The purchase price paid by the Company was determined as follows:

Base purchase price	$	4,275,000
Adjustments:		
Estimated change in working capital		43,935
Certain estimated capital expenditures		247,500
Assumption of indebtedness		(1,101,091)
Cash consideration	$	3,465,344

The assumption of $1,101,091 of indebtedness as of the Closing Date, consisted of $920,091 of senior notes and $181,000 of short-term debt. The acquisition was financed through a series of financing transactions which included the issuance of common stock from a public offering and a private placement, a tangible equity unit offering, and short and long-term debt. Refer to Note 11 – *Long-term Debt and Loans Payable,* and Note 13 – *Stockholder's Equity* for further information on these financings.

The Company accounted for the Peoples Gas Acquisition as a business combination using the acquisition method of accounting. The purchase price was allocated to the net tangible and intangible assets based upon their estimated fair values at the date of the acquisition. The purchase price allocation was preliminary and was subject to revision through the end of the measurement period on March 15, 2021. During the first quarter of 2021, the Company recorded an adjustment to increase goodwill by $16,400 primarily reflecting an adjustment to deferred income taxes and the valuation of accounts receivable. Goodwill recorded for the Peoples Gas Acquisition is not expected to be deductible for tax purposes. The following table summarizes the purchase price allocation as of the acquisition date and measurement period adjustments as of March 15, 2021:

	Amounts Previously Recognized as of Acquisition Date (a)	Measurement Period Adjustments	Amounts Recognized as of Acquisition Date (as Adjusted)
Property, plant and equipment, net	$ 2,476,551	$ -	$ 2,476,551
Current assets	242,531	(9,197)	233,334
Regulatory assets	286,751	(22,293)	264,458
Goodwill	2,261,047	16,400	2,277,447
Other long-term assets	75,071	-	75,071
Total assets acquired	5,341,951	(15,090)	5,326,861
Current portion of long-term debt	5,136	-	5,136
Loans payable	181,000	-	181,000
Other current liabilities	186,120	(200)	185,920
Long-term debt	999,460	-	999,460
Deferred income taxes	213,647	(20,522)	193,125
Regulatory liabilities	123,029	6,389	129,418
Other long-term liabilities	168,215	(757)	167,458
Total liabilities assumed	1,876,607	(15,090)	1,861,517
Net assets acquired	$ 3,465,344	$ -	$ 3,465,344

(a) As reported in the Essential Utilities, Inc. Form 10-K for the period ended December 31, 2020.

The fair value of long-term debt was determined based on prevailing market prices for similar debt issuances as of March 16, 2020, which resulted in an adjustment to increase the carrying amount by $84,569. The fair value adjustment is being amortized over the remaining life of the debt.

Goodwill is attributable to the assembled workforce of Peoples, planned growth in new markets, and planned growth in rate base through continued investment in utility infrastructure. Goodwill recorded for the Peoples Gas Acquisition is not expected to be deductible for tax purposes.

The Company incurred transaction-related expenses for the Peoples Gas Acquisition, which consisted of costs recorded as operations and maintenance expenses in the first quarter of 2020 of $25,397, primarily representing expenses associated with investment banking fees, including bridge financing, employee related costs, obtaining regulatory approvals, legal expenses, and integration planning. There were no further transaction-related expenses for the Peoples Gas Acquisition after the first quarter of 2020.

Associated with the approval of the Peoples Gas Acquisition from the Pennsylvania Public Utility Commission, the Company committed to addressing the replacement of gathering pipe over a seven year timeframe for an estimated cost of $120,000, which will be recoverable through customer rates. The Company committed to provide $23,004 of one-time customer rate credits to its Pennsylvania natural gas utility customers and water and wastewater customers served by Aqua Pennsylvania. The Company granted $4,080 of customer rate credits to its water and wastewater customers during the third quarter of 2020, and $18,924 to its natural gas utility customers in the fourth quarter of 2020 to satisfy the $23,004 commitment.

Water and Wastewater Utility Acquisitions – Pending Completion

In January 2023, the Company entered into a purchase agreement to acquire the water utility assets of La Rue, an Ohio municipality, which serves approximately 300 customers for $2,250.

In December 2022, the Company entered into a purchase agreement to acquire the wastewater utility assets of Union Rome Sewer, which serves approximately 5,300 customers in the southeast corner of Lawrence County, Ohio, for $25,500.

In August 2022, the Company entered into a purchase agreement to acquire a portion of the water and wastewater utility assets of the Village of Frankfort, an Illinois municipality, which serves approximately 1,400 customers for $1,400.

In December 2021, the Company entered into a purchase agreement to acquire the water utility assets of the Southern Oaks Water System, which serves approximately 740 customers in Texas for $3,300. In October 2021, the Company entered into a purchase agreement to acquire the wastewater utility assets of the City of Beaver Falls, Pennsylvania which consists of approximately 7,600 customers for $41,250. In July 2021, the Company entered into a purchase agreement to acquire the water utility assets of Shenandoah Borough, Pennsylvania, which consists of approximately 2,930 customers for $12,000. In January 2021, the Company entered into purchase agreement to acquire the wastewater utility system assets of Willistown Township, Pennsylvania, which consist of approximately 2,300 customers for $17,500.

The purchase price for these pending acquisitions are subject to certain adjustments at closing, and are subject to regulatory approval, including the final determination of the fair value of the rate based acquired. We plan to finance the purchase price of these acquisitions by utilizing our revolving credit facility until permanent debt and common equity are secured. These pending acquisitions are expected to close in 2023 and in early 2024. Closing for our utility acquisitions are subject to the timing of the regulatory approval process.

DELCORA Purchase Agreement

In September 2019, the Company entered into a purchase agreement to acquire the wastewater utility system assets of the Delaware County Regional Water Quality Control Authority ("DELCORA"), which consists of approximately 16,000 customers, or the equivalent of 198,000 retail customers, in 42 municipalities in Southeast Pennsylvania for $276,500. In May 2020, Delaware County, Pennsylvania filed a lawsuit alleging that DELCORA does not have the legal authority to establish and fund a customer trust with the net proceeds of the transaction. In December 2020, the judge in the Delaware County Court lawsuit issued an order that (1) the County cannot interfere with the purchase agreement between DELCORA and the Company, (2) the County cannot terminate DELCORA prior to the closing of the transaction, and (3) the establishment of the customer trust was valid. Delaware County appealed this decision to Commonwealth Court of Pennsylvania. On March 3, 2022, the Commonwealth Court issued a decision finding that Delaware County can dissolve the Authority if it so chooses, but the purchase agreement must be upheld regardless of who is operating the system. The case was remanded back to the trial court for the entry of an order consistent with the Commonwealth Court's opinion.
This order was issued on September 8, 2022 ("Remand Order). Since then, the County has challenged the Remand Order through two separate actions:

First, Delaware County filed an Application for Determination of Finality ("Application") on October 13, 2022. The Company filed its opposition to the Application on October 27, 2022, and on November 2, 2022, the Delaware County Court of Common Pleas denied Delaware County's Application for Determination of Finality indicating that its previous order already constituted a final order that addressed the claims of all parties. On December 2, 2022, following the denial of its Application, Delaware County filed a Petition for Permission to Appeal ("Petition") the Remand Order in the Commonwealth Court of Pennsylvania. On December 16, 2022, the Company filed an Answer in opposition to the Petition, and the matter is currently pending before Commonwealth Court.

Second, on November 2, 2022, Delaware County filed a Notice of Appeal ("Notice of Appeal") from the Remand Order. On December 2, 2022, the Delaware County of Common Pleas issued an Opinion concluding that the County Court did not err in issuing the Remand Order. On January 13, 2023, Delaware County filed an Application in Commonwealth Court seeking confirmation of briefing deadlines with respect to the Notice of Appeal. In response, by Order dated January 24, 2023, the Commonwealth Court stated that "the record received from the Court of Common Pleas of Delaware County is currently under review for finality. A briefing schedule will be issued upon completion of this review."

On January 25, 2023, DELCORA filed in the Delaware Court of Common Pleas a complaint for Declaratory Judgment seeking resolution of whether the County Ordinance dissolving DELCORA is a final action prohibiting DELCORA from carrying out the material transaction of the Asset Purchase Agreement and, in the event that DELCORA retains the ability to close the transaction, whether DELCORA is permitted to exist as a trust.

The administrative law judges in the regulatory approval process recommended that the Company's application be denied, and subsequently, the Company provided exceptions to the recommended decision. On March 30, 2021, the Pennsylvania Public Utility Commission ("PUC") ruled that the case be remanded back to the Office of Administrative Law Judge ("ALJ") and vacated the original administrative law judges' recommended decision ("2021 Order"). This 2021 Order was also appealed to the Commonwealth Court by Delaware County. The County appealed the 2021 Order on April 29, 2022. A decision was issued by the Commonwealth Court on September 12, 2022 which dismissed the appeal of the County.

After the PUC issued the 2021 Order, on April 16, 2021, the administrative law judge issued an order staying the proceeding until the Delaware County Court lawsuit is final and unappealable. On March 25, 2022, the Company sent a letter notifying the PUC of the March 3, 2022 Commonwealth Court decision (that originated in Delaware County Court of Common Pleas) and requested that the PUC move forward with processing the application. On July 14, 2022, the Commission moved to lift the stay imposed by the ALJ, and required the ALJ to establish a schedule on remand for the proceeding. The published procedural schedule has the proceeding concluding in June 2023.

On January 26, 2023, several parties involved in the PUC case filed a joint motion for stay based on DELCORA's filing of the January 25, 2023 complaint for Declaratory Judgment filed by DELCORA, and referenced the City of Chester's bankruptcy filing in which the City of Chester has asserted reversionary contract interests regarding to DELCORA's wastewater assets. On February 6, 2023, the ALJ stayed the PUC DELCORA application proceedings again. The Company will be filing a Petition for Interlocutory Review to the PUC asking to review the ALJ's February 6, 2023 decision to stay the current proceedings.

The purchase price for this pending acquisition is subject to certain adjustments at closing, and is subject to regulatory approval, including the final determination of the fair value of the rate base acquired. We plan to finance the purchase price of this acquisition by the issuance of common stock and by utilizing our revolving credit facility until permanent debt is secured. Closing of our acquisition of DELCORA is expected to occur in 2023, subject to the timing of the regulatory approval process and Delaware County's on-going litigation.

Water and Wastewater Utility Acquisitions - Completed

In November 2022, the Company acquired certain water utility assets of Oak Brook, Illinois, which serves 2,037 customers for a cash purchase price of $12,500. In August 2022, the Company acquired the municipal wastewater assets of East Whiteland Township, Chester County, Pennsylvania, which serves 4,018 customers, for a cash purchase price of $54,374. Additionally, in March 2022, the Company acquired the wastewater system of Lower Makefield Township, which serves 11,323 customer connections in Lower Makefield, Falls, and Middletown townships, and Yardley Borough, Bucks County, Pennsylvania, for a cash purchase price of $53,000. The purchase price allocation for these acquisitions consisted primarily of property, plant and equipment. The operating revenues included in the consolidated financial statements of the Company during the period owned by the Company for these utility systems acquired in 2022 are $11,393.

In August 2021, the Company acquired the water utility system assets of The Commons Water Supply, Inc., which serves 992 customers in Harris County, Texas, and the wastewater utility system assets of the Village of Bourbonnais, which serves approximately 6,500 customers in Kankakee County, Illinois. The total cash purchase prices for these utility systems were $4,000 and $32,100, respectively. The purchase price allocation for these acquisitions consisted primarily of property, plant and equipment. The operating revenues included in the consolidated financial statements of the Company during the period owned by the Company for the utility systems acquired in 2021 were $7,421 in 2022 and $2,462 in 2021.

In December 2020, the Company acquired the wastewater utility system asset of New Garden Township, Pennsylvania, which serves 1,965 customers. The total cash purchase price for the utility system was $29,944. Further, in June 2020, the Company acquired the wastewater utility system assets of East Norriton Township, Pennsylvania, which serves 4,947 customers. The total cash purchase price for the utility system was $21,000. The purchase price allocation for these acquisitions consisted primarily of property, plant and equipment. Additionally, during 2020, we completed four acquisitions of water and wastewater utility systems for $12,335 in cash in three of the states in which we operate, adding 3,673 customers. The operating revenues included in the consolidated financial statements of the Company during the period owned by the Company for the utility systems acquired in 2020 were $10,717 in 2022, $8,365 in 2021 and $3,569 in 2020.

The pro forma effect of the businesses acquired is not material either individually or collectively to the Company’s results of operations.

Note 3 –*Assets Held for Sale and Disposition*

In the fourth quarter of 2022, the Company decided to market for sale the assets of its regulated natural gas system in West Virginia that serves approximately 13,000 customers and is part of the Company's Regulated Natural Gas segment. On December 31, 2022, the Company entered into a definitive agreement with Hope Gas, Inc. for the sale of its membership interests in its West Virginia assets for cash at closing of $37,000. The purchase price is subject to certain adjustments at closing and is subject to applicable regulatory approvals. Closing on the sale is expected in mid-2023, and completion of this transaction will conclude the Company's operations in West Virginia. Based on an assessment of the sale price and the carrying value of the planned disposition, there is no anticipated impairment expected to be recognized because of this sale agreement. These assets and liabilities do not qualify as discontinued operations, are reported as held for sale in the Company's consolidated balance sheet, and consist of the following as of December 31, 2022:

Inventory - gas stored	$	2,807
Other current assets		3,284
Regulatory assets		5,076
Current assets held for sale	$	11,167
Property, plant and equipment, net		30,267
Regulatory assets and other		1,857
Non-current assets held for sale	$	32,124
Current liabilities related to assets held for sale	$	3,263
Regulatory liabilities		649
Other long-term liabilities		325
Non-current liabilities related to assets held for sale	$	974

In October 2020 the Company sold its investment in a joint venture. Its investment represented its 49% investment in a joint venture that operates a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale of north central Pennsylvania. This investment was an unconsolidated affiliate and was accounted for under the equity method of accounting within our Aqua Infrastructure subsidiary. In 2020, the Company recorded a charge of $3,700 for the write-down of the Company's investment associated with the sale and is reported in equity loss in joint venture. This disposition has not been presented as discontinued operations in the Company's consolidated financial statements as it does not qualify as discontinued operations, since the disposal does not represent a strategic shift that has a major effect on our operations or financial results.

Note 4 – *Property, Plant and Equipment*

	December 31, 2022	December 31, 2021	Approximate Range of Useful Lives	Weighted Average Useful Life
Regulated Water segment:				
Utility plant and equipment				
Mains and accessories	$ 4,213,197	$ 4,014,507	26-90 years	72 years
Services, hydrants, treatment plants and reservoirs	2,910,496	2,672,186	5-89 years	56 years
Operations structures and water tanks	388,596	376,880	15-80 years	47 years
Miscellaneous pumping and purification equipment	1,131,975	1,011,487	7-76 years	41 years
Meters, transportation and other operating equipment	1,045,053	980,208	5-84 years	28 years
Land and other non-depreciable assets	133,618	116,888	-	-
Utility plant and equipment - regulated water segment	9,822,935	9,172,156	-	-
Utility construction work in progress	366,777	304,373	-	-
Net utility plant acquisition adjustment	(6,076)	(9,055)	10-53 years	22 years
Non-utility plant and equipment	20,561	21,098	17-64 years	58 years
Property, Plant and Equipment - Regulated Water segment	10,204,197	9,488,572		
Regulated Natural Gas segment:				
Natural gas transmission	398,658	365,051	24-93 years	68 years
Natural gas storage	61,639	60,985	5-85 years	45 years
Natural gas gathering and processing	144,337	131,237	5-77 years	59 years
Natural gas distribution	2,206,434	1,874,040	25-78 years	63 years
Meters, transportation and other operating equipment	568,305	588,716	5-65 years	24 years
Land and other non-depreciable assets	4,187	3,872	-	-
Utility plant and equipment - Regulated Natural Gas segment	3,383,560	3,023,901		
Utility construction work-in-progress	149,630	97,903	-	-
Property, plant and equipment - Regulated Natural Gas segment	3,533,190	3,121,804		
Total property, plant and equipment	$ 13,737,387	$ 12,610,376		

Note 5 – *Accounts Receivable*

	December 31, 2022	December 31, 2021
Billed utility revenue	$ 265,504	$ 197,815
Other	4,801	1,283
	270,305	199,098
Less allowance for doubtful accounts	63,981	58,073
Net accounts receivable	$ 206,324	$ 141,025

As of December 31, 2022, the Company's utility customers are located principally in the following states: 66% in Pennsylvania, 9% in Ohio, 6% in North Carolina, 5% in Texas, and 5% in Illinois. No single customer accounted for more than one percent of the Company's utility operating revenues during the years ended December 31, 2022, 2021, and 2020. The following table summarizes the changes in the Company's allowance for doubtful accounts:

	2022	2021	2020
Balance at January 1,	$ 58,073	$ 40,099	$ 7,353
Amounts charged to expense	27,631	27,336	32,325
Accounts written off	(22,507)	(19,731)	(12,613)
Recoveries of accounts written off and other	784	10,369	13,034
Balance at December 31,	$ 63,981	$ 58,073	$ 40,099

For Recoveries of accounts written off and other, "other" represents the opening balance from the Peoples Gas Acquisition of $10,962 in 2020 and additional measurement period adjustments in 2021 of $12,851 before the measurement period ended.

Note 6 – *Regulatory Assets and Liabilities*

The regulatory assets represent costs that are probable to be fully recovered from customers in future rates while regulatory liabilities represent amounts that are expected to be refunded to customers in future rates or amounts recovered from customers in advance of incurring the costs. Except for income taxes and utility plant retirement costs, regulatory assets and regulatory liabilities are excluded from the Company's rate base and do not earn a return. The components of regulatory assets and regulatory liabilities are as follows:

	December 31, 2022		December 31, 2021	
	Regulatory Assets	Regulatory Liabilities	Regulatory Assets	Regulatory Liabilities
Income taxes	$ 1,164,294	$ 571,110	$ 1,219,924	$ 595,185
Purchased gas costs	15,435	28,955	13,798	-
Utility plant retirement costs	36,440	64,212	47,683	56,479
Post-retirement benefits	51,810	142,390	60,640	115,283
Accrued vacation	3,231	-	3,760	-
Water tank painting	10,385	-	7,553	-
Fair value adjustment of long-term debt assumed in acquisition	49,954	-	62,722	-
Debt refinancing	13,906	-	19,083	-
Rate case filing expenses and other	16,570	7,363	14,827	3,054
	$ 1,362,025	$ 814,030	$ 1,449,990	$ 770,001

Items giving rise to deferred state income taxes, as well as a portion of deferred Federal income taxes related to specific differences between tax and book depreciation expense, are recognized in the rate setting process on a cash basis or as a reduction in current income tax expense and will be recovered as they reverse. Amounts include differences that arise between specific utility asset improvement costs capitalized for book and deducted as an expense for tax purposes. Additionally, the recording of AFUDC for equity funds results in the recognition of a regulatory asset for income taxes, which represents amounts due related to the revenue requirement. Regulatory liabilities are refundable in future rate filings based on the difference between the amount of the income tax benefits that were incorporated into the Company's cost of service in its latest rate case as compared to the actual income tax benefits recognized.

A portion of the regulatory liability for income taxes is related to Aqua Pennsylvania's income tax accounting change for the tax benefits realized on the Company's 2012 tax return, which have not yet reduced current income tax expense due to a rate order requiring a ten year amortization period which began in 2013. Beginning in 2013, the Company amortized $38,000, annually, of its deferred income tax benefits, which reduced current income tax expense. A portion of the income taxes regulatory liability is also related to Peoples Natural Gas' income tax accounting change for the tax benefits expected to be realized for the periods prior to adoption on March 16, 2020. The Company recorded a regulatory liability for this catch-up adjustment in the amount of $160,655 in 2020, and it remained on the consolidated balance sheet as of

December 31, 2020. In May 2021, the Company received a regulatory order directing the Company to refund the catch-up adjustment to its utility customers over a five-year period, which was initiated by the Company in August 2021. In 2022, the Company made a similar change for its Peoples Gas and Aqua New Jersey subsidiaries, resulting in the recognition of a regulatory liability for each of these subsidiaries for the tax benefits prior to the year of adoption.

On July 8, 2022, Pennsylvania enacted House Bill 1342 into law, which among other things, reduces Pennsylvania's corporate income tax rate from 9.99% to 8.99% beginning January 1, 2023, and an additional 0.5% annually through 2031, when it reaches to 4.99%. The Company evaluated the impacts of the tax rate change and recorded, in the third quarter of 2022, a reduction to our deferred tax liabilities of $244,537 with a corresponding reduction primarily to our regulatory assets.

The regulatory asset or liability for purchased gas costs reflects the differences between actual purchased gas costs and the levels of recovery for these costs in current rates. The unrecovered costs are recovered and the over-recovered costs are refunded in future periods, typically within a year, through quarterly and annual filings with the applicable state regulatory agency.

The regulatory asset for utility plant retirement costs, including cost of removal, represents costs already incurred that are expected to be recovered in future rates over a five year recovery period. The regulatory liability for utility plant retirement costs represents amounts recovered through rates during the life of the associated asset and before the costs are incurred.

The regulatory asset for accrued vacation represents costs that would otherwise be charged to operations and maintenance expense for vacation that is earned by employees, which is recovered as a cost of service.

The regulatory asset for post-retirement benefits, which includes pension and other post-retirement benefits, primarily reflects a regulatory asset that has been recorded for the costs that would otherwise be charged to stockholders' equity for the underfunded status of the Company's pension and other post-retirement benefit plans. The Company also has a regulatory asset related to post-retirement benefits costs that represent costs already incurred which are now being or anticipated to be recovered in rates over a period ranging from approximately 10 to 37 years. The regulatory liability for post-retirement benefits represents costs recovered in rates in excess of post-retirement benefits expense.

Expenses associated with water tank painting are deferred and amortized over a period of time as approved in the regulatory process. Water tank painting costs are generally being amortized over a period ranging from 10 to 20 years. The regulatory liability for water tank painting costs represents amounts recovered through rates and before the costs are incurred.

The Company recorded a fair value adjustment for fixed rate, long-term debt assumed in acquisitions that matures in various years ranging from 2023 to 2032. The regulatory asset or liability results from the rate setting process continuing to recognize the historical interest cost of the assumed debt.

The regulatory asset for debt refinancing represents a portion of a make whole payment of $25,237 incurred in 2019 for the Company's redemption of $313,500 of the Company's outstanding notes that had maturities ranging from 2019-2037 and interest rates ranging from 3.57-5.83%. The Company deferred a portion of the make whole payment as it represents an amount by which we expect to receive prospective rate recovery.

The regulatory asset related to rate case filing expenses and other represents the costs associated with filing for rate increases that are deferred and amortized over periods that generally range from one year to five years, and costs incurred by the Company for which it has received or expects to receive rate recovery.

The regulatory asset related to the costs incurred for information technology software projects and water main cleaning and relining projects are described in Note 1 – *Summary of Significant Accounting Policies – Property, Plant and Equipment and Depreciation*.

Note 7 – *Income Taxes*

Income tax benefit for the years ended December 31, is comprised of the following:

	Years Ended December 31,		
	2022	2021	2020
Current:			
Federal	$ -	$ (5,132)	$ (1,831)
State	8,716	4,034	(265)
	8,716	(1,098)	(2,096)
Deferred:			
Federal	(8,258)	3,036	(11,527)
State	(14,787)	(11,550)	(6,255)
	(23,045)	(8,514)	(17,782)
Total income tax benefit	$ (14,329)	$ (9,612)	$ (19,878)

The statutory Federal tax rate is 21% for 2022, 2021, and 2020. For states with a corporate net income tax, the state corporate net income tax rates range from 2.5% to 9.99% for all years presented. The Company's effective income tax rate for 2022, 2021, and 2020 was (3.2)%, (2.3)%, and (7.5)%, respectively. The Company remains subject to examination by federal and state tax authorities for the 2019 through 2022 tax years.

The reasons for the differences between amounts computed by applying the statutory Federal corporate income tax rate to income before income tax expense are as follows:

	Years Ended December 31,		
	2022	2021	2020
Computed Federal tax expense at statutory rate	$ 94,691	$ 88,620	$ 55,644
Decrease in Federal tax expense related to the flow through of plant related timing differences	(99,741)	(76,534)	(53,532)
State income taxes, net of Federal tax benefit	2,456	(1,681)	(6,896)
Increase in tax expense for depreciation expense to be recovered in future rates	159	925	140
Stock-based compensation	(242)	(611)	(1,484)
Deduction for Essential Utilities common dividends paid under employee benefit plan	(333)	(330)	(315)
Amortization of deferred investment tax credits	(290)	(314)	(319)
Amortization of excess deferred income taxes	(8,425)	(11,715)	(15,352)
Impact of acquisitions and reorganizations	-	(4,632)	-
Other, net	(2,604)	(3,340)	2,236
Actual income tax benefit	$ (14,329)	$ (9,612)	$ (19,878)

In 2012, in response to a rate order, Aqua Pennsylvania changed its tax method of accounting for qualifying utility system repairs, which provides for a tax deduction for qualifying utility asset improvement costs that were previously being capitalized and depreciated for book and tax purposes. The rate order requires a flow-through method of income tax benefits, which results in a reduction in current income tax expense through the recognition of income tax benefits due to the income tax accounting method change. The Company recognized a tax deduction on its 2012 Federal tax return of $380,000 for prior year qualifying costs and based on a 2012 rate order, Aqua Pennsylvania began to amortize this benefit over ten years beginning in 2013. As a result of the May 2022 rate order, this amortization period was extended for an additional three years and the Company's utility rates now include these tax benefits.

In 2019, the Pennsylvania Public Utility Commission issued a rate order to Aqua Pennsylvania and commencing in 2020 the base rates were designed to include annual tax benefits for qualifying utility system improvement costs equal to a deduction of $158,865, subject to a $3,000 collar either above or below this target amount. In May 2022, Aqua Pennsylvania received a rate order that adjusted this target to $159,060 and revised the collar amount to $4,000, beginning with the 2022 fiscal year. To the extent actual tax benefits are outside this range, tax benefits will either be deferred or accrued, and settled in the next rate filing.

In March 2020 and in June 2022, the Company changed the method of tax accounting for certain qualifying infrastructure investments at its Peoples Natural Gas and Peoples Gas Company subsidiaries, respectively. This change allows a tax deduction for qualifying utility asset improvement costs that were formerly capitalized for tax purposes. Consistent with the Company's accounting for differences between book and tax expenditures in Pennsylvania in its other regulated subsidiaries, the Company uses the flow-through method to account for these timing differences.

For Peoples Natural Gas, the Company calculated the income tax benefits for qualifying capital expenditures made prior to the date of its acquisition on March 16, 2020 ("catch-up adjustment") and recognized a regulatory liability of $160,655 for these income tax benefits. On May 6, 2021, the Pennsylvania Public Utility Commission approved a settlement order which stipulates, among other points, that the catch-up adjustment be provided by a surcredit to utility customers over a five-year period beginning August 2021, and the Company can continue to use flow-through accounting for the current tax repair benefit until its next base rate case. During 2022 and 2021, $29,431 and $11,127, respectively, of income tax benefits were amortized as refunds to Peoples Natural Gas customers. For Peoples Gas Company, the Company calculated the catch-up adjustment from periods prior to the 2021 tax year and recognized a regulatory liability of $13,808 for these income tax benefits. The Company will maintain this regulatory liability on its consolidated balance sheet until accounting treatment is determined in its next base rate case.

The following table provides the changes in the Company's unrecognized tax benefits:

	2022	2021	2020
Balance at January 1,	$ 20,201	$ 19,194	$ 18,671
Impact of current year activity	(900)	1,007	523
Effect of Pennsylvania tax rate change	(1,084)	-	-
Balance at December 31,	$ 18,217	$ 20,201	$ 19,194

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. From time to time, the Company may be assessed interest and penalties by taxing authorities, which would be recorded as income tax expense. During the years ended December 31, 2022, 2021 and 2020, there were expenses of $118, $409, and $24 for interest and penalties related to uncertain tax positions. As of December 31, 2022 and 2021, the Company has accrued liabilities of $620 and $502 for interest and penalties related to its uncertain tax position.

On its 2012 Federal tax return, filed in September 2013, Aqua Pennsylvania filed a change in accounting method to adopt the IRS temporary tangible property regulations. This method change allowed the Company to take a current year deduction for expenses that were previously capitalized for tax purposes. Since the filing of the 2012 tax return, the IRS has issued final regulations. While the Company maintains the belief that the deduction taken on its tax return is appropriate, the methodology for determining the deduction has not been agreed to by the taxing authorities. Provisions for uncertain tax positions were recorded to reflect the possible challenge of the Company's methodology for determining its repair deduction as required by the FASB's accounting guidance for income taxes. Should the taxing authority challenge the Company's tax treatment, and ultimately disallow a portion of the repair deduction, the Company expects Federal net operating loss carryforwards to offset any resulting liability, and state net operating loss carryforwards will offset a portion of any resulting liability.

The unrecognized tax benefits relate to the income tax accounting change, and the tax position is attributable to a temporary difference. The Company does not anticipate material changes to its unrecognized tax benefits within the next year. As a result of the regulatory treatment afforded by the income tax accounting change in Pennsylvania and despite this position being a temporary difference, as of December 31, 2022 and 2021, $35,267 and $34,980, respectively, of these tax benefits would have an impact on the Company's effective income tax rate in the event the Company does sustain all, or a portion, of its tax position.

The following table provides the components of net deferred tax liability:

	December 31,	
	2022	2021
Deferred tax assets:		
Customers' advances for construction	$ 27,009	28,845
Costs expensed for book not deducted for tax, principally accrued expenses	23,585	28,211
Post-retirement benefits	-	5,186
Tax effect of regulatory liabilities for post-retirement benefits	26,453	16,080
Tax attribute and credit carryforwards	235,838	243,131
Operating lease liabilities	13,558	16,064
Unrecovered purchased gas costs	4,654	-
Other	10,248	7,586
	341,345	345,103
Less valuation allowance	(38,940)	(36,662)
	302,405	308,441
Deferred tax liabilities:		
Utility plant, principally due to depreciation and differences in the basis of fixed assets due to variation in tax and book accounting	1,495,526	1,510,752
Deferred taxes associated with the gross-up of revenues necessary to recover, in rates, the effect of temporary differences	128,975	179,825
Post-retirement benefits	6,130	-
Utility plant acquisition adjustment basis differences	198	222
Deferred investment tax credit	5,092	5,406
Operating lease right-of-use assets	12,250	14,034
Over-recovered purchased gas costs	-	4,739
	1,648,171	1,714,978
Net deferred tax liability	$ 1,345,766	$ 1,406,537

At December 31, 2022, the Company has a cumulative Federal NOL of $625,988. The Company believes the Federal NOLs are more likely than not to be recovered and require no valuation allowance. The Company's Federal NOLs do not begin to expire until 2032.

At December 31, 2022, the Company has a cumulative state NOL of $1,832,795 a portion of which is offset by a valuation allowance because the Company does not believe these NOLs are more likely than not to be realized. The state NOLs do not begin to expire until 2023.

At December 31, 2022, the Company's Federal and state NOL carryforwards are reduced by an unrecognized tax position, on a gross basis, of $79,368 and $85,759, respectively, which results from the Company's adoption in 2013 of the FASB's accounting guidance on the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The amounts of the Company's Federal and state NOL carryforwards prior to

being reduced by the unrecognized tax positions are $705,356 and $1,918,555, respectively. The Company records its unrecognized tax benefit as a component of its net deferred income tax liability.

On August 16, 2022, the Inflation Reduction Act of 2022 ("IRA") was enacted into law, which among other things, implements a 15% minimum tax on book income of certain large corporations, and a 1% excise tax on net stock repurchases after December 31, 2022. The alternative minimum tax would not be applicable in our next fiscal year because it is based on a three-year average annual adjusted financial statement income in excess of $1,000,000. Also included in the IRA is a provision to implement an annual waste emissions charge beginning with calendar year 2024 (to be paid in 2025) on applicable oil and gas facilities that exceed certain methane emission thresholds. Currently, the Company has gathering facility assets that could exceed the minimum thresholds and potentially be subject to the waste emissions charge. We are continuing to assess the future impact of the provisions of the IRA on our consolidated financial statements and on the Company's gathering assets. As a regulated utility, required capital expenditures and operating costs, including taxes, have been traditionally recognized by state utility commissions as appropriate for inclusion in establishing rates.

On July 8, 2022, Pennsylvania enacted House Bill 1342 into law, which among other things, reduces Pennsylvania's corporate income tax rate from 9.99% to 8.99% beginning January 1, 2023, and an additional 0.5% annually through 2031, when it reaches to 4.99%. The Company evaluated the impacts of the tax rate change and recorded a reduction to our deferred tax liabilities of $244,537 with a corresponding reduction primarily to our regulatory assets.

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs ("IIJ") Act. The IIJ contained several tax provisions, including the modification of the tax code to exclude from taxable income any contribution in aid of construction. This provision effectively restored the exclusion that existed prior to the enactment of TCJA and would generally apply to contributions made after December 31, 2020. The Company evaluated the tax provisions included in the IIJ, and their impact was incorporated in the calculation of the income tax provision.

Note 8 – *Taxes Other than Income Taxes*

The following table provides the components of taxes other than income taxes, including the expenses of Peoples for the period since the completion of the acquisition on March 16, 2020:

	Years Ended December 31,		
	2022	2021	2020
Property	$ 33,703	33,946	$ 32,054
Gross receipts, excise and franchise	16,828	15,777	14,462
Payroll	21,343	21,789	19,053
Regulatory assessments	6,771	6,968	3,130
Pumping fees	7,881	5,761	6,028
Other	3,498	2,400	1,870
Total taxes other than income taxes	$ 90,024	$ 86,641	$ 76,597

Note 9 – *Commitments and Contingencies*

Commitments –

The Company maintains agreements with other water purveyors for the purchase of water to supplement its water supply, particularly during periods of peak demand. The agreements stipulate purchases of minimum quantities of water to the year 2029. The estimated annual commitments related to such purchases through 2027 are expected to average $3,419, and the aggregate of the years remaining approximates $1,120.

The Company has entered into purchase obligations, in the ordinary course of business, that include agreements for water treatment processes at some of its wells in a small number of its divisions. The 20 year term agreement provides for the use of treatment equipment and media used in the treatment process and are subject to adjustment based on changes in the Consumer Price Index. The future contractual cash obligations related to these agreements are as follows:

2023	2024	2025	2026	2027	Thereafter
$ 1,111	$ 1,131	$ 1,156	$ 1,182	$ 1,208	$ 1,708

The Company's natural gas supply is provided by sources on the interstate pipeline system and from local western Pennsylvania gas well production. The Company has various interstate pipeline service agreements that provide for firm transportation capacity, firm storage capacity, and other services and include capacity reservation charges based upon the maximum daily and annual contract quantities set forth in the agreements. Some of these agreements have minimum volume obligations and are transacted at applicable tariff and negotiated rates to the year 2034. The estimated annual commitments related to such purchases through 2027 are expected to average $241,248, and the aggregate of the years remaining beyond 2027 approximates $1,606,927.

The purchased water, water treatment, and purchased gas expenses under these agreements were as follows:

	Years Ended December 31,		
	2022	2021	2020
Purchased water under long-term agreements	$ 5,559	$ 5,867	$ 5,931
Water treatment expense under contractual agreement	1,061	1,017	1,006
Purchased natural gas under long-term agreements	601,995	340,262	165,745

Contingencies – The Company is routinely involved in various disputes, claims, lawsuits and other regulatory and legal matters, including both asserted and unasserted legal claims, in the ordinary course of business. The status of each such matter, referred to herein as a loss contingency, is reviewed and assessed in accordance with applicable accounting rules regarding the nature of the matter, the likelihood that a loss will be incurred, and the amounts involved. As of December 31, 2022, the aggregate amount of $19,658 is accrued for loss contingencies and is reported in the Company's consolidated balance sheet as other accrued liabilities and other liabilities. These accruals represent management's best estimate of probable loss (as defined in the accounting guidance) for loss contingencies or the low end of a range of losses if no single probable loss can be estimated. For some loss contingencies, the Company is unable to estimate the amount of the probable loss or range of probable losses. Further, Essential Utilities has insurance coverage for certain of these loss contingencies, and as of December 31, 2022, estimates that approximately $1,530 of the amount accrued for these matters are probable of recovery through insurance, which amount is also reported in the Company's consolidated balance sheet as deferred charges and other assets, net.

During a portion of 2019, the Company initiated a do not consume advisory for some of its customers in one division served by the Company's Illinois subsidiary. The do not consume advisory was lifted in 2019, and, in 2022, the water system was determined to be in compliance with the federal Lead and Copper Rule. During the second quarter of 2021, an amount was accrued for the portion of the fine or penalty that we determined to be probable and estimable of being incurred. In addition, on September 3, 2019, two individuals, on behalf of themselves and those similarly situated, commenced an action against the Company's Illinois subsidiary in the State court in Will County, Illinois related to this do not consume advisory. The complaint seeks class action certification, attorney's fees, and "damages, including, but not limited to, out of pocket damages, and discomfort, aggravation, and annoyance" based upon the water provided by the Company's subsidiary to a discrete service area in University Park Illinois. The complaint contains allegations of damages as a result of supplied water that exceeded the standards established by the federal Lead and Copper Rule. The complaint is in the discovery phase and class certification has not been granted. During the third quarter of 2022, the Company established an accrual for the amount of loss asserted in the complaint that we determined to be probable and estimable of being incurred. The Company is vigorously defending against this claim. The Company submitted a claim for the expenses incurred to its insurance carrier for potential recovery of a portion of these costs and is currently in litigation with one of its carriers seeking to enforce its claims. The Company continues to assess the potential loss contingency on this matter. While the final outcome of this claim cannot be predicted with certainty, and unfavorable outcomes could negatively impact the Company, at this time in the opinion of management, the final resolution of this matter is not expected to have a material adverse effect on the Company's financial position, results of operations or cash flows.

Although the results of legal proceedings cannot be predicted with certainty, other than disclosed above, there are no pending legal proceedings to which the Company or any of its subsidiaries is a party or to which any of its properties is the subject that are material or are expected to have a material effect on the Company's financial position, results of operations or cash flows.

In addition to the aforementioned loss contingencies, the Company self-insures a portion of its employee medical benefit program, and maintains stop-loss coverage to limit the exposure arising from these claims. The Company's reserve for these claims totaled $2,327 and $2,470 at December 31, 2022 and 2021, respectively, and represents a reserve for unpaid claim costs, including an estimate for the cost of incurred but not reported claims.

Associated with the approval of the Peoples Gas Acquisition from the Pennsylvania Public Utility Commission, the Company committed to addressing the replacement of gathering pipe over a seven year timeframe for an estimated cost of $120,000, which will be recoverable through customer rates. Additionally, the Company committed to provide $23,004 of one-time customer rate credits to its Pennsylvania natural gas utility customers and water and wastewater customers served by Aqua Pennsylvania, Inc. In 2020, the Company granted $4,080 of customer rate credits to its Pennsylvania water and wastewater customers and $18,924 to its Pennsylvania natural gas utility customers.

Note 10 – *Leases*

The Company leases land, office facilities, office equipment, and vehicles for use in its operations, which are accounted for as operating leases. Leases with a term of 12 months or less are not recorded on the balance sheet; rather, lease expense is recognized over the lease term. Our leases have remaining lives of 1 to 72 years.

Some of the Company's leases can be extended on a month-to-month basis, which allow us to terminate the lease at any given month without penalty while others include options to extend the leases for up to 50 years. The renewal of a month-to-month lease is at our sole discretion.

The Company accounts for lease and non-lease components of lease arrangements separately. For calculating lease liabilities, we may deem lease terms to include options to extend or terminate the lease when it's reasonably certain that we will exercise that option. The Company's lease agreements do not contain significant residual value guarantees, restrictions or covenants.

Lease liabilities and corresponding right-of-use assets are recorded based on the present value of the lease payments over the expected lease term, including leases with variable payments that are based on a market rate or an index and net of any impairment. All other variable payments are expensed as incurred. Since the Company's lease agreements do not provide an implicit interest rate, we utilize our incremental borrowing rate to determine the discount rate used to present value the lease payments.

On January 6, 2022, the Company entered into an amendment to an office lease that provided for the partial termination of the Company's obligations with respect to a portion of the leased premises of approximately 37,000 rentable square feet. The Company paid a termination fee of $2,812, reduced its remaining lease payments by $1,753 and recognized a loss on the partial termination of the lease of $1,801.

During the fourth quarter of 2021, the Company determined that there were impairment indicators that required the Company to review a portion of office space that was no longer used by the Company in its operations for impairment. Accordingly, the Company performed undiscounted cash flow analyses on the related right-of-use asset group and determined that such right-of-use asset was impaired. This resulted in a non-cash impairment charge of $4,695, representing the excess of the right-of-use asset over its fair value, and is included within operations and maintenance expense in the consolidated statements of operations and comprehensive income.

	Years Ended December 31,		
	2022	2021	2020
Components of lease expense were as follows:			
Operating lease cost	$ 9,359	$ 9,716	$ 8,496

	Years Ended December 31,	
	2022	2021
Supplemental cash flow information related to leases was as follows:		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 9,270	$ 9,612

	December 31,	
	2022	2021
Supplemental balance sheet information related to leases was as follows:		
Operating leases:		
Operating lease right-of-use assets	$ 41,734	$ 48,930
Other accrued liabilities	$ 9,316	7,841
Operating lease liabilities	37,666	48,230
Total operating lease liabilities	$ 46,982	$ 56,071

	December 31,	
	2022	2021
Weighted average remaining lease term:		
Operating leases	9.7 years	10.6 years
Weighted average discount rate:		
Operating leases	3.42%	3.62%

Maturities of operating lease liabilities and a reconciliation of the operating lease liabilities reported on our consolidated balance sheets as of December 31, 2022 are as follows:

	Operating Leases
2023	$ 8,923
2024	8,643
2025	8,591
2026	6,671
2027	6,757
Thereafter	20,763
Total operating lease payments	$ 60,348
Total operating lease payments	$ 60,348
Less operating lease liabilities	46,982
Present value adjustment	$ 13,366

Note 11 – *Long-term Debt and Loans Payable*

Long-term Debt – The consolidated statements of capitalization provide a summary of long-term debt as of December 31, 2022 and 2021. The supplemental indentures with respect to specific issues of the first mortgage bonds restrict the ability of Aqua Pennsylvania and other operating subsidiaries of the Company to declare dividends, in cash or property, or repurchase or otherwise acquire the stock of these companies. Loan agreements for Aqua Pennsylvania and other operating subsidiaries of the Company have restrictions on minimum net assets. As of December 31, 2022, restrictions on the net assets of the Company were $4,284,813 of the total $5,377,386 in net assets. Included in this amount were restrictions on Aqua Pennsylvania's net assets of $1,678,703 of their total net assets of $2,462,533. As of December 31, 2022, $2,158,502 of Aqua Pennsylvania's retained earnings of $2,178,502 and $277,036 of the retained earnings of $445,076 of other subsidiaries were free of these restrictions. Some supplemental indentures also prohibit Aqua Pennsylvania and some other subsidiaries of the Company from making loans to, or purchasing the stock of, the Company.

Sinking fund payments are required by the terms of specific issues of long-term debt. Excluding amounts due under the Company's revolving credit agreement, the future sinking fund payments and debt maturities of the Company's long-term debt are as follows:

Interest Rate Range	2023	2024	2025	2026	2027	Thereafter
0.00% to 0.99%	$ 464	$ 256	$ 197	$ 179	$ 146	$ 633
1.00% to 1.99%	872	712	766	776	787	4,456
2.00% to 2.99%	2,182	1,268	1,427	1,305	1,113	1,102,460
3.00% to 3.99%	32,025	53,318	782	746	210,889	2,178,672
4.00% to 4.99%	151,649	4,527	122,310	1,562	1,567	1,621,698
5.00% to 5.99%	11,472	10,728	630	237	27	531,263
6.00% to 6.99%	-	-	-	5,000	20,000	6,000
7.00% to 7.99%	-	-	23,000	-	5,378	-
8.00% to 8.99%	692	976	448	-	-	-
9.00% to 9.99%	-	-	-	11,800	-	-
Total	$ 199,356	$ 71,785	$ 149,560	$ 21,605	$ 239,907	$ 5,445,182

In January 2023 and October 2022, Aqua Pennsylvania issued $75,000 and $125,000 of first mortgage bonds, due in 2043 and 2052, and with interest rates of 5.60% and 4.50%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

On May 20, 2022, the Company issued $500,000 of long-term debt (the "Senior Notes"), less expenses of $5,815, due in 2052 with an interest rate of 5.30%. The Company used the net proceeds from the issuance of Senior Notes to (1) to repay $49,700 of borrowings under Aqua Pennsylvania's 364-day revolving credit facility and $410,000 of borrowings under the Company's existing five year unsecured revolving credit facility, and (2) for general corporate purposes.

On April 15, 2021, the Company's operating subsidiary, Aqua Ohio, Inc., issued $100,000 of first mortgage bonds, of which $50,000 is due in 2031 and $50,000 is due in 2051, with interest rates of 2.37% and 3.35%, respectively. The proceeds from these bonds were used for general corporate purposes and to repay existing indebtedness. Further, on April 19, 2021, the Company issued $400,000 of long-term debt, with expenses of $4,010, which is due in 2031 with an interest rate of 2.40%. The Company used the proceeds from this issuance to repay $50,000 of borrowings under the Aqua Pennsylvania revolving credit facility, and the balance was used to repay in full the borrowings under its existing five year unsecured revolving credit agreement.

The weighted average cost of long-term debt at December 31, 2022 and 2021 was 3.94% and 3.49%, respectively. The weighted average cost of fixed rate long-term debt at December 31, 2022 and 2021 was 3.78% and 3.61%, respectively.

On December 14, 2022, the Company entered into a five year $1,000,000 unsecured revolving credit facility, which replaced the Company's prior five year $1,000,000 unsecured revolving credit facility. The Company's new unsecured revolving credit facility was used to repay all indebtedness and fees under our prior unsecured revolving credit facility, and for other general corporate purposes. The facility includes a $100,000 sublimit for daily demand loan. Funds borrowed under this facility are classified as long-term debt and are used to provide working capital as well as support for letters of credit for insurance policies and other financing arrangements. As of December 31, 2022, the Company has the following sublimits and available capacity under the credit facility: $100,000 letter of credit sublimit, $80,959 of letters of credit available capacity, $0 borrowed under the swing-line commitment, $490,959 was available for borrowing and $490,000 of funds borrowed under the agreement. Interest under the facility is equal to either (i) Term simple secured overnight financing rate (SOFR), plus applicable margin; or (ii) an Alternate Base Rate (which is based at the highest of the (a) New York Federal Reserve Bank rate, plus 0.5%, (b) the prime rate, and, (c) the daily SOFR, plus 1.0%,) plus applicable margin. The applicable margin for an Alternate Base Rate loan will be up to 0.5% and for a SOFR loan will be up to 1.5%, in each case depending on the debt ratings in effect as of such date. The Company may elect either the Term SOFR or the Alternate Base Rate at the time of the drawdown, and loans may be converted from one rate to another at any time, subject or certain conditions. A facility fee is charged on the total commitment amount of the agreement. Under these facilities the average cost of borrowings was 3.11% and 1.31%, and the average borrowing was $297,021 and $174,026, during 2022 and 2021, respectively.

The Company is obligated to comply with covenants under some of its loan and debt agreements. These covenants contain a number of restrictive financial covenants, which among other things limit, subject to specific exceptions, the Company's ratio of consolidated total indebtedness to consolidated total capitalization, and require a minimum level of earnings coverage over interest expense. During 2022, the Company was in compliance with its debt covenants under its loan and debt agreements. Failure to comply with the Company's debt covenants could result in an event of default, which could result in the Company being required to repay or finance its borrowings before their due date, possibly limiting the Company's future borrowings, and increasing its borrowing costs.

Loans Payable – In June 2022, Aqua Pennsylvania amended its $100,000 364-day revolving credit agreement primarily to update the termination date of the facility to June 29, 2023. The funds borrowed under this agreement are classified as loans payable and used to provide working capital. As of December 31, 2022 and 2021, funds borrowed under the agreement were $20,000 and $35,000, respectively. Interest under this facility is based, at the borrower's option, on the prime rate, an adjusted overnight bank funding rate, or an adjusted Bloomberg Short-Term Bank Yield Index (BSBY) floating rate. This agreement restricts short-term borrowings of Aqua Pennsylvania. A commitment fee of 0.05% is charged on the total commitment amount of Aqua Pennsylvania's revolving credit agreement. The average cost of

borrowing under the facility was 2.40% and 0.78%, and the average borrowing was $31,555 and $40,312, during 2022 and 2021, respectively. The maximum amount outstanding at the end of any one month was $55,000 and $70,000 in 2022 and 2021, respectively.

In June 2022, Peoples Natural Gas Companies amended its 364-day revolving credit agreement primarily to increase the amount of the facility from $100,000 to $300,000 and to update the termination date of the facility to June 29, 2023. The funds borrowed under this agreement are classified as loans payable and used to provide working capital. Interest under this facility is based, at the borrower' option, at the prime rate, an adjusted overnight bank funding rate, or an adjusted BSBY floating rate. A commitment fee of 0.05% is charged on the total commitment amount of Peoples' revolving credit agreement. As of December 31, 2022 and 2021, funds borrowed under the agreement were $208,500 and $30,000, respectively. The average cost of borrowing under the facility was 2.30% and 1.02%, and the average borrowing was $97,458 and $23,750, during 2022 and 2021, respectively. The maximum amount outstanding at the end of any one month was $234,000 and $30,000 in 2022 and 2021, respectively.

At December 31, 2022 and 2021, the Company had other combined short-term lines of credit of $35,000. Funds borrowed under these lines are classified as loans payable and are used to provide working capital. As of December 31, 2022 and 2021, funds borrowed under the short-term lines of credit were $0. The average borrowing under the lines was $0 and $0 during 2022 and 2021, respectively. The maximum amount outstanding at the end of any one month was $0 and $0 in 2022 and 2021, respectively. Interest under the lines is based at the Company's option, depending on the line, on the prime rate, an adjusted Euro-Rate, an adjusted federal funds rate or at rates offered by the banks. The average cost of borrowings under all lines during 2022 and 2021 was 0% and 0%, respectively.

Interest Income and Expense– Interest income of $3,675, $2,384, and $5,363 was recognized for the years ended December 31, 2022, 2021, and 2020, respectively. Interest expense was $238,116, $207,709, and $188,435 in 2022, 2021, and 2020, including amounts capitalized for borrowed funds of $6,047, $4,510, and $4,434, respectively.

Note 12 – *Fair Value of Financial Instruments*

Financial instruments are recorded at carrying value in the financial statements and approximate fair value, with the exception of long-term debt, as of the dates presented. The fair value of these instruments is disclosed below in accordance with current accounting guidance related to financial instruments.

The fair value of loans payable is determined based on its carrying amount and utilizing Level 1 methods and assumptions. As of December 31, 2022 and 2021, the carrying amount of the Company's loans payable was $228,500 and $65,000, respectively, which equates to their estimated fair value. The fair value of cash and cash equivalents is determined based on Level 1 methods and assumptions. As of December 31, 2022 and 2021, the carrying amounts of the Company's cash and cash equivalents were $11,398 and $10,567, respectively, which equates to their fair value. The Company's assets underlying the deferred compensation and non-qualified pension plans are determined by the fair value of mutual funds, which are based on quoted market prices from active markets utilizing Level 1 methods and assumptions. As of December 31, 2022 and 2021, the carrying amount of these securities was $24,962 and $28,576, respectively, which equates to their fair value, and is reported in the consolidated balance sheet in deferred charges and other assets.

Unrealized gains and losses on equity securities held in conjunction with our non-qualified pension plan is as follows:

	Years ended December 31,		
	2022	2021	2020
Net gain (loss) recognized during the period on equity securities	$ (895)	$ 607	$ 492
Less: net gain (loss) recognized during the period on equity securities sold during the period	-	-	-
Unrealized gain (loss) recognized during the reporting period on equity securities still held at the reporting date	$ (895)	$ 607	$ 492

The net gain (loss) recognized on equity securities is presented on the consolidated statements of operations and comprehensive income on the line item "Other."

The carrying amounts and estimated fair values of the Company's long-term debt is as follows:

	December 31,	
	2022	2021
Carrying amount	$ 6,617,395	$ 5,947,357
Estimated fair value	5,528,131	6,482,499

The fair value of long-term debt has been determined by discounting the future cash flows using current market interest rates for similar financial instruments of the same duration utilizing level 2 methods and assumptions. The Company's customers' advances for construction have a carrying value of $114,732 and $103,619 at December 31, 2022 and 2021, respectively. Their relative fair values cannot be accurately estimated because future refund payments depend on several variables, including new customer connections, customer consumption levels and future rates. Portions of these non-interest bearing instruments are payable annually through 2031 and amounts not paid by the respective contract expiration dates become non-refundable. The fair value of these amounts would, however, be less than their carrying value due to the non-interest bearing feature.

Note 13 – *Stockholders' Equity*

At December 31, 2022, the Company had 600,000,000 shares of common stock authorized; par value $0.50. Shares outstanding and treasury shares held were as follows:

	December 31,		
	2022	2021	2020
Shares outstanding	263,737,084	252,867,623	245,390,468
Treasury shares	3,236,237	3,234,765	3,180,887

At-the-Market Offering

On October 14, 2022, the Company entered into at-the market sales agreements ("ATM") with third-party sales agents, under which the Company may offer and sell shares of its common stock, from time to time, at its option, having an aggregate gross offering price of up to $500,000 pursuant to the Company's effective shelf registration statement on Form S-3 (File No. 333-255235). The Company intends to use the net proceeds from the sales of shares through the ATM for working capital, capital expenditures, water and wastewater utility acquisitions, and repaying outstanding indebtedness. During the fourth quarter of 2022, the Company issued 1,321,994 shares of common stock under the ATM for proceeds of $63,040, net of expenses. In January 2023, the Company issued 399,128 shares of common stock under the ATM for proceeds of $19,294, net of expenses.

Forward Equity Sale

In August 2020, the Company entered into a forward equity sale agreement for 6,700,000 shares of common stock with a third party (the "forward purchaser"). In connection with the forward equity sale agreement, the forward purchaser borrowed an equal number of shares of the Company's common stock from stock lenders and sold the borrowed shares to the public. The Company did not receive any proceeds from the sale of its common stock by the forward purchaser until settlement of the shares underlying the forward equity sale agreement. The actual proceeds to be received by the Company would have varied depending upon the settlement date, the number of shares designated for settlement on that settlement date and the method of settlement. The forward equity sale agreement was accounted for as an equity instrument and was recorded at a fair value of $0 at inception. The fair value was not adjusted as the Company continued to meet the accounting requirements for equity instruments.

On August 9, 2021, the Company completely settled forward equity sale agreements by physical share settlement. The Company issued 6,700,000 shares and received cash proceeds of $299,739 at a forward price of $44.74 per share. Pursuant to the agreement, the forward price was computed based upon the initial forward price of $46.00 per share, adjusted for a floating interest rate factor equal to a specified daily rate less a spread and scheduled dividends during the term of the agreement. The Company used the proceeds received upon settlement of the forward equity sale agreement to fund general corporate purposes, including for water and wastewater utility acquisitions, working capital and capital expenditures. There are no remaining shares subject to the forward equity sale agreement.

Private Placement

On March 29, 2019, the Company entered into a Stock Purchase Agreement (the "Stock Purchase Agreement") with Canada Pension Plan Investment Board (the "Investor"), pursuant to which the Company agreed to issue and sell to the Investor in a private placement (the "Private Placement") 21,661,095 newly issued shares of common stock, par value $0.50 per share (the "Common Stock"). On March 16, 2020, in connection with the closing of the Peoples Gas Acquisition, the Company closed on the Private Placement and received gross proceeds of $749,907, less expenses of $20,606. In June 2021, the Company filed a registration statement on Form S-3 ASR registering the Private Placement shares for resale.

The shares issued and sold to the Investor pursuant to the Private Placement were to be priced at the lower of (1) $34.62, which represents a 4.5% discount to the trailing 20 consecutive trading day volume weighted average price of the Common Stock ending on, and including, March 28, 2019, and (2) the volume weighted average price per share in the Company' subsequent public offering of Common Stock to fund a portion of the Peoples Gas Acquisition. Based on the common stock offering noted below, the Private Placement was priced at $34.62 per share.

The Stock Purchase Agreement contains customary representations, warranties and covenants of the Company and the Investor, and the parties have agreed to indemnify each other for losses related to breaches of their respective representations and warranties. At the closing of the Private Placement, the Company reimbursed the Investor for reasonable out-of-pocket diligence expenses of $4,000.

Common Stock / Tangible Equity Unit Issuances

On April 23, 2019, the Company issued $1,293,750, less expenses of $30,651, of its common stock and $690,000, less expenses of $16,358, of its tangible equity units (the "Units"), with a stated amount of $50 per unit. These issuances were part of the financing of the Peoples Gas Acquisition. The common stock was issued at $34.62 per share and thus the Private Placement noted above was priced at $34.62 per share. The Company recorded the issuance of the purchase contract portion of the Units as additional paid-in-capital of $570,919, less allocable issuance costs of $13,530, in our financial statements. The Company recorded the amortizing notes portion of the Units of $119,081 as long-term debt and recorded allocable issuance costs of $2,828 as debt issuance costs.

Each Unit consisted of a prepaid stock purchase contract and an amortizing note, each issued by the Company. The amortizing notes had an initial principal amount of $8.62909, or $119,081 in aggregate, and yielded interest at a rate of 3.00% per year, and paid equal quarterly cash installments of $0.75000 per amortizing note (except for the July 30, 2019 installment payment, which was $0.80833 per amortizing note), that constituted a payment of interest and a partial repayment of principal. This cash payment in the aggregate was equivalent to 6.00% per year with respect to each $50 stated amount of the Units. The amortizing notes represented unsecured senior obligations of the Company.

Certain holders of the tangible equity units had early settled their prepaid stock purchase contracts prior to the due date, and, in exchange, the Company issued shares of its common stock. During 2022, 981,919 stock purchase contracts were early settled by the holders of the contracts prior to the mandatory settlement date, resulting in the issuance of 1,166,107 shares of the Company's common stock. On May 2, 2022, the remaining 6,621,315 stock purchase contracts were each mandatorily settled for 1.18758 shares of the Company's common stock, and in the aggregate the Company issued 7,863,354 shares of its common stock. Additionally, the final quarterly installment payment was made, which resulted in the complete pay-off of the amortizing notes.

At December 31, 2022, the Company had 1,770,819 shares of authorized but unissued Series Preferred Stock, $1.00 par value.

In April 2021, the Company filed a universal shelf registration, through a filing with the Securities and Exchange Commission ("SEC"), to allow for the potential future offer and sale by the Company, from time to time, in one or more public offerings, of an indeterminate amount of our common stock, preferred stock, debt securities and other securities specified therein at indeterminate prices.

The Company has an acquisition shelf registration statement on file with the SEC which permits the offering, from time to time, of an aggregate of $500,000 in shares of common stock and shares of preferred stock in connection with acquisitions. The balance remaining available for use under the acquisition shelf registration as of December 31, 2022 is $487,155.

The form and terms of any securities issued under the universal shelf registration statement and the acquisition shelf registration statement will be determined at the time of issuance.

The Company has a Dividend Reinvestment and Direct Stock Purchase Plan ("Plan") that allows reinvested dividends to be used to purchase shares of common stock at a five percent discount from the current market value. Under the direct stock purchase program, shares are issued throughout the year. The shares issued under the Plan are either shares purchased by the Company's transfer agent in the open-market or original issue shares. In 2022, 2021 and 2020, the Company sold 368,278, 374,824 and 388,978 original issue shares of common stock through the dividend reinvestment portion of the Plan, for net proceeds of $16,619, $16,799 and $16,522, respectively.

The Company recorded a regulatory asset for its underfunded status of its pension and other post-retirement benefit plans that would otherwise be charged to other comprehensive income, as it anticipates recovery of its costs through customer rates.

Note 14 – *Net Income per Common Share and Equity per Common Share*

Basic net income per share is based on the weighted average number of common shares outstanding and the weighted average minimum number of shares issued upon settlement of the stock purchase contracts issued under the tangible equity units. Diluted net income per share is based on the weighted average number of common shares outstanding and potentially dilutive shares. The dilutive effect of employee stock-based compensation and shares issuable under the forward equity sale agreement (from the date the Company entered into the forward equity sale agreement to the settlement date) are included in the computation of diluted net income per common share. The dilutive effect of stock-based compensation and shares issuable under the forward equity sale agreement are calculated by using the treasury stock method and expected proceeds upon exercise or issuance of the stock-based compensation and settlement of the forward equity sale agreement. The treasury stock method assumes that the proceeds from stock-based compensation and settlement of the forward equity sale agreement are used to purchase the Company's common stock at the average market price during the period. The following table summarizes the shares, in thousands, used in computing basic and diluted net income per share:

	Years ended December 31,		
	2022	2021	2020
Average common shares outstanding during the period for basic computation	262,246	257,487	249,768
Effect of dilutive securities:			
Forward equity sale agreement	-	189	-
Issuance of common stock from private placement	-	-	4,438
Tangible equity units	-	-	-
Employee stock-based compensation	622	504	423
Average common shares outstanding during the period for diluted computation	262,868	258,180	254,629

For the year ended December 31, 2020, the average common shares outstanding during the period for diluted computation reflects the impact of the issuance of common stock from the March 16, 2020 private placement as if the shares were issued on January 1, 2020.

The number of outstanding employee stock options that were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive was 77,506 for the year ended December 31, 2022. For the years ended December 31, 2021 and 2020, all of the Company's employee stock options were included in the calculation of diluted net income per share as the calculated cost to exercise the stock options was less than the average market price of the Company's common stock during these periods. Additionally, the dilutive effect of performance share units and restricted share units granted are included in the Company's calculation of diluted net income per share.

On May 2, 2022, all of the remaining stock purchase contracts under the tangible equity units were mandatorily settled. For the year ended December 31, 2022, the weighted average impact of 2,932,010 shares were included in the basic computation of the average common shares outstanding based on the number of shares that were issued upon settlement of the stock purchase contracts under the tangible equity units. For the years ended December 31, 2021 and 2020, the minimum settlement amount of the stock purchase contracts under the tangible equity units of 9,041,687 and 9,370,646 shares, respectively, were considered outstanding for the basic computation of the average common shares outstanding.

Equity per common share was $20.39 and $20.50 at December 31, 2022 and 2021, respectively. These amounts were computed by dividing Essential Utilities stockholders' equity by the number of shares of common stock outstanding at the end of each year.

Note 15 – *Employee Stock and Incentive Plan*

Under the Company's Amended and Restated Equity Compensation Plan, (the "Plan") approved by the Company's shareholders on May 2, 2019, to replace the 2004 Equity Compensation Plan, stock options, stock units, stock awards, stock appreciation rights, dividend equivalents, and other stock-based awards may be granted to employees, non-employee directors, and consultants and advisors. The Plan authorizes 6,250,000 shares for issuance under the plan. A maximum of 3,125,000 shares under the Plan may be issued pursuant to stock award, stock units and other stock-based awards, subject to adjustment as provided in the Plan. During any calendar year, no individual may be granted (i) stock options and stock appreciation rights under the Plan for more than 500,000 shares of common stock in the aggregate or (ii) stock awards, stock units or other stock-based awards under the Plan for more than 500,000 shares of Company stock in the aggregate, subject to adjustment as provided in the Plan. Awards to employees and consultants under the Plan are made by a committee of the Board of Directors, except that with respect to awards to the Chief Executive Officer, the committee recommends those awards for approval by the non-employee directors of the Board of Directors. In the case of awards to non-employee directors, the Board of Directors makes such awards. At December 31, 2022, 1,754,295 shares were still available for issuance under the Plan. No further grants may be made under the Company's 2004 Equity Compensation Plan.

Performance Share Units – During 2022, 2021 and 2020, the Company granted performance share units. A performance share unit ("PSU") represents the right to receive a share of the Company's common stock if specified performance goals are met over the three year performance period specified in the grant, subject to exceptions through the respective vesting periods, which is generally three years. Each grantee is granted a target award of PSUs, and may earn between 0% and 200% of the target amount depending on the Company's performance against the performance goals.

The performance goals of the 2022, 2021 and 2020 PSU grants consisted of the following metrics:

Metric 1 – Company's total shareholder return ("TSR") compared to the TSR for a specific peer group of investor-owned utilities (a market-based condition)	38.46%
Metric 2 – Achievement of a targeted cumulative level of rate base growth as a result of acquisitions (a performance-based condition)	30.77%
Metric 3 – Achievement of targets for maintaining consolidated operations and maintenance expenses over the three year measurement period (a performance-based condition)	30.77%

The following table provides the compensation expense and income tax benefit for PSUs:

	Years ended December 31,		
	2022	2021	2020
Stock-based compensation within operations and maintenance expense	$ 7,950	$ 7,150	$ 3,630
Income tax benefit	1,997	2,038	957

The following table summarizes nonvested PSU transactions for the year ended December 31, 2022:

	Number of Share Units	Weighted Average Fair Value
Nonvested share units at beginning of period	355,384	$ 42.19
Granted	161,968	42.33
Performance criteria adjustment	100,227	46.21
Forfeited	(61,117)	43.89
Nonvested share units at end of period	556,462	42.77

A portion of the fair value of PSUs was estimated at the grant date based on the probability of satisfying the market-based conditions associated with the PSUs using the Monte Carlo valuation method, which assesses the probabilities of various outcomes of market conditions. The other portion of the fair value of the PSUs associated with performance-based conditions was based on the fair market value of the Company's stock at the grant date, regardless of whether the market-based condition is satisfied. The fair value of each PSU grant is amortized into compensation expense on a straight-line basis over their respective vesting periods, generally 36 months. The accrual of compensation costs is based on an estimate of the final expected value of the award and is adjusted as required for the portion based on the performance-based condition. The Company assumes that forfeitures will be minimal, and recognizes forfeitures as they occur, which results in a reduction in compensation expense. As the payout of the PSUs includes dividend equivalents, no separate dividend yield assumption is required in calculating the fair value of the PSUs. The recording of compensation expense for PSUs has no impact on net cash flows. The following table provides the assumptions used in the pricing model for the grant, the resulting grant date fair value of PSUs, and the intrinsic value and fair value of PSUs that vested during the year:

	Years ended December 31,		
	2022	2021	2020
Expected term (years)	3.0	3.0	3.0
Risk-free interest rate	1.75%	0.24%	0.66%
Expected volatility	31.9%	32.1%	24.2%
Weighted average fair value of PSUs granted	$ 42.33	$ 43.18	$ 55.25
Intrinsic value of vested PSUs	$ -	$ 6,050	$ 9,030
Fair value of vested PSUs	$ -	$ 5,321	$ 5,215

As of December 31, 2022, $9,752 of unrecognized compensation costs related to PSUs is expected to be recognized over a weighted average period of approximately 1.79 years. The aggregate intrinsic value of PSUs as of December 31, 2022 was $17,594. The aggregate intrinsic value of PSUs is based on the number of nonvested share units and the market value of the Company's common stock as of the period end date.

Restricted Stock Units – A restricted stock unit ("RSU") represents the right to receive a share of the Company's common stock and is valued based on the fair market value of the Company's stock on the date of grant. RSUs are eligible to be earned at the end of a specified restricted period, generally three years, beginning on the date of grant. In some cases, the right to receive the shares is subject to specific performance goals established at the time the grant is made. The Company assumes that forfeitures will be minimal, and recognizes forfeitures as they occur, which results in a reduction in compensation expense. As the payout of the RSUs includes dividend equivalents, no separate dividend yield assumption is required in calculating the fair value of the RSUs. The following table provides the compensation expense and income tax benefit for RSUs:

	Years ended December 31,		
	2022	2021	2020
Stock-based compensation within operations and maintenance expense	$ 2,927	$ 3,360	$ 2,180
Income tax benefit	736	953	585

The following table summarizes nonvested RSU transactions for the year ended December 31, 2022:

	Number of Stock Units	Weighted Average Fair Value
Nonvested stock units at beginning of period	193,687	$ 43.76
Granted	72,092	44.74
Stock units vested and issued	(65,839)	38.42
Forfeited	(19,634)	45.30
Nonvested stock units at end of period	180,306	45.94

The following table summarizes the value of RSUs:

	Years ended December 31,		
	2022	2021	2020
Weighted average fair value of RSUs granted	$ 44.74	$ 44.44	$ 49.19
Intrinsic value of vested RSUs	3,090	2,108	2,130
Fair value of vested RSUs	2,483	1,726	1,203

As of December 31, 2022, $3,246 of unrecognized compensation costs related to RSUs is expected to be recognized over a weighted average period of approximately 1.7 years. The aggregate intrinsic value of RSUs as of December 31, 2022 was $8,606. The aggregate intrinsic value of RSUs is based on the number of nonvested stock units and the market value of the Company's common stock as of the period end date.

Stock Options – A stock option represents the option to purchase a number of shares of common stock of the Company as specified in the stock option grant agreement at the exercise price per share as determined by the closing market price of our common stock on the grant date. Stock options are exercisable in installments of 33% annually, starting one year from the grant date and expire ten years from the grant date. The vesting of stock options granted in 2022 and 2019 are subject to the achievement of the following performance goal: the Company achieves at least an adjusted return on equity equal to 150 basis points below the return on equity granted by the Pennsylvania Public Utility Commission during the Company's Pennsylvania subsidiary's last rate proceeding. The adjusted return on equity equals net income, excluding net income or loss from acquisitions which have not yet been incorporated into a rate application as of the last year end, divided by equity which excludes equity applicable to acquisitions which are not yet incorporated in a rate application during the award period.

The Company did not grant stock options for the years ended December 31, 2021 and 2020. The fair value of each stock option is amortized into compensation expense using the graded vesting method, which results in the recognition of compensation costs over the requisite service period for each separately vesting tranche of the stock options as though the stock options were, in substance, multiple stock option grants. The following table provides compensation expense and income tax benefit for stock options:

	Years ended December 31,		
	2022	2021	2020
Stock-based compensation within operations and maintenance expenses	$ 451	$ 480	$ 1,322
Income tax benefit	140	136	374

Options under the plans were issued at the closing market price of the stock on the day of the grant. The fair value of options was estimated at the grant date using the Black-Scholes option-pricing model, which relies on assumptions that require management's judgment. The following table provides the assumptions used in the pricing model for grants and the resulting grant date fair value of stock options granted in the period reported:

	2022
Expected term (years)	5.48
Risk-free interest rate	1.92%
Expected volatility	26.5%
Dividend yield	2.37%
Grant date fair value per option	$ 9.34

Historical information was the principal basis for the selection of the expected term and dividend yield. The expected volatility is based on a weighted-average combination of historical and implied volatilities over a time period that approximates the expected term of the option. The risk-free interest rate was selected based upon the U.S. Treasury yield curve in effect at the time of grant for the expected term of the option. The Company assumes that forfeitures will be minimal, and recognizes forfeitures as they occur, which results in a reduction in compensation expense.

The following table summarizes stock option transactions for the year ended December 31, 2022:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Life (years)	Aggregate Intrinsic Value
Outstanding, beginning of year	813,492	35.37		
Granted	85,527	45.19		
Forfeited	(9,149)	44.32		
Expired / Cancelled	(125)	35.94		
Exercised	(69,684)	35.52		
Outstanding at end of year	820,061	$ 36.29	6.2	$ 9,383
Exercisable at end of year	745,000	$ 35.39	5.9	$ 9,191

The intrinsic value of stock options is the amount by which the market price of the stock on a given date, such as at the end of the period or on the day of exercise, exceeded the closing market price of stock on the date of grant. The following table summarizes the intrinsic value of stock options exercised and the fair value of stock options which vested:

	Years ended December 31,		
	2022	2021	2020
Intrinsic value of options exercised	$ 960	$ 1,709	$ 1,849
Fair value of options vested	1,203	1,485	1,673

The following table summarizes information about the options outstanding and options exercisable as of December 31, 2022:

	Options Outstanding			Options Exercisable	
	Shares	Weighted Average Remaining Life (years)	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Range of prices:					
$30.00 - 33.99	54,467	4.1	$ 30.47	54,467	$ 30.47
$34.00 - 34.99	90,194	5.2	34.51	90,194	34.51
$35.00 - 35.99	597,894	6.2	35.93	597,894	35.93
$36.00 and above	77,506	9.1	45.17	2,445	45.19
	820,061	6.2	$ 36.29	745,000	$ 35.39

As of December 31, 2022, there was $322 of total unrecognized compensation costs related to nonvested stock options granted under the plans. The cost is expected to be recognized over a weighted average period of approximately 1.5 years.

Restricted Stock – Restricted stock awards provide the grantee with the rights of a shareholder, including the right to receive dividends and to vote such shares, but not the right to sell or otherwise transfer the shares during the restriction period. Restricted stock awards result in compensation expense that is equal to the fair market value of the stock on the date of the grant and is amortized ratably over the restriction period. The Company expects forfeitures of restricted stock to be de minimis.

The following table provides the compensation cost and income tax benefit for stock-based compensation related to restricted stock:

	Years ended December 31,		
	2022	2021	2020
Stock-based compensation within operations and maintenance expense	$ 50	$ 130	$ 333
Income tax benefit	15	37	96

The following table summarizes restricted stock transactions for the year ended December 31, 2022:

	Number of Shares	Weighted Average Fair Value
Nonvested shares at beginning of period	1,068	$ 46.83
Granted	1,170	42.75
Vested	(1,068)	(46.83)
Nonvested shares at end of period	1,170	$ 42.75

Stock Awards – Stock awards represent the issuance of the Company's common stock, without restriction. Stock awards are granted to the Company's non-employee directors. The issuance of stock awards results in compensation expense which is equal to the fair market value of the stock on the grant date, and is expensed immediately upon grant. The following table provides compensation cost and income tax benefit for stock-based compensation related to stock awards:

	Years ended December 31,		
	2022	2021	2020
Stock-based compensation within operations and maintenance expense	$ 715	$ 700	$ 695
Income tax benefit	207	202	201

The following table summarizes the value of stock awards:

	Years ended December 31,		
	2022	2021	2020
Intrinsic and fair value of stock awards vested	$ 715	$ 700	$ 695
Weighted average fair value of stock awards granted	46.44	47.46	41.97

The following table summarizes stock award transactions for year ended December 31, 2022:

	Number of Stock Awards	Weighted Average Fair Value
Nonvested stock awards at beginning of period	-	$ -
Granted	15,397	46.44
Vested	(15,397)	46.44
Nonvested stock awards at end of period	-	-

Note 16 – *Pension Plans and Other Post-retirement Benefits*

The Company maintains a qualified, defined benefit pension plan that covers its full-time employees who were hired prior to the date their respective pension plan was closed to new participants. Retirement benefits under the plan are generally based on the employee's total years of service and compensation during the last five years of employment. The Company's policy is to fund the plan annually at a level which is deductible for income tax purposes and which provides assets sufficient to meet its pension obligations over time. To offset some limitations imposed by the Internal Revenue Code with respect to payments under qualified plans, the Company has a non-qualified Supplemental Pension Benefit Plan for Salaried Employees in order to prevent some employees from being penalized by these limitations, and to provide certain retirement benefits based on employee's years of service and compensation. The net pension costs and obligations of the qualified and non-qualified plans are included in the tables which follow. Employees hired after their respective pension plan was closed, may participate in a defined contribution plan that provides a Company matching contribution on amounts contributed by participants and an annual profit-sharing contribution based upon a percentage of the eligible participants' compensation.

The Company's qualified defined benefit pension plan has a permanent lump sum option to the form of benefit payments offered to participants upon retirement or termination. The plan paid $17,757 and $11,069 to participants who elected this option during 2022 and 2021, respectively. During 2022, we made lump-sum pension benefit distributions exceeding the cumulative amount of service and interest cost components of the net periodic pension cost for the year, which is the settlement accounting threshold. The settlement loss of $3,300 was recorded as a regulatory asset, as it is probable of recovery in future rates, and will be amortized into pension benefit costs. A settlement loss is the recognition of unrecognized pension benefit costs that would have been incurred in subsequent periods.

In addition to providing pension benefits, the Company offers post-retirement benefits other than pensions to employees retiring with a minimum level of service and hired before their respective plan closed to new participants. These benefits

include continuation of medical and prescription drug benefits, or a cash contribution toward such benefits, for eligible retirees and life insurance benefits for eligible retirees. The Company funds these benefits through various trust accounts. The benefits of retired officers and other eligible retirees are paid by the Company and not from plan assets due to limitations imposed by the Internal Revenue Code.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

	Pension Benefits	Other Post-retirement Benefits
Years:		
2023	$ 27,351	$ 5,498
2024	27,154	5,464
2025	27,723	5,636
2026	27,497	5,965
2027	29,007	6,252
2028-2032	129,413	32,750

The changes in the benefit obligation and fair value of plan assets, the funded status of the plans and the assumptions used in the measurement of the company's benefit obligation are as follows:

	Pension Benefits		Other Post-retirement Benefits	
	2022	2021	2022	2021
Change in benefit obligation:				
Benefit obligation at January 1,	$ 452,947	$ 486,219	$ 114,651	$ 125,375
Service cost	2,587	3,503	1,911	2,793
Interest cost	13,806	13,018	3,369	3,358
Actuarial loss/(gain)	(105,107)	(17,378)	(31,995)	(12,001)
Plan participants' contributions	-	-	145	36
Benefits paid	(19,339)	(32,415)	(4,580)	(4,910)
Plan amendments	2,121	-	-	-
Participants' directed transfer of benefit to other plans	(4,568)	-	-	-
Settlements	(17,757)	-	-	-
Benefit obligation at December 31,	324,690	452,947	83,501	114,651
Change in plan assets:				
Fair value of plan assets at January 1,	433,121	426,801	107,308	98,995
Actual return on plan assets	(83,297)	23,901	(19,589)	12,484
Employer contributions	20,390	14,834	1,636	598
Participants' contributions	-	-	145	36
Benefits paid	(19,281)	(32,415)	(3,506)	(4,805)
Settlements	(17,757)	-	-	-
Fair value of plan assets at December 31,	333,176	433,121	85,994	107,308
Funded status of plan:				
Net asset / (liability) recognized at December 31,	$ 8,486	$ (19,826)	$ 2,493	$ (7,343)

The following table provides the net liability recognized on the consolidated balance sheets at December 31,:

	Pension Benefits		Other Post-retirement Benefits	
	2022	2021	2022	2021
Non-current asset	$ 24,389	$ 2,474	$ 19,438	$ 23,504
Current liability	(761)	(1,144)	(843)	(1,777)
Noncurrent liability	(15,142)	(21,156)	(16,102)	(29,070)
Net asset / (liability) recognized	$ 8,486	$ (19,826)	$ 2,493	$ (7,343)

The following table provides selected information about plans with accumulated benefit obligation and projected benefit obligation in excess of plan assets:

	December 31, 2022		December 31, 2021	
	Pension Benefits	Other Post-retirement Benefits	Pension Benefits	Other Post-retirement Benefits
Selected information for plans with projected benefit obligation in excess of plan assets:				
Projected benefit obligation	$ 16,041	$ N/A	$ 23,601	$ N/A
Fair value of plan assets	-	N/A	-	N/A
Selected information for plans with accumulated benefit obligation in excess of plan assets:				
Accumulated benefit obligation	$ 12,126	$ 29,009	$ 17,129	$ 42,463
Fair value of plan assets	-	12,064	-	11,616

The following table provides the components of net periodic benefit costs for the years ended December 31,:

	Pension Benefits			Other Post-retirement Benefits		
	2022	2021	2020	2022	2021	2020
Service cost	$ 2,587	$ 3,503	$ 3,775	$ 1,911	$ 2,793	$ 2,276
Interest cost	13,806	13,018	13,710	3,369	3,358	3,687
Expected return on plan assets	(22,004)	(23,165)	(21,249)	(4,502)	(4,155)	(4,079)
Amortization of prior service cost (credit)	536	559	591	-	(432)	(464)
Amortization of actuarial loss (gain)	2,043	2,907	7,967	(1,336)	219	622
Net periodic benefit cost (credit)	$ (3,032)	$ (3,178)	$ 4,794	$ (558)	$ 1,783	$ 2,042

The Company records the underfunded/overfunded status of its pension and other post-retirement benefit plans on its consolidated balance sheets and records a regulatory asset/liability for these costs that would otherwise be charged to stockholders' equity, as the Company anticipates recoverability of the costs through customer rates to be probable. Changes in the plans' funded status will affect the assets and liabilities recorded on the balance sheet. Due to the Company's regulatory treatment, the recognition of the funded status is recorded as a regulatory asset pursuant to the FASB's accounting guidance for regulated operations.

The following table provides the amounts recognized in regulatory assets and regulatory liabilities that have not been recognized as components of net periodic benefit cost as of December 31:

	Pension Benefits		Other Post-retirement Benefits	
	2022	2021	2022	2021
Net actuarial loss (gain)	$ 56,737	$ 64,247	$ (19,894)	$ (16,323)
Prior service cost	2,550	965	-	-
Total recognized in regulatory assets	$ 59,287	$ 65,212	$ (19,894)	$ (16,323)

Accounting for pensions and other post-retirement benefits requires an extensive use of assumptions about the discount rate, expected return on plan assets, the rate of future compensation increases received by the Company's employees, mortality, turnover and medical costs. Each assumption is reviewed annually with assistance from the Company's actuarial consultant who provides guidance in establishing the assumptions. The assumptions are selected to represent the average expected experience over time and may differ in any one year from actual experience due to changes in capital markets and the overall economy. These differences will impact the amount of pension and other post-retirement benefit expense that the Company recognizes.

The significant assumptions related to the Company's benefit obligations are as follows:

	Pension Benefits		Other Post-retirement Benefits	
	2022	2021	2022	2021
Weighted Average Assumptions Used to Determine Benefit Obligations as of December 31,				
Discount rate	5.51%	2.91%	5.45%	2.96%
Rate of compensation increase	3.0-4.0%	3.0-4.0%	n/a	n/a
Assumed Health Care Cost Trend Rates Used to Determine Benefit Obligations as of December 31,				
Health care cost trend rate	n/a	n/a	6.50%	6.25%
Rate to which the cost trend is assumed to decline (the ultimate trend rate)	n/a	n/a	5.0%	5.0%
Year that the rate reaches the ultimate trend rate	n/a	n/a	2029	2027

n/a – Assumption is not applicable.

The significant assumptions related to the Company's net periodic benefit costs are as follows:

	Pension Benefits			Other Post-retirement Benefits		
	2022	2021	2020	2022	2021	2020
Weighted Average Assumptions Used to Determine Net Periodic Benefit Costs for Years Ended December 31,						
Discount rate	2.91%	2.57%	3.35%	2.96%	2.68%	3.42%
Expected return on plan assets	5.40%	5.60%	6.00%	3.4%-5.4%	5.60%	6.00%
Rate of compensation increase	3.0-4.0%	3.0-4.0%	3.0-4.0%	n/a	n/a	n/a
Assumed Health Care Cost Trend Rates Used to Determine Net Periodic Benefit Costs for Years Ended December 31,						
Health care cost trend rate	n/a	n/a	n/a	6.25%	6.3%	6.3%
Rate to which the cost trend is assumed to decline (the ultimate trend rate)	n/a	n/a	n/a	5.0%	5.0%	5.0%
Year that the rate reaches the ultimate trend rate	n/a	n/a	n/a	2027	2025	2025

n/a – Assumption is not applicable.

** In September 2022, the Company remeasured its qualified pension plan assets and liabilities in accordance with settlement accounting rules. The discount rate used for the remeasurement and for the calculation of the net periodic benefit cost for the remainder of the year was 5.58%.*

The Company's discount rate assumption, which is utilized to calculate the present value of the projected benefit payments of our post-retirement benefits, was determined by selecting a hypothetical portfolio of high quality corporate bonds appropriate to match the projected benefit payments of the plans. The selected bond portfolio was derived from a universe of Aa-graded corporate bonds. The discount rate was then developed as the rate that equates the market value of the bonds purchased to the discounted value of the plan's benefit payments. The Company's pension expense and liability (benefit obligations) increases as the discount rate is reduced.

The Company's expected return on plan assets is determined by evaluating the asset class return expectations with its advisors as well as actual, long-term, historical results of our asset returns. The Company's market related value of plan assets is equal to the fair value of the plan's assets as of the last day of its fiscal year, and is a determinant for the expected return on plan assets which is a component of post-retirement benefits expense. The Company's pension expense increases as the expected return on plan assets decreases. For 2022, the Company used a 5.4% expected return on plan assets assumption. The Company believes its actual long-term asset allocation on average will approximate the targeted allocation. The Company's investment strategy is to earn a reasonable rate of return while maintaining risk at acceptable levels. Risk is managed through fixed income investments to manage interest rate exposures that impact the valuation of liabilities and through the diversification of investments across and within various asset categories. Investment returns are compared to a total plan benchmark constructed by applying the plan's asset allocation target weightings to passive index returns representative of the respective asset classes in which the plan invests. The Retirement and Employee Benefits Committee meets quarterly to review plan investments and management monitors investment performance quarterly through a performance report prepared by an external consulting firm.

The Company's pension plan asset allocation and the target allocation by asset class are as follows:

		Percentage of Plan Assets at December 31,	
	Target Allocation	2022	2021
Return seeking assets	50 to 70%	56%	53%
Liability hedging assets	30 to 50%	44%	47%
Total	100%	100%	100%

The fair value of the Company's pension plans' assets at December 31, 2022 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Common stock	$ 18,037	$ -	$ -	$ -	$ 18,037
Return seeking assets:					
Global equities	-	-	-	15,163	15,163
Hedge / diversifying strategies	-	-	-	102,038	102,038
Credit	-	-	-	52,048	52,048
Liability hedging assets	-	-	-	114,220	114,220
Cash and cash equivalents	31,670	-	-	-	31,670
Total pension assets	$ 49,707	$ -	$ -	$ 283,469	$ 333,176

(a) Assets that are measured at fair value using the NAV per share practical expedient have not been classified in the fair value hierarchy.

The fair value of the Company's pension plans' assets at December 31, 2021 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Common stock	$ 20,290	$ -	$ -	$ -	$ 20,290
Return seeking assets:					
Global equities	-	-	-	134,394	134,394
Hedge / diversifying strategies	-	-	-	39,163	39,163
Credit	-	-	-	56,191	56,191
Liability hedging assets	-	-	-	177,574	177,574
Cash and cash equivalents	5,509	-	-	-	5,509
Total pension assets	$ 25,799	$ -	$ -	$ 407,322	$ 433,121

Equity securities include our common stock in the amounts of $18,037 or 5.4% and $20,290 or 4.7% of total pension plans' assets as of December 31, 2022 and 2021, respectively.

The asset allocation for the Company's other post-retirement benefit plans and the target allocation by asset class are as follows:

		Percentage of Plan Assets at December 31,	
	Target Allocation	2022	2021
Return seeking assets	50 to 70%	62%	68%
Liability hedging assets	30 to 50%	38%	32%
Total	100%	100%	100%

The fair value of the Company's other post-retirement benefit plans' assets at December 31, 2022 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Return seeking assets:					
Global equities	$ 27,258	$ -	$ -	$ 16,024	$ 43,282
Real estate securities	6,386	-	-	3,311	9,697
Liability hedging assets	15,131	-	-	9,159	24,290
Cash and cash equivalents	8,725	-	-	-	8,725
Total other post-retirement assets	$ 57,500	$ -	$ -	$ 28,494	$ 85,994

(a) Assets that are measured at fair value using the NAV per share practical expedient have not been classified in the fair value hierarchy.

The fair value of the Company's other post-retirement benefit plans' assets at December 31, 2021 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Return seeking assets:					
Global equities	$ 36,753	$ -	$ -	$ 22,544	$ 59,297
Real estate securities	9,609	-	-	4,391	14,000
Liability hedging assets	17,241	-	-	12,364	29,605
Cash and cash equivalents	4,406	-	-	-	4,406
Total other post-retirement assets	$ 68,009	$ -	$ -	$ 39,299	$ 107,308

Valuation Techniques Used to Determine Fair Value

Common Stocks - Investments in common stocks are valued using unadjusted quoted prices obtained from active markets.
Return Seeking Assets – Investments in return seeking assets consists of the following:

- Global equities, which consist of common and preferred shares of stock, traded on U.S. or foreign exchanges that are valued using unadjusted quoted prices obtained from active markets, or commingled fund vehicles, consisting of such securities valued using NAV, which are not classified within the fair value hierarchy.
- Real estate securities, which consist of securities, traded on U.S. or foreign exchanges that are valued using unadjusted quoted prices obtained from active markets, or for real estate commingle fund vehicles that are not publicly quoted, the fund administrators value the funds using the NAV per fund share, derived from the quoted prices in active markets of the underlying securities and are not classified within the fair value hierarchy.
- Hedge / diversifying strategies, which consist of a multi-manager fund vehicle having underlying exposures that collectively seek to provide low correlation of return to equity and fixed income markets, thereby offering diversification. As a multi-manager fund investment, NAV is derived from underlying manager NAVs, which are derived from the quoted prices in active markets of the underlying securities and are not classified within the fair value hierarchy.
- Credit, which consist of certain opportunistic, return-oriented credits which primarily include below investment grade bonds (i.e. high yield bonds), bank loans, and securitized debt. Credits are valued using the NAV per fund share, derived from either quoted prices in active markets of the underlying securities, or less active markets, or quotes of similar assets, and are not classified within the fair value hierarchy.

Liability Hedging Assets – Investments in liability hedging assets consist of funds investing in high-quality fixed income securities (i.e. U.S. Treasury securities and government bonds), and for funds for which market quotations are readily available, are valued at the last reported closing price on the primary market or exchange on which they are traded. Funds for which market quotations are not readily available, are valued using the NAV per fund share, derived from the quoted prices in active markets of the underlying securities and are not classified within the fair value hierarchy.
Cash and Cash Equivalents – Investments in cash and cash equivalents are comprised of both uninvested cash and money market funds. The uninvested cash is valued based on its carrying value, and the money market funds are valued utilizing the net asset value per unit obtained from published market prices.

Funding requirements for qualified defined benefit pension plans are determined by government regulations and not by accounting pronouncements. In accordance with funding rules and the Company's funding policy, during 2023 our pension contribution is expected to be $20,343.

The Company has a 401(k) savings plan, which is a defined contribution plan and covers substantially all employees. The Company makes matching contributions that are based on a percentage of an employee's contribution, subject to specific limitations, as well as, non-discretionary contributions based on eligible hourly wages for certain union employees, discretionary year-end contributions based on an employee's eligible compensation, and employer profit sharing contributions. Participants may diversify their Company matching account balances into other investments offered under the 401(k) savings plan. The Company's contributions, which are recorded as compensation expense, were $21,758, $19,569, and $15,445, for the years ended December 31, 2022, 2021, and 2020, respectively.

Note 17 –*Rate Activity*

On December 30, 2022, our water and wastewater utility operating divisions in Ohio filed an application with the Public Utilities Commission of Ohio designed to increase rates by $9,816 annually.

On September 21, 2022, our regulated water and wastewater utility operating divisions in Ohio received an order from the Public Utilities Commission of Ohio which will increase operating revenues by $5,483 annually. New rates for water and sewer service went into effect on September 21, 2022.

On June 30, 2022, the Company's regulated water and wastewater operating subsidiary in North Carolina, Aqua North Carolina, filed an application with the North Carolina Utilities Commission designed to increase rates by $18,064 in the first year of new rates being implemented, then an additional $4,303 and $4,577 in the second and third years, respectively.

On May 16, 2022, the Company's regulated water and wastewater operating subsidiary in Pennsylvania, Aqua Pennsylvania, received an order from the Pennsylvania Public Utility Commission that allowed base rate increases that would increase total annual operating revenues by $69,251. New rates went into effect on May 19, 2022. At the time the rate order was received, the rates in effect also included $35,470 in Distribution System Improvement Charges ("DSIC"), which was 7.2% above prior base rates. Consequently, the aggregate annual base rates increased by $104,721 since the last base rate increase and DSIC was reset to zero.

On January 3, 2022, the Company's natural gas operating division in Kentucky received an order from the Kentucky Public Service Commission resulting in an increase of $5,238 in annual revenues, and new rates went into effect on January 4, 2022. On June 7, 2022, an additional $260 was approved and made effective by the Commission, resulting from a rehearing requested by the operating division.

In addition to the Ohio, Pennsylvania, and Kentucky rate awards noted above, the Company's operating subsidiaries were allowed annualized rate increases of $1,378 in 2022, $3,390 in 2021, and $4,480 in 2020, represented by two, six, and five rate decisions, respectively. Annualized revenues in aggregate from all of the rate increases realized in the year of grant were approximately $51,163, $2,995, and $1,594 in 2022, 2021, and 2020, respectively.

Eight states in which the Company operates permit water and wastewater utilities to add a surcharge to their water or wastewater bills to offset the additional depreciation and capital costs related to infrastructure system replacement and rehabilitation projects completed and placed into service between base rate filings. Additionally, Pennsylvania and Kentucky allow for the use of an infrastructure rehabilitation surcharge for natural gas utility systems. The surcharge for infrastructure system replacements and rehabilitations is typically adjusted periodically based on additional qualified capital expenditures completed or anticipated in a future period, is capped as a percentage of base rates, generally at 5% to 12.75%, and is reset to zero when new base rates that reflect the costs of those additions become effective or when a utility's earnings exceed a regulatory benchmark. During 2022, the Company received approval to bill infrastructure rehabilitation surcharges designed to increase total operating revenues on an annual basis by $7,571 in its water and wastewater utility operating divisions in Pennsylvania, North Carolina, Illinois and Virginia. The surcharge for infrastructure system replacements and rehabilitations provided revenues in 2022, 2021, and 2020 of $26,902, $33,771, and $13,039, respectively.

Note 18 – *Segment Information*

The Company has identified twelve operating segments and has two reportable segments, the Regulated Water segment and the Regulated Natural Gas segment. The Regulated Water segment is comprised of eight operating segments representing its water and wastewater regulated utility companies, which are organized by the states where the Company provides water and wastewater services. The eight water and wastewater utility operating segments are aggregated into one reportable segment, because each of these operating segments has the following similarities: economic characteristics, nature of services, production processes, customers, water distribution or wastewater collection methods, and the nature of the regulatory environment. The Regulated Natural Gas segment is comprised of one operating segment representing natural gas utility companies, acquired in the Peoples Gas Acquisition, for which the Company provides natural gas distribution services. The operating results of Peoples are included in the consolidated financial statements for the period since the completion of its acquisition on March 16, 2020.

In addition to the Company's two reportable segments, we include three of our operating segments within the Other category below. These segments are not quantitatively significant and are comprised of our non-regulated natural gas operations, Aqua Infrastructure, and Aqua Resources. Our non-regulated natural gas operations consist of utility service line protection solutions and repair services to households and the operation of gas marketing and production entities. Prior to our October 30, 2020 sale of our investment in joint venture, Aqua Infrastructure provided non-utility raw water supply services for firms in the natural gas drilling industry. Aqua Resources offers, through a third party, water and sewer service line protection solutions and repair services to households. In addition to these segments, Other is comprised of business activities not included in the reportable segments, corporate costs that have not been allocated to the Regulated Water and Regulated Natural Gas segments, and intersegment eliminations. Corporate costs include general and administrative expenses, and interest expense. The Company reports these corporate costs within Other as they relate to corporate-focused responsibilities and decisions and are not included in internal measures of segment operating performance used by the Company to measure the underlying performance of the operating segments.

The following table presents information about the Company's reportable segments:

2022	Regulated Water	Regulated Natural Gas	Other and Eliminations	Consolidated
Operating revenues	$ 1,082,972	$ 1,143,362	$ 61,698	$ 2,288,032
Operations and maintenance expense	$ 370,850	$ 239,506	$ 3,293	$ 613,649
Purchased gas	$ -	$ 551,009	$ 50,986	$ 601,995
Depreciation and amortization	$ 201,392	$ 118,955	$ 830	$ 321,177
Interest expense, net [(b)]	$ 111,938	$ 87,186	$ 35,317	$ 234,441
Allowance for funds used during construction	$ (20,950)	$ (2,715)	$ -	$ (23,665)
Provision for income taxes (benefit)	$ 47,510	$ (61,942)	$ 103	$ (14,329)
Net income (loss)	$ 314,352	$ 185,276	$ (34,391)	$ 465,237
Capital expenditures	$ 576,314	$ 479,335	$ 7,114	$ 1,062,763
Total assets	$ 8,792,633	$ 6,528,654	$ 397,820	$ 15,719,107

2021	Regulated Water	Regulated Natural Gas	Other and Eliminations	Consolidated
Operating revenues	$ 980,203	$ 859,902	$ 38,039	$ 1,878,144
Operations and maintenance expense	$ 332,598	$ 226,194	$ (8,212)	$ 550,580
Purchased gas	$ -	$ 313,390	$ 26,872	$ 340,262
Depreciation and amortization	$ 182,074	$ 113,238	$ 2,640	$ 297,952
Interest expense, net [b]	$ 108,356	$ 75,628	$ 21,341	$ 205,325
Allowance for funds used during construction	$ (19,258)	$ (1,534)	$ -	$ (20,792)
Provision for income taxes (benefit)	$ 26,633	$ (40,013)	$ 3,768	$ (9,612)
Net income (loss)	$ 293,703	$ 148,193	$ (10,284)	$ 431,612
Capital expenditures	$ 621,595	$ 397,419	$ 1,505	$ 1,020,519
Total assets	$ 8,403,586	$ 5,960,602	$ 294,090	$ 14,658,278

2020 [a]	Regulated Water	Regulated Natural Gas	Other and Eliminations	Consolidated
Operating revenues	$ 938,540	$ 506,564	$ 17,594	$ 1,462,698
Operations and maintenance expense	$ 309,608	$ 198,383	$ 20,620	$ 528,611
Purchased gas	$ -	$ 154,103	$ 11,642	$ 165,745
Depreciation and amortization	$ 171,152	$ 84,201	$ 1,706	$ 257,059
Interest expense, net [b]	$ 101,810	$ 29,016	$ 52,246	$ 183,072
Allowance for funds used during construction	$ (11,231)	$ (1,456)	$ -	$ (12,687)
Provision for income taxes (benefit)	$ 22,481	$ (25,133)	$ (17,226)	$ (19,878)
Net income (loss)	$ 283,793	$ 56,451	$ (55,395)	$ 284,849
Capital expenditures	$ 542,199	$ 292,121	$ 1,322	$ 835,642
Total assets	$ 7,838,034	$ 5,303,507	$ 563,736	$ 13,705,277

[a] Includes the operating results and capital expenditures of the Regulated Natural Gas segment for the period since the completion of the Peoples Gas Acquisition on March 16, 2020.

[b] The regulated water and regulated natural gas segments report interest expense that includes long-term debt that was pushed-down to the regulated operating subsidiaries from Essential Utilities, Inc.

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

Item 9A. *Controls and Procedures*

Evaluation of Disclosure Controls and Procedures – Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this Annual Report are effective to provide reasonable assurance that the information required to be disclosed by us in reports filed under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure. A controls system cannot provide absolute assurance, however, that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

Management's Report on Internal Control Over Financial Reporting
Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. The Company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In assessing the effectiveness of internal control over financial reporting, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control-Integrated Framework* (2013). As a result of management's assessment and based on the criteria in the framework, management has concluded that, as of December 31, 2022, the Company's internal control over financial reporting was effective.

Attestation Report of the Registered Public Accounting Firm – The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting – We have implemented a new enterprise resource planning (ERP) system in 2022 for our Regulated Water business segment that enhances our business and financial processes and standardizes some of our information technology systems with our other segments. In connection with this new ERP

implementation, we have changed our internal controls over financial reporting, as necessary, to accommodate modifications in our Regulated Water business processes and accounting procedures.

Except as described above, there were no changes in our internal control over financial reporting during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. *Other Information*

None.

Item 9C. *Disclosure Regarding Foreign Jurisdictions that Prevent Inspections*

Not applicable.

PART III

Item 10. *Directors, Executive Officers and Corporate Governance*

The information appearing in the sections captioned *Information Regarding Nominees*, *Corporate Governance – Code of Ethics*, *– Board and Board Committees*, and *Section 16(a) Beneficial Ownership Reporting Compliance* of the definitive Proxy Statement relating to our 2023 annual meeting of shareholders, to be filed within 120 days after the end of the fiscal year covered by this Annual Report is incorporated by reference herein.

We make available free of charge within the Corporate Governance portion of the investor relations section of our web site, at www.essential.co, our Corporate Governance Guidelines, the Charters of each Committee of our Board of Directors, and our Code of Ethical Business Conduct (the Code of Ethics). Amendments to the Code of Ethics, and any grant of a waiver from a provision of the Code requiring disclosure under applicable rules of the SEC, will be disclosed on our web site. The reference to our web site is intended to be an inactive textual reference only, and the contents of such web site are not incorporated by reference herein and should not be considered part of this or any other report that we file with or furnish to the SEC.

Information About Our Executive Officers

The following table and the notes thereto set forth information with respect to our executive officers, including their names, ages, positions with Essential Utilities and business experience during the last five years:

Name	Age	Position with Essential Utilities (1)
Christopher H. Franklin	57	Chairman (January 2018 to present); President and Chief Executive Officer (July 2015 to present); Executive Vice President and President and Chief Operating Officer, Regulated Operations (January 2012 to July 2015); Regional President – Midwest and Southern Operations and Senior Vice President, Corporate and Public Affairs (January 2010 to January 2012); Regional President – Southern Operations and Senior Vice President, Public Affairs and Customer Operations (February 2007 to January 2010); Vice President, Public Affairs and Customer Operations (May 2005 to February 2007); Vice President, Corporate and Public Affairs (February 1997 to May 2005); Manager Corporate and Public Affairs (December 1992 to February 1997)
Daniel J. Schuller	53	Executive Vice President and Chief Financial Officer (October 2018 to present); Executive Vice President, Strategy and Corporate Development (July 2015 to October 2018); Investment Principal – J.P. Morgan Asset Management – Infrastructure Investments Group (2007 to 2015)
Colleen M. Arnold	52	President, Aqua Water (March 2020 to present); Deputy Chief Operating Officer, Aqua (September 2015 to March 2020)
Michael A. Huwar	59	President, Peoples Natural Gas (August 2020 to present); President Columbia Gas of Pennsylvania & Columbia Gas of Maryland (February 2017 to August 2020)
Christopher P. Luning	55	Executive Vice President and General Counsel (August 2022 to present); Executive Vice President, General Counsel, and Secretary (February 2019 to July 2022; Senior Vice President, General Counsel, and Secretary (April 2012 to February 2019); Vice President Corporate Development and Corporate Counsel (June 2008 to April 2012); Vice President and Deputy General Counsel (May 2005 to June 2008); Assistant General Counsel (March 2003 to May 2005)
Matthew R. Rhodes	45	Executive Vice President, Strategy and Corporate Development (June 2018 to present); Managing Director - Goldman Sachs, Global Natural Resources (July 2007 to April 2018)
Robert A. Rubin	60	Senior Vice President, Controller and Chief Accounting Officer (January 2012 to present); Vice President, Controller and Chief Accounting Officer (May 2005 to January 2012); Controller and Chief Accounting Officer (March 2004 to May 2005); Controller (March 1999 to March 2004); Assistant Controller (June 1994 to March 1999); Accounting Manager (June 1989 to June 1994)

(1) In addition to the capacities indicated, the individuals named in the above table hold other offices or directorships with subsidiaries of the Company. Officers serve at the discretion of the Board of Directors.

Item 11. *Executive Compensation*

The information responsive to this item will be included in the definitive Proxy Statement relating to our 2023 annual meeting of shareholders, to be filed within 120 days after the end of the fiscal year covered by this Annual Report, is incorporated by reference herein.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

Ownership of Common Stock - The information responsive to this item will be included in the definitive Proxy Statement relating to our 2023 annual meeting of shareholders, to be filed within 120 days after the end of the fiscal year covered by this Annual Report, and is incorporated by reference herein.

Securities Authorized for Issuance under Equity Compensation Plans - The following table provides information for our equity compensation plans as of December 31, 2022:

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)		Weighted-average exercise price of outstanding options, warrants and rights (b)		Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	1,556,830	(1)	$ 36.29	(2)	1,754,295
Equity compensation plans not approved by security holders	-		-		-
Total	1,556,830		$ 36.29		1,754,295

(1) Consists of 820,061 shares issuable upon exercise of outstanding options, 556,463 shares issuable upon conversion of outstanding performance share units, and 180,306 shares issuable upon conversion of outstanding restricted share units.

(2) Calculated based upon outstanding options of 820,061 shares to acquire our common stock.

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The information responsive to this item will be included in the definitive Proxy Statement relating to our 2023 annual meeting of shareholders, to be filed within 120 days after the end of the fiscal year covered by this Annual Report, and is incorporated by reference herein.

Item 14. *Principal Accountant Fees and Services*

The information responsive to this item will be included in the definitive Proxy Statement relating to our 2023 annual meeting of shareholders, to be filed within 120 days after the end of the fiscal year covered by this Annual Report, and is incorporated by reference herein.

PART IV

Item 15. *Exhibits and Financial Statement Schedules*

Financial Statements. The consolidated financial statements and supplementary data included in Part II, Item 8 are hereby incorporated by reference herein.

Financial Statement Schedules.

Schedule 1. – Condensed Parent Company Financial Statements. All other schedules are omitted because they are not applicable or not required, or because the required information is included in the consolidated financial statements or notes thereto.

Exhibits, Including Those Incorporated by Reference. A list of exhibits filed as part of this Annual Report is set forth in the Exhibit Index hereto which is incorporated by reference herein. Where so indicated, exhibits which were previously filed are incorporated by reference. For exhibits incorporated by reference, the location of the exhibit in the previous filing is indicated in the exhibit index.

Item 16. *Form 10-K Summary*

Registrants may voluntarily include a summary of information required by Form 10-K under this Item 16. The Company has elected not to include such summary information in this Annual Report.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference to			
		Form	File No.	Exhibit(s)	Filing Date
2.1	Purchase Agreement, dated October 22, 2018 by and between LDC Parent LLC, a Delaware limited liability company ("Seller") and the Registrant, a Pennsylvania corporation	8-K	001-06659	2.1	October 23, 2018
3.1	Utilities, Inc. Amended and Restated Articles of Incorporation Essential as of May 12, 2020	8-K	001-06659	3.1	May 18, 2020
3.2	Amended and Restated Bylaws of Essential Utilities, Inc. dated February 16, 2022	8-K	001-06659	3.1	February 18, 2022
4.1	Description of Securities of Essential Utilities, Inc.	10-K	001-06659	4.1	March 1, 2021
4.2	Indenture of Mortgage dated as of January 1, 1941 between Aqua Pennsylvania, Inc. (f/k/a Philadelphia Suburban Water Company) and The Bank of New York Mellon Trust Company, as successor trustee to First Pennsylvania Bank, N.A. (f/k/a The Pennsylvania Company for Insurance on Lives and Granting Annuities)	10-K	001-06659	4.1.1	February 26, 2016
4.2.1	Twenty-sixth Supplemental Indenture dated as of November 1, 1991	10-K	001-06659	4.1.3	February 26, 2016
4.2.2	Twenty-ninth Supplemental Indenture dated as of March 30, 1995	10-Q	001-06659	4.17	May 10, 1995
4.2.3	Thirty-third Supplemental Indenture, dated as of November 15, 1999	10-K	001-06659	4.27	March 29, 2000
4.2.4	Thirty-fifth Supplemental Indenture, dated as of January 1, 2002	10-K	001-06659	4.22	March 20, 2002
4.2.5	Forty-seventh Supplemental Indenture, dated as of October 15, 2012	10-K	001-06659	4.24	February 28, 2013
4.2.6	Forty-eighth Supplemental Indenture, dated as of October 1, 2013	10-K	001-06659	4.1.17	March 3, 2014
4.2.7	Form of Supplemental Indenture during and after 2014	10-K	001-06659	4.1.15	February 26, 2016
4.2.7.1	Schedule of Outstanding Supplemental Indentures during and after 2014	^	^	^	^
4.3	Bond Purchase Agreement, dated November 8, 2012, by and among Aqua Pennsylvania, Inc., Teachers Insurance and Annuity Association, John Hancock Life Insurance Company, John Hancock Life Insurance Company of New York, John Hancock Life & Health Insurance Company, The Lincoln National Life Insurance Company, Lincoln Life & Annuity Company of New York, New York Life Insurance Company, New York Life Insurance and Annuity Corporation, Minnesota Life Insurance Company, United Health Care Insurance Company, American Republic Insurance Company, Western Fraternal Life Association	10-K	001-06659	10.54	February 28, 2013

4.4	Bond Purchase Agreement, dated October 24, 2013, by and among Aqua Pennsylvania, Inc., John Hancock Life Insurance Company (U.S.A), John Hancock Life Insurance Company of New York, John Hancock Life & Health Insurance Company, The Lincoln National Life Insurance Company, Thrivent Financial for Lutherans, United Insurance Company of America, Equitable Life & Casualty Insurance Company, Catholic United Financial, and Great Western Insurance Company	10-K	001-06659	10.45	March 3, 2014
4.5	Bond Purchase Agreement, dated December 29, 2014, by and among Aqua Pennsylvania, Inc., Thrivent Financial for Lutherans, State Farm Life Insurance Company, John Hancock Life Insurance Company (U.S.A), Phoenix Life Insurance Company, PHL Variable Insurance Company, United of Omaha Life Insurance Company, Mutual of Omaha Insurance Company, and Companion Life Insurance Company	10-K	001-06659	10.58	February 27, 2015
4.6	Bond Purchase Agreement, dated December 3, 2015 by and among Aqua Pennsylvania, Inc., Thrivent Financial for Lutherans, State Farm Life Insurance Company, John Hancock Life Insurance Company (U.S.A), The Lincoln National Life Insurance Company, Teachers Insurance And Annuity Association Of America, CMFG Life Insurance Company, Genworth Life Insurance Company, Phoenix Life Insurance Company, PHL Variable Insurance Company, United Of Omaha Life Insurance Company, The State Life Insurance Company, Pioneer Mutual Life Insurance Company, MONY Life Insurance Company	10-K	001-06659	4.12	February 26, 2016
4.7	Note Purchase Agreement, dated November 3, 2016, by and among the Registrant and the note purchasers thereto	10-K	001-06659	4.13	February 24, 2017
4.8	Bond Purchase Agreement, dated December 15, 2016 by and among Aqua Pennsylvania, Inc., Teachers Insurance and Annuity Association of America, New York Life Insurance Company, New York Life Insurance and Annuity Corporation, John Hancock Life Insurance Company, American Equity Investment Life Insurance Company, Genworth Life and Annuity Insurance Company, Phoenix Life Insurance Company, PHL Variable Insurance Company, American United Life Insurance Company, The State Life Insurance Company, and Pioneer Mutual Life Insurance Company	10-K	001-06659	4.14	February 24, 2017
4.9	Bond Purchase Agreement, dated July 10, 2017 by and among Aqua Illinois, Inc., Teachers Insurance and Annuity Association of America	10-Q	001-06659	4.1	November 2, 2017
4.10	Bond Purchase Agreement, dated July 20, 2017 by and among Aqua Pennsylvania, Inc., New York Life Insurance Company, New York Life Insurance and Annuity Corporation, New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account (BOLI 3), New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Account (BOLI 3-2)	10-Q	001-06659	4.2	November 2, 2017

4.11	Bond Purchase Agreement, dated June 29, 2018, by and among Aqua Pennsylvania, Inc., CMFG Life Insurance Company, Manufactures Life Reinsurance Limited, The Lincoln National Life Insurance Company, New York Life Insurance Company, The State Life Insurance Company, and Phoenix Life Insurance Company	10-Q	001-06659	4.1	August 3, 2018
4.12	Bond Purchase Agreement, dated November 15, 2018, by and among Aqua Pennsylvania, Inc., Teachers Insurance and Annuity Associated of America, American United Life Insurance Company, Pioneer Mutual Life Insurance Company, The State Life Insurance Company, The Lincoln National Life Insurance Company, Lincoln Life & Annuity Company of New York, and United of Omaha Life Insurance Company	10-K	001-06659	4.15	February 26, 2019
4.13	Purchase Contract Agreement, dated April 23, 2019, between the Registrant, and U.S. Bank N.A., as purchase contract agent, as attorney-in-fact for the Holders from time to time as provided therein and as trustee under the indenture referred to therein	8-K	001-06659	4.1	April 23, 2019
4.13.1	Form of Unit (included in Exhibit 4.13 above)	8-K	001-06659	4.1	April 23, 2019
4.13.2	Form of Purchase Contract (included with Exhibit 4.13 above)	8-K	001-06659	4.1	April 23, 2019
4.14	Indenture, dated as of April 23, 2019, between the Registrant and U.S. Bank N.A., as trustee	8-K	001-06659	4.4	April 23, 2019
4.14.1	First Supplemental Indenture, dated as of April 23, 2019, between the Registrant and U.S. Bank N.A., as trustee	8-K	001-06659	4.5	April 23, 2019
4.14.2	Second Supplemental Indenture, dated as of April 23, 2019, between the Registrant and U.S. Bank N.A., as trustee	8-K	001-06659	4.6	April 23, 2019
4.14.3	Form of Amortizing Note (included with Exhibit 4.14.2 above)	8-K	001-06659	4.7	April 23, 2019
4.14.4	Third Supplemental Indenture, dated as of April 26, 2019, between the Registrant and U.S. Bank N.A., as trustee	8-K	001-06659	4.3	April 26, 2019
4.14.5	Form of Global Note for the 2029 Notes (included in Exhibit 4.14.4 above)	8-K	001-06659	4.4	April 26, 2019
4.14.6	Form of Global Note for the 2049 Notes (included in Exhibit 4.14.4 above)	8-K	001-06659	4.5	April 26, 2019
4.14.7	Fourth Supplemental Indenture, dated April 13, 2020, by and between Essential Utilities, Inc. and U.S. Bank N.A.	8-K	001-06659	4.3	April 15, 2020
4.14.8	Fifth Supplemental Indenture, dated April 19, 2021, between Essential Utilities, Inc. and U.S. Bank N.A., as trustee	8-K	001-06659	4.3	April 19, 2021
4.14.9	Sixth Supplemental Indenture, dated May 20, 2022, between Essential Utilities, Inc. and U.S. Bank Trust Company N.A, as trustee	8-K	001-06659	4.3	May 20, 2022

4.15	Bond Purchase Agreement, dated May 31, 2019, by and among Aqua Pennsylvania, Inc., Athene Annuity and Life Company, Athene Annuity & Life Assurance Company, Genworth Life and Annuity Insurance Company, Genworth Life Insurance Company, John Hancock Life Insurance Company (U.S.A), John Hancock Life Insurance Company of New York, John Hancock Life & Health Insurance Company, Metropolitan Life Insurance Company, Metropolitan Tower Life Insurance Company, MetLife Insurance K.K., Brighthouse Life Insurance Company, United of Omaha Life Insurance Company, New York Life Insurance Company, New York Life Insurance and Annuity Corporation, New York Life Insurance and Annuity Corporation Institutionally Owned Life Insurance Separate Accounts (BOLI 30C, 30E, 3-2), The Northwestern Mutual Life Insurance Company, The Northwestern Mutual Life Insurance Company, and Life Insurance Company of the Southwest	10-Q	001-06659	4.11	August 8, 2019
4.16	Bond Purchase Agreement, dated December 20, 2019, by and among Aqua Pennsylvania, Inc., MetLife Insurance K.K, Metropolitan Life Insurance Company, The Ohio National Life Insurance Company, Ohio National Life Assurance Corporation, National Guardian Life Insurance Company, Country Life Insurance Company, Horizon Blue Cross Blue Shield of New Jersey, and Farm Bureau Life Insurance Company	10-K	001-06659	4.18	February 28, 2020
4.17	Bond Purchase Agreement, dated May 1, 2020, by and among Aqua Pennsylvania, Inc. and bond purchasers thereto	10-Q	001-06659	4.4	May 8, 2020
4.18	Bond Purchase Agreement, dated October 13, 2020, by and among Aqua Pennsylvania, Inc., American General Life Insurance Company, The Variable Life Insurance Company, The United States Life Insurance Company in the City of New York, MetLife Insurance K.K., Pacific Life Insurance Company, Equitable Financial Life Insurance Company, Transamerica Life Insurance Company, Transamerica Life (Bermuda) LTD, Principal Life Insurance Company, Ameritas Life Insurance Company, Ameritas Life Insurance Corp. of New York, The State Life Insurance Company, Nassau Life Insurance Company, Life Insurance Company of the Southwest, United Farm Family Life Insurance Company, and Farm Bureau Life Insurance Company	10-K	001-06659	4.18	March 1, 2021
4.19	Bond Purchase Agreement, dated April 15, 2021, by and among Aqua Ohio, Inc., Teachers Insurance and Annuity Association of America, State Farm Life Insurance Company, State Farm Life and Accident Assurance Company, and State Farm Insurance Companies Employee Retirement Trust	10-K	001-06659	4.19	March 1, 2022
4.20	Bond Purchase Agreement, dated September 19, 2022, by and among Aqua Pennsylvania, Inc. and the Purchasers	10-Q	001-06659	4.1	November 9, 2022
4.21	Bond Purchase Agreement, dated December 15, 2022, by and among Aqua Pennsylvania, Inc. and State Farm Life Insurance Company, State Farm Life and Accident Assurance Company, State Farm Insurance Companies Employee Retirement Trust	^	^	^	^

10.1	Credit Agreement, dated December 14, 2022, between Essential Utilities, Inc., PNC Bank, National Association, CoBank, ACB, Bank of America, N.A., Royal Bank of Canada, The Huntington National Bank, Barclays Bank PLC, Citizens Bank, N.A., The Toronto-Dominion Bank, and Wells Fargo Bank, N.A	^	^	^	^
10.2	Amended and Restated Revolving Credit Agreement, dated as of November 17, 2016 between Aqua Pennsylvania and PNC Bank, National Association, TD Bank, N.A., Citizens Bank of Pennsylvania, and Huntington National Bank	10-K	001-06659	10.2.4	February 24, 2017
10.2.1	First Amendment to Revolving Credit Agreement, dated as of November 16, 2017, between Aqua Pennsylvania and PNC Bank, National Association, Citizens Bank of Pennsylvania, TD Bank, N.A., and Huntington National Bank	10-K	001-06659	10.1.5	February 28, 2018
10.2.2	Second Amendment to Revolving Credit Agreement, dated as of November 9, 2018, between Aqua Pennsylvania and PNC Bank, National Association, Citizens Bank of Pennsylvania, TD Bank, N.A., and Huntington National Bank	10-K	001-06659	10.2.2	February 26, 2019
10.2.3	Third Amendment to Credit Agreement, dated as of November 8, 2019, between Aqua Pennsylvania and PNC Bank, National Association, Citizens Bank of Pennsylvania, TD Bank, N.A., and Huntington National Bank	10-Q	001-06659	10.1	May 8, 2020
10.2.4	Fourth Amendment to Credit Agreement, dated as of November 6, 2020, between Aqua Pennsylvania and PNC Bank, National Association, Citizens Bank, N.A., TD Bank, N.A., and Huntington National Bank	10-K	001-06659	10.2.4	March 1, 2022
10.2.5	Fifth Amendment to Credit Agreement, dated as of November 5, 2021, between Aqua Pennsylvania and PNC Bank, National Association, Citizens Bank, N.A., TD Bank, N.A., and Huntington National Bank	10-K	001-06659	10.2.5	March 1, 2022
10.3	The Registrant's Deferred Compensation Plan Master Trust Agreement with PNC Bank, National Association, dated as of December 31, 1996*	10-K	001-06659	10.24	March 25, 1997
10.3.1	Amendment 2008-1 to the Registrant's Deferred Compensation Plan Master Trust Agreement, dated as of December 15, 2008*	10-K	001-06659	10.50	February 27, 2009
10.4	The Registrant's 2009 Executive Deferral Plan (as amended and restated effective January 1, 2009)*	S-8	333-156047	4.1	December 10, 2008
10.5	The Registrant's Supplemental Pension Benefit Plan for Salaried Employees (as amended and restated effective January 1, 2011)*	10-K	001-06659	10.58	February 27, 2012
10.6	The Registrant's Dividend Reinvestment and Direct Stock Purchase Plan	S-3ASR	333-240088	N/A	July 24, 2020
10.7.1	Performance-Based Share Unit Grant Terms and Conditions*	^	^	^	^
10.7.2	Restricted Stock Unit Grant Terms and Conditions for Chief Executive Officer*	10-Q	001-06659	10.2	May 4, 2017
10.7.3	Restricted Stock Unit Grant Terms and Conditions for all other executive officers*	^	^	^	^
10.7.4	Stock Option Grant Terms and Conditions*	^	^	^	^
10.8	The Registrant's 2012 Employee Stock Purchase Plan*	10-K	001-06659	10.10	February 26, 2016
10.9	The Registrant's Annual Cash Incentive Compensation Plan (adopted February 26, 2013)*	10-K	001-06659	10.56	February 28, 2013

10.10	Form of Change in Control Agreement between the Company and executive officers*	^	^	^	^
10.10.1	Schedule of Change in Control Agreement between the Company and executive officers*	^	^	^	^
10.11	Non-Employee Directors' Compensation, effective January 1, 2023*	8-K	001-06659	10.1	December 9, 2022
10.12	Employment Agreement dated July 1, 2021, between the Registrant and Christopher Franklin*	8-K	001-06659	10.1	June 25, 2021
10.13		8-K	001-00659	1.1	October 17, 2022
10.14	The Registrant Amended and Restated Omnibus Equity Compensation Plan	^	^	^	^
10.15	Essential Utilities, Inc. Stock Award Grant Instrument dated as of March 16, 2020*	10-Q	001-06659	10.4	May 8, 2020
10.16	Incremental Facility Amendment Agreement, dated March 13, 2020, by and among Essential Utilities, Inc., Incremental Lender, and the PNC Bank, National Association	8-K	001-06659	10.1	March 16, 2020
10.17	Credit Agreement, dated March 13, 2020, by and among Essential Utilities, Inc., Lenders, and the PNC Bank, National Association	8-K	001-06659	10.2	March 16, 2020
10.18	Credit Agreement, dated April 3, 2020, by and among Essential Utilities, Inc., Lenders, and the PNC Bank, National Association	8-K	001-06659	10.1	April 3, 2020
10.19	Note Purchase Agreement, dated February 26, 2010, by and between PNG Companies, LLC and the note purchasers thereto	8-K/A	001-06659	10.1	April 13, 2020
10.19.1	First Amendment to Note Purchase Agreement, dated August 10, 2011, by and between PNG Companies, LLC and the noteholders	8-K/A	001-06659	10.1.1	April 13, 2020
10.19.2	Second Amendment to Note Purchase Agreement, dated August 22, 2013, by and between PNG Companies, LLC and the noteholders	8-K/A	001-06659	10.1.2	April 13, 2020
10.19.3	Third Amendment to Note Purchase Agreement, dated November 9, 2017, by and between PNG Companies, LLC and the noteholders	8-K/A	001-06659	10.1.3	April 13, 2020
10.19.4	First Supplement to Note Purchase Agreement, dated December 12, 2013, by and between PNG Companies, LLC and the note purchasers thereto	8-K/A	001-06659	10.1.4	April 13, 2020
10.19.5	Second Supplement to Note Purchase Agreement, dated July 14, 2017, by and between PNG Companies, LLC and the note purchasers thereto	8-K/A	001-06659	10.1.5	April 13, 2020
10.19.6	Third Supplement to Note Purchase Agreement, dated September 20, 2017, by and between PNG Companies, LLC and the note purchasers thereto	8-K/A	001-06659	10.1.6	April 13, 2020
10.19.7	Fourth Supplement to Note Purchase Agreement, dated November 9, 2017, by and between PNG Companies, LLC and the note purchasers thereto	8-K/A	001-06659	10.1.7	April 13, 2020
10.19.8	Fifth Supplement to Note Purchase Agreement, dated December 20, 2017, by and between PNG Companies, LLC and the note purchasers thereto	8-K/A	001-06659	10.1.8	April 13, 2020

10.19.9	Sixth Amendment to Credit Agreement, dated June 30, 2022, between Aqua Pennsylvania and PNC Bank, National Association, Citizens Bank, N.A., TD Bank, N.A., and The Huntington National Bank	10-Q	002-06659	10.2	August 9, 2022
10.19.10	Credit Agreement, dated November 25, 2020, by and between PNG Companies, LLC and PNC Bank, National Association and TD Bank, N.A.	10-K	001-06659	10.21.9	March 1, 2022
10.19.11	First Amendment to Credit Agreement, dated November 5, 2021, by and between PNG Companies, LLC and PNC Bank, National Association and TD Bank, N.A.	10-K	001-06659	10.21.10	March 1, 2022
10.19.12	Second Amendment to Credit Agreement, dated June 30, 2022, by and between PNG Companies, LLC and PNC Bank National Association, TD Bank, N.A. and Citizens Bank N.A.	10-Q	001-06659	10.1	August 9, 2022
21.1	Subsidiaries of Essential Utilities, Inc.	^	^	^	^
23.1	Consent of Independent Registered Public Accounting Firm – PricewaterhouseCoopers LLP	^	^	^	^
31.1	Certification of Chief Executive Officer, pursuant to Rule 13a-14(a) under the Securities and Exchange Act of 1934	^	^	^	^
31.2	Certification of Chief Financial Officer, pursuant to Rule 13a-14(a) under the Securities and Exchange Act of 1934	^	^	^	^
32.1	Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350	^^	^^	^^	^^
32.2	Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350	^^	^^	^^	^^
101.INS	Inline XBRL Instance Document	^	^	^	^
101.SCH	Inline XBRL Taxonomy Extension Schema Document	^	^	^	^
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	^	^	^	^
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	^	^	^	^
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	^	^	^	^
101.PRES	Inline XBRL Taxonomy Extension Presentation Linkbase Document	^	^	^	^
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2022 formatted in Inline XBRL (included in Exhibit 101)	^	^	^	^

In accordance with Item 601(b)(4)(iii)(A) of Regulation S-K, copies of specific instruments defining the rights of holders of long-term debt of the Company or its subsidiaries are not filed herewith. Pursuant to this regulation, we hereby agree to furnish a copy of any such instrument to the SEC upon request.

*Indicates management contract or compensatory plan or arrangement

^ Filed herewith

^^Furnished herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ESSENTIAL UTILITIES, INC.

/s/ Christopher H. Franklin
Christopher H. Franklin
Chairman, President and Chief Executive Officer

Date: March 1, 2023

Pursuant to the requirements of the Securities and Exchange Act of 1934, this report on Form 10-K has been signed below by the following persons on behalf of the Registrant on March 1, 2023 in the capacities indicated below.

Signature	Title
/s/ Christopher H. Franklin Christopher H. Franklin	Chairman, President and Chief Executive Officer, Director (Principal Executive Officer)
/s/ Daniel J. Schuller Daniel J. Schuller	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ Robert A. Rubin Robert A. Rubin	Senior Vice President, Controller and Chief Accounting Officer (Principal Accounting Officer)
/s/ Elizabeth B. Amato Elizabeth B. Amato	Director
/s/ David Ciesinski David Ciesinski	Director
/s/ Daniel J. Hilferty Daniel J. Hilferty	Director
/s/ Edwina Kelly Edwina Kelly	Director
/s/ W. Bryan Lewis W. Bryan Lewis	Director
/s/ Ellen T. Ruff Ellen T. Ruff	Director
/s/ Lee C. Stewart Lee C. Stewart	Director
/s/ Christopher C. Womack Christopher C. Womack	Director

Essential Utilities, Inc.
Schedule 1 – Condensed Parent Company Financial Statements
Condensed Balance Sheets
(In thousands of dollars)

	December 31,	
	2022	2021
Assets		
Current assets:		
Accounts receivable, net	$ 575	$ 122
Accounts receivable - affiliates	1,601,064	117,504
Prepayments and other current assets	14,256	12,754
Total current assets	1,615,895	130,380
Deferred charges and other assets, net	69,455	52,512
Notes receivable - affiliates	2,276,670	2,015,570
Deferred income tax asset	42,206	1,310
Investment in subsidiaries	6,512,224	6,005,927
Total assets	$ 10,516,450	$ 8,205,699
Liabilities and Equity		
Stockholders' equity	$ 5,377,386	$ 5,184,450
Long-term debt, excluding current portion, net of debt issuance costs	3,503,636	2,819,590
Current liabilities:		
Current portion of long-term debt	-	20,470
Accrued interest	20,923	15,550
Accounts payable - affiliates	1,418,574	58,962
Dividends payable	75,808	-
Other accrued liabilities	21,234	16,109
Total current liabilities	1,536,539	111,091
Other liabilities	98,889	90,568
Total liabilities and equity	$ 10,516,450	$ 8,205,699

The accompanying condensed notes are an integral part of these condensed financial statements.

Essential Utilities, Inc.
Schedule 1 – Condensed Parent Company Financial Statements
Condensed Statements of Income and Comprehensive Income
(In thousands, except per share amounts)

	Years ended December 31,		
	2022	2021	2020
Other income	$ 5,368	$ 8,388	$ 4,973
Operating expense and other expenses	10,724	5,821	29,483
Operating income (loss)	(5,356)	2,567	(24,510)
Interest expense	35,817	21,729	53,702
Interest income	(107)	(9)	(5,256)
Other (income) expense	893	(609)	(494)
Loss before equity in earnings of subsidiaries and income taxes	(41,959)	(18,544)	(72,462)
Equity in earnings of subsidiaries	495,556	445,951	341,653
Income before income taxes	453,597	427,407	269,191
Income tax benefit	(11,640)	(4,205)	(15,658)
Net income	$ 465,237	$ 431,612	$ 284,849
Comprehensive income	$ 465,237	$ 431,612	$ 284,849
Net income per common share:			
Basic	$ 1.77	$ 1.68	$ 1.14
Diluted	$ 1.77	$ 1.67	$ 1.12
Average common shares outstanding during the period:			
Basic	262,246	257,487	249,768
Diluted	262,868	258,180	254,629

The accompanying condensed notes are an integral part of these condensed financial statements.

Essential Utilities, Inc.
Schedule 1 – Condensed Parent Company Financial Statements
Condensed Statements of Cash Flows
(In thousands of dollars)

	Years ended December 31,		
	2022	2021	2020
Net cash flows used in operating activities	$ (169,778)	$ (239,320)	$ (315,329)
Cash flows from investing activities:			
Acquisitions of utility systems and other, net	(116,627)	(36,237)	(34,665)
Acquisition of natural gas system and other, net	-	-	(3,465,344)
Decrease (increase) in investment in subsidiaries	(162,662)	(53,467)	6,085
Other	299	(987)	341
Net cash flows used in investing activities	(278,990)	(90,691)	(3,493,583)
Cash flows from financing activities:			
Net proceeds (repayments) of short-term debt	-	-	(881)
Proceeds from long-term debt	1,522,157	995,458	3,042,274
Repayments of long-term debt	(865,469)	(725,033)	(1,607,854)
Proceeds from issuance of common stock from private placement	-	-	729,301
Proceeds from issuance of common stock from at-the market sale agreement	63,040	-	-
Proceeds from issuance of common stock under dividend reinvestment plan	16,619	16,799	16,522
Proceeds from exercised stock options	2,475	4,172	1,589
Proceeds from issuance of common stock from forward equity sale agreement	-	299,739	-
Repurchase of common stock	(1,192)	(3,291)	(4,365)
Dividends paid on common stock	(288,632)	(258,650)	(232,571)
Other	(230)	817	(96)
Net cash flows from financing activities	448,768	330,011	1,943,919
Net change in cash and cash equivalents	-	-	(1,864,993)
Cash and cash equivalents at beginning of year	-	-	1,864,993
Cash and cash equivalents at end of year	$ -	$ -	$ -

See Note 1 - *Basis of Presentation*

The accompanying condensed notes are an integral part of these condensed financial statements.

Note 1 – *Basis of Presentation* – The accompanying condensed financial statements of Essential Utilities, Inc. (the "Parent") should be read in conjunction with the consolidated financial statements and notes thereto of Essential Utilities, Inc. and subsidiaries (collectively, the "Registrant") included in Part II, Item 8 of the Annual Report. The Parent's significant accounting policies are consistent with those of the Registrant.

The Parent borrows from third parties and provides funds to its subsidiaries, in support of their operations. Amounts owed to the Parent for borrowings under this facility are reflected as inter-company receivables on the condensed balance sheets. The interest rate charged to the subsidiaries is sufficient to cover the Parent's interest costs under its associated borrowings.

As of December 31, 2022 and 2021, the Parent had a current accounts receivable – affiliates balance of $1,601,064 and $117,504, respectively. As of December 31, 2022 and 2021, the Parent had a notes receivable – affiliates balance of $2,276,670 and $2,015,570, respectively. The changes in these balances represent non-cash adjustments that are recorded through the Parent's investment in subsidiaries.

In the ordinary course of business, the Parent indemnifies a third-party for surety bonds issued on behalf of subsidiary companies, guarantees the performance of one of its regulated utilities in a jurisdiction that requires such guarantees, and guarantees several projects associated with the treatment of water in a jurisdiction.

Note 2 – *Dividends from subsidiaries* – Dividends in the amount of $0, $0, and $1,050,000 were paid to the Parent by its wholly-owned subsidiaries during the years ended December 31, 2022, 2021, and 2020, respectively.

Note 3 – *Long-term debt* – The Parent has long-term debt under unsecured note purchase agreements with investors in addition to its $1,000,000 revolving credit agreement. Excluding amounts due under the revolving credit agreement, the debt maturities of the Parent's long-term debt are as follows:

Year	Debt Maturity
2023	$ -
2024	-
2025	-
2026	-
2027	-
Thereafter	3,025,000

Aqua Pennsylvania, Inc.

$75,000,000

$75,000,000 First Mortgage Bonds, 5.60% Series due February 1, 2043

_____

Bond Purchase Agreement

_____

Dated as of December 15, 2022

Table of Contents

Schedule A — Information Relating to Purchasers
Schedule B — Defined Terms
Schedule 5.4 — Subsidiaries of the Company and Ownership of Subsidiary Stock
Schedule 5.5 — Financial Statements
Schedule 5.15(a) — Existing Debt
Schedule 5.15(b) — Debt Instruments
Exhibit A — Form of Sixty-first Supplemental Indenture
Exhibit 4.4(a) — Form of Opinion of Counsel for the Company
Exhibit 4.4(b) — Form of Opinion of Special Counsel for the Company
Exhibit 4.4(c) — Form of Opinion of Special Counsel for the Purchasers
Exhibit 12.4 — Form of US Tax Compliance Certificate

Aqua Pennsylvania, Inc.
762 West Lancaster Avenue
Bryn Mawr, Pennsylvania 19010-3489

$75,000,000

$75,000,000 First Mortgage Bonds, 5.60% Series due February 1, 2043

As of December 15, 2022

To Each of the Purchasers Listed in
Schedule A Hereto:

Ladies and Gentlemen:

Aqua Pennsylvania, Inc., a corporation organized under the laws of the Commonwealth of Pennsylvania (the *"Company"*), agrees with each of the purchasers whose names appear at the end hereof (each, a *"Purchaser"* and, collectively, the *"Purchasers"*) as follows:

Section 1. Authorization of Bonds.

The Company will authorize the issue and sale of First Mortgage Bonds, 5.60% Series due February 1, 2043 (herein referred to as the *"5.60% Series due February 1, 2043 Bonds"*) in an aggregate principal amount of $75,000,000, to bear interest at the rate of 5.60% per annum, and to mature on February 1, 2043 (the 5.60% Series due February 1, 2043 Bonds are collectively referred to as the *"Bonds"* and such term includes any such bonds issued in substitution therefor). The Bonds will be issued under and secured by that certain Indenture of Mortgage dated as of January 1, 1941, from the Company (as successor by merger to the Philadelphia Suburban Water Company), as grantor, to The Bank of New York Mellon Trust Company, N.A., as successor trustee (the "*Trustee*") (the *"Original Indenture"*), as previously amended and supplemented by sixty supplemental indentures and as further supplemented by the Sixty-first Supplemental Indenture dated as of December 1, 2022 (such Sixty-first Supplemental Indenture being referred to herein as the *"Supplement"*) which will be substantially in the form attached hereto as *Exhibit A*, with such changes therein, if any, as shall be approved by the Purchasers and the Company. The Original Indenture, as supplemented and amended by the aforementioned sixty supplemental indentures and the Supplement, and as further supplemented or amended according to its terms, is hereinafter referred to as the *"Indenture"*. Certain capitalized and other terms used in this Agreement are defined in *Schedule B*; and references to a *"Schedule"* or an *"Exhibit"* are, unless otherwise specified, to a Schedule or an Exhibit attached to this Agreement. Terms used herein but not defined herein shall have the meanings set forth in the Indenture.

Section 2. Sale and Purchase of Bonds.

Subject to the terms and conditions of this Agreement, the Company will issue and sell to each Purchaser and each Purchaser will purchase from the Company, at the Closing provided for

in **Section 3**, Bonds in the principal amount opposite such Purchaser's name in *Schedule A* at the purchase price of 100% of the principal amount thereof. The Purchasers' obligations hereunder are several and not joint obligations and no Purchaser shall have any liability to any Person for the performance or non-performance of any obligation by any other Purchaser hereunder.

Section 3. Execution Date and Closing.

The execution and delivery of this Agreement will be made at the offices of Chapman and Cutler LLP, 320 South Canal Street, Chicago, Illinois 60606 on December 15, 2022 or on such other Business Day thereafter on or prior to December 15, 2022, as may be agreed upon by the Company and the Purchasers (the *"Execution Date"*). The sale and purchase of the Bonds to be purchased by each Purchaser shall occur at 10:00 A.M., Chicago time, at a closing on January 31, 2023 or on such other Business Day thereafter on or prior to February 15, 2023 as may be agreed upon by the Company and the Purchasers (the *"Closing"*). At the Closing the Company will deliver to each Purchaser the Bonds to be purchased by such Purchaser in the form of one or more Bonds to be purchased by such Purchaser, as applicable, in such denominations as such Purchaser may request (with a minimum denomination of $100,000 for each Bond), dated the date of the Closing and registered in such Purchaser's name (or in the name of its nominee), against delivery by such Purchaser to the Company or its order of immediately available funds in the amount of the purchase price therefor by wire transfer of immediately available funds for Account Number: 8559742757, Account Name: Aqua Pennsylvania, Inc., at PNC Bank, N.A., Philadelphia, Pennsylvania, ABA Number 031-000053. If at the Closing the Company shall fail to tender such Bonds to any Purchaser as provided above in this **Section 3**, or any of the conditions specified in **Section 4** shall not have been fulfilled to such Purchaser's satisfaction, such Purchaser shall, at its election, be relieved of all further obligations under this Agreement, without thereby waiving any rights such Purchaser may have by reason of such failure by the Company to tender such Bonds or any of the conditions specified in **Section 4** not having been fulfilled to such Purchaser's satisfaction.

Section 4. Conditions to Closing.

Each Purchaser's obligation to execute and deliver this Agreement and to purchase and pay for the Bonds to be sold to such Purchaser at the Closing is subject to the fulfillment to such Purchaser's satisfaction prior to or at the Closing of the following conditions:

Section 4.1. *Representations and Warranties*. The representations and warranties of the Company in this Agreement shall be correct when made and at the time of the Closing.

Section 4.2. *Performance; No Default*. The Company shall have performed and complied with all agreements and conditions contained in each Financing Agreement required to be performed or complied with by the Company prior to or at the Closing, and after giving effect to the issue and sale of the Bonds (and the application of the proceeds thereof as contemplated by **Section 5.14**), no Default or Event of Default shall have occurred and be continuing.

Section 4.3. *Compliance Certificates*. The Company shall have performed and complied with all agreements and conditions contained in the Indenture which are required to be performed

or complied with by the Company for the issuance of the Bonds at the Closing. In addition, the Company shall have delivered the following certificates:

(a) *Officer's Certificate.* The Company shall have delivered to such Purchaser (i) an Officer's Certificate, dated the date of the Closing, certifying that the conditions specified in **Section 4** of this Agreement have been fulfilled, and (ii) copies of all certificates and opinions required to be delivered to the Trustee under the Indenture in connection with the issuance of the Bonds, in each case, dated the date of the Closing.

(b) *Secretary's Certificate.* The Company shall have delivered to such Purchaser a certificate of its Secretary or Assistant Secretary, dated the date of the Closing, certifying as to the resolutions attached thereto and other corporate proceedings relating to the authorization, execution and delivery of this Agreement, the Bonds, under the Indenture, and the Supplement.

(c) *Certification of Indenture.* Such Purchaser shall have received a composite copy of the Indenture (together with all amendments and supplements thereto), certified by the Company as of the date of the Closing, exclusive of property exhibits, recording information and the like.

Section 4.4. Opinions of Counsel. Such Purchaser shall have received opinions in form and substance satisfactory to such Purchaser, dated the date of the Closing (a) from Christopher P. Luning, counsel for the Company, covering the matters set forth in *Exhibit 4.4(a)* and covering such other matters incident to the transactions contemplated hereby as such Purchaser or its counsel may reasonably request (and the Company hereby instructs its counsel to deliver such opinion to the Purchasers) and (b) from Dilworth Paxson, LLP, special counsel to the Company, covering the matters set forth in *Exhibit 4.4(b)* and covering such other matters incident to the transactions contemplated hereby as such Purchaser or such Purchaser's counsel may reasonably request (and the Company hereby instructs its counsel to deliver such opinion to the Purchasers), and (c) from Chapman and Cutler LLP, the Purchasers' special counsel in connection with such transactions, substantially in the form set forth in *Exhibit 4.4(c)* and covering such other matters incident to such transactions as such Purchaser may reasonably request. The Company hereby directs its counsel to deliver the opinions required by this **Section 4.4** and understands and agrees that each Purchaser will and hereby is authorized to rely on such opinions.

Section 4.5. Purchase Permitted by Applicable Law, Etc. On the date of the Closing such Purchaser's purchase of Bonds shall (a) be permitted by the laws and regulations of each jurisdiction to which such Purchaser is subject, without recourse to provisions (such as section 1405(a)(8) of the New York Insurance Law) permitting limited investments by insurance companies without restriction as to the character of the particular investment, (b) not violate any applicable law or regulation (including, without limitation, Regulation T, U, or X of the Board of Governors of the Federal Reserve System) and (c) not subject such Purchaser to any tax, penalty or liability under or pursuant to any applicable law or regulation, which law or regulation was not in effect on the date of the Closing. If requested by such Purchaser, such Purchaser shall have received an Officer's Certificate certifying as to such matters of fact as such Purchaser may reasonably specify to enable such Purchaser to determine whether such purchase is so permitted.

Section 4.6. Sale of Bonds. Contemporaneously with the Closing, the Company shall sell to each Purchaser and each Purchaser shall purchase the Bonds to be purchased by it as specified in *Schedule A*.

Section 4.7. Payment of Special Counsel Fees. Without limiting the provisions of **Section 12.2**, the Company shall have paid on or before the Closing the reasonable fees, reasonable charges and reasonable disbursements of the Purchasers' special counsel referred to in **Section 4.4(c)** to the extent reflected in a statement of such counsel rendered to the Company at least one Business Day prior to the Closing.

Section 4.8. Private Placement Number. A Private Placement Number issued by the PPN CUSIP Unit of CUSIP Global Services (in cooperation with the SVO) shall have been obtained for the Bonds issued at the Closing.

Section 4.9. Changes in Corporate Structure. The Company shall not have changed its jurisdiction of incorporation or organization, as applicable, or been a party to any merger or consolidation or succeeded to all or any substantial part of the liabilities of any other entity, at any time following the date of the most recent financial statements referred to in *Schedule 5.5*.

Section 4.10. Funding Instructions. At least five (5) Business Days prior to the date the Closing, each Purchaser shall have received written instructions signed by a Responsible Officer on letterhead of the Company confirming the information specified in Section 3 including (a) the name and address of the transferee bank, (b) such transferee bank's ABA number/Swift Code/IBAN, and (c) the account name and number into which the purchase price for the Bonds is to be deposited, which account shall be fully opened and able to receive micro deposits in accordance with this Section at least five (5) Business Days prior to the date of the Closing. Each Purchaser has the right, but not the obligation, upon written notice (which may be by email) to the Company, to elect to deliver a micro deposit (less than $51.00) to the account identified in the written instructions no later than two (2) Business Days prior to the date of the Closing. If a Purchaser delivers a micro deposit, a Responsible Officer must verbally verify the receipt and amount of the micro deposit to such Purchaser on a telephone call initiated by such Purchaser prior to the date of the Closing. The Company shall not be obligated to return the amount of the micro deposit, nor will the amount of the micro deposit be netted against the Purchaser's purchase price of the Bonds.

Section 4.11. Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated by this Agreement and all documents and instruments incident to such transactions shall be reasonably satisfactory to such Purchaser and its special counsel, and such Purchaser and its special counsel shall have received all such counterpart originals or certified or other copies of such documents as such Purchaser or such special counsel may reasonably request.

Section 4.12. Execution and Delivery and Filing and Recording of the Supplement. Prior to or at the Closing, the Supplement shall have been duly executed and delivered by the Company, and the Company shall have filed, or delivered for recordation, the Supplement in all locations in Pennsylvania (and financing statements in respect thereof shall have been filed, if necessary) in

such manner and in such places as is required by law (and no other instruments are required to be filed) to establish, preserve, perfect and protect the direct security interest and mortgage Lien of the Trust Estate created by the Indenture on all mortgaged and pledged property of the Company referred to in the Indenture as subject to the direct mortgage Lien thereof and the Company shall have delivered satisfactory evidence of such filings, recording or delivery for recording.

Section 4.13. Regulatory Approvals. The issue and sale of the Bonds shall have been duly authorized by an order of the Pennsylvania Public Utility Commission and such order shall be in full force and effect on the date of the Closing and all appeal periods, if any, applicable to such order shall have expired. The Company shall deliver satisfactory evidence that orders have been obtained approving the issuance of such Bonds from the Pennsylvania Public Utility Commission or that the Pennsylvania Public Utility Commission shall have waived jurisdiction thereof and such approval or waiver shall not be contested or subject to review, or that the Pennsylvania Public Utility Commission does not have jurisdiction.

Section 5. Representations and Warranties of the Company.

The Company represents and warrants to each Purchaser as of the date of this Agreement and at the Closing that:

Section 5.1. Organization; Power and Authority. The Company is a corporation duly organized, validly existing and subsisting under the laws of the Commonwealth of Pennsylvania, and is duly qualified as a foreign corporation and is in good standing in each jurisdiction in which such qualification is required by law, other than those jurisdictions as to which the failure to be so qualified or in good standing would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company has the corporate power and authority to own or hold under lease the properties it purports to own or hold under lease, to transact the business it transacts and proposes to transact, to execute and deliver this Agreement, the Bonds and the Supplement (and had the corporate power and authority to execute and deliver the Indenture at the time of execution and delivery thereof) and to perform the provisions of the Financing Agreements.

Section 5.2. Authorization, Etc. At the Closing, each Financing Agreement has been duly authorized by all necessary corporate action on the part of the Company, and each Financing Agreement (other than the Supplement and the Bonds) constitutes, and when the Supplement is executed and delivered by the Company and the Trustee and when the Bonds are executed, issued and delivered by the Company, authenticated by the Trustee and paid for by the Purchasers, the Supplement and each Bond will constitute, a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its respective terms, except as such enforceability may be limited by (i) applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and (ii) general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

Section 5.3. Disclosure. This Agreement and the documents, certificates or other writings delivered to the Purchasers by or on behalf of the Company in connection with the transactions contemplated hereby, including the management/investor presentation dated July 18, 2022, and

the financial statements listed in *Schedule 5.5* (collectively, the *"Disclosure Documents"*), taken as a whole, do not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein not misleading in light of the circumstances under which they were made. Since October 31, 2022, there has been no change in the financial condition, operations, business or properties of the Company or any of its Subsidiaries except changes that individually or in the aggregate would not reasonably be expected to have a Material Adverse Effect. There is no fact known to management of the Company that, in the reasonable judgment of management of the Company, could be expected to have a Material Adverse Effect that has not been set forth herein or in the other documents, certificates and other writings delivered to the Purchaser by the Company specifically for use in connection with the transactions contemplated hereby.

Section 5.4. Organization and Ownership of Shares of Subsidiaries. (a) *Schedule 5.4* contains a complete and correct list of the Company's Subsidiaries, showing, as to each Subsidiary, the correct name thereof, the jurisdiction of its organization, and the percentage of shares of each class of its capital stock or similar equity interests outstanding owned by the Company and each other Subsidiary.

(b) All of the outstanding shares of capital stock or similar equity interests of each Subsidiary shown in *Schedule 5.4* as being owned by the Company and its Subsidiaries have been validly issued, are fully paid and nonassessable and are owned by the Company or another Subsidiary free and clear of any Lien.

(c) Each Subsidiary identified in *Schedule 5.4* is duly incorporated and is validly subsisting as a corporation under the laws of the Commonwealth of Pennsylvania, and is duly qualified as a foreign corporation or other legal entity and is in good standing in each jurisdiction in which such qualification is required by law, other than those jurisdictions as to which the failure to be so qualified or in good standing could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Each such Subsidiary has the corporate or other power and authority to own or hold under lease the properties it purports to own or hold under lease and to transact the business it transacts and proposes to transact.

Section 5.5. Financial Statements; Material Liabilities. The Company has delivered to each Purchaser copies of the financial statements of the Company and its Subsidiaries listed on *Schedule 5.5*. All of said financial statements (including in each case the related schedules and notes) fairly present in all material respects the consolidated financial position of the Company and its Subsidiaries as of the respective dates specified in such financial statements and the consolidated results of their operations and cash flows for the respective periods so specified and have been prepared in accordance with GAAP consistently applied throughout the periods involved except as set forth in the notes thereto (subject, in the case of any interim financial statements, to normal year-end adjustments). The Company does not have any Material liabilities that are not disclosed on such financial statements or otherwise disclosed in the Disclosure Documents.

Section 5.6. Compliance with Laws, Other Instruments, Etc. The execution, delivery and performance by the Company of each Financing Agreement (including the prior execution and

delivery of the Indenture), will not (a) contravene, result in any breach of, or constitute a default under, or result in the creation of any Lien, other than the Lien created under the Indenture, in respect of any property of the Company or any Subsidiary under, any indenture, mortgage, deed of trust, loan, purchase or credit agreement, lease, corporate charter, regulations or by-laws, or any other Material agreement or instrument to which the Company or any Subsidiary is bound or by which the Company or any Subsidiary or any of their respective properties may be bound or affected, (b) conflict with or result in a breach of any of the terms, conditions or provisions of any order, judgment, decree, or ruling of any court, arbitrator or Governmental Authority applicable to the Company or any Subsidiary or (c) violate any provision of any statute or other rule or regulation of any Governmental Authority applicable to the Company or any Subsidiary, except for any such default, breach, contravention or violation which would not reasonably be expected to have a Material Adverse Effect.

Section 5.7. Governmental Authorizations, Etc. No consent, approval or authorization of, or registration, filing or declaration with, any Governmental Authority is required in connection with the execution, delivery or performance by the Company of this Agreement, the Bonds and the Supplement, other than approval of the Pennsylvania Public Utility Commission, which has been obtained and is in full force and effect and final and is non-appealable.

Section 5.8. Litigation; Observance of Statutes and Orders. (a) There are no actions, suits, investigations or proceedings pending or, to the knowledge of the Company, threatened against or affecting the Company or any Subsidiary or any property of the Company or any Subsidiary in any court or before any arbitrator of any kind or before or by any Governmental Authority that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect.

(b) Neither the Company nor any Subsidiary is (i) in default under any term of any agreement or instrument to which it is a party or by which it is bound, (ii) in violation of any order, judgment, decree or ruling of any court, any arbitrator of any kind or any Governmental Authority naming or referring to the Company or any Subsidiary or (iii) in violation of any applicable law, or, to the knowledge of the Company, any ordinance, rule or regulation of any Governmental Authority (including, without limitation, Environmental Laws, the USA Patriot Act or any of the other laws and regulations that are referred to in **Section 5.16**), which default or violation, individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

Section 5.9. Taxes. The Company and its Subsidiaries have filed all income tax returns that are required to have been filed in any jurisdiction, and have paid all taxes shown to be due and payable on such returns and all other taxes and assessments payable by them, to the extent such taxes and assessments have become due and payable and before they have become delinquent, except for any taxes and assessments (i) the amount of which is not individually or in the aggregate Material or (ii) the amount, applicability or validity of which is currently being contested in good faith by appropriate proceedings and with respect to which the Company or a Subsidiary, as the case may be, has established adequate reserves in accordance with GAAP. The charges, accruals, and reserves on the books of the Company and its Subsidiaries in respect of federal, state or other taxes for all fiscal periods are adequate. The Federal income tax liabilities of the Company and its Subsidiaries have been finally determined (whether by reason of completed audits or the statute of

limitations having run) for all fiscal years up to and including the fiscal year ended December 31, 2018 and all amounts owing in respect of such audit have been paid.

Section 5.10. Title to Property; Leases. The Company and its Subsidiaries have good and sufficient title to their respective Material properties, including all such properties reflected in the most recent audited balance sheet referred to in **Section 5.5** or purported to have been acquired by the Company or any Subsidiary after said date (except as sold or otherwise disposed of in the ordinary course of business), in each case free and clear of Liens prohibited by this Agreement or the Indenture, except for those defects in title and Liens that, individually or in the aggregate, would not have a Material Adverse Effect. All Material leases are valid and subsisting and are in full force and effect in all material respects.

Section 5.11. Licenses, Permits, Etc. The Company and its Subsidiaries own or possess all licenses, permits, franchises, certificates of convenience and necessity, authorizations, patents, copyrights, proprietary software, service marks, trademarks and trade names, or rights thereto, that are Material, without known conflict with the rights of others, except for those conflicts that, individually or in the aggregate, would not have a Material Adverse Effect.

Section 5.12. Compliance with Employee Benefit Plans. (a) The Company and each ERISA Affiliate have operated and administered each Plan in compliance with all applicable laws except for such instances of noncompliance as have not resulted in and could not reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any ERISA Affiliate has incurred any liability pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans (as defined in section 3 of ERISA), and no event, transaction or condition has occurred or exists that would reasonably be expected to result in the incurrence of any such liability by the Company or any ERISA Affiliate, or in the imposition of any Lien on any of the rights, properties or assets of the Company or any ERISA Affiliate, in either case pursuant to Title I or IV of ERISA or to such penalty or excise tax provisions or to section 401(a)(29) or 412 of the Code or section 4068 of ERISA, other than such liabilities or Liens as would not be individually or in the aggregate Material.

(b) The present value of the aggregate benefit liabilities under each of the Plans subject to section 412 of the Code (other than Multiemployer Plans), determined as of January 1, 2021 based on such Plan's actuarial assumptions as of that date for funding purposes as documented in such Plan's actuarial valuation reports dated September 2022 did not exceed the aggregate current value of the assets of such Plan allocable to such benefit liabilities by more than $5,000,000 in the case of any single Plan and by more than $5,000,000 in the aggregate for all Plans. The term "*benefit liabilities*" has the meaning specified in section 4001 of ERISA and the terms "*current value*" and "*present value*" have the meaning specified in section 3 of ERISA.

(c) The Company and its ERISA Affiliates have not incurred withdrawal liabilities (and are not subject to contingent withdrawal liabilities) under section 4201 or 4204 of ERISA in respect of Multiemployer Plans that individually or in the aggregate are Material.

(d) The expected postretirement benefit obligation (determined as of the last day of the Company's most recently ended fiscal year in accordance with Financial Accounting Standards

Board Accounting Standards Codification Topic 715-60, without regard to liabilities attributable to continuation coverage mandated by section 4980B of the Code) of the Company and its Subsidiaries is not Material.

(e) The execution and delivery of this Agreement and the issuance and sale of the Bonds hereunder will not involve any transaction that is subject to the prohibitions of section 406 of ERISA or in connection with which a tax could be imposed pursuant to section 4975(c)(1)(A)-(D) of the Code. The representation by the Company to each Purchaser in the first sentence of this **Section 5.12(e)** is made in reliance upon and subject to the accuracy of such Purchaser's representation in **Section 6.2** as to the sources of the funds used to pay the purchase price of the Bonds to be purchased by such Purchaser.

(f) The Company and its Subsidiaries do not have any Non-U.S. Plans.

Section 5.13. Private Offering by the Company. Neither the Company nor anyone acting on the Company's behalf has offered the Bonds or any similar securities for sale to, or solicited any offer to buy any of the same from, or otherwise approached or negotiated in respect thereof with, any Person other than the Purchasers and not more than four (4) other Institutional Investors, each of which has been offered the Bonds in connection with a private sale for investment. Neither the Company nor anyone acting on its behalf has taken, or will take, any action that would subject the issuance or sale of the Bonds to the registration requirements of **Section 5** of the Securities Act.

Section 5.14. Use of Proceeds; Margin Regulations. The Company will apply the proceeds of the sale of the Bonds to repay existing indebtedness and for general corporate purposes and in compliance with all laws referenced in **Section 5.16**. No part of the proceeds from the sale of the Bonds hereunder will be used, directly or indirectly, for the purpose of buying or carrying any margin stock within the meaning of Regulation U of the Board of Governors of the Federal Reserve System (12 CFR 221), or for the purpose of buying or carrying or trading in any securities under such circumstances as to involve the Company in a violation of Regulation X of said Board (12 CFR 224) or to involve any broker or dealer in a violation of Regulation T of said Board (12 CFR 220). Margin stock does not constitute more than 2% of the value of the consolidated assets of the Company and its Subsidiaries and the Company does not have any present intention that margin stock will constitute more than 2% of the value of such assets. As used in this **Section**, the terms "*margin stock*" and "*purpose of buying or carrying*" shall have the meanings assigned to them in said Regulation U.

Section 5.15. Existing Debt. Except as described therein, *Schedule 5.15(a)* sets forth a complete and correct list of all outstanding Debt of the Company and its Subsidiaries as of September 30, 2022 since which date except as described therein there has been no Material change in the amounts, interest rates, sinking funds, installment payments or maturities of the Debt of the Company or its Subsidiaries. Neither the Company nor any Subsidiary is in default and no waiver of default is currently in effect, in the payment of any principal or interest on any Debt of the Company or any Subsidiary and no event or condition exists with respect to any Debt of the Company or any Subsidiary, the outstanding principal amount of which exceeds $5,000,000 that would permit (or that with notice or the lapse of time, or both, would permit) one or more Persons

to cause such Debt to become due and payable before its stated maturity or before its regularly scheduled dates of payment.

(b) Without limiting the representation in **Section 5.6**, the Company is not a party to, or otherwise subject to any provision contained in, any instrument evidencing Debt of the Company or any Subsidiary, any agreement relating thereto or any other agreement (including, but not limited to, its charter or other organizational document) which limits the amount of, or otherwise imposes restrictions on the incurring of, Debt evidenced by the Bonds, except as specifically indicated in *Schedule 5.15(b)*.

Section 5.16. Foreign Assets Control Regulations, Etc. (a) Neither the Company nor any Controlled Entity (i) is a Blocked Person, (ii) has been notified that its name appears or may in the future appear on a State Sanctions List or (iii) is a target of sanctions that have been imposed by the United Nations or the European Union.

(b) Neither the Company nor any Controlled Entity (i) has violated, been found in violation of, or been charged or convicted under, any applicable U.S. Economic Sanctions Laws, Anti-Money Laundering Laws or Anti-Corruption Laws or (ii) to the Company's knowledge, is under investigation by any Governmental Authority for possible violation of any U.S. Economic Sanctions Laws, Anti-Money Laundering Laws or Anti-Corruption Laws.

(c) No part of the proceeds from the sale of the Bonds hereunder:

(i) constitutes or will constitute funds obtained on behalf of any Blocked Person or will otherwise be used by the Company or any Controlled Entity, directly or indirectly, (A) in connection with any investment in, or any transactions or dealings with, any Blocked Person, (B) for any purpose that would cause any Purchaser to be in violation of any U.S. Economic Sanctions Laws, or (C) otherwise in violation of any U.S. Economic Sanctions Laws;

(ii) will be used, directly or indirectly, in violation of, or cause any Purchaser to be in violation of, any applicable Anti-Money Laundering Laws; or

(iii) will be used, directly or indirectly, for the purpose of making any improper payments, including bribes, to any Governmental Official or commercial counterparty in order to obtain, retain or direct business or obtain any improper advantage, in each case which would be in violation of, or cause any Purchaser to be in violation of, any applicable Anti-Corruption Laws.

(d) The Company has established procedures and controls which it reasonably believes are adequate (and otherwise comply with applicable law) to ensure that the Company and each Controlled Entity is and will continue to be in compliance with all applicable U.S. Economic Sanctions Laws, Anti-Money Laundering Laws and Anti-Corruption Laws.

Section 5.17. Status under Certain Statutes. Neither the Company nor any Subsidiary is subject to regulation under the Investment Company Act of 1940, as amended, the Public Utility

Holding Company Act of 2005, as amended, the ICC Termination Act of 1995, as amended, or subject to rate regulation under the Federal Power Act, as amended.

Section 5.18. Environmental Matters. Neither the Company nor any Subsidiary has knowledge of any claim or has received any notice of any claim, and no proceeding has been instituted of which it has received notice, raising any claim against the Company or any of its Subsidiaries or any of their respective real properties now or formerly owned, leased or operated by any of them, or other assets, alleging damage to the environment or any violation of any Environmental Laws, except, in each case, such as could not reasonably be expected to result in a Material Adverse Effect. Except as otherwise disclosed to the Purchasers in writing:

(a) neither the Company nor any Subsidiary has knowledge of any facts which would give rise to any claim, public or private, for violation of Environmental Laws or damage to the environment emanating from, occurring on or in any way related to real properties or to other assets now or formerly owned, leased or operated by any of them or their use, except, in each case, such as could not reasonably be expected to result in a Material Adverse Effect;

(b) neither the Company nor any of its Subsidiaries has stored any Hazardous Materials on real properties now or formerly owned, leased or operated by any of them or has disposed of any Hazardous Materials in each case in a manner contrary to any Environmental Laws and in any manner that could reasonably be expected to result in a Material Adverse Effect; and

(c) all buildings on all real properties now owned, leased or operated by the Company or any of its Subsidiaries are in compliance with applicable Environmental Laws, except where failure to comply could not reasonably be expected to result in a Material Adverse Effect.

Section 5.19. Lien of Indenture. The Indenture (and for avoidance of doubt including the Supplement) constitutes a direct and valid Lien upon the Trust Estate, subject only to the exceptions referred to in the Indenture and Permitted Liens, and will create a similar Lien upon all properties and assets acquired by the Company after the date hereof which are required to be subjected to the Lien of the Indenture, when acquired by the Company, subject only to the exceptions referred to in the Indenture and Permitted Liens, and subject, further, as to real property interests, to the recordation of a supplement to the Indenture describing such after-acquired property; the descriptions of all such properties and assets contained in the granting clauses of the Indenture are correct and adequate for the purposes of the Indenture; the Indenture has been duly recorded as a mortgage and deed of trust of real estate, and any required filings with respect to personal property and fixtures subject to the Lien of the Indenture have been duly made in each place in which such recording or filing is required to protect, preserve and perfect the Lien of the Indenture; and all taxes and recording and filing fees required to be paid with respect to the execution, recording or filing of the Indenture, the filing of financing statements related thereto and similar documents and the issuance of the Bonds have been paid.

Section 5.20. Filings. No action, including any filings, registration or notice, is necessary or advisable in Pennsylvania or any other jurisdictions to ensure the legality, validity and enforceability of the Financing Agreements, except such action as has been previously taken, which action remains in full force and effect. No action, including any filing, registration or notice, is necessary or advisable in Pennsylvania or any other jurisdiction to establish or protect for the benefit of the Trustee and the holders of Bonds, the security interest and Liens purported to be created under the Indenture and the priority and perfection thereof and the other Financing Agreements, except such action as has been previously taken, which action remains in full force and effect.

Section 6. Representations of the Purchasers.

Section 6.1. Purchase for Investment. Each Purchaser severally represents that it is purchasing the Bonds for its own account or for one or more separate accounts maintained by such Purchaser or for the account of one or more pension or trust funds and not with a view to the distribution thereof, provided that the disposition of such Purchaser's or their property shall at all times be within such Purchaser's or their control. Each Purchaser understands that the Bonds have not been registered under the Securities Act and may be resold only if registered pursuant to the provisions of the Securities Act or if an exemption from registration is available, except under circumstances where neither such registration nor such an exemption is required by law, and that the Company is not required to register the Bonds.

Section 6.2. Source of Funds. Each Purchaser severally represents that at least one of the following statements is an accurate representation as to each source of funds (a *"Source"*) to be used by such Purchaser to pay the purchase price of the Bonds to be purchased by such Purchaser hereunder:

(a) the Source is an "insurance company general account" (as the term is defined in the United States Department of Labor's Prohibited Transaction Exemption (*"PTE"*) 95-60) in respect of which the reserves and liabilities (as defined by the annual statement for life insurance companies approved by the NAIC (the *"NAIC Annual Statement"*)) for the general account contract(s) held by or on behalf of any employee benefit plan together with the amount of the reserves and liabilities for the general account contract(s) held by or on behalf of any other employee benefit plans maintained by the same employer (or affiliate thereof as defined in PTE 95-60) or by the same employee organization in the general account do not exceed 10% of the total reserves and liabilities of the general account (exclusive of separate account liabilities) plus surplus as set forth in the NAIC Annual Statement filed with such Purchaser's state of domicile; or

(b) the Source is a separate account that is maintained solely in connection with such Purchaser's fixed contractual obligations under which the amounts payable, or credited, to any employee benefit plan (or its related trust) that has any interest in such separate account (or to any participant or beneficiary of such plan (including any annuitant)) are not affected in any manner by the investment performance of the separate account; or

(c) the Source is either (i) an insurance company pooled separate account, within the meaning of PTE 90-1 or (ii) a bank collective investment fund, within the meaning of the PTE 91-38 and, except as disclosed by such Purchaser to the Company in writing pursuant to this clause (c), no employee benefit plan or group of plans maintained by the same employer or employee organization beneficially owns more than 10% of all assets allocated to such pooled separate account or collective investment fund; or

(d) the Source constitutes assets of an "investment fund" (within the meaning of Part VI of PTE 84-14 (the *"QPAM Exemption"*)) managed by a "*qualified professional asset manager*" or "*QPAM*" (within the meaning of Part VI of the QPAM Exemption), no employee benefit plan's assets that are managed by the QPAM in such investment fund, when combined with the assets of all other employee benefit plans established or maintained by the same employer or by an affiliate (within the meaning of Part VI(c)(1) of the QPAM Exemption) of such employer or by the same employee organization and managed by such QPAM, represent more than 20% of the total client assets managed by such QPAM, the conditions of Part I(c) and (g) of the QPAM Exemption are satisfied, neither the QPAM nor a person controlling or controlled by the QPAM maintains an ownership interest in the Company that would cause the QPAM and the Company to be "*related*" within the meaning of Part VI(h) of the QPAM Exemption and (i) the identity of such QPAM and (ii) the names of any employee benefit plans whose assets in the investment fund, when combined with the assets of all other employee benefit plans established or maintained by the same employer or by an affiliate (within the meaning of Part VI(c)(1) of the QPAM Exemption) of such employer or by the same employee organization, represent 10% or more of the assets of such investment fund, have been disclosed to the Company in writing pursuant to this clause (d); or

(e) the Source constitutes assets of a "*plan(s)*" (within the meaning of Part IV(h) of PTE 96-23 (the *"INHAM Exemption"*)) managed by an "in-house asset manager" or "*INHAM*" (within the meaning of Part IV(a) of the INHAM Exemption), the conditions of Part I(a), (g) and (h) of the INHAM Exemption are satisfied, neither the INHAM nor a person controlling or controlled by the INHAM (applying the definition of "*control*" in Part IV(d)(3) of the INHAM Exemption) owns a 10% or more interest in the Company and (i) the identity of such INHAM and (ii) the name(s) of the employee benefit plan(s) whose assets constitute the Source have been disclosed to the Company in writing pursuant to this clause (e); or

(f) the Source is a governmental plan; or

(g) the Source is one or more employee benefit plans, or a separate account or trust fund comprised of one or more employee benefit plans, each of which has been identified to the Company in writing pursuant to this clause (g); or

(h) the Source does not include assets of any employee benefit plan, other than a plan exempt from the coverage of ERISA.

As used in this Section 6.2, the terms *"employee benefit plan," "governmental plan,"* and *"separate account"* shall have the respective meanings assigned to such terms in section 3 of ERISA.

Section 7. Information as to Company.

Section 7.1. Financial and Business Information. The Company shall deliver to each Purchaser and each holder of Bonds that is an Institutional Investor:

(a) *Quarterly Statements* — within 60 days after the end of each quarterly fiscal period in each fiscal year of the Company (other than the last quarterly fiscal period of each such fiscal year), duplicate copies of:

(i) a consolidated balance sheet of the Company and its Subsidiaries as at the end of such quarter, and

(ii) consolidated statements of income, changes in shareholders' equity and cash flows of the Company and its Subsidiaries, for such quarter and (in the case of the second and third quarters) for the portion of the fiscal year ending with such quarter,

setting forth in each case in comparative form the figures for the corresponding periods in the previous fiscal year, all in reasonable detail, prepared in accordance with GAAP applicable to quarterly financial statements generally, and certified by a Senior Financial Officer as fairly presenting, in all material respects, the financial position of the companies being reported on and their results of operations and cash flows, subject to changes resulting from year-end adjustments, *provided* that the delivery within the time period specified above of the Company's said financial statements, prepared in accordance with the requirements therefor and filed with the Municipal Securities Rulemaking Board on the Electronic Municipal Market Access ("*EMMA*") database shall be deemed to satisfy the requirements of this **Section 7.1(a)**;

(b) *Annual Statements* — within 120 days after the end of each fiscal year of the Company, duplicate copies of:

(i) a consolidated balance sheet of the Company and its Subsidiaries, as at the end of such year, and

(ii) consolidated statements of income, changes in shareholders' equity and cash flows of the Company and its Subsidiaries for such year,

setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail, prepared in accordance with GAAP, and accompanied by an opinion thereon (without a "going concern" or similar qualification or exception and without any qualification or exception as to the scope of the audit on

which such opinion is based) of independent public accountants of recognized national standing, which opinion shall state that such financial statements present fairly, in all material respects, the financial position of the companies being reported upon and their results of operations and cash flows and have been prepared in conformity with GAAP, and that the examination of such accountants in connection with such financial statements has been made in accordance with generally accepted auditing standards, and that such audit provides a reasonable basis for such opinion in the circumstances, *provided* that the delivery within the time period specified above of the Company's said financial statements, prepared in accordance with the requirements therefor and containing the above-described audit opinion and filed with the Municipal Securities Rulemaking Board on the EMMA database shall be deemed to satisfy the requirements of this **Section 7.1(b)**;

(c) *SEC and Other Reports* — promptly upon their becoming available, one copy of (i) each financial statement, report, notice, or proxy statement sent by the Company or any Subsidiary to its public securities holders generally, and (ii) each regular or periodic report, each registration statement that shall have become effective (without exhibits except as expressly requested by such holder), and each final prospectus and all amendments thereto filed by the Company or any Subsidiary with the SEC, *provided* that the delivery within the time period specified above of the Company's said financial statements, prepared in accordance with the requirements therefor and filed with the Municipal Securities Rulemaking Board on the EMMA database shall be deemed to satisfy the requirements of this **Section 7.1(c)**;

(d) *Notice of Default or Event of Default* — promptly, and in any event within five days after a Responsible Officer becomes aware of the existence of any Default or Event of Default, a written notice specifying the nature and period of existence thereof and what action the Company is taking or proposes to take with respect thereto;

(e) *Employee Benefits Matters* — promptly, and in any event within five days after a Responsible Officer becomes aware of any of the following, a written notice setting forth the nature thereof and the action, if any, that the Company or an ERISA Affiliate proposes to take with respect thereto:

(i) with respect to any Plan (other than any Multiemployer Plan) that is subject to Title IV of ERISA, any reportable event, as defined in section 4043(c) of ERISA and the regulations thereunder, for which notice thereof has not been waived pursuant to such regulations as in effect on the date hereof; or

(ii) the taking by the PBGC of steps to institute, or the threatening by the PBGC of the institution of, proceedings under section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any such Plan, or the receipt by the Company or any ERISA Affiliate of a notice from a Multiemployer Plan that such action has been taken by the PBGC with respect to such Multiemployer Plan; or

(iii) any event, transaction or condition that could result in the incurrence of any liability by the Company or any ERISA Affiliate pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans, or in the imposition of any Lien on any of the rights, properties or assets of the Company or any ERISA Affiliate pursuant to Title I or IV of ERISA or such penalty or excise tax provisions, if such liability or Lien, taken together with any other such liabilities or Liens then existing, would reasonably be expected to have a Material Adverse Effect;

(f) *Notices from Governmental Authority* — promptly, and in any event within 30 days of receipt thereof, copies of any notice to the Company or any Subsidiary from any federal or state Governmental Authority relating to any order, ruling, statute or other law or regulation that could reasonably be expected to have a Material Adverse Effect;

(g) *Requested Information* — with reasonable promptness, following the receipt by the Company of a written request by such holder of Bonds, the names and contact information of holders of the outstanding bonds issued under the Indenture (i.e. the bonds in which the Company or a trustee is required to keep in a register and that are not publicly traded) of which the Company has knowledge and the principal amount of the outstanding bonds issued under the Indenture owed to each holder (unless disclosure of such names, contact information or holdings is prohibited by law), and such data and information relating to the business, operations, affairs, financial condition, assets or properties of the Company or any of its Subsidiaries or relating to the ability of the Company to perform its obligations under any Financing Agreement as from time to time may be reasonably requested by any such holder of Bonds; and

(h) *Deliveries to Trustee* — promptly, and in any event within five days after delivery to the Trustee, a copy of any deliveries made by the Company to the Trustee, including without limitation the annual report delivered to the Trustee pursuant to Article VIII, Section 12 of the Indenture.

Section 7.2 Officer's Certificate. Each set of financial statements delivered to a holder of Bonds pursuant to **Section 7.1(a)** or **Section 7.1(b)** shall be accompanied by a certificate of a Senior Financial Officer (which, in the case of financial statements filed with the Municipal Securities Rulemaking Board on the EMMA database, shall be by separate concurrent delivery of such certificate to each holder of Bonds) setting forth a statement that such Senior Financial Officer has reviewed the relevant terms hereof and of the Indenture and has made, or caused to be made, under his or her supervision, a review of the transactions and conditions of the Company and its Subsidiaries from the beginning of the quarterly or annual period covered by the statements then being furnished to the date of the certificate and that such review shall not have disclosed the existence during such period of any condition or event that constitutes a Default or an Event of Default or, if any such condition or event existed or exists (including, without limitation, any such event or condition resulting from the failure of the Company or any Subsidiary to comply with any Environmental Law), specifying the nature and period of existence thereof and what action the Company shall have taken or proposes to take with respect thereto.

Section 7.3. *Visitation*. The Company shall permit the representatives of each Purchaser and each holder of Bonds that is an Institutional Investor:

(a) *No Default* — if no Default or Event of Default then exists, at the expense of such holder and upon reasonable prior notice to the Company, to visit the principal executive office of the Company, to discuss the affairs, finances and accounts of the Company and its Subsidiaries with the Company's officers, and, with the consent of the Company (which consent will not be unreasonably withheld), to visit the other offices and properties of the Company and each Subsidiary, all at such reasonable times during normal business hours and as often as may be reasonably requested in writing; and

(b) *Default* — if a Default or Event of Default then exists, at the expense of the Company to visit and inspect any of the offices or properties of the Company or any Subsidiary, to examine all their respective books of account, records, reports and other papers, to make copies and extracts therefrom, and to discuss their respective affairs, finances and accounts with their respective officers and independent public accountants (and by this provision the Company authorizes said accountants to discuss the affairs, finances and accounts of the Company and its Subsidiaries), all at such reasonable times and as often as may be requested.

Section 8. Purchase of Bonds

The Company will not and will not permit any Affiliate to purchase, redeem, prepay or otherwise acquire, directly or indirectly, any of the outstanding Bonds except (a) upon the payment or prepayment of the Bonds in accordance with the terms of this Agreement and the Bonds or (b) pursuant to a written offer to purchase any outstanding Bonds made by the Company or an Affiliate pro rata to the holders of the Bonds upon the same terms and conditions. Any such offer shall provide each holder with sufficient information to enable it to make an informed decision with respect to such offer, and shall remain open for at least 15 Business Days. If the holders of more than 10% of the principal amount of the Bonds then outstanding accept such offer, the Company shall promptly notify the remaining holders of such fact and the expiration date for the acceptance by holders of Bonds of such offer shall be extended by the number of days necessary to give each such remaining holder at least 10 Business Days from its receipt of such notice to accept such offer. The Company will promptly cancel all Bonds acquired by it or any Affiliate pursuant to any payment, prepayment or purchase of Bonds pursuant to any provision of this Agreement and no Bonds may be issued in substitution or exchange for any such Bonds.

Section 9. Affirmative Covenants.

The Company covenants that from the date of this Agreement and thereafter, so long as any of the Bonds are outstanding:

Section 9.1. *Compliance with Law*. Without limiting **Section 10.4**, the Company will, and will cause each of its Subsidiaries to, comply with all laws, ordinances or governmental rules or regulations to which each of them is subject, including, without limitation, ERISA, Environmental Laws, the USA Patriot Act and the other laws and regulations that are referred to in **Section 5.16**,

and will obtain and maintain in effect all licenses, certificates, permits, franchises and other governmental authorizations necessary to the ownership of their respective properties or to the conduct of their respective businesses, in each case to the extent necessary to ensure that non-compliance with such laws, ordinances or governmental rules or regulations or failures to obtain or maintain in effect such licenses, certificates, permits, franchises and other governmental authorizations could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

Section 9.2. *Insurance*. The Company will cause each of its Subsidiaries to maintain, with financially sound and reputable insurers, insurance with respect to their respective properties and businesses against such casualties and contingencies, of such types, on such terms and in such amounts (including deductibles, co-insurance and self-insurance, if adequate reserves are maintained with respect thereto) as is customary in the case of entities of established reputations engaged in the same or a similar business and similarly situated.

Section 9.3. *Maintenance of Properties*. The Company will cause each of its Subsidiaries to maintain and keep, or cause to be maintained and kept, their respective properties in good repair, working order and condition (other than ordinary wear and tear), so that the business carried on in connection therewith may be properly conducted at all times, *provided* that this **Section 9.3** shall not prevent any Subsidiary from discontinuing the operation and the maintenance of any of its properties if such discontinuance is desirable in the conduct of its business and the Company and such Subsidiary have concluded that such discontinuance would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

Section 9.4. *Payment of Taxes*. The Company will cause each of its Subsidiaries to file all income tax or similar tax returns required to be filed in any jurisdiction and to pay and discharge all taxes shown to be due and payable on such returns and all other taxes, assessments, governmental charges, or levies payable by any of them, to the extent the same have become due and payable and before they have become delinquent, provided that any Subsidiary does not need to pay any such tax, assessment, charge or levy if (a) the amount, applicability or validity thereof is contested by the Company or such Subsidiary on a timely basis in good faith and in appropriate proceedings, and the Subsidiary has established adequate reserves therefor in accordance with GAAP on the books of such Subsidiary or (b) the nonpayment of all such taxes, assessments, charges and levies in the aggregate would not reasonably be expected to have a Material Adverse Effect.

Section 9.5. *Corporate Existence, Etc*. The Company will at all times preserve and keep in full force and effect the corporate existence of each of its Subsidiaries (unless merged into the Company or a wholly-owned Subsidiary) and all rights and franchises of its Subsidiaries unless, in the good faith judgment of the Company or such Subsidiary, the termination of or failure to preserve and keep in full force and effect such corporate existence, right or franchise would not, individually or in the aggregate, have a Material Adverse Effect.

Section 9.6. *Books and Records*. The Company will, and will cause each of its Subsidiaries to, maintain proper books of record and account in conformity with GAAP and all

applicable requirements of any Governmental Authority having legal or regulatory jurisdiction over the Company or such Subsidiary.

Section 10. Negative Covenants.

The Company covenants that from the date of this Agreement and thereafter, so long as any of the Bonds are outstanding:

Section 10.1. Transactions with Affiliates. The Company will not and will not permit any Subsidiary to enter into directly or indirectly any Material transaction or Material group of related transactions (including without limitation the purchase, lease, sale or exchange of properties of any kind or the rendering of any service) with any Affiliate (other than the Company or another Subsidiary), except pursuant to the reasonable requirements of the Company's or such Subsidiary's business.

Section 10.2. Merger, Consolidation, Etc. The Company will not consolidate with or merge with any other Person or convey, transfer or lease all or substantially all of its assets in a single transaction or series of transactions to any Person unless:

(a) the successor formed by such consolidation or the survivor of such merger or the Person that acquires by conveyance, transfer or lease all or substantially all of the assets of the Company as an entirety, as the case may be, shall be a solvent corporation or limited liability company organized and existing under the laws of the United States or any State thereof (including the District of Columbia), and, if the Company is not such corporation or limited liability company, such corporation or limited liability company shall have executed and delivered to each holder of any Bonds its assumption of the due and punctual performance and observance of each covenant and condition of the Financing Agreements (pursuant to such agreements and instruments as shall be reasonably satisfactory to the Required Holders), and the Company shall have caused to be delivered to each holder of Bonds an opinion of nationally recognized independent counsel, to the effect that all agreements or instruments effecting such assumption are enforceable in accordance with their terms and comply with the terms hereof; and

(b) immediately before and immediately after giving effect to such transaction, no Default or Event of Default shall have occurred and be continuing.

No such conveyance, transfer or lease of substantially all of the assets of the Company shall have the effect of releasing the Company or any successor corporation or limited liability company that shall theretofore have become such in the manner prescribed in this **Section 10.2** from its liability under the Financing Agreements.

Section 10.3. Line of Business. The Company will not engage in any business if, as a result, the general nature of the business in which the Company and its Subsidiaries, taken as a whole, would then be engaged would be substantially changed from the general nature of the business in which the Company and its Subsidiaries, taken as whole, is engaged on the date of this Agreement.

Section 10.4. Economic Sanctions, Etc.. The Company will not, and will not permit any Controlled Entity to (a) become (including by virtue of being owned or controlled by a Blocked Person), own or control a Blocked Person or (b) directly or indirectly have any investment in or engage in any dealing or transaction (including any investment, dealing or transaction involving the proceeds of the Bonds) with any Person if such investment, dealing or transaction (i) would cause any holder or any affiliate of such holder to be in violation of, or subject to sanctions under, any law or regulation applicable to such holder, or (ii) is prohibited by or subject to sanctions under any U.S. Economic Sanctions Laws.

Section 11. Payments on Bonds.

Section 11.1. Payment by Wire Transfer. So long as any Purchaser or its nominee shall be the holder of any Bond, and notwithstanding anything contained in the Indenture or in such Bond to the contrary, the Company will pay, or cause to be paid by a paying agent, a trustee or other similar party, all sums becoming due on such Bond for principal, Make-Whole Amount or premium, if any, and interest by the method and at the address specified for such purpose below such Purchaser's name in *Schedule A*, or by such other method or at such other address as such Purchaser shall have from time to time specified to the Company in writing for such purpose, without the presentation or surrender of such Bond or the making of any notation thereon, except that upon written request of the Company or any paying agent made concurrently with or reasonably promptly after payment or prepayment in full of any Bond, such Purchaser shall surrender such Bond for cancellation, reasonably promptly after any such request, to the Company at its principal executive office or at the place of payment most recently designated by the Company pursuant to Article II of the Indenture. Prior to any sale or other disposition of any Bond held by a Purchaser or its nominee, such Purchaser will, at its election, either endorse thereon the amount of principal paid thereon and the last date to which interest has been paid thereon or surrender such Bond to the Company in exchange for a new Bond or Bonds pursuant to Article II of the Indenture. The Company will afford the benefits of this **Section 11.1** to any Institutional Investor that is the direct or indirect transferee of any Bond purchased by a Purchaser under this Agreement and that has made the same agreement relating to such Bond as the Purchasers have made in this **Section 11.1**.

Section 12. Registration; Exchange; Expenses, Etc.

Section 12.1. Registration of Bonds. The Company shall cause the Trustee to keep a register for the registration and registration of transfers of Bonds in accordance with Article XIII, Section 9 of the Indenture.

Section 12.2. Transaction Expenses. Whether or not the transactions contemplated hereby are consummated, the Company will pay all reasonable costs and expenses (including reasonable attorneys' fees of a special counsel and, if reasonably required by the Required Holders, local or other counsel) incurred by the Purchasers and each other holder of a Bond in connection with such transactions and in connection with any amendments, waivers or consents under or in respect of any Financing Agreement (whether or not such amendment, waiver or consent becomes effective), including, without limitation: (a) the costs and expenses incurred in enforcing or defending (or determining whether or how to enforce or defend) any rights under any Financing Agreement or

in responding to any subpoena or other legal process or informal investigative demand issued in connection with any Financing Agreement, or by reason of being a Purchaser or holder of any Bond, (b) the costs and expenses, including financial advisors' fees, incurred in connection with the insolvency or bankruptcy of the Company or any Subsidiary or in connection with any work-out or restructuring of the transactions contemplated by any Financing Agreement and (c) the costs and expenses incurred in connection with the initial filing of any Financing Agreement and all related documents and financial information with the SVO, provided that such costs and expenses under this clause (c) shall not exceed $6,000 for the Bonds. The Company will pay, and will save each Purchaser and each other holder of a Bond harmless from, all claims in respect of any fees, costs or expenses if any, of brokers and finders (other than those, if any, retained by a Purchaser or other holder in connection with its purchase of the Bonds).

Section 12.3. *Survival*. The obligations of the Company under this **Section 12** will survive the payment or transfer of any Bond, the enforcement, amendment or waiver of any provision of any Financing Agreement, and the termination of any Financing Agreement.

Section 12.4. *Tax Withholding*. Except as otherwise required by applicable law, the Company agrees that it will not withhold from any applicable payment to be made to a holder of a Bond that is not a United States Person any tax so long as such holder shall have delivered to the Company (in such number of copies as shall be requested) on or about the date on which such holder becomes a holder under this Agreement (and from time to time thereafter upon the reasonable request of the Company), executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, as well as the applicable "*U.S. Tax Compliance Certificate*" substantially in the form attached as *Exhibit 12.4*, in both cases correctly completed and executed.

Section 13. Survival of Representations and Warranties; Entire Agreement.

All representations and warranties contained herein shall survive the execution and delivery of this Agreement, the purchase or transfer by any Purchaser of any Bond or portion thereof or interest therein and the payment of any Bond, and may be relied upon by any subsequent holder of a Bond, regardless of any investigation made at any time by or on behalf of such Purchaser or any other holder of a Bond. All statements contained in any certificate or other instrument delivered by or on behalf of the Company pursuant to this Agreement shall be deemed representations and warranties of the Company under this Agreement. Subject to the preceding sentence, the Financing Agreements embody the entire agreement and understanding between each Purchaser and the Company and supersede all prior agreements and understandings relating to the subject matter hereof.

Section 14. Amendment and Waiver.

Section 14.1. *Requirements*. This Agreement and the Bonds may be amended, and the observance of any term hereof or of the Bonds may be waived (either retroactively or prospectively), with (and only with) the written consent of the Company and the Required Holders, except that (i) no amendment or waiver of any of the provisions of **Sections 1**, **2**, **3**, **4**, **5**, **6**, or **19** hereof, or any defined term, will be effective as to any holder of Bonds unless consented to by such holder of Bonds in writing, and (ii) no such amendment or waiver may, without the written

consent of all of the holders of Bonds at the time outstanding affected thereby, (A) subject to the provisions of the Indenture relating to acceleration, change the amount or time of any prepayment or payment of principal of, or reduce the rate or change the time of payment or method of computation of interest (if such change results in a decrease in the interest rate) or of the Make-Whole Amount on, the Bonds, (B) change the percentage of the principal amount of the Bonds the holders of which are required to consent to any such amendment or waiver, or (C) amend any of **Sections 8**, **14**, or **18**.

Section 14.2. Solicitation of Holders of Bonds.

(a) *Solicitation.* The Company will provide each holder of Bonds (irrespective of the amount of Bonds then owned by it) with sufficient information, sufficiently far in advance of the date a decision is required, to enable such holder to make an informed and considered decision with respect to any proposed amendment, waiver or consent in respect of any of the provisions hereof or of the Bonds. The Company will deliver executed or true and correct copies of each amendment, waiver or consent effected pursuant to the provisions of this **Section 14** to each Purchaser and each holder of outstanding Bonds promptly following the date on which it is executed and delivered by, or receives the consent or approval of, the requisite holders of Bonds.

(b) *Payment.* The Company will not directly or indirectly pay or cause to be paid any remuneration, whether by way of supplemental or additional interest, fee or otherwise (other than legal fees or other related expenses), or grant any security or provide other credit support, to any holder of Bonds as consideration for or as an inducement to the entering into by any holder of Bonds of any waiver or amendment of any of the terms and provisions hereof or of the Bonds unless such remuneration is concurrently paid, or security is concurrently granted or other credit support concurrently provided, on the same terms, ratably to each holder of Bonds then outstanding even if such holder did not consent to such waiver or amendment.

(c) *Consent in Contemplation of Transfer*. Any consent made pursuant to this **Section 14** by a holder of Bonds that has transferred or has agreed to transfer its Bonds to (i) the Company, (ii) any Subsidiary or any other Affiliate, or (iii) any other Person in connection with, or in anticipation of, such other Person acquiring, making a tender offer for or merging with the Company and/or any of its Affiliates, and has provided or has agreed to provide such written consent as a condition to such transfer shall be void and of no force or effect except solely as to such holder, and any amendments effected or waivers granted or to be effected or granted that would not have been or would not be so effected or granted but for such consent (and the consents of all other holders of Bonds that were acquired under the same or similar conditions) shall be void and of no force or effect except solely as to such holder.

Section 14.3. Binding Effect, Etc. Any amendment or waiver consented to as provided in this **Section 14** applies equally to all holders of Bonds and is binding upon them and upon each future holder of any Bond and upon the Company without regard to whether such Bond has been marked to indicate such amendment or waiver. No such amendment or waiver will extend to or affect any obligation, covenant, agreement, Default or Event of Default not expressly amended or waived or impair any right consequent thereon. No course of dealing between the Company and

any holder of any Bond nor any delay in exercising any rights hereunder or under any Bond shall operate as a waiver of any rights of any holder of such Bond.

Section 14.4. Bonds Held by Company, Etc. Solely for the purpose of determining whether the holders of the requisite percentage of the aggregate principal amount of Bonds then outstanding approved or consented to any amendment, waiver or consent to be given under this Agreement or the Bonds, or have directed the taking of any action provided herein or in the Bonds to be taken upon the direction of the holders of a specified percentage of the aggregate principal amount of Bonds then outstanding, Bonds directly or indirectly owned by the Company or any of its Affiliates shall be deemed not to be outstanding.

Section 15. Notices.

All notices and communications provided for hereunder shall be in writing and sent (a) by telecopy if the sender on the same day sends a confirming copy of such notice by a recognized overnight delivery service (charges prepaid), or (b) by registered or certified mail with return receipt requested (postage prepaid), or (c) by a recognized overnight delivery service (with charges prepaid). Any such notice must be sent:

(i) if to any Purchaser or its nominee, to such Purchaser or nominee at the address specified for such communications in *Schedule A*, or at such other address as such Purchaser or nominee shall have specified to the Company in writing,

(ii) if to any other holder of any Bond, to such holder at such address as such other holder shall have specified to the Company in writing, or

(iii) if to the Company, to the Company at its address set forth at the beginning hereof to the attention of 762 West Lancaster Avenue, Bryn Mawr, Pennsylvania 19010-3489, or at such other address as the Company shall have specified to the holder of each Bond in writing.

Notices under this **Section 15** will be deemed given only when actually received.

Section 16. Indemnification.

The Company hereby agrees to indemnify and hold the Purchasers harmless from, against and in respect of any and all loss, liability and expense (including reasonable attorneys' fees) arising from any misrepresentation or nonfulfillment of any undertaking on the part of the Company under this Agreement. The indemnification obligations of the Company under this **Section 16** shall survive the execution and delivery of this Agreement, the delivery of the Bonds to the Purchasers and the consummation of the transactions contemplated herein.

Section 17. Reproduction of Documents.

This Agreement and all documents relating thereto, including, without limitation, (a) consents, waivers and modifications that may hereafter be executed, (b) documents received by any Purchaser at the Closing (except the Bonds themselves), and (c) financial statements, certificates and other information previously or hereafter furnished to any Purchaser, may be reproduced by such Purchaser by any photographic, photostatic, electronic, digital, or other similar process and such Purchaser may destroy any original document so reproduced. The Company agrees and stipulates that, to the extent permitted by applicable law, any such reproduction shall be admissible in evidence as the original itself in any judicial or administrative proceeding (whether or not the original is in existence and whether or not such reproduction was made by such Purchaser in the regular course of business) and any enlargement, facsimile or further reproduction of such reproduction shall likewise be admissible in evidence. This **Section 17** shall not prohibit the Company or any other holder of Bonds from contesting any such reproduction to the same extent that it could contest the original, or from introducing evidence to demonstrate the inaccuracy of any such reproduction.

Section 18. Confidential Information.

For the purposes of this **Section 18**, *"Confidential Information"* means information delivered to any Purchaser by or on behalf of the Company or any Subsidiary in connection with the transactions contemplated by or otherwise pursuant to this Agreement that is proprietary in nature and that was clearly marked or labeled or otherwise adequately identified when received by such Purchaser as being confidential information of the Company or such Subsidiary, provided that such term does not include information that (a) was publicly known or otherwise known to such Purchaser prior to the time of such disclosure, (b) subsequently becomes publicly known through no act or omission by such Purchaser or any person acting on such Purchaser's behalf, (c) otherwise becomes known to such Purchaser other than through disclosure by the Company or any Subsidiary or (d) constitutes financial statements delivered to such Purchaser under **Section 7.1** of this Agreement or under the Indenture that are otherwise publicly available. Each Purchaser will maintain the confidentiality of such Confidential Information in accordance with procedures adopted by such Purchaser in good faith to protect confidential information of third parties delivered to such Purchaser, provided that such Purchaser may deliver or disclose Confidential Information to (i) its directors, trustees, officers, employees, agents, attorneys and affiliates (to the extent such disclosure reasonably relates to the administration of the investment represented by Bonds), (ii) its financial advisors and other professional advisors who agree to hold confidential the Confidential Information substantially in accordance with the terms of this **Section 18**, (iii) the Trustee or any other holder of any Bond, (iv) any Institutional Investor to which it sells or offers to sell such Bond or any part thereof or any participation therein (if such Person has agreed in writing prior to its receipt of such Confidential Information to be bound by the provisions of this **Section 18**), (v) any Person from which it offers to purchase any security of the Company (if such Person has agreed in writing prior to its receipt of such Confidential Information to be bound by the provisions of this **Section 18**), (vi) any federal or state or provincial regulatory authority having jurisdiction over such Purchaser, (vii) the NAIC or the SVO or, in each case, any similar organization, or any nationally recognized rating agency that requires access to information about such Purchaser's investment portfolio, or (viii) any other Person to which such

delivery or disclosure may be necessary or appropriate (w) to effect compliance with any law, rule, regulation or order applicable to such Purchaser, (x) in response to any subpoena or other legal process, (y) in connection with any litigation to which such Purchaser is a party, or (z) if an Event of Default has occurred and is continuing, to the extent such Purchaser may reasonably determine such delivery and disclosure to be necessary or appropriate in the enforcement or for the protection of the rights and remedies under any Financing Agreement. Each holder of a Bond, by its acceptance of a Bond, will be deemed to have agreed to be bound by and to be entitled to the benefits of this **Section 18** as though it were a party to this Agreement. On reasonable request by the Company in connection with the delivery to any holder of a Bond of information required to be delivered to such holder under this Agreement or requested by such holder (other than a holder that is a party to this Agreement or its nominee), such holder will enter into an agreement with the Company embodying the provisions of this **Section 18**.

In the event that as a condition to receiving access to information relating to the Company or its Subsidiaries in connection with the transactions contemplated by or otherwise pursuant to this Agreement, any Purchaser or holder of a Bond is required to agree to a confidentiality undertaking (whether through EMMA, another secure website, a secure virtual workspace or otherwise) which is different from this **Section 18**, this **Section 18** shall not be amended thereby and, as between such Purchaser or such holder and the Company, this **Section 18** shall supersede any such other confidentiality undertaking.

Section 19. Miscellaneous.

Section 19.1. Successors and Assigns. All covenants and other agreements contained in this Agreement by or on behalf of any of the parties hereto bind and inure to the benefit of their respective successors and assigns (including, without limitation, any subsequent holder of a Bond) whether so expressed or not, except that, subject to **Section 10.2**, the Company may not assign or otherwise transfer any of its rights or obligations hereunder or under the Bonds without the prior written consent of each holder. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto and their respective successors and assigns permitted hereby) any legal or equitable right, remedy or claim under or by reason of this Agreement.

Section 19.2. Accounting Terms. All accounting terms used herein which are not expressly defined in this Agreement have the meanings respectively given to them in accordance with GAAP. Except as otherwise specifically provided herein, (a) all computations made pursuant to this Agreement shall be made in accordance with GAAP, and (b) all financial statements shall be prepared in accordance with GAAP. For purposes of determining compliance with the financial covenants contained in the Financing Agreements, if any, any election by the Company to measure Debt using fair value (as permitted by Financial Accounting Standards Board Accounting Standards Codification Topic No. 825-10-25 – *Fair Value Option,* International Accounting Standard 39 – *Financial Instruments: Recognition and Measurement* or any similar accounting standard) shall be disregarded and such determination shall be made as if such election had not been made and such Debt shall be valued at not less than 100% of the principal amount thereof.

Section 19.3. Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall (to the full extent permitted by law) not invalidate or render unenforceable such provision in any other jurisdiction.

Section 19.4. Construction, Etc. Each covenant contained herein shall be construed (absent express provision to the contrary) as being independent of each other covenant contained herein, so that compliance with any one covenant shall not (absent such an express contrary provision) be deemed to excuse compliance with any other covenant. Where any provision herein refers to action to be taken by any Person, or which such Person is prohibited from taking, such provision shall be applicable whether such action is taken directly or indirectly by such Person.

For the avoidance of doubt, all Schedules and Exhibits attached to this Agreement shall be deemed to be a part hereof.

Section 19.5. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original but all of which together shall constitute one instrument. Each counterpart may consist of a number of copies hereof, each signed by less than all, but together signed by all, of the parties hereto.

Section 19.6. Governing Law. This Agreement shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the law of the Commonwealth of Pennsylvania excluding choice-of-law principles of the law of such State that would permit the application of the laws of a jurisdiction other than such State.

Section 19.7. Jurisdiction and Process; Waiver of Jury Trial. (a) The Company irrevocably submits to the non-exclusive jurisdiction of any Pennsylvania State or federal court sitting in Philadelphia, Pennsylvania, over any suit, action or proceeding arising out of or relating to this Agreement or the Bonds. To the fullest extent permitted by applicable law, the Company irrevocably waives and agrees not to assert, by way of motion, as a defense or otherwise, any claim that it is not subject to the jurisdiction of any such court, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding brought in any such court and any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum.

(b) The Company consents to process being served by or on behalf of any holder of Bonds in any suit, action or proceeding of the nature referred to in **Section 19.7(a)** by mailing a copy thereof by registered or certified mail (or any substantially similar form of mail), postage prepaid, return receipt requested, to it at its address specified in **Section 15** or at such other address of which such holder shall then have been notified pursuant to said **Section**. The Company agrees that such service upon receipt (i) shall be deemed in every respect effective service of process upon it in any such suit, action or proceeding and (ii) shall, to the fullest extent permitted by applicable law, be taken and held to be valid personal service upon and personal delivery to it. Notices hereunder shall be conclusively presumed received as evidenced by a delivery receipt furnished by the United States Postal Service or any reputable commercial delivery service.

(c) Nothing in this **Section 19.7** shall affect the right of any holder of a Bond to serve process in any manner permitted by law, or limit any right that the holders of any of the Bonds may have to bring proceedings against the Company in the courts of any appropriate jurisdiction or to enforce in any lawful manner a judgment obtained in one jurisdiction in any other jurisdiction.

(d) The parties hereto hereby waive trial by jury in any action brought on or with respect to this Agreement, the Bonds or any other document executed in connection herewith or therewith.

Section 19.8. Payments Due on Non-Business Days. Anything in this Agreement or the Bonds to the contrary notwithstanding, any payment of principal of or Make-Whole Amount or interest on any Bond that is due on a date other than a Business Day shall be made on the next succeeding Business Day without including the additional days elapsed in the computation of the interest payable on such next succeeding Business Day; provided that if the maturity date of any Bond is a date other than a Business Day, the payment otherwise due on such maturity date shall be made on the next succeeding Business Day and shall include the additional days elapsed in the computation of interest payable on such next succeeding Business Day.

* * * * *

If you are in agreement with the foregoing, please sign the form of agreement on a counterpart of this Bond Purchase Agreement and return it to the Company, whereupon this Agreement shall become a binding agreement between you and the Company.

Very truly yours,

Aqua Pennsylvania, Inc.

By /s/ Daniel J. Schuller
Name: Daniel J. Schuller
Its: Executive Vice President and Chief Financial Officer

State Farm Life Insurance Company

By_____
/s/ Rebekah L. Holt
Name: Rebekah L. Holt
Title: Investment Professional

By_____
/s/ Jeffrey Attwood
Name: Jeffrey Attwood
Title: Investment Professional

State Farm Life and Accident Assurance Company

By_____
/s/ Rebekah L. Holt
Name: Rebekah L. Holt
Title: Investment Professional

By_____
/s/ Jeffrey Attwood
Name: Jeffrey Attwood
Title: Investment Professional

State Farm Insurance Companies Employee Retirement Trust

By_____
/s/ Rebekah L. Holt
Name: Rebekah L. Holt
Title: Investment Professional

By_____
/s/ Jeffrey Attwood
Name: Jeffrey Attwood
Title: Investment Professional

Information Relating to Purchasers

Name and Address of Purchaser	Principal Amount of Bonds to be Purchased

Wire Transfer Instructions:

Send notices, financial statements, officer's certificates and other correspondence to:

Send confirms to:

Send the original promissory note (via registered mail) to:

Send any other document whose enforceability requires an original signature to:

E-mail an electronic set of closing documents to:

Schedule A
(to Bond Purchase Agreement)

Defined Terms

As used herein, the following terms have the respective meanings set forth below or set forth in the Section hereof following such term:

"5.60% Series due February 1, 2043 Bonds" is defined in **Section 1**.

"Affiliate" means, at any time, and with respect to any Person, any other Person that at such time directly or indirectly through one or more intermediaries Controls, or is Controlled by, or is under common Control with, such first Person. As used in this definition, "Control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise. Unless the context otherwise clearly requires, any reference to an "*Affiliate*" is a reference to an Affiliate of the Company.

"Agreement" means this Bond Purchase Agreement, including all Schedules and Exhibits attached to this Agreement.

"Anti-Corruption Laws" means any law or regulation in a U.S. or any non-U.S. jurisdiction regarding bribery or any other corrupt activity, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act 2010.

"Anti-Money Laundering Laws" means any law or regulation in a U.S. or any non-U.S. jurisdiction regarding money laundering, drug trafficking, terrorist-related activities or other money laundering predicate crimes, including the Currency and Foreign Transactions Reporting Act of 1970 (otherwise known as the Bank Secrecy Act) and the USA Patriot Act.

"Blocked Person" means (a) a Person whose name appears on the list of Specially Designated Nationals and Blocked Persons published by OFAC, (b) a Person, entity, organization, country or regime that is blocked or a target of sanctions that have been imposed under U.S. Economic Sanctions Laws, or (c) a Person that is an agent, department or instrumentality of, or is otherwise beneficially owned by, controlled by or acting on behalf of, directly or indirectly, any Person, entity, organization, country or regime described in **clause (a)** or **(b)**.

"Bonds" is defined in **Section 1**.

"Business Day" means for the purposes of any provision of this Agreement, any day other than a Saturday, a Sunday or a day on which commercial banks in New York, New York or Philadelphia, Pennsylvania are required or authorized to be closed.

"Capital Lease" means, at any time, a lease with respect to which the lessee is required concurrently to recognize the acquisition of an asset and the incurrence of a liability in accordance with GAAP.

"Capital Lease Obligation" means, with respect to any Person and a Capital Lease, the amount of the obligation of such Person as the lessee under such Capital Lease which would, in accordance with GAAP, appear as a liability on a balance sheet of such Person.

"Closing" is defined in **Section 3**.

"Code" means the Internal Revenue Code of 1986, as amended from time to time, and the rules and regulations promulgated thereunder from time to time.

"Company" means Aqua Pennsylvania, Inc., a corporation existing under the laws of the Commonwealth of Pennsylvania.

"*Controlled Entity*" means any of the Subsidiaries of the Company and any of their or the Company's respective Controlled Affiliates. As used in this definition, "*Control*" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"Debt" means, with respect to any Person, without duplication,

(a) its liabilities for borrowed money;

(b) its liabilities for the deferred purchase price of property acquired by such Person (excluding accounts payable and other accrued liabilities arising in the ordinary course of business but including, without limitation, all liabilities created or arising under any conditional sale or other title retention agreement with respect to any such property);

(c) its Capital Lease Obligations;

(d) all liabilities for borrowed money secured by any Lien with respect to any property owned by such Person (whether or not it has assumed or otherwise become liable for such liabilities);

(e) all non-contingent liabilities in respect of reimbursement agreements or similar agreements in respect of letters of credit or instruments serving a similar function issued or accepted for its account by banks and other financial institutions;

(f) Swaps of such Person; and

(g) Guaranties of such Person with respect to liabilities of a type described in any of clauses (a) through (f) hereof.

Debt of any Person shall include all obligations of such Person of the character described in clauses (a) through (g) to the extent such Person remains legally liable in respect thereof notwithstanding that any such obligation is deemed to be extinguished under GAAP.

"Default" means an event or condition the occurrence or existence of which would, with the lapse of time or the giving of notice or both, become an Event of Default.

"Disclosure Documents" is defined in **Section 5.3**.

"EMMA" is defined in **Section 7.1(a)**.

"Environmental Laws" means any and all Federal, state, local, and foreign statutes, laws, regulations, ordinances, rules, judgments, orders, decrees, permits, concessions, grants, franchises, licenses, agreements or governmental restrictions relating to pollution and the protection of the environment or the release of any materials into the environment, including but not limited to those related to Hazardous Materials.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended from time to time, and the rules and regulations promulgated thereunder from time to time in effect.

"ERISA Affiliate" means any trade or business (whether or not incorporated) that is treated as a single employer together with the Company under section 414 of the Code.

"Event of Default" is an "event of default" as defined in the Indenture.

"Execution Date" is defined in **Section 3**.

"Financing Agreements" means this Agreement, the Indenture (including without limitation the Supplement), and the Bonds.

"*GAAP*" means generally accepted accounting principles as in effect from time to time in the United States of America.

"Governmental Authority" means:

(a) the government of

(i) the United States of America or any State or other political subdivision thereof, or

(ii) any other jurisdiction in which the Company or any Subsidiary conducts all or any part of its business, or which asserts jurisdiction over any properties of the Company or any Subsidiary, or

(b) any entity exercising executive, legislative, judicial, regulatory or administrative functions of, or pertaining to, any such government.

"Governmental Official" means any governmental official or employee, employee of any government-owned or government-controlled entity, political party, any official of a political

party, candidate for political office, official of any public international organization or anyone else acting in an official capacity.

"Guaranty" means, with respect to any Person, any obligation (except the endorsement in the ordinary course of business of negotiable instruments for deposit or collection) of such Person guaranteeing or in effect guaranteeing any Debt, dividend or other obligation of any other Person in any manner, whether directly or indirectly, including (without limitation) obligations incurred through an agreement, contingent or otherwise, by such Person:

(a) to purchase such Debt or obligation or any property constituting security therefor primarily for the purpose of assuring the owner of such Debt or obligation of the ability of any other Person to make payment of the Debt or obligation;

(b) to advance or supply funds (i) for the purchase or payment of such Debt or obligation, or (ii) to maintain any working capital or other balance sheet condition or any income statement condition of any other Person or otherwise to advance or make available funds for the purchase or payment of such Debt or obligation;

(c) to lease properties or to purchase properties or services primarily for the purpose of assuring the owner of such Debt or obligation of the ability of any other Person to make payment of the Debt or obligation; or

(d) otherwise to assure the owner of such Debt or obligation against loss in respect thereof.

In any computation of the Debt or other liabilities of the obligor under any Guaranty, the Debt or other obligations that are the subject of such Guaranty shall be assumed to be direct obligations of such obligor, *provided* that the amount of such Debt outstanding for purposes of this Agreement shall not exceed the maximum amount of Debt that is the subject of such Guaranty.

"Hazardous Material" means any and all pollutants, toxic or hazardous wastes or other substances that might pose a hazard to health and safety, the removal of which may be required or the generation, manufacture, refining, production, processing, treatment, storage, handling, transportation, transfer, use, disposal, release, discharge, spillage, seepage or filtration of which is or shall be restricted, prohibited or penalized by any applicable law including, but not limited to, asbestos, urea formaldehyde foam insulation, polychlorinated biphenyls, petroleum, petroleum products, lead based paint, radon gas or similar restricted, prohibited or penalized substances.

"holder" is defined in the Indenture.

"Indenture" is defined in **Section 1**.

"Institutional Investor" means (a) any Purchaser of a Bond, (b) any holder of a Bond holding (together with one or more of its affiliates) more than 5% of the aggregate principal amount of the Bonds then outstanding, (c) any bank, trust company, savings and loan association or other financial institution, any pension plan, any investment company, any insurance company, any

broker or dealer, or any other similar financial institution or entity, regardless of legal form, and (d) any Related Fund of any holder of any Bond.

"Lien" means, with respect to any Person, any mortgage, lien, pledge, charge, security interest or other encumbrance, or any interest or title of any vendor, lessor, lender or other secured party to or of such Person under any conditional sale or other title retention agreement or Capital Lease, upon or with respect to any property or asset of such Person (including in the case of stock, stockholder agreements, voting trust agreements and all similar arrangements).

"Make-Whole Amount" is defined in the Supplement.

"Material" means material in relation to the business, operations, affairs, financial condition, assets or properties of the Company and its Subsidiaries taken as a whole.

"Material Adverse Effect" means a material adverse effect on (a) the business, operations, affairs, financial condition, assets or properties of the Company and its Subsidiaries taken as a whole, (b) the ability of the Company to perform its obligations under this Agreement, the Bonds or the Indenture, or (c) the validity or enforceability of any Financing Agreement.

"Multiemployer Plan" means any Plan that is a "*multiemployer plan*" (as such term is defined in section 4001(a)(3) of ERISA).

"NAIC" means the National Association of Insurance Commissioners or any successor thereto.

"Non-U.S. Plan" means any plan, fund or other similar program that (a) is established or maintained outside the United States of America by the Company or any Subsidiary primarily for the benefit of employees of the Company or one or more Subsidiaries residing outside the United States of America, which plan, fund or other similar program provides, or results in, retirement income, a deferral of income in contemplation of retirement or payments to be made upon termination of employment, and (b) is not subject to ERISA or the Code.

"OFAC" means the Office of Foreign Assets Control of the United States Department of the Treasury.

"*OFAC Sanctions Program*" means any economic or trade sanction that OFAC is responsible for administering and enforcing. A list of OFAC Sanctions Programs may be found at http://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx.

"Officer's Certificate" means a certificate of a Senior Financial Officer or of any other officer of the Company whose responsibilities extend to the subject matter of such certificate.

"Original Indenture" is defined in **Section 1**.

"PBGC" means the Pension Benefit Guaranty Corporation referred to and defined in ERISA or any successor thereto.

"Permitted Liens" shall have the meaning assigned to such term in the Indenture.

"Person" means an individual, partnership, corporation, limited liability company, association, trust, unincorporated organization, business entity or Governmental Authority.

"Plan" means an "*employee benefit plan*" (as defined in section 3(2) of ERISA) subject to Title I of ERISA that is or, within the preceding five years, has been established or maintained, or to which contributions are or, within the preceding five years, have been made or required to be made, by the Company or any ERISA Affiliate or with respect to which the Company or any ERISA Affiliate may have any liability.

"property" or *"properties"* means, unless otherwise specifically limited, real or personal property of any kind, tangible or intangible, choate or inchoate.

"PTE" is defined in **Section 6.2(a)**.

"Purchaser" is defined in the first paragraph of this Agreement.

"Related Fund" means, with respect to any holder of any Bond, any fund or entity that (i) invests in Securities or bank loans, and (ii) is advised or managed by such holder, the same investment advisor as such holder or by an affiliate of such holder or such investment advisor.

"Required Holders" means (i) at any time prior to the Closing, the Purchasers of the Bonds; and (ii) at any time on or after the Closing, the holders of at least 51% in principal amount of the Bonds at the time outstanding (exclusive of Bonds then owned by the Company or any of its Affiliates).

"Responsible Officer" means any Senior Financial Officer and any other officer of the Company with responsibility for the administration of the relevant portion of this Agreement.

"SEC" means the Securities and Exchange Commission of the United States, or any successor thereto.

"Securities" or *"Security"* shall have the meaning specified in section 2(a)(1) of the Securities Act.

"Securities Act" means the Securities Act of 1933, as amended from time to time, and the rules and regulations promulgated thereunder from time to time in effect.

"Senior Financial Officer" means the chief financial officer, principal accounting officer, treasurer or comptroller of the Company.

"Source" is defined in **Section 6.2**.

"State Sanctions List" means a list that is adopted by any state Governmental Authority within the United States of America pertaining to Persons that engage in investment or other

commercial activities in Iran or any other country that is a target of economic sanctions imposed under U.S. Economic Sanctions Laws.

"Subsidiary" means, as to any Person, any other Person in which such first Person or one or more of its Subsidiaries or such first Person and one or more of its Subsidiaries owns sufficient equity or voting interests to enable it or them (as a group) ordinarily, in the absence of contingencies, to elect a majority of the directors (or Persons performing similar functions) of such second Person, and any partnership or joint venture if more than a 50% interest in the profits or capital thereof is owned by such first Person or one or more of its Subsidiaries or such first Person and one or more of its Subsidiaries (unless such partnership or joint venture can and does ordinarily take major business actions without the prior approval of such Person or one or more of its Subsidiaries). Unless the context otherwise clearly requires, any reference to a "*Subsidiary*" is a reference to a Subsidiary of the Company.

"Supplement" is defined in **Section 1**.

"SVO" means the Securities Valuation Office of the NAIC or any successor to such Office.

"Swaps" means, with respect to any Person, payment obligations with respect to interest rate swaps, currency swaps and similar obligations obligating such Person to make payments, whether periodically or upon the happening of a contingency. For the purposes of this Agreement, the amount of the obligation under any Swap shall be the amount determined in respect thereof as of the end of the then most recently ended fiscal quarter of such Person, based on the assumption that such Swap had terminated at the end of such fiscal quarter, and in making such determination, if any agreement relating to such Swap provides for the netting of amounts payable by and to such Person thereunder or if any such agreement provides for the simultaneous payment of amounts by and to such Person, then in each such case, the amount of such obligation shall be the net amount so determined.

"Trust Estate" is defined in the Indenture.

"Trustee" is defined in **Section 1**.

"UCC" means, the Uniform Commercial Code as enacted and in effect from time to time in the state whose laws are treated as applying to the Trust Estate.

"USA Patriot Act" means United States Public Law 107-56, Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT ACT) Act of 2001, as amended from time to time, and the rules and regulations promulgated thereunder from time to time in effect.

"U.S. Economic Sanctions Laws" means those laws, executive orders, enabling legislation or regulations administered and enforced by the United States pursuant to which economic sanctions have been imposed on any Person, entity, organization, country or regime, including the Trading with the Enemy Act, the International Emergency Economic Powers Act, the Iran

Sanctions Act, the Sudan Accountability and Divestment Act, each as amended from time to time, and any other OFAC Sanctions Program.

Aqua Pennsylvania, Inc.
Subsidiaries of the Company,
Ownership of Subsidiary Stock

Company Name	State of Incorporation	% of Ownership (Direct & Indirect)
Aqua Pennsylvania, Inc.	Pennsylvania	100%
1. Aqua Pennsylvania Wastewater, Inc.	Pennsylvania	100%
2. Honesdale Consolidated Water Company	Pennsylvania	100%

Schedule 5.4
(to Bond Purchase Agreement)

Financial Statements

1. Aqua Pennsylvania, Inc. Consolidated Financial Statements as of and for the years ended December 31, 2021, 2020, and 2019 (audited)

2. Aqua Pennsylvania, Inc. Report for Quarter Ended September 30, 2022

Schedule 5.5
(to Bond Purchase Agreement)

Aqua Pennsylvania and Subsidiaries
Schedule 5.15(a) – Existing Debt
as of 9/30/2022

		Outstanding Balance
Unsecured Note	5.95%	10,000,000
Unsecured Note	5.95%	10,000,000
Unsecured Note	5.95%	10,000,000
Unsecured Note	5.95%	10,000,000
Total Unsecured Notes		**40,000,000**
Tax Exempt-Bond Premium		1,153,287
Tax Exempt-Bond Premium		195,472
Tax Exempt-Bond Discount		(1,140,645)
Tax Exempt-Bond Premium		356,585
Tax Exempt-Bond Discount		(174,498)
Tax Exempt-Bond Discount		(67,564)
Tax Exempt-Bond Discount		(386,400)
Tax Exempt-Bond Premium		1,656,076
Total Tax Exempt Bonds		**1,592,313**
PennVest	2.711%	206,106
PennVest	2.547%	533,423
PennVest	2.547%	174,322
PennVest	2.690%	551,658
PennVest	2.547%	1,106,453
PennVest	2.547%	373,453
PennVest	1.510%	1,413,572
PennVest	1.000%	650,788
PennVest	3.460%	1,351,034
PennVest	3.468%	152,412
PennVest	2.774%	745,334
PennVest	3.790%	127,334
PennVest	2.774%	168,546
PennVest	3.470%	818,353
PennVest	3.468%	51,663
PennVest	3.195%	690,533
PennVest	2.556%	334,638
PennVest	2.554%	454,831
PennVest	2.547%	246,702
PennVest	3.046%	586,259
PennVest	2.547%	682,793
PennVest	2.547%	501,097
PennVest	2.547%	594,477
PennVest	3.143%	989,697
PennVest	2.547%	497,678
PennVest	1.510%	4,795,837

PennVest	3.330%	12,351
PennVest	2.730%	505,816
PennVest	2.668%	398,209
PennVest	2.547%	563,816
PennVest	1.000%	240,295
PennVest	2.774%	68,429
PennVest	2.774%	35,953
PennVest	3.052%	263,467
PennVest	3.468%	320,966
PennVest	2.774%	218,730
PennVest	1.156%	48,054
PennVest	2.774%	556,176
PennVest	3.365%	620,854
PennVest	2.547%	837,880
PennVest	1.000%	1,004,404
Total PennVest		**24,494,341**

FMB	5.980%	3,000,000
FMB	6.060%	15,000,000
FMB	6.06%	5,000,000
FMB	7.72%	15,000,000
FMB	9.29%	17,800,000
FMB	3.79%	40,000,000
FMB	3.80%	20,000,000
FMB	3.85%	20,000,000
FMB	3.94%	25,000,000
FMB	4.61%	25,000,000
FMB	4.62%	25,000,000
FMB	3.64%	25,000,000
FMB	4.01%	15,000,000
FMB	4.06%	13,000,000
FMB	4.11%	12,000,000
FMB	3.77%	65,000,000
FMB	3.82%	20,000,000
FMB	3.85%	25,000,000
FMB	4.16%	60,000,000
FMB	4.18%	20,000,000
FMB	4.20%	20,000,000
FMB	3.85%	25,000,000
FMB	3.95%	60,000,000
FMB	3.65%	10,000,000
FMB	3.69%	40,000,000
FMB	4.04%	40,000,000
FMB	4.06%	40,000,000
FMB	4.06%	35,000,000
FMB	4.07%	20,000,000
FMB	4.09%	20,000,000
FMB	3.99%	25,000,000
FMB	4.04%	10,000,000
FMB	4.09%	65,000,000
FMB	4.44%	65,000,000
FMB	4.49%	35,000,000
FMB	4.51%	25,000,000
FMB	4.02%	75,000,000
FMB	4.07%	25,000,000
FMB	4.12%	25,000,000
FMB	4.09%	50,000,000
FMB	4.13%	75,000,000
FMB	4.14%	50,000,000
FMB	3.39%	75,000,000
FMB	3.41%	50,000,000
FMB	3.49%	75,000,000
FMB	3.54%	50,000,000
FMB	3.55%	50,000,000
FMB	2.85%	50,000,000
FMB	2.89%	50,000,000

FMB	2.90%	50,000,000
Total First Mortgage Bonds		**1,744,800,000**
PennVest - Aqua PA WW	1.16%	86,356
PennVest - Aqua PA WW	1.00%	398,154
PennVest - Aqua PA WW	2.77%	72,765
Total PennVest LWW		**557,274**
Total Long Term Debt		**$1,811,443,928**
PNC Revolver		**32,234,767**
Total Debt Aqua Pennsylvania		**$1,843,678,695**

Schedule 5.15(b)

Aqua Pennsylvania, Inc. and Subsidiaries
Debt Issuance Limitations

Indenture of Mortgage dated as of January 1, 1941 of Aqua Pennsylvania, Inc. as Supplemented and Amended

$100 million Amended and Restated Credit Agreement among Aqua Pennsylvania, Inc. and PNC Bank, National Association as Agent dated as of November 17, 2016, as amended

Aqua Pennsylvania, Inc. $40,000,000 5.95% Senior Notes dated March 31, 2006

Form of Supplement

[See Attached Sixty-first Supplemental Indenture]

Exhibit A
(to Bond Purchase Agreement)

Form of Opinion of General Counsel
to the Company

[See attached]

Exhibit 4.4(a)
(to Bond Purchase Agreement)

Form of Opinion of Special Counsel
to the Company

[See attached]

Exhibit 4.4(b)
(to Bond Purchase Agreement)

Form of Opinion of Special Counsel
to the Purchasers

[Delivered to Purchasers only]

Exhibit 4.4(c)
(to Bond Purchase Agreement)

[FORM OF]

U.S. TAX COMPLIANCE CERTIFICATE

Reference is hereby made to the Bond Purchase Agreement dated as of December 15, 2022 (as amended, supplemented or otherwise modified from time to time, the *"Bond Purchase Agreement"*), among Aqua Pennsylvania, Inc., a corporation organized under the laws of the Commonwealth of Pennsylvania (the *"Company"*) and the Purchasers that are signatories thereto.

Unless otherwise defined herein, capitalized terms defined in the Bond Purchase Agreement and used herein have the meanings given to them in the Bond Purchase Agreement.

Pursuant to the provisions of Section 12.4 (Tax Withholding) of the Bond Purchase Agreement, the undersigned hereby certifies that:

(i) it is the sole record and beneficial owner of the Bonds in respect of which it is providing this certificate;

(ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code;

(iii) it is not a ten percent shareholder of the Company within the meaning of Section 871(h)(3)(B) of the Code; and

(iv) it is not a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Company with a certificate of its non-U.S. Person status on IRS W-8BEN-E.

[Purchaser Name]

By:_____
Name:
Title:

Date: _____ __, 20[__]

Exhibit 12.4
(to Bond Purchase Agreement)

Exhibit 4.2.7.1

SCHEDULE OF SUPPLEMENTAL INDENTURES SUBSTANTIALLY IDENTICAL TO FORM OF SUPPLEMENTAL INDENTURE DURING AND AFTER 2014

In accordance with Instruction 2 to Item 601 of Regulation S-K, the Registrant has omitted filing the following Supplemental Indentures by and between Aqua Pennsylvania, Inc. and The Bank of New York Mellon Trust Company, N.A. because they are substantially identical in all material respects to the form of Supplemental Indenture filed as Exhibit 4.1.15 to Essential Utilities, Inc.'s Annual Report on Form 10-K for the fiscal year ended December 31, 2015:

1. Forty-Ninth Supplemental Indenture, dated as of December 1, 2014
2. Fiftieth Supplemental Indenture, dated as of November 1, 2015
3. Fifty-First Supplemental Indenture, dated as of November 1, 2016
4. Fifty-Second Supplemental Indenture, dated as of June 15, 2017
5. Fifty-Third Supplemental Indenture, dated as of June 1, 2018
6. Fifty-Fourth Supplemental Indenture, dated as of October 15, 2018
7. Fifty-Fifth Supplemental Indenture, dated as of May 1, 2019
8. Fifty-Sixth Supplemental Indenture, dated as of September 1, 2019
9. Fifty-Seventh Supplemental Indenture, dated as of November 1, 2019
10. Fifty-Eight Supplemental Indenture, dated as of March 15, 2020
11. Fifty-Ninth Supplemental Indenture, dated as of September 1, 2020
12. Sixtieth Supplemental Indenture, dated as of September 1, 2022
13. Sixty-First Supplemental Indenture, dated as of December 1, 2022

Published CUSIP Number: 03836VAE5
Revolving Facility CUSIP Number: 03836VAH8

CREDIT AGREEMENT

dated as of

December 14, 2022

among

ESSENTIAL UTILITIES, INC.,

the LENDERS Party Hereto

and

PNC BANK, NATIONAL ASSOCIATION,
as Administrative Agent

PNC CAPITAL MARKETS LLC,
COBANK, ACB,
BOFA SECURITIES, INC.,
RBC CAPITAL MARKETS,
and
THE HUNTINGTON NATIONAL BANK,
as Joint Lead Arrangers and Joint Bookrunners

COBANK, ACB,
BANK OF AMERICA, N.A.,
ROYAL BANK OF CANADA,
and
THE HUNTINGTON NATIONAL BANK,
as Co-Syndication Agents

and

RBC CAPITAL MARKETS,
as Sustainability Structuring Agent

TABLE OF CONTENTS

CREDIT AGREEMENT dated as of December 14, 2022 (this "Agreement"), among ESSENTIAL UTILITIES, INC., a Pennsylvania corporation (the "Company"), the LENDERS party hereto and PNC BANK, NATIONAL ASSOCIATION, as the Administrative Agent.

WHEREAS, the Company is party to that certain Credit Agreement dated as of December 5, 2018, among the Company, the lenders party thereto and PNC Bank, National Association, as administrative agent (as heretofore amended, supplemented or otherwise modified, the "Company Existing Credit Agreement");

WHEREAS, the Company intends to pay in full all principal, interest, fees and other amounts outstanding or due in respect of the Company Existing Credit Agreement and to terminate all commitments to extend credit thereunder and cancel all letters of credit issued and outstanding thereunder (other than any such letter of credit designated hereunder as an Existing Letter of Credit or cash collateralized or backstopped in a manner satisfactory to the issuing bank in respect thereof) (the "Company Existing Credit Agreement Refinancing"); and

WHEREAS, the Company has requested that the Lenders and the Issuing Banks provide a revolving credit facility to the Company, and the Lenders have indicated their willingness to lend and the Issuing Banks have indicated their willingness to issue Letters of Credit, in each case, on the terms and subject to the conditions set forth herein.

In consideration of the mutual covenants and agreements herein contained, the parties hereto covenant and agree as follows:

ARTICLE I

Definitions

SECTION 1.01. Defined Terms. As used in this Agreement (including the recitals hereto), the following terms have the meanings specified below:

"ABR", when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, bear interest at a rate determined by reference to the Alternate Base Rate.

"Acquisition" means any acquisition, or series of related acquisitions (including pursuant to any amalgamation, merger or consolidation), of property (including Equity Interests in a Person), in each case other than in the ordinary course of business.

"Acquisition Indebtedness" means any Indebtedness of the Company or any Subsidiary that has been incurred for the purpose of financing, in whole or in part, an Acquisition and any related transactions (including for the purpose of refinancing or replacing all or a portion of any related bridge facilities or any pre-existing Indebtedness of the Persons or assets to be acquired); provided that either (a) the release of the proceeds thereof to the Company and the Subsidiaries is contingent upon the substantially simultaneous consummation of such Acquisition (and, if the definitive agreement for such Acquisition is terminated prior to the consummation of such Acquisition, or if such Acquisition is otherwise not consummated by the date specified in the

definitive documentation evidencing, governing the rights of the holders of or otherwise relating to such Indebtedness, then, in each case, such proceeds are, and pursuant to the terms of such definitive documentation are required to be, promptly applied to satisfy and discharge all obligations of the Company and the Subsidiaries in respect of such Indebtedness) or (b) such Indebtedness contains a "special mandatory redemption" provision (or a similar provision) if such Acquisition is not consummated by the date specified in the definitive documentation evidencing, governing the rights of the holders of or otherwise relating to such Indebtedness (and, if the definitive agreement for such Acquisition is terminated prior to the consummation of such Acquisition or if such Acquisition is otherwise not consummated by the date so specified, such Indebtedness is, and pursuant to such "special mandatory redemption" (or similar) provision is required to be, redeemed or otherwise satisfied and discharged within 90 days of such termination or such specified date, as the case may be).

"Administrative Agent" means PNC, in its capacity as the administrative agent hereunder and under the other Loan Documents, and its successors in such capacity as provided in Article VIII.

"Administrative Questionnaire" means an Administrative Questionnaire in a form supplied by the Administrative Agent.

"Affected Financial Institution" means (a) any EEA Financial Institution or (b) any UK Financial Institution.

"Affiliate" means, with respect to a specified Person, another Person that directly or indirectly Controls, is Controlled by or is under common Control with the Person specified.

"Agreement" has the meaning set forth in the preamble to this Agreement.

"Alternate Base Rate" means, for any day, a fluctuating per annum rate of interest equal to the highest of (a) the Overnight Bank Funding Rate, plus 0.5%, (b) the Prime Rate, and (c) the Daily Simple SOFR, plus 1.00%, so long as Daily Simple SOFR is offered, ascertainable and not unlawful; provided, however, if the Alternate Base Rate as determined above would be less than 0.00%, then such rate shall be deemed to be 0.00%. Any change in the Alternate Base Rate (or any component thereof) shall take effect at the opening of business on the day such change occurs. Notwithstanding anything to the contrary contained herein, in the case of any event specified in Section 2.13 or Section 2.14, to the extent any such determination affects the calculation of the Alternate Base Rate, the definition hereof shall be calculated without reference to clause (c) above until the circumstances giving rise to such event no longer exist.

"Anti-Corruption Laws" means the United States Foreign Corrupt Practices Act of 1977, as amended, 15 U.S.C. §§ 78dd-1, et seq. and all other laws, rules, and regulations of any jurisdiction applicable to the Company or any of its Subsidiaries from time to time concerning or relating to bribery, corruption or money laundering.

"Applicable Percentage" means at any time, with respect to any Revolving Credit Lender, the percentage of the Revolving Credit Commitments represented by such Lender's Revolving Credit Commitment at such time. If all the Revolving Credit Commitments have

terminated or expired, the Applicable Percentages shall be determined based upon the Revolving Credit Commitments most recently in effect, giving effect to any assignments.

"Applicable Rate" means, for any day, with respect to any ABR Loan or Term SOFR Rate Loan, or with respect to the Commitment Fees, as the case may be, the applicable rate per annum set forth below under the applicable caption "ABR Spread", "Term SOFR Rate Spread", or "Commitment Fee Rate", as the case may be, based upon the Debt Ratings in effect on such date:

Pricing Category	Debt Ratings (S&P/Moody's/ Fitch)	ABR Spread (percent per annum)	Term SOFR Rate Spread (percent per annum)	Commitment Fee Rate (percent per annum)
Category 1	Greater than or equal to A/A2/A	0.000%	0.875%	0.100%
Category 2	A-/A3/A-	0.000%	1.000%	0.125%
Category 3	BBB+/Baa1/BBB+	0.125%	1.125%	0.150%
Category 4	BBB/Baa2/BBB	0.250%	1.250%	0.200%
Category 5	BBB-/Baa3/BBB or lower or unrated	0.500%	1.500%	0.250%

For purposes of the foregoing, (a) if any of S&P, Moody's or Fitch shall not have in effect a Debt Rating (other than by reason of any of the circumstances referred to in the last sentence of this paragraph), then (i) if only one Rating Agency shall not have in effect a Debt Rating, the Pricing Category shall be based on the Debt Ratings of the other two Rating Agencies, (ii) if two Rating Agencies shall not have in effect a Debt Rating, one of such Rating Agencies shall be deemed to have established a Debt Rating in Category 5 and the Pricing Category shall be based on such deemed Debt Rating and the remaining effective Debt Rating, and (iii) if no Rating Agency shall have in effect a Debt Rating, the Pricing Category shall be Category 5, (b) if Debt Ratings are in effect or deemed to have been established from only two Rating Agencies, and such Debt Ratings fall into different Categories, the Pricing Category shall be based on the higher of such Debt Ratings unless such Debt Ratings differ by two or more Categories, in which case the applicable Pricing Category shall be based on the Category one Category below the Pricing Category corresponding to the higher of such Debt Ratings and (c) if Debt Ratings are in effect from all three Rating Agencies and (i) all three Debt Ratings fall into different Categories, the applicable Pricing Category shall be based on the Category indicated by the Debt Rating that is neither the highest nor the lowest of the three Debt Ratings or (ii) two of the three Debt Ratings fall into one Category (the "Majority Category") and the third Debt Rating falls into a different Category, the applicable Pricing Category shall be based on the Category indicated by the Majority Category. Each change in the Pricing Category for any Debt Rating shall apply during the period commencing on the effective date of such change and ending on the date immediately preceding the effective date of the next such change. If the rating system of any Rating Agency shall change, or if any Rating Agency shall cease to be in the business of rating corporate debt obligations, the

Company and the Lenders shall negotiate in good faith to amend this definition to reflect such changed rating system or the unavailability of a Debt Rating from such Rating Agency and, pending the effectiveness of any such amendment, for purposes of determining the applicable Pricing Category such Rating Agency shall be deemed to have in effect the Debt Rating from such Rating Agency most recently in effect prior to such change or cessation.

It is hereby understood and agreed that the Applicable Rate for Loans and the Applicable Rate for Commitment Fees shall be adjusted from time to time on an annual basis based upon the Sustainability Rate Adjustment (to be calculated and applied as set forth in Section 2.21); provided that in no event shall the Applicable Rate for Loans or Commitment Fees be less than 0%. Notwithstanding anything to the contrary herein, until the delivery of the Sustainability Certificate delivered in respect of the Reference Year ending December 31, 2022 pursuant to Section 2.21, the Sustainability Rate Adjustment shall be zero and there shall be no Sustainability Rate Adjustment to the Applicable Rate for Loans or the Applicable Rate for Commitment Fees.

"Approved Fund" means any Person (other than a natural person) that is engaged in making, purchasing, holding or investing in commercial loans and similar extensions of credit in the ordinary course of its activities and that is administered or managed by (a) a Lender, (b) an Affiliate of a Lender or (c) an entity or an Affiliate of an entity that administers or manages a Lender.

"Assignment and Assumption" means an assignment and assumption entered into by a Lender and an Eligible Assignee, with the consent of any Person whose consent is required by Section 9.04, and accepted by the Administrative Agent, substantially in the form of Exhibit A or any other form (including electronic records generated by the use of an electronic platform) approved by the Administrative Agent.

"Assumption Agreement" has the meaning set forth in Section 6.02(a).

"Availability Period" means the period from and including the Effective Date to but excluding the earlier of the Maturity Date and the date of termination of the Revolving Credit Commitments.

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

"Bail-In Legislation" means (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

"Bankruptcy Event" means, with respect to any Person, that such Person has become the subject of a voluntary or involuntary bankruptcy or insolvency proceeding, or has had a receiver, liquidator, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of or acquiescence in, any such proceeding or appointment; provided that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority; provided, however, that such ownership interest does not result in or provide such Person with immunity from the jurisdiction of courts within the United States of America or from the enforcement of judgments or writs of attachment on its assets or permit such Person (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

"Benchmark Replacement" has the meaning set forth in Section 2.13(b).

"Beneficial Ownership Certification" means a certification regarding beneficial ownership as required by the Beneficial Ownership Regulation.

"Beneficial Ownership Regulation" means 31 C.F.R. § 1010.230.

"Benefit Plan" means any of (a) an "employee benefit plan" (as defined in ERISA) that is subject to Title I of ERISA, (b) a "plan" as defined in and subject to Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such "employee benefit plan" or "plan".

"Board of Governors" means the Board of Governors of the Federal Reserve System of the United States of America.

"Borrowing" means (a) Loans of the same Class and Type made, converted or continued on the same date and, in the case of Term SOFR Rate Loans, as to which a single Interest Period is in effect or (b) a Swingline Loan.

"Borrowing Request" means a request by the Company for a Borrowing in accordance with Section 2.03, which shall be, in the case of any such written request, substantially in the form of Exhibit B or any other form approved by the Administrative Agent.

"Business Day" means any day that is not a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by law to remain closed; provided that, when used in connection with an amount that bears interest at a rate based on SOFR or any direct or indirect calculation or determination of SOFR, the term "Business Day" means any such day that is also a U.S. Government Securities Business Day.

"Capital Lease Obligations" means, with respect to any Person, the obligations of such Person to pay rent or other amounts under any lease of (or other arrangement conveying the right to use) any real or personal property, or a combination thereof, which obligations are required to be classified and accounted for as capital leases on a balance sheet of such Person under GAAP;

and the amount of such obligations shall be the capitalized amount thereof determined in accordance with GAAP. For purposes of Section 6.01, a Capital Lease Obligation shall be deemed to be secured by a Lien on the property being leased and such property shall be deemed to be owned by the lessee.

"Cash Management Agreements" has the meaning set forth in Section 2.04(d).

"Change in Control" means any transaction or occurrence or series of transactions or occurrences that results at any time in (a) any Person or group of Persons (within the meaning of Sections 13(d) or 14(a) of the Exchange Act) having acquired, after the Effective Date, beneficial ownership (within the meaning of Rule 13d-3 promulgated by the SEC under the Exchange Act) of 50% or more of the Voting Stock of the Company or (b) during any period of 12 consecutive months, commencing before or after the Effective Date, individuals who on the first day of such period were directors of the Company (together with any replacement or additional directors who were nominated, approved or elected by a majority of directors then in office) ceasing to constitute a majority of the board of directors of the Company.

"Change in Law" means the occurrence, after the date of this Agreement, of any of the following: (a) the adoption or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that, notwithstanding anything herein to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law", regardless of the date enacted, adopted, promulgated or issued.

"Class", when used in reference to (a) any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are Revolving Credit Loans or Swingline Loans (b) any Commitment, refers to whether such Commitment is a Revolving Credit Commitment or a Swingline Commitment and (c) any Lender, refers to whether such Lender has a Loan or Commitment of a particular Class.

"Code" means the Internal Revenue Code of 1986, as amended.

"Commitment" means a Revolving Credit Commitment or a Swingline Commitment.

"Commitment Fee" has the meaning set forth in Section 2.11(a).

"Communications" means, collectively, any notice, demand, communication, information, document or other material provided by or on behalf of the Company pursuant to any Loan Document or the transactions contemplated therein that is distributed to the Administrative Agent or any Lender by means of electronic communications pursuant to Section 9.01, including through the Platform.

"Company" has the meaning set forth in the preamble to this Agreement, or any successor "Company" as permitted pursuant to the terms of this Agreement.

"Company Existing Credit Agreement" has the meaning set forth in the recitals to this Agreement.

"Company Existing Credit Agreement Refinancing" has the meaning set forth in the recitals to this Agreement.

"Compliance Certificate" means a Compliance Certificate substantially in the form of Exhibit C or any other form approved by the Administrative Agent in its reasonable discretion.

"Conforming Changes" means, with respect to the Term SOFR Rate or any Benchmark Replacement in relation thereto, any technical, administrative or operational changes (including changes to the definition of "Base Rate," the definition of "Business Day," the definition of "Interest Period," the definition of "U.S. Government Securities Business Day," timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, the applicability and length of lookback periods, the applicability of breakage provisions, and other technical, administrative or operational matters) that the Administrative Agent decides may be appropriate to reflect the adoption and implementation of the Term SOFR Rate or such Benchmark Replacement and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of the Term SOFR Rate or the Benchmark Replacement exists, in such other manner of administration as the Administrative Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

"Connection Income Taxes" means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"Consolidated Assets" means, at any date, the total assets of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP, as reflected on the consolidated balance sheet of the Company included in the financial statements of the Company most recently delivered pursuant to Section 5.01(a) or 5.01(b) (or, prior to the first delivery of such financial statements, the most recent consolidated financial statements of the Company referred to in Section 3.04(a)).

"Consolidated Funded Debt" means, at any date, all Indebtedness of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP as of such date consisting of, without duplication, (a) borrowed money Indebtedness, including Capital Lease Obligations, (b) reimbursement obligations in respect of letters of credit and the like and (c) Indebtedness in the nature of a Guarantee of Indebtedness of other Persons of the type described in clause (a) or (b) above, whether or not required to be reflected on a consolidated balance sheet of the Company in accordance with GAAP.

"Consolidated Net Income" means, for any period, net income (or loss) after income and other taxes computed on the basis of income of the Company and the Subsidiaries for such period determined on a consolidated basis in accordance with GAAP, as reflected in the consolidated financial statements of the Company most recently delivered pursuant to Section 5.01(a) or 5.01(b) (or, prior to the first delivery of such financial statements, the most recent consolidated financial statements of the Company referred to in Section 3.04(a)).

"Consolidated Shareholders' Equity" means, at any date, the net book value of the shareholders' equity of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP as of such date, as reflected on the consolidated balance sheet of the Company prepared in accordance with GAAP.

"Consolidated Tangible Assets" means, at any date, (a) total assets of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP minus (b) goodwill and other intangible assets of the Company and the Subsidiaries, in each case, determined on a consolidated basis in accordance with GAAP, all as reflected in the consolidated financial statements of the Company most recently delivered pursuant to Section 5.01(a) or 5.01(b) (or, prior to the first delivery of such financial statements, the most recent consolidated financial statements of the Company referred to in Section 3.04(a)).

"Control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies, or the dismissal or appointment of the management, of a Person, whether through the ability to exercise voting power, by contract or otherwise. "Controlling" and "Controlled" have meanings correlative thereto.

"Credit Exposure" means, with respect to any Lender at any time, the sum of the aggregate outstanding principal amount of such Lender's Revolving Credit Loans and its LC Exposure and Swingline Exposure at such time.

"Credit Party" means the Administrative Agent, each Issuing Bank, each Swingline Lender and each other Lender.

"Daily Simple SOFR" means, for any day (a "SOFR Rate Day"), the interest rate per annum determined by the Administrative Agent by dividing (the resulting quotient rounded upwards, at the Administrative Agent's discretion, to the nearest 1/100th of 1%) (A) SOFR for the day (the "SOFR Determination Date") that is 2 Business Days prior to (i) such SOFR Rate Day if such SOFR Rate Day is a Business Day or (ii) the Business Day immediately preceding such SOFR Rate Day if such SOFR Rate Day is not a Business Day, by (B) a number equal to 1.00 minus the SOFR Reserve Percentage, in each case, as such SOFR is published by the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate) on the website of the Federal Reserve Bank of New York, currently at http://www.newyorkfed.org, or any successor source identified by the Federal Reserve Bank of New York or its successor administrator for the secured overnight financing rate from time to time. If Daily Simple SOFR as determined above would be less than the SOFR Floor, then Daily Simple SOFR shall be deemed to be the SOFR Floor. If SOFR for any SOFR Determination Date has not been published or replaced with a Benchmark Replacement by 5:00 p.m. (Pittsburgh, Pennsylvania time) on the second Business Day immediately following such SOFR Determination Date, then SOFR for such

SOFR Determination Date will be SOFR for the first Business Day preceding such SOFR Determination Date for which SOFR was published in accordance with the definition of "SOFR"; provided that SOFR determined pursuant to this sentence shall be used for purposes of calculating Daily Simple SOFR for no more than 3 consecutive SOFR Rate Days. If and when Daily Simple SOFR as determined above changes, any applicable rate of interest based on Daily Simple SOFR will change automatically without notice to the Company, effective on the date of any such change.

"Debt Rating" means, with respect to any Rating Agency as of any date of determination, (a) the rating by such Rating Agency of the senior unsecured long-term Indebtedness of the Company that is not Guaranteed by any Person or subject to any other credit enhancement or (b) if, and only if, such Rating Agency shall not have in effect the rating referred to in clause (a), the Company's "corporate credit" (however denominated) rating assigned by such Rating Agency.

"Debtor Relief Laws" means the Bankruptcy Code of the United States of America, and all other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief Laws of the United States or other applicable jurisdictions from time to time in effect.

"Default" means any event or condition that constitutes, or upon notice, lapse of time or both would constitute, an Event of Default.

"Defaulting Lender" means any Lender that (a) has failed, within two Business Days of the date required to be funded or paid, (i) to fund any portion of its Loans, (ii) to fund any portion of its participations in Letters of Credit or Swingline Loans or (iii) to pay to any Credit Party any other amount required to be paid by it hereunder, unless, in the case of clause (i) above, such Lender notifies the Administrative Agent in writing that such failure is the result of such Lender's good faith determination that a condition precedent to funding (not otherwise waived in accordance with the terms hereof) (specifically identified in such writing, including, if applicable, by reference to a specific Default) has not been satisfied, (b) has notified the Company, the Administrative Agent, any Swingline Lender or any Issuing Bank in writing, or has made a public statement, to the effect that it does not intend or expect to comply with any of its funding obligations under this Agreement (unless such writing or public statement indicates that such position is based on such Lender's good faith determination that a condition precedent (specifically identified in such writing, including, if applicable, by reference to a specific Default) to funding a Loan cannot be satisfied) or generally under other agreements in which it commits to extend credit, (c) has failed, within three Business Days after request by the Company, the Administrative Agent, any Swingline Lender or any Issuing Bank made in good faith, to provide a certification in writing from an authorized officer of such Lender that it will comply with its obligations to fund prospective Loans and participations in then outstanding Letters of Credit and Swingline Loans under this Agreement, provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon such requesting Person's, the Company's and the Administrative Agent's receipt of such certification in form and substance satisfactory to it, the Company and the Administrative Agent, or (d) has become, or a Lender Parent of which has become, the subject of a Bankruptcy Event or a Bail-In Action.

"Disposition" means any sale, transfer or other disposition, or series of related sales, transfers, or dispositions (including pursuant to any merger or consolidation), of property (including Equity Interests in a Person), in each case other than in the ordinary course of business.

"Documentation Agents" means the Persons identified as such on the cover page of this Agreement.

"dollars" or "$" refers to lawful money of the United States of America.

"EEA Financial Institution" means (a) any credit institution or investment firm established in any EEA Member Country that is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country that is a parent of any Person described in clause (a) above or (c) any entity established in an EEA Member Country that is a subsidiary of any Person described in clause (a) or (b) above and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein and Norway.

"EEA Resolution Authority" means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"EEOC" means the United States Equal Employment Opportunity Commission.

"Effective Date" means the date on which the conditions specified in Section 4.01 are satisfied (or waived in accordance with Section 9.02).

"Eligible Assignee" means (a) a Lender, (b) an Affiliate of a Lender, (c) an Approved Fund and (d) any other Person, other than, in each case, a natural person, a Defaulting Lender, the Company or any Subsidiary or other Affiliate of the Company.

"Engagement Letter" means the Engagement Letter dated October 25, 2022, between the Company, PNC and PNC Capital Markets LLC.

"Environmental Laws" means all rules, regulations, codes, ordinances, judgments, orders, decrees, laws, injunctions or binding agreements issued, promulgated or entered into by or with any Governmental Authority and relating to the protection of the environment, to preservation or reclamation of natural resources, to the Release, threatened Release or registration of any toxic or hazardous materials, substance or waste or to the extent related to exposure to toxic or hazardous materials, substances or wastes, health or safety matters.

"Environmental Liability" means any liability, obligation, loss, claim, action, order or cost, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties and indemnities), resulting from or based upon (a) any violation of any Environmental Law, (b) the generation, transportation, storage, treatment or disposal of any Hazardous Material, (c) any exposure to any Hazardous Material, (d) the Release or threatened

Release of any Hazardous Material or (e) any contract or other legally binding consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

"Equity Interests" means shares of capital stock, partnership interests, membership interests, beneficial interests or other ownership interests, whether voting or nonvoting, in, or interests in the income or profits of, a Person, and any warrants, options or other rights entitling the holder thereof to purchase or acquire any of the foregoing (other than, prior to the date of conversion, Indebtedness that is convertible into any such Equity Interests).

"ERISA" means the Employee Retirement Income Security Act of 1974.

"ERISA Affiliate" means any trade or business (whether or not incorporated) that, together with the Company or any Subsidiary, is treated as a single employer under Section 414(b) or 414(c) of the Code or, solely for purposes of Section 302 of ERISA and Section 412 of the Code, is treated as a single employer under Section 414(m) or 414(o) of the Code.

"ERISA Event" means (a) any "reportable event", as defined in Section 4043 of ERISA or the regulations issued thereunder with respect to a Plan (other than an event for which the 30 day notice period is waived), (b) any failure by any Plan to satisfy the minimum funding standard (within the meaning of Section 412 of the Code or Section 302 of ERISA) applicable to such Plan, in each case whether or not waived, (c) the filing pursuant to Section 412(c) of the Code or Section 302(c) of ERISA of an application for a waiver of the minimum funding standard with respect to any Plan, (d) a determination that any Plan is, or is expected to be, in "at-risk" status (as defined in Section 303(i)(4) of ERISA or Section 430(i)(4) of the Code), (e) the incurrence by the Company or any of its ERISA Affiliates of any liability under Title IV of ERISA other than a liability to the PBGC for premiums under Section 4007 of ERISA that are not past due, (f) the receipt by the Company or any of its ERISA Affiliates from the PBGC or a plan administrator of any notice relating to an intention to terminate, or to appoint a trustee to administer, any Plan or Multiemployer Plan, (g) the incurrence by the Company or any of its ERISA Affiliates of any liability with respect to the withdrawal or partial withdrawal from any Plan or Multiemployer Plan, (h) the receipt by the Company or any of its ERISA Affiliates of any notice, or the receipt by any Multiemployer Plan from the Company or any of its ERISA Affiliates of any notice, concerning the imposition of Withdrawal Liability or a determination that a Multiemployer Plan is, or is expected to be, insolvent, within the meaning of Title IV of ERISA or in endangered or critical status, within the meaning of Section 305 of ERISA, (i) any failure by the Company or its ERISA Affiliates to make any contribution or payment to any Plan or Multiemployer Plan, or any amendment to any Plan that has resulted or could result in the imposition of a Lien or the posting of a bond or other security under ERISA or the Code, and (j) the occurrence of any "prohibited transaction" within the meaning of Section 406 of ERISA or Section 4975 of the Code.

"Erroneous Payment" has the meaning set forth in Section 8.14(a).

"Erroneous Payment Deficiency Assignment" has the meaning set forth in Section 8.14(d).

"Erroneous Payment Impacted Class" has the meaning set forth in Section 8.14(d).

"Erroneous Payment Return Deficiency" has the meaning set forth in Section 8.14(d).

"Erroneous Payment Subrogation Rights" has the meaning set forth in Section 8.14(d).

"ESG Standards" means, as to KPI 1, the Greenhouse Gas Protocol and definitions and categorizations determined by the United States Environmental Protection Agency, and, as to KPI 2, the definitions and categorizations of race and ethnicity determined by the EEOC.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"Events of Default" has the meaning set forth in Section 7.01.

"Exchange Act" means the United States Securities Exchange Act of 1934.

"Excluded Taxes" means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient: (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. Federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan, Letter of Credit or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Loan, Letter of Credit or Commitment (other than pursuant to an assignment request by the Company under Section 2.18(b)) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 2.16, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender acquired the applicable interest in a Loan, Letter of Credit or Commitment or to such Lender immediately before it changed its lending office, (c) Taxes attributable to such Recipient's failure to comply with Section 2.16(f) and (d) any U.S. Federal withholding Taxes imposed under FATCA.

"Existing Borrowings" has the meaning set forth in Section 2.22(e).

"Existing Letters of Credit" means any letter of credit issued or deemed issued under the Company Existing Credit Agreement for the account of the Company or any Subsidiary by any Person that is an Issuing Bank hereunder and that is outstanding on the Effective Date and listed on Schedule 2.05.

"Existing Letter of Credit Issuing Banks" means each Issuing Bank, in its capacity as the issuer of the Existing Letters of Credit.

"Existing Maturity Date" has the meaning set forth in Section 2.19(a).

"Extending Lenders" has the meaning set forth in Section 2.19(b).

"Extension Effective Date" has the meaning set forth in Section 2.19(b).

"Facilities" means the revolving credit facilities provided for herein, including the Revolving Credit Commitments, the Revolving Credit Loans, and the participations in Letters of Credit and Swingline Loans.

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b) of the Code, any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code or any fiscal or regulatory legislation, rules or official practices adopted pursuant to any such intergovernmental agreement.

"Federal Funds Effective Rate" means for any day the rate per annum (based on a year of 360 days and actual days elapsed and rounded upward to the nearest 1/100 of 1% announced by the Federal Reserve Bank of New York (or any successor) on such day as being the weighted average of the rates on overnight federal funds transactions arranged by federal funds brokers on the previous trading day, as computed and announced by such Federal Reserve Bank (or any successor) in substantially the same manner as such Federal Reserve Bank computes and announces the weighted average it refers to as the "Federal Funds Effective Rate" as of the date of this Agreement; provided that if such Federal Reserve Bank (or its successor) does not announce such rate on any day, the "Federal Funds Effective Rate" for such day shall be the Effective Federal Funds Rate for the last day on which such rate was announced. Notwithstanding the foregoing, if the Effective Federal Funds Rate as determined under any method above would be less than zero percent (0.00%), such rate shall be deemed to be zero percent (0.00%) for purposes of this Agreement.

"Fee Letter" means the Fee Letter dated October 25, 2022 among the Company, PNC and PNC Capital Markets LLC.

"Financial Covenant" means the covenant set forth in Section 6.05.

"Financial Officer" means, with respect to any Person, the chief financial officer, principal financial officer, principal accounting officer, vice president-treasury, treasurer or controller of such Person.

"Fitch" means Fitch Ratings, Inc., or any successor to its rating agency business.

"Foreign Lender" means a Lender that is not a U.S. Person.

"GAAP" means, subject to Section 1.04(a), generally accepted accounting principles in the United States of America, applied in accordance with the consistency requirements thereof.

"Governmental Approvals" means all authorizations, consents, approvals, permits, licenses and exemptions of, registrations and filings with, and reports to, Governmental Authorities.

"Governmental Authority" means the government of the United States of America or any other nation or any political subdivision of any thereof, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national body exercising such powers or functions, such as the European Union or the European Central Bank).

"Guarantee" of or by any Person (the "guarantor") means any obligation, contingent or otherwise, of the guarantor guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation of any other Person (the "primary obligor") in any manner, whether directly or indirectly, and including any obligation of the guarantor, direct or indirect, (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation or to purchase (or to advance or supply funds for the purchase of) any security for the payment thereof, (b) to purchase or lease property, securities or services for the primary purpose of assuring the owner of such Indebtedness or other obligation of the payment thereof, (c) to maintain working capital, equity capital or any other financial statement condition or liquidity of the primary obligor the primary purpose of which is to enable the primary obligor to pay such Indebtedness or other obligation or (d) as an account party in respect of any letter of credit or letter of guaranty issued to support such Indebtedness or other obligation; provided that the term "Guarantee" shall not include (i) endorsements for collection or deposit in the ordinary course of business and (ii) any obligations to repay Indebtedness or other obligations of another Person in connection with the consummation of an Acquisition or other investment related to such Person. The amount, as of any date of determination, of any Guarantee shall be the principal amount outstanding on such date of the Indebtedness or other obligation guaranteed by the guarantor (or, in the case of (A) any Guarantee the terms of which limit the monetary exposure of, or other recourse to, the guarantor or (B) any Guarantee of an obligation that does not have a principal amount, the maximum monetary exposure (or maximum exposure associated with the exercise of such other recourse) as of such date of the guarantor under such Guarantee (as determined, in the case of clause (A), pursuant to such terms or, in the case of clause (B), reasonably and in good faith by a Financial Officer of the Company) and in all events not to exceed the principal amount outstanding on such date of the Indebtedness or other obligation for which the primary obligor is liable).

"Hazardous Materials" means all explosive, radioactive, hazardous or toxic substances, wastes or other pollutants, including petroleum or petroleum distillates, asbestos or asbestos-containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes, and all other substances or wastes of any nature regulated pursuant to or for which liability may be imposed under any Environmental Law by reason of their harmful or deleterious nature or any similar basis.

"Hedging Agreement" means any agreement with respect to any swap, forward, future or derivative transaction, or any option or similar agreement, involving, or settled by reference to, one or more rates, currencies, commodities, prices of equity or debt securities or

instruments, or economic, financial or pricing indices or measures of economic, financial or pricing risk or value, or any similar transaction or combination of the foregoing transactions; provided that, for the avoidance of doubt, it is understood that no phantom stock or similar plan providing for payments only on account of services provided by current or former directors, officers, employees or consultants of the Company or the Subsidiaries or right of a Person to 'put' an asset to another Person that arises in connection with any Acquisition or Disposition shall be a Hedging Agreement. The amount of the obligations of the Company or any Subsidiary in respect of any Hedging Agreement at any time shall be the amount (giving effect to any netting agreements and, except for purposes of Section 6.01, cash collateral arrangements) that the Company or such Subsidiary would be required to pay if such Hedging Agreement were early terminated at such time based on a mid-market quotation or is required to pay as a close-out amount if such Hedging Agreement has been terminated.

"Incremental Facility Agreement" means an Incremental Facility Agreement, in form and substance reasonably satisfactory to the Company and the Administrative Agent, among the Company, the Administrative Agent and one or more Incremental Revolving Credit Lenders, establishing Incremental Revolving Credit Commitments and effecting such other amendments hereto and to the other Loan Documents as are contemplated by Section 2.22.

"Incremental Facility Cap" means $250,000,000.

"Incremental Revolving Credit Commitment" means, with respect to any Lender, the commitment, if any, of such Lender, established pursuant to an Incremental Facility Agreement and Section 2.22, to make Revolving Credit Loans and to acquire participations in Letters of Credit and Swingline Loans hereunder.

"Incremental Revolving Credit Lender" means a Lender with an Incremental Revolving Credit Commitment.

"Indebtedness" of any Person means, without duplication, (a) all obligations of such Person for borrowed money, (b) all obligations of such Person evidenced by bonds, debentures, notes or similar instruments, (c) all obligations of such Person under conditional sale or other title retention agreements relating to property acquired by such Person (excluding trade accounts payable incurred in the ordinary course of business), (d) all obligations of such Person in respect of the deferred purchase price of property or services (excluding (i) current accounts payable incurred in the ordinary course of business, (ii) deferred compensation payable to directors, officers, employees or consultants and (iii) any purchase price adjustment or earnout), (e) all Capital Lease Obligations of such Person, (f) the maximum aggregate amount of all letters of credit and letters of guaranty in respect of which such Person is an account party, (g) all obligations, contingent or otherwise, of such Person in respect of bankers' acceptances, (h) all Indebtedness of others to the extent secured by any Lien on property of such Person, whether or not the Indebtedness secured thereby has been assumed by such Person, where the amount of such Indebtedness shall be deemed to be the lesser of (i) the fair market value of the property securing such Indebtedness and (ii) the maximum amount of such Indebtedness for which such Person is liable and (i) all Guarantees by such Person of Indebtedness of others; provided that the term "Indebtedness" shall not include (i) deferred or prepaid revenue, (ii) purchase price holdbacks in respect of a portion of the purchase price of an asset to satisfy warranty or other unperformed

obligations of the seller and (iii) intercompany Indebtedness of the Company and the Subsidiaries. The Indebtedness of any Person shall include the Indebtedness of any other Person (including any partnership in which such Person is a general partner) to the extent such Person is liable therefor as a result of such Person's ownership interest in or other relationship with such other Person, except to the extent the terms of such Indebtedness provide that such Person is not liable therefor.

"Indemnified Losses" has the meaning set forth in Section 9.03(b).

"Indemnified Taxes" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of the Company under any Loan Document and (b) to the extent not otherwise described in clause (a), Other Taxes.

"Indemnitee" has the meaning set forth in Section 9.03(b).

"Initial Maturity Date" means the fifth anniversary of the Effective Date.

"Interest Election Request" means a request by the Company to convert or continue a Borrowing in accordance with Section 2.07, which shall be, in the case of any such written request, substantially in the form of Exhibit D or any other form approved by the Administrative Agent.

"Interest Payment Date" means (a) with respect to any ABR Loan or any Swingline Loan, the first Business Day following the last day of each March, June, September and December, (b) with respect to any Term SOFR Rate Loan, the last day of the Interest Period applicable to the Borrowing of which such Loan is a part (and, in the case of a Term SOFR Rate Borrowing with an Interest Period of more than three months' duration, such day or days prior to the last day of such Interest Period as shall occur at intervals of three months' duration after the first day of such Interest Period) and (c) with respect to any Swingline Loan, the day that such Swingline Loan is required to be repaid.

"Interest Period" means, with respect to any Term SOFR Rate Borrowing, the period commencing on the date of such Borrowing and ending on the numerically corresponding day in the calendar month that is one, three or six months thereafter (or such shorter or longer period as shall have been consented to by each Lender participating in such Borrowing), as the Company may elect; provided that (a) if any Interest Period would end on a day other than a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless, in the case of any Interest Period of one month or longer, such next succeeding Business Day would fall in the next calendar month, in which case such Interest Period shall end on the next preceding Business Day, (b) any Interest Period of one month or longer that commences on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the last calendar month of such Interest Period) shall end on the last Business Day of the last calendar month of such Interest Period and (c) the Company shall not select, convert to or renew an Interest Period for any portion of the Loans that would end after the Maturity Date. For purposes hereof, the date of a Borrowing initially shall be the date on which such Borrowing is made and thereafter shall be the effective date of the most recent conversion or continuation of such Borrowing.

"IRS" means the United States Internal Revenue Service.

"Issuing Bank" means (a) PNC, (b) each Existing Letter of Credit Issuing Bank (solely with respect to its Existing Letters of Credit) and (c) each Lender that shall have become an Issuing Bank hereunder as provided in Section 2.05(i) (in each case, other than any Person that shall have ceased to be an Issuing Bank as provided in Section 2.05(j)), each in its capacity as an issuer of Letters of Credit hereunder. Any Issuing Bank may, in its discretion, arrange for one or more Letters of Credit to be issued by an Affiliate of such Issuing Bank of the same or better creditworthiness (or other creditworthiness acceptable to the Company), in which case the term "Issuing Bank" shall include any such Affiliate with respect to Letters of Credit issued by such Affiliate (it being agreed that such Issuing Bank shall, or shall cause such Affiliate to, comply with the requirements of Section 2.05 with respect to such Letters of Credit).

"KPI 1" means, for any Reference Year, the percentage reduction in Scope 1 and Scope 2 greenhouse gas emissions, relative to the KPI 1 Baseline.

"KPI 1 Applicable Rate Adjustment Amount" means, subject to the provisions of Section 2.21(b), with respect to any period between Sustainability Pricing Adjustment Dates: (a) positive 0.04%, if the KPI 1 for the applicable Reference Year as set forth in the Sustainability Certificate is less than the KPI 1 Threshold A for such Reference Year; (b) 0.000%, if the KPI 1 for the applicable Reference Year as set forth in the Sustainability Certificate is more than or equal to the KPI 1 Threshold A for such Reference Year but less than the KPI 1 Target A for such Reference Year; and (c) negative 0.04%, if the KPI 1 for the applicable Reference Year as set forth in the Sustainability Certificate is more than or equal to KPI 1 Target A for such Reference Year.

"KPI 1 Baseline" means Scope 1 and Scope 2 greenhouse gas emissions for the fiscal year ended December 31, 2019 of 621,030 MT CO2e.

"KPI 1 Commitment Fee Adjustment Amount" means, subject to the provisions of Section 2.21(b), with respect to any period between Sustainability Pricing Adjustment Dates, as determined for the applicable Reference Year: (a) positive 0.008%, if the KPI 1 for the applicable Reference Year as set forth in the Sustainability Certificate is less than the KPI 1 Threshold A for such Reference Year; (b) 0.000%, if the KPI 1 for the applicable Reference Year as set forth in the Sustainability Certificate is more than or equal to the KPI 1 Threshold A for such Reference Year but less than the KPI 1 Target A for such Reference Year; and (c) negative 0.008%, if the KPI 1 for the applicable Reference Year as set forth in the Sustainability Certificate is more than or equal to KPI 1 Target A for such Reference Year.

"KPI 1 Target A" means, with respect to any Reference Year, the KPI 1 Target A for such Reference Year as set forth in the Sustainability Table.

"KPI 1 Threshold A" means, with respect to any Reference Year, the KPI 1 Threshold A for such Reference Year as set forth in the Sustainability Table.

"KPI 2" means, for any Reference Year, the number of full-time employees of color as a percentage of the Company's full-time workforce, as determined in accordance with the definitions and categorizations of race and ethnicity determined by the EEOC.

"KPI 2 Applicable Rate Adjustment Amount" means, subject to the provisions of Section 2.21(b), with respect to any period between Sustainability Pricing Adjustment Dates, as

determined for the applicable Reference Year: (a) positive 0.01%, if the KPI 2 for the applicable Reference Year as set forth in the Sustainability Certificate is less than the KPI 2 Target B for such Reference Year; and (b) negative 0.01%, if the KPI 2 for the applicable Reference Year as set forth in the Sustainability Certificate is more than or equal to KPI 2 Target B for such Reference Year.

"KPI 2 Baseline" means full-time employees of color as a percentage of the Company's full-time workforce for the fiscal year ended December 31, 2021 of 15.0%.

"KPI 2 Commitment Fee Adjustment Amount" means, subject to the provisions of Section 2.21(b), with respect to any period between Sustainability Pricing Adjustment Dates, as determined for the applicable Reference Year: (a) positive 0.002%, if the KPI 2 for the applicable Reference Year as set forth in the Sustainability Certificate is less than the KPI 2 Target B for such Reference Year; and (b) negative 0.002%, if the KPI 2 for the applicable Reference Year as set forth in the Sustainability Certificate is more than or equal to KPI 2 Target B for such Reference Year.

"KPI 2 Target B" means, with respect to any Reference Year, the KPI 2 Target B for such Reference Year as set forth in the Sustainability Table.

"KPI Metric" means each of the KPI 1 and the KPI 2.

"LC Commitment" means, with respect to each Issuing Bank, the maximum permitted amount of the LC Exposure that may be attributable to Letters of Credit issued by such Issuing Bank. The initial amount of the LC Commitment (a) for PNC is $100,000,000, and (b) for any Issuing Bank that becomes such pursuant to Section 2.05(i), shall be as set forth in the written agreement referred to in such Section pursuant to which such Issuing Bank has been designated as such, and if any Issuing Bank shall have agreed with the Company to modify the amount of its LC Commitment, the amount of such Issuing Bank's LC Commitment shall, effective upon the date the Administrative Agent shall have received written notice of such modification, be the modified amount agreed to in writing by such Issuing Bank as its LC Commitment hereunder; provided that the total LC Commitments shall not exceed the LC Sublimit.

"LC Disbursement" means a payment made by any Issuing Bank pursuant to a Letter of Credit.

"LC Exposure" means, at any time, the sum of (a) the aggregate amount of all Letters of Credit that remains available for drawing at such time and (b) the aggregate amount of all LC Disbursements that have not yet been reimbursed by or on behalf of the Company at such time. The LC Exposure of any Revolving Credit Lender at any time shall be its Applicable Percentage of the total LC Exposure at such time, adjusted to give effect to any reallocation under Section 2.20(c) of the LC Exposure of Defaulting Lenders in effect at such time.

"LC Participation Fee" has the meaning set forth in Section 2.11(c).

"LC Sublimit" means $100,000,000.

"Lender Parent" means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

"Lenders" means the Persons listed on Schedule 2.01, any Incremental Revolving Credit Lender that shall have become a party hereto pursuant to an Incremental Facility Agreement, and any other Person that shall have become a party hereto pursuant to an Assignment and Assumption, other than any such Person that shall have ceased to be a party hereto pursuant to an Assignment and Assumption. Unless the context otherwise requires, the term "Lenders" includes each Swingline Lender.

"Letter of Credit" means each Existing Letter of Credit and any letter of credit issued pursuant to this Agreement, other than any such letter of credit that shall have ceased to be a "Letter of Credit" outstanding hereunder pursuant to Section 9.05.

"Lien" means, with respect to any asset, (a) any mortgage, deed of trust, lien, pledge, hypothecation, charge, security interest or other encumbrance on, in or of such asset, and (b) the interest of a vendor or a lessor under any conditional sale agreement or title retention agreement (or any financing lease having substantially the same economic effect as any of the foregoing) relating to such asset.

"Loan Documents" means this Agreement, any Incremental Facility Agreement, any Assumption Agreement and, except for purposes of Section 9.02, any promissory notes delivered pursuant to Section 2.09(c) and any written agreements entered into pursuant to Section 2.04(e) or 2.05(i).

"Loans" means the loans made by the Lenders to the Company pursuant to this Agreement, including Swingline Loans.

"Majority in Interest" means, at any time, in the case of the Revolving Credit Lenders, Lenders having Credit Exposures and unused Revolving Credit Commitments representing more than 50% of the sum of the Total Revolving Credit Exposure and the unused Revolving Credit Commitments at such time.

"Material Acquisition" means any Acquisition by the Company or any Subsidiary involving payment of consideration of $150,000,000 or more.

"Material Adverse Effect" means a material adverse effect on (a) the business, assets, liabilities, operations or financial condition of the Company and the Subsidiaries, taken as a whole, (b) the ability of the Company to perform its payment obligations under the Loan Documents or (c) the rights and remedies available to the Lenders under the Loan Documents.

"Material Disposition" means any Disposition by the Company or any Subsidiary involving receipt of consideration of $150,000,000 or more.

"Material Indebtedness" means an issuance of Indebtedness (other than the Obligations under the Loan Documents), or the net obligations in respect of Hedging Agreements, of any one or more of the Company, any Restricted Subsidiary or any Significant Subsidiary, in an aggregate outstanding principal amount of $100,000,000 or more. For purposes of determining Material Indebtedness, the "principal amount" of the obligations of the Company, any Restricted Subsidiary or any Significant Subsidiary in respect of Hedging Agreements shall be the amount of

obligations determined according to the last sentence of the definition of the term "Hedging Agreements".

"Material Transaction" means any Material Acquisition, Material Disposition, incurrence or repayment of a material amount of Indebtedness by the Company and its Subsidiaries, any receipt of material cash proceeds from an equity issuance by the Company and its Subsidiaries, designation a material Restricted Subsidiary as an Unrestricted Subsidiary and any redesignation of an Unrestricted Subsidiary as a Restricted Subsidiary.

"Maturity Date" means the Initial Maturity Date, as such date may be extended pursuant to Section 2.19 to the corresponding day in each year thereafter; provided that with respect to any Non-Extending Lender, the Maturity Date shall not be so extended; and provided further that if such date is not a Business Day, the "Maturity Date" shall be the Business Day immediately preceding such date.

"Maturity Date Extension" has the meaning set forth in Section 2.19(a).

"Maximum Rate" has the meaning set forth in Section 9.13.

"MNPI" means material information concerning the Company, any Subsidiary or any Affiliate of any of the foregoing, or any of their securities, that has not been disseminated in a manner making it available to investors generally, within the meaning of Regulation FD under the Exchange Act. For purposes of this definition, "material information" means information concerning the Company, any Subsidiary or other Affiliate of the Company, any Subsidiary or any Affiliate of any of the foregoing, or any of their securities, that could reasonably be expected to be material for purposes of the United States Federal and state securities laws.

"Moody's" means Moody's Investors Service, Inc., or any successor to its rating agency business.

"Multiemployer Plan" means a multiemployer plan as defined in Section 4001(a)(3) of ERISA.

"Non-Defaulting Lender" means, at any time, any Lender that is not a Defaulting Lender at such time.

"Non-Extending Lenders" has the meaning set forth in Section 2.19(b).

"Obligations" means (a) the due and punctual payment by the Company of the principal of and premium, if any, and interest (including interest accruing, at the rate specified herein, during the pendency of any bankruptcy, insolvency, receivership or other similar proceeding, regardless of whether allowed or allowable in such proceeding) on all Loans, when and as due, whether at maturity, by acceleration, upon one or more dates set for prepayment or otherwise, (b) the due and punctual payment by the Company of each payment required to be made by the Company under this Agreement in respect of any Letter of Credit, when and as due, including payments in respect of reimbursement of LC Disbursements, interest thereon (including interest accruing, at the rate specified herein, during the pendency of any bankruptcy, insolvency, receivership or other similar proceeding, regardless of whether allowed or allowable in such

proceeding) and obligations to provide cash collateral, (c) any Erroneous Payment Subrogation Rights, and (d) the due and punctual payment or performance by the Company of all other monetary obligations under this Agreement or any other Loan Document, including fees, costs, expenses and indemnities, whether primary, secondary, direct, contingent, fixed or otherwise (including monetary obligations accruing, at the rate specified herein or therein, or incurred during the pendency of any bankruptcy, insolvency, receivership or other similar proceeding, regardless of whether allowed or allowable in such proceeding).

"OFAC" means the United States Treasury Department Office of Foreign Assets Control.

"Other Connection Taxes" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan, Letter of Credit or Loan Document).

"Other Taxes" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 2.18).

"Overnight Bank Funding Rate" means for any day, the rate comprised of both overnight federal funds and overnight eurocurrency borrowings by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the Federal Reserve Bank of New York, as set forth on its public website from time to time, and as published on the next succeeding Business Day as the overnight bank funding rate by the Federal Reserve Bank of New York (or by such other recognized electronic source (such as Bloomberg) selected by the Administrative Agent for the purpose of displaying such rate); provided, that if such day is not a Business Day, the Overnight Bank Funding Rate for such day shall be such rate on the immediately preceding Business Day; provided, further, that if such rate shall at any time, for any reason, no longer exist, a comparable replacement rate determined by the Administrative Agent at such time (which determination shall be conclusive absent manifest error). If the Overnight Bank Funding Rate determined as above would be less than zero, then such rate shall be deemed to be zero. The rate of interest charged shall be adjusted as of each Business Day based on changes in the Overnight Bank Funding Rate without notice to the Company.

"Participant Register" has the meaning set forth in Section 9.04(c)(ii).

"Participants" has the meaning set forth in Section 9.04(c)(i).

"Payment in Full" means that (a) the Commitments shall have expired or been terminated, (b) the principal of and interest on each Loan and all fees, LC Disbursements and other amounts payable hereunder (other than contingent obligations not then due) shall have been paid

in full and all Letters of Credit shall have expired or been terminated (or shall have ceased to be "Letters of Credit" outstanding hereunder pursuant to Section 9.05).

"Payment or Bankruptcy Event of Default" means an Event of Default under paragraph (a), (b), (h) or (i) of Section 7.01.

"PBGC" means the Pension Benefit Guaranty Corporation referred to and defined in ERISA and any successor entity performing similar functions.

"Permitted Liens" means:

(a) Liens imposed by law for Taxes that are not yet overdue for a period of more than 30 days or are being contested in compliance with Section 5.04;

(b) carriers', warehousemen's, mechanics', materialmen's, repairmen's and other like Liens imposed by law (other than any Lien imposed pursuant to Section 430(k) of the Code or Section 303(k) of ERISA or a violation of Section 436 of the Code), securing obligations that are not overdue by more than 90 days or are being contested in good faith by appropriate proceedings;

(c) pledges and deposits made (i) in the ordinary course of business in compliance with workers' compensation, unemployment insurance and other social security laws (other than any Lien imposed pursuant to Section 430(k) of the Code or Section 303(k) of ERISA or a violation of Section 436 of the Code) and (ii) in respect of letters of credit, bank guarantees or similar instruments issued for the account of the Company or any Subsidiary in the ordinary course of business supporting obligations of the type set forth in clause (i) above;

(d) pledges and deposits made (i) to secure the performance of bids, trade contracts (other than for payment of Indebtedness), leases (other than Capital Lease Obligations), statutory obligations (other than any Lien imposed pursuant to Section 430(k) of the Code or Section 303(k) of ERISA or a violation of Section 436 of the Code), surety and appeal bonds, performance bonds and other obligations of a like nature, in each case in the ordinary course of business and (ii) in respect of letters of credit, bank guarantees or similar instruments issued for the account of the Company or any Subsidiary in the ordinary course of business supporting obligations of the type set forth in clause (i) above;

(e) judgment liens in respect of judgments that do not constitute an Event of Default under clause (k) of Section 7.01;

(f) easements, zoning restrictions, rights-of-way and similar encumbrances on real property imposed by law or arising in the ordinary course of business that do not secure any monetary obligations and do not materially detract from the value of the affected property or materially interfere with the ordinary conduct of business of the Company and the Subsidiaries, taken as a whole;

(g) banker's liens, rights of setoff or similar rights and remedies as to deposit accounts or other funds maintained with depository institutions and securities accounts and

other financial assets maintained with securities intermediaries; provided that such deposit accounts or funds and securities accounts or other financial assets are not established or deposited for the purpose of providing collateral for any Indebtedness and are not subject to restrictions on access by the Company or any Subsidiary in excess of those required by applicable banking regulations;

(h) Liens arising by virtue of Uniform Commercial Code financing statement filings (or similar filings under applicable law) regarding operating leases entered into by the Company in the ordinary course of business;

(i) Liens representing any interest or title of a licensor, lessor or sublicensor or sublessor, or a licensee, lessee or sublicensee or sublessee, in the property subject to any lease (other than Capital Lease Obligations), license or sublicense or concession agreement permitted by this Agreement;

(j) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(k) Liens on specific items of inventory or other goods and proceeds thereof of any Person securing such Person's obligations in respect of bankers' acceptances or letters of credit issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods in the ordinary course of business;

(l) deposits of cash with the owner or lessor of premises leased and operated by the Company or any Subsidiary to secure the performance of its obligations under the lease for such premises, in each case in the ordinary course of business;

(m) Liens on cash and cash equivalents deposited with a trustee or a similar Person to defease or to satisfy and discharge any Indebtedness, provided that such defeasance or satisfaction and discharge is permitted hereunder;

(n) Liens that are contractual rights of set-off; and

(o) Liens arising out of consignment or similar arrangements for the sale of goods entered into by the Company in the ordinary course of business.

"Person" means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

"Plan" means any "employee pension benefit plan", as defined in Section 3(2) of ERISA (other than a Multiemployer Plan), that is subject to the provisions of Title IV of ERISA or Section 412 of the Code or Section 302 of ERISA, and in respect of which the Company or any of its ERISA Affiliates is (or, if such plan were terminated, would under Section 4069 of ERISA be deemed to be) an "employer" as defined in Section 3(5) of ERISA.

"Platform" has the meaning set forth in Section 9.01(d).

"PNC" means PNC Bank, National Association.

"Prime Rate" means the rate of interest per annum publicly announced from time to time by PNC as its prime rate in effect at its principal office in Pittsburgh, Pennsylvania, which rate may not necessarily be the lowest or most favorable rate then being charged to commercial borrowers by PNC. Each change in the Prime Rate shall be effective from and including the date such change is publicly announced as being effective.

"Private Side Lender Representatives" means, with respect to any Lender or Issuing Bank, representatives of such Lender or Issuing Bank that are not Public Side Lender Representatives.

"Pro Forma Basis" and "Pro Forma Effect" mean, as to any Person, for any Material Transaction that occurs subsequent to the commencement of a period for which the effect of such Material Transaction is being calculated, such calculation as will give pro forma effect to such Material Transaction as if such Material Transaction had occurred on the first day of the four consecutive fiscal quarter period ended on or before the occurrence of such Material Transaction for which financial statements shall have been delivered pursuant to Section 5.01(a) or 5.01(b) (or, prior to the first delivery of such financial statements, ending with the last fiscal quarter included in the most recent financial statements referred to in Section 3.04(a)), including that (a) in making any determination of Consolidated Assets, Consolidated Net Income or Consolidated Tangible Assets or any other financial ratio or test, effect shall be given to any Material Transaction and (b) in making any determination on a Pro Forma Basis or of Pro Forma Effect, interest expense of such Person attributable to interest on any Indebtedness, for which pro forma effect is being given as provided in clause (a) above, bearing floating interest rates shall be computed on a pro forma basis as if the rates that would have been in effect during the period for which pro forma effect is being given had been actually in effect during such periods (taking into account any Hedging Agreement applicable to such Indebtedness as reasonably determined by the Company).

"PTE" means a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time.

"Public Side Lender Representatives" means, with respect to any Lender or Issuing Bank, representatives of such Lender or Issuing Bank that do not wish to receive MNPI.

"Rating Agencies" means S&P, Moody's and Fitch.

"Recipient" means the Administrative Agent, any Swingline Lender, any Issuing Bank, any other Lender or any combination thereof (as the context requires).

"Reference Year" means, with respect to any Sustainability Certificate, the fiscal year ending immediately prior to the date of such Sustainability Certificate.

"Register" has the meaning set forth in Section 9.04(b)(iv).

"Related Parties" means, with respect to any specified Person, such Person's Affiliates and the directors, officers, partners, members, trustees, employees, agents, administrators, managers, representatives and advisors of such Person and of such Person's Affiliates.

"Release" means any release, spill, emission, leaking, dumping, injection, pouring, deposit, disposal, discharge, dispersal, leaching or migration into or through the environment or within any building, structure, facility or fixture.

"Required Lenders" means, at any time, Lenders having Credit Exposures and unused Commitments representing more than 50% of the sum of the total Credit Exposures and unused Commitments at such time.

"Resolution Authority" means an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

"Responsible Officer" means, with respect to any Person, a Financial Officer or the chief executive officer, president, chief administrative officer, senior vice president, general counsel or another executive officer of such Person.

"Restricted Subsidiary" means (a) each Subsidiary listed as a Restricted Subsidiary on Schedule 3.14 and (b) any other Subsidiary that has not been designated as an Unrestricted Subsidiary (or if previously so designated, has been redesignated as a Restricted Subsidiary) pursuant to Section 5.10.

"Resulting Borrowings" has the meaning set forth in Section 2.22(e).

"Revolver Facility Arrangers" means PNC Capital Markets LLC, CoBank, ACB, BOFA Securities, Inc., RBC Capital Markets and The Huntington National Bank, in their capacities as the joint lead arrangers and joint bookrunners for the Facilities.

"Revolving Credit Commitment" means, with respect to each Lender, the commitment of such Lender to make Revolving Credit Loans and to acquire participations in Letters of Credit and Swingline Loans hereunder, expressed as an amount representing the maximum aggregate permitted amount of such Lender's Credit Exposure hereunder, as such commitment may be (a) reduced from time to time pursuant to Section 2.08, (b) increased from time to time pursuant to Section 2.22 or (c) reduced or increased from time to time pursuant to assignments by or to such Lender pursuant to Section 9.04. The initial amount of each Lender's Revolving Credit Commitment is set forth on Schedule 2.01 or in the Assignment and Assumption or the Incremental Facility Agreement pursuant to which such Lender shall have assumed or provided its Revolving Credit Commitment, as applicable. The aggregate amount of the Lenders' Revolving Credit Commitments on the Effective Date is $1,000,000,000.

"Revolving Credit Lender" means a Lender with a Revolving Credit Commitment or Credit Exposure.

"Revolving Credit Loan" means a Loan made pursuant to Section 2.01.

"S&P" means S&P Global Ratings Services, a division of S&P Global, Inc., or any successor to its rating agency business.

"Sanctioned Country" means, at any time, a country, region or territory that is itself or whose government is the subject or target of any Sanctions (at the date of this Agreement,

Crimea, Cuba, Iran, North Korea, Syria, the separatist-controlled portions of the Donetsk and Luhansk regions of Ukraine and the non-government controlled areas of Zaporizhzhia and Kherson of Ukraine).

"Sanctioned Person" means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by OFAC or the U.S. Department of State or by the United Nations Security Council, the European Union, any European Union member state or His Majesty's Treasury of the United Kingdom, (b) any Person operating, organized or resident in a Sanctioned Country or (c) any Person owned or controlled by any Person or Persons described in the preceding clauses (a) and (b).

"Sanctions" means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by OFAC or the U.S. Department of State, or (b) the United Nations Security Council, the European Union, any European Union member state or His Majesty's Treasury of the United Kingdom.

"SEC" means the United States Securities and Exchange Commission.

"SEC Reports" means the most recent annual, quarterly or periodic reports publicly filed by the Company with the SEC prior to the Effective Date (excluding any portion thereof under the headings "Risk Factors" and "Cautionary Statements Regarding Forward-Looking Information" and any similar forward-looking statements).

"Securities Act" means the United States Securities Act of 1933.

"Significant Subsidiary" means, at any time, any Subsidiary that, together with such Subsidiary's subsidiaries, determined on a consolidated basis in accordance with GAAP, accounts for more than 10% of (a) the Consolidated Assets as of the last day of the most recent fiscal quarter for which financial statements shall have been delivered pursuant to Section 5.01(a) or 5.01(b) (or, prior to the first delivery of such financial statements, ending with the last quarter included in the most recent financial statements referred to in Section 3.04(a)), (b) the Consolidated Net Income for the most recent four fiscal quarters ending with the most recent fiscal quarter referenced in clause (a) above or (c) the gross revenues of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP for the most recent four fiscal quarters ending with the most recent fiscal quarter referenced in clause (a) above.

"Signing Date" means December 14, 2022.

"SOFR" means, for any day, a rate equal to the secured overnight financing rate as administered by the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"SOFR Adjustment" means ten (10) basis points (0.10%).

"SOFR Floor" means a rate of interest per annum equal to zero basis points (0%).

"SOFR Reserve Percentage" shall mean, for any day, the maximum effective percentage in effect on such day, if any, as prescribed by the Board of Governors of the Federal Reserve System (or any successor) for determining the reserve requirements (including, without limitation, supplemental, marginal and emergency reserve requirements) with respect to SOFR funding.

"subsidiary" means, with respect to any Person (the "parent") at any date, (a) any Person the accounts of which would be consolidated with those of the parent in the parent's consolidated financial statements if such financial statements were prepared in accordance with GAAP as of such date and (b) any other Person (i) of which Equity Interests representing more than 50% of the equity value or more than 50% of the ordinary voting power or, in the case of a partnership, more than 50% of the general partnership interests are, as of such date, owned, controlled or held, or (ii) that is, as of such date, otherwise Controlled, by the parent or one or more subsidiaries of the parent or by the parent and one or more subsidiaries of the parent.

"Subsidiary" means any subsidiary of the Company.

"Sustainability Certificate" means a certificate substantially in the form of Exhibit H, executed by the chief executive officer, chief operating officer, chief financial officer, chief sustainability officer, chief environmental officer, treasurer, assistant treasurer, controller or senior vice president of finance, or any vice president of the Company (a) setting forth the Sustainability Rate Adjustment and the Sustainability Commitment Fee Adjustment and calculations in reasonable detail of the KPI Metrics, in each case, for the Reference Year covered thereby, and (b) attaching a true and complete report of the Sustainability Metric Auditor (i) measuring, verifying, calculating and certifying each KPI Metric for the applicable Reference Year and (ii) confirming that the Sustainability Metric Auditor is not aware of any modifications that should be made to such computations in order for them to be presented in all material respects in conformity with the ESG Standards.

"Sustainability Certificate Inaccuracy" has the meaning specified in Section 2.21(d).

"Sustainability Commitment Fee Adjustment" means, with respect to any Sustainability Certificate for any period between Sustainability Pricing Adjustment Dates, an amount (whether positive, negative or zero), expressed as a percentage, equal to the sum of (a) the KPI 1 Commitment Fee Adjustment Amount (whether positive, negative or zero), plus (b) the KPI 2 Commitment Fee Adjustment Amount (whether positive, negative or zero), in each case for such period.

"Sustainability Metric Auditor" means any sustainability metric auditor designated from time to time by the Company; provided that any such Sustainability Metric Auditor (a) shall be a qualified external reviewer (other than an Affiliate of the Company), with relevant expertise, such as an auditor, environmental consultant and/or independent ratings agency of recognized national standing, and (b) shall apply auditing standards and methodology that are the same as or substantially consistent with the auditing standards and methodology used in the Company's Sustainability Certificate for the 2022 Reference Year, except for any changes to such standards and/or methodology that (x) are consistent with then generally accepted industry standards or (y) if

not so consistent, are proposed by the Company and approved by the Administrative Agent and the Required Lenders (in consultation with the Sustainability Structuring Agent).

"Sustainability Pricing Adjustment Date" has the meaning specified in Section 2.21(a).

"Sustainability Modification Event" has the meaning specified in Section 2.21(e).

"Sustainability Rate Adjustment" with respect to any Sustainability Certificate for any period between Sustainability Pricing Adjustment Dates, an amount (whether positive, negative or zero), expressed as a percentage, equal to the sum of (a) the KPI 1 Applicable Rate Adjustment Amount (whether positive, negative or zero), plus (b) the KPI 2 Applicable Rate Adjustment Amount (whether positive, negative or zero), in each case for such period.

"Sustainability-Related Information" has the meaning specified in Section 3.17.

"Sustainability Structuring Agent" means the Person identified as such on the cover page of this Agreement.

"Sustainability Table" means the Sustainability Table set forth on Schedule 2.21.

"Swingline Borrowing Request" means a request by the Company for a Swingline Loan in accordance with Section 2.04, which shall be, in the case of any such written request, substantially in the form of Exhibit E or any other form approved by the applicable Swingline Lender and the Administrative Agent.

"Swingline Commitment" means, with respect to each Swingline Lender, the commitment of such Swingline Lender to make Swingline Loans hereunder. The initial amount of the Swingline Commitment (a) for PNC is $100,000,000, and (b) for any Swingline Lender that becomes such pursuant to Section 2.04(e), shall be as set forth in the written agreement referred to in such Section pursuant to which such Swingline Lender has been designated as such, and if any Swingline Lender shall have agreed with the Company to modify the amount of its Swingline Commitment, the amount of such Swingline Lender's Swingline Commitment shall, effective upon the date the Administrative Agent shall have received written notice of such modification, be the modified amount agreed to in writing by such Swingline Lender as its Swingline Commitment hereunder; provided that the total Swingline Commitments shall not exceed the Swingline Sublimit.

"Swingline Exposure" means, at any time, the aggregate principal amount of all Swingline Loans outstanding at such time. The Swingline Exposure of any Revolving Credit Lender at any time shall be its Applicable Percentage of the total Swingline Exposure at such time, adjusted to give effect to any reallocation under Section 2.20(c) of the Swingline Exposures of Defaulting Lenders in effect at such time.

"Swingline Lender" means (a) PNC and (b) any other Lender or Affiliate of a Lender that shall have become a Swingline Lender hereunder as provided in Section 2.04(e) (in

each case, other than any Person that shall have ceased to be a Swingline Lender as provided in Section 2.04(f)), in each case, in its capacity as a lender of Swingline Loans hereunder.

"Swingline Loan" means a Loan made pursuant to Section 2.04.

"Swingline Sublimit" means $100,000,000.

"Syndication Agent" means the Person identified as such on the cover page of this Agreement.

"Taxes" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), value added taxes, or any other goods and services, use or sales taxes, assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax and penalties applicable thereto.

"Term SOFR Administrator" means CME Group Benchmark Administration Limited (CBA) (or a successor administrator of the Term SOFR Reference Rate selected by the Administrative Agent in its reasonable discretion).

"Term SOFR Rate" shall mean, with respect to any amount to which the Term SOFR Rate Option applies, for any Interest Period, the interest rate per annum determined by the Administrative Agent by dividing (the resulting quotient rounded upwards, at the Administrative Agent's discretion, to the nearest 1/100th of 1%) (A) the Term SOFR Reference Rate for a tenor comparable to such Interest Period, as such rate is published by the Term SOFR Administrator on the day (the "Term SOFR Determination Date") that is two (2) Business Days prior to the first day of such Interest Period, by (B) a number equal to 1.00 minus the SOFR Reserve Percentage. If the Term SOFR Reference Rate for the applicable tenor has not been published or replaced with a Benchmark Replacement by 5:00 p.m. (Pittsburgh, Pennsylvania time) on the Term SOFR Determination Date, then the Term SOFR Reference Rate, for purposes of clause (A) in the preceding sentence, shall be the Term SOFR Reference Rate for such tenor on the first Business Day preceding such Term SOFR Determination Date for which such Term SOFR Reference Rate for such tenor was published in accordance herewith, so long as such first preceding Business Day is not more than three (3) Business Days prior to such Term SOFR Determination Date. If the Term SOFR Rate, determined as provided above, would be less than the SOFR Floor, then the Term SOFR Rate shall be deemed to be the SOFR Floor. The Term SOFR Rate shall be adjusted automatically without notice to the Company on and as of (i) the first day of each Interest Period, and (ii) the effective date of any change in the SOFR Reserve Percentage.

"Term SOFR Rate Borrowing" means a Borrowing that bears interest based on the Term SOFR Rate.

"Term SOFR Rate Loan" means a Loan that bears interest based on the Term SOFR Rate.

"Term SOFR Reference Rate" shall mean the forward-looking term rate based on SOFR.

"Total Revolving Credit Commitments" means the sum of the Revolving Credit Commitments of all Lenders. The Total Revolving Credit Commitments on the Effective Date are $1,000,000,000.

"Total Revolving Credit Exposure" means, at any time, the sum of the aggregate outstanding principal amount of all Revolving Credit Loans and the aggregate LC Exposure and Swingline Exposure at such time.

"Transactions" means the execution, delivery and performance by the Company of the Loan Documents, the borrowing of Loans, the use of the proceeds thereof and the issuance of Letters of Credit.

"Type", when used in reference to any Loan or Borrowing, refers to whether the rate of interest on such Loan, or on the Loans comprising such Borrowing, is determined by reference to the Term SOFR Rate or the Alternate Base Rate.

"UK Financial Institution" means any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended from time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"UK Resolution Authority" means the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

"Unrestricted Subsidiary" means any Subsidiary which is so designated by the Company pursuant to Section 5.10.

"USA PATRIOT Act" means the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001.

"U.S. Government Securities Business Day" means any day except for (a) a Saturday or Sunday or (b) a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

"U.S. Person" means a "United States person" within the meaning of Section 7701(a)(30) of the Code.

"U.S. Tax Compliance Certificate" has the meaning set forth in Section 2.16(f)(ii)(B)(3).

"Voting Stock" means, with respect to any Person, outstanding shares of capital stock or other Equity Interests of any class of such Person entitled to vote in the election of directors, or otherwise to participate in the direction of the management and policies, of such Person, excluding shares or other Equity Interests entitled so to vote or participate only upon the happening of some contingency.

"wholly owned", when used in reference to a subsidiary of any Person, means that all the Equity Interests in such subsidiary (other than directors' qualifying shares and other nominal amounts of Equity Interests that are required to be held by other Persons under applicable law) are owned, beneficially and of record, by such Person, another wholly owned subsidiary of such Person or any combination thereof.

"Withdrawal Liability" means liability to a Multiemployer Plan as a result of a complete or partial withdrawal from such Multiemployer Plan, as such term is defined in Part I of Subtitle E of Title IV of ERISA.

"Write-Down and Conversion Powers" means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

SECTION 1.02. Classification of Loans and Borrowings. For purposes of this Agreement, Loans and Borrowings may be classified and referred to by Class (*e.g.*, a "Revolving Credit Loan" or "Revolving Credit Borrowing") or by Type *(e.g.,* a "Term SOFR Rate Loan" or "Term SOFR Rate Borrowing") or by Class and Type (*e.g.*, a "Revolving Credit Term SOFR Rate Loan" or "Revolving Credit Term SOFR Rate Borrowing").

SECTION 1.03. Terms Generally. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words "include", "includes" and "including" shall be deemed to be followed by the phrase "without limitation". The word "will" shall be construed to have the same meaning and effect as the word "shall". The words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all real and personal, tangible and intangible assets and properties, and all references to "knowledge" or "awareness" of the Company or any Subsidiary means the actual knowledge of a Responsible Officer of the Company. The word "law" shall be construed as referring to all statutes, rules, regulations, codes and other laws (including official rulings and interpretations thereunder having the force of law or with which affected Persons customarily comply), and all judgments, orders, writs and decrees, of all Governmental Authorities. Except as otherwise provided herein and unless the context requires otherwise, (a) any definition of or reference to any agreement, instrument or other document (including this Agreement and the other Loan Documents) shall be construed as referring to such agreement, instrument or other document as from time to time amended, restated, supplemented or otherwise modified (subject to any restrictions on such amendments, restatements, supplements or modifications set forth herein), (b) any definition of or reference to any statute, rule or regulation shall be construed as referring thereto as from time to time amended, supplemented or otherwise modified, and all references to any statute shall be

construed as referring to all rules, regulations, rulings and official interpretations promulgated or issued thereunder, (c) any reference herein to any Person shall be construed to include such Person's successors and assigns (subject to any restrictions on assignment set forth herein) and, in the case of any Governmental Authority, any other Governmental Authority that shall have succeeded to any or all functions thereof, (d) the words "herein", "hereof" and "hereunder", and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof and (e) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement.

SECTION 1.04. Accounting Terms; GAAP; Pro Forma Calculations.

(a) Except as otherwise expressly provided herein, all terms of an accounting or financial nature used herein shall be construed in accordance with GAAP as in effect from time to time; provided that (i) if the Company, by notice to the Administrative Agent, shall request an amendment to any provision hereof to eliminate the effect of any change occurring after the Effective Date in GAAP or in the application thereof on the operation of such provision (or if the Administrative Agent or the Required Lenders, by notice to the Company, shall request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such change in GAAP or in the application thereof, then such provision shall be interpreted on the basis of GAAP as in effect and applied immediately before such change shall have become effective until such notice shall have been withdrawn or such provision amended in accordance herewith and (ii) notwithstanding any other provision contained herein, all terms of an accounting or financial nature used herein shall be construed (other than for purposes of Sections 3.04, 5.01(a) and 5.01(b)), and all computations of amounts and ratios referred to herein shall be made, (A) without giving effect to (x) any election under Financial Accounting Standards Board Accounting Standards Codification 825 (or any other Accounting Standards Codification having a similar result or effect) (and related interpretations) to value any Indebtedness at "fair value", as defined therein, or (y) any other accounting principle that results in any Indebtedness being reflected on a balance sheet at an amount less than the stated principal amount thereof, (B) without giving effect to any treatment of Indebtedness in respect of convertible debt instruments under Accounting Standards Codification 470-20 (or any other Accounting Standards Codification having a similar result or effect) (and related interpretations) to value any such Indebtedness in a reduced or bifurcated manner as described therein, and such Indebtedness shall at all times be valued at the full stated principal amount thereof, and (C) without giving effect to any change in accounting for leases resulting from the implementation of Financial Accounting Standards Board ASU No. 2016-02, Leases (Topic 842), to the extent any lease (or similar arrangement conveying the right to use) would be required to be treated as a capital lease where such lease (or similar arrangement) would not have been required to be so treated under GAAP as in effect on December 31, 2016.

(b) The parties hereto acknowledge and agree that calculations of Consolidated Assets, Consolidated Net Income or Consolidated Tangible Assets or any other financial ratio or test shall be calculated on a Pro Forma Basis; provided that notwithstanding the foregoing, for purposes of determining compliance with the Financial Covenant, no Material Transaction that occurs subsequent to the last day of the applicable fiscal quarter for which compliance with the Financial Covenant is being determined shall be included on a Pro Forma Basis or be given Pro

Forma Effect in making such determination. In making any determination on a Pro Forma Basis or of Pro Forma Effect, calculations shall be made in good faith by a Financial Officer of the Company.

SECTION 1.05. Benchmark Replacement Setting. Section 2.13 of this Agreement provides a mechanism for determining an alternative rate of interest in the event that the Term SOFR Rate is no longer available or in certain other circumstances. The Administrative Agent does not warrant or accept any responsibility for, and shall not have any liability with respect to, the administration, submission or any other matter related to the Term SOFR Rate or with respect to any alternative or successor rate thereto, or replacement rate therefor.

SECTION 1.06. Negative Covenant Compliance. For purposes of determining whether the Company complies with any exception to Article VI (other than the Financial Covenant), it is understood that (a) compliance shall be measured at the time when the relevant event is undertaken, and, for the avoidance of doubt, any financial ratios and metrics therein are intended to be "incurrence" tests and not "maintenance" tests and (b) correspondingly, no change in any financial ratio or metric occurring after the date such compliance is measured shall result in any previously permitted transaction ceasing to be permitted hereunder. For the avoidance of doubt, with respect to determining whether the Company and the Subsidiaries comply with any covenant in Article VI (other than the Financial Covenant), to the extent that any obligation, transaction or action could be attributable to more than one exception to any such covenant, the Company may categorize or re-categorize all or any portion of such obligation, transaction or action to any one or more exceptions to such covenant that permit such obligation, transaction or action.

SECTION 1.07. Timing of Payment or Performance. When the payment of any obligation or the performance of any covenant, duty or obligation is stated to be due or performance required on a day which is not a Business Day, the date of such payment (other than as specifically provided in the definition of the term "Interest Period") or performance shall extend to the immediately succeeding Business Day (it being understood that the foregoing shall cause any grace period associated with any such payment obligation or performance of any covenant, duty or obligation to extend to the immediately succeeding Business Day as well) and, in the case of any payment accruing interest, interest thereon shall be payable for the period of such extension.

SECTION 1.08. Rounding. Any financial ratios required to be maintained by the Company pursuant to this Agreement (or required to be satisfied in order for a specific action to be permitted under this Agreement) shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio is expressed herein and rounding the result up or down to the nearest number.

SECTION 1.09. Certifications. All certifications to be made hereunder by a Responsible Officer shall be made by such Person in his or her capacity solely as an officer or a representative of the Company, on the Company's behalf and not in such Person's individual capacity.

ARTICLE II

The Credits

SECTION 2.01. Commitments. Subject to the terms and conditions set forth herein, each Lender agrees to make Revolving Credit Loans to the Company from time to time during the Availability Period in an aggregate principal amount that will not result (after giving effect to any application of proceeds of such Revolving Credit Loans pursuant to Section 2.10) in (i) any Lender's Credit Exposure exceeding such Lender's Revolving Credit Commitment or (ii) the Total Revolving Credit Exposure exceeding the Total Revolving Credit Commitments. Within the foregoing limits and subject to the terms and conditions set forth herein, the Company may borrow, prepay and reborrow Revolving Credit Loans.

SECTION 2.02. Loans and Borrowings.

(a) Each Loan (other than a Swingline Loan) shall be made as part of a Borrowing consisting of Loans of the same Class and Type made by the Lenders ratably in accordance with their respective Commitments of the applicable Class. Each Swingline Loan shall be made in accordance with the procedures set forth in Section 2.04. The failure of any Lender to make any Loan required to be made by it shall not relieve any other Lender of its obligations hereunder; provided that the Commitments of the Lenders are several and no Lender shall be responsible for any other Lender's failure to make Loans as required.

(b) Subject to Section 2.13, each Borrowing (other than a Swingline Loan) shall be comprised entirely of ABR Loans or Term SOFR Rate Loans as the Company may request in accordance herewith, and shall be denominated in dollars. Each Swingline Loan shall be denominated in dollars. Each Lender at its option may make any Term SOFR Rate Loan by causing any domestic or foreign branch or Affiliate of such Lender to make such Loan; provided that any exercise of such option shall not affect the obligation of the Company to repay such Loan in accordance with the terms of this Agreement.

(c) At the commencement of each Interest Period for any Term SOFR Rate Borrowing, such Borrowing shall be in an aggregate amount that is an integral multiple of $100,000 and not less than $1,000,000; provided that a Term SOFR Rate Borrowing that results from a continuation of an outstanding Term SOFR Rate Borrowing may be in an aggregate amount that is equal to such outstanding Borrowing. At the time that each ABR Borrowing (other than a Swingline Loan) is made, such Borrowing shall be in an aggregate amount that is an integral multiple of $50,000 and not less than $250,000; provided that an ABR Borrowing (i) of any Class may be in an aggregate amount that is equal to the entire unused balance of the total Commitments of such Class or (ii) of Revolving Credit Loans may be in an aggregate amount that is required to finance the reimbursement of an LC Disbursement as contemplated by Section 2.05(f). Each Swingline Loan shall be in an aggregate amount that is an integral multiple of $50,000 and not less than $100,000; provided that a Swingline Loan may be in an aggregate amount that is required to finance the reimbursement of an LC Disbursement as contemplated by Section 2.05(f). Borrowings of more than one Type and Class may be outstanding at the same time; provided that there shall not at any time be more than a total of 15 (or such greater number as may be agreed by the Administrative Agent) Term SOFR Rate Borrowings outstanding.

(d) Notwithstanding any other provision of this Agreement, the Company shall not be entitled to request, or to elect to convert to or continue, any Term SOFR Rate Borrowing if the Interest Period requested with respect thereto would end after the Maturity Date applicable thereto.

SECTION 2.03. Requests for Borrowings. To request a Borrowing (other than a Swingline Loan), the Company shall notify the Administrative Agent of such request by telephone or in writing (a) in the case of a Term SOFR Rate Borrowing, not later than 11:00 a.m., New York City time, three Business Days before the date of the proposed Borrowing or (b) in the case of an ABR Borrowing, not later than 11:00 a.m., New York City time, on the day of the proposed Borrowing. Each such telephonic and written Borrowing Request shall be irrevocable and shall be made (or, if telephonic, confirmed promptly) by hand delivery or fax to the Administrative Agent of an executed written Borrowing Request. Each such telephonic and written Borrowing Request shall specify the following information in compliance with Section 2.02:

(i) the aggregate amount of such Borrowing;

(ii) the date of such Borrowing, which shall be a Business Day;

(iii) in the case of a Revolving Credit Borrowing, whether such Borrowing is to be an ABR Borrowing or a Term SOFR Rate Borrowing;

(iv) in the case of a Revolving Credit Borrowing that is to be a Term SOFR Rate Borrowing, the initial Interest Period to be applicable thereto, which shall be a period contemplated by the definition of the term "Interest Period"; and

(v) the location and number of the account of the Company to which funds are to be disbursed or, in the case of any ABR Borrowing requested to finance the reimbursement of an LC Disbursement as provided in Section 2.05(f), the identity of the Issuing Bank that made such LC Disbursement.

If no election as to the Type of Borrowing is specified, then the requested Borrowing shall be an ABR Borrowing. If no Interest Period is specified with respect to any requested Term SOFR Rate Borrowing, then the Company shall be deemed to have selected an Interest Period of one month's duration. Promptly following receipt of a Borrowing Request in accordance with this Section, the Administrative Agent shall advise each Lender of the applicable Class of the details thereof and of the amount of such Lender's Loan to be made as part of the requested Borrowing.

SECTION 2.04. Swingline Loans.

(a) Subject to the terms and conditions set forth herein, each Swingline Lender may, in its sole discretion, make Swingline Loans to the Company from time to time during the Availability Period, provided that, after giving effect thereto, (i) the aggregate principal amount of the Swingline Loans of any Swingline Lender will not exceed its Swingline Commitment, (ii) the Swingline Exposure will not exceed the Swingline Sublimit, (iii) no Lender's Credit Exposure will exceed its Revolving Credit Commitment, (iv) the Total Revolving Credit Exposure will not exceed the Total Revolving Credit Commitments and (v) in the event the Maturity Date shall have been extended as provided in Section 2.19, the sum of the Swingline Exposure attributable to

Swingline Loans maturing after any Existing Maturity Date and the LC Exposure attributable to Letters of Credit expiring after such Existing Maturity Date will not exceed the sum of the Revolving Credit Commitments that shall have been extended to a date after the latest maturity date of such Swingline Loans and the latest expiration date of such Letters of Credit. Within the foregoing limits and subject to the terms and conditions set forth herein, the Company may borrow, prepay and reborrow Swingline Loans. For the avoidance of doubt, any reference in this Agreement to a Swingline Lender's "Swingline Commitment", the obligation of any Swingline Lender to make a Swingline Loan being subject to the satisfaction of certain conditions or to a Swingline Lender not being required to fund any Swingline Loan absent the occurrence of certain events (or words of similar import) shall not be deemed to create any obligation of any Swingline Lender to make or fund any Swingline Loan other than in its sole discretion.

(b) To request a Swingline Loan from any Swingline Lender, the Company shall notify the Administrative Agent and such Swingline Lender of such request by telephone or in writing not later than 1:00 p.m., New York City time, on the day of the proposed Swingline Loan. Each such telephonic and written Swingline Borrowing Request shall be irrevocable and shall be made (or, if telephonic, confirmed promptly) by hand delivery or fax to the Administrative Agent and the applicable Swingline Lender of an executed written Swingline Borrowing Request. Each such telephonic and written Swingline Borrowing Request shall specify the Swingline Lender that is requested to provide the requested Swingline Loan, the requested date (which shall be a Business Day) and the amount of the requested Swingline Loan to be made by such Swingline Lender and the location and number of the account of the Company to which funds are to be disbursed or, in the case of any Swingline Loan requested to finance the reimbursement of an LC Disbursement as provided in Section 2.05(f), the identity of the Issuing Bank that has made such LC Disbursement. Promptly following the receipt of a Swingline Borrowing Request in accordance with this Section, the Administrative Agent shall advise the applicable Swingline Lender of the details thereof. If a Swingline Lender shall have determined, in its sole discretion, to make the Swingline Loan so requested of it, then such Swingline Lender shall make such Swingline Loan available to the Company by means of a wire transfer to the account specified in such Swingline Borrowing Request or to the applicable Issuing Bank, as the case may be, by 4:00 p.m., New York City time, on the requested date of such Swingline Loan.

(c) Any Swingline Lender may by written notice given to the Administrative Agent not later than 11:00 a.m., New York City time, on any Business Day require the Revolving Credit Lenders to acquire participations on such Business Day in all or a portion of the outstanding Swingline Loans made by such Swingline Lender. Such notice shall specify the aggregate amount of the Swingline Loans made by such Swingline Lender in which the Revolving Credit Lenders will be required to participate. Promptly upon receipt of such notice, the Administrative Agent will give notice thereof to each Revolving Credit Lender, specifying in such notice such Revolving Credit Lender's Applicable Percentage of such Swingline Loan or Loans. Each Revolving Credit Lender hereby absolutely and unconditionally agrees to pay, promptly upon receipt of notice as provided above, to the Administrative Agent, for the account of the applicable Swingline Lender, such Revolving Credit Lender's Applicable Percentage of such Swingline Loan or Loans. Each Revolving Credit Lender acknowledges and agrees that, in making any Swingline Loan, each Swingline Lender shall be entitled to rely, and shall not incur any liability for relying, upon the representation and warranty of the Company deemed made pursuant to Section 4.02; unless, at least two Business Days prior to the time such Swingline Loan is made, the Required Lenders shall

have notified the applicable Swingline Lender (with a copy to the Administrative Agent) in writing that, as a result of one or more events or circumstances described in such notice, one or more of the conditions precedent set forth in Section 4.02(a) or 4.02(b) would not be satisfied if such Swingline Loan were then made (it being understood and agreed that, in the event any Swingline Lender shall have received any such notice, no Swingline Lender shall have any obligation to make any Swingline Loan until and unless it shall be satisfied that the events and circumstances described in such notice shall have been cured or otherwise shall have ceased to exist). Each Revolving Credit Lender further acknowledges and agrees that its obligation to acquire participations in Swingline Loans pursuant to this paragraph is absolute and unconditional and shall not be affected by any circumstance whatsoever, including the occurrence and continuance of a Default or any reduction or termination of the Revolving Credit Commitments, and that each such payment shall be made without any offset, abatement, withholding or reduction whatsoever. Each Revolving Credit Lender shall comply with its obligation under this paragraph by wire transfer of immediately available funds, in the same manner as provided in Section 2.06 with respect to Loans made by such Revolving Credit Lender (and Section 2.06 shall apply, mutatis mutandis, to the payment obligations of the Revolving Credit Lenders pursuant to this paragraph), and the Administrative Agent shall promptly remit to the applicable Swingline Lender the amounts so received by it from the Revolving Credit Lenders. The Administrative Agent shall notify the Company of any participations in any Swingline Loan acquired pursuant to this paragraph, and thereafter payments in respect of such Swingline Loan shall be made to the Administrative Agent and not to the applicable Swingline Lender. Any amounts received by any Swingline Lender from the Company (or other Persons on behalf of the Company) in respect of a Swingline Loan after receipt by such Swingline Lender of the proceeds of a sale of participations therein shall be promptly remitted to the Administrative Agent; any such amounts received by the Administrative Agent shall be promptly remitted by the Administrative Agent to the Revolving Credit Lenders that shall have made their payments pursuant to this paragraph and to such Swingline Lender, as their interests may appear; provided that any such payment so remitted shall be repaid to such Swingline Lender or to the Administrative Agent, as applicable, if and to the extent such payment is required to be refunded to the Company for any reason. The purchase of participations in a Swingline Loan pursuant to this paragraph shall not constitute a Loan and shall not relieve the Company of its obligations to repay such Swingline Loan.

(d) In addition to making Swingline Loans pursuant to the foregoing provisions of this Section 2.04, without the requirement for a specific request from the Company pursuant to Section 2.04(b), a Swingline Lender may make Swingline Loans to the Company in accordance with the provisions of any agreements between the Company and such Swingline Lender relating to the Company's deposit, sweep and other accounts at such Swingline Lender and related arrangements and agreements regarding the management and investment of the Company's cash assets as in effect from time to time (the "Cash Management Agreements") to the extent of the daily aggregate net negative balance in the Company's accounts which are subject to the provisions of the applicable Cash Management Agreements. Swingline Loans made pursuant to this Section 2.04(d) in accordance with the provisions of the applicable Cash Management Agreements shall (i) be subject to the limitations as to maximum amount set forth in Section 2.04(a), (ii) not be subject to the limitations as to minimum amount and integral multiples set forth in Section 2.02(c), (iii) be payable by the Company, both as to principal and interest, at the times set forth in the applicable Cash Management Agreements (but in no event later than the Maturity Date), (iv) not be made at any time if the Required Lenders shall have notified the applicable

Swingline Lender (with a copy to the Administrative Agent) in writing that, as a result of one or more events or circumstances described in such notice, one or more of the conditions precedent set forth in Section 4.02(a) or 4.02(b) would not be satisfied if such Swingline Loan were then made (it being understood and agreed that, in the event any Swingline Lender shall have received any such notice, no Swingline Lender shall have any obligation to make any Swingline Loan until and unless it shall be satisfied that the events and circumstances described in such notice shall have been cured or otherwise shall have ceased to exist), (v) if not repaid by the Company in accordance with the provisions of the applicable Cash Management Agreements, be subject to each Revolving Credit Lender's obligation to purchase participating interests therein pursuant to Section 2.04(c), and (vi) except as provided in the foregoing clauses (i) through (v), be subject to all of the terms and conditions of this Section 2.04. Each Swingline Lender shall report in writing to the Administrative Agent on the Business Day following the date any Swingline Loan is made pursuant to this Section 2.04(d), the date and principal amount of such Swingline Loan, the interest rate applicable thereto and such other information as the Administrative Agent shall reasonably request as to such Swingline Loan.

(e) From time to time, the Company may by notice to the Administrative Agent and the Lenders designate as additional or replacement Swingline Lenders one or more Lenders or Affiliates of a Lender or Lenders that agree to serve in such capacity as provided below. The acceptance by a Lender or such Affiliate of any appointment as a Swingline Lender hereunder shall be evidenced by a written agreement among the Company, the Administrative Agent, such accepting Lender or Affiliate and, in the case of the replacement of any Swingline Lender (except in the case of a resignation by the replaced Swingline Lender pursuant to Section 2.04(f)), the replaced Swingline Lender, which agreement shall set forth the Swingline Commitment of such Lender or Affiliate, and, from and after the effective date of such agreement, (i) such Lender or Affiliate shall have all the rights and obligations of a Swingline Lender under this Agreement and the other Loan Documents and (ii) references herein and in the other Loan Documents to the term "Swingline Lender" shall be deemed to include such Lender or Affiliate in its capacity as a Swingline Lender. At the time any replacement of a Swingline Lender shall become effective, the Company shall prepay any outstanding Swingline Loans of the replaced Swingline Lender and pay all unpaid interest accrued for the account of the replaced Swingline Lender pursuant to Section 2.12(c). After the replacement of any Swingline Lender hereunder, the replaced Swingline Lender shall remain a party hereto and shall continue to have all the rights and obligations of a Swingline Lender under this Agreement with respect to Swingline Loans made by it prior to its replacement, but shall not make additional Swingline Loans.

(f) Subject to the appointment and acceptance of a successor Swingline Lender in accordance with Section 2.04(e), any Swingline Lender may resign as Swingline Lender at any time upon 30 days' prior written notice to the Administrative Agent, the Company and the Lenders, in which case, such Swingline Lender shall be replaced in accordance with Section 2.04(e).

SECTION 2.05. Letters of Credit.

(a) General. Subject to the terms and conditions set forth herein, the Company may request any Issuing Bank to issue Letters of Credit (or to amend, renew or extend outstanding Letters of Credit) denominated in dollars, for its own account or, so long as the Company is a joint and several co-applicant with respect thereto, for the account of any Subsidiary, in a form

reasonably acceptable to the Administrative Agent and the applicable Issuing Bank, at any time and from time to time during the Availability Period (but in any event not after the latest expiration date specified in Section 2.05(c)). In the event of any inconsistency between the terms and conditions of this Agreement and the terms and conditions of any form of letter of credit application or other agreement submitted by the Company to, or entered into by the Company with, any Issuing Bank relating to any Letter of Credit, the terms and conditions of this Agreement shall control. The Company unconditionally and irrevocably agrees that, in connection with any Letter of Credit issued for the account of any Subsidiary as provided in the first sentence of this paragraph or any Existing Letter of Credit issued for the account of any Subsidiary, the Company will be fully responsible for the reimbursement of LC Disbursements, the payment of interest thereon and the payment of fees due under Section 2.11(c) to the same extent as if it were the sole account party in respect of such Letter of Credit (the Company hereby irrevocably waiving, to the extent permitted by applicable law, any defenses that might otherwise be available to it as a guarantor of the obligations of any Subsidiary that shall be an account party in respect of any such Letter of Credit). This Section 2.05 shall not be construed to impose an obligation upon any Issuing Bank to issue any Letter of Credit if any order, judgment or decree of any Governmental Authority shall by its terms purport to enjoin or restrain such Issuing Bank from issuing such Letter of Credit, or any law applicable to such Issuing Bank or any request or directive (whether or not having the force of law) from any Governmental Authority with jurisdiction over such Issuing Bank shall prohibit, or request that such Issuing Bank refrain from, the issuance of letters of credit generally or such Letter of Credit in particular. The issuance of Letters of Credit by any Issuing Bank shall be subject to the customary procedures of such Issuing Bank. No Issuing Bank shall be required to issue (but if requested as set forth above, may issue) trade or commercial Letters of Credit.

(b) Notice of Issuance, Amendment, Renewal, Extension; Certain Conditions. To request the issuance of a Letter of Credit (or the amendment, renewal or extension of an outstanding Letter of Credit (other than an automatic renewal or extension permitted pursuant to Section 2.05(c))), the Company shall hand deliver or fax (or transmit by electronic communication, if arrangements for doing so have been approved by the recipient) to the applicable Issuing Bank and the Administrative Agent at least five Business Days (or such shorter period as may be agreed by such Issuing Bank) in advance of the requested date of issuance, amendment, renewal or extension a notice requesting the issuance of a Letter of Credit, or identifying the Letter of Credit to be amended, renewed or extended, and specifying the requested date of issuance, amendment, renewal or extension (which shall be a Business Day), the date on which such Letter of Credit is to expire (which shall comply with Section 2.05(c)), the amount of such Letter of Credit, the name and address of the beneficiary thereof and such other information as shall be necessary to enable the applicable Issuing Bank to prepare, amend, renew or extend such Letter of Credit. If requested by the applicable Issuing Bank, the Company also shall submit a letter of credit application on such Issuing Bank's standard form in connection with such request. A Letter of Credit shall be issued, amended to increase the amount thereof, renewed or extended only if (and upon each issuance, amendment, renewal or extension of any Letter of Credit the Company shall be deemed to represent and warrant that), after giving effect thereto, (i) the LC Exposure attributable to Letters of Credit issued by any Issuing Bank will not exceed the LC Commitment of such Issuing Bank, (ii) the LC Exposure will not exceed the LC Sublimit, (iii) no Lender's Credit Exposure will exceed its Revolving Credit Commitment, (iv) the Total Revolving Credit Exposure will not exceed the Total Revolving Credit Commitments and (v) in the event the Maturity Date shall have

been extended as provided in Section 2.19, the sum of the LC Exposure attributable to Letters of Credit expiring after any Existing Maturity Date and the Swingline Exposure attributable to Swingline Loans maturing after such Existing Maturity Date will not exceed the sum of the Revolving Credit Commitments that shall have been extended to a date after the latest expiration date of such Letters of Credit and the latest maturity date of such Swingline Loans.

(c) Expiration Date. Each Letter of Credit shall expire (or be subject to termination by notice from the applicable Issuing Bank to the beneficiary thereof) at or prior to the close of business on the earlier of (i) the date one year after the date of the issuance of such Letter of Credit (or, in the case of any renewal or extension thereof, one year after such renewal or extension), provided that a Letter of Credit may, upon the request of the Company, include a provision whereby such Letter of Credit shall be renewed automatically for additional consecutive periods of one year or less (subject to clause (ii) below) unless the applicable Issuing Bank notifies the Company and the beneficiary thereof at least 30 days prior to the then-applicable expiration date that such Letter of Credit will not be renewed, and (ii) (A) the date that is five Business Days prior to the Maturity Date or (B) such later date as the Issuing Bank that issues such Letter of Credit may agree to the extent that on the date of the issuance, renewal, amendment or extension of such Letter of Credit, as applicable, such Letter of Credit is cash collateralized in a manner (and in an amount not less than 103% of the face amount of such Letter of Credit) acceptable to such Issuing Bank in its sole discretion; provided that in the event that an Issuing Bank consents to an expiration date for any Letter of Credit that is after the date referred to in clause (ii)(A) above, the Lenders shall cease to have risk participations therein on the date that is five Business Days prior to the Maturity Date (except to the extent of any LC Disbursement made on or prior to such date or, solely in the event any rule of law or uniform practices to which such Letter of Credit is subject (including Section 3.14 of ISP 98 or any successor publication of the International Chamber of Commerce) permits a drawing to be made under such Letter of Credit after the expiration thereof, after such date).

(d) Participations. Subject to the last proviso in Section 2.05(c), by the issuance of a Letter of Credit (or an amendment to a Letter of Credit increasing the amount thereof) and without any further action on the part of the applicable Issuing Bank or the Revolving Credit Lenders, the Issuing Bank that is the issuer thereof hereby grants to each Revolving Credit Lender, and each Revolving Credit Lender hereby acquires from such Issuing Bank, a participation in such Letter of Credit equal to such Lender's Applicable Percentage of the aggregate amount available to be drawn under such Letter of Credit. In consideration and in furtherance of the foregoing, each Revolving Credit Lender hereby absolutely and unconditionally agrees to pay to the Administrative Agent, for the account of such Issuing Bank, such Lender's Applicable Percentage of each LC Disbursement made by such Issuing Bank and not reimbursed by the Company on the date due as provided in Section 2.05(f), or of any reimbursement payment required to be refunded to the Company for any reason. Each Revolving Credit Lender acknowledges and agrees that, subject to the last proviso in Section 2.05(c), (i) its obligation to acquire participations pursuant to this paragraph in respect of Letters of Credit is absolute and unconditional and shall not be affected by any circumstance whatsoever, including any amendment, renewal or extension of any Letter of Credit or the occurrence and continuance of any Default, any reduction or termination of the Revolving Credit Commitments or any force majeure or other event that under any rule of law or uniform practices to which any Letter of Credit is subject (including Section 3.14 of ISP 98 or any successor publication of the International Chamber of Commerce) permits a drawing to be made

under such Letter of Credit after the expiration thereof or of the Revolving Credit Commitments, and (ii) each such payment shall be made without any offset, abatement, withholding or reduction whatsoever. Each Lender further acknowledges and agrees that, in issuing any Letter of Credit (or amending any Letter of Credit to increase the amount thereof), the applicable Issuing Bank shall be entitled to rely, and shall not incur any liability for relying, upon the representation and warranty of the Company deemed made pursuant to Section 4.02, unless, at least two Business Days prior to the time such Letter of Credit is issued or amended to increase the amount thereof, the Required Lenders shall have notified the applicable Issuing Bank (with a copy to the Administrative Agent) in writing that, as a result of one or more events or circumstances described in such notice, one or more of the conditions precedent set forth in Section 4.02(a) or 4.02(b) would not be satisfied if such Letter of Credit were then issued or so amended (it being understood and agreed that, in the event any Issuing Bank shall have received any such notice, no Issuing Bank shall have any obligation to issue or so amend any Letter of Credit until and unless it shall be satisfied that the events and circumstances described in such notice shall have been cured or otherwise shall have ceased to exist).

(e) Disbursements. Each Issuing Bank shall, promptly following its receipt thereof, examine all documents purporting to represent a demand for payment under a Letter of Credit issued by it and shall promptly notify the Administrative Agent and the Company by telephone (confirmed by hand delivery or fax) of such demand for payment and whether such Issuing Bank has made or will make an LC Disbursement thereunder; provided that any failure to give or delay in giving such notice shall not relieve the Company of its obligation to reimburse such LC Disbursement.

(f) Reimbursement. If an Issuing Bank shall make any LC Disbursement in respect of a Letter of Credit, the Company shall reimburse such LC Disbursement by paying to the Administrative Agent an amount equal to such LC Disbursement not later than 1:00 p.m., New York City time, on the date that such LC Disbursement is made, if the Company shall have received notice of such LC Disbursement prior to 11:00 a.m., New York City time, on such date, or, if such notice has not been received by the Company prior to such time on such date, then not later than 1:00 p.m., New York City time, on the Business Day immediately following the day that the Company receives notice of such LC Disbursement; provided that, if such LC Disbursement is not less than $250,000 (or, in the case of an LC Disbursement to be financed with a Swingline Loan, not less than $100,000), the Company may, subject to the conditions to borrowing set forth herein, request in accordance with Section 2.03 or 2.04 that such payment be financed with a Revolving Credit ABR Borrowing or a Swingline Loan in an equivalent amount and, to the extent so financed, the Company's obligation to make such payment shall be discharged and replaced by the resulting Revolving Credit ABR Borrowing or Swingline Loan. If the Company fails to make any such reimbursement payment when due, the Administrative Agent shall notify each Revolving Credit Lender of the applicable LC Disbursement, the amount of the payment then due from the Company in respect thereof and such Lender's Applicable Percentage thereof, and each Revolving Credit Lender shall pay to the Administrative Agent on the date such notice is received its Applicable Percentage of the payment then due from the Company, in the same manner as provided in Section 2.06 with respect to Loans made by such Lender (and Section 2.06 shall apply, mutatis mutandis, to the payment obligations of the Revolving Credit Lenders pursuant to this paragraph), and the Administrative Agent shall promptly pay to the applicable Issuing Bank the amounts so received by it from the Revolving Credit Lenders. Promptly following receipt by the

Administrative Agent of any payment from the Company pursuant to this paragraph, the Administrative Agent shall distribute such payment to the applicable Issuing Bank or, to the extent that Revolving Credit Lenders have made payments pursuant to this paragraph to reimburse such Issuing Bank, then to such Revolving Credit Lenders and such Issuing Bank as their interests may appear. Any payment made by a Revolving Credit Lender pursuant to this paragraph to reimburse an Issuing Bank for any LC Disbursement (other than the funding of a Revolving Credit ABR Loan or a Swingline Loan as contemplated above) shall not constitute a Loan and shall not relieve the Company of its obligation to reimburse such LC Disbursement.

(g) Obligations Absolute. The Company's obligation to reimburse LC Disbursements as provided in Section 2.05(f) is absolute, unconditional and irrevocable and shall be performed strictly in accordance with the terms of this Agreement under any and all circumstances whatsoever and irrespective of (i) any lack of validity or enforceability of any Letter of Credit or this Agreement or any other Loan Document, or any term or provision thereof or hereof, (ii) any draft or other document presented under a Letter of Credit proving to be forged, fraudulent or invalid in any respect or any statement therein being untrue or inaccurate in any respect, (iii) payment by an Issuing Bank under a Letter of Credit against presentation of a draft or other document that does not comply with the terms of such Letter of Credit, (iv) any force majeure or other event that under any rule of law or uniform practices to which any Letter of Credit is subject (including Section 3.14 of ISP 98 or any successor publication of the International Chamber of Commerce) permits a drawing to be made under such Letter of Credit after the stated expiration date thereof or of the Revolving Credit Commitments or (v) any other event or circumstance whatsoever, whether or not similar to any of the foregoing, that might, but for the provisions of this paragraph, constitute a legal or equitable discharge of, or provide a right of setoff against, the Company's obligations hereunder. None of the Administrative Agent, the Lenders, the Issuing Banks or any of their Related Parties shall have any liability or responsibility by reason of or in connection with the issuance or transfer of any Letter of Credit, any payment or failure to make any payment thereunder (irrespective of any of the circumstances referred to in the preceding sentence), any error, omission, interruption, loss or delay in transmission or delivery of any draft, notice or other communication under or relating to any Letter of Credit (including any document required to make a drawing thereunder), any error in interpretation of technical terms or any other act, failure to act or other event or circumstance; provided that the foregoing shall not be construed to excuse any Issuing Bank from liability to the Company to the extent of any direct damages (as opposed to special, indirect, consequential or punitive damages, claims in respect of which are hereby waived by the Company to the extent permitted by applicable law) suffered by the Company that are caused by such Issuing Bank's failure to exercise care when determining whether drafts and other documents presented under a Letter of Credit comply with the terms thereof. The parties hereto expressly agree that unless a court of competent jurisdiction shall have determined in a final and nonappealable judgment that in making any such determination the applicable Issuing Bank acted with gross negligence or willful misconduct, such Issuing Bank shall be deemed to have exercised care in such determination. In furtherance of the foregoing and without limiting the generality thereof, the parties agree that, with respect to documents presented that appear on their face to be in substantial compliance with the terms of a Letter of Credit, an Issuing Bank may, in its sole discretion, either accept and make payment upon such documents without responsibility for further investigation or refuse to accept and make payment upon such documents if such documents are not in strict compliance with the terms of such Letter of Credit.

(h) Interim Interest. If an Issuing Bank shall make any LC Disbursement, then, unless the Company shall reimburse such LC Disbursement in full on the date such LC Disbursement is made, the unpaid amount thereof shall bear interest, for each day from and including the date such LC Disbursement is made to but excluding the date that the Company reimburses such LC Disbursement, at the rate per annum then applicable to Revolving Credit ABR Loans and such interest shall be due and payable on the date when such reimbursement is payable; provided that, if the Company fails to reimburse such LC Disbursement when due pursuant to Section 2.05(f), then Section 2.12(d) shall apply. Interest accrued pursuant to this paragraph shall be paid to the Administrative Agent, for the account of the applicable Issuing Bank, except that interest accrued on and after the date of payment by any Revolving Credit Lender pursuant to Section 2.05(f) to reimburse such Issuing Bank shall be paid to the Administrative Agent for the account of such Lender to the extent of such payment, and shall be payable on demand or, if no demand has been made, on the date on which the Company reimburses the applicable LC Disbursement in full.

(i) Designation of Additional Issuing Banks. The Company may, at any time and from time to time, with the consent of the Administrative Agent (which consent shall not be unreasonably withheld, delayed or conditioned), designate as additional Issuing Banks one or more Lenders that agree to serve in such capacity as provided below. The acceptance by a Lender of an appointment as an Issuing Bank hereunder shall be evidenced by a written agreement, which shall be in form and substance reasonably satisfactory to the Administrative Agent, executed by the Company, the Administrative Agent and such designated Lender and shall set forth the initial LC Commitment of such designated Issuing Bank and, from and after the effective date of such agreement, (i) such Lender shall have all the rights and obligations of an Issuing Bank under this Agreement and (ii) references herein and in the other Loan Documents to the term "Issuing Bank" shall be deemed to include such Lender in its capacity as an issuer of Letters of Credit hereunder.

(j) Termination of an Issuing Bank. The Company may terminate the appointment of any Issuing Bank as an "Issuing Bank" hereunder by providing a written notice thereof to such Issuing Bank, with a copy to the Administrative Agent. Any such termination shall become effective upon the earlier of (i) such Issuing Bank acknowledging receipt of such notice and (ii) the 10th Business Day following the date of the delivery thereof; provided that no such termination shall become effective until and unless the LC Exposure attributable to Letters of Credit issued by such Issuing Bank (or its Affiliates) shall have been reduced to zero. At the time any such termination shall become effective, the Company shall pay all unpaid fees accrued for the account of the terminated Issuing Bank pursuant to Section 2.11(c). Notwithstanding the effectiveness of any such termination, the terminated Issuing Bank shall remain a party hereto and shall continue to have all the rights of an Issuing Bank under this Agreement with respect to Letters of Credit issued by it prior to such termination, but shall not issue any additional Letters of Credit.

(k) Issuing Bank Reports to the Administrative Agent. Unless otherwise agreed by the Administrative Agent, each Issuing Bank shall, in addition to its notification obligations set forth elsewhere in this Section 2.05, report in writing to the Administrative Agent (i) periodic activity (for such period or recurrent periods as shall be requested by the Administrative Agent) in respect of Letters of Credit issued by such Issuing Bank, including all issuances, extensions, amendments and renewals, all expirations and cancellations and all disbursements and reimbursements, (ii) reasonably prior to the time that such Issuing Bank issues, amends, renews or

extends any Letter of Credit, the date of such issuance, amendment, renewal or extension, and the stated amount of the Letters of Credit issued, amended, renewed or extended by it and outstanding after giving effect to such issuance, amendment, renewal or extension (and whether the amounts thereof shall have changed), (iii) on any Business Day on which the Company fails to reimburse an LC Disbursement required to be reimbursed to such Issuing Bank on such day, the date of such failure and the amount of such LC Disbursement and (iv) on any other Business Day, such other information as the Administrative Agent shall reasonably request as to the Letters of Credit issued by such Issuing Bank.

(l) LC Exposure Determination. For all purposes of this Agreement, the amount of a Letter of Credit that, by its terms or the terms of any document related thereto, provides for one or more automatic increases in the stated amount thereof shall be deemed to be the maximum stated amount of such Letter of Credit after giving effect to all such increases (other than any such increase consisting of the reinstatement of an amount previously drawn thereunder and reimbursed), whether or not such maximum stated amount is in effect at the time of determination.

(m) Existing Letters of Credit. Each Existing Letter of Credit shall be deemed for all purposes of this Agreement (including Sections 2.05(d) and 2.05(f)), to be a Letter of Credit issued hereunder and the Company shall be deemed to be the applicant and account party for each Existing Letter of Credit. It is understood and agreed that, unless such Person shall have become an Issuing Bank hereunder pursuant to Section 2.05(i), no Existing Letter of Credit Issuing Bank shall, or shall have any obligation to, issue any Letter of Credit.

(n) Cash Collateralization. If any Event of Default shall occur and be continuing, on the Business Day that the Company receives notice from the Administrative Agent or the Required Lenders (or, if the maturity of the Loans has been accelerated, Lenders with LC Exposures representing greater than 50% of the total LC Exposure) demanding the deposit of cash collateral pursuant to this paragraph, the Company shall deposit in an account with the Administrative Agent, in the name of the Administrative Agent and for the benefit of the Lenders and the Issuing Banks, an amount in dollars equal to the LC Exposure as of such date, plus any accrued and unpaid interest and fees thereon; provided that the obligation to deposit such cash collateral shall become effective immediately, and such deposit shall become immediately due and payable, without demand or other notice of any kind, upon the occurrence of any Event of Default with respect to the Company described in Section 7.01(h) or 7.01(i). The Company shall also deposit cash collateral in accordance with this paragraph as and to the extent required by Section 2.10 or 2.20. Each such deposit shall be held by the Administrative Agent as collateral for the payment and performance of the obligations of the Company under this Agreement. The Administrative Agent shall have exclusive dominion and control, including the exclusive right of withdrawal, over such account. Other than any interest earned on the investment of such deposits, which investments shall be made at the option and sole discretion of the Administrative Agent and at the Company's risk and expense, such deposits shall not bear interest. Interest or profits, if any, on such investments shall accumulate in such account. Moneys in such account shall be applied by the Administrative Agent to reimburse the Issuing Banks for LC Disbursements for which they have not been reimbursed and, to the extent not so applied, shall be held for the satisfaction of the reimbursement obligations of the Company for the LC Exposure at such time or, if the maturity of the Loans has been accelerated (but subject to the consent of (A) Lenders with LC Exposures

representing greater than 50% of the total LC Exposure and (B) in the case of any such application at a time when any Revolving Credit Lender is a Defaulting Lender (but only if, after giving effect thereto, the remaining cash collateral shall be less than the aggregate LC Exposure of all Revolving Credit Lenders that are Defaulting Lenders), the consent of each Issuing Bank), be applied to satisfy other obligations of the Company under this Agreement. If the Company is required to provide an amount of cash collateral hereunder as a result of the occurrence of an Event of Default, such amount (to the extent not applied as aforesaid) shall be returned to the Company within three Business Days after all Events of Default have been cured or waived. If the Company is required to provide an amount of cash collateral hereunder pursuant to Section 2.10, such amount (to the extent not applied as aforesaid) shall be returned to the Company to the extent that the applicable excess referred to in such Section shall have been eliminated and no Event of Default shall have occurred and be continuing. If the Company provides an amount of cash collateral hereunder pursuant to Section 2.20, such amount (to the extent not applied as aforesaid) shall be returned to the Company, upon request of the Company, to the extent that, after giving effect to such return, no Issuing Bank shall have any exposure in respect of any outstanding Letter of Credit that is not fully covered by the Revolving Credit Commitments of the Non-Defaulting Lenders and/or the remaining cash collateral and no Default shall have occurred and be continuing.

SECTION 2.06. Funding of Borrowings.

(a) Each Lender shall make each Loan to be made by it hereunder on the proposed date thereof by wire transfer of immediately available funds by 1:00 p.m., New York City time, to the account of the Administrative Agent most recently designated by it for such purpose by notice to the Lenders; provided that (i) to the extent any Revolving Credit Lender would not have been required to make a Revolving Credit Loan but for the parenthetical clause set forth Section 2.01, the obligation of such Revolving Credit Lender to actually wire transfer immediately available funds with respect to such Revolving Credit Loan shall be net of any portion of the prepayment of Revolving Credit Loans referred to in such parenthetical clause that would be applied to the Revolving Credit Loans of such Revolving Credit Lender, and (ii) Swingline Loans shall be made as provided in Section 2.04. The Administrative Agent will make such Loans available to the Company by promptly remitting the amounts so received, in like funds, to the account designated by the Company in the applicable Borrowing Request; provided that Revolving Credit ABR Loans made to finance the reimbursement of an LC Disbursement as provided in Section 2.05(f) shall be remitted by the Administrative Agent to the applicable Issuing Bank specified in the applicable Borrowing Request.

(b) Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with Section 2.06(a) and may, in reliance on such assumption, make available to the Company a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the Company severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount with interest thereon, for each day from and including the date such amount is made available to the Company to but excluding the date of payment to the Administrative Agent, at (i) in the case of a payment to be made by such Lender, the greater of the Federal Funds Effective

Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation or (ii) in the case of a payment to be made by the Company, the interest rate applicable to Revolving Credit ABR Loans. If the Company and such Lender shall pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Company the amount of such interest paid by the Company for such period. If such Lender pays such amount to the Administrative Agent, then such amount shall constitute such Lender's Loan included in such Borrowing. Any payment by the Company shall be without prejudice to any claim the Company may have against a Lender that shall have failed to make such payment to the Administrative Agent.

SECTION 2.07. Interest Elections.

(a) Each Borrowing initially shall be of the Type and, in the case of a Term SOFR Rate Borrowing, shall have an initial Interest Period as specified in the applicable Borrowing Request or as otherwise provided in Section 2.03. Thereafter, the Company may elect to convert such Borrowing to a Borrowing of a different Type or to continue such Borrowing and, in the case of a Term SOFR Rate Borrowing, may elect Interest Periods therefor, all as provided in this Section 2.07. The Company may elect different options with respect to different portions of the affected Borrowing, in which case each such portion shall be allocated ratably among the Lenders holding the Loans comprising such Borrowing, and the Loans comprising each such portion shall be considered a separate Borrowing. This Section 2.07 shall not apply to Swingline Loans, which may not be converted or continued.

(b) To make an election pursuant to this Section 2.07, the Company shall notify the Administrative Agent of such election by telephone or in writing by the time that a Borrowing Request would be required under Section 2.03 if the Company were requesting a Borrowing of the Type resulting from such election to be made on the effective date of such election. Each such telephonic and written Interest Election Request shall be irrevocable and shall be made (or, if telephonic, confirmed promptly) by hand delivery or fax to the Administrative Agent of an executed written Interest Election Request. Each such telephonic and written Interest Election Request shall specify the following information in compliance with Section 2.02:

(i) the Borrowing to which such Interest Election Request applies and, if different options are being elected with respect to different portions thereof, the portions thereof to be allocated to each resulting Borrowing (in which case the information to be specified pursuant to clauses (iii) and (iv) below shall be specified for each resulting Borrowing);

(ii) the effective date of the election made pursuant to such Interest Election Request, which shall be a Business Day;

(iii) whether the resulting Borrowing is to be an ABR Borrowing or a Term SOFR Rate Borrowing; and

(iv) if the resulting Borrowing is a Term SOFR Rate Borrowing, the Interest Period to be applicable thereto after giving effect to such election, which shall be a period contemplated by the definition of the term "Interest Period".

If any such Interest Election Request requests a Term SOFR Rate Borrowing but does not specify an Interest Period, then the Company shall be deemed to have selected an Interest Period of one month's duration.

(c) Promptly following receipt of an Interest Election Request in accordance with this Section, the Administrative Agent shall advise each Lender of the applicable Class of the details thereof and of such Lender's portion of each resulting Borrowing.

(d) If the Company fails to deliver a timely Interest Election Request with respect to a Term SOFR Rate Borrowing prior to the end of the Interest Period applicable thereto, then, unless such Borrowing is repaid as provided herein, at the end of such Interest Period such Borrowing shall be converted to an ABR Borrowing. Notwithstanding any contrary provision hereof, if an Event of Default under Section 7.01(h) or 7.01(i) has occurred and is continuing with respect to the Company, or if any other Event of Default has occurred and is continuing and the Administrative Agent, at the request of the Required Lenders, so notifies the Company of the election to give effect to this sentence on account of such other Event of Default, then, in each such case, so long as such Event of Default is continuing, (i) no outstanding Borrowing may be converted to or continued as a Term SOFR Rate Borrowing and (ii) unless repaid, each Term SOFR Rate Borrowing shall be converted to an ABR Borrowing at the end of the Interest Period applicable thereto.

SECTION 2.08. Termination and Reduction of Commitments. (a) Unless previously terminated, Commitments shall terminate on the Maturity Date applicable thereto.

(b) The Company may at any time terminate, or from time to time permanently reduce, the Commitments of any Class; provided that (i) each reduction of the Commitments of a Class shall be in an amount that is an integral multiple of $1,000,000 and not less than $5,000,000 and (ii) the Company shall not terminate or reduce the Revolving Credit Commitments if, after giving effect to any concurrent prepayment of the Loans in accordance with Section 2.10, (A) the Credit Exposure of any Lender would exceed its Revolving Credit Commitment or (B) the Total Revolving Credit Exposure would exceed the Total Revolving Credit Commitments.

(c) The Company shall notify the Administrative Agent of any election to terminate or reduce the Commitments under Section 2.08(b) at least three Business Days prior to the effective date of such termination or reduction (or such shorter period as the Administrative Agent may agree to in writing), specifying the effective date thereof. Promptly following receipt of any such notice, the Administrative Agent shall advise the Lenders of the applicable Class of the contents thereof. Each notice delivered by the Company pursuant to this Section 2.08(c) shall be irrevocable; provided that a notice of termination or reduction of the Commitments of any Class under Section 2.08(b) may state that such notice is conditioned upon the occurrence of one or more events specified therein, in which case such notice may be revoked by the Company (by notice to the Administrative Agent on or prior to the specified effective date) if such condition is not, or is not expected to be, satisfied. Any termination or reduction of the Commitments of any Class shall be permanent. Each reduction of the Commitments of any Class shall be made ratably among the Lenders in accordance with their respective Commitments of such Class.

SECTION 2.09. Repayment of Loans; Evidence of Debt. (a) The Company hereby unconditionally promises to pay (i) to the Administrative Agent for the account of each Lender the then unpaid principal amount of each Loan of such Lender on the Maturity Date applicable to such Loan and (ii) to each Swingline Lender the then unpaid principal amount of each Swingline Loan of such Swingline Lender on the Maturity Date or, if any Cash Management Agreement is in effect, on such other date (but in no event later than the Maturity Date) as provided in Section 2.04(d).

(b) The records maintained by the Administrative Agent and the Lenders shall (in the case of the Lenders, to the extent they are not inconsistent with the records maintained by the Administrative Agent pursuant to Section 9.04(b)(iv)) be, in the absence of manifest error, prima facie evidence of the existence and amounts of the obligations of the Company in respect of the Loans, LC Disbursements, interest and fees due or accrued hereunder; provided that the failure of the Administrative Agent or any Lender to maintain such records or any error therein shall not in any manner affect the obligation of the Company to pay any amounts due hereunder in accordance with the terms of this Agreement.

(c) Any Lender may request that Loans of any Class made by such Lender be evidenced by a promissory note. In such event, the Company shall prepare, execute and deliver to such Lender a promissory note payable to such Lender and its registered assigns and in a form approved by the Administrative Agent. Thereafter, the Loans evidenced by such promissory note and interest thereon shall at all times (including after assignment pursuant to Section 9.04) be represented by one or more promissory notes in such form payable to the payee named therein and its registered assigns.

SECTION 2.10. Prepayment of Loans. (a) The Company shall have the right at any time and from time to time to prepay any Borrowing in whole or in part, without premium or penalty, subject to the requirements of this Section 2.10.

(b) If at any time the Total Revolving Credit Exposure exceeds the Total Revolving Credit Commitments, then, the Company shall, without notice or demand, immediately (i) prepay the Revolving Credit Borrowings or Swingline Loans in an aggregate principal amount equal to such excess and (ii) if any excess remains (or would remain) after prepaying all of the Revolving Credit Borrowings and Swingline Loans as a result of an LC Exposure, cash collateralize such excess as provided in Section 2.05(n).

(c) The Company shall notify the Administrative Agent (and, in the case of a prepayment of a Swingline Loan, the applicable Swingline Lender) by telephone (confirmed by hand delivery or fax) or in writing of any prepayment hereunder (i) in the case of prepayment of a Term SOFR Rate Borrowing, not later than 11:00 a.m., New York City time, one Business Day before the date of prepayment (or such shorter period as may be agreed to by the Administrative Agent in writing), (ii) in the case of prepayment of an ABR Borrowing (other than a Swingline Loan), not later than 11:00 a.m., New York City time, on the date of prepayment (or such later time as may be agreed to by the Administrative Agent in writing) and (iii) in the case of prepayment of a Swingline Loan, not later than 12:00 p.m., New York City time, on the date of prepayment (or such later time as may be agreed to by the applicable Swingline Lender and the Administrative Agent in writing). Each such notice shall be irrevocable and shall specify the prepayment date, the Borrowing or Borrowings to be prepaid, the principal amount of each such

Borrowing or portion thereof to be prepaid; provided that, if a notice of prepayment is given in connection with a conditional notice of termination or reduction of any Commitments as contemplated by Section 2.08, then such notice of prepayment may be revoked by the Company (by notice to the Administrative Agent) if such notice of termination or reduction is revoked in accordance with Section 2.08. Promptly following receipt of any such notice (other than a notice relating solely to Swingline Loans), the Administrative Agent shall advise the Lenders of the applicable Class of the contents thereof. Each partial prepayment of any Borrowing shall be in an amount that would be permitted in the case of an advance of a Borrowing of the same Type as provided in Section 2.02 (or, if less, the outstanding principal amount of the Loans). Each prepayment of a Borrowing shall be applied ratably to the Loans included in the prepaid Borrowing. Prepayments shall be accompanied by accrued interest to the extent required by Section 2.12.

SECTION 2.11. Fees. (a) The Company agrees to pay to the Administrative Agent for the account of each Revolving Credit Lender a commitment fee (the "Commitment Fee"), which shall accrue at the Applicable Rate on the daily maximum aggregate undrawn amount of the Revolving Credit Commitment of such Lender during the period from and including the Effective Date to but excluding the date on which such Revolving Credit Commitment terminates. Commitment Fees accrued through and including the last day of March, June, September and December of each year shall be payable in arrears on the first Business Day after such last day, commencing on the first such date to occur after the Effective Date, and accrued Commitment Fees shall also be payable in arrears on the date on which Revolving Credit Commitments terminate. All Commitment Fees shall be computed on the basis of a year of 360 days and shall be payable for the actual number of days elapsed (including the first day but excluding the last day). For purposes of computing Commitment Fees, (i) the Revolving Credit Commitment of a Lender (other than any Swingline Lender) shall be deemed to be used to the extent of the outstanding Revolving Credit Loans and LC Exposure of such Lender (and the Swingline Exposure of such Lender shall be disregarded for such purpose) and (ii) the Revolving Credit Commitment of any Swingline Lender shall be deemed to be used to the extent of the outstanding Revolving Credit Loans and LC Exposure of such Swingline Lender and the outstanding Swingline Loans of such Swingline Lender (except any portion of such Swingline Loans that are subject to participations purchased by the Lenders pursuant to Section 2.04(c)).

(b) [Intentionally Omitted]

(c) The Company agrees to pay (i) to the Administrative Agent for the account of each Revolving Credit Lender a participation fee with respect to its participations in Letters of Credit (an "LC Participation Fee"), which shall accrue at the Applicable Rate used to determine the interest rate applicable to Revolving Credit Term SOFR Rate Loans on the daily amount of such Lender's LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the date on which such Lender's Revolving Credit Commitment terminates and the date on which such Lender ceases to have any LC Exposure, and (ii) to each Issuing Bank a fronting fee, which shall accrue at the rate of 0.125% per annum on the daily amount of the LC Exposure attributable to Letters of Credit issued by such Issuing Bank (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the date of termination of the Revolving Credit

Commitments and the date on which there ceases to be any such LC Exposure, as well as such Issuing Bank's standard fees with respect to the issuance, amendment, renewal or extension of any Letter of Credit or processing of drawings thereunder. LC Participation Fees and fronting fees accrued through and including the last day of March, June, September and December of each year shall be payable in arrears on the first Business Day after such last day, commencing on the first such date to occur after the Effective Date; provided that all such fees shall be payable on the date on which the Revolving Credit Commitments terminate and any such fees accruing after the date on which the Revolving Credit Commitments terminate shall be payable on demand. Any other fees payable to an Issuing Bank pursuant to this paragraph shall be payable within 10 days after demand. All LC Participation Fees and fronting fees shall be computed on the basis of a year of 360 days and shall be payable for the actual number of days elapsed (including the first day but excluding the last day).

(d) The Company agrees to pay to the Administrative Agent, for its own account, fees payable in the amounts and at the times separately agreed upon between the Company and the Administrative Agent.

(e) All fees payable hereunder shall be paid on the dates due, in immediately available funds, to the Administrative Agent (or to an Issuing Bank, in the case of fees payable to it) for distribution, in the case of the Commitment Fee and the LC Participation Fee, to the Lenders entitled thereto. Fees paid shall not be refundable under any circumstances.

SECTION 2.12. Interest. (a) The Loans comprising each ABR Borrowing (other than any Swingline Loan) shall bear interest at the Alternate Base Rate plus the Applicable Rate applicable to ABR Loans.

(b) The Loans comprising each Term SOFR Rate Borrowing (other than any Swingline Loan) shall bear interest at the Term SOFR Rate for the Interest Period in effect for such Borrowing plus the SOFR Adjustment plus the Applicable Rate applicable to Term SOFR Rate Loans.

(c) Each Swingline Loan shall bear interest, for any day, (i) at the rate per annum that is mutually agreed to by the Company and the applicable Swingline Lender at the time such Swingline Loan is made or (ii) if there are Cash Management Agreements in place with the applicable Swingline Lender, at the rates determined in accordance with such Cash Management Agreements; provided that if any Swingline Lender shall have provided any notice pursuant to Section 2.04(c), then from and after the date of such notice (and until the Lenders shall hold no participations in the applicable Swingline Loans) each Swingline Loan subject to such notice shall bear interest at the Alternate Base Rate plus the Applicable Rate applicable to Revolving Credit ABR Loans as provided in Section 2.12(a).

(d) Notwithstanding the foregoing, if any principal of or interest on any Loan or any fee or other amount payable by the Company hereunder is not paid when due, whether at stated maturity, upon acceleration or otherwise, such overdue amount shall bear interest, after as well as before judgment, at a rate per annum equal to (i) in the case of overdue principal of any Loan, 2.00% per annum plus the rate otherwise applicable to such Loan as provided in the

preceding paragraphs of this Section or (ii) in the case of any other amount, 2.00% per annum plus the rate applicable to Revolving Credit ABR Loans as provided in Section 2.12(a).

(e) Accrued interest on each Loan shall be payable in arrears on each Interest Payment Date for such Loan and, in the case of Loans of any Class, upon termination of the Commitments of such Class; provided that (i) interest accrued pursuant to Section 2.12(d) shall be payable on demand, (ii) in the event of any repayment or prepayment of any Loan (other than a prepayment of a Revolving Credit ABR Loan prior to the end of the Availability Period), accrued interest on the principal amount repaid or prepaid shall be payable on the date of such repayment or prepayment, (iii) in the event of any conversion or continuation of a Term SOFR Rate Loan prior to the end of the current Interest Period therefor, accrued interest on such Loan shall be payable on the effective date of such conversion or continuation, and (iv) if any Cash Management Agreement is in effect, accrued interest on each applicable Swingline Loan shall be payable as provided in Section 2.04(d).

(f) All interest hereunder shall be computed on the basis of a year of 360 days, except that (i) interest computed by reference to the Alternate Base Rate at times when the Alternate Base Rate is based on the Prime Rate shall be computed on the basis of a year of 365 days (or 366 days in a leap year) and (ii) unless any Swingline Lender shall have provided any notice pursuant to Section 2.04(c), interest on Swingline Loans shall be computed in accordance with the foregoing or as otherwise provided in the applicable Cash Management Agreement, and in each case shall be payable for the actual number of days elapsed (including the first day but excluding the last day). The applicable Alternate Base Rate or Term SOFR Rate shall be determined by the Administrative Agent, and such determination shall be conclusive absent manifest error.

(g) With respect to the Term SOFR Rate, the Administrative Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document; provided that, the Administrative Agent shall provide notice to the Company and the Lenders of each such amendment implementing such Conforming Changes reasonably promptly after such amendment becomes effective.

SECTION 2.13. Alternate Rate of Interest; Benchmark Replacement.

(a) If at any time:

(i) the Administrative Agent determines (which determination shall be conclusive and binding absent manifest error) that the Term SOFR Rate cannot be determined pursuant to the definition thereof; or

(ii) a Majority in Interest of the Lenders of such Class determines that for any reason in connection with any request for a Term SOFR Rate Loan or conversion thereto or continuation thereof that the Term SOFR Rate does not adequately and fairly reflect the cost to such Lenders of funding, establishing or maintaining such Loan during the applicable Interest Period, as applicable, and the Majority in Interest of the Lenders of such Class provided notice of such determination to the Administrative Agent;

then the Administrative Agent shall give notice (which may be telephonic) thereof to the Company and the Lenders of such Class as promptly as practicable and, until the Administrative Agent notifies the Company and the Lenders of such Class that the circumstances giving rise to such notice no longer exist, (A) any Interest Election Request that requests the conversion of any Borrowing of such Class to, or continuation of any Borrowing of such Class as, a Term SOFR Rate Borrowing shall be ineffective, and such Borrowing shall be continued as an ABR Borrowing, and (B) any Borrowing Request for a Term SOFR Rate Borrowing of such Class shall be treated as a request for an ABR Borrowing.

(b) Benchmark Replacement Setting:

(i) Benchmark Replacement. Notwithstanding anything to the contrary herein or in any other Loan Document (and any agreement executed in connection with an Interest Rate Hedge shall be deemed not to be a "Loan Document" for purposes of this Section titled "Benchmark Replacement Setting"), if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred prior to any setting of the then-current Benchmark, then (A) if a Benchmark Replacement is determined in accordance with clause (1) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of such Benchmark setting and subsequent Benchmark settings without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document and (B) if a Benchmark Replacement is determined in accordance with clause (2) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of any Benchmark setting at or after 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Benchmark Replacement is provided to the Lenders without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document so long as the Administrative Agent has not received, by such time, written notice of objection to such Benchmark Replacement from Lenders comprising the Required Lenders.

(ii) Benchmark Replacement Conforming Changes. In connection with the use, administration, adoption or implementation of a Benchmark Replacement, the Administrative Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document.

(iii) Notices; Standards for Decisions and Determinations. The Administrative Agent will promptly notify the Company and the Lenders of (A) the implementation of any Benchmark Replacement, and (B) the effectiveness of any Conforming Changes in connection with the use, administration, adoption or implementation of a Benchmark Replacement. The Administrative Agent will notify the Company of (x) the removal or reinstatement of any tenor of a Benchmark pursuant to paragraph (iv) below and (y) the commencement of any Benchmark Unavailability Period. Any determination, decision or election that may be made by the Administrative Agent or,

if applicable, any Lender (or group of Lenders) pursuant to this Section, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Loan Document except, in each case, as expressly required pursuant to this Section.

(iv) Unavailability of Tenor of Benchmark. Notwithstanding anything to the contrary herein or in any other Loan Document, at any time (including in connection with the implementation of a Benchmark Replacement), (A) if the then-current Benchmark is a term rate or based on a term rate and either (I) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion or (II) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is not or will not be representative, then the Administrative Agent may modify the definition of "Interest Period" (or any similar or analogous definition) for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor; and (B) if a tenor that was removed pursuant to clause (A) above either (I) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (II) is not, or is no longer, subject to an announcement that it is not or will not be representative for a Benchmark (including a Benchmark Replacement), then the Administrative Agent may modify the definition of "Interest Period" (or any similar or analogous definition) for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(v) Benchmark Unavailability Period. Upon the Company's receipt of notice of the commencement of a Benchmark Unavailability Period with respect to the Term SOFR Rate, the Company may revoke any pending request for a Loan bearing interest based on such rate or conversion to or continuation of Loans bearing interest based on such rate to be made, converted or continued during any Benchmark Unavailability Period and, failing that, the Company will be deemed to have converted any such request into a request for a Base Rate Loan or conversion to a Base Rate Loan. During a Benchmark Unavailability Period or at any time that a tenor for the then-current Benchmark is not an Available Tenor, the component of the Base Rate based upon the then-current Benchmark or such tenor for such Benchmark, as applicable, will not be used in any determination of the Base Rate.

(vi) Definitions. As used in this Section:

"Available Tenor" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, if such Benchmark is a term rate, any tenor for such Benchmark (or component thereof) that is or may be used for determining the length of an interest period pursuant to this Agreement as of such date and not including, for the avoidance of doubt, any tenor of such Benchmark that is then-removed from the definition of "Interest Period" pursuant to clause (iv) of this Section.

"Benchmark" means, initially, the Term SOFR Reference Rate; provided that if a Benchmark Transition Event has occurred with respect to the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to this Section.

"Benchmark Replacement" means, with respect to any Benchmark Transition Event, the first alternative set forth in the order below that can be determined by the Administrative Agent for the applicable Benchmark Replacement Date:

(1) the sum of: (A) Daily Simple SOFR and (B) the SOFR Adjustment;

(2) the sum of (A) the alternate benchmark rate that has been selected by the Administrative Agent and the Company, giving due consideration to (x) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (y) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement to the then-current Benchmark for U.S. dollar-denominated syndicated credit facilities at such time and (B) the related Benchmark Replacement Adjustment;

provided that if the Benchmark Replacement as determined pursuant to clause (2) above would be less than the Floor, the Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Loan Documents; and provided further, that any Benchmark Replacement shall be administratively feasible as determined by the Administrative Agent in its sole discretion.

"Benchmark Replacement Adjustment" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement , the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Administrative Agent and the Company, giving due consideration to (A) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body or (B) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated syndicated credit facilities at such time.

"Benchmark Replacement Date" means a date and time determined by the Administrative Agent, which date shall be no later than the earliest to occur of the following events with respect to the then-current Benchmark:

(1) in the case of clause (1) or (2) of definition of "Benchmark Transition Event," the later of (A) the date of the public statement or publication of information referenced therein and (B) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate or is based on a term rate, all Available Tenors of such Benchmark (or such component thereof); or

(2) in the case of clause (3) of the definition of "Benchmark Transition Event," the date determined by the Administrative Agent, which date shall promptly follow the date of the public statement or publication of information referenced therein;

For the avoidance of doubt, if such Benchmark is a term rate or is based on a term rate, the "Benchmark Replacement Date" will be deemed to have occurred in the case of clause (1) or (2) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Transition Event" means, the occurrence of one or more of the following events, with respect to the then-current Benchmark:

(1) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate or is based on a term rate, all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof);

(2) a public statement or publication of information by a Governmental Authority having jurisdiction over the Administrative Agent, the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark (or such component), which states that the administrator of such Benchmark (or such component) has ceased or will cease to

provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate or is based on a term rate, all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide such Benchmark (or such component thereof) or, if such Benchmark is a term rate or is based on a term rate, any Available Tenor of such Benchmark (or such component thereof); or

(3) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) or a Governmental Authority having jurisdiction over the Administrative Agent announcing that such Benchmark (or such component thereof) or, if such Benchmark is a term rate or is based on a term rate, all Available Tenors of such Benchmark (or such component thereof) are not, or as of a specified future date will not be, representative.

For the avoidance of doubt, if such Benchmark is a term rate or is based on a term rate, a "Benchmark Transition Event" will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Unavailability Period" means the period (if any) (x) beginning at the time that a Benchmark Replacement Date has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with this Section 2.13(b) titled "Benchmark Replacement Setting" and (y) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with this Section 2.13(b) titled "Benchmark Replacement Setting."

"Floor" means the benchmark rate floor, if any, provided in this Agreement initially (as of the execution of this Agreement, the modification, amendment or renewal of this Agreement or otherwise) with respect to the Term SOFR Rate, as applicable, or, if no floor is specified, zero.

"Relevant Governmental Body" means the Board of Governors of the Federal Reserve System and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Board of Governors of the Federal Reserve System and/or the Federal Reserve Bank of New York, or any successor thereto.

"Unadjusted Benchmark Replacement" means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.

SECTION 2.14. Increased Costs; Illegality. (a) If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender (except any such reserve requirement reflected in the Term SOFR Rate) or any Issuing Bank;

(ii) impose on any Lender or any Issuing Bank or the relevant interbank market any other condition, cost or expense (other than Taxes) affecting this Agreement or the Loans made by such Lender or any Letter of Credit or participation therein; or

(iii) subject any Recipient to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of the term "Excluded Taxes" and (C) Connection Income Taxes) on its loans, letters of credit, commitments or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto;

and the result of any of the foregoing shall be to increase the cost to such Lender or other Recipient of making, converting to, continuing or maintaining any Loan or of maintaining its obligation to make any Loan, or to increase the cost to such Lender, Issuing Bank or other Recipient of participating in, issuing or maintaining any Letter of Credit (or of maintaining its obligation to participate in or issue any Letter of Credit), or to reduce the amount of any sum received or receivable by such Lender, Issuing Bank or other Recipient hereunder (whether of principal, interest or any other amount), then, from time to time following request of such Lender, Issuing Bank or other Recipient (accompanied by a certificate in accordance with Section 2.14(c), the Company will pay to such Lender, Issuing Bank or other Recipient, as the case may be, such additional amount or amounts as will compensate such Lender, Issuing Bank or other Recipient for such additional costs or expenses incurred or reduction suffered.

(b) If any Lender or any Issuing Bank determines that any Change in Law affecting such Lender or Issuing Bank or any lending office of such Lender or such Issuing Bank or such Lender's or such Issuing Bank's holding company, if any, regarding capital or liquidity requirements has had or would have the effect of reducing the rate of return on such Lender's or such Issuing Bank's capital or on the capital of such Lender's or such Issuing Bank's holding company, if any, as a consequence of this Agreement, the Commitments of such Lender or the Loans made by, or participations in Letters of Credit or Swingline Loans held by, such Lender, or the Letters of Credit issued by such Issuing Bank, to a level below that which such Lender or Issuing Bank or such Lender's or such Issuing Bank's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or such Issuing Bank's policies and the policies of such Lender's or such Issuing Bank's holding company with respect to capital adequacy and liquidity), then, from time to time following the request of such Lender or Issuing Bank (accompanied by a certificate in accordance with Section 2.14(c)), the Company will pay to such Lender or Issuing Bank, as the case may be, such additional amount or amounts as will compensate such Lender or Issuing Bank or such Lender's or such Issuing Bank's holding company for any such reduction suffered.

(c) A certificate of a Lender, Issuing Bank or other Recipient setting forth the basis for and, in reasonable detail (to the extent practicable), computation of the amount or amounts

necessary to compensate such Lender, Issuing Bank or other Recipient or its holding company, as the case may be, as specified in Section 2.14(a) or 2.14(b) shall be delivered to the Company and shall be conclusive absent manifest error. The Company shall pay such Lender, Issuing Bank or other Recipient, as the case may be, the amount shown as due on any such certificate within 10 days after receipt thereof. Notwithstanding the foregoing provisions of this Section 2.14, no Lender or Issuing Bank shall demand compensation for any increased cost or expense or reduction pursuant to the foregoing provisions of this Section 2.14 if it shall not at the time be the general policy or practice of such Lender or Issuing Bank to demand (to the extent it is entitled to do so) such compensation from similarly situated borrowers in similar circumstances under comparable provisions of other credit agreements.

(d) Failure or delay on the part of any Lender, Issuing Bank or other Recipient to demand compensation pursuant to this Section 2.14 shall not constitute a waiver of such Lender's, Issuing Bank's or other Recipient's right to demand such compensation; provided that the Company shall not be required to compensate a Lender, Issuing Bank or other Recipient pursuant to this Section 2.14 for any increased costs or expenses incurred or reductions suffered more than 180 days prior to the date that such Lender, Issuing Bank or other Recipient, as the case may be, notifies the Company of the Change in Law or other circumstance giving rise to such increased costs or expenses or reductions and of such Lender's, Issuing Bank's or other Recipient's intention to claim compensation therefor; provided further that, if the Change in Law or other circumstance giving rise to such increased costs or expenses or reductions is retroactive, then the 180-day period referred to above shall be extended to include the period of retroactive effect thereof.

(e) If any Lender determines that any Change in Law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for such Lender or the applicable lending office of such Lender to make, maintain or fund any Term SOFR Rate Loan or to charge interest with respect to any Loan, or to determine or charge interest rates, based upon the Term SOFR Rate, or any Governmental Authority has imposed material restrictions on the authority of such Lender to purchase or sell, or to take deposits of, dollars in the relevant interbank market, then, upon notice thereof by such Lender to the Company and the Administrative Agent, (i) any obligation of such Lender to make, maintain or fund any Term SOFR Rate Loan, or to continue any Term SOFR Rate Loan or convert any ABR Loan into a Term SOFR Rate Loan, or to charge interest with respect to any Loan, or to determine or charge interest rates, based upon SOFR, in each case, shall be suspended, and (ii) if such notice asserts the illegality of such Lender making or maintaining ABR Loans the interest rate on which is determined by reference to the Daily Simple SOFR component of the Alternate Base Rate, the interest rate on which ABR Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Daily Simple SOFR component of the Alternate Base Rate, in each case until such Lender notifies the Administrative Agent and the Company that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, (A) the Company shall, upon demand from such Lender (with a copy to the Administrative Agent) prepay or, if applicable, convert all Term SOFR Rate Loans of such Lender to ABR Loans (the interest rate on which ABR Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the Daily Simple SOFR component of the Alternate Base Rate), either on the last day of the Interest Period therefor, if such Lender may lawfully continue to maintain such Term SOFR Rate Loans to such day, or immediately, if such Lender

may not lawfully continue to maintain such Term SOFR Rate Loans and (B) if such notice asserts the illegality of such Lender determining or charging interest rates based upon SOFR, the Administrative Agent shall during the period of such suspension compute the Alternate Base Rate applicable to such Lender without reference to the Daily Simple SOFR component thereof until the Administrative Agent is advised in writing by such Lender that it is no longer illegal for such Lender to determine or charge interest rates based upon SOFR. Upon any such prepayment or conversion, the Company shall also pay accrued interest on the amount so prepaid or converted.

SECTION 2.15. Break Funding Payments. In the event of (a) the payment of any principal of any Term SOFR Rate Loan other than on the last day of an Interest Period applicable thereto (including as a result of an Event of Default), (b) the conversion of any Term SOFR Rate Loan other than on the last day of the Interest Period applicable thereto, (c) the failure to borrow, convert or continue any Term SOFR Rate Loan on the date specified in any notice delivered pursuant hereto (whether or not such notice may be revoked in accordance with the terms hereof), (d) the failure to prepay any Term SOFR Rate Loan on a date specified therefor in any notice of prepayment given by the Company (whether or not such notice may be revoked in accordance with the terms hereof) or (e) the assignment of any Term SOFR Rate Loan other than on the last day of the Interest Period applicable thereto as a result of a request by the Company pursuant to Section 2.18, then, in any such event, the Company shall compensate each requesting Lender for the loss, cost and expense attributable to such event (but not lost profits) following request of such Lender (accompanied by a certificate described below in this Section). Such loss, cost or expense to any Lender shall be deemed to include an amount determined by such Lender to be the excess, if any, of (i) the amount of interest that would have accrued on the principal amount of such Loan had such event not occurred, at the Term SOFR Rate that would have been applicable to such Loan (but not including the Applicable Rate applicable thereto), for the period from the date of such event to the last day of the then current Interest Period therefor (or, in the case of a failure to borrow, convert or continue, for the period that would have been the Interest Period for such Loan), over (ii) the amount of interest that would accrue on such principal amount for such period at the interest rate that such Lender would bid if it were to bid, at the commencement of such period, for dollar deposits of a comparable amount and period from other banks in the relevant interbank market. A certificate of any Lender delivered to the Company and setting forth the basis for and, in reasonable detail (to the extent practicable), computation of any amount or amounts that such Lender is entitled to receive pursuant to this Section shall be conclusive absent manifest error. The Company shall pay such Lender the amount shown as due on any such certificate within 10 days after receipt thereof.

SECTION 2.16. Taxes. (a) Payments Free of Taxes. Any and all payments by or on account of any obligation of the Company under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any applicable law (as determined in the good faith discretion of an applicable withholding agent) requires the deduction or withholding of any Tax from any such payment by a withholding agent, then the applicable withholding agent shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law and, if such Tax is an Indemnified Tax, then the sum payable by the Company shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under

this Section 2.16) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(b) Payment of Other Taxes by the Company. The Company shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Administrative Agent timely reimburse it for the payment of, any Other Taxes.

(c) Evidence of Payments. As soon as practicable after any payment of Taxes by the Company to a Governmental Authority pursuant to this Section 2.16, the Company shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(d) Indemnification by the Company. The Company shall indemnify each Recipient, within 10 days after written demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 2.16) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to the Company by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(e) Indemnification by the Lenders. Each Lender shall severally indemnify the Administrative Agent, within 10 days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that the Company has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Company to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 9.04(c)(ii) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this paragraph.

(f) Status of Lenders.

(i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document shall deliver to the Company and the Administrative Agent, at the time or times reasonably requested by the Company or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Company or the Administrative Agent as will

permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Company or the Administrative Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Company or the Administrative Agent as will enable the Company and the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Section 2.16(f)(ii)(A), 2.16(f)(ii)(B) and 2.16(f)(ii)(D)) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing:

(A) any Lender that is a U.S. Person shall deliver to the Company and the Administrative Agent on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Administrative Agent), executed originals of IRS Form W-9 certifying that such Lender is exempt from U.S. Federal backup withholding Tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Company and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Administrative Agent), whichever of the following is applicable:

(1) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, executed originals of IRS Form W-8BEN-E or IRS Form W-8BEN, as applicable, establishing an exemption from, or reduction of, Taxes pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, executed originals of IRS Form W-8BEN-E or IRS Form W-8BEN, as applicable, establishing an exemption from, or reduction of, Taxes pursuant to the "business profits" or "other income" article of such tax treaty;

(2) executed originals of IRS Form W-8ECI;

(3) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) executed originals of a certificate substantially in the form of Exhibit F-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent

shareholder" of the Company within the meaning of Section 881(c)(3)(B) of the Code or a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) executed originals of IRS Form W-8BEN-E or IRS Form W-8BEN, as applicable; or

(4) to the extent a Foreign Lender is not the beneficial owner, executed originals of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN-E, IRS Form W-8BEN, as applicable, a U.S. Tax Compliance Certificate substantially in the form of Exhibit F-2 or Exhibit F-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit F-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Company and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Company or the Administrative Agent), executed originals of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. Federal withholding Taxes, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit the Company or the Administrative Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under any Loan Document would be subject to Taxes imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Company and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Company or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Company or the Administrative Agent as may be necessary for the Company and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Company and the Administrative Agent in writing of its legal inability to do so.

(g) Treatment of Certain Refunds. If any indemnified party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 2.16 (including by the payment of additional amounts pursuant to this Section 2.16), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section 2.16 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this paragraph (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph, in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this paragraph the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(h) Survival. Each party's obligations under this Section 2.16 shall survive the resignation or replacement of the Administrative Agent or any assignment of rights by, or the replacement of, a Lender, the termination of the Commitments and the repayment, satisfaction or discharge of all obligations under any Loan Document.

(i) Defined Terms. For purposes of this Section 2.16, the term "Lender" includes any Issuing Bank and the term "applicable law" includes FATCA.

SECTION 2.17. Payments Generally; Pro Rata Treatment; Sharing of Setoffs. (a) The Company shall make each payment required to be made by it hereunder or under any other Loan Document prior to the time required hereunder or under such other Loan Document for such payment (or, if no such time is expressly required, prior to 1:00 p.m., New York City time), on the date when due, in immediately available funds, without any defense, setoff, recoupment or counterclaim. Any amounts received after such time on any date may, in the discretion of the Administrative Agent, be deemed to have been received on the next succeeding Business Day for purposes of calculating interest thereon. All such payments shall be made to such account as may be specified by the Administrative Agent, except payments to be made directly to any Issuing Bank or any Swingline Lender shall be so made and except that payments pursuant to Section 2.14, 2.15, 2.16 and 9.03 shall be made directly to the Persons entitled thereto and payments pursuant to other Loan Documents shall be made to the Persons specified therein. The Administrative Agent shall distribute any such payment received by it for the account of any other Person to the appropriate recipient promptly following receipt thereof. All payments under each Loan Document shall be made in dollars. Any payment required to be made by the Administrative Agent hereunder shall be deemed to have been made by the time required if the Administrative Agent shall, at or before such time, have taken the necessary steps to make such payment in accordance with the regulations

or operating procedures of the clearing or settlement system used by the Administrative Agent to make such payment.

(b) If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, unreimbursed LC Disbursements, interest and fees then due hereunder, such funds shall be applied (i) first, towards payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, towards payment of principal and unreimbursed LC Disbursements then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal and unreimbursed LC Disbursements then due to such parties.

(c) If any Lender shall, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of any principal of or interest on any of its Loans or participations in LC Disbursements or Swingline Loans resulting in such Lender receiving payment of a greater proportion of the aggregate amount of its Loans or participations in LC Disbursements or Swingline Loans and accrued interest thereon than the proportion received by any other Lender, then the Lender receiving such greater proportion shall notify the Administrative Agent of such fact and shall purchase (for cash at face value) participations in the Loans and participations in LC Disbursements and Swingline Loans of other Lenders to the extent necessary so that the amount of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amounts of principal of and accrued interest on their Loans and participations in LC Disbursements and Swingline Loans; provided that (i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations shall be rescinded and the purchase price restored to the extent of such recovery, without interest, and (ii) the provisions of this paragraph shall not be construed to apply to any payment made by the Company pursuant to and in accordance with the express terms of this Agreement (for the avoidance of doubt, as in effect from time to time), including pursuant to Section 2.14(e), 2.19 or 2.22(e), or any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or participations in LC Disbursements or Swingline Loans to any Person that is an Eligible Assignee (as such term is defined herein from time to time). The Company consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against the Company rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of the Company in the amount of such participation.

(d) Unless the Administrative Agent shall have received notice from the Company prior to the date on which any payment is due to the Administrative Agent for the account of the Lenders or the Issuing Banks hereunder that the Company will not make such payment, the Administrative Agent may assume that the Company has made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the applicable Lenders or Issuing Banks, as the case may be, the amount due. In such event, if the Company has not in fact made such payment, then each of the applicable Lenders or Issuing Banks, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or such Issuing Bank with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the

Administrative Agent at the greater of the Federal Funds Effective Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

(e) If any Lender shall fail to make any payment required to be made by it to or for the account of the Administrative Agent, any Issuing Bank or any Swingline Lender, then the Administrative Agent may, in its discretion (notwithstanding any contrary provision hereof), (i) apply any amounts thereafter received by the Administrative Agent for the account of such Lender to satisfy such Lender's obligations in respect of such payment until all such unsatisfied obligations have been discharged or (ii) hold any such amounts in a segregated account as cash collateral for, and application to, any future funding obligations of such Lender hereunder, in the case of each of clause (i) and (ii) above, in any order as shall be determined by the Administrative Agent in its discretion.

SECTION 2.18. Mitigation Obligations; Replacement of Lenders. (a) If any Lender requests compensation under Section 2.14, or if the Company is required to pay any Indemnified Taxes or additional amounts to any Lender or to any Governmental Authority for the account of any Lender pursuant to Section 2.16, then such Lender shall (at the request of the Company) use commercially reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign and delegate its rights and obligations hereunder to another of its offices, branches or Affiliates, if, in the judgment of such Lender, such designation or assignment and delegation (i) would eliminate or reduce amounts payable pursuant to Section 2.14 or 2.16, as the case may be, in the future and (ii) would not subject such Lender to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender. The Company hereby agrees to pay all reasonable costs and expenses incurred by any Lender in connection with any such designation or assignment and delegation within 10 days following the written request of such Lender (accompanied by reasonable (to the extent practicable) back-up documentation relating thereto).

(b) If (i) any Lender requests compensation under Section 2.14, (ii) the Company is required to pay any Indemnified Taxes or additional amounts to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.16, (iii) any Lender has become a Defaulting Lender, (iv) any Lender has failed to consent to a proposed amendment, waiver, consent, discharge or termination or other event that under Section 9.02 requires the consent of more than the Required Lenders (or, in circumstances where Section 9.02 does not require the consent of the Required Lenders, more than a Majority in Interest of Lenders of an affected Class) and with respect to which the Required Lenders (or, in circumstances where Section 9.02 does not require the consent of the Required Lenders, a Majority in Interest of the Lenders of the applicable affected Class) shall have granted their consent or (v) any Lender becomes a Non-Extending Lender, then the Company may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in Section 9.04, it being understood that the processing and recordation fee referred to in such Section shall be paid by the Company or the assignee as and to the extent such processing and recordation fee is required to be paid pursuant to Section 9.04(b)(ii)(C) (and the assignor Lender shall not be responsible therefor)), all its interests, rights (other than its existing rights to payments pursuant to Section 2.14 or 2.16) and obligations under this Agreement and the other Loan Documents (or, in the case of any such assignment and delegation resulting from a failure to provide a consent, all its interests,

rights and obligations under this Agreement and the other Loan Documents as a Lender of a particular Class) to an Eligible Assignee that shall assume such obligations (which may be another Lender, if a Lender accepts such assignment and delegation); provided that (A) the Company shall have received, to the extent such consent would be required by Section 9.04, the prior written consent of the Administrative Agent, each Issuing Bank and each Swingline Lender, which consent shall not be unreasonably withheld, delayed or conditioned, (B) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and, if applicable, participations in LC Disbursements and Swingline Loans, accrued interest thereon, accrued fees and all other amounts payable to it hereunder (if applicable, in each case only to the extent such amounts relate to its interest as a Lender of a particular Class) from the assignee (in the case of such principal and accrued interest and fees) or the Company (in the case of all other amounts), (C) in the case of any such assignment and delegation resulting from a claim for compensation under Section 2.14 or payments required to be made pursuant to Section 2.16, such assignment will result in a reduction in such compensation or payments, (D) such assignment does not conflict with applicable law and (E) in the case of any such assignment and delegation resulting from the failure to provide a consent, the assignee shall have given such consent and, as a result of such assignment and delegation and any contemporaneous assignments and delegations and consents, the applicable amendment, waiver, consent, discharge, termination or other event can be effected. A Lender shall not be required to make any such assignment and delegation if, prior thereto, as a result of a waiver or consent by such Lender or otherwise, the circumstances entitling the Company to require such assignment and delegation have ceased to apply. Each party hereto agrees that an assignment and delegation required pursuant to this paragraph may be effected pursuant to an Assignment and Assumption executed by the Company, the Administrative Agent and the assignee and that the Lender required to make such assignment and delegation need not be a party thereto.

SECTION 2.19. Extension of Maturity Date.

(a) At any time following the Effective Date, the Company may, upon notice to the Administrative Agent (which shall promptly notify the Lenders), request a one-year extension of the Maturity Date then in effect (the Maturity Date in effect at such time being the "Existing Maturity Date", and the extension thereof being a "Maturity Date Extension"); provided that (i) such request may be made on not more than two occasions during the term of this Agreement and (ii) after giving effect to any Maturity Date Extension, the Maturity Date shall be no later than the date that is five years after the applicable Extension Effective Date. Within 10 days of delivery of such notice, each Lender shall notify the Administrative Agent whether or not it consents to such extension (which consent may be given or withheld in such Lender's sole and absolute discretion). Any Lender not responding within the above time period shall be deemed not to have consented to such extension. The Administrative Agent shall promptly notify the Company of the Lenders' responses.

(b) The Maturity Date shall be extended, as of the applicable Extension Effective Date, only if the Required Lenders (calculated excluding, for the avoidance of doubt, any Defaulting Lender and after giving effect to any replacements of Lenders permitted herein) have consented thereto (the Lenders that so consent being the "Extending Lenders", and the Lenders that do not consent being the "Non-Extending Lenders"). If so extended, the Maturity Date, as to the Extending Lenders, shall be extended to the same date in the year following the applicable Existing Maturity Date. The Administrative Agent and the Company shall promptly

notify the Lenders that the Required Lenders (calculated as set forth above) have consented to any Maturity Date Extension and notify the Lenders of the date of the closing and effectiveness of such Maturity Date Extension (such date being an "Extension Effective Date") and the Maturity Date after giving effect to such Maturity Date Extension; provided that no Maturity Date Extension shall become effective unless (i) no Default or Event of Default shall have occurred and be continuing on the applicable Extension Effective Date, both immediately prior to and immediately after giving effect to such Maturity Date Extension and the making of Loans and issuance of Letters of Credit thereunder to be made on such date, (ii) on the Extension Effective Date, the representations and warranties of the Company set forth in the Loan Documents shall be true and correct (A) in the case of the representations and warranties qualified as to materiality, Material Adverse Effect or similar language, in all respects (after giving effect to such qualification) and (B) otherwise, in all material respects, in each case on and as of such date, except in the case of any such representation and warranty that expressly relates to a prior date, in which case such representation and warranty shall be so true and correct on and as of such prior date, and (iii) the Company shall have delivered to the Administrative Agent such board resolutions, secretary's certificates, officer's certificates and good standing certificates (to the extent such concept is applicable in the applicable jurisdiction) as shall reasonably be requested by the Administrative Agent in connection with such Maturity Date Extension. The Administrative Agent may, without the consent of any Lender (but with the consent of the Company), effect such amendments to this Agreement and the other Loan Documents as may be necessary or appropriate, in the opinion of the Administrative Agent, to give effect to the provisions of this Section 2.19.

(c) The principal amount of any outstanding Loans made by any Non-Extending Lenders, together with accrued interest thereon and any accrued fees and other amounts (including pursuant to Section 2.15) payable to or for the account of such Non-Extending Lenders hereunder, shall be due and payable on the applicable Existing Maturity Date, and the Company shall make such other prepayment of Loans outstanding on the applicable Existing Maturity Date (and pay any additional amounts required pursuant to Section 2.15) to the extent necessary to keep outstanding Loans ratable with any revised and new Applicable Percentages of all the Lenders effective as of the applicable Existing Maturity Date. For the avoidance of doubt, on the applicable Existing Maturity Date, the Credit Exposures and the Applicable Percentages of all the Lenders shall automatically (without any further action) be adjusted to give effect to such Maturity Date Extension. Notwithstanding the foregoing, the Maturity Date and the Availability Period, as such terms are used in reference to any Issuing Bank or any Letter of Credit issued by such Issuing Bank or in reference to any Swingline Lender or any Swingline Loans made by such Swingline Lender, may not be extended with respect to any Issuing Bank or Swingline Lender without the prior written consent of such Issuing Bank or Swingline Lender (such consent to be withheld or provided in its sole and absolute discretion), as applicable (it being understood and agreed that, in the event any Issuing Bank or Swingline Lender, as applicable, shall not have consented to any Maturity Date Extension, (A) such Issuing Bank shall continue to have all the rights and obligations of an Issuing Bank hereunder, and such Swingline Lender shall continue to have all the rights and obligations of a Swingline Lender hereunder, in each case through the applicable Existing Maturity Date (or the Availability Period determined on the basis thereof, as applicable), and thereafter shall have no obligation to issue, amend, renew or extend any Letter of Credit or make any Swingline Loan, as applicable (but shall continue to have all the rights of an Issuing Bank or Swingline Lender, as the case may be, under this Agreement with respect to Letters of Credit issued by it or Swingline Loans made by it, as applicable, prior to such time), and (B) the

Company shall cause the LC Exposure attributable to Letters of Credit issued by such Issuing Bank to be zero no later than the day on which such LC Exposure would have been required to have been reduced to zero in accordance with the terms hereof without giving effect to such Maturity Date Extension (and, in any event, no later than the applicable Existing Maturity Date) and shall repay the principal amount of all outstanding Swingline Loans made by such Swingline Lender, together with any accrued interest thereon, on the applicable Existing Maturity Date.

SECTION 2.20. Defaulting Lenders. Notwithstanding any provision of this Agreement to the contrary, if any Lender becomes a Defaulting Lender, then the following provisions shall apply for so long as such Lender is a Defaulting Lender:

(a) the Commitment Fee shall cease to accrue on the unused amount of the applicable Commitment of such Defaulting Lender pursuant to Section 2.11(a) or 2.11(b), as applicable;

(b) the Commitments and Credit Exposure of such Defaulting Lender shall not be included in determining whether the Required Lenders or any other requisite Lenders have taken or may take any action hereunder or under any other Loan Document (including any consent to any amendment, waiver or other modification pursuant to Section 9.02); provided that any amendment, waiver or other modification requiring the consent of all Lenders or all Lenders affected thereby shall, except as otherwise provided in Section 9.02(c)(ii), require the consent of such Defaulting Lender in accordance with the terms hereof;

(c) if any Swingline Exposure or LC Exposure exists at the time any Revolving Credit Lender becomes a Defaulting Lender, then:

(i) the Swingline Exposure (other than any portion thereof with respect to which such Defaulting Lender shall have funded its participation as contemplated by Section 2.04(c)) and LC Exposure of such Defaulting Lender (other than any portion thereof attributable to unreimbursed LC Disbursements with respect to which such Defaulting Lender shall have funded its participation as contemplated by Sections 2.05(d) and 2.05(f)) shall be reallocated among the Revolving Credit Lenders that are Non-Defaulting Lenders in accordance with their respective Applicable Percentages but only to the extent that (A) the sum of all Non-Defaulting Lenders' Credit Exposures plus such Defaulting Lender's Swingline Exposure (excluding the portion thereof referred to above) and LC Exposure (excluding the portion thereof referred to above) does not exceed the sum of all Non-Defaulting Lenders' Revolving Credit Commitments and (B) such reallocation does not result in the Credit Exposure of any Non-Defaulting Lender exceeding such Non-Defaulting Lender's Revolving Credit Commitment;

(ii) if the reallocation described in clause (i) above cannot, or can only partially, be effected, the Company shall within one Business Day following written notice by the Administrative Agent (A) first, prepay the portion of such Defaulting Lender's Swingline Exposure (other than any portion thereof referred to in the parenthetical in such clause (i)) that has not been reallocated as set forth in such clause and (B) second, cash collateralize for the benefit of the Issuing Banks the portion of such Defaulting Lender's LC Exposure (other than any portion thereof referred to in the parenthetical in such clause (i)) that has

not been reallocated as set forth in such clause in accordance with the procedures set forth in Section 2.05(n) for so long as such LC Exposure is outstanding;

(iii) if the Company cash collateralizes any portion of such Defaulting Lender's LC Exposure pursuant to clause (ii) above, the Company shall not be required to pay LC Participation Fees to such Defaulting Lender pursuant to Section 2.11(c) with respect to such portion of such Defaulting Lender's LC Exposure for so long as such Defaulting Lender's LC Exposure is cash collateralized;

(iv) if any portion of the LC Exposure of such Defaulting Lender is reallocated pursuant to clause (i) above, then the fees payable to the Revolving Credit Lenders pursuant to Sections 2.11(a) and 2.11(c) shall be adjusted to give effect to such reallocation; and

(v) if all or any portion of such Defaulting Lender's LC Exposure that is subject to reallocation pursuant to clause (i) above is neither reallocated nor cash collateralized pursuant to clause (i) or (ii) above, then, without prejudice to any rights or remedies of any Issuing Bank or any other Lender hereunder, all LC Participation Fees that otherwise would have been payable pursuant to Section 2.11(c) to such Defaulting Lender with respect to such portion of such Defaulting Lender's LC Exposure shall be payable to the Issuing Banks (and allocated among them ratably based on the amount of such portion of the LC Exposure of such Defaulting Lender attributable to Letters of Credit issued by each Issuing Bank) until and to the extent that such LC Exposure is reallocated and/or cash collateralized; and

(d) if such Lender is a Revolving Credit Lender, then so long as such Lender is a Defaulting Lender, no Swingline Lender shall be required to fund any Swingline Loan and no Issuing Bank shall be required to issue, amend, renew or extend any Letter of Credit, unless, in each case, it is satisfied that the related exposure and such Defaulting Lender's then outstanding Swingline Exposure or LC Exposure will be fully covered by the Revolving Credit Commitments of the Non-Defaulting Lenders and/or cash collateral will be provided by the Company in accordance with paragraph (c) of this Section, and participating interests in any such funded Swingline Loan or in any such issued, amended, renewed or extended Letter of Credit will be allocated among the Revolving Credit Lenders that are Non-Defaulting Lenders in a manner consistent with clause (c)(i) above (and such Defaulting Lender shall not participate therein).

In the event that (x) a Bankruptcy Event or a Bail-In Action with respect to a Lender Parent of any Revolving Credit Lender shall occur following the Effective Date and for so long as such event shall continue or (y) any Swingline Lender or any Issuing Bank has a good faith belief that any Revolving Credit Lender has defaulted in fulfilling its obligations under one or more other agreements in which such Lender commits to extend credit, no Swingline Lender shall be required to fund any Swingline Loan and no Issuing Bank shall be required to issue, amend, renew or extend any Letter of Credit, unless, in each case, such Swingline Lender or such Issuing Bank shall have entered into arrangements with the Company or such Lender satisfactory to such Swingline Lender or such Issuing Bank, as the case may be, to defease any risk to it in respect of such Lender hereunder.

In the event that the Administrative Agent, the Company, each Swingline Lender and each Issuing Bank each agree that a Defaulting Lender that is a Revolving Credit Lender has adequately remedied all matters that caused such Lender to be a Defaulting Lender (but for the avoidance of doubt, (x) such Lender shall not be entitled to receive any Commitment Fees accrued during the period when it was a Defaulting Lender and (y) all amendments, waivers or modifications effected without its consent in accordance with the provisions of Section 9.02 and this Section 2.20 during such period shall be binding on it), then the Swingline Exposure and LC Exposure of the Revolving Credit Lenders shall be readjusted to reflect the inclusion of such Lender's Revolving Credit Commitment and on such date such Lender shall purchase at par such of the Revolving Credit Loans of the other Lenders as the Administrative Agent shall determine may be necessary in order for such Lender to hold such Loans in accordance with its Applicable Percentage. The rights and remedies against, and with respect to, a Defaulting Lender under this Section 2.20 are in addition to, and cumulative and not in limitation of, all other rights and remedies that the Administrative Agent, any Issuing Bank, any Swingline Lender, any other Lender or the Company may at any time have against, or with respect to, such Defaulting Lender.

SECTION 2.21. Sustainability Adjustments.

(a) Effective as of the November 1 following receipt by the Administrative Agent of a Sustainability Certificate delivered pursuant to Section 2.21(e) (such day, the "Sustainability Pricing Adjustment Date") in respect of the most recently ended Reference Year, commencing with the Reference Year ending December 31, 2022, (i) the Applicable Rate for Loans shall be increased or decreased (or neither increased nor decreased), as applicable, pursuant to the Sustainability Rate Adjustment as set forth in such Sustainability Certificate, and (ii) the Applicable Rate for Commitment Fees shall be increased or decreased (or neither increased nor decreased), as applicable, pursuant to the Sustainability Commitment Fee Adjustment as set forth in such Sustainability Certificate. Each change in the Applicable Rate for Loans and the Applicable Rate for Commitment Fees resulting from a Sustainability Certificate shall be effective during the period commencing on and including the applicable Sustainability Pricing Adjustment Date and ending on the date immediately preceding the next such Sustainability Pricing Adjustment Date.

(b) In the event the Company does not deliver a Sustainability Certificate within the period set forth in Section 2.21(e) or any Sustainability Certificate shall be incomplete and fail to include the Sustainability Rate Adjustment and the Sustainability Commitment Fee Adjustment and calculations in reasonable detail of the KPI Metrics, (i) for the Reference Year ending December 31, 2022, the Sustainability Rate Adjustment will be positive 0.04% and the Sustainability Commitment Fee Adjustment will be positive 0.008% and (ii) for any Reference Year ending thereafter, the Sustainability Rate Adjustment will be positive 0.05% and the Sustainability Commitment Fee Adjustment will be positive 0.01%, in each case, commencing on the fifth Business Day following the last day such Sustainability Certificate should have been delivered pursuant to the terms of Section 2.21(e) and continuing until the fifth Business Day following receipt by the Administrative Agent of a complete Sustainability Certificate for such Reference Year.

(c) For the avoidance of doubt, only one Sustainability Certificate may be delivered in respect of any Reference Year and any adjustment to the Applicable Rate for Loans

and/or the Applicable Rate for Commitment Fees by reference to any of the KPI Metrics in any year shall not be cumulative year-over-year. Each applicable adjustment shall only apply until the date on which the next adjustment is to occur. It is further understood and agreed that (i) the Applicable Rate for Loans will never be reduced or increased by more than 0.04% and that the Applicable Rate for Commitment Fees will never be reduced or increased by more than 0.008% for the Reference Year ending December 31, 2022, and (ii) the Applicable Rate for Loans will never be reduced or increased by more than 0.05% and that the Applicable Rate for Commitment Fees will never be reduced or increased by more than 0.01% for any Reference Year ending thereafter, in each case, pursuant to the Sustainability Rate Adjustment and the Sustainability Commitment Fee Adjustment; provided that, and notwithstanding anything to the contrary in this Agreement (including any provision of Section 9.02(b) requiring the consent of "each directly and adversely affected Lender" for reductions in interest rates), the definitions of "KPI 1", "KPI 1 Applicable Rate Adjustment Amount", "KPI 1 Commitment Fee Adjustment Amount", " KPI 1 Target A", "KPI 1 Threshold A", "KPI 2", "KPI 2 Applicable Rate Adjustment Amount", "KPI 2 Commitment Fee Adjustment Amount", " KPI 2 Target B", and the Sustainability Table may be amended or otherwise modified with the consent of the Company, the Administrative Agent and the Required Lenders (in consultation with the Sustainability Structuring Agent); provided, however, for the avoidance of doubt, any changes to the Applicable Rate for Loans pursuant to any Sustainability Rate Adjustment and the Applicable Rate for Commitment Fees pursuant to the Sustainability Commitment Fee Adjustment in excess of the amounts set forth above shall be subject to the consent of each directly and adversely affected Lender in accordance with Section 9.02(b).

(d) If (i)(A) the Administrative Agent, the Sustainability Structuring Agent or any Lender becomes aware of any material inaccuracy in the Sustainability Rate Adjustment, the Sustainability Commitment Fee Adjustment or the KPI Metrics as reported in any Sustainability Certificate (any such material inaccuracy, a "Sustainability Certificate Inaccuracy") and the Administrative Agent shall notify the Sustainability Structuring Agent and the Lenders, or the Sustainability Structuring Agent or such Lender, as applicable, delivers, not later than ten (10) Business Days after obtaining knowledge thereof, a written notice to the Administrative Agent describing such Sustainability Certificate Inaccuracy in reasonable detail (which description shall be shared with the Company, and, as applicable, the Sustainability Structuring Agent), or (B) the Company becomes aware of a Sustainability Certificate Inaccuracy and delivers notice thereof to the Administrative Agent and the Sustainability Structuring Agent, and (ii) a proper calculation of the Sustainability Rate Adjustment, Sustainability Commitment Fee Adjustment or the KPI Metrics would have resulted in no adjustment or an increase in the Applicable Rate for Loans and/or the Applicable Rate for Commitment Fees for any applicable period, (x) commencing on the fifth Business Day following delivery of a corrected Sustainability Certificate to the Administrative Agent and the Sustainability Structuring Agent, the Applicable Rate for Loans and/or the Applicable Rate for Commitment Fees shall be adjusted to reflect such corrected calculations of the Sustainability Rate Adjustment and the Sustainability Commitment Fee Adjustment and (y) the Company shall be obligated to pay to the Administrative Agent for the account of the applicable Lenders or the applicable Issuing Banks, as the case may be, promptly on demand by the Administrative Agent (or, after the occurrence of an actual or deemed entry of an order for relief with respect to the Company under any Debtor Relief Laws, automatically and without further action by the Administrative Agent, any Lender or any Issuing Bank), but in any event within ten (10) Business Days after the Company has received written notice of, or has

determined that there was, a Sustainability Certificate Inaccuracy, an amount equal to the excess of (1) the amount of interest and fees that should have been paid for such period over (2) the amount of interest and fees actually paid for such period. It is understood and agreed that any Sustainability Certificate Inaccuracy shall not constitute a Default or Event of Default or otherwise result in the failure of any condition precedent to any advance or the issuance of any Letter of Credit; provided, that, the Company complies with the terms of this Section 2.21(d) with respect to such Sustainability Certificate Inaccuracy. Notwithstanding anything to the contrary herein, unless such amounts shall be due upon the occurrence of an actual or deemed entry of an order for relief with respect to the Company under any Debtor Relief Laws, (x) any additional amounts required to be paid pursuant to the immediately preceding paragraph shall not be due and payable until the earlier to occur of (I) a written demand is made for such payment by the Administrative Agent in accordance with such paragraph or (II) 10 Business Days after the Company has received written notice of, or has determined that there was, a Sustainability Certificate Inaccuracy (such date, the "Certificate Inaccuracy Payment Date"), (y) any nonpayment of such additional amounts prior to the Certificate Inaccuracy Payment Date shall not constitute a Default or Event of Default (whether retroactively or otherwise) and (z) none of such additional amounts shall be deemed overdue prior to the Certificate Inaccuracy Payment Date or shall accrue interest at the default rate pursuant to Section 2.12 prior to the Certificate Inaccuracy Payment Date.

(e) As soon as available and in any event by the October 31st after the end of each fiscal year of the Company (commencing with the fiscal year ending December 31, 2022), the Company shall deliver to the Administrative Agent, the Sustainability Structuring Agent and the Lenders, in form and detail satisfactory to the Administrative Agent and the Required Lenders (in consultation with the Sustainability Structuring Agent) a Sustainability Certificate for the most recently-ended Reference Year; provided, that, for any Reference Year the Company may elect not to deliver a Sustainability Certificate, and such election shall not constitute a Default or Event of Default (but such failure to so deliver a Sustainability Certificate by the end of such period shall result in the Sustainability Rate Adjustment being applied as set forth in Section 2.21(b)). In the event the Company's fiscal year is changed to a non-calendar year fiscal year, the Company will be permitted to adjust the timing of delivery of the Sustainability Certificate at its election in a manner intended to maintain consistency with the foregoing.

(f) If, after the date hereof, there occurs any material acquisition or divestiture, extraordinary or extreme event, material change in the regulatory environment, or otherwise (a "Sustainability Modification Event"), and the Company notifies the Administrative Agent and the Sustainability Structuring Agent in writing that the Company requests an adjustment to Schedule 2.21 or an amendment to any provision hereof to account for the effect of such Sustainability Modification Event (or if the Administrative Agent notifies the Company that the Required Lenders request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such Sustainability Modification Event, then (i) the Company and the Administrative Agent (in consultation with the Sustainability Structuring Agent) shall negotiate in good faith to agree to adjust to Schedule 2.21 or amend the provisions hereof to account for the effect of such Sustainability Modification Event, and the provisions of this Agreement shall be interpreted on the basis of the provisions in effect and applied immediately prior to such Sustainability Modification Event for a period of not more than 30 days (unless the provisions hereof shall have been amended in accordance herewith or such notice shall have been withdrawn). If, after 30 days following any such notice, the agreement to such amendment of the

Company, the Administrative Agent and the requisite Lenders under Section 9.02(b) has not been obtained, there will cease to be any Sustainability Rate Adjustment and any Sustainability Commitment Fee Adjustment until such time as the parties hereto can agree upon any such adjustments in accordance with the terms hereof and during such period (i) the credit facility described in this Agreement shall cease to be a sustainability-linked loan and (ii) no party to this Agreement shall, without the prior written consent of the Administrative Agent, the Company and the Sustainability Structuring Agent, make any public or private representations or description of the credit facility described in this Agreement as a sustainability-linked loan.

SECTION 2.22. Incremental Revolving Credit Commitments and Loans.

(a) The Company may on one or more occasions, from time to time, by written notice to the Administrative Agent, and without the consent of any Lender, request the establishment of Incremental Revolving Credit Commitments, provided that the aggregate amount of all the Incremental Revolving Credit Commitments established during the term of this Agreement shall not exceed the Incremental Facility Cap. Each such notice shall specify (i) the date on which the Company proposes that the Incremental Revolving Credit Commitments shall be effective, which shall be a date not less than five Business Days (or such shorter period as may be acceptable to the Administrative Agent) after the date on which such notice is delivered to the Administrative Agent, and (ii) the amount of the Incremental Revolving Credit Commitments being requested (it being agreed that (A) any Lender approached to provide any Incremental Revolving Credit Commitment may elect or decline, in its sole discretion, to provide such Incremental Revolving Credit Commitment and (B) any Person that the Company proposes to become an Incremental Revolving Credit Lender, if such Person is not then a Lender, must be an Eligible Assignee and must be approved by the Administrative Agent, each Issuing Bank and each Swingline Lender (such approval, in each case, not to be unreasonably withheld, delayed or conditioned).

(b) The terms and conditions of any Incremental Revolving Credit Commitment and the Loans and other extensions of credit to be made thereunder shall be identical to those, and shall be treated as a single Class with, the Revolving Credit Commitments and the Revolving Credit Loans and other extensions of credit made thereunder; provided that, if the Company determines to increase the interest rate or fees payable in respect of Incremental Revolving Credit Commitments or Loans and other extensions of credit made thereunder, such increase shall be permitted if the interest rate or fees payable in respect of the then existing Revolving Credit Commitments or Loans and other extensions of credit made thereunder, as applicable, shall be increased to equal such interest rate or fees payable in respect of such Incremental Revolving Credit Commitments or Loans and other extensions of credit made thereunder, as the case may be.

(c) The Incremental Revolving Credit Commitments shall be effected pursuant to one or more Incremental Facility Agreements executed and delivered by the Company, each Incremental Revolving Credit Lender providing such Incremental Revolving Credit Commitments and the Administrative Agent; provided that no Incremental Revolving Credit Commitments shall become effective unless (i) no Default or Event of Default shall have occurred and be continuing on the date of effectiveness thereof, both immediately prior to and immediately after giving effect to such Incremental Revolving Credit Commitments and the making of Loans and issuance of

Letters of Credit thereunder to be made on such date, (ii) on the date of the effectiveness thereof, the representations and warranties of the Company set forth in the Loan Documents shall be true and correct (A) in the case of the representations and warranties qualified as to materiality, Material Adverse Effect or similar language, in all respects (after giving effect to such qualification) and (B) otherwise, in all material respects, in each case on and as of such date of effectiveness, except in the case of any such representation and warranty that expressly relates to a prior date, in which case such representation and warranty shall be so true and correct on and as of such prior date and (iii) the Company shall have delivered to the Administrative Agent such legal opinions, board resolutions, secretary's certificates, officer's certificates and good standing certificates (to the extent such concept is applicable in the applicable jurisdiction) as shall reasonably be requested by the Administrative Agent in connection with any such transaction. Each Incremental Facility Agreement may, without the consent of any Lender (but with the consent of the Company), effect such amendments to this Agreement and the other Loan Documents as may be necessary or appropriate, in the opinion of the Administrative Agent, to give effect to the provisions of this Section 2.22.

(d) Upon the effectiveness of an Incremental Revolving Credit Commitment of any Incremental Revolving Credit Lender, (i) such Incremental Revolving Credit Lender, if not already a Lender, shall be deemed to be a "Lender" (and a Lender in respect of Revolving Credit Commitments and Revolving Credit Loans) hereunder, and shall be entitled to all the rights of, and benefits accruing to, Lenders (or Lenders in respect of Revolving Credit Commitments and Revolving Credit Loans) hereunder and under the other Loan Documents and shall be bound by all agreements, acknowledgements and other obligations of Lenders (or Lenders in respect of Revolving Credit Commitments and Revolving Credit Loans) hereunder and under the other Loan Documents, (ii) such Incremental Revolving Credit Commitment shall constitute (or, in the event such Incremental Revolving Credit Lender already has a Revolving Credit Commitment, shall increase) the Revolving Credit Commitment of such Incremental Revolving Credit Lender and (B) the Total Revolving Credit Commitments shall be increased by the amount of such Incremental Revolving Credit Commitment, in each case, subject to further increase or reduction from time to time as provided herein. For the avoidance of doubt, upon the effectiveness of any Incremental Revolving Credit Commitment, the Credit Exposures and the Applicable Percentages of all the Lenders shall automatically be adjusted to give effect thereto.

(e) On the date of effectiveness of any Incremental Revolving Credit Commitments, (i) the aggregate outstanding principal amount of the Revolving Credit Loans made to the Company (the "Existing Borrowings") immediately prior to the effectiveness of such Incremental Revolving Credit Commitments shall be deemed to be repaid, (ii) each Incremental Revolving Credit Lender that shall have had a Revolving Credit Commitment immediately prior to the effectiveness of such Incremental Revolving Credit Commitments shall pay to the Administrative Agent in same day funds an amount equal to the difference between (A) the product of (1) such Lender's Applicable Percentage (calculated after giving effect to the effectiveness of such Incremental Revolving Credit Commitments) multiplied by (2) the aggregate amount of the Resulting Borrowings and (B) the product of (1) such Lender's Applicable Percentage (calculated without giving effect to the effectiveness of such Incremental Revolving Credit Commitments) multiplied by (2) the aggregate amount of the Existing Borrowings, (iii) each Incremental Revolving Credit Lender that shall not have had a Revolving Credit Commitment prior to the effectiveness of such Incremental Revolving Credit Commitments shall pay to Administrative

Agent in same day funds an amount equal to the product of (1) such Lender's Applicable Percentage (calculated after giving effect to the effectiveness of such Incremental Revolving Credit Commitments) multiplied by (2) the aggregate amount of the Resulting Borrowings, (iv) after the Administrative Agent receives the funds specified in clauses (ii) and (iii) above, the Administrative Agent shall pay to each Lender the portion of such funds that is equal to the difference between (A) the product of (1) such Lender's Applicable Percentage (calculated without giving effect to the effectiveness of such Incremental Revolving Credit Commitments) multiplied by (2) the aggregate amount of the Existing Borrowings, and (B) the product of (1) such Lender's Applicable Percentage (calculated after giving effect to the effectiveness of such Incremental Revolving Credit Commitments) multiplied by (2) the aggregate amount of the Resulting Borrowings, (v) after the effectiveness of such Incremental Revolving Credit Commitments, the Company shall be deemed to have made new Revolving Credit Borrowings (the "Resulting Borrowings") in an aggregate amount equal to the aggregate amount of the Company's Existing Borrowings and of the Types and for the Interest Periods specified in a Borrowing Request delivered by the Company to the Administrative Agent in accordance with Section 2.03, (vi) each Lender shall be deemed to hold its Applicable Percentage of each Resulting Borrowing (calculated after giving effect to the effectiveness of such Incremental Revolving Credit Commitments) and (vii) the Company shall pay each Lender any and all accrued but unpaid interest on its Loans comprising the Existing Borrowings. The deemed payments of the Existing Borrowings made pursuant to clause (i) above shall be subject to compensation by the Company pursuant to the provisions of Section 2.15 if the date of the effectiveness of such Incremental Revolving Credit Commitments occurs other than on the last day of the Interest Period relating thereto.

(f) The Administrative Agent shall notify the Lenders promptly upon receipt by the Administrative Agent of any notice from the Company referred to in Section 2.22(a) and of the effectiveness of any Incremental Revolving Credit Commitments, in each case advising the Lenders of the details thereof and of the Applicable Percentages of the Lenders after giving effect thereto and of the payments required to be made pursuant to Section 2.22(e).

ARTICLE III

Representations and Warranties

The Company represents and warrants to the Lenders, on the Effective Date, and on each other date on which representations and warranties are required to be, or are deemed to be, made under the Loan Documents, that:

SECTION 3.01. Organization; Powers. The Company is (a)(i) duly organized, (ii) validly existing and (iii) to the extent the concept is applicable in such jurisdiction, in good standing under the laws of the jurisdiction of its organization, (b)(i) has all requisite power and authority and (ii) all Governmental Approvals required for the ownership and operation of its properties and the conduct of its business as now conducted and (c) is qualified to do business, and is in good standing, in every jurisdiction where such qualification is required; except in each case referred to in clause (a)(iii), (b)(ii) or (c), to the extent the failure to do so, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

SECTION 3.02. Authorization; Enforceability. The Transactions to be entered into by the Company are within the Company's corporate or other organizational powers and have been duly authorized by all necessary corporate or other organizational and, if required, stockholder or other equityholder action of the Company. This Agreement has been duly executed and delivered by the Company and constitutes, and each other Loan Document, when executed and delivered by the Company, will constitute, a legal, valid and binding obligation of the Company, enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium, winding-up or other laws affecting creditors' rights generally and to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

SECTION 3.03. Governmental Approvals; Absence of Conflicts. The Transactions (a) do not require any consent or approval of, registration or filing with or any other action by any Governmental Authority, except such as have been obtained or made and are in full force and effect, (b) will not violate any applicable law, including any order of any Governmental Authority, (c) will not violate the organizational documents of the Company, (d) will not violate or result (alone or with notice or lapse of time or both) in a default under any indenture or other agreement or instrument binding upon the Company or any Significant Subsidiary or any of their assets, or give rise to a right thereunder to require any payment, repurchase or redemption to be made by the Company or any Significant Subsidiary, or give rise to a right of, or result in, any termination, cancellation, acceleration or right of renegotiation of any obligation thereunder, in each case excluding the Company Existing Credit Agreement and (e) will not result in the creation or imposition of any Lien on any asset of the Company not permitted hereunder, in the case of clauses (a), (b) and (d) above, except to the extent that the foregoing, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

SECTION 3.04. Financial Condition; No Material Adverse Effect.

(a) The Company has heretofore furnished to the Lenders its (i) consolidated balance sheet and statement of capitalization and related consolidated statements of net income, comprehensive income, equity and cash flows as of and for the fiscal year ended December 31, 2021, audited by and accompanied by the opinion of PricewaterhouseCoopers LLP, and (ii) unaudited consolidated balance sheet and statement of capitalization and related unaudited consolidated statements of net income, comprehensive income, equity and cash flows as of and for the fiscal quarter and portion of the fiscal year ended September 30, 2022. Such financial statements present fairly, in all material respects, the financial position, results of operations and cash flows of the Company and its consolidated Subsidiaries as of such dates and for such periods in accordance with GAAP (subject, in the case of such unaudited financial statements, to normal year-end audit adjustments and the absence of certain footnotes).

(b) Since December 31, 2021, there has been no event or condition that has resulted, or would reasonably be expected to result, in a Material Adverse Effect.

SECTION 3.05. Properties. The Company and each Subsidiary has good title to, or valid leasehold interests in, all its property material to its business, subject to Liens permitted by Section 6.01, except (a) for defects in title that, individually or in the aggregate, do not materially detract from the value of the affected property or materially interfere with the ordinary conduct of

business of the Company or any Subsidiary or (b) for any failure to do so that, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

SECTION 3.06. Litigation and Environmental Matters.

(a) Except as set forth in Schedule 3.06(a) or as specifically disclosed in any SEC Reports, there are no actions, suits or proceedings by or before any Governmental Authority or arbitrator pending against or, to the knowledge of the Company, threatened in writing against the Company or any Subsidiary that (i) are reasonably likely to be decided adversely to the Company or such Subsidiary and would reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect or (ii) directly involve any of the Loan Documents.

(b) Except as set forth in Schedule 3.06(b) or as specifically disclosed in any SEC Reports, or as otherwise would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect, neither the Company nor any Subsidiary (i) has failed to comply with any applicable Environmental Law or to obtain, maintain or comply with any Governmental Approval required under any applicable Environmental Law, (ii) is subject to any Environmental Liability, (iii) has received written notice of any claim with respect to any Environmental Liability or (iv) knows of any fact, incident, event or condition that would reasonably be expected to form the basis for any Environmental Liability.

SECTION 3.07. Compliance with Laws.

(a) The Company and each Subsidiary is in compliance with all laws, including all orders of Governmental Authorities, applicable to it or its property, except where the failure to comply, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect.

(b) The Company has implemented and maintains in effect policies and procedures reasonably designed to ensure compliance by the Company and the Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions, and the Company and the Subsidiaries and, to the knowledge of the Company, their respective officers, employees and directors are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects. None of (i) the Company, any Subsidiary or, to the knowledge of the Company, any of their respective directors, officers or employees, or (ii) to the knowledge of the Company, any agent of the Company or any Subsidiary that will act in any capacity in connection with or benefit from any credit facility established hereby, is a Sanctioned Person. The Transactions do not violate any Anti-Corruption Law or applicable Sanctions.

(c) The Company will use the proceeds of the Borrowings and the Letters of Credit solely for the purposes permitted by Section 5.09. The Company will not use the proceeds of any Borrowing or any Letter of Credit in a manner that will result in a violation of Sanctions applicable to any party hereto or any Anti-Corruption Laws.

SECTION 3.08. Investment Company Status. The Company is not an "investment company" as defined in, or subject to regulation under, the Investment Company Act of 1940.

SECTION 3.09. Taxes. The Company and each Subsidiary has timely filed or caused to be filed all Tax returns and reports required to have been filed and has paid or caused to be paid all Taxes required to have been paid by it, except where (a)(i) the validity or amount thereof is being contested in good faith by appropriate proceedings, (ii) the Company or such Subsidiary, as applicable, has set aside on its books reserves with respect thereto to the extent required by GAAP and (iii) such contest effectively suspends collection of the contested obligation and the enforcement of any Lien securing such obligation or (b) the failure to do so would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

SECTION 3.10. ERISA. No ERISA Events have occurred or are reasonably expected to occur that would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. The Company and each ERISA Affiliate is in compliance in all material respects with the applicable provisions of ERISA and the Code with respect to each Plan. The present value of all accumulated benefit obligations of all underfunded and unfunded Plans and the benefit obligations of any retiree welfare benefit arrangement (in each case based on the assumptions used for purposes of Accounting Standards Codification Topic 715) did not, as of the date of the most recent financial statements reflecting such amounts, exceed the fair market value of the assets of such Plan or arrangement, if any, by an aggregate amount that would reasonably be expected to result in a Material Adverse Effect. The Company is not and will not be using "plan assets" (within the meaning of 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA) of one or more Plans in connection with the Loans or the Commitments.

SECTION 3.11. Solvency. On the Effective Date immediately after giving effect to the Transactions to occur on such date, including the making of the Loans to be made on such date and the application of the proceeds thereof, (a) the fair value of the assets of the Company and the Subsidiaries, on a consolidated basis, will exceed their debts and liabilities, subordinated, contingent or otherwise, (b) the present fair saleable value of the property of the Company and the Subsidiaries, on a consolidated basis, will be greater than the amount that will be required to pay the probable liabilities on their debts and other liabilities, subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured, (c) the Company and the Subsidiaries, on a consolidated basis, will be able to pay their debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured and (d) the Company and the Subsidiaries, on a consolidated basis, will not have an unreasonably small capital with which to conduct the businesses in which they are engaged as such businesses are now conducted and proposed to be conducted following the Effective Date. For purposes of this Section 3.11, in computing the amount of the contingent liabilities of the Company and the Subsidiaries as of the Effective Date, such liabilities have been computed at the amount that, in light of all the facts and circumstances existing as of the Effective Date, represents the amount that can reasonably be expected to become an actual or matured liability.

SECTION 3.12. Disclosure.

(a) The written reports, financial statements, certificates and other written information (other than financial projections and other forward-looking information and information of a general economic or industry-specific nature) furnished by or on behalf of the Company or any Subsidiary to the Administrative Agent, any Revolver Facility Arranger, the Sustainability Structuring Agent, or any Lender in connection with the negotiation of this

Agreement or any other Loan Document is and will be, when furnished and taken as a whole, complete and correct in all material respects and does not and will not, when furnished and taken as a whole, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements contained therein not materially misleading in light of the circumstances under which such statements are made (in each case after giving effect to all supplements and updates provided thereto prior to the Effective Date). The financial projections and other forward-looking information that have been furnished by or on behalf of the Company or any Subsidiary to the Administrative Agent, any Revolver Facility Arranger, the Sustainability Structuring Agent or any Lender in connection with the negotiation of this Agreement or any other Loan Document have been prepared in good faith based upon assumptions that are believed by the Company to be reasonable at the time such financial projections or other forward-looking information are furnished to the Administrative Agent, any Revolver Facility Arranger, the Sustainability Structuring Agent, or any Lender, it being understood and agreed that financial projections and other forward-looking information are as to future events and are not to be viewed as facts, are subject to significant uncertainties and contingencies, many of which are out of the Company's or its subsidiaries' control, that no assurance can be given that any particular projections will be realized, that the financial projections or other forward-looking information is not a guarantee of financial performance and that actual results during the period or periods covered by such projections may differ significantly from the projected results and such differences may be material.

(b) If a Beneficial Ownership Certification is required to be delivered pursuant to Section 4.01(g)(ii), then, as of the Effective Date, to the best of the Company's knowledge, the information set forth in such Beneficial Ownership Certification is true and correct in all respects. If a Beneficial Ownership Certification is required to be delivered pursuant to Section 6.02(a), then, as of the date of the delivery thereof, to the best of the Company's knowledge, the information set forth in such Beneficial Ownership Certification is true and correct in all respects.

SECTION 3.13. Federal Reserve Regulations. Neither the Company nor any Subsidiary is engaged or will engage, principally or as one of its important activities, in the business of purchasing or carrying margin stock (within the meaning of Regulation U of the Board of Governors), or extending credit for the purpose of purchasing or carrying margin stock. No part of the proceeds of the Loans will be used, directly or indirectly, to purchase or carry margin stock, to extend credit for others to purchase or carry margin stock or for any purpose that entails, and no other action will be taken by the Company and the Subsidiaries that would result in, a violation of Regulations T, U and X of the Board of Governors.

SECTION 3.14. Subsidiaries. As of the Effective Date, Schedule 3.14 sets forth (a) each Subsidiary's legal name and jurisdiction of organization and (b) for each Subsidiary, whether such Subsidiary is (i) a Restricted Subsidiary or an Unrestricted Subsidiary or (ii) a Significant Subsidiary.

SECTION 3.15. USA PATRIOT Act. Each of the Company and the Subsidiaries is in compliance, in all material respects, with (a) the Trading with the Enemy Act, as amended, and each of the foreign assets control regulations of the United States Treasury Department (31 CFR, Subtitle B, Chapter V, as amended) and any other enabling legislation or executive order relating thereto and (b) the USA PATRIOT Act.

SECTION 3.16. EEA Financial Institution. The Company is not an EEA Financial Institution.

SECTION 3.17. Sustainability-Related Information Disclosures. The Company hereby represents and warrants to the Lenders that all information about its sustainability strategy, including, without limitation, the KPIs, which have been or may be provided to the Administrative Agent, the Sustainability Structuring Agent or any Lender by or on behalf of it, or which have been or may be approved by it (collectively, the "Sustainability-Related Information"), is true and accurate in all material respects as of the date it is provided or approved and as of the date (if any) of which it is stated. These representations and warranties are deemed to be made by the Company at the time of reporting of the KPIs by reference to the facts and circumstances then existing commencing on the Effective Date and continuing until this Agreement terminates; provided that it is understood and agreed that any breach of this Section 3.17 shall not constitute a Default or Event of Default or otherwise result in the failure of any condition precedent to any advance or the issuance of any Letter of Credit.

ARTICLE IV

Conditions

SECTION 4.01. Effective Date. The effectiveness of this Agreement and the obligation of the Lenders to make Loans and of the Issuing Banks to issue Letters of Credit hereunder shall not become effective until the date on which each of the following conditions shall be satisfied (or waived in accordance with Section 9.02):

(a) The Administrative Agent shall have received from each party hereto (i) a counterpart of this Agreement executed by each party hereto or (ii) written evidence satisfactory to the Administrative Agent (which may include fax transmission or other electronic imaging) that such party has signed a counterpart of this Agreement.

(b) The Administrative Agent shall have received written opinions (addressed to the Administrative Agent, the Lenders and the Issuing Banks and dated the Effective Date) of each of (i) Morgan, Lewis & Bockius LLP, counsel to the Company, and (ii) the General Counsel of the Company, in each case, in form and substance reasonably satisfactory to the Administrative Agent.

(c) The Administrative Agent shall have received a certificate of the Company, dated the Effective Date and executed by the secretary or an assistant secretary of the Company, attaching (i) a copy of each organizational document of the Company, which shall, to the extent applicable, be certified as of a recent date prior to the Effective Date by the appropriate Governmental Authority, (ii) signature and incumbency certificates of the officers of the Company executing each Loan Document, (iii) resolutions of the board of directors of the Company approving and authorizing the execution, delivery and performance of the Loan Documents, certified as of the Effective Date by such secretary, assistant secretary or director as being in full force and effect without modification or amendment, and (iv) a good standing certificate (to the extent such concept is applicable in such jurisdiction) from the applicable Governmental Authority

of the Commonwealth of Pennsylvania, dated as of a recent date prior to the Effective Date, in each case, in form and substance reasonably satisfactory to the Administrative Agent.

(d) The Administrative Agent shall have received an officer's certificate, dated the Effective Date and signed by a Responsible Officer of the Company, certifying that, as of the Effective Date and after giving effect to the Transactions that are to occur on such date, (i) the representations and warranties of the Company set forth in the Loan Documents are true and correct (A) in the case of the representations and warranties qualified as to materiality, Material Adverse Effect or similar language, in all respects (after giving effect to such qualification) and (B) otherwise, in all material respects and (ii) no Default has occurred and is continuing.

(e) The Administrative Agent shall have received a certificate substantially in the form of Exhibit G from the Company, dated the Effective Date and signed by a Financial Officer of the Company.

(f) All costs, expenses (including reasonable and documented legal fees and expenses) and fees contemplated by the Loan Documents, or otherwise agreed by the Company with Administrative Agent, to be reimbursable or payable by or on behalf of the Company to the Administrative Agent (or Affiliates thereof) or the Lenders shall have been paid on or prior to the Effective Date, in each case, to the extent required to be paid on or prior to the Effective Date and, in the case of costs and expenses, invoiced at least two Business Days prior to the Effective Date.

(g) The Administrative Agent shall have received, (i) at least three Business Days prior to the Effective Date, all documentation and other information regarding the Company and the Subsidiaries required by bank regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act, that has been reasonably requested by the Administrative Agent at least 10 Business Days prior to the Effective Date and (ii) to the extent the Company qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, at least three Business Days prior to the Effective Date, a Beneficial Ownership Certification in relation to the Company.

(h) The Company Existing Credit Agreement Refinancing shall have been consummated, or shall be consummated substantially concurrently with the effectiveness of this Agreement, and the Administrative Agent shall have received customary payoff documentation in respect thereof.

The Administrative Agent shall deliver a notice to the Company and the Lenders of the Effective Date, and such notice shall be conclusive and binding.

SECTION 4.02. Each Credit Event. The obligation of each Lender to make a Loan on the occasion of any Borrowing (other than any conversion or continuation of any outstanding Loan), of each Swingline Lender to make a Swingline Loan and of each Issuing Bank to issue any Letter of Credit or amend any Letter of Credit to increase the amount thereof is subject to receipt of the request therefor in accordance herewith and to the satisfaction of the following conditions:

(a) The representations and warranties of the Company set forth in the Loan Documents (other than, after the Effective Date, the representations set forth in Sections 3.04(b), 3.06(a) and 3.17) shall be true and correct (i) in the case of the representations and warranties

qualified as to materiality, Material Adverse Effect or similar language, in all respects (after giving effect to such qualification) and (ii) otherwise, in all material respects, in each case on and as of the date of such Borrowing or the date of such issuance of, or amendment to increase, such Letter of Credit, as applicable, except in the case of any such representation and warranty that expressly relates to a prior date, in which case such representation and warranty shall be so true and correct as required by clauses (i) and (ii) above, on and as of such prior date.

(b) At the time of and immediately after giving effect to such Borrowing or such issuance of, or amendment to increase, such Letter of Credit, as applicable, no Default shall have occurred and be continuing.

On the date of any Borrowing (other than any conversion or continuation of any outstanding Loan), any Swingline Loan, the issuance of any Letter of Credit or the amendment of any Letter of Credit to increase the amount thereof, the Company shall be deemed to have represented and warranted that the conditions specified in Sections 4.02(a) and 4.02(b) have been satisfied.

SECTION 4.03. Waiver of Breakage by Lenders under the Company Existing Credit Agreement. Each of the Lenders that are "Lenders" under the Company Existing Credit Agreement hereby waive any claim to compensation under Section 2.15 of the Company Existing Credit Agreement as a result of any Loans (as defined in the Company Existing Credit Agreement) being repaid on the Effective Date.

ARTICLE V

Affirmative Covenants

Until Payment in Full, the Company covenants and agrees with the Lenders that:

SECTION 5.01. Financial Statements and Other Information. The Company will furnish to the Administrative Agent, on behalf of each Lender:

(a) within 120 days after the end of each fiscal year of the Company, commencing with the fiscal year ending December 31, 2022, its audited consolidated balance sheet and statement of capitalization and related consolidated statements of net income, comprehensive income, equity and cash flows as of the end of and for such fiscal year, setting forth in each case in comparative form the figures for the prior fiscal year, all audited by and accompanied by the opinion of PricewaterhouseCoopers LLP or another independent registered public accounting firm of recognized national standing (without a "going concern" or like qualification, exception or emphasis (other than any qualification, exception or emphasis with respect to or resulting from an upcoming scheduled final maturity of any Indebtedness or associated with a financial covenant) and without any qualification, exception or emphasis as to the scope of such audit) to the effect that such consolidated financial statements present fairly, in all material respects, the financial position, results of operations and cash flows of the Company and its consolidated Subsidiaries on a consolidated basis as of the end of and for such year in accordance with GAAP;

(b) within 60 days after the end of each of the first three fiscal quarters of each fiscal year of the Company, its unaudited consolidated balance sheet and statement of

capitalization as of the end of such fiscal quarter, the related unaudited consolidated statements of net income, comprehensive income and equity for such fiscal quarter and the then elapsed portion of the fiscal year and the related statements of cash flows for the then elapsed portion of the fiscal year, in each case setting forth in comparative form the figures for (or, in the case of the balance sheet or statement of capitalization, as of the end of) the corresponding period or periods of the prior fiscal year, all certified by a Financial Officer of the Company as presenting fairly, in all material respects, the financial position, results of operations and cash flows of the Company and its consolidated Subsidiaries on a consolidated basis as of the end of and for such fiscal quarter and such portion of the fiscal year in accordance with GAAP, subject to normal year-end audit adjustments and the absence of certain footnotes;

(c) within the time frame permitted for the delivery of financial statements under clause (a) or (b) above, as applicable, a completed Compliance Certificate signed by a Responsible Officer of the Company, (i) certifying as to whether a Default has occurred and is continuing on such date and, if a Default has occurred and is continuing on such date, specifying the details thereof and any action taken or proposed to be taken with respect thereto and (ii) setting forth reasonably detailed calculations demonstrating compliance with the Financial Covenant;

(d) promptly after the same become publicly available, copies of all periodic and other reports, proxy statements and other materials filed by the Company or any Subsidiary with the SEC or with any national securities exchange;

(e) promptly after any request therefor, such other information regarding the business and financial condition of the Company or any Subsidiary, or compliance with the terms of any Loan Document, as the Administrative Agent may reasonably request in writing; and

(f) promptly after any request therefor, such information and documentation reasonably requested by the Administrative Agent or any Lender for purposes of compliance with applicable "know your customer" requirements under the USA PATRIOT Act, the Beneficial Ownership Regulation or other applicable anti-money laundering laws.

The documents required to be delivered pursuant to Section 5.01(a), 5.01(b) and 5.01(d) shall be deemed to have been delivered if such documents, or one or more annual or quarterly or periodic reports containing such information, (a) shall have been made publicly available on the website of the Company at http://www.essential.co (or such other website as the Company may designate by written notice to the other parties hereto) or the SEC at http://www.sec.gov or (b) shall have been posted by the Administrative Agent on a Platform to which the Lenders have been granted access. Information required to be delivered pursuant to this Section 5.01 to the Administrative Agent may also be delivered by electronic communications pursuant to procedures approved by the Administrative Agent.

SECTION 5.02. Notices of Material Events. Promptly after any Responsible Officer of the Company obtains actual knowledge thereof, the Company will furnish to the Administrative Agent written notice of the following:

(a) the occurrence of any continuing Default;

(b) the filing or commencement of any action, suit or proceeding by or before any arbitrator or Governmental Authority against or affecting the Company or any Subsidiary, or any adverse development in any such pending action, suit or proceeding not previously disclosed in writing by the Company to the Administrative Agent and the Lenders or in any annual, quarterly or periodic reports publicly filed by the Company with the SEC, that, in each case, would reasonably be expected to result in a Material Adverse Effect;

(c) the occurrence of any ERISA Event that, alone or together with any other ERISA Events that have occurred would reasonably be expected to result in a Material Adverse Effect; or

(d) any other development that has resulted, or would reasonably be expected to result, in a Material Adverse Effect.

Each notice delivered under this Section 5.02 shall be accompanied by a statement of a Responsible Officer of the Company setting forth the details of the event or development requiring such notice and, in the case of clause (a) above, any action taken or proposed to be taken with respect thereto.

SECTION 5.03. Existence; Conduct of Business. The Company will, and will cause each Restricted Subsidiary to, do or cause to be done all things necessary to preserve, renew and keep in full force and effect (a) its legal existence and (b) the rights, licenses, permits, privileges and franchises material to the conduct of the business of the Company and the Restricted Subsidiaries, taken as a whole, except, other than in the case of Section 5.03(a) with respect to the Company, where the failure to do so, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect; provided that the foregoing shall not prohibit any transaction expressly permitted under Section 6.02(a).

SECTION 5.04. Payment of Taxes. The Company will, and will cause each Subsidiary to, pay its Taxes before the same shall become delinquent or in default, except where (a)(i) the validity or amount thereof is being contested in good faith by appropriate proceedings, (ii) the Company or such Subsidiary has set aside on its books reserves with respect thereto to the extent required by GAAP and (iii) such contest effectively suspends collection of the contested obligation and the enforcement of any Lien securing such obligation or (b) the failure to make payment would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

SECTION 5.05. Maintenance of Properties and Rights. The Company will, and will cause each Subsidiary to, keep and maintain all property material to the conduct of its business in good working order and condition, ordinary wear and tear and casualty and condemnation excepted, except in each case where the failure to take any such actions, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect; provided that the foregoing shall not prohibit any transaction expressly permitted under Section 6.02(a).

SECTION 5.06. Insurance. The Company will, and will cause each Subsidiary to, maintain, with insurance companies that the Company believes (in the good faith judgment of the management of the Company) are financially sound and reputable (including captive insurance subsidiaries), insurance in such amounts (after giving effect to any self-insurance consistent with

the standards set forth in this Section 5.06) (with no greater risk retention) and against such risks as is customarily maintained by companies engaged in similar businesses operating in the same or similar locations in all material respects.

SECTION 5.07. Books and Records; Inspection and Audit Rights. The Company will, and will cause each Subsidiary to, keep proper books of record and account in which full, true and correct entries in accordance, in all material respects, with GAAP and applicable law are made of all material dealings and transactions in relation to its business and activities. The Company will, and will cause each Subsidiary to, permit the Administrative Agent, and any agent designated by the Administrative Agent, upon reasonable prior notice, (a) to visit and reasonably inspect its properties, (b) to examine its books and records and (c) to discuss its operations, business affairs, assets, liabilities (including contingent liabilities) and financial condition with its officers and independent accountants (it being agreed that a representative of the Company may be present at any such meeting with the independent accountants), all at such reasonable times during normal business hours and as often as reasonably requested; provided that, the Administrative Agent may not exercise such rights more often than once during any calendar year (it being understood that any expenses incurred by the Administrative Agent in connection therewith shall be subject to reimbursement by the Company in accordance with Section 9.03); provided, *further*, that when an Event of Default exists, the Administrative Agent (or any of its agents) may do any of the foregoing (at the expense of the Company) at any time during normal business hours and upon reasonable advance notice. Notwithstanding anything to the contrary in this Section, neither the Company nor any Subsidiary shall be required to disclose, permit the inspection, examination of, or discussion of, any document, information or other matter that (i) constitutes non-financial trade secrets or non-financial proprietary information, (ii) in respect of which disclosure to the Administrative Agent (or its agents) is prohibited by applicable law or any binding confidentiality agreement between the Company or any Subsidiary and a Person that is not the Company or any Subsidiary not entered into in contemplation of preventing such disclosure, inspection, examination or discussion or (iii) is subject to attorney-client or similar privilege or constitutes attorney work-product.

SECTION 5.08. Compliance with Laws. The Company will, and will cause each Subsidiary to, comply with all laws, including all Environmental Laws, and all orders of any Governmental Authority, applicable to it, its operations or its property, except where the failure to do so, individually or in the aggregate, would not reasonably be expected to result in a Material Adverse Effect. The Company will maintain in effect and enforce policies and procedures reasonably designed to ensure compliance by the Company and the Subsidiaries and their respective directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions.

SECTION 5.09. Use of Proceeds.

(a) The proceeds of the Revolving Credit Loans will be used (i) to consummate the Company Existing Credit Agreement Refinancing, (ii) to pay fees and expenses in connection with the Company Existing Credit Agreement Refinancing and the other Transactions and (iii) for general corporate purposes of the Company and the Subsidiaries.

(b) Letters of Credit will be issued for general corporate purposes of the Company and the Subsidiaries.

(c) The Company will not request any Borrowing or Letter of Credit, and the Company will not use, and will procure that the Subsidiaries and its and their respective directors, officers, employees and agents will not use, the proceeds of any Borrowing or Letter of Credit (i) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (ii) for the purpose of funding, financing or facilitating any activities, business or transaction of or with any Sanctioned Person, or in any Sanctioned Country, or (iii) in any manner that would result in the violation of any Sanctions applicable to any party hereto or any Anti-Corruption Laws.

SECTION 5.10. Designation of Subsidiaries. The Company may from time to time cause any Restricted Subsidiary that is not a Significant Subsidiary to be designated as an Unrestricted Subsidiary or any Unrestricted Subsidiary to be designated as a Restricted Subsidiary, provided that (a) at the time of such designation and immediately after giving effect thereto, no Default or Event of Default would exist under the terms of this Agreement and (b) once a Subsidiary has been designated an Unrestricted Subsidiary, it shall not thereafter be redesignated as a Restricted Subsidiary on more than one occasion. Within 10 days (or such shorter period of time as the Administrative Agent may reasonably agree to in writing) following any designation described above, the Company will deliver to the Administrative Agent a notice of such designation accompanied by a certificate signed by a Responsible Officer certifying compliance with all requirements of this Section 5.10 and setting forth all information required in order to establish such compliance.

SECTION 5.11. Sustainability-Related Information. The Company agrees to furnish the Administrative Agent, the Sustainability Structuring Agent and the Lenders with all Sustainability-Related Information and to provide such access to the directors, officers, employees and advisers of the Company and its Affiliates (together "Representatives"), in each case as the Administrative Agent, the Sustainability Structuring Agent or any Lender may reasonably request. In addition, the Company shall ensure that the Representatives are available, upon the Administrative Agent's, the Sustainability Structuring Agent's or any Lender's reasonable request, to discuss the Sustainability-Related Information. The Company acknowledges and agrees that the Administrative Agent, the Sustainability Structuring Agent and the Lenders may rely, without independent verification, upon the accuracy, adequacy and completeness of the Sustainability-Related Information furnished by the Company to the Administrative Agent, the Sustainability Structuring Agent or any Lender or approved by the Company for use in connection with this Agreement and that none of the Administrative Agent, the Sustainability Structuring Agent nor any Lender assumes any responsibility or has any liability therefor or has an obligation to conduct any appraisal of any Sustainability-Related Information. The Company shall, after the Company's determination that there was a Sustainability Certificate Inaccuracy, promptly deliver written notice to the Administrative Agent thereof. The Company agrees that it will (a) notify the Administrative Agent, the Sustainability Structuring Agent and the Lenders promptly (i) of any change in the Company's green or sustainability framework or its internal policies related to sustainability, including any relevant comments or changes from a third party opinion provider or auditor, (ii) if any Sustainability-Related Information furnished by the Company or any of its Affiliates to the Administrative Agent, the Sustainability Structuring Agent or any Lender or

approved by the Company or its Affiliates is or becomes materially inaccurate, untrue, incomplete or misleading, (iii) the occurrence of any Sustainability Modification Event and (iv) the appointment of any successor Sustainability Metric Auditor, and (b) supplement the Sustainability-Related Information promptly from time to time to ensure that the representations and warranties made under Section 3.17 are correct in all material respects as of the date when such Sustainability-Related Information is supplemented; provided that it is understood and agreed that any breach of this Section 5.11 shall not constitute a Default or Event of Default or otherwise result in the failure of any condition precedent to any advance or the issuance of any Letter of Credit.

ARTICLE VI

Negative Covenants

Until Payment in Full, the Company covenants and agrees with the Lenders that:

SECTION 6.01. Liens. The Company will not create, incur, assume or permit to exist any Lien on any asset now owned or hereafter acquired by it, except:

(a) Permitted Liens;

(b) any Lien on any asset of the Company existing on the Effective Date and set forth on Schedule 6.01; provided that (i) such Lien shall not apply to any other asset of the Company (other than improvements or accessions thereto and the proceeds thereof) and (ii) such Lien shall secure only those obligations that it secures on the Effective Date and extensions, renewals, replacements and refinancings thereof that do not increase the outstanding principal amount thereof except by an amount equal to any premium or other amount paid, and fees and expenses incurred, in connection with such extension, renewal, replacement or refinancing;

(c) (i) Liens (including Liens securing Capital Lease Obligations) on fixed or capital assets acquired, constructed or improved by the Company securing Indebtedness or other obligations incurred to finance such acquisition, construction or improvement, provided that (A) such Liens and the Indebtedness secured thereby are incurred prior to or within 270 days after such acquisition or the completion of such construction or improvement, (B) the Indebtedness secured thereby does not exceed the cost of acquiring, constructing or improving such fixed or capital assets and (C) such Liens shall not apply to any other assets of the Company (other than improvements or accessions thereto and the proceeds thereof), provided further that individual financings of equipment or other fixed or capital assets otherwise permitted to be secured hereunder provided by any Person (or its Affiliates) may be cross-collateralized to other such financings provided by such Person (or its Affiliates), and (ii) Liens securing extensions, renewals, replacements and refinancings thereof that do not increase the outstanding principal amount thereof except by an amount equal to any premium or other amount paid, and fees and expenses incurred, in connection with such extension, renewal, replacement or refinancing, provided that such Liens do not apply to any assets of the Company other than the assets securing the Indebtedness or other obligations being extended, renewed, replaced or refinanced (and improvements or accessions thereto and the proceeds thereof);

(d) any Lien on any asset acquired by the Company after the Effective Date existing at the time of the acquisition thereof (or existing on any asset of any Person that is merged or consolidated with or into the Company in a transaction permitted hereunder after the Effective Date and prior to the time such Person is so merged or consolidated), provided that (i) such Lien is not created in contemplation of or in connection with such acquisition (or such merger or consolidation), (ii) such Lien shall not apply to any other assets of the Company (other than improvements or accessions thereto and the proceeds thereof) and (iii) such Lien shall secure only those obligations that it secures on the date of such acquisition (or the date such Person is so merged or consolidated) and extensions, renewals, replacements and refinancings thereof that do not increase the outstanding principal amount thereof except by an amount equal to any premium or other amount paid, and fees and expenses incurred, in connection with such extension, renewal, replacement or refinancing;

(e) in connection with the sale or transfer of any Equity Interests or other assets in a transaction permitted hereunder, customary rights and restrictions contained in agreements relating to such sale or transfer pending the completion thereof;

(f) in the case of (i) any Subsidiary that is not a wholly owned Subsidiary or (ii) the Equity Interests in any Person that is not a Subsidiary, any encumbrance or restriction, including any put and call arrangements, related to Equity Interests in such Subsidiary or such other Person set forth in the organizational documents of such Subsidiary or such other Person or any related joint venture, shareholders' or similar agreement;

(g) Liens solely on any cash earnest money deposits, escrow arrangements or similar arrangements made by the Company in connection with any letter of intent or purchase agreement for an Acquisition or other transaction permitted hereunder;

(h) (i) deposits made in the ordinary course of business to secure obligations to insurance carriers providing casualty, liability or other insurance to the Company and the Subsidiaries and (ii) Liens on insurance policies and the proceeds thereof securing the financing of the premiums with respect thereto;

(i) Liens on the net cash proceeds of any Acquisition Indebtedness held in escrow by a third party escrow agent prior to the release thereof from escrow;

(j) Lien created pursuant to the Loan Documents;

(k) Liens on cash and cash equivalents securing obligations under Hedging Agreements entered into to protect against fluctuations in interest rates and not for speculative purposes, provided that the cash and cash equivalents deposited to secure such obligations do not exceed $50,000,000 at any time outstanding; and

(l) other Liens, provided that at the time of and after giving Pro Forma Effect to the incurrence of any such Lien (or any Indebtedness secured thereby and the application of the proceeds thereof), the aggregate principal amount of the outstanding Indebtedness secured by Liens permitted by this clause (l) does not exceed 15% of Consolidated Tangible Assets at such time (it being understood and agreed that (i) in the case of revolving Indebtedness, the Company may deem any revolving commitments in respect of such revolving Indebtedness as outstanding

Indebtedness for purposes of such test, and, if such test would be satisfied after doing so, then the Company shall not be required to retest compliance with such test in respect of any incurrence of revolving Indebtedness in respect of such revolving commitments, provided that, for so long as such revolving commitments are outstanding, such revolving commitments shall be deemed to be outstanding Indebtedness for purposes of any subsequent calculation of such test, and (ii) in the case of any Indebtedness secured by any Lien(s) incurred in reliance on this clause (l), the Company shall not be required to retest compliance with this clause (l)(A) if any additional Liens on assets (including Liens on different types of assets) are thereafter granted to secure such Indebtedness or (B) due to the incurrence of fees, costs, expenses, premiums, penalties, indemnities or interest in respect of such Indebtedness).

SECTION 6.02. Fundamental Changes.

(a) The Company will not, and will not permit any Restricted Subsidiary to, amalgamate with, merge into or consolidate with any other Person, or permit any other Person to amalgamate with, merge into or consolidate with it, or liquidate or dissolve, except that (i) [reserved], (ii) if at the time thereof and immediately after giving effect thereto no Event of Default shall have occurred and be continuing, (A) any Person may amalgamate, merge or consolidate with the Company in a transaction in which the Company is the surviving entity and (B) the Company may merge or consolidate with any Person in a transaction in which such Person is the surviving entity, provided that (1) such Person is a corporation organized under the laws of the Commonwealth of Pennsylvania or the State of Delaware, (2) prior to or substantially concurrently with the consummation of such merger or consolidation, (x) such Person shall execute and deliver to the Administrative Agent an assumption agreement (the "Assumption Agreement"), in form and substance reasonably satisfactory to the Administrative Agent, pursuant to which such Person shall assume all of the obligations of the Company under this Agreement and the other Loan Documents, and (y) such Person shall deliver to the Administrative Agent such documents, certificates and opinions as the Administrative Agent may reasonably request relating to such Person, such merger or consolidation or the Assumption Agreement, all in form and substance reasonably satisfactory to the Administrative Agent, and (3) the Lenders shall have received, at least five Business Days prior to the date of the consummation of such merger or consolidation, (x) all documentation and other information regarding such Person required by bank regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act, that has been reasonably requested by the Administrative Agent or any Lender and (y) to the extent such Person qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, a Beneficial Ownership Certification in relation to such Person, it being agreed that upon the execution and delivery to the Administrative Agent of the Assumption Agreement and the satisfaction of the other conditions set forth in this clause (B), such Person shall become a party to this Agreement, shall succeed to and assume all the rights and obligations of the Company under this Agreement and the other Loan Documents (including all obligations in respect of outstanding Loans) and shall thenceforth, for all purposes of this Agreement and the other Loan Documents, be the "Company", (iii) any Person (other than the Company) may amalgamate, merge or consolidate with any Restricted Subsidiary in a transaction in which the surviving entity is a Restricted Subsidiary, (iv) any Restricted Subsidiary may amalgamate with, merge into or consolidate with any Person (other than the Company) in a transaction not prohibited by Section 6.02(b) in which, after giving effect to such transaction, the surviving entity is not a Subsidiary and (v) any Restricted Subsidiary may liquidate

or dissolve if the Company determines in good faith that such liquidation or dissolution is in the best interests of the Company and the Subsidiaries, taken as a whole.

(b) The Company will not, and will not permit any Subsidiary to, sell, transfer, lease or otherwise dispose of, directly or through any amalgamation, merger or consolidation and whether in one transaction or in a series of transactions, assets (including Equity Interests in Subsidiaries) representing all or substantially all of the assets of the Company and the Subsidiaries (whether now owned or hereafter acquired), taken as a whole, to any Person or Persons, except (i) to the Company and/or any Subsidiaries and (ii) as permitted under Section 6.02(a)(ii)(B) or 6.02(a)(iii).

SECTION 6.03. Restrictive Agreements. The Company will not, and will not permit any Restricted Subsidiary to, enter into or permit to exist any contractual obligation (other than this Agreement or any other Loan Document) that limits the ability of any Restricted Subsidiary to make dividends or other distributions with respect to its Equity Interests to the Company or any Restricted Subsidiary, unless the Company determines in good faith that such contractual obligations would not materially impede the Company's ability to meet its payment obligations under this Agreement.

SECTION 6.04. Transactions with Affiliates. The Company will not, and will not permit any Restricted Subsidiary to, enter into or cause, suffer or permit to exist any transaction, arrangement or contract with any Affiliate (other than the Company or any Restricted Subsidiary) that is on terms materially less favorable to the Company or such Restricted Subsidiary than those that would be obtained at such time in a comparable arm's-length transaction with a Person other than an Affiliate, provided that the foregoing shall not apply to (a) any payments made and other transactions entered into in the ordinary course of business with officers and directors of the Company or any Subsidiary, and consulting fees and expenses incurred in the ordinary course of business payable to former officers or directors of the Company or any Subsidiary or (b) any other transaction (if part of a series of related transactions, together with such related transactions) involving consideration or value of less than $10,000,000.

SECTION 6.05. Financial Covenant. The Company will not permit the ratio, on the last day of any fiscal quarter of the Company, of (a) Consolidated Funded Debt as of such day to (b) the sum of (i) Consolidated Funded Debt as of such day and (ii) Consolidated Shareholders' Equity as of such day, to exceed 65%.

ARTICLE VII

Events of Default

SECTION 7.01. Events of Default. If any of the following events ("Events of Default") shall occur and be continuing:

(a) the Company shall fail to pay any principal of any Loan or any LC Disbursement when and as the same shall become due and payable, whether at the due date thereof or at a date fixed for prepayment thereof or otherwise;

(b) the Company shall fail to pay any interest or any fee or any other amount (other than an amount referred to in clause (a) of this Section 7.01) payable under this Agreement or any other Loan Document, when and as the same shall become due and payable, and such failure shall continue unremedied for a period of five days;

(c) any representation, warranty or statement of fact made or deemed made by or on behalf of the Company in any Loan Document or in any certificate, financial statement or other written document provided pursuant to any Loan Document or any amendment or modification thereof or waiver thereunder shall prove to have been incorrect in any material respect when made or deemed made;

(d) the Company shall fail to observe or perform any covenant or agreement contained in Section 5.02(a), 5.03(a) (with respect to the existence of the Company) or 5.09 or in Article VI;

(e) the Company shall fail to observe or perform any covenant or agreement contained in any Loan Document (other than those specified in clause (a), (b) or (d) of this Section 7.01), and such failure shall continue unremedied for a period of 30 days after written notice thereof to the Company from the Administrative Agent;

(f) the Company, any Restricted Subsidiary or any Significant Subsidiary shall fail to make any payment (in respect of principal or interest) in respect of any Material Indebtedness, when and as the same shall become due and payable after giving effect to any notice requirements and grace periods applicable thereto;

(g) any event or condition constituting a breach or default in respect of any Material Indebtedness occurs that results in any Material Indebtedness becoming due or being terminated or required to be prepaid, repurchased, redeemed or defeased prior to its scheduled maturity, or that enables or permits the holder or holders of any Material Indebtedness or any trustee or agent on its or their behalf, or, in the case of any Hedging Agreement, the applicable counterparty, to cause such Material Indebtedness to become due, or to require the prepayment, repurchase, redemption or defeasance thereof, or, in the case of a Hedging Agreement, to terminate any related hedging transaction, in each case prior to its scheduled maturity or termination (it is understood that no Event of Default shall occur in respect of any Material Indebtedness under this clause (g) until all grace periods applicable under the terms of such Material Indebtedness have expired and all notice requirements applicable under the terms of such Material Indebtedness have been met); provided that this clause (g) shall not apply to (i) any secured Indebtedness that becomes due as a result of the voluntary sale or transfer of, or any casualty or condemnation with respect to, assets securing such Indebtedness and (ii) any prepayment, repurchase, redemption or defeasance of any Acquisition Indebtedness if the related Acquisition is not consummated;

(h) an involuntary proceeding shall be commenced or an involuntary petition shall be filed seeking (i) liquidation, reorganization, moratorium, winding-up or other relief in respect of the Company or any Significant Subsidiary, or of a substantial part of its assets, under any United States (Federal or state) or foreign bankruptcy, insolvency, receivership, winding-up or similar law now or hereafter in effect or (ii) the appointment of a receiver, liquidator, trustee, custodian, sequestrator, conservator or similar official for the Company or any Significant

Subsidiary, or for a substantial part of its assets, and, in any such case, such proceeding or petition shall continue undismissed or unstayed for 60 days or an order for relief in any such proceeding shall be entered;

(i) the Company or any Significant Subsidiary shall (i) voluntarily commence any proceeding or file any petition seeking liquidation, reorganization, winding-up or other relief under any United States (Federal or state) or foreign bankruptcy, insolvency, receivership, winding-up or similar law now or hereafter in effect (other than, in the case of any Subsidiary, a voluntary liquidation or dissolution permitted by Section 6.02(a)(v)), (ii) consent to the institution of any proceeding or petition described in sub-clause (i) above, (iii) apply for or consent to the appointment of a receiver, liquidator, trustee, custodian, sequestrator, conservator or similar official for the Company or any Significant Subsidiary or for a substantial part of its assets, (iv) file an answer admitting the material allegations of a petition filed against it in any such proceeding or (v) make a general assignment for the benefit of creditors, or the board of directors (or similar governing body) of the Company or any Significant Subsidiary (or any committee thereof) shall adopt any resolution expressly authorizing any of the actions referred to in this Section 7.01(i);

(j) one or more final judgments for the payment of money in an aggregate amount in excess of $100,000,000 (after reducing such judgment amount by the portion thereof covered by insurance (other than under a self-insurance program, excluding any insurance provided by a captive insurance subsidiary or similar vehicle or arrangement)) shall be rendered against the Company, any Restricted Subsidiary or any Significant Subsidiary or any combination thereof and the same shall continue for a period of 60 consecutive days without being vacated, discharged, stayed, satisfied or bonded pending appeal;

(k) one or more ERISA Events shall have occurred that, individually or in the aggregate, would reasonably be expected to result in a Material Adverse Effect; or

(l) (i) a Change in Control shall occur or (ii) any "change of control" (or similar event, however denominated) with respect to the Company under and as defined in any indenture or other agreement relating to Material Indebtedness of the Company, any Restricted Subsidiary or any Significant Subsidiary under which senior notes or other debt securities may be issued shall occur and such "change of control" (or similar event, however denominated) shall have caused, or shall enable or permit the holder or holders of such Material Indebtedness or any trustee or agent on its or their behalf to cause, such Material Indebtedness to be required to be prepaid, repurchased, redeemed or defeased prior to its scheduled maturity (it is understood that no Event of Default shall occur in respect of any Material Indebtedness under this clause (l)(ii) until all grace periods applicable under the terms of such Material Indebtedness have expired and all notice requirements applicable under the terms of such Material Indebtedness have been met);

then, at any time thereafter during the continuance of such event (other than an event with respect to the Company described in clause (h) or (i) of this Section 7.01), the Administrative Agent shall at the written request of the Required Lenders, by written notice to the Company, take any or all of the following actions, at the same or different times during the continuance of such event: (A) terminate the Revolving Credit Commitments, (B) declare the Loans then outstanding to be due and payable in whole (or in part (but ratably as among the Classes of Loans and the Loans of each Class at the time outstanding), in which case any principal not so declared to be due and

payable may thereafter be declared to be due and payable), and thereupon the principal of the Loans so declared to be due and payable, together with accrued interest thereon and all fees and other obligations of the Company hereunder, shall become due and payable immediately, and (C) require the deposit of cash collateral in respect of LC Exposures as provided in Section 2.05(n), in each case without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Company; and in the case of any event with respect to the Company described in clause (h) or (i) of this Section 7.01, the Revolving Credit Commitments shall automatically terminate, the principal of the Loans then outstanding, together with accrued interest thereon and all fees and other obligations of the Company hereunder, shall immediately and automatically become due and payable and the deposit of such cash collateral in respect of LC Exposure shall immediately and automatically become due, in each case without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Company.

ARTICLE VIII

The Administrative Agent

SECTION 8.01. Appointment and Authorization of Administrative Agent. Each of the Lenders and the Issuing Banks hereby irrevocably appoints the entity named as Administrative Agent in the heading of this Agreement and its successors to serve as Administrative Agent under this Agreement and the other Loan Documents, and authorizes the Administrative Agent to take such actions and to exercise such powers as are delegated to the Administrative Agent by the terms of the Loan Documents, together with such actions and powers as are reasonably incidental thereto.

SECTION 8.02. Rights as a Lender. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender or an Issuing Bank as any other Lender or Issuing Bank and may exercise the same as though it were not the Administrative Agent, and such Person and its Affiliates may accept deposits from, lend money to, own securities of, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Company or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Lenders or the Issuing Banks.

SECTION 8.03. Exculpatory Provisions. The Administrative Agent shall not have any duties or obligations except those expressly set forth in the Loan Documents with respect to the Administrative Agent, and the Administrative Agent's duties hereunder shall be administrative in nature. Without limiting the generality of the foregoing, (a) the Administrative Agent shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing (and it is understood and agreed that the use of the term "agent" herein or in any other Loan Documents (or any other similar term) with reference to the Administrative Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable law, and that such term is used as a matter of market custom and is intended to create or reflect only an administrative relationship between contracting parties), (b) the Administrative Agent shall not have any duty to take any discretionary action or to exercise any discretionary power, except discretionary rights and powers expressly contemplated by the Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or

as the Administrative Agent shall believe in good faith to be necessary, under the circumstances as provided in the Loan Documents), provided that the Administrative Agent shall not be required to take any action that, in its opinion, could expose the Administrative Agent to liability or be contrary to any Loan Document or applicable law, and (c) except as expressly set forth in the Loan Documents, the Administrative Agent shall not have any duty to disclose, and the Administrative Agent shall not be liable for the failure to disclose, any information relating to the Company, any Subsidiary or any other Affiliate thereof that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity. The Administrative Agent shall not be liable for any action taken or not taken by it with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith to be necessary, under the circumstances as provided in the Loan Documents), in accordance with the terms of the Loan Documents, or in the absence of its own gross negligence or willful misconduct (such absence to be presumed unless otherwise determined by a court of competent jurisdiction by a final and nonappealable judgment). The Administrative Agent shall be deemed not to have knowledge of any Default unless and until written notice thereof (stating that it is a "notice of default") is given to the Administrative Agent by the Company, any Lender or any Issuing Bank, and the Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with any Loan Document, (ii) the contents of any certificate, report or other document delivered thereunder or in connection therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth in any Loan Document or the occurrence of any Default, (iv) the sufficiency, validity, enforceability, effectiveness or genuineness of any Loan Document or any other agreement, instrument or document, or (v) the satisfaction of any condition set forth in Article IV or elsewhere in any Loan Document, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent or satisfaction of any condition that expressly refers to the matters described therein being acceptable or satisfactory to the Administrative Agent. Without limiting the foregoing, neither the Administrative Agent nor the Sustainability Structuring Agent (x) shall have any duty to ascertain, inquire into or otherwise independently verify any informational materials focused on environmental, social and governance targets to be used in connection the credit facility describe in this Agreement, including any information based upon the information provided by the Company with respect to the applicable KPI Metrics and (y) shall have any responsibility for (or liability in respect of) the completeness or accuracy of any such information. Each party hereto hereby agrees that the Administrative Agent shall not have any responsibility for (or liability in respect of) reviewing, auditing or otherwise evaluating any Sustainability Rate Adjustment or Sustainability Commitment Fee Adjustment (or any of the data or computations that are part of or related to any such calculation) set forth in any Sustainability Certificate or notice as to a Sustainability Certificate Inaccuracy (and the Administrative Agent and the Sustainability Structuring Agent may rely conclusively on any such certificate or notice, without further inquiry). The Administrative Agent neither warrants nor accepts responsibility for, and shall not have any liability with respect to, the administration, submission or any other matter related to the rates in the definition of the term "Term SOFR Rate" (or any component thereof) or with respect to any comparable or successor rate thereto, or replacement rate therefor.

SECTION 8.04. Reliance by Administrative Agent. The Administrative Agent shall be entitled to rely, and shall not incur any liability for relying, upon any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message,

Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person (whether or not such Person in fact meets the requirements set forth in the Loan Documents for being the signatory, sender or authenticator thereof). The Administrative Agent also shall be entitled to rely, and shall not incur any liability for relying, upon any statement made to it orally or by telephone and believed by it to be made by the proper Person (whether or not such Person in fact meets the requirements set forth in the Loan Documents for being the signatory, sender or authenticator thereof), and may act upon any such statement prior to receipt of written confirmation thereof. Upon the request by the Administrative Agent at any time, the Lenders will confirm in writing whether an action may be taken by it (and the Administrative Agent may deem the failure to respond to any such request in a timely manner as approval). In determining compliance with any condition hereunder to the making of a Loan or the issuance, amendment, renewal or extension of any Letter of Credit that by its terms must be fulfilled to the satisfaction of a Lender or an Issuing Bank, the Administrative Agent may presume that such condition is satisfactory to such Lender or such Issuing Bank, as applicable, unless the Administrative Agent shall have received notice to the contrary from such Lender or such Issuing Bank, as applicable, prior to the making of such Loan or such event as to such Letter of Credit. The Administrative Agent may consult with legal counsel (who may be counsel for the Company), independent accountants and other experts selected by it with reasonable care, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

SECTION 8.05. Delegation of Duties. The Administrative Agent may perform any or all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any or all of their duties and exercise their rights and powers through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as the Administrative Agent. The Administrative Agent shall not be responsible for the negligence or misconduct of any of its sub-agents except to the extent that a court of competent jurisdiction determines in a final and nonappealable judgment that the Administrative Agent acted with gross negligence or willful misconduct in the selection of such sub-agents.

SECTION 8.06. Resignation of Administrative Agent; Resignation of Sustainability Structuring Agent.

(a) Subject to the terms of this paragraph, the Administrative Agent may resign at any time from its capacity as such. In connection with such resignation, the Administrative Agent shall give notice of its intent to resign to the Lenders, the Issuing Banks and the Company. Upon receipt of any such notice of resignation, the Company shall have the right, subject to the consent of the Required Lenders (with Lenders hereby agreeing to act promptly with respect to any request by the Company for such consent), unless a Payment or Bankruptcy Event of Default shall have occurred and be continuing, in which case the Required Lenders shall have the right, to appoint a successor. If no successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its intent to resign, then the retiring Administrative Agent may, on behalf of the Lenders

and the Issuing Banks, appoint a successor Administrative Agent, which shall be a bank with an office in New York, New York, or an Affiliate of any such bank. If the Person serving as the Administrative Agent is a Defaulting Lender pursuant to clause (d) of the definition thereof, the Required Lenders may, to the extent permitted by applicable law, by notice in writing to the Company and such Person remove such Person as the Administrative Agent and, subject to the consent of the Company (not to be unreasonably withheld, conditioned or delayed) so long as no Payment or Bankruptcy Event of Default shall have occurred and be continuing, appoint a successor. Upon the acceptance of its appointment as the Administrative Agent hereunder by a successor, such successor shall succeed to and become vested with all the rights, powers, privileges and duties of the retiring or removed Administrative Agent, and the retiring or removed Administrative Agent shall be discharged from its duties and obligations hereunder and under the other Loan Documents. The fees payable by the Company to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed by the Company and such successor. Notwithstanding the foregoing, in the event no successor Administrative Agent shall have been so appointed and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its intent to resign, the retiring Administrative Agent may give notice of the effectiveness of its resignation to the Lenders, the Issuing Banks and the Company, whereupon, on the date of effectiveness of such resignation stated in such notice, (a) the retiring Administrative Agent shall be discharged from its duties and obligations hereunder and under the other Loan Documents, and (b) the Required Lenders shall succeed to and become vested with all the rights, powers, privileges and duties of the retiring Administrative Agent, provided that (i) all payments required to be made hereunder or under any other Loan Document to the retiring Administrative Agent for the account of any Person other than the retiring Administrative Agent shall be made directly to such Person, (ii) all notices and other communications required or contemplated to be given or made to the retiring Administrative Agent shall also directly be given or made to each Lender and each Issuing Bank and (iii) if applicable, the retiring Administrative Agent may continue to hold, on behalf of the Revolving Lenders and the Issuing Banks, any cash collateral received by it pursuant to Section 2.05(n). Following the effectiveness of the Administrative Agent's resignation or removal from its capacity as such, the provisions of this Article and Section 9.03, as well as any exculpatory, reimbursement and indemnification provisions set forth in any other Loan Document, shall continue in effect for the benefit of such retiring or removed Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while it was acting as the Administrative Agent or while holding cash collateral as contemplated by the immediately preceding sentence.

(b) The Sustainability Structuring Agent may at any time give notice of its resignation to the Administrative Agent, the Lenders, the Issuing Banks and the Company, which resignation shall be effective on the date set forth in such notice, which date shall not be less than 10 Business Days following the date of receipt of such notice by the Company and the Administrative Agent (the "Sustainability Structuring Agent Resignation Effective Date"). Upon receipt of any such notice of resignation, the Company shall have the right to appoint a successor, which shall be a Lender or Affiliate of a Lender; provided that in no event shall any such successor Sustainability Structuring Agent be a Defaulting Lender. With effect from the Sustainability Structuring Agent Resignation Effective Date, the retiring Sustainability Structuring Agent shall be discharged from any duties and obligations hereunder and under the other Loan Documents. Upon the acceptance of a successor's appointment as Sustainability Structuring Agent hereunder,

such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Sustainability Structuring Agent (other than any rights to indemnity payments owed to the retiring Sustainability Structuring Agent), and the retiring Sustainability Structuring Agent shall be discharged from any duties and obligations hereunder or under the other Loan Documents. After the retiring Sustainability Structuring Agent's resignation hereunder and under the other Loan Documents, the provisions of this Article and Section 9.03 shall continue in effect for the benefit of such retiring Sustainability Structuring Agent, its sub agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while the retiring Sustainability Structuring Agent was acting as Sustainability Structuring Agent.

SECTION 8.07. Non-Reliance on Administrative Agent and Other Lenders. Each Lender and Issuing Bank acknowledges that it has, independently and without reliance upon the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent or any other Lender or Issuing Bank, or any of the Related Parties of any of the foregoing, and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Lender and Issuing Bank also acknowledges that it will, independently and without reliance upon the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent or any other Lender or Issuing Bank, or any of the Related Parties of any of the foregoing, and based on such documents and information as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any other Loan Document or any related agreement or any document furnished hereunder or thereunder. Without limitation of the foregoing, each Lender and each Issuing Bank also acknowledges and agrees that (a) none of the Administrative Agent, the Sustainability Structuring Agent or the Revolver Facility Arrangers, acting in such capacities, have made any assurances as to (i) whether the terms and conditions of this Agreement and the other Loan Documents meets such Lender's or Issuing Bank's criteria or expectations with regard to environmental impact and sustainability performance, and (ii) whether any characteristics of this Agreement and the other Loan Documents, including the characteristics of the relevant key performance indicators to be determined in connection with any increase or decrease in the Applicable Rate for Loans and/or the Applicable Rate for Commitment Fees, including the Company's environmental and sustainability criteria, meet any industry standards for sustainability-linked credit facilities and (b) each such Lender and Issuing Bank has performed its own independent investigation and analysis of this Agreement and the other Loan Documents and whether this Agreement and the other Loan Documents meet such Lender's criteria or expectations with regard to environmental impact and/or sustainability performance. Each Lender, by delivering its signature page to this Agreement, or delivering its signature page to an Assignment and Assumption or any other document pursuant to which it shall become a Lender hereunder, shall be deemed to have acknowledged receipt of, and consented to and approved, each Loan Document and each other document required to be delivered to, or be approved by or satisfactory to, the Administrative Agent or the Lenders on or prior to such date and on the Effective Date.

SECTION 8.08. Administrative Agent May File Proofs of Claim. In case of any proceeding with respect to the Company under any United States (Federal or state) or foreign bankruptcy, insolvency, receivership, winding-up or similar law now or hereafter in effect, the Administrative Agent (irrespective of whether the principal of any Loan shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the

Administrative Agent shall have made any demand on the Company) shall be entitled and empowered (but not obligated) by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans, Letters of Credit and all other Obligations that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders, the Issuing Banks and the Administrative Agent (including any claim under Sections 2.14, 2.15, 2.16 and 9.03) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such proceeding is hereby authorized by each Lender and Issuing Bank to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Lenders, the Issuing Banks or other holders of any Obligations, to pay to the Administrative Agent any amount due to it, in its capacity as the Administrative Agent, under the Loan Documents (including under Section 9.03).

SECTION 8.09. No Reliance on Administrative Agent's Customer Identification Program. Each Lender and Issuing Bank acknowledges and agrees that neither such Lender or Issuing Bank, nor any of its Affiliates, participants or assignees, may rely on the Administrative Agent to carry out such Lender's, Issuing Bank's, Affiliate's, participant's or assignee's customer identification program, or other obligations required or imposed under or pursuant to the USA PATRIOT Act or the regulations thereunder, including the regulations contained in 31 CFR 103.121 (as hereafter amended or replaced, the "CIP Regulations"), or any other Anti-Corruption Laws, including any programs involving any of the following items relating to or in connection with any of the Company, its Affiliates or its agents, the Loan Documents or the transactions hereunder or contemplated hereby: (a) any identity verification procedures, (b) any recordkeeping, (c) comparisons with government lists, (d) customer notices or (e) other procedures required under the CIP Regulations or such other laws.

SECTION 8.10. Lender ERISA Representations.

(a) Each Lender (x) represents and warrants, as of the date such Person became a Lender party hereto, to, and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of, the Administrative Agent and the Revolver Facility Arrangers, and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Company, that at least one of the following is and will be true: (i) such Lender is not using "plan assets" (within the meaning of 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA) of one or more Benefit Plans with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments or this Agreement, (ii) the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE 91-38 (a class

exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement, (iii)(A) such Lender is an investment fund managed by a "Qualified Professional Asset Manager" (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Lender to enter into, participate in, administer and perform the Loans, the Letters of Credit, the Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Loans, the Commitments and this Agreement satisfies the requirements of sub-sections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Lender, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with respect to such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement or (iv) such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Lender.

(b) In addition, unless either (1) clause (i) of the immediately preceding paragraph is true with respect to a Lender or (2) a Lender has provided another representation, warranty and covenant in accordance with clause (iv) of the immediately preceding paragraph, such Lender further (x) represents and warrants, as of the date such Person became a Lender party hereto, to and (y) covenants, from the date such Person became a Lender party hereto to the date such Person ceases being a Lender party hereto, for the benefit of the Administrative Agent and the Revolver Facility Arrangers, and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Company, that none of the Administrative Agent or the Revolver Facility Arrangers or any of their respective Affiliates is a fiduciary with respect to the assets of such Lender involved in such Lender's entrance into, participation in, administration of and performance of the Loans, the Letters of Credit, the Commitments and this Agreement (including in connection with the reservation or exercise of any rights by the Administrative Agent under this Agreement, any Loan Document or any documents related hereto or thereto).

SECTION 8.11. No Other Duties; Etc. Notwithstanding anything herein to the contrary, none of the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Syndication Agent or the Documentation Agents shall have any duties or obligations under this Agreement or any other Loan Document (except in its capacity, as applicable, as the Administrative Agent, a Lender or an Issuing Bank), but all such Persons shall have the benefit of the indemnities and exculpatory provisions provided for hereunder or thereunder.

SECTION 8.12. Tax Withholdings. To the extent required by any applicable law, the Administrative Agent may withhold from any payment to any Lender or Issuing Bank an amount equivalent to any applicable withholding Tax. Without limiting or expanding the provisions of Section 2.16, each Lender and Issuing Bank shall indemnify and hold harmless the Administrative Agent against, within 10 days after written demand therefor, any and all Taxes and any and all related losses, claims, liabilities and expenses (including fees, charges and disbursements of any counsel for the Administrative Agent) incurred by or asserted against the Administrative Agent by the IRS or any other Governmental Authority as a result of the failure of the Administrative Agent to properly withhold Tax from amounts paid to or for the account of any Lender or Issuing Bank, as applicable, for any reason (including, without limitation, because the appropriate form was not

delivered or not properly executed, or because such Lender or Issuing Bank, as applicable, failed to notify the Administrative Agent of a change in circumstance that rendered the exemption from, or reduction of withholding Tax ineffective). A certificate as to the amount of such payment or liability delivered to any Lender or Issuing Bank by the Administrative Agent shall be conclusive absent manifest error. Each Lender and Issuing Bank hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender or Issuing Bank, as applicable, under this Agreement or any other Loan Document against any amount due the Administrative Agent under this paragraph. The agreements in this paragraph shall survive the resignation and/or replacement of the Administrative Agent, any assignment of rights by, or the replacement of, a Lender or Issuing Bank, the termination of the Commitments and the repayment, satisfaction or discharge of all other Obligations.

SECTION 8.13. Beneficiaries. Except with respect to Section 8.06, the provisions of this Article are solely for the benefit of the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Lenders and the Issuing Banks, and the Company shall not have any rights as a third party beneficiary of any such provisions.

SECTION 8.14. Erroneous Payments.

(a) If the Administrative Agent notifies a Lender, Issuing Bank, or any Person who has received funds on behalf of a Lender or Issuing Bank (any such Lender, Issuing Bank, or other recipient, a "Payment Recipient") that the Administrative Agent has determined in its sole discretion (whether or not after receipt of any notice under immediately succeeding clause (b)) that any funds received by such Payment Recipient from the Administrative Agent or any of its Affiliates were erroneously transmitted to, or otherwise erroneously or mistakenly received by, such Payment Recipient (whether or not known to such Lender, Issuing Bank, or other Payment Recipient on its behalf) (any such funds, whether received as a payment, prepayment or repayment of principal, interest, fees, distribution or otherwise, individually and collectively, an "Erroneous Payment") and demands the return of such Erroneous Payment (or a portion thereof), such Erroneous Payment shall at all times remain the property of the Administrative Agent and shall be segregated by the Payment Recipient and held in trust for the benefit of the Administrative Agent, and such Lender or Issuing Bank shall (or, with respect to any Payment Recipient who received such funds on its behalf, shall cause such Payment Recipient to) promptly, but in no event later than two Business Days thereafter, return to the Administrative Agent the amount of any such Erroneous Payment (or portion thereof) as to which such a demand was made, in same day funds (in the currency so received), together with interest thereon in respect of each day from and including the date such Erroneous Payment (or portion thereof) was received by such Payment Recipient to the date such amount is repaid to the Administrative Agent in same day funds at the greater of the Overnight Bank Funding Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation from time to time in effect. A notice of the Administrative Agent to any Payment Recipient under this clause (a) shall be conclusive, absent manifest error.

(b) Without limiting immediately preceding clause (a), each Lender, Issuing Bank, or any Person who has received funds on behalf of a Lender or Issuing Bank, hereby further agrees that if it receives a payment, prepayment or repayment (whether received as a payment, prepayment or repayment of principal, interest, fees, distribution or otherwise) from the

Administrative Agent (or any of its Affiliates) (x) that is in a different amount than, or on a different date from, that specified in a notice of payment, prepayment or repayment sent by the Administrative Agent (or any of its Affiliates) with respect to such payment, prepayment or repayment, (y) that was not preceded or accompanied by a notice of payment, prepayment or repayment sent by the Administrative Agent (or any of its Affiliates), or (z) that such Lender, Issuing Bank, or other such recipient, otherwise becomes aware was transmitted, or received, in error or by mistake (in whole or in part) in each case:

(i) (A) in the case of immediately preceding clauses (x) or (y), an error shall be presumed to have been made (absent written confirmation from the Administrative Agent to the contrary) or (B) an error has been made (in the case of immediately preceding clause (z)), in each case, with respect to such payment, prepayment or repayment; and

(ii) such Lender or Issuing Bank shall (and shall cause any other recipient that receives funds on its respective behalf to) promptly (and, in all events, within one Business Day of its knowledge of such error) notify the Administrative Agent of its receipt of such payment, prepayment or repayment, the details thereof (in reasonable detail) and that it is so notifying the Administrative Agent pursuant to this Section 8.14(b).

(c) Each Lender or Issuing Bank hereby authorizes the Administrative Agent to set off, net and apply any and all amounts at any time owing to such Lender or Issuing Bank under any Loan Document, or otherwise payable or distributable by the Administrative Agent to such Lender or Issuing Bank under any Loan Document, against any amount due to the Administrative Agent under immediately preceding clause (a) or under the indemnification provisions of this Agreement.

(d) In the event that an Erroneous Payment (or portion thereof) is not recovered by the Administrative Agent for any reason, after demand therefor by the Administrative Agent in accordance with immediately preceding clause (a), from any Lender or Issuing Bank that has received such Erroneous Payment (or portion thereof) (and/or from any Payment Recipient who received such Erroneous Payment (or portion thereof) on its respective behalf) (such unrecovered amount, an "Erroneous Payment Return Deficiency"), upon the Administrative Agent's notice to such Lender or Issuing Bank at any time, (i) such Lender or Issuing Bank shall be deemed to have assigned its Loans (but not its Commitments) of the relevant Class with respect to which such Erroneous Payment was made (the "Erroneous Payment Impacted Class") in an amount equal to the Erroneous Payment Return Deficiency (or such lesser amount as the Administrative Agent may specify) (such assignment of the Loans (but not Commitments) of the Erroneous Payment Impacted Class, the "Erroneous Payment Deficiency Assignment") at par plus any accrued and unpaid interest (with the assignment fee to be waived by the Administrative Agent in such instance), and is hereby (together with the Company) deemed to execute and deliver an Assignment and Assumption with respect to such Erroneous Payment Deficiency Assignment, and such Lender or Issuing Bank shall deliver any notes evidencing such Loans to the Company or the Administrative Agent, (ii) the Administrative Agent as the assignee Lender shall be deemed to acquire the Erroneous Payment Deficiency Assignment, (iii) upon such deemed acquisition, the Administrative Agent as the assignee Lender shall become a Lender or Issuing Bank, as applicable, hereunder with respect to such Erroneous Payment Deficiency Assignment and the assigning Lender or assigning Issuing Bank shall cease to be a Lender or Issuing Bank, as applicable,

hereunder with respect to such Erroneous Payment Deficiency Assignment, excluding, for the avoidance of doubt, its obligations under the indemnification provisions of this Agreement and its applicable Commitments which shall survive as to such assigning Lender or assigning Issuing Bank and (iv) the Administrative Agent may reflect in the Register its ownership interest in the Loans subject to the Erroneous Payment Deficiency Assignment. The Administrative Agent may, in its discretion, sell any Loans acquired pursuant to an Erroneous Payment Deficiency Assignment and upon receipt of the proceeds of such sale, the Erroneous Payment Return Deficiency owing by the applicable Lender or Issuing Bank shall be reduced by the net proceeds of the sale of such Loan (or portion thereof), and the Administrative Agent shall retain all other rights, remedies and claims against such Lender or Issuing Bank (and/or against any recipient that receives funds on its respective behalf). For the avoidance of doubt, no Erroneous Payment Deficiency Assignment will reduce the Commitments of any Lender or Issuing Bank and such Commitments shall remain available in accordance with the terms of this Agreement. In addition, each party hereto agrees that, except to the extent that the Administrative Agent has sold a Loan (or portion thereof) acquired pursuant to an Erroneous Payment Deficiency Assignment, and irrespective of whether the Administrative Agent may be equitably subrogated, the Administrative Agent shall be contractually subrogated to all the rights and interests of the applicable Lender or Issuing Bank under the Loan Documents with respect to each Erroneous Payment Return Deficiency (the "Erroneous Payment Subrogation Rights").

(e) The parties hereto agree that an Erroneous Payment shall not pay, prepay, repay, discharge or otherwise satisfy any Obligations owed by the Company, except, in each case, to the extent such Erroneous Payment is, and solely with respect to the amount of such Erroneous Payment that is, comprised of funds received by the Administrative Agent from the Company for the purpose of making such Erroneous Payment.

(f) To the extent permitted by applicable Law, no Payment Recipient shall assert any right or claim to an Erroneous Payment, and hereby waives, and is deemed to waive, any claim, counterclaim, defense or right of set-off or recoupment with respect to any demand, claim or counterclaim by the Administrative Agent for the return of any Erroneous Payment received, including without limitation waiver of any defense based on "discharge for value" or any similar doctrine.

Each party's obligations, agreements and waivers under this Section 8.14 shall survive the resignation or replacement of the Administrative Agent, the termination of the Commitments and/or the repayment, satisfaction or discharge of all Obligations (or any portion thereof) under any Loan Document.

ARTICLE IX

Miscellaneous

SECTION 9.01. Notices.

(a) Except in the case of notices and other communications expressly permitted to be given by telephone and subject to paragraph (b) of this Section, all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight

courier service, mailed by certified or registered mail or sent by fax or other electronic communication (including email), as follows:

(i) if to the Company, the Administrative Agent, or PNC in its capacity as an Issuing Bank or a Swingline Lender, to it at the address specified for such Person on Schedule 9.01;

(ii) if to any other Lender, to it at its address set forth in its Administrative Questionnaire;

(iii) if to any other Issuing Bank, to it at the address specified in clause (ii) above or, if such Issuing Bank shall not also be a Lender, to it at the address most recently specified by it in a notice delivered to the Administrative Agent and the Company; and

(iv) if to any other Swingline Lender, to it at the address specified in clause (ii) above or, if such Swingline Lender shall not also be a Lender, to it at the address most recently specified by it in a notice delivered to the Administrative Agent and the Company.

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by fax shall be deemed to have been given when sent (but if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient); and notices delivered through electronic communications to the extent provided in paragraph (b) of this Section shall be effective as provided in such paragraph. The term address as used above may refer to a physical or electronic address (or contact number).

(b) Notices and other communications to the Lenders and the Issuing Banks hereunder may be delivered or furnished by electronic communications (including email and Internet and intranet websites) pursuant to procedures approved by the Administrative Agent (acting reasonably) (it being understood that, except as set forth in the following proviso, the Company may deliver notices and other communications to the Lenders and Issuing Banks by email); provided that the foregoing shall not apply to notices under Article II to any Lender or Issuing Bank if such Lender or Issuing Bank, as applicable, has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. Any notices or other communications to the Administrative Agent or the Company may be delivered or furnished by email. Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an email address shall be deemed received when sent unless the sender receives notice from the intended recipient that such recipient is not reachable at such address or is "out of office" or a response from the intended recipient of similar import; provided that if such notice or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient; and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its email address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor.

(c) Any party hereto may change its address, telephone or fax number or email address for notices and other communications hereunder by notice to the other parties hereto.

(d) The Administrative Agent may, but shall not be obligated to, make any Communication by posting such Communication on Debt Domain, IntraLinks, SyndTrak or a similar electronic transmission system (the "Platform"). The Platform is provided "as is" and "as available". None of the Company, the Administrative Agent nor any of their respective Related Parties warrants, or shall be deemed to warrant, the adequacy of the Platform, and the Company and the Administrative Agent expressly disclaim liability for errors or omissions in the Communications. No warranty of any kind, express, implied or statutory, including any warranty of merchantability, fitness for a particular purpose, non-infringement of third-party rights or freedom from viruses or other code defects, is made, or shall be deemed to be made, by the Company, the Administrative Agent or any of their respective Related Parties in connection with the Communications or the Platform. In no event shall the Company or the Subsidiaries, the Administrative Agent or any of their respective Related Parties have any liability to the Company, any Lender, any Issuing Bank or any other Person for damages of any kind, including direct or indirect, special, incidental or consequential damages, losses or expenses (whether in tort, contract or otherwise), arising out of the Company's or the Administrative Agent's transmission of Communications through the Platform; provided that nothing in this paragraph (d) shall limit the Company's indemnity and reimbursement obligations set forth in Section 9.03, including such indemnity and reimbursement obligations with respect to any damages, including direct or indirect, special, incidental or consequential damages, losses or expenses arising out of, in connection with or as a result of any claim, litigation, investigation or proceeding brought against any Indemnitee by any third party. Neither the Company nor the Administrative Agent is responsible for approving or vetting the representatives or contacts of any Lender or Issuing Bank that are added to the Platform.

SECTION 9.02. Waivers; Amendments. (a) No failure or delay by the Administrative Agent, any Issuing Bank or any Lender in exercising any right or power hereunder or under any other Loan Document shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the Administrative Agent, the Issuing Banks and the Lenders hereunder and under the other Loan Documents are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provision of this Agreement or any other Loan Document or consent to any departure by the Company therefrom shall in any event be effective unless the same shall be permitted by Section 9.02(b) or 9.02(c), and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given. Without limiting the generality of the foregoing, the execution and delivery of this Agreement or any other Loan Document, the making of a Loan or the issuance of a Letter of Credit shall not be construed as a waiver of any Default, regardless of whether the Administrative Agent, any Lender or any Issuing Bank or any Affiliate of any of the foregoing may have had notice or knowledge of such Default at the time.

(b) Except as provided in Section 9.02(c), none of this Agreement, any other Loan Document or any provision hereof or thereof may be waived, amended or modified except, in the case of this Agreement, pursuant to an agreement or agreements in writing entered into by

the Company, the Administrative Agent and the Required Lenders and, in the case of any other Loan Document, pursuant to an agreement or agreements in writing entered into by the Company and the Administrative Agent, in each case with the consent of the Required Lenders; provided that no such agreement shall (i) increase the Commitment of any Lender without the written consent of such Lender, (ii) reduce the principal amount of any Loan or LC Disbursement or reduce the rate of interest thereon, or reduce any fees payable hereunder, without the written consent of each Lender directly and adversely affected thereby (other than any waiver of any default interest applicable pursuant to Section 2.12(d), waivers, amendments or modifications to any mandatory prepayments added to this Agreement after the Effective Date or as expressly set forth in Section 2.21(c)), (iii) postpone the scheduled maturity date of any Loan or the required date of reimbursement of any LC Disbursement or any scheduled date fixed for the payment of any principal, interest or fees payable under any Loan Document, or reduce the amount of, waive or excuse any such payment, or postpone the scheduled date of expiration of any Commitment, without the written consent of each Lender directly and adversely affected thereby, (iv) change Section 2.17(b) or 2.17(c) in a manner that would alter the pro rata sharing of payments required thereby, without the written consent of each Lender directly and adversely affected thereby, or (v) change any of the provisions of this paragraph or the percentage set forth in the definition of the term "Required Lenders" or "Majority in Interest" or any other provision of any Loan Document specifying the number or percentage of Lenders (or Lenders of any Class) required to waive, amend or modify any rights thereunder or make any determination or grant any consent thereunder, without the written consent of each directly and adversely affected Lender, provided that, with the consent of the Required Lenders or in accordance with Section 2.19 or 2.22, the provisions of this paragraph and the definition of the term "Required Lenders" or "Majority in Interest" may be amended to include references to any new class of commitments or loans created under this Agreement (or to lenders extending such commitments or loans); provided further that no amendment, waiver or other modification of this Agreement or any other Loan Document shall amend, modify or otherwise directly and adversely affect the rights or duties of the Administrative Agent, the Sustainability Structuring Agent, any Swingline Lender or any Issuing Bank without the prior written consent of the Administrative Agent, the Sustainability Structuring Agent, such Swingline Lender or such Issuing Bank, as the case may be.

(c) Notwithstanding anything to the contrary in paragraph (a) or (b) of this Section:

(i) without the consent of any other Person, the Company and the Administrative Agent (each in its sole discretion) may waive, amend or otherwise modify any Loan Document by an agreement in writing entered into by the Company and the Administrative Agent to (A) correct, amend, cure or resolve any ambiguity, omission, defect, typographical error, inconsistency, manifest error or mistake in such Loan Document, (B) make administrative and operational changes not adverse to any Lender or (C) otherwise enhance the rights and benefits of the Lenders and/or any Issuing Bank; provided that, in each case, any such waiver, amendment or modification shall become effective without any further action or the consent of any other Person if the same is not objected to in writing by the Required Lenders within five Business Days following receipt by the Lenders of written notice thereof;

(ii) no consent with respect to any amendment, waiver or other modification of this Agreement or any other Loan Document shall be required of any Defaulting Lender, except with respect to any amendment, waiver or other modification referred to in clause (i), (ii) or (iii) of the first proviso of Section 9.02(b) and then only in the event such Defaulting Lender shall be directly and adversely affected by such amendment, waiver or other modification;

(iii) in the case of any amendment, waiver or other modification referred to in the first proviso of Section 9.02(b), no consent with respect to any amendment, waiver or other modification of this Agreement or any other Loan Document shall be required of any Lender that receives payment in full of the principal of and interest accrued on each Loan made by such Lender, and all other amounts owing to or accrued for the account of such Lender under this Agreement and the other Loan Documents, at the time such amendment, waiver or other modification becomes effective and whose Commitments terminate by the terms and upon the effectiveness of such amendment, waiver or other modification;

(iv) any amendment, waiver or other modification of this Agreement or any other Loan Document that by its express terms affects the rights or duties hereunder or thereunder of the Lenders of one or more Classes (but not the Lenders of any other Class) may be effected by an agreement or agreements in writing entered into by the Company, the Administrative Agent and the requisite number or percentage in interest of each affected Class of Lenders that would be required to consent thereto under this Section if such Class of Lenders were the only Class of Lenders hereunder at the time;

(v) this Agreement and the other Loan Documents may be amended in the manner provided in Sections 2.04(e), 2.05(i), 2.13(b), 2.19 and 2.22 and as provided in the definition of the terms "LC Commitment" and "Swingline Commitment";

(vi) an amendment to this Agreement contemplated by the last sentence of the definition of the term "Applicable Rate" may be made pursuant to an agreement or agreements in writing entered into by the Company, the Administrative Agent and the Required Lenders; and

(vii) this Agreement may be amended (or amended and restated) with the prior written consent of the Required Lenders, the Administrative Agent and the Company (A) to add one or more additional credit facilities to this Agreement and to permit the extensions of credit from time to time outstanding thereunder and the accrued interest and fees in respect thereof to share ratably in the benefits of this Agreement and the other Loan Documents with the Loans and the accrued interest and fees in respect thereof and (B) to include appropriately the Lenders holding such credit facilities in any determination of the Required Lenders.

(d) The Administrative Agent may, but shall have no obligation to, with the consent of any Lender, execute amendments, waivers or other modifications on behalf of such Lender. Any amendment, waiver or other modification effected in accordance with this Section shall be binding upon each Person that is at the time thereof a Lender and each Person that subsequently becomes a Lender.

SECTION 9.03. Expenses; Indemnity; Damage Waiver. (a) The Company shall pay (i) all reasonable and documented out-of-pocket expenses incurred by the Administrative Agent, the Sustainability Structuring Agent and their respective Affiliates, including the reasonable and documented fees, charges and disbursements of counsel for any of the foregoing (but limited to a single primary counsel and, if necessary, a single local counsel in each relevant material jurisdiction (which may be a single local counsel acting in multiple jurisdictions), in each case, for the Administrative Agent , the Sustainability Structuring Agent and their respective Affiliates taken as a whole), in connection with the structuring, arrangement and syndication of the credit facilities provided for herein, including the preparation, execution and delivery of the Engagement Letter, and the Fee Letter, as well as the preparation, execution, delivery and administration of this Agreement, the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (ii) all reasonable and documented out-of-pocket expenses incurred by any Issuing Bank in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder and (iii) all reasonable and documented out-of-pocket expenses incurred by the Administrative Agent, the Sustainability Structuring Agent, any Issuing Bank or any Lender, including the fees, charges and disbursements of any counsel for any of the foregoing, in connection with the enforcement or protection of its rights in connection with the Loan Documents, including its rights under this Section, or in connection with the Loans made or Letters of Credit issued hereunder, including all such out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of such Loans or Letters of Credit.

(b) The Company shall (i) indemnify and hold harmless each of the Administrative Agent (and any sub-agent thereof), the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Syndication Agent, the Documentation Agents, each Lender and each Issuing Bank, and each Related Party of any of the foregoing (each such Person being called an "Indemnitee") from and against any and all losses, claims, damages, liabilities and expenses, joint or several, that may be brought or asserted against any Indemnitee (the "Indemnified Losses") as a result of or arising out of or in connection with (A) the Engagement Letter, the Fee Letter, this Agreement, the other Loan Documents or the Transactions or any other transactions contemplated thereby, (B) any Loan or Letter of Credit or the use of the proceeds therefrom (including any refusal by any Issuing Bank to honor a demand for payment under a Letter of Credit if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit), (C) any actual or alleged presence or Release of Hazardous Materials at, under, on or from any property currently or formerly owned or operated by the Company or any Subsidiary, or any other liability under Environmental Laws related in any way to the Company or any Subsidiary or (D) any claim, litigation, investigation or proceeding relating to any of the foregoing (a "Proceeding"), regardless of whether any such Indemnitee is a party thereto (and regardless of whether such Proceeding is initiated by a third party or by the Company or any of its subsidiaries, Affiliates or equity holders), and (ii) reimburse each Indemnitee from time to time, upon presentation of a summary statement, for any reasonable and documented out-of-pocket legal or other expenses incurred in connection with investigating or defending any of the foregoing; provided that the foregoing indemnity will not, as to any Indemnitee, apply to losses, claims, damages, liabilities or related expenses to the extent (A) they are found in a final, nonappealable judgment of a court of competent jurisdiction to have resulted from (1) the willful misconduct, gross negligence or bad faith of such Indemnitee or a Related Party of such Indemnitee or (2) a material breach by such Indemnitee or its Affiliates of their obligations under this

Agreement or (B) arising out of or in connection with any Proceeding that does not involve an act or omission of the Company or any of its Affiliates and that is brought by an Indemnitee against any other Indemnitee (other than against the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Administrative Agent or another named agent, in each case, acting in its capacity or fulfilling its role as such), provided further that (x) such legal expenses shall be limited to the fees, disbursements and other charges of a single primary firm of counsel to the Indemnitees, taken as a whole, and, if necessary, a single local counsel to the Indemnitees, taken as a whole, in each relevant material jurisdiction (which may be a single local counsel acting in multiple jurisdictions) (and, in the case of an actual or perceived conflict of interest where the Indemnitee affected by such conflict informs the Company of such conflict and thereafter retains its own single firm of counsel (or, if necessary, its own single firm of local counsel in each relevant material jurisdiction (which may be a single local counsel acting in multiple jurisdictions)), of such conflict counsel for such affected Indemnitee and all similarly situated Indemnitees, taken as a whole) and (y) each Indemnitee shall promptly repay to the Company all amounts previously paid by the Company pursuant to the foregoing provisions to the extent that such Indemnitee is found in a final, nonappealable judgment of a court of competent jurisdiction not to be entitled to indemnification hereunder as contemplated by the immediately preceding proviso.

(c) To the extent that the Company fails indefeasibly to pay any amount required under paragraph (a) or (b) of this Section to the Administrative Agent (or any sub-agent thereof), any Issuing Bank, any Swingline Lender or any Related Party of any of the foregoing (and without limiting its obligation to do so), each Lender severally agrees to pay to the Administrative Agent (or any such sub-agent), such Issuing Bank, such Swingline Lender or such Related Party, as the case may be, such Lender's Applicable Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such unpaid amount; provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent (or such sub-agent), such Issuing Bank or such Swingline Lender in its capacity as such, or against any Related Party of any of the foregoing acting for the Administrative Agent (or any such sub-agent), such Issuing Bank or such Swingline Lender.

(d) To the fullest extent permitted by applicable law, the Company shall not assert, or permit any of its controlled Related Parties to assert, and the Company hereby waives, any claim against any Indemnitee (i) for any damages arising from the use by others of information or other materials obtained through telecommunications, electronic or other information transmission systems (including the Internet), except to the extent arising from the gross negligence or willful misconduct of such Indemnitee, as determined by a court of competent jurisdiction in a final and nonappealable judgment, or (ii) on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the Transactions, any Loan or Letter of Credit or the use of the proceeds thereof.

(e) To the fullest extent permitted by applicable law, the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Issuing Banks, the Lenders, the Syndication Agent and the Documentation Agents shall not assert, or permit any of their respective controlled Related Parties to assert, and each of them hereby waives, any claim

against the Company or any of its Related Parties, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the Transactions, any Loan or Letter of Credit or the use of the proceeds thereof; provided that nothing in this paragraph (e) shall limit the Company's indemnity and reimbursement obligations set forth in this Section 9.03, including such indemnity and reimbursement obligations with respect to any special, indirect, consequential or punitive damages arising out of, in connection with or as a result of any claim, litigation, investigation or proceeding brought against any Indemnitee by any third party.

(f) All amounts due under this Section 9.03 shall be payable promptly after written demand therefor.

SECTION 9.04. Successors and Assigns. (a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby (including any Affiliate of any Issuing Bank that issues any Letter of Credit), except that (i) other than as expressly permitted by Section 6.02(a)(ii)(B), the Company may not assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender (and any attempted assignment or transfer by the Company without such consent shall be null and void) and (ii) no Lender may assign or otherwise transfer its rights or obligations hereunder except in accordance with this Section 9.04 (and any attempted assignment or transfer by any Lender not permitted by this Section 9.04 shall be null and void). Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby (including any Affiliate of any Issuing Bank that issues any Letter of Credit), sub-agents of the Administrative Agent, Participants (to the extent provided in paragraph (c) of this Section), the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Syndication Agent, the Documentation Agents and, to the extent expressly contemplated hereby, the Related Parties of the foregoing) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) (i) Subject to the conditions set forth in paragraph (b)(ii) below, any Lender may assign to one or more Eligible Assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Commitments and the Loans at the time owing to it) with the prior written consent (such consent not to be unreasonably withheld, delayed or conditioned) of:

(A) the Company; provided that no consent of the Company shall be required for an assignment to a Lender or an Affiliate of a Lender or, if a Payment or Bankruptcy Event of Default has occurred and is continuing, any other Eligible Assignee;

(B) the Administrative Agent;

(C) each Issuing Bank; and

(D) each Swingline Lender.

(ii) Assignments shall be subject to the following additional conditions:

(A) except in the case of an assignment to a Lender or an Affiliate of a Lender, or an assignment of the entire remaining amount of the assigning Lender's Commitment or Loans of any Class, the amount of the Commitment or Loans of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent) shall not be less than $10,000,000 unless each of the Company and the Administrative Agent otherwise consents; provided that no such consent of the Company shall be required if a Payment or Bankruptcy Event of Default has occurred and is continuing;

(B) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement; provided that this clause (B) shall not be construed to prohibit the assignment of a proportionate part of all the assigning Lender's rights and obligations in respect of one Class of Commitments or Loans;

(C) the parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption (or an agreement incorporating by reference a form of Assignment and Assumption posted on the Platform), together with a processing and recordation fee of $3,500, provided that (x) only one such processing and recordation fee shall be payable in the event of simultaneous assignments from any Lender or its Approved Funds to one or more other Approved Funds of such Lender and (y) such processing and recordation fee may be waived by the Administrative Agent in its sole discretion; and

(D) the assignee, if it shall not already be a Lender, shall deliver to the Administrative Agent any tax forms required by Section 2.16(f) and an Administrative Questionnaire in which the assignee designates one or more credit contacts to whom all syndicate-level information (which may contain MNPI) will be made available and who may receive such information in accordance with the assignee's compliance procedures and applicable law, including United States (Federal or State) and foreign securities laws.

(iii) Subject to acceptance and recording thereof pursuant to Section 9.04(b)(iv), from and after the effective date specified in each Assignment and Assumption (or an agreement incorporating by reference a form of Assignment and Assumption posted on the Platform) the assignee thereunder shall be a party hereto and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 2.14, 2.15, 2.16 and 9.03); provided, that except to the extent otherwise expressly agreed by the affected parties, no assignment by a Defaulting Lender will constitute a waiver or release

of any claim of any party hereunder arising from such Lender having been a Defaulting Lender. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this Section 9.04 shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with Section 9.04(c).

(iv) The Administrative Agent, acting solely for this purpose as a non-fiduciary agent of the Company, shall maintain at one of its offices a copy of each Assignment and Assumption delivered to it and records of the names and addresses of the Lenders, and the Commitments of, and principal amount (and stated interest) of the Loans and LC Disbursements owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and the Company, the Administrative Agent, the Issuing Banks and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Company and, as to entries pertaining to it, any Issuing Bank or Lender, at any reasonable time and from time to time upon reasonable prior notice.

(v) Upon receipt by the Administrative Agent of an Assignment and Assumption (or an agreement incorporating by reference a form of Assignment and Assumption posted on the Platform) executed by an assigning Lender and an assignee, the assignee's completed Administrative Questionnaire and any tax forms required by Section 2.16(f) (unless the assignee shall already be a Lender hereunder) and the processing and recordation fee referred to in this Section 9.04, the Administrative Agent shall accept such Assignment and Assumption and record the information contained therein in the Register; provided that the Administrative Agent shall not be required to accept such Assignment and Assumption or so record the information contained therein if the Administrative Agent reasonably believes that such Assignment and Assumption lacks any written consent required by this Section 9.04 or is otherwise not in proper form, it being acknowledged that the Administrative Agent shall have no duty or obligation (and shall incur no liability) with respect to obtaining (or confirming the receipt) of any such written consent or with respect to the form of (or any defect in) such Assignment and Assumption, any such duty and obligation being solely with the assigning Lender and the assignee. No assignment shall be effective for purposes of this Agreement unless it has been recorded in the Register as provided in this paragraph, and following such recording, unless otherwise determined by the Administrative Agent (such determination to be made in the sole discretion of the Administrative Agent, which determination may be conditioned on the consent of the assigning Lender and the assignee), shall be effective notwithstanding any defect in the Assignment and Assumption relating thereto. Each assigning Lender and the assignee, by its execution and delivery of an Assignment and Assumption, shall be deemed to have represented to the Administrative Agent that all written consents required by this Section 9.04 with respect thereto (other than the consent of the Administrative Agent) have been obtained and that such Assignment and Assumption is otherwise duly completed and in proper form, and each assignee, by its execution and delivery of an Assignment and Assumption, shall be deemed to have represented to the assigning Lender and the Administrative Agent that such assignee is an Eligible Assignee. The Administrative

Agent shall have no responsibility or liability for an assignment to a Person that is not an Eligible Assignee.

(c) (i) Any Lender may, without the consent of the Company, the Administrative Agent, any Swingline Lender or any Issuing Bank, sell participations to one or more Eligible Assignees ("Participants") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Commitments and Loans of any Class); provided that (A) such Lender's obligations under this Agreement shall remain unchanged, (B) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (C) the Company, the Administrative Agent, the Issuing Banks and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and/or obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement or any other Loan Document; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver described in clause (i), (ii) or (iii) of the first proviso to Section 9.02(b) that directly and adversely affects such Participant. The Company agrees that each Participant shall be entitled to the benefits of Sections 2.14, 2.15 and 2.16 (subject to the requirements and limitations therein, including the requirements under Section 2.16(f) (it being understood that the documentation required under Section 2.16(f) shall be delivered to the participating Lender)) to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to Section 9.04(b); provided that such Participant (x) agrees to be subject to the provisions of Sections 2.17 and 2.18 as if it were an assignee under Section 9.04(b) and (y) shall not be entitled to receive any greater payment under Section 2.14 or 2.16 with respect to any participation than its participating Lender would have been entitled to receive, except to the extent such entitlement to receive a greater payment results from a Change in Law that occurs after the Participant acquired the applicable participation. Each Lender that sells a participation agrees, at the Company's request and expense, to use reasonable efforts to cooperate with the Company to effectuate the provisions of Section 2.18(b) with respect to any Participant. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 9.08 as though it were a Lender; provided that such Participant agrees to be subject to Section 2.17(c) as though it were a Lender.

(ii) Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Company, maintain records of the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loans or other obligations under this Agreement or any other Loan Document (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any Commitments, Loans, Letters of Credit or other rights and/or obligations under this Agreement or any other Loan Document) to any Person except to the extent that such disclosure is necessary to establish that any such Commitment, Loan, Letter of Credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such

participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as such) shall have no responsibility for maintaining a Participant Register.

(d) Any Lender may at any time pledge or grant a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including any pledge or grant to secure obligations to a Federal Reserve Bank or other central bank, and this Section 9.04 shall not apply to any such pledge or grant of a security interest; provided that no such pledge or grant of a security interest shall release a Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

SECTION 9.05. Survival. All representations and warranties made by the Company in the Loan Documents or other documents delivered in connection with or pursuant to this Agreement or any other Loan Document shall be considered to have been relied upon by the other parties hereto or thereto and shall survive the execution and delivery of this Agreement and the other Loan Documents and the making of any Loans and the issuance of any Letters of Credit, regardless of any investigation made by any such other party or on its behalf and notwithstanding that any of the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Syndication Agent, the Documentation Agents, the Issuing Banks, the Lenders or any Related Party of any of the foregoing may have had notice or knowledge of any Default or incorrect representation or warranty at the time any Loan Document was executed and delivered or any credit was extended hereunder, and all representations and warranties made by the Company and all covenants and agreements of the Company (for the avoidance of doubt, when in effect) contained in the Loan Documents or other documents delivered in connection with or pursuant to this Agreement or any other Loan Document shall continue in full force and effect as long as Payment in Full has not occurred. Notwithstanding the foregoing or anything else to the contrary set forth in this Agreement or any other Loan Document, in the event that, in connection with the refinancing or repayment in full of the Facilities, an Issuing Bank shall have provided to the Administrative Agent a written consent to the release of the Lenders from their obligations hereunder with respect to any Letter of Credit issued by such Issuing Bank (whether as a result of the obligations of the Company (and any other account party) in respect of such Letter of Credit having been collateralized in full by a deposit of cash with such Issuing Bank, or being supported by a letter of credit that names such Issuing Bank as the beneficiary thereunder, or other arrangements satisfactory to such Issuing Bank having been made), then from and after such time such Letter of Credit shall cease to be a "Letter of Credit" outstanding hereunder for all purposes of this Agreement and the other Loan Documents (including for purposes of determining whether the Company is required to comply with Articles V and VI hereof, but excluding Sections 2.14, 2.15, 2.16 and 9.03 and any expense reimbursement or indemnity provisions set forth in any other Loan Document), and the Revolving Credit Lenders shall be deemed to have no participations in such Letter of Credit, and no obligations with respect thereto, under Section 2.05(d) or 2.05(f). The provisions of Sections 2.14, 2.15, 2.16, 2.17(d) and 9.03 and Article VIII shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Loans, the expiration or termination of the Letters of Credit and the Commitments or the termination of this Agreement or any provision hereof.

SECTION 9.06. Counterparts; Integration; Effectiveness; Electronic Execution.

(a) This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement, the other Loan Documents and any separate letter agreements with respect to (i) fees payable to the Administrative Agent and (ii) changes to the LC Commitment of any Issuing Bank or the Swingline Commitment of any Swingline Lender constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof (but notwithstanding anything herein to the contrary, do not supersede any provisions of the Engagement Letter or the Fee Letter with respect to the Facilities that do not by the terms of such documents terminate upon the effectiveness of this Agreement, all of which provisions shall remain in full force and effect). This Agreement shall become effective when it shall have been executed by the Administrative Agent and the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto and the conditions specified in Section 4.01 are satisfied (or waived in accordance with Section 9.02), and thereafter shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

(b) Delivery of an executed counterpart of a signature page of this Agreement by fax or other electronic imaging shall be effective as delivery of a manually executed counterpart of this Agreement. The words "execution", "execute", "signed", "signature" and words of like import in or related to any document to be signed in connection with this Agreement (including any Assignment and Assumptions, amendments and other notices, waivers and consents) shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on the Platform, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that that notwithstanding anything contained herein to the contrary, the Administrative Agent is not under any obligation to agree to accept electronic signatures in any form or in any format unless expressly agreed to by the Administrative Agent pursuant to procedures approved by it.

SECTION 9.07. Severability. Any provision of this Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction.

SECTION 9.08. Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender and Issuing Bank and each Affiliate of any of the foregoing is hereby authorized at any time and from time to time, to the fullest extent permitted by applicable law, to set off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other obligations at any time owing by such Lender or Issuing Bank or by such an Affiliate to or for the credit or the account of the Company against any of and all the obligations

of the Company then due to such Lender or Issuing Bank or any Affiliate of any of the foregoing now or hereafter existing under this Agreement or any other Loan Document held by such Lender or Issuing Bank, irrespective of whether or not such Lender or Issuing Bank shall have made any demand under this Agreement or any other Loan Document and although such obligations of the Company are owed to a branch, office or Affiliate of such Lender or Issuing Bank different from the branch, office or Affiliate holding such deposit or obligated on such indebtedness. The rights of each Lender and Issuing Bank and each Affiliate of any of the foregoing under this Section 9.08 are in addition to other rights and remedies (including other rights of setoff) that such Lender or Issuing Bank or such Affiliate may have. Each Lender and Issuing Bank agrees to promptly notify the Company and the Administrative Agent after any such setoff and application; provided that the failure to give notice shall not affect the validity of such setoff and application.

SECTION 9.09. Governing Law; Jurisdiction; Consent to Service of Process.

(a) This Agreement shall be governed by, and construed in accordance with, the law of the State of New York.

(b) Each party hereto hereby irrevocably and unconditionally submits, for itself and its property, to the jurisdiction of the United States District Court of the Southern District of New York and of the Supreme Court of the State of New York sitting in New York County in the Borough of Manhattan, and any appellate court from any thereof, in any suit, action or proceeding arising out of or relating to this Agreement or any other Loan Document, or for recognition or enforcement of any judgment, and each party hereto hereby irrevocably and unconditionally agrees that all claims arising out of or relating to this Agreement or any other Loan Document brought by it or any of its Affiliates shall be brought, and shall be heard and determined, exclusively in such Federal court (or in the event such court lacks subject matter jurisdiction, such New York State court). Each party hereto agrees that a final judgment in any such suit, action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

(c) Each party to this Agreement hereby irrevocably and unconditionally waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of venue of any suit, action or proceeding arising out of or relating to this Agreement or any other Loan Document in any court referred to in Section 9.09(b). Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such suit, action or proceeding in any such court.

(d) Each party to this Agreement irrevocably consents to service of process in the manner provided for notices in Section 9.01. Nothing in this Agreement or any other Loan Document will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

SECTION 9.10. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT, ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY

OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

SECTION 9.11. Headings. Article and Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Agreement and shall not affect the construction of, or be taken into consideration in interpreting, this Agreement.

SECTION 9.12. Confidentiality. Each of the Administrative Agent, the Issuing Banks and the Lenders agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Related Parties, including accountants, legal counsel and other agents and advisors, it being understood that the Persons to whom such disclosure is made either are informed of the confidential nature of such Information and instructed to keep such Information confidential or are subject to customary confidentiality obligations of employment or professional practice, (b) to the extent required or requested by any Governmental Authority purporting to have jurisdiction over such Person or its Related Parties (including any self-regulatory authority, such as the National Association of Insurance Commissioners) (in which case such Person agrees to inform the Company promptly thereof prior to such disclosure to the extent practicable and not prohibited by applicable law (except with respect to any audit or examination conducted by bank accountants or any Governmental Authority exercising examination or regulatory authority)), (c) to the extent required by applicable law or by any subpoena or similar legal process (in which case such Person agrees to inform the Company promptly thereof prior to such disclosure to the extent practicable and not prohibited by applicable law), (d) to any other party to this Agreement, (e) in connection with the exercise of any remedies under this Agreement or any other Loan Document or any suit, action or proceeding relating to this Agreement or any other Loan Document, the enforcement of rights hereunder or thereunder or any Transactions, (f) subject to an agreement containing confidentiality undertakings substantially the same as those of this Section 9.12 (which shall be deemed to include those required to be made in order to obtain access to information posted on IntraLinks, SyndTrak or any other Platform), to any assignee of or Participant in (or its Related Parties), or any prospective assignee of or Participant in (or its Related Parties), any of its rights or obligations under this Agreement, (g) on a confidential basis to (i) any rating agency in connection with rating the Company or the Subsidiaries or the credit facilities provided for herein or (ii) the CUSIP Service Bureau or any similar agency to the extent required in connection with the issuance and monitoring of CUSIP numbers with respect to the credit facilities provided for herein, (h) with the consent of the Company, (i) to market data collectors, similar service providers to the lending industry and service providers to the Administrative Agent and the Lenders in connection with the administration and management of this Agreement or any other Loan Document, provided that such information is limited to the information about this Agreement and the other Loan Documents, or (j) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section 9.12 or (ii) becomes available to the Administrative Agent, any

Issuing Bank, any Lender or any Affiliate of any of the foregoing on a nonconfidential basis from a source other than the Company or any Subsidiary that is not known by the Administrative Agent, such Lender, such Issuing Bank or such Affiliate to be prohibited from disclosing such Information to such Persons by a legal, contractual, or fiduciary obligation to the Company or any Subsidiary. For purposes of this Section 9.12, "Information" means all information received from the Company or any Subsidiary relating to the Company, or any of its subsidiaries or their businesses, other than any such information that is available to the Administrative Agent, any Issuing Bank, any Lender or any Affiliate of any of the foregoing on a nonconfidential basis prior to disclosure by the Company or any Subsidiary; provided that, in the case of information received from the Company or any Subsidiary after the Effective Date, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section 9.12 shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information. It is agreed that, notwithstanding the restrictions of any prior confidentiality agreement binding on the Administrative Agent, the Sustainability Structuring Agent or any Revolver Facility Arranger, such Persons may disclose Information as provided in this Section 9.12. The Company consents to the publication by the Administrative Agent or any Lender of customary advertising material relating to the transactions contemplated hereby using the name, product photographs, logo or trademark of the Company and the Subsidiaries.

SECTION 9.13. Interest Rate Limitation. Notwithstanding anything herein to the contrary, the interest rate applicable to any Loan, together with all fees, charges and other amounts that are treated as interest on such Loan shall not exceed the maximum rate of non-usurious interest permitted by applicable law (the "Maximum Rate"). If the Administrative Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Company. In determining whether the interest contracted for, charged, or received by the Administrative Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent permitted by applicable law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the obligations hereunder.

SECTION 9.14. USA PATRIOT Act Notice. Each Lender and the Administrative Agent (for itself and not on behalf of any Lender) hereby notifies the Company that pursuant to the requirements of the USA PATRIOT Act it is required to obtain, verify and record information that identifies the Company, which information includes the name and address of the Company and other information that will allow such Lender or the Administrative Agent, as applicable, to identify the Company in accordance with the USA PATRIOT Act.

SECTION 9.15. No Fiduciary Relationship. The Company, on behalf of itself and the Subsidiaries, agrees that in connection with all aspects of the transactions contemplated hereby and any communications in connection therewith, the Company and its Affiliates, on the one hand, and the Administrative Agent, the Sustainability Structuring Agent, the Lenders, the Issuing Banks and their Affiliates, on the other hand, will have a business relationship that does not create, by implication or otherwise, any fiduciary duty on the part of the Administrative Agent, the

Sustainability Structuring Agent, the Lenders, the Issuing Banks or their Affiliates, and no such duty will be deemed to have arisen in connection with any such transactions or communications. The Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Lenders, the Issuing Banks and their Affiliates may be engaged, for their own accounts or the accounts of customers, in a broad range of transactions that involve interests that differ from those of the Company and its Affiliates, and none of the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Lenders, the Issuing Banks or their Affiliates has any obligation to disclose any of such interests to the Company or any of its Affiliates. To the fullest extent permitted by law, the Company hereby waives and releases any claims that it or any of its Affiliates may have against the Administrative Agent, the Revolver Facility Arrangers, the Sustainability Structuring Agent, the Lenders, the Issuing Banks or their respective Affiliates with respect to any breach or alleged breach of agency or fiduciary duty in connection with any aspect of any transaction contemplated hereby.

SECTION 9.16. Non-Public Information. (a) Each Lender and Issuing Bank acknowledges that all information, including requests for waivers and amendments, furnished by the Company or the Administrative Agent pursuant to or in connection with, or in the course of administering, this Agreement will be syndicate-level information, which may contain MNPI. Each Lender and Issuing Bank represents to the Company and the Administrative Agent that (i) it has developed compliance procedures regarding the use of MNPI and that it will handle MNPI in accordance with such procedures and applicable law, including Federal, state and foreign securities laws, and (ii) it has identified in its Administrative Questionnaire a credit contact who may receive information that may contain MNPI in accordance with its compliance procedures and applicable law, including United States (Federal or state) and foreign securities laws.

(b) The Company and each Lender and Issuing Bank acknowledge that, if information furnished by or on behalf of the Company pursuant to or in connection with this Agreement is being distributed by the Administrative Agent through the Platform, (i) the Administrative Agent may post any information that the Company has indicated as containing MNPI solely on that portion of the Platform designated for Private Side Lender Representatives and (ii) if the Company has not indicated whether any information furnished by it pursuant to or in connection with this Agreement contains MNPI, the Administrative Agent reserves the right to post such information solely on that portion of the Platform designated for Private Side Lender Representatives. The Company agrees to clearly designate all information provided to the Administrative Agent by or on behalf of the Company that is suitable to be made available to Public Side Lender Representatives, and the Administrative Agent shall be entitled to rely on any such designation by the Company without liability or responsibility for the independent verification thereof.

(c) If the Company does not file this Agreement with the SEC, then the Company hereby authorizes the Administrative Agent to distribute the execution version of this Agreement and the Loan Documents to all Lenders and Issuing Banks, including their Public Side Lender Representatives. The Company acknowledges its understanding that Lenders and Issuing Banks, including their Public Side Lender Representatives, may be trading in securities of the Company and its Affiliates while in possession of the Loan Documents.

(d) The Company represents and warrants that none of the information contained in the Loan Documents constitutes or contains MNPI. To the extent that any of the executed Loan Documents at any time constitutes MNPI, the Company agrees that it will promptly make such information publicly available by press release or public filing with the SEC.

SECTION 9.17. Acknowledgement and Consent to Bail-In of EEA Financial Institutions1.2 . Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Affected Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the Write-Down and Conversion Powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an Affected Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of the applicable Resolution Authority.

SECTION 9.18. Acknowledgement Regarding Any Supported QFCs. To the extent that the Loan Documents provide support, through a guarantee or otherwise, for interest rate hedge agreements or contracts or any other agreement or instrument that is a QFC (such support, "QFC Credit Support" and each such QFC a "Supported QFC"), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the "U.S. Special Resolution Regimes") in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Loan Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

(i) In the event a Covered Entity that is party to a Supported QFC (each, a "Covered Party") becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property securing such

Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Loan Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Loan Documents were governed by the laws of the United States or a state of the United States. Without limitation of the foregoing, it is understood and agreed that rights and remedies of the parties with respect to a Defaulting Lender shall in no event affect the rights of any Covered Party with respect to a Supported QFC or any QFC Credit Support.

(ii) As used in this Section 9.18, the following terms have the following meanings:

"BHC Act Affiliate" of a party means an "affiliate" (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

"Covered Entity" means any of the following:

(a) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);

(b) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or

(c) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

"Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"QFC" has the meaning assigned to the term "qualified financial contract" in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

[Signature pages follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective authorized officers as of the day and year first above written.

ESSENTIAL UTILITIES, INC.

by /s/ Daniel J. Schuller
Name: Daniel J. Schuller
Title: Executive Vice President and
Chief Financial Officer

PNC BANK, NATIONAL ASSOCIATION,
as the Administrative Agent, a Swingline
Lender, a Lender and an Issuing Bank,

by /s/ Domenic D'Ginto
Name: Domenic D'Ginto
Title: Managing Director

CoBANK, ACB, as Lender:

by /s/ Jared Greene
Name: Jared Greene
Title: Assistant Corporate Secretary

BANK OF AMERICA, N.A., as Lender:

by /s/ Richard R. Powell
Name: Richard R. Powell
Title: Senior Vice President

ROYAL BANK OF CANADA, as Lender:

by /s/ Meg Donnelly
Name: Meg Donnelly
Title: Authorized Signatory

THE HUNTINGTON NATIONAL BANK, as Lender:

by /s/ Nolan Woodbury
Name: Nolan Woodbury
Title: Assistant Vice President

BARCLAYS BANK PLC, as Lender:

by /s/ Sydney G. Dennis
Name: Sydney G. Dennis
Title: Director

CITIZENS BANK, N.A., as Lender:

by /s/ A. Paul Dawley
Name: A. Paul Dawley
Title: Senior Vice President

THE TORONTO-DOMINION BANK, as Lender:

by /s/ Betty Chang
Name: Betty Chang
Title: Authorized Signatory

WELLS FARGO BANK, N.A., as Lender:

by /s/ Whitney Shellenberg
Name: Whitney Shellenberg
Title: Vice President

Schedule 2.0
to the Credit Agreement

Commitments

LENDERS	REVOLVING CREDIT COMMITMENT
PNC Bank, National Association	$185,000,000
CoBank, ACB	$155,000,000
Bank of America, N.A.	$120,000,000
Royal Bank of Canada	$120,000,000
The Huntington National Bank	$120,000,000
Barclays Bank PLC	$75,000,000
Citizens Bank, N.A.	$75,000,000
The Toronto-Dominion Bank	$75,000,000
Wells Fargo Bank, N.A.	$75,000,000
TOTAL	$1,000,000,000

Existing Letters of Credit

BENEFICIARY	AMOUNT	LC NUMBER	EXPIRY DATE
ACE American Insurance Company	$5,772,854.00	18102393-00	10/28/2023
State of North Carolina	$208,494.14	18119416-00	6/7/2023
South Whitehall Township	$25,000.00	18123298-00	3/10/2023
Liberty Mutual Insurance Company	$2,300,000.00	18124638-00	10/27/2023
Liberty Mutual Insurance Company	$92,000.00	18128630-00	9/29/2023
Brickstreet Mutual Insurance	$323,000.00	18128631-00	9/29/2023
Bureau of Workers' Compensation	$600,000.00	18129149-00	11/27/2023
State of North Carolina	$711,067.09	18131315-00	6/12/2023
Everest National Insurance Company	$3,248,251.00	18132544-00	11/1/2023
Brickstreet Mutual Insurance	$1,402,200.00	18132761-00	1/16/2023
Liberty Mutual Insurance Company	$448,000.00	18132764-00	1/16/2023
Everest National Insurance Company	$2,800,210.00	18134662-00	6/1/2023
Township of Abington	$177,400.00	18135969-00	9/8/2023
New Hanover Township	$224,174.10	18135076-00	11/4/2023
Upper Moreland Township	$125,332,57	18135114-00	9/15/2023
Township of Bristol	$581,900.00	18136229-00	5/5/2023

Schedule 2.21
to the Credit Agreement

Sustainability Table

			Test Period				
Sustainability Performance Measure	**Change in Applicable Rate for Loans**	**Change in Applicable Rate for Commitment Fees**	**Reference Year 2022 (assessed in 2023)**	**Reference Year 2023 (assessed in 2024)**	**Reference Year 2024 (assessed in 2025)**	**Reference Year 2025 (assessed in 2026)**	**Reference Year 2026 (assessed in 2027)**
KPI 1 Target A	- 4.0 bps	- 0.80 bps	≥ 16.5%	≥ 19.0%	≥ 21.5%	≥ 23.0%	≥ 25.5%
KPI 1 Threshold A	+ 4.0 bps	+ 0.80 bps	< 15.7%	< 18.1%	< 20.4%	< 21.9%	< 24.2%
KPI 2 Target B	- 1.0 bps	- 0.20 bps	N/A	≥ 16.5%	≥ 16.7%	≥ 17.0%	≥ 17.3%
	+ 1.0 bps	+ 0.20 bps	N/A	< 16.5%	< 16.7%	< 17.0%	< 17.3%

Schedule 3.06(b)
to the Credit Agreement

Environmental Matters

None.

Schedule 3.14
to the Credit Agreement

Subsidiaries

Subsidiary Name	Jurisdiction of Organization	Restricted or Unrestricted	Significant Subsidiary [Yes/No]
1. Aqua Acquisition Corporation	Pennsylvania	Restricted	No
2. Essential Initiatives	Pennsylvania	Restricted	No
3. The Essential Foundation	Pennsylvania	Restricted	No
4. Aqua Development, Inc.	Texas	Restricted	No
5. Aqua Georgia, Inc.	Georgia	Restricted	No
6. Aqua Illinois, Inc.	Illinois	Restricted	No
7. Aqua Indiana, Inc.	Indiana	Restricted	No
a. Hendricks County Wastewater, LLC	Indiana	Restricted	No
8. Aqua Indiana - Western Hancock, Inc.	Indiana	Restricted	No
a. Western Hancock Utilities, LLC	Indiana	Restricted	No
9. Aqua Holdings, Inc.	Pennsylvania	Restricted	No
a. Aqua Tanks, LLC	Pennsylvania	Restricted	No
b. Old Dominion Pipeline Company, LLC	Pennsylvania	Restricted	No
10. Aqua Infrastructure, LLC	Pennsylvania	Restricted	No
a. Charlevoix Capital Ventures, LLC	Pennsylvania	Restricted	No
11. Aqua New Jersey, Inc.	New Jersey	Restricted	No
12. Aqua North Carolina, Inc.	North Carolina	Restricted	No

Subsidiary Name	Jurisdiction of Organization	Restricted or Unrestricted	Significant Subsidiary [Yes/No]
13. Aqua Ohio, Inc.	Ohio	Restricted	No
a. Aqua Ohio Wastewater, Inc.	Ohio	Restricted	No
14. Aqua Operations, Inc.	Delaware	Restricted	No
15. Aqua Pennsylvania, Inc.	Pennsylvania	Restricted	Yes
a. Aqua Pennsylvania Wastewater, Inc.	Pennsylvania	Restricted	No
b. Honesdale Consolidated Water Company	Pennsylvania	Restricted	No
16. Aqua Resources, Inc.	Delaware	Restricted	No
a. Aqua Water Specialties	Pennsylvania	Restricted	No
b. Aqua Wastewater Management, Inc.	Pennsylvania	Restricted	No
c. Aqua Infrastructure Rehabilitation Co., LLC	Delaware	Restricted	No
17. Aqua Services, Inc.	Pennsylvania	Restricted	No
18. Aqua Texas, Inc.	Texas	Restricted	No
a. Harper Water Company, Inc.	Texas	Restricted	No
19. Aqua Utilities Florida, Inc.	Florida	Restricted	No
20. Aqua Utilities, Inc.	Texas	Restricted	No
a. Kerrville South Water Company, Inc.	Texas	Restricted	No
21. Aqua Virginia, Inc.	Virginia	Restricted	No
a. Great Bay Utilities, Inc.	Virginia	Restricted	No
22. Utility & Municipal Services, Inc.	Pennsylvania	Restricted	No

Subsidiary Name	Jurisdiction of Organization	Restricted or Unrestricted	Significant Subsidiary [Yes/No]
23. LDC Funding, LLC	Delaware	Restricted	Yes
a. LDC Holdings LLC	Delaware	Restricted	Yes
i. PNG Companies LLC	Delaware	Restricted	Yes
1. PNG Homeworks LLC	Delaware	Restricted	No
2. PNG Gathering LLC	Delaware	Restricted	No
3. Peoples Natural Gas Company LLC	Pennsylvania	Restricted	Yes
4. Peoples Gas Company LLC	Pennsylvania	Restricted	No
5. Peoples Gas WV LLC	West Virginia	Restricted	No
6. Peoples Gas KY LLC	Kentucky	Restricted	No
7. Delta Natural Gas Company Inc.	Kentucky	Restricted	No
8. Delta Resources LLC	Kentucky	Restricted	No
9. Delgasco LLC	Kentucky	Restricted	No
10. Enpro LLC	Kentucky	Restricted	No
b. Peoples Service Company	Pennsylvania	Restricted	No
c. Peoples Gas Marketing LLC	Pennsylvania	Restricted	No
24. Aqua Water Holdings, Inc.	Pennsylvania	Restricted	No
25. Essential Utilities Services, Inc.	Pennsylvania	Restricted	No

Schedule 6.01
to the Credit Agreement

Existing Liens

None.

Certain Addresses for Notices

If to the Borrower:	Essential Utilities, Inc.
with copies to:	Essential Utilities, Inc.
	Morgan, Lewis & Bockius LLP
If to PNC in its capacity as Administrative Agent, Issuing Bank or Swingline Lender:	PNC Bank, National Association
with a copy to:	PNC Firstside Center

[FORM OF]
ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (the "Assignment and Assumption") is dated as of the Effective Date set forth below and is entered into by and between the Assignor (as defined below) and the Assignee (as defined below). Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent, receipt of a copy of which is hereby acknowledged by the Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to the Assignee, and the Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions referred to above and the Credit Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below, (a) all of the Assignor's rights and obligations in its capacity as a Lender under the Credit Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of the outstanding rights and obligations of the Assignor under the applicable credit facility identified below (including any Letters of Credit and Swingline Loans included in such credit facility) and (b) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Credit Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (a) above (the rights and obligations sold and assigned pursuant to clauses (a) and (b) above being referred to herein collectively as the "Assigned Interest"). Such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor: _____

2. Assignee: _____

[and is [a Lender] [an Affiliate/Approved Fund of [*identify Lender*]] [1]

3. Borrower: Essential Utilities, Inc., a Pennsylvania corporation

4. Agent: PNC Bank, National Association, as the Administrative Agent under the Credit Agreement

5. Assigned Interest:

Facility Assigned	Aggregate Amount of Commitments/Loans of the applicable Class of all Lenders	Amount of the Commitments/Loans of the applicable Class Assigned[2]	Percentage Assigned of Aggregate Amount of Commitments/Loans of the applicable Class of all Lenders[3]
Revolving Credit Commitments/ Revolving Credit Loans	$	$	%

Effective Date: _____ ___, 20___ [TO BE INSERTED BY THE ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR]

The Assignee, if not already a Lender, agrees to deliver to the Administrative Agent any tax forms required by Section 2.16(f) of the Credit Agreement and a completed Administrative Questionnaire in which the Assignee designates one or more credit contacts to whom all syndicate-level information (which may contain MNPI) will be made available and who may receive such information in accordance with the Assignee's compliance procedures and applicable law, including United States (Federal or state) and foreign securities laws.

The terms set forth above are hereby agreed to:	Consented to and Accepted:
, as Assignor,	PNC BANK, NATIONAL ASSOCIATION, as Administrative Agent [and as an Issuing Bank] [and as a Swingline Lender],
By: _____ Name: Title:	By: _____ Name: Title:
_____, as Assignee, [4]	Consented to:
By: _____ Name: Title:	[●], as an Issuing Bank, By: _____ Name: Title:
	[●], as a Swingline Lender,
	By: _____ Name: Title:
	[Consented to: ESSENTIAL UTILITIES, INC.,
	By: _____ Name: Title:] [5]

[1]Select as applicable.

[2]Must comply with the minimum assignment amounts set forth in Section 9.04(b)(ii)(A) of the Credit Agreement, to the extent such minimum assignment amounts are applicable.

[3]Set forth, to at least 9 decimals, as a percentage of the Commitments/Loans of the applicable Class of all Lenders.

[4]The Assignee must deliver to the Company all applicable Tax forms required to be delivered by it under Section 2.16(f) of the Credit Agreement.

[5]No consent of the Company is required for an assignment to a Lender, an Affiliate of a Lender or an Approved Fund or if an Event of Default under paragraph (a), (b), (h) or (i) of Section 7.01 of the Credit Agreement has occurred and is continuing.

STANDARD TERMS AND CONDITIONS FOR
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

1.1. Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim and (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Credit Agreement or any other Loan Document, other than statements made by it herein, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of any Loan Documents, (iii) the financial condition of the Company, any Subsidiary or other Affiliate of the Company or any other Person obligated in respect of any Loan Document or (iv) the performance or observance by the Company, any Subsidiary or other Affiliate of the Company or any other Person of any of their respective obligations under any Loan Document.

1.2. Assignee. The Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption, to consummate the transactions contemplated hereby and to become a Lender under the Credit Agreement, (ii) it satisfies the requirements specified in the Credit Agreement that are required to be satisfied by it in order to acquire the Assigned Interest and become a Lender, (iii) from and after the Effective Date, it shall be bound by the provisions of the Credit Agreement as a Lender thereunder and, to the extent of the Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it has received a copy of the Credit Agreement, together with copies of the most recent financial statements delivered pursuant to Section 5.01 thereof (or, prior to the first such delivery, the financial statements referred to in Section 3.04 thereof), and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase the Assigned Interest on the basis of which it has made such analysis and decision independently and without reliance on the Administrative Agent or any other Lender, and (v) attached to the Assignment and Assumption is any documentation required to be delivered by it pursuant to the terms of the Credit Agreement, duly completed and executed by the Assignee; and (b) agrees that (i) it will, independently and without reliance on the Administrative Agent, the Assignor or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of the Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor for amounts which have accrued to but excluding the Effective

Date and to the Assignee for amounts which have accrued from and after the Effective Date. The Assignor and the Assignee shall make all appropriate adjustments in payments by the Administrative Agent for periods prior to the Effective Date or with respect to the making of this assignment directly between themselves.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by facsimile or other electronic imaging shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, and construed in accordance with, the law of the State of New York.

EXHIBIT B

[FORM OF]
BORROWING REQUEST

PNC Bank, National Association
as Administrative Agent
1000 Westlakes Drive, Suite 300
Berwyn, PA 19312
Attention: Domenic D'Ginto
Facsimile: (610) 725-5799
Email: domenic.dginto@pnc.com

[Date]

Ladies and Gentlemen:

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent. Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

This notice constitutes a Borrowing Request and the Company hereby gives notice, pursuant to Section 2.03 of the Credit Agreement, that it requests a Revolving Credit Borrowing under the Credit Agreement, and in connection therewith specifies the following information with respect to such Borrowing:

(A) Class of Borrowing: Revolving Credit

(B) Aggregate principal amount of Borrowing: [1] $_____

(C) Date of Borrowing (which is a Business Day): _____

(D) Type of Borrowing: [2] _____

(E) Interest Period and the last day thereof: [3] _____

(F) Location and number of account to which proceeds of the requested Borrowing are to be disbursed: [Name of Bank] (Account No.:).

[The Issuing Bank to which proceeds of the requested Borrowing are to be disbursed: _____][4]

Very truly yours,

ESSENTIAL UTILITIES, INC.,

By: _____
Name:
Title:

[1] Must comply with Sections 2.01 and 2.02(c) of the Credit Agreement.
[2] Specify ABR Borrowing or Term SOFR Rate Borrowing. If no election as to the Type of Borrowing is specified, then the requested Borrowing shall be an ABR Borrowing.
[3] Applicable to Term SOFR Rate Borrowings only. Shall be subject to the definition of "Interest Period" and can be a period of one, three or six months (or such shorter or longer period as shall have been consented to by each Lender participating in such Borrowing). If no Interest Period is specified, then the Company shall be deemed to have selected an Interest Period of one month's duration. May not end after the Maturity Date then in effect.
[4] Specify only in the case of a Revolving Credit ABR Borrowing requested to finance the reimbursement of an LC Disbursement as provided in Section 2.05(f) of the Credit Agreement.

EXHIBIT C

[FORM OF]
COMPLIANCE CERTIFICATE

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent. Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

The undersigned, [*specify title*] [1] of the Company, hereby certifies (solely in [his/her] capacity as such and not individually), as follows:

1. I am a Responsible Officer of the Company.

2. [[USE ONLY IN CONNECTION WITH ANNUAL FINANCIAL STATEMENTS WHERE COMPANY HAS FILED ITS 10-K OR MADE AVAILABLE SUCH FINANCIAL STATEMENTS ON ITS WEBSITE] The consolidated financial statements required by Section 5.01(a) of the Credit Agreement as of the end of and for the fiscal year ended [_____], setting forth in each case in comparative form the figures for the prior fiscal year, together with an audit opinion thereon of [PricewaterhouseCoopers LLP] [2] required by Section 5.01(a) have been filed with the SEC and are available on the website of the SEC at http://www.sec.gov and/or are publicly available on the website of the Company at http://www.essential.co.] [3]

[or]

[[USE ONLY IN CONNECTION WITH QUARTERLY FINANCIAL STATEMENTS WHERE COMPANY HAS FILED ITS 10-Q OR MADE AVAILABLE SUCH FINANCIAL STATEMENTS ON ITS WEBSITE] The unaudited consolidated financial statements required by Section 5.01(b) of the Credit Agreement as of the end of and for the fiscal quarter ended [ ] and the then elapsed portion of the fiscal year, setting forth in each case in comparative form the figures for the corresponding period or periods of (or, in the case of the balance sheet, as of the end of) the prior fiscal year have been filed with the SEC and are available on the website of the SEC at http://www.sec.gov and/or are publicly available on the website of the Company at http://www.essential.co.] [4]

3. I have reviewed the terms of the Credit Agreement and the other Loan Documents and I have made, or have caused to be made under my supervision, a review in reasonable detail of the transactions and condition of the Company and the Subsidiaries during the accounting period covered by the attached financial statements. The foregoing examination did not disclose, and I have no knowledge of the existence of any condition or event that constitutes a Default or an Event of Default as of the date of this Compliance Certificate[, except as set forth in a separate attachment, if any, to this Compliance Certificate, specifying the details thereof and any action taken or proposed to be taken with respect thereto].

4. The financial covenant analyses and other information set forth on Annex A hereto are true and accurate on and as of the date of this Compliance Certificate.

ESSENTIAL UTILITIES, INC.,

By: _____

Name:
Title:

---

[1] Must be a Responsible Officer.
[2] Or another independent public accounting firm of recognized national standing.
[3] Use the following bracketed language if the Company has not filed its 10-K or made annual financial statements publically available and the annual financial statement is being furnished pursuant to this certificate:
[4] Use the following bracketed language if the Company has not filed its most recent 10-Q or made quarterly financial statements publically available and quarterly financial statements are being furnished pursuant to this certificate:

Attached as Schedule I hereto are the unaudited consolidated financial statements required by Section 5.01(b) of the Credit Agreement as of the end of and for the fiscal quarter ended [ ] and the then elapsed portion of the fiscal year, setting forth in each case in comparative form the figures for the corresponding period or periods of (or, in the case of the balance sheet, as of the end of) the prior fiscal year. Such financial statements present fairly, in all material respects, the financial position, results of operations and cash flows of the Company and its consolidated Subsidiaries on a consolidated basis as of the end of and for such fiscal quarter and such portion of the fiscal year in accordance with GAAP, subject to normal year-end audit adjustments and the absence of certain footnotes.

AS OF OR FOR THE FISCAL [QUARTER] [YEAR] ENDED [mm/dd/yy].

a. Consolidated Funded Debt: all Indebtedness of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP, whether or not required to be reflected on a consolidated balance sheet of the Company in accordance with GAAP, consisting of, without duplication, **(i)** + **(ii)** + **(iii)**[1] =	$[___,___,___]
(i) borrowed money Indebtedness, including Capital Lease Obligations:	$[___,___,___]
(ii) reimbursement obligations in respect of letters of credit and the like:	$[___,___,___]
(iii) Indebtedness in the nature of a Guarantee of Indebtedness of other Persons of the type described in (i) or (ii) above:	$[___,___,___]
b. Consolidated Shareholders' Equity: the net book value of the shareholders' equity of the Company and the Subsidiaries determined on a consolidated basis in accordance with GAAP:	$[___,___,___]
c. Leverage Ratio: **(i)** / **(i)** + **(ii)** =	[__.__]%
(i) Consolidated Funded Debt as of such date (see item a. above):	$[___,___,___]
(ii) Consolidated Shareholders' Equity as of such date (see item b. above):	$[___,___,___]

[1]Whether or not required to be reflected on a consolidated balance sheet of the Company in accordance with GAAP.

EXHIBIT D

[FORM OF]

INTEREST ELECTION REQUEST

PNC Bank, National Association
as Administrative Agent
1000 Westlakes Drive, Suite 300
Berwyn, PA 19312
Attention: Domenic D'Ginto
Facsimile: (610) 725-5799
Email: domenic.dginto@pnc.com

[Date]

Ladies and Gentlemen:

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent. Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

This notice constitutes an Interest Election Request and the Company hereby gives notice, pursuant to Section 2.07 of the Credit Agreement, that it requests the conversion or continuation of a Revolving Credit Borrowing under the Credit Agreement, and in connection therewith specifies the following information with respect to such Borrowing and each resulting Borrowing:

1. Borrowing to which this request applies: _____

Principal Amount: _____
Type: _____
Interest Period[1]: _____

2. Effective date of this election[2]:

3. Resulting Borrowing[s][3]

Principal Amount[4]: _____
Type[5]: _____
Interest Period[6]: _____

Very truly yours,

ESSENTIAL UTILITIES, INC.,

By: _____
Name:
Title:

---

[1] In the case of a Term SOFR Rate Borrowing, specify the last day of the current Interest Period therefor.
[2] Must be a Business Day.
[3] If different options are being elected with respect to different portions of the Borrowing specified in item 1 above, provide the information required by this item 3 for each resulting Borrowing. Each resulting Borrowing shall be in an aggregate amount that is an integral multiple of, and not less than, the amount specified for a Borrowing in Section 2.02(c) of the Credit Agreement.
[4] Indicate the principal amount of the resulting Borrowing and the percentage of the Borrowing in item 2 above.
[5] Specify whether the resulting Borrowing is to be an ABR Borrowing or a Term SOFR Rate Borrowing.
[6] Applicable only if the resulting Borrowing is to be a Term SOFR Rate Borrowing. Shall be subject to the definition of "Interest Period" and can be a period of one, three or six months (or such shorter or longer period as shall have been consented to by each Lender participating in such Borrowing). If no Interest Period is specified, then the Company shall be deemed to have selected an Interest Period of one month's duration. May not end after the applicable Maturity Date.

[FORM OF]
SWINGLINE BORROWING REQUEST

PNC Bank, National Association
as Administrative Agent [and as Swingline Lender]
1000 Westlakes Drive, Suite 300
Berwyn, PA 19312
Attention: Domenic D'Ginto
Facsimile: (610) 725-5799
Email: domenic.dginto@pnc.com

[[●], as Swingline Lender]
[ADDRESS]
Attention of [●]
Fax No.: [●]
Email: [●]]

[Date]

Ladies and Gentlemen:

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent. Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

This notice constitutes a Swingline Borrowing Request and the Company hereby gives notice, pursuant to Section 2.04(b) of the Credit Agreement, that it requests a Swingline Loan under the Credit Agreement, and in connection therewith specifies the following information with respect to such Swingline Loan:

(A)Swingline Lender(s)[1]: _____

(B)Aggregate principal amount of Swingline Loan:[2] $[ ]

(C)Date of Borrowing (which is a Business Day): _____

(D)Location and number of the account to which proceeds of the requested Swingline Loan are to be disbursed: [Name of Bank] (Account No.: _____)

[Issuing Bank to which proceeds of the requested Borrowing are to be disbursed:)][3]

Very truly yours,

ESSENTIAL
UTILITIES, INC.,

By: _____

Name:
Title:

[1] Specify the Swingline Lender(s) that are requested to provide the requested Swingline Borrowing.
[2] Must comply with Sections 2.02(c) and 2.04(a) of the Credit Agreement.
[3] Specify only in the case of a Swingline Loan requested to finance the reimbursement of an LC Disbursement as provided in Section 2.05(f) of the Credit Agreement.

[FORM OF]
U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (a) it is the sole record and beneficial owner of the Loan(s) (as well as any note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (b) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (c) it is not a ten percent shareholder of the Company within the meaning of Section 881(c)(3)(B) of the Code, and (d) it is not a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Company with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (a) if the information provided on this certificate changes, the undersigned shall promptly so inform the Company and the Administrative Agent in writing and (b) the undersigned shall have at all times furnished the Company and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

[NAME OF LENDER]
By: _____
Name:
Title:
Date: _____ __, 20[ ]

[FORM OF]
U.S. TAX COMPLIANCE CERTIFICATE
(For Non-U.S. Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (a) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (b) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (c) it is not a ten percent shareholder of the Company within the meaning of Section 881(c)(3)(B) of the Code and (d) it is not a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable.By executing this certificate, the undersigned agrees that (a) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing and (b) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

[NAME OF PARTICIPANT]
By: _____
Name:
Title:
Date: _____ __, 20[ ]

[FORM OF]
U.S. TAX COMPLIANCE CERTIFICATE
(For Non-U.S. Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (a) it is the sole record owner of the participation in respect of which it is providing this certificate, (b) its direct or indirect partners/members are the sole beneficial owners of such participation, (c) neither the undersigned nor any of its direct or indirect partners/members claiming the portfolio interest exemption ("Applicable Partners/Members") is a bank within the meaning of Section 881(c)(3)(A) of the Code, (d) none of its Applicable Partners/Members is a ten percent shareholder of the Company within the meaning of Section 881(c)(3)(B) of the Code and (e) none of its Applicable Partners/Members is a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its Applicable Partners/Members: (a) an IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, or (b) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (i) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing and (ii) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:
Title:

Date: _____ __, 20[ ]

[FORM OF]
U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is made to the Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (a) it is the sole record owner of the Loan(s) (as well as any note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (b) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any note(s) evidencing such Loan(s)), (c) neither the undersigned nor any of its direct or indirect partners/members claiming the portfolio interest exemption ("Applicable Partners/Members") is a bank within the meaning of Section 881(c)(3)(A) of the Code, (d) none of its Applicable Partners/Members is a ten percent shareholder of the Company within the meaning of Section 881(c)(3)(B) of the Code and (e) none of its Applicable Partners/Members is a controlled foreign corporation related to the Company as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Company with IRS Form W-8IMY accompanied by one of the following forms from each of its Applicable Partners/Members: (a) an IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, or (b) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (i) if the information provided on this certificate changes, the undersigned shall promptly so inform the Company and the Administrative Agent in writing and (ii) the undersigned shall have at all times furnished the Company and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

[NAME OF LENDER]

By: _____

Name:
Title:

Date: _____ __, 20[ ]

[FORM OF]
SOLVENCY CERTIFICATE

This Certificate (this "Certificate") is being delivered pursuant to Section [4.01(e)] of the Credit Agreement dated as of December 14, 2022 (the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent. Capitalized terms used but not otherwise defined herein shall have the meanings specified in the Credit Agreement.

The undersigned hereby certifies that [he][she] is the Chief Financial Officer of the Company and that [he][she] is knowledgeable of the financial and accounting matters of the Company and its Subsidiaries and that, as such, [he][she] is authorized to execute and deliver this Certificate on behalf of the Company.

The undersigned hereby further certifies, solely in [his][her] capacity as Chief Financial Officer of the Company and not in an individual capacity and without personal liability, that, on the date hereof, immediately after giving effect to the Transactions to occur on the Effective Date, including the making of the Loans to be made on the Effective Date and the application of the proceeds thereof:

1. The fair value of the assets of the Company and the Subsidiaries, on a consolidated basis, will exceed their debts and liabilities, subordinated, contingent or otherwise.

2. The present fair saleable value of the property of the Company and the Subsidiaries, on a consolidated basis, will be greater than the amount that will be required to pay the probable liabilities on their debts and other liabilities, subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured.

3. The Company and the Subsidiaries, on a consolidated basis, will be able to pay their debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured.

4. The Company and the Subsidiaries, on a consolidated basis, will not have an unreasonably small capital with which to conduct the businesses in which they are engaged as such businesses are now conducted and proposed to be conducted following the date hereof.

In computing the amount of the contingent liabilities of the Company and the Subsidiaries as of the date hereof, such liabilities have been computed at the amount that, in light of all the facts and circumstances existing as of the date hereof, represents the amount that can reasonably be expected to become an actual or matured liability.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has executed this Certificate solely in his/her capacity as Chief Financial Officer of the Company (and not in an individual capacity and without personal liability) this [ ] day of [ ].

ESSENTIAL UTILITIES, INC.,

by

_____

Name:
Title Executive Vice President and
Chief Financial Officer

[FORM OF]
SUSTAINABILITY CERTIFICATE

PNC Bank, National Association
as Administrative Agent 1000 Westlakes Drive, Suite 300
Berwyn, PA 19312
Attention: Domenic D'Ginto
Facsimile: (610) 725-5799
Email: domenic.dginto@pnc.com

[Date]

Ladies and Gentlemen:

Reference is made to the Amended and Restated Credit Agreement dated as of December 14, 2022 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), among Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), the Lenders from time to time party thereto and PNC Bank, National Association, as Administrative Agent. Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement. This Sustainability Certificate (this "Certificate") is furnished pursuant to 2.21 [Sustainability Adjustments] of the Credit Agreement

THE UNDERSIGNED HEREBY CERTIFIES SOLELY IN [HIS/HER] CAPACITY AS [CHIEF EXECUTIVE OFFICER, CHIEF OPERATING OFFICER, CHIEF FINANCIAL OFFICER, CHIEF SUSTAINABILITY OFFICER, TREASURER, ASSISTANT TREASURER, CONTROLLER OR SENIOR VICE PRESIDENT OF FINANCE] OF THE BORROWER AND NOT IN AN INDIVIDUAL CAPACITY (AND WITHOUT PERSONAL LIABILITY) THAT:

1.I am the duly elected [chief executive officer, chief operating officer, chief financial officer, chief sustainability officer, treasurer, assistant treasurer, controller or senior vice president of finance] of the Borrower, and I am authorized to deliver this Certificate on behalf of the Borrower;

2.Attached as Annex A hereto are the calculations of KPI Metrics for the 20[__] Reference Year, and evidences the Borrower's qualification for (x) a Sustainability Rate Adjustment equal to [+][-][___]% per annum and (y) a Sustainability Commitment Fee Adjustment, equal to [+][-][___]% per annum.

3.[The Borrower's Sustainability Report for the 20[__] Reference Year can be found at the following website: [_____]][Attached as Annex B hereto is a true and complete copy of the Borrower's Sustainability Report for the 20[__] Reference Year.]

4.[Attached as Annex [B][C] hereto is a true and complete review report of the Sustainability Metric Auditor confirming that the Sustainability Metric Auditor is not aware of any modifications that should be made to such computations in order for them to be presented in all material respects in conformity with the ESG Standards.]

The foregoing certifications are made and delivered this day of _____, 20[__].

Very truly yours,
ESSENTIAL UTILITIES, INC.,
as the Borrower

By:_____
Name:
Title:

FORM OF CHANGE-IN-CONTROL AGREEMENT

This Agreement (the "Agreement") made as of the_____day of _____, _____, is by and between, Essential Utilities, Inc., a Pennsylvania corporation ("Essential"), and _____ (the "Executive").

WHEREAS, effective on _____, the Executive was [hired][promoted] to the position of _____ with [Essential];

WHEREAS, Essential considers it essential to foster the employment of well-qualified, key management personnel and, in this regard, the Board of Directors of Essential recognizes that, as is the case with many publicly-held corporations such as Essential, the possibility of a change of control of Essential may exist and that such possibility, and the uncertainty and questions which it may raise among management, may result in the departure or distraction of key management personnel to the detriment of Essential;

WHEREAS, the Board of Directors of Essential has determined that appropriate steps should be taken to reinforce and encourage the continued attention and dedication of key members of management of Essential to their assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a change of control of Essential, although no such change is now contemplated; and

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements hereinafter set forth and intending to be legally bound hereby, the parties hereto agree as follows:

1. Definitions. For all purposes of this Agreement, the following terms shall have the meanings specified in this Section unless the context clearly otherwise requires:

(a) "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

(b) "Base Compensation" shall mean the Executive's then-current base annual salary, plus the greater of the Executive's target bonus for the year in which the Executive incurs a Termination of Employment, or the last actual bonus paid to the Executive under the Annual Cash Incentive Compensation Plan (or any successor plan maintained by Essential), in all capacities with Essential and its Subsidiaries or Affiliates. The Executive's Base Compensation shall be determined prior to reduction for salary deferred by the Executive under any deferred compensation plan of Essential and its Subsidiaries or Affiliates, or otherwise.

(c) A Person shall be deemed the "Beneficial Owner" of any securities: (i) that such Person or any of such Person's Affiliates or Associates, directly or indirectly, has the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding (whether or not in writing) or upon the exercise of conversion rights, exchange rights, rights, warrants or options, or otherwise; provided, however, that a Person shall not be deemed the "Beneficial Owner" of securities tendered pursuant to a tender or exchange offer made by such Person or any of such Person's Affiliates or Associates until such tendered securities are accepted for payment, purchase or exchange; (ii) that such Person or any of such Person's Affiliates or Associates, directly or indirectly, has the right to vote or dispose of or has "beneficial ownership" of (as determined pursuant to Rule 13d-3 of the General Rules and Regulations under the Exchange Act), including without limitation pursuant to any agreement, arrangement or understanding, whether or not in writing; provided, however, that a Person shall not be deemed the "Beneficial Owner" of any security under this clause (ii) as a result of an oral or written agreement, arrangement or understanding to vote such security if such agreement, arrangement or understanding (A) arises solely from a revocable proxy given in response to a public proxy or consent solicitation made pursuant to, and in accordance with, the applicable provisions of the General Rules and Regulations under the Exchange Act, and (B) is not then reportable by such Person on Schedule 13D under the Exchange Act (or any comparable or successor report); or (iii) that are beneficially owned, directly or indirectly, by any other Person (or any Affiliate or Associate thereof) with which such Person (or any of such Person's Affiliates or Associates) has any agreement, arrangement or understanding (whether or not in writing) for the purpose of acquiring, holding, voting (except pursuant to a revocable

proxy as described in the proviso to clause (ii) above) or disposing of any voting securities of Essential; provided, however, that nothing in this Section 1(c) shall cause a Person engaged in business as an underwriter of securities to be the "Beneficial Owner" of any securities acquired through such Person's participation in good faith in a firm commitment underwriting until the expiration of forty days after the date of such acquisition.

(d) "Board" shall mean the Board of Directors of Essential.

(e) "Cause" shall mean 1) misappropriation of funds, 2) habitual insobriety or substance abuse, 3) conviction of a crime involving moral turpitude, or 4) gross negligence in the performance of duties, which gross negligence has had a material adverse effect on the business, operations, assets, properties or financial condition of Essential or its Subsidiaries and Affiliates.

(f) "Change in Control" shall mean:

(i) any Person (including any individual, firm, corporation, partnership or other entity except Essential, any subsidiary of Essential, any employee benefit plan of Essential or of any subsidiary, or any Person or entity organized, appointed or established by Essential for or pursuant to the terms of any such employee benefit plan), together with all Affiliates and Associates of such Person, shall become the Beneficial Owner in the aggregate of 20% or more of the Common Stock of Essential then outstanding;

(ii) during any twenty-four month period, individuals who at the beginning of such period constitute the Board cease for any reason to constitute a majority thereof, unless the election, or the nomination for election by Essential's shareholders, of at least seventy-five percent of the directors who were not directors at the beginning of such period was approved by a vote of at least seventy-five percent of the directors in office at the time of such election or nomination who were directors at the beginning of such period; or

(iii) there occurs a sale of 50% or more of the aggregate assets or earning power of Essential and its Subsidiaries, or its liquidation is approved by a majority of its shareholders or Essential is merged into or is merged with an unrelated entity such that following the merger the shareholders of Essential no longer own more than 50% of the resultant entity.

Notwithstanding anything in this subsection 1(f) to the contrary, a Change in Control shall not be deemed to have taken place under clause (f)(i) above if (1) such Person becomes the beneficial owner in the aggregate of 20% or more of the Common Stock of Essential then outstanding as a result, in the determination of a majority of those members of the Board of Directors of Essential in office prior to the acquisition, of an inadvertent acquisition by such Person if such Person, as soon as practicable, divests itself of a sufficient amount of its Common Stock so that it no longer owns 20% or more of the Common Stock then outstanding, or (2) such Person becomes the beneficial owner in the aggregate of 20% or more of the Common Stock of Essential outstanding as a result of an acquisition of common stock by Essential which, by reducing the number of common stock outstanding, increases the proportionate number of shares of common stock beneficially owned by such Person to 20% or more of the shares of common stock then outstanding; provided, however that if a Person shall become the beneficial owner of 20% or more of the shares of common stock then outstanding by reason of common stock purchased by Essential and shall, after such share purchases by Essential become the beneficial owner of any additional shares of common stock, then the exemption set forth in this clause shall be inapplicable.

(g) "Equity Compensation Plan" shall mean Essential's Amended and Restated Equity Compensation Plan, and its predecessors and successors.

(h) "Good Reason Termination" shall mean, except as otherwise provided in the last paragraph of this subsection (h), a Termination of Employment as a result of one or more of the following events, without the Executive's written consent to the event:

(i) any action or inaction that constitutes a material breach by Essential (or any successor thereto) of this Agreement;

(ii) a material diminution of the authority, duties or responsibilities of the Executive held

immediately prior to the Change in Control;

(iii) a material diminution in the Executive's base salary, which, for purposes of this Agreement, means a reduction in base salary of ten (10) percent or more that does not apply generally to all executive officers of Essential; or

(iv) a material change in the geographic location at which the Executive must perform services under this Agreement, which, for purposes of this Agreement, means a requirement that the Executive be based at any office or location which is located more than fifty (50) miles from the Executive's primary place of employment immediately prior to the Change in Control on other than on a temporary basis (less than 6 months).

(v) a material diminution in the authority, duties, or responsibilities of the supervisor to whom the Executive is required to report, including a requirement that the Executive report to a corporate officer or employee instead of reporting directly to the board of directors of a corporation (or similar governing body with respect to an entity other than a corporation).

(vi) a material diminution in the budget over which the Executive retains authority.

A Termination of Employment after any of the foregoing events shall be a Good Reason Termination only if the Executive provides written notice to Essential of the existence of such event within ninety (90) days after the initial occurrence of such event, and Essential fails to remedy the event within thirty (30) days following the receipt of such notice.

(i) "Normal Retirement Date" shall mean the first day of the calendar month coincident with or next following the Executive's 65th birthday.

(j) "Subsidiary" shall mean any corporation in which Essential, directly or indirectly, owns at least a 50% interest or an unincorporated entity of which Essential, directly or indirectly, owns at least 50% of the profits or capital interests.

(k) "Termination Date" shall mean the date of receipt of the Notice of Termination described in Section 2 hereof or any later date specified therein, as the case may be.

(l) "Termination of Employment" shall mean the involuntary termination of the Executive's actual employment relationship with Essential and any of it Subsidiaries that actually employs the Executive.

2. Notice of Termination. Any Termination of Employment following a Change in Control shall be communicated by a Notice of Termination to the other party hereto given in accordance with Section 14 hereof. For purposes of this Agreement, a "Notice of Termination" means a written notice which (i) indicates the specific provision in this Agreement relied upon, (ii) briefly summarizes the facts and circumstances deemed to provide a basis for the Executive's Termination of Employment under the provision so indicated, and (iii) if the Termination Date is other than the date of receipt of such notice, specifies the Termination Date (which date shall not be more than 15 days after the giving of such notice for a termination other than a Good Reason Termination, or, in the event of a Good Reason Termination, not more than 15 days after the end of the cure period.)

3. Severance Compensation upon Termination. Subject to the provisions of Section 11 and Section 23 hereof, in the event of the Executive's involuntary Termination of Employment for any reason other than Cause or in the event of a Good Reason Termination, in either event within two years after a Change in Control, Essential shall pay to the Executive, upon the execution of a release in the form required by Essential of its terminating executives prior to the Change in Control, a single lump sum cash payment in an amount equal to _____ (__) times the Executive's Base Compensation, plus a pro-rata share of the Executive's target bonus under the Annual Cash Incentive Compensation Plan (or any successor plan maintained by Essential) based on the portion of the calendar year elapsed at the time of the Executive's Termination of Employment, subject to required employment taxes and deductions. Such payment shall be made to the Executive within 60 days following the Executive's Termination of Employment.

4. Other Payments and Benefits. The payment due under Section 3 hereof shall be in addition to and not in

lieu of any payments or benefits, due to the Executive under any other plan, policy or program of Essential, and its Subsidiaries or Affiliates; provided, however, that an Executive shall not be eligible for benefits under any severance or stay-on bonus plan maintained by Essential, or any of its Subsidiaries or Affiliates, if the Executive is entitled to receive benefits under this Agreement as a result of a Termination of Employment within two years following a Change in Control. In addition, if the Executive is entitled to a payment under Section 3 hereof, the Executive shall be entitled to

(a) an amount equal to (i) _____(__) months of the COBRA rate in effect at the Executive's Termination of Employment, plus (ii) an additional amount which, after reduction for applicable income and employment taxes owed with respect to such additional amount, equals the income and employment taxes payable with respect to the amount described in clause (i), which shall be paid in a single lump sum at the time the benefit under Section 3 is paid; and

(b) fully-paid executive level reasonable outplacement services from the provider or the Executive's choice for ____ (_) months following the Termination Date. All reimbursements paid to the Executive for purposes of outplacement services shall be made or provided in accordance with Treas. Reg. §1.409A-1(b)(9)(v)(A).

5. Trust Fund. Essential sponsors an irrevocable trust fund pursuant to a trust agreement to hold assets to satisfy its obligations to the Executive under this Agreement. Funding of such trust fund shall be subject to the discretion of certain Essential executives, as set forth in the agreement pursuant to which the fund has been established.

6. Enforcement.

(a) In the event that Essential shall fail or refuse to make payment of any amounts due the Executive under Sections 3 and 4 hereof within the respective time periods provided therein, Essential shall pay to the Executive, in addition to the payment of any other sums provided in this Agreement, interest, compounded daily, on any amount remaining unpaid from the date payment is required under Section 3 or 4, as appropriate, until paid to the Executive, at the rate from time to time announced by PNC Bank, or its successor, as its "prime rate" plus 1%, each change in such rate to take effect on the effective date of the change in such prime rate.

(b) It is the intent of the parties that the Executive not be required to incur any expenses associated with the enforcement of his rights under this Agreement by arbitration, litigation or other legal action because the cost and expense thereof would substantially detract from the benefits intended to be extended to the Executive hereunder. Accordingly, Essential shall pay the Executive the amount necessary to reimburse the Executive in full for all reasonable expenses (including all attorneys' fees and legal expenses) incurred by the Executive in enforcing any of the obligations of Essential under this Agreement within five business days following the Executive's request for the reimbursement.

7. No Mitigation. The Executive shall not be required to mitigate the amount of any payment or benefit provided for in this Agreement by seeking other employment or otherwise, nor shall the amount of any payment or benefit provided for herein be reduced by any compensation earned by other employment or otherwise.

8. Non-exclusivity of Rights. Nothing in this Agreement shall prevent or limit the Executive's continuing or future participation in or rights under any benefit, bonus, incentive or other plan or program provided by Essential, or any of its Subsidiaries or Affiliates, and for which the Executive may qualify. Notwithstanding any provision of this Agreement to the contrary, an Executive shall not be eligible for benefits under any severance or stay-on bonus plan maintained by Essential, or any of its Subsidiaries or Affiliates, if the Executive is entitled to receive benefits under this Agreement as a result of a Termination of Employment within two years following a Change in Control. The provisions of this Agreement may require a variance from the terms and conditions of certain compensation or bonus plans under circumstances where such plans would not provide for payment thereof in order to obtain the maximum benefits for the Executive. It is the specific intention of the parties that the provisions of this Agreement shall supersede any provisions to the contrary in such plans, and such plans shall be deemed to have been amended to correspond with this Agreement without further action by Essential.

9. No Set-Off. Essential's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any circumstances, including, without limitation, any set-

off, counterclaim, recoupment, defense or other right which Essential, or any of its Subsidiaries or Affiliates may have against the Executive or others.

10. Taxes. Any payment required under this Agreement shall be subject to all requirements of the law with regard to the withholding of taxes, filing, making of reports and the like, and Essential shall use its best efforts to satisfy promptly all such requirements.

11. Certain Reduction of Payments.

(a) In the event that it shall be determined that any payment or distribution in the nature of compensation (within the meaning of section 280G(b)(2) of the Code) to or for the benefit of the Executive, whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise (a "Payment"), would constitute an "excess parachute payment" within the meaning of section 280G of the Code, the aggregate present value of the Payments under the Agreement shall be reduced (but not below zero) to the Reduced Amount (defined below), provided that the reduction shall be made only if the Accounting Firm (described below) determines that the reduction will provide the Executive with a greater net after-tax benefit than would no reduction. The "Reduced Amount" shall be an amount expressed in present value which maximizes the aggregate present value of Payments under this Agreement without causing any Payment under this Agreement to be subject to the Excise Tax (defined below), determined in accordance with section 280G(d)(4) of the Code. The term "Excise Tax" means the excise tax imposed under section 4999 of the Code, together with any interest or penalties imposed with respect to such excise tax. The Company shall reduce the Payments under this Agreement by first reducing Payments that are not payable in cash and then by reducing cash Payments. Any Payment reductions made pursuant to this subsection (a) shall be nondiscretionary and made in the manner that (i) least reduces economic value to the Executive and (ii) amounts payable at different times with the same value shall be reduced pro-rata. Only amounts payable under this Agreement shall be reduced pursuant to this subsection (b). All determinations to be made under this subsection (b) shall be made by an independent certified public accounting firm selected by Essential immediately prior to the Change in Control (the "Accounting Firm"), which shall provide its determinations and any supporting calculations both to Essential and the Executive within 60 days of the Change in Control. Any such determination by the Accounting Firm shall be binding upon Essential and the Executive. All of the fees and expenses of the Accounting Firm in performing the determinations referred to in this subsection (b) shall be borne solely by Essential.

(b) All of the fees and expenses of the Accounting Firm in performing the determinations referred to in subsections (b) and (c) above shall be borne solely by Essential. Essential agrees to indemnify and hold harmless the Accounting Firm of and from any and all claims, damages and expenses resulting from or relating to its determinations pursuant to subsections (b) and (c) above, except for claims, damages or expenses resulting from the gross negligence or willful misconduct of the Accounting Firm.

12. Term of Agreement. The term of this Agreement shall be indefinite until Essential notifies the Executive in writing that this Agreement will not be renewed at least sixty days prior to the proposed termination; provided, however, that (i) after a Change in Control during the term of this Agreement, this Agreement shall remain in effect until all of the obligations of the parties hereunder are satisfied or have expired, and (ii) this Agreement shall terminate if, prior to a Change in Control, the employment of the Executive with Essential or one or more of its Subsidiaries, as the case may be, shall terminate for any reason; provided, however, that if a Change in Control occurs within 18 months after (a) the Executive's termination incurred for any reason other than a voluntary resignation or retirement (a Good Reason Termination shall not be deemed voluntary) or termination for Cause or (b) the termination of this Agreement, the Executive shall be entitled to all of the terms and conditions of this Agreement as if the Executive's termination had occurred on the date of the Change in Control.

13. Successor Company. Essential shall require any successor or successors (whether direct or indirect, by purchase, merger or otherwise) to all or substantially all of the business and/or assets of Essential, by agreement in form and substance satisfactory to the Executive, to acknowledge expressly that this Agreement is binding upon and enforceable against the successor or successors, in accordance with the terms hereof, and to become jointly and severally obligated with Essential to perform this Agreement in the same manner and to the same extent that Essential would be required to perform if no such succession or successions had taken place. Failure of Essential to notify the Executive in writing as to such successorship, to provide the Executive the opportunity to review and agree to the successor's assumption of this Agreement or to obtain such agreement prior to the effectiveness of any such succession

shall be a breach of this Agreement. As used in this Agreement, Essential means Essential and any successor or successors to its business and/or assets, jointly and severally.

14. Notice. All notices and other communications required or permitted hereunder or necessary or convenient in connection herewith shall be in writing and shall be delivered personally or mailed by registered or certified mail, return receipt requested, or by overnight express courier service, as follows:

If to Essential, to:
Essential Utilities, Inc.
c/o General Counsel
762 W. Lancaster Avenue
Bryn Mawr, PA 19010-3489

If to the Executive, to:
_____
_____
_____

or to such other names or addresses as Essential or the Executive, as the case may be, shall designate by notice to the other party hereto in the manner specified in this Section; provided, however, that if no such notice is given by Essential following a Change in Control, notice at the last address of Essential or to any successor pursuant to Section 13 hereof shall be deemed sufficient for the purposes hereof. Any such notice shall be deemed delivered and effective when received in the case of personal delivery, five days after deposit, postage prepaid, with the U.S. Postal Service in the case of registered or certified mail, or on the next business day in the case of overnight express courier service.

15. Governing Law. This Agreement shall be governed by and interpreted under the laws of the Commonwealth of Pennsylvania without giving effect to any conflict of laws provisions.

16. Contents of Agreement, Amendment and Assignment. This Agreement supersedes all prior agreements, sets forth the entire understanding between the parties hereto with respect to the subject matter hereof, and cannot be changed, modified, extended or terminated except upon written amendment executed by the Executive and Essential. The provisions of this Agreement may require a variance from the terms and conditions of certain compensation or bonus plans under circumstances where such plans would not provide for payment thereof in order to obtain the maximum benefits for the Executive. It is the specific intention of the parties that the provisions of this Agreement shall supersede any provisions to the contrary in such plans, and such plans shall be deemed to have been amended to correspond with this Agreement without further action by Essential.

17. No Right to Continued Employment. Nothing in this Agreement shall be construed as giving the Executive any right to be retained in the employ of Essential or any of its Subsidiaries.

18. Successors and Assigns. All of the terms and provisions of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective heirs, representatives, successors and assigns of the parties hereto, except that the duties and responsibilities of Essential hereunder shall not be assignable in whole or in part.

19. Severability. If any provision of this Agreement or application thereof to anyone or under any circumstances shall be determined to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provisions or applications of this Agreement which can be given effect without the invalid or unenforceable provision or application.

20. Remedies Cumulative; No Waiver. No right conferred upon the Executive by this Agreement is intended to be exclusive of any other right or remedy, and each and every such right or remedy shall be cumulative and shall be in addition to any other right or remedy given hereunder or now or hereafter existing at law or in equity. No delay or omission by the Executive in exercising any right, remedy or power hereunder or existing at law or in equity shall be construed as a waiver thereof.

21. Miscellaneous. All section headings are for convenience only. This Agreement may be executed in several counterparts, each of which is an original. It shall not be necessary in making proof of this Agreement or any counterpart hereof to produce or account for any of the other counterparts.

22. Arbitration. In the event of any dispute under the provisions of this Agreement other than a dispute in which the sole relief sought is an equitable remedy such as an injunction, the parties shall be required to have the dispute, controversy or claim settled by arbitration in Bryn Mawr, Pennsylvania, in accordance with the National Rules for the Settlement of Employment Disputes of the American Arbitration Association, before one arbitrator who shall be an executive officer or former executive officer of a publicly traded corporation, selected by the parties. Any award entered by the arbitrator shall be final, binding and nonappealable and judgment may be entered thereon by either party in accordance with applicable law in any court of competent jurisdiction. This arbitration provision shall be specifically enforceable. The arbitrator shall have no authority to modify any provision of this Agreement or to award a remedy for a dispute involving this Agreement other than a benefit specifically provided under or by virtue of the Agreement. Essential shall be responsible for all of the fees of the American Arbitration Association and the arbitrator and any expenses relating to the conduct of the arbitration (including reasonable attorneys' fees and expenses).

23. Section 409A of the Code.

(a) Compliance. This Agreement shall be interpreted to avoid any penalty sanctions under section 409A of the Code. If any payment or benefit cannot be provided or made at the time specified herein without incurring sanctions under section 409A, then such benefit or payment shall be provided in full at the earliest time thereafter when such sanctions will not be imposed. For purposes of section 409A of the Code, all payments to be made upon a Termination of Employment under this Agreement may only be made upon a "separation from service" under section 409A of the Code, each payment made under this Agreement shall be treated as a separate payment and the right to a series of installment payments under this Agreement is to be treated as a right to a series of separate payments. In no event shall the Executive, directly or indirectly, designate the calendar year of any payments to be made to him under this Agreement. All reimbursements and in-kind benefits provided under this Agreement shall be made or provided in accordance with the requirements of Treas. Reg. §1.409A-3(i)(1)(iv), including, where applicable, the requirement that (i) any reimbursement is for expenses incurred during the Executive's lifetime (or during a shorter period of time specified in this Agreement), (ii) the amount of expenses eligible for reimbursement, or in-kind benefits provided, during a calendar year may not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other calendar year, (iii) the reimbursement of an eligible expense will be made on or before the last day of the calendar year following the year in which the expense is incurred, and (iv) the right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit.

(b) Payment Delay. To the maximum extent permitted under section 409A of the Code, severance payments payable under this Agreement are intended to comply with the "short-term deferral exception" under Treas. Reg. §1.409A-1(b)(4), and any remaining amount is intended to comply with the "separation pay exception" under Treas. Reg. §1.409A-1(b)(9)(iii); provided, however, any amount payable to the Executive during the six-month period following the Executive's Termination of Employment that does not qualify within either of the foregoing exceptions and is deemed as deferred compensation subject to the requirements of section 409A of the Code, then such amount shall hereinafter be referred to as the "Excess Amount." If at the time of the Executive's Termination of Employment, the Executive is a "specified employee" (as defined in section 409A of the Code and determined in the sole discretion of Essential in accordance with Essential's "specified employee" determination policy), then Essential shall postpone the commencement of the payment of the portion of the Excess Amount that is payable within the six-month period following the Executive's Termination of Employment for six months following the Executive's Termination of Employment. The delayed Excess Amount shall be paid in a lump sum to the Executive within thirty (30) days following the date that is six (6) months following the Executive's Termination of Employment, and any amount payable to the Executive after the expiration of such six (6) month period under this Agreement shall continue to be paid to the Executive in accordance with the terms of this Agreement. If the Executive dies during such six-month period and prior to the payment of the portion of the Excess Amount that is required to be delayed on account of section 409A of the Code, such Excess Amount shall be paid to the personal representative of the Executive's estate within thirty (30) days after the Executive's death, and any amounts not delayed shall be paid to the personal representative of the Executive's estate in accordance with the terms of this Agreement.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound, have executed this Agreement as of the date first above written.

ATTEST: ESSENTIAL UTILITIES, INC.

_____By_____
Secretary

EXECUTIVE

_____
Witness

Exhibit 10.10.1

SCHEDULE OF CHANGE IN CONTROL AGREEMENTS

In accordance with Instruction 2 to Item 601 of Regulation S-K, Essential Utilities, Inc. (the "Company") has omitted filing Change in Control Agreements by and between the Company and the following executive officers because the agreements are substantially identical in all material respects to the form of Change in Control Agreement filed as Exhibit 10.11 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022:

1. Daniel J. Schuller
2. Christopher P. Luning
3. Matthew R. Rhodes
4. Michael Huwar
5. Colleen Arnold

ESSENTIAL UTILITIES, INC.

AMENDED AND RESTATED

OMNIBUS EQUITY COMPENSATION

PLAN

ESSENTIAL UTILITIES, INC.

AMENDED AND RESTATED OMNIBUS EQUITY COMPENSATION PLAN

The purpose of the Essential Utilities, Inc. Amended and Restated Omnibus Equity Compensation Plan (the "Plan") is to provide (i) designated employees of Essential Utilities, Inc. (the "Company") and its subsidiaries, (ii) certain consultants and advisors who perform services for the Company or its subsidiaries, and (iii) non-employee members of the Board of Directors of the Company with the opportunity to receive grants of incentive stock options, nonqualified stock options, stock appreciation rights, stock awards, stock units and other stock-based awards. The Company believes that the Plan will encourage the participants to contribute to the success of the Company, align the economic interests of the participants with those of the shareholders, and provide a means through which the Company can attract and retain officers, other key employees, non-employee directors and key consultants of significant talent and abilities for the benefit of our shareholders and customers. The Plan first became effective as of May 8, 2009, subject to approval by the shareholders of the Company, and was amended as of February 25, 2011. The Plan was further amended as of September 1, 2013 to reflect the 25% stock split, effective as of September 1, 2013 (the "2013 Stock Split"), and further amended and restated as of February 27, 2014 and on February 22, 2017. The Plan is hereby amended and restated by the Board of Directors on February 28, 2019 to extend the term of the Plan for ten additional years, and to make other updating changes, subject to approval by the shareholders at the 2019 Annual Meeting.

Section 1. Definitions

The following terms shall have the meanings set forth below for purposes of the Plan:

(a) "Affiliate" and "Associate" have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Exchange Act.

(b) "Automatic Exercise Date" means, with respect to an Option, the last business day of the applicable term that was established by the Committee for such Option (e.g., the last business day prior to the tenth anniversary of the date of grant of such Option if the Option initially had a ten-year term); provided, that with respect to an Option that has been amended pursuant to this Plan so as to alter the term, "Automatic Exercise Date" shall mean the last business day of the term that was established by the Committee for such Option as amended.

(c) "Awards" means the Options, Stock Awards, Stock Units, SARs and Other Stock-Based Awards granted under this Plan.

(d) A Person shall be deemed a "Beneficial Owner" of any securities:

(i) that such Person or any of such Person's Affiliates or Associates, directly or indirectly, has the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding (whether or not in writing) or upon the exercise of conversion rights, exchange rights, rights, warrants or options, or otherwise; provided, however, that a Person shall not be deemed the "Beneficial Owner" of securities tendered pursuant to a tender or exchange offer made by such Person or any of such Person's Affiliates or Associates until such tendered securities are accepted for payment, purchase or exchange;

(ii) that such Person or any of such Person's Affiliates or Associates, directly or indirectly, has the right to vote or dispose of or has "beneficial ownership" of (as determined pursuant to Rule 13d-3 of the General Rules and Regulations under the Exchange Act), including without limitation pursuant to any agreement, arrangement or understanding, whether or not in writing; provided, however, that a Person shall not be deemed the "Beneficial Owner" of any security under this clause (ii) as a result of an oral or written agreement, arrangement or understanding to vote such security if such agreement, arrangement or understanding (A) arises solely from a revocable proxy given in response to a public proxy or consent solicitation made pursuant to, and in accordance with, the applicable provisions of the General Rules and Regulations under the Exchange Act, and (B) is not then reportable by such Person on Schedule 13D under the Exchange Act (or any comparable or successor report); or

(iii) that are beneficially owned, directly or indirectly, by any other Person (or any Affiliate or Associate thereof) with which such Person (or any of such Person's Affiliates or Associates) has any agreement, arrangement or understanding (whether or not in writing) for the purpose of acquiring, holding, voting (except pursuant to a revocable proxy as described in the proviso to clause (ii) above) or disposing of any voting securities of the Company; provided, however, that nothing in this subsection (b) shall cause a Person engaged in business as an underwriter of securities to be the "Beneficial Owner" of any securities acquired through such Person's participation in good faith in a firm commitment underwriting until the expiration of forty days after the date of such acquisition.

(e) "Board" means the Board of Directors of the Company.

(f) "Cause" means, except to the extent specified otherwise by the Committee, a finding by the Committee that the Grantee has breached his or her employment or service contract with the Employer, has engaged in disloyalty to the Employer, including, without limitation, fraud, embezzlement, theft, commission of a felony or proven dishonesty, has disclosed trade secrets or confidential information of the Employer to persons not entitled to receive such information, has breached any written non-competition, non-solicitation or confidentiality agreement between the Grantee and the Employer or has engaged in such other behavior detrimental to the interests of the Employer as the Committee determines.

(g) "Change in Control" shall be deemed to have occurred if:

(i) any Person, together with all Affiliates and Associates of such Person, shall become the Beneficial Owner in the aggregate of 20% or more of the Company Stock then outstanding;

(ii) during any twenty-four month (24) period, individuals who at the beginning of such period constitute the Board cease for any reason to constitute a majority thereof, unless the election, or the nomination for election by the Company's shareholders, of at least seventy-five percent of the directors who were not directors at the beginning of such period was approved by a vote of at least seventy-five percent of the directors in office at the time of such election or nomination who were directors at the beginning of such period; or

(iii) there occurs a sale of 50% or more of the aggregate assets or earning power of the Company and its subsidiaries, or its liquidation is approved by a majority of its shareholders or the Company is merged into or is merged with an unrelated entity such that following the merger, the shareholders of the Company no longer own more than 50% of the resultant entity.

Notwithstanding anything in this subsection (e) to the contrary, a Change in Control shall not be deemed to have taken place under clause (e)(i) above if (A) such Person becomes the Beneficial Owner in the aggregate of 20% or more of the Company Stock then outstanding as a result, in the determination of a majority of those members of the Board in office prior to the acquisition, of an inadvertent acquisition by such Person if such Person, as soon as practicable, divests itself of a sufficient amount of its Company Stock so that it no longer owns 20% or more of the Company Stock then outstanding, or (B) such Person becomes the Beneficial Owner in the aggregate of 20% or more of the Company Stock outstanding as a result of an acquisition of Company Stock by the Company which, by reducing the number of shares of Company Stock outstanding, increases the proportionate number of shares of Company Stock beneficially owned by such Person to 20% or more of the shares of Company Stock then outstanding; provided, however that if a Person shall become the Beneficial Owner of 20% or more of the shares of Company Stock then outstanding by reason of Company Stock purchased by the Company and shall, after such share purchases by the Company become the Beneficial Owner of any additional shares of Company Stock, then the exemption set forth in this clause shall be inapplicable.

(h) "Code" means the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

(i) "Committee" means the committee, consisting of members of the Board, designated by the Board to administer the Plan.

(j) "Company" means Essential Utilities, Inc. and shall include its successors.

(k) "Company Stock" means common stock of the Company.

(l) "Continuous Service" means that the Grantee's service with an Employer, whether as an Employee, Key Advisor or member of the Board, is not interrupted or terminated. The Grantee's Continuous Service shall not be deemed to have terminated merely because of a change in the capacity in which the Grantee renders service to an Employer as an Employee, key Advisor or member of the Board or a change in the entity for which the Grantee renders such service, provided that there is no interruption or termination of the Grantee's Continuous Service; provided further that if any Award is subject to Section 409A of the Code, this sentence shall only be given effect to the extent consistent with Section 409A of the Code. The Committee or its delegate, in its sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of any leave of absence approved by that party, including sick leave, military leave or any other personal or family leave of absence.

(m) "Disability" or "Disabled" means a Grantee's becoming disabled within the meaning of section 22(e)(3) of the Code, within the meaning of the Employer's long-term disability plan applicable to the Grantee or as otherwise determined by the Committee.

(n) "Dividend" means a dividend paid on shares of Company Stock. If interest is credited on accumulated dividends, the term "Dividend" shall include the accrued interest.

(o) "Dividend Equivalent" means a dividend payable on a hypothetical share of Company Stock.

(p) "Dividend Equivalent Amount" means an amount determined by multiplying the number of Dividend Equivalents subject to a Grant by the per-share cash Dividend paid by the Company on its outstanding Company Stock, or the per-share fair market value (as determined by the Committee) of any Dividend paid by the Company on its outstanding Company Stock in consideration other than cash, with respect to each record date for the payment of a dividend during the Accumulation Period described in Section 11(a)(i). If interest is credited on accumulated Dividend Equivalents, the term "Dividend Equivalent Amount" shall include the accrued interest.

(q) "Early Retirement" means, except as otherwise provided in the Grant Instrument, termination of a Grantee's employment that occurs on or after the date that the Grantee becomes eligible for early retirement pursuant to the terms of the Pension Plan; provided, however, that if a Grantee is not an active participant in the Pension Plan immediately prior to terminating employment, "Early Retirement" means, except as otherwise provided in the Grant Instrument, termination of a Grantee's employment that occurs on or after the date that a Grantee is first eligible for Social Security retirement benefits and has completed at least 10 years of service as would be determined for vesting purposes under the Pension Plan.

(r) "Employee" means an employee of the Company or a subsidiary of the Company.

(s) "Employer" means the Company and each of its subsidiaries.

(t) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(u) "Exercise Price" means the per share price at which shares of Company Stock may be purchased under an Option, as designated by the Committee.

(v) "Fair Market Value" of Company Stock means, unless the Committee determines otherwise with respect to a particular Grant, if the principal trading market for the Company Stock is a national securities exchange, the last reported sale price of Company Stock on the relevant date or (if there were no trades on that date) the latest preceding date upon which a sale was reported, if the Company Stock is not principally traded on such exchange, the mean between the last reported "bid" and "asked" prices of Company Stock on the relevant date, as reported on the OTC Bulletin Board, or if the Company Stock is not publicly traded or, if publicly traded, is not subject to reported transactions as set forth above, the Fair Market Value per share shall be as determined by the Committee through any reasonable valuation method authorized under the Code.

(w) "Grant" means a grant of Options, SARs, Stock Awards, Stock Units or Other Stock-Based Awards under the Plan.

(x) "Grant Instrument" means the agreement that sets forth the terms and conditions of a Grant, including all amendments thereto.

(y) "Grantee" means an Employee, Key Advisor or Non-Employee Director who receives a Grant under the Plan.

(z) "Incentive Stock Option " means an option to purchase Company Stock that is intended to meet the requirements of section 422 of the Code.

(aa) "Key Advisor" means a consultant or advisor of an Employer.

(bb) "Non-Employee Director" means a member of the Board who is not an Employee.

(cc) "Nonqualified Stock Option" means an option to purchase Company Stock that is not intended to meet the requirements of section 422 of the Code.

(dd) "Normal Retirement" means, except as otherwise provided in the Grant Instrument, termination of a Grantee's employment on or after the date a Grantee first satisfies the conditions for normal retirement benefits under the terms of the Pension Plan, whether or not the Grantee is covered by the Pension Plan.

(ee) "Option" means an Incentive Stock Option or a Nonqualified Stock Option granted under the Plan.

(ff) "Other Stock-Based Award" means any Grant based on, measured by or payable in Company Stock, as described in Section 10.

(gg) "Pension Plan" means the Retirement Income Plan for Essential Utilities, Inc. and Subsidiaries, as in effect from time to time.

(hh) "Performance Goals" means financial or operating, stock performance-related or individually-based goals established for an Award by the Committee, or, pursuant to delegated authority, by a delegate.

(ii) "Performance Period" means the period established by the Committee for an Award for which Performance Goals are established, which Performance Period shall be at least one (1) year.

(jj) "Person" means any individual, firm, corporation, partnership or other entity except the Company, any subsidiary of the Company, any employee benefit plan of the Company or of any subsidiary, or any Person or entity organized, appointed or established by the Company for or pursuant to the terms of any such employee benefit plan.

(kk) "SAR" means a stock appreciation right with respect to a share of Company Stock.

(ll) "Stock Award" means an award of Company Stock, with or without restrictions.

(mm) "Stock Unit" means an award of a phantom unit that represents a hypothetical share of Company Stock.

Section 2. Administration

(a) Committee The Plan shall be administered and interpreted by the Board or by a Committee appointed by the Board. The Committee, if applicable, should consist of two or more persons who are "outside directors" as defined under section 162(m) of the Code, and related Treasury regulations, and "non-employee directors" as defined under Rule 16b-3 under the Exchange Act. The Board shall approve and administer all grants made to Non-Employee Directors. The Committee may delegate authority to one or more subcommittees, as it deems appropriate. To the extent that the Board or a subcommittee administers the Plan, references in the Plan to the "Committee" shall be deemed to refer to the Board or such subcommittee. In the absence of a specific designation by the Board to the contrary, the Plan shall be administered by the Committee of the Board or any successor Board committee performing substantially the same functions.

(b) Committee Authority The Committee shall have the sole authority to determine the individuals to whom grants shall be made under the Plan, determine the type, size, terms and conditions of the grants to be made to each such individual, determine the time when the grants will be made and the duration of any applicable exercise or restriction period, including the criteria for exercisability and the acceleration of exercisability, amend the terms and conditions of any previously issued grant, subject to the provisions of Section 17 below, and deal with any other matters arising under the Plan.

(c) Committee Determinations The Committee shall have full power and express discretionary authority to administer and interpret the Plan, to make factual determinations and to adopt or amend such rules, regulations, agreements and instruments for implementing the Plan and for the conduct of its business as it deems necessary or advisable, in its sole discretion. The Committee's interpretations of the Plan and all determinations made by the Committee pursuant to the powers vested in it hereunder shall be conclusive and binding on all persons having any interest in the Plan or in any awards granted hereunder. All powers of the Committee shall be executed in its sole discretion, in the best interest of the Company, not as a fiduciary, and in keeping with the objectives of the Plan and need not be uniform as to similarly situated individuals.

Section 3. Grants

Awards under the Plan may consist of grants of Options as described in Section 6, Stock Awards as described in Section 7, Stock Units as described in Section 8, SARs as described in Section 9 and Other Stock-Based Awards as described in Section 10. All Grants shall be subject to the terms and conditions set forth herein and to such other terms and conditions consistent with this Plan as the Committee deems appropriate and as are specified in writing by the Committee to the individual in the Grant Instrument. All Grants shall be made conditional upon the Grantee's acknowledgement, in writing or by acceptance of the Grant, that all decisions and determinations of the Committee shall be final and binding on the Grantee, his or her beneficiaries and any other person having or claiming an interest under such Grant. Grants under a particular Section of the Plan need not be uniform as among the Grantees.

Section 4. Shares Subject to the Plan

(a) Shares Authorized Subject to adjustment as described in subsection (b) below, the aggregate number of shares of Company Stock that may be issued or transferred under the Plan, as adjusted for the 2013 Stock Split, is 6,250,000 shares. Shares issued or transferred under the Plan may be authorized but unissued shares of Company Stock or reacquired shares of Company Stock, including shares purchased by the Company on the open market for purposes of the Plan. If and to the extent Options or SARs

granted under the Plan terminate, expire or are canceled, forfeited, exchanged or surrendered without having been exercised or if any Stock Awards, Stock Units or Other Stock-Based Awards are forfeited, terminated or otherwise not paid in full, the shares subject to such Grants shall again be available for purposes of the Plan. For the avoidance of doubt, if shares of Company Stock are repurchased by the Company on the open market with the proceeds of the exercise price of Options, such shares may not again be made available for issuance under the Plan. As of December 31, 2018, the number of shares of Company Stock available for future Grants under this Plan is 3,947,733.

(b) Adjustments If there is any change in the number or kind of shares of Company Stock outstanding by reason of a stock dividend, spinoff, recapitalization, stock split, or combination or exchange of shares, a merger, reorganization or consolidation, a reclassification or change in par value, or any other extraordinary or unusual event affecting the outstanding Company Stock as a class without the Company's receipt of consideration, or if the value of outstanding shares of Company Stock is substantially reduced as a result of a spinoff or the Company's payment of an extraordinary dividend or distribution, the maximum number of shares of Company Stock available for issuance under the Plan, the maximum number of shares of Company Stock for which any individual may receive Grants in any year, the kind and number of shares covered by outstanding Grants, the kind and number of shares issued and to be issued under the Plan, and the price per share or the applicable market value of such Grants shall be equitably adjusted by the Committee, in such manner as the Committee deems appropriate, to reflect any increase or decrease in the number of, or change in the kind or value of, the issued shares of Company Stock to preclude, to the extent practicable, the enlargement or dilution of rights and benefits under the Plan and such outstanding Grants; provided, however, that any fractional shares resulting from such adjustment shall be eliminated. In connection with adjustments described in this Section 4(b), in order to eliminate fractional shares, the number of shares of Company Stock subject to outstanding Grants may be rounded up or down, as determined by the Committee, in its sole discretion, subject to compliance with sections 424 and 409A of the Code, as applicable, and the applicable limitations on shares of Company Stock under the Plan. In the event of a Change in Control of the Company, the provisions of Section 15 of the Plan shall apply. Any adjustments to outstanding Grants shall be consistent with section 409A or 422 of the Code, to the extent applicable. Any adjustments determined by the Committee shall be final, binding and conclusive.

Section 5 Eligibility for Participation

(a) Eligible Persons All Employees (including, for all purposes of the Plan, an Employee who is a member of the Board) and Non-Employee Directors shall be eligible to participate in the Plan. Key Advisors shall be eligible to participate in the Plan if the Key Advisors render bona fide services to the Employer, the services are not in connection with the offer and sale of securities in a capital-raising transaction and the Key Advisors do not directly or indirectly promote or maintain a market for the Company's securities.

(b) Selection of Grantees The Committee shall select the Employees, Key Advisors and Non-Employee Directors to receive Grants and shall determine the number of shares of Company Stock subject to a particular Grant in such manner as the Committee determines.

Section 6 Options

The Committee may grant Options to an Employee, Key Advisor or Non-Employee Director upon such terms as the Committee deems appropriate. The following provisions are applicable to Options:

(a) Number of Shares The Committee shall determine the number of shares of Company Stock that will be subject to each Grant of Options to Employees, Key Advisors and Non-Employee Directors.

(b) Type of Option and Price

(i) The Committee may grant Incentive Stock Options or Nonqualified Stock Options or any combination of the two, all in accordance with the terms and conditions set forth herein. Incentive Stock Options may be granted only to employees of the Company or its parent or subsidiary corporations, as defined in section 424 of the Code. Nonqualified Stock Options may be granted to Employees, Key Advisors and Non-Employee Directors.

(ii) The Exercise Price of Company Stock subject to an Option shall be determined by the Committee and shall be equal to or greater than the Fair Market Value of a share of Company Stock on the date the Option is granted. However, an Incentive Stock Option may not be granted to an Employee who, at the time of grant, owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, or any parent or subsidiary corporation of the Company, as defined in section 424 of the Code, unless the Exercise Price per share is not less than 110% of the Fair Market Value of a share of Company Stock on the date of grant.

(c) Option Term. The Committee shall determine the term of each Option. The term of any Option shall not exceed ten years from the date of grant. However, an Incentive Stock Option that is granted to an Employee who, at the time of grant, owns stock

possessing more than 10% of the total combined voting power of all classes of stock of the Company, or any parent or subsidiary corporation of the Company, as defined in section 424 of the Code, may not have a term that exceeds five years from the date of grant.

(d) Exercisability of Options

(i) Options shall become exercisable in accordance with such terms and conditions, consistent with the Plan, as may be determined by the Committee and specified in the Grant Instrument. The vesting schedule for any Option shall be a minimum of six (6) months.

(ii) The Committee may provide in a Grant Instrument that the Grantee may elect to exercise part or all of an Option before it otherwise has become exercisable. Any shares so purchased shall be restricted shares and shall be subject to a repurchase right in favor of the Company during the same period as would be required to vest in the underlying Option, with the repurchase price equal to the lesser of (A) the Exercise Price or (B) the Fair Market Value of such shares at the time of repurchase, or such other restrictions as the Committee deems appropriate.

(e) Grants to Non-Exempt Employees Notwithstanding the foregoing, Options granted to persons who are non-exempt employees under the Fair Labor Standards Act of 1938, as amended, may not be exercisable for at least six months after the date of grant (except that such Options may become exercisable, as determined by the Committee, upon the Grantee's death, Disability or retirement, or upon a Change in Control or other circumstances permitted by applicable regulations).

(f) Termination of Employment

(i) Except as otherwise provided by the Committee, an Option may only be exercised while the Grantee is providing Continuous Service to the Employer as an Employee, Key Advisor or member of the Board.

(ii) The Committee may specify in the Grant Instrument such terms as the Committee deems appropriate with respect to the exercise of Options after termination of employment or service. Except as otherwise provided by the Committee, any of the Grantee's Options which are not otherwise exercisable as of the date on which the Grantee ceases to provide Continuous Service to the Employer shall terminate as of such date, and any vested Options may be exercised for ninety (90) days after the date on which Continuous Service ceased. In addition, notwithstanding any other provisions of this Section 6, if the Committee determines that the Grantee has engaged in conduct that constitutes Cause at any time while the Grantee is providing Continuous Service to the Employer or after the Grantee's termination of employment or service, any Option held by the Grantee shall immediately terminate and the Grantee shall automatically forfeit all shares underlying any exercised portion of an Option for which the Company has not yet delivered the share certificates, upon refund by the Company of the Exercise Price paid by the Grantee for such shares. Upon any exercise of an Option, the Company may withhold delivery of share certificates pending resolution of an inquiry that could lead to a finding resulting in a forfeiture.

(g) Exercise of Options A Grantee may exercise an Option that has become exercisable, in whole or in part, by delivering a notice of exercise to the Company. The Grantee shall pay the Exercise Price for an Option as specified by the Committee in cash, unless the Committee determines otherwise, by delivering shares of Company Stock owned by the Grantee and having a Fair Market Value on the date of exercise at least equal to the Exercise Price or by attestation (on a form prescribed by the Committee) to ownership of shares of Company Stock having a Fair Market Value on the date of exercise at least equal to the Exercise Price, by payment through a broker in accordance with procedures permitted by Regulation T of the Federal Reserve Board, or by such other method as the Committee may approve. Shares of Company Stock used to exercise an Option shall have been held by the Grantee for the requisite period of time necessary to avoid adverse accounting consequences to the Company with respect to the Option. Payment for the shares to be issued or transferred pursuant to the Option, and any required withholding taxes, must be received by the Company by the time specified by the Company depending on the type of payment being made, but in all cases prior to the issuance or transfer of such shares.

(h) Limits on Incentive Stock Options Each Incentive Stock Option shall provide that, if the aggregate Fair Market Value of the Company Stock on the date of the grant with respect to which Incentive Stock Options are exercisable for the first time by a Grantee during any calendar year, under the Plan or any other stock option plan of the Company or a parent or subsidiary, exceeds $100,000, then the Option, as to the excess, shall be treated as a Nonqualified Stock Option.

(i) Expiration of Option Term: Automatic Exercise of In-The-Money Options. Unless otherwise determined by the Committee (in a Grant Instrument or otherwise) or as otherwise directed in writing to the Company by a Grantee holding an Option, each Option outstanding on the Automatic Exercise Date with an exercise price per share that is less than the Fair Market Value per share of Company Stock as of such date shall automatically and without further action by the Grantee or the Company be exercised on the Automatic Exercise Date. Payment of the exercise price of any such Option and related tax obligations shall be "net settled" to the maximum extent permitted by applicable law. Unless otherwise determined by the Committee, this Section 6(i) shall not apply to an Option if the Grantee incurs a termination of Continuous Service on or before the Automatic Exercise Date. For the

avoidance of doubt, no Option with an exercise price per share that is equal to or greater than the Fair Market Value per share of Company Stock on the Automatic Exercise Date shall be exercised pursuant to this Section 6(i).

Section 7 Stock Awards

The Committee may issue or transfer shares of Company Stock to an Employee, Key Advisor or Non-Employee Director under a Stock Award, upon such terms as the Committee deems appropriate. The following provisions are applicable to Stock Awards:

(a) General Requirements Shares of Company Stock issued or transferred pursuant to Stock Awards may be issued or transferred for consideration or for no consideration, and subject to restrictions or no restrictions, as determined by the Committee. The Committee may, but shall not be required to, establish conditions under which restrictions on Stock Awards shall lapse over a period of time, at a particular date or according to such other criteria as the Committee deems appropriate, including, without limitation, restrictions based upon the achievement of specific performance goals. The period of time during which the Stock Awards will remain subject to restrictions will be designated in the Grant Instrument as the "Restriction Period." The minimum Restriction Period for Stock Awards with a Restriction Period shall be one (1) year from the date of grant.

(b) Number of Shares The Committee shall determine the number of shares of Company Stock to be issued or transferred pursuant to a Stock Award and the restrictions applicable to such shares.

(c) Requirement of Continuous Service. If the Grantee ceases to provide Continuous Service to an Employer during a period designated in the Grant Instrument as the Restriction Period, or if other specified conditions are not met, the Stock Award shall terminate as to all shares covered by the Grant as to which the restrictions have not lapsed, and those shares of Company Stock must be immediately returned to the Company. If a Grantee has an Early Retirement or Normal Retirement event during the Restriction Period, the number of Stock Awards that shall vest shall be pro-rated to the date of such Early Retirement or Normal Retirement, as the case may be. Such payment shall be made no earlier than the end of the Restriction Period (or the end of the period during which the Grantee must render Continuous Service, if later), and no later than 75 days following the later of the end of the Restriction Period or Performance Period, as applicable, or the end of the period of Continuous Service.

(d) Restrictions on Transfer and Legend on Stock Certificate. During the Restriction Period, a Grantee may not sell, assign, transfer, pledge or otherwise dispose of the shares of a Stock Award except under Section 14(a) below. Unless otherwise determined by the Committee, the Company will retain possession of certificates for shares of Stock Awards until all restrictions on such shares have lapsed. Each certificate for a Stock Award, unless held by the Company, shall contain a legend giving appropriate notice of the restrictions in the Grant. The Grantee shall be entitled to have the legend removed from the stock certificate covering the shares subject to restrictions when all restrictions on such shares have lapsed. The Committee may determine that the Company will not issue certificates for Stock Awards until all restrictions on such shares have lapsed.

(e) Right to Vote and to Receive Dividends. Unless the Committee determines otherwise, during the Restriction Period, the Grantee shall have the right to vote shares of Stock Awards and to receive any Dividends or other distributions paid on such shares, subject to any restrictions deemed appropriate by the Committee; provided that any dividends with respect to performance-based Stock Awards shall be withheld and shall be payable only if and to the extent that the restrictions on the underlying Stock Awards lapse, as determined by the Committee.

(f) Lapse of Restrictions. All restrictions imposed on Stock Awards shall lapse upon the expiration of the applicable Restriction Period and the satisfaction of all conditions, if any, imposed by the Committee.

Section 8 Stock Units

The Committee may grant Stock Units, each of which shall represent one hypothetical share of Company Stock, to an Employee, Key Advisor or Non-Employee Director, upon such terms and conditions as the Committee deems appropriate. The following provisions are applicable to Stock Units:

(a) Crediting of Units. Each Stock Unit shall represent the right of the Grantee to receive a share of Company Stock or an amount of cash based on the value of a share of Company Stock, if and when specified conditions are met. All Stock Units shall be credited to bookkeeping accounts established on the Company's records for purposes of the Plan.

(b) Terms of Stock Units. The Committee may grant Stock Units that are payable if specified Performance Goals, service requirements and/or other conditions are met, or under other circumstances. Stock Units may be paid at the end of a specified performance period or other period, or payment may be deferred to a date authorized by the Committee. The Committee shall determine the number of Stock Units to be granted and the requirements applicable to such Stock Units. If a Restriction Period is established for a Stock Units grant, it shall be a minimum of one (1) year.

(c) Requirement of Continuous Service If the Grantee ceases to provide Continuous Service to an Employer prior to the vesting of Stock Units, or if other conditions established by the Committee are not met, the Grantee's Stock Units shall be forfeited, provided, however, if a Grantee has an Early Retirement or Normal Retirement event prior to the vesting of Stock Units, the number of Stock Units that shall vest shall be pro-rated to the date of such Early Retirement or Normal Retirement, as the case may be. Such payment, with respect to Stock Units that are subject to Section 409A shall be made no earlier than the end of the vesting schedule (or the end of the period during which the Grantee must render Continuous Service, if later), and no later than 75 days following the later of the end of the Restriction Period or the end of the period of Continuous Service.

(d) Payment With Respect to Stock Units. Payments with respect to Stock Units shall be made in cash, Company Stock or any combination of the foregoing, as the Committee shall determine.

Section 9 Stock Appreciation Rights

The Committee may grant SARs to an Employee, Key Advisor or Non-Employee Director separately or in tandem with any Option. The following provisions are applicable to SARs:

(a) General Requirements. The Committee may grant SARs to an Employee, Key Advisor or Non-Employee Director separately or in tandem with any Option (for all or a portion of the applicable Option). Tandem SARs may be granted either at the time the Option is granted or at any time thereafter while the Option remains outstanding; provided, however, that, in the case of an Incentive Stock Option, SARs may be granted only at the time of the Grant of the Incentive Stock Option. The Committee shall establish the base amount of the SAR at the time the SAR is granted. The base amount of each SAR shall be equal to the per share Exercise Price of the related Option or, if there is no related Option, an amount equal to or greater than the Fair Market Value of a share of Company Stock as of the date of Grant of the SAR.

(b) Tandem SARs. In the case of tandem SARs, the number of SARs granted to a Grantee that shall be exercisable during a specified period shall not exceed the number of shares of Company Stock that the Grantee may purchase upon the exercise of the related Option during such period. Upon the exercise of an Option, the SARs relating to the Company Stock covered by such Option shall terminate. Upon the exercise of SARs, the related Option shall terminate to the extent of an equal number of shares of Company Stock.

(c) Exercisability. An SAR shall be exercisable during the period specified by the Committee in the Grant Instrument and shall be subject to such vesting and other restrictions as may be specified in the Grant Instrument. The Committee may accelerate the exercisability of any or all outstanding SARs at any time for any reason. SARs may only be exercised while the Grantee is providing Continuous Service to the Employer or during the applicable period after termination of employment or service determined by the Committee and set forth in the Grant Instrument. A tandem SAR shall be exercisable only during the period when the Option to which it is related is also exercisable.

(d) Grants to Non-Exempt Employees. Notwithstanding the foregoing, SARs granted to persons who are non-exempt employees under the Fair Labor Standards Act of 1938, as amended, may not be exercisable for at least six months after the date of grant (except that such SARs may become exercisable, as determined by the Committee, upon the Grantee's death, Disability or retirement, or upon a Change in Control or other circumstances permitted by applicable regulations).

(e) Value of SARs. When a Grantee exercises SARs, the Grantee shall receive in settlement of such SARs an amount equal to the value of the stock appreciation for the number of SARs exercised. The stock appreciation for an SAR is the amount by which the Fair Market Value of the underlying Company Stock on the date of exercise of the SAR exceeds the base amount of the SAR as described in subsection (a).

(f) Form of Payment. The appreciation in an SAR shall be paid in shares of Company Stock, cash or any combination of the foregoing, as the Committee shall determine. For purposes of calculating the number of shares of Company Stock to be received, shares of Company Stock shall be valued at their Fair Market Value on the date of exercise of the SAR.

Section 10 Other Stock-Based Awards

The Committee may grant Other Stock-Based Awards, which are awards (other than those described in Section 6, Section 7, Section 8 and Section 9 of the Plan) that are based on or measured by Company Stock, to any Employee, Key Advisor or Non-Employee Director, on such terms and conditions as the Committee shall determine. Other Stock-Based Awards may be awarded subject to the achievement of performance goals or other conditions and may be payable in cash, Company Stock or any combination of the foregoing, as the Committee shall determine.

Section 11 Dividend Equivalents

The Committee may grant Dividend Equivalents alone or in connection with Stock Units or Other Stock-Based Awards to an Employee, Key Advisor or Non-Employee Director. The Committee may grant Dividend Equivalents on the terms described in subsections (a) through (d) below or on such other terms and conditions as the Committee deems appropriate; provided that any Dividend Equivalents granted in connection with performance-based Stock Units or Other Stock-Based Awards shall be withheld and shall be payable only if and to the extent that the restrictions on the related Stock Units or Other Stock-Based Awards lapse, as determined by the Committee. Except as otherwise provided in the Grant Instrument, the following provisions may be applicable to Dividend Equivalents:

(a) Amount of Dividend Equivalent Credited. The Company shall credit to an account for each Grantee maintained by the Company in its books and records on each record date the Dividend Equivalent Amount for each Grantee attributable to each record date, from the date of grant until the earliest of the date of:

(i) the end of the applicable accumulation period designated by the Committee at the time of grant (the "Accumulation Period"),

(ii) the date the Grantee ceases to be employed by, or provide service to, the Employer for any reason, or as otherwise determined by the Committee, or

(iii) the end of the period of four years from the date of the grant.

(iv) The Company shall maintain in its books and records separate accounts which identify the Dividend Equivalent Amounts for each Grantee, reduced by all amounts paid pursuant to subsection (b) below. No interest shall be credited to any such account. The amount of Dividend Equivalents credited pursuant to this subsection (a) shall be deemed a separate payment for purposes of section 409A of the Code.

(b) Payment of Credited Dividend Equivalents. Except with respect to Dividend Equivalents granted in connection with performance-based Stock Units or Other Stock-Based Awards, any Dividend Equivalent Amounts accrued in an account between the date of grant to March 1 of the following year shall be distributed to the Grantee no later than March 15 of the year following the date of grant, subject to subsection (c) below, and any Dividend Equivalent Amounts accrued in an account from March 2 of the year following the date of grant (or any anniversary thereof) through March 1 of the following year shall be distributed to the Grantee no later than March 15 of such following year, subject to subsection (c) below. Notwithstanding the foregoing, except as otherwise determined by the Committee, if a Change in Control occurs while the Grantee is providing Continuous Service to the Employer, any Dividend Equivalent Amounts or portion thereof, which have not, prior to such date, been paid to the Grantee or forfeited shall be paid to the Grantee within sixty (60) days following the consummation of the Change in Control, subject to compliance with section 409A of the Code.

(c) Forfeiture of Dividend Equivalents. Except as otherwise determined by the Committee, payment of Dividend Equivalent Amounts for any accrual period ending on March 1 as described in subsection (b) above shall be forfeited by the Grantee if the Grantee is not providing Continuous Service to the Employer on March 1 of such accrual period. Dividend Equivalent Amounts payable pursuant to Dividend Equivalents granted in connection with performance-based Stock Units or Other Stock-Based Awards shall be distributed to the Grantee at the time the underlying Stock Units or Other Stock-Based Awards are paid, to the extent that such Grants become payable.

(d) Form of Payment. All Dividend Equivalent Amounts shall be paid solely in cash.

Section 12 Qualified Performance-Based Compensation

The Committee may determine that Stock Awards, Stock Units, Other Stock-Based Awards and Dividend Equivalents granted to an Employee shall have Performance Goals and a Performance Period as part of the terms of such Award. The Committee will establish, in writing, the Performance Goals and the Performance Period for each applicable Award; provided, however, that where the determination of the Performance Goals and Performance Period for any Award for which the Committee has delegated authority under Section 2(a), the authority to establish Performance Goals and a Performance Period is also delegated. Such Performance Goals may vary by Grantee and by Award. The Committee, in its discretion, may adjust or modify the calculation of Performance Goals to prevent dilution or enlargement of the rights of Awardees.

Section 13 Withholding of Taxes

(a) Required Withholding. All Grants under the Plan shall be subject to applicable federal (including FICA), state and local tax withholding requirements. The Employer may require that the Grantee or other person receiving or exercising Grants pay to the Employer the amount of any federal, state or local taxes that the Employer is required to withhold with respect to such Grants, or the Employer may deduct from other wages and compensation paid by the Employer the amount of any withholding taxes due with respect to such Grants.

(b) Election to Withhold Shares. The Committee may determine that the Company's tax withholding obligation with respect to Grants paid in Company Stock shall be satisfied by having shares of Company Stock withheld at the time such Grants become taxable. In addition, the Committee may allow Grantees to elect to have such share withholding applied to particular Grants. The election must be in a form and manner prescribed by the Company and may be subject to limits imposed by the Committee.

Section 14 Transferability of Grants

(a) Nontransferability of Grants. Except as provided below, only the Grantee may exercise rights under a Grant during the Grantee's lifetime. A Grantee may not transfer those rights except by will or by the laws of descent and distribution or with respect to Grants other than Incentive Stock Options, pursuant to a domestic relations order. When a Grantee dies, the personal representative or other person entitled to succeed to the rights of the Grantee may exercise such rights. Any such successor must furnish proof satisfactory to the Company of his or her right to receive the Grant under the Grantee's will or under the applicable laws of descent and distribution.

(b) Transfer of Nonqualified Stock Options. Notwithstanding the foregoing, the Committee may provide, in a Grant Instrument, that a Grantee may transfer Nonqualified Stock Options to family members, or one or more trusts or other entities for the benefit of or owned by family members, consistent with the applicable securities laws, according to such terms as the Committee may determine; provided that the Grantee receives no consideration for the transfer of an Option and the transferred Option shall continue to be subject to the same terms and conditions as were applicable to the Option immediately before the transfer.

Section 15 Consequences of a Change in Control

(a) Treatment of Outstanding Grants. In the event of a Change in Control, the Committee may take one or more of the following actions with respect to any or all outstanding Grants: accelerate the vesting of outstanding Options and SARs upon a specified termination of employment or service or upon the Change in Control; provide for the lapse of the restrictions and conditions on outstanding Stock Awards upon a specified termination of employment or service or upon the Change in Control; accelerate the vesting of Stock Units, Other Stock-Based Awards and unpaid Dividend Equivalent Amounts and provide that such Grants shall be paid at their target values, or in such greater amounts as the Committee may determine upon a specified termination of employment or service or upon the Change in Control; require that Grantees surrender their outstanding Options and SARs in exchange for one or more payments by the Company, in cash or Company Stock as determined by the Committee, in an amount equal to the amount, if any, by which the then Fair Market Value of the shares of Company Stock subject to the Grantee's unexercised Options and SARs exceeds the Exercise Price of the Options or the base amount of the SARs, as applicable; after giving Grantees an opportunity to exercise their outstanding Options and SARs, terminate any or all unexercised Options and SARs at such time as the Committee deems appropriate; or determine that outstanding Options and SARs that are not exercised shall be assumed by, or replaced with comparable options or rights by, the surviving corporation, (or a parent or subsidiary of the surviving corporation), and other outstanding Grants that remain in effect after the Change in Control shall be converted to similar grants of the surviving corporation (or a parent or subsidiary of the surviving corporation). Any surrender or termination shall take place as of the date of the Change in Control or such other date as the Committee may specify. Without limiting the foregoing, if the per share Fair Market Value of Company Stock does not exceed the per share Exercise Price of an Option or base amount of a SAR, as applicable, the Company shall not be required to make any payment to the Grantee upon surrender or termination of the Option or SAR.

(b) Committee. The Committee making the determinations under this Section 15 following a Change in Control must be comprised of the same members as those on the Committee immediately before the Change in Control.

Section 16 Requirements for Issuance or Transfer of Shares

No Company Stock shall be issued or transferred in connection with any Grant hereunder unless and until all legal requirements applicable to the issuance or transfer of such Company Stock have been complied with to the satisfaction of the Committee. The Committee shall have the right to condition any Grant on the Grantee's undertaking in writing to comply with such restrictions on his or her subsequent disposition of the shares of Company Stock as the Committee shall deem necessary or advisable, and certificates representing such shares may be legended to reflect any such restrictions. Certificates representing shares of Company Stock issued or transferred under the Plan may be subject to such stop-transfer orders and other restrictions as the Company deems appropriate to comply with applicable laws, regulations and interpretations, including any requirement that a legend be placed thereon.

Section 17 Amendment and Termination of the Plan

(a) Amendment The Board or the Committee may amend or terminate the Plan at any time; provided, however, that neither the Board nor the Committee shall amend the Plan without shareholder approval if such approval is required in order to comply with the Code or other applicable law, or to comply with applicable stock exchange requirements.

(b) No Repricing Without Shareholder Approval. Except in connection with a corporate transaction involving all of the Company Stock (including, without limitation, any stock dividend, distribution (whether in the form of cash, Company Stock, other securities or other property), stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of Company Stock or other securities, or similar transaction), the Company may not, without obtaining shareholder approval: amend the terms of outstanding Options or SARs to reduce the Exercise Price or base price (as applicable) of such outstanding Options or SARs; cancel outstanding Options or SARs in exchange for Options or SARs with an Exercise Price or base price, as applicable, that is less than the Exercise Price or base price of the original Options or SARs; or cancel outstanding Options or SARs with an Exercise Price or base price, as applicable, above the then current Company Stock price in exchange for cash or other securities. In addition, the Plan may not be amended to permit the actions in (i), (ii) or (iii), unless the Company obtains shareholder approval.

(c) Termination of Plan. The Plan shall terminate on May 2, 2029, unless the Plan is terminated earlier by the Board or Committee or is extended by the Board or Committee with the approval of the shareholders.

(d) Termination and Amendment of Outstanding Grants. A termination or amendment of the Plan that occurs after a Grant is made shall not materially impair the rights of a Grantee unless the Grantee consents or unless the Committee acts under Section 18(g) below. The termination of the Plan shall not impair the power and authority of the Committee with respect to an outstanding Grant. Whether or not the Plan has terminated, an outstanding Grant may be terminated or amended under Section 18(g) below or may be amended by agreement of the Company and the Grantee consistent with the Plan.

(e) Effective Date of the Plan Amendment and Restatement.This 2019 amendment and restatement of the Plan shall be effective on May 2, 2019 upon receipt of shareholder approval of this Plan (the "Effective Date"); provided, however that any Awards made under the Plan prior to such Effective Date with performance goals shall be governed by the Plan as in effect at the time the Award was made.

Section 18 Miscellaneous

(a) Grants in Connection with Corporate Transactions and Otherwise. Nothing contained in the Plan shall be construed to limit the right of the Committee to make Grants under the Plan in connection with the acquisition, by purchase, lease, merger, consolidation or otherwise, of the business or assets of any corporation, firm or association, including Grants to employees thereof who become Employees, or the right of the Company to grant stock options or make other awards outside of the Plan. The Committee may make a Grant to an employee of another corporation who becomes an Employee by reason of a corporate merger, consolidation, acquisition of stock or property, reorganization or liquidation involving the Company, in substitution for a stock option or stock award grant made by such corporation. Notwithstanding anything in the Plan to the contrary, the Committee may establish such terms and conditions of the new Grants as it deems appropriate, including setting the Exercise Price of Options or the base price of SARs at a price necessary to retain for the Grantee the same economic value as the prior options or rights.

(b) Governing Document The Plan shall be the controlling document. No other statements, representations, explanatory materials or examples, oral or written, may amend the Plan in any manner. The Plan shall be binding upon and enforceable against the Company and its successors and assigns.

(c) Funding of the Plan. The Plan shall be unfunded. The Company shall not be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of any Grants under the Plan.

(d) Rights of Grantees. Nothing in the Plan shall entitle any Employee, Key Advisor, Non-Employee Director or other person to any claim or right to be granted a Grant under the Plan. Neither the Plan nor any action taken hereunder shall be construed as giving any individual any rights to be retained by or in the employ of the Employer or any other employment rights.

(e) Fractional Shares. No fractional shares of Company Stock shall be issued or delivered pursuant to the Plan or any Grant. Except as otherwise provided under the Plan, the Committee shall determine whether cash, other awards or other property shall be issued or paid in lieu of such fractional shares or whether such fractional shares or any rights thereto shall be forfeited or otherwise eliminated. Notwithstanding the foregoing, as set forth in Section 4(b) above, in connection with any such adjustment described, the number of shares of Company Stock subject to any Grants made under the Plan may be rounded up or down, as determined by the Committee, in its sole discretion, subject to compliance with sections 424 and 409A of the Code, as applicable, and the applicable limitations on shares of Company Stock under the Plan.

(f) Section 409A. The Plan is intended to comply with the requirements of section 409A of the Code, to the extent applicable. All Grants shall be construed and administered such that the Grant either (i) qualifies for an exemption from the requirements of section 409A of the Code or (ii) satisfies the requirements of section 409A of the Code. If a Grant is subject to section 409A of the Code, distributions shall only be made in a manner and upon an event permitted under section 409A of the Code, payments to be made upon a termination of employment shall only be made upon a "separation from service" under section 409A of the Code, payments to be made upon a Change of Control shall only be made upon a "change of control event" under section 409A of the Code, unless the Grant specifies otherwise, each payment shall be treated as a separate payment for purposes of section 409A of the Code, and in no event shall a Grantee, directly or indirectly, designate the calendar year in which a distribution is made except in accordance with section 409A of the Code. Any Grant granted under the Plan that is subject to section 409A of the Code and that is to be distributed to a key employee (as defined below) upon separation from service shall be administered so that any distribution with respect to such Grant shall be postponed for six months following the date of the Grantee's separation from service, if required by section 409A of the Code. If a distribution is delayed pursuant to section 409A of the Code, the distribution shall be paid within 30 days after the end of the six-month period. If the Grantee dies during such six-month period, any postponed amounts shall be paid within 90 days of the Grantee's death. The determination of key employees, including the number and identity of persons considered key employees and the identification date, shall be made by the Committee or its delegate each year in accordance with section 416(i) of the Code and the "specified employee" requirements of section 409A of the Code.

(g) Compliance with Law. The Plan, the exercise of Options and SARs and the obligations of the Company to issue or transfer shares of Company Stock under Grants shall be subject to all applicable laws and regulations, and to approvals by any governmental or regulatory agency as may be required. With respect to persons subject to section 16 of the Exchange Act, it is the intent of the Company that the Plan and all transactions under the Plan comply with all applicable provisions of Rule 16b-3 or its successors under the Exchange Act. In addition, it is the intent of the Company that Incentive Stock Options comply with the applicable provisions of section 422 of the Code and that, to the extent applicable, Grants comply with the requirements of section 409A of the Code. To the extent that any legal requirement of section 16 of the Exchange Act or section 422 or 409A of the Code as set forth in the Plan ceases to be required under section 16 of the Exchange Act or section 422 or 409A of the Code, that Plan provision shall cease to apply. The Committee may revoke any Grant if it is contrary to law or modify a Grant to bring it into compliance with any valid and mandatory government regulation.

(h) Employees Subject to Taxation Outside the United States. With respect to Grantees who are believed by the Committee to be subject to taxation in countries other than the United States, the Committee may make Grants on such terms and conditions, consistent with the Plan, as the Committee deems appropriate to comply with the laws of the applicable countries, and the Committee may create such procedures, addenda and subplans and make such modifications as may be necessary or advisable to comply with such laws.

(i) Company Policies. All Grants made under the Plan shall be subject to any applicable clawback or recoupment policies, share trading policies and other policies that may be implemented by the Board from time to time.

(j) Governing Law. The validity, construction, interpretation and effect of the Plan and Grant Instruments issued under the Plan shall be governed and construed by and determined in accordance with the laws of the Commonwealth of Pennsylvania, without giving effect to the conflict of laws provisions thereof.

ESSENTIAL UTILITIES, INC.
AMENDED AND RESTATED EQUITY COMPENSATION PLAN

PERFORMANCE-BASED SHARE UNIT GRANT
TERMS AND CONDITIONS

1. Grant of Performance Units.

These Performance-Based Share Unit Grant Terms and Conditions (the "Grant Conditions") shall apply and be part of the grant made by Essential Utilities, Inc., a Pennsylvania corporation (the "Company"), to the Grantee named in the Performance-Based Share Unit Grant (the "Performance-Based Unit Grant") to which these Grant Conditions are attached (the "Grantee"), under the terms and provisions of the Essential Utilities, Inc. Amended and Restated Equity Compensation Plan, as amended and restated (the "Plan"). The applicable provisions of the Plan are incorporated into the Grant Conditions by reference, including the definitions of terms contained in the Plan (unless such terms are otherwise defined herein). The Grantee is an employee of the Company, its subsidiaries or its Affiliates (collectively, the "Employer").

Subject to the terms and vesting conditions hereinafter set forth, the Company, with the approval and at the direction of the Executive Compensation Committee (the "Committee") of the Company's Board of Directors (the "Board"), has granted to the Grantee a target award (the "Target Award") of performance-based share units as specified in the Performance-Based Share Unit Grant (the "Performance Units"). The Performance Units are contingently awarded and shall be earned, vested and payable if and to the extent that the performance goals described on Schedule A (the "Performance Goals"), employment conditions and other conditions of these Grant Conditions are met. The Performance Units are granted with Dividend Equivalents (as defined in Section 6).

2. Vesting.

(a) Except as otherwise set forth in these Grant Conditions, the Grantee shall earn and vest in a number of Performance Units based on the attainment of the Performance Goals as of the end of the Performance Period, provided that the Grantee continues to be employed by the Employer through the Vesting Date stated on the Performance-Based Share Unit Grant (the "Vesting Date"). The "Performance Period" is the performance period beginning and ending on the applicable dates stated on the Performance-Based Share Unit Grant. The "Vesting Period" is the period beginning on the Grant Date and ending on the Vesting Date.

(b) Except as otherwise set forth in these Grant Conditions, at the end of the Performance Period, the Committee will determine whether and to what extent the Performance Goals have been met and the amount earned with respect to the Performance Units. The Grantee can earn up to two hundred percent (200%) of the Target Award based on the attainment of the Performance Goals.

(c) Except as described in Section 3 below, the Grantee must continue to be employed by the Employer throughout the Vesting Period in order for the Grantee to vest and receive payment with respect to the earned Performance Units.

(d) Except as specifically provided below, no Performance Units shall vest prior to the Vesting Date, and if the Performance Goals are not attained at the end of the Performance Period, the Performance Units shall be immediately forfeited and shall cease to be outstanding.

3. Termination of Employment on Account of Retirement, Death, or Disability.

(a) Except as described below, if the Grantee ceases to be employed by the Employer prior to the Vesting Date, the Performance Units shall be forfeited as of the termination date and shall cease to be outstanding.

(b) If the Grantee ceases to be employed by the Employer during the Vesting Period on account of the Grantee's death or Disability, the Grantee's outstanding Performance Units shall remain outstanding through the Vesting Period and the Grantee shall earn Performance Units based on the attainment of the Performance Goals, as determined following the end of the Performance Period (or as described in Section 4, if applicable). The earned Performance Units shall be paid as described in Section 5.

(c) If the Grantee ceases to be employed by the Employer during the Vesting Period on account of Retirement (defined below), the Grantee shall earn a pro-rata portion of the outstanding Performance Units based on attainment of the Performance Goals, as determined following the end of the Performance Period (or as described in Section 4, if applicable). The pro-rated portion shall be

determined based on the number of Performance Units earned based on the attainment of the Performance Goals during the Performance Period, multiplied by a fraction, the numerator of which is the number of completed full months following the Grant Date and prior to the Retirement Date in which the Grantee was employed by the Employer and the denominator of which is thirty-six (36). The pro-rated earned Performance Units shall be paid as described in Section 5.

(d) For purposes of these Grant Conditions, "Retirement" shall mean the Grantee's voluntary termination of employment after the Grantee has attained age fifty-five (55) and has five (5) full years of service with the Employer.

4. Change in Control.

(a) If a Change in Control occurs during the Vesting Period, the Grantee shall earn outstanding Performance Units as of the date of the Change in Control (the "Change in Control Date") as follows:

(i) If the Change in Control occurs before the end of the Performance Period, the Grantee shall earn the greater of (x) the number of Performance Units earned based on the attainment of the Performance Goals from the beginning of the Performance Period to the Change in Control Date, or (y) the Target Award.

(ii) If a Change in Control occurs after the end of the Performance Period but before the Vesting Date, the Grantee shall earn Performance Units based on the attainment of the Performance Goals as of the end of the Performance Period. Performance Units earned as of the Change in Control Date, as described above in subsection (a)(i) or (ii), are referred to as the "CIC Earned Units." All reference in this Agreement to "Performance Units" includes CIC Earned Units on and after a Change in Control.

(b) The Grantee shall vest in the CIC Earned Units on the Vesting Date if the Grantee continues to be employed by the Employer through the Vesting Date. Except as described below, the CIC Earned Units shall only vest if the Grantee continues to be employed by the Employer through the Vesting Date.

(c) If prior to the Vesting Date, a Change in Control occurs and the Grantee ceases to be employed by the Employer upon or following a Change in Control on account of (i) the Grantee's Retirement, (ii) the Grantee's termination by the Company without Cause, or (iii) the Grantee's Disability or death, the CIC Earned Units shall vest as of the termination date.

(d) If the Grantee ceases to be employed by the Employer for any other reason before the Vesting Date, the shall forfeit Grantee the CIC Earned Units as of the date of termination.

5. Payment with Respect to Performance Units.

(a) Except as otherwise set forth in Section 4, if the Committee certifies that the Performance Goals and other conditions to payment of the Performance Units have been met, shares of Company Stock equal to the vested earned Performance Units shall be issued to the Grantee on the Vesting Date, subject to applicable tax withholding and Section 16 below.

(b) If, prior to the Vesting Date, a Change in Control occurs and the Grantee continues to be employed by the Employer through the Vesting Date, shares of Company Stock (or other consideration, as described below) equal to the vested CIC Earned Units shall be issued to the Grantee on the Vesting Date, subject to applicable tax withholding and Section 16 below.

(c) If, prior to the Vesting Date, a Change in Control occurs and the Grantee ceases to be employed by the Employer on or after the Change in Control on account of (i) the Grantee's Retirement, (ii) the Grantee's termination by the Employer without Cause, or (iii) the Grantee's Disability or death, shares of Company Stock (or other consideration, as described below) equal to the vested CIC Earned Units shall be issued to the Grantee within sixty (60) days following the Grantee's date of termination, subject to applicable tax withholding and Section 16 below.

(d) If the Grantee terminates employment on account of the Grantee's Disability, death or Retirement before a Change in Control, any outstanding Performance Units under Section 3(b) or 3(c) may be earned as CIC Earned Units pursuant to Section 4(a), but in the event such termination is on account of Retirement, such outstanding Performance Units shall be prorated by applying the fraction in Section 3(c), and such CIC Earned Units shall vest on the date of the Change in Control. Shares of Company Stock (or such other consideration, as described below) equal to the vested CIC Earned Units shall be issued to the Grantee within sixty (60) days after the Change in Control, subject to applicable tax withholding and Section 16 below.

(e) If, in connection with a Change in Control, shares of Company Stock are converted into the right to receive a cash payment or other form of consideration, the vested CIC Earned Units shall be payable in such form of consideration, as determined by the Committee.

(f) Any fractional shares with respect to vested earned Performance Units shall be paid to the Grantee in cash.

6. Dividend Equivalents with Respect to Performance Units.

(a) Dividend Equivalents shall accrue with respect to Performance Units and shall be payable subject to the same vesting terms and other conditions as the Performance Units to which they relate. Dividend Equivalents shall be credited when dividends are declared on shares of Company Stock from the Grant Date until payment date for the vested earned Performance Units. If and to the extent that the underlying Performance Units are forfeited, all related Dividend Equivalents shall also be forfeited.

(b) While the Performance Units are outstanding, the Company will keep records in a bookkeeping account for the Grantee. On each date on which a dividend is declared by the Company on Company Stock, the Company shall credit to the Grantee's account an amount equal to the Dividend Equivalents associated with the Performance Units held by the Grantee on the record date for the dividend. No interest will be credited to any such account.

(c) Dividend Equivalents shall be paid in cash at the same time as the underlying vested earned Performance Units are paid.

(d) Notwithstanding the foregoing, if shares of Company Stock are converted to cash as described in Section 5(e) above in connection with a Change in Control, Dividend Equivalents shall cease to be credited with respect to the Performance Units.

7. Certain Corporate Changes.

If any change is made to the Company Stock (whether by reason of merger, consolidation, reorganization, recapitalization, stock dividend, stock split, combination of shares, or exchange of shares or any other change in capital structure made without receipt of consideration), then unless such event or change results in the termination of all the Performance Units, the Committee shall adjust, in an equitable manner and as provided in the Plan, the number and class of shares underlying the Performance Units to reflect the effect of such event or change in the Company's capital structure in such a way as to preserve the value of the Performance Units, and the Committee shall adjust the Performance Goals as necessary to reflect the effect of such event or change in the Company's capital structure. Any adjustment that occurs under the terms of this Section 7 or the Plan will not change the timing or form of payment with respect to any Performance Units and will be consistent with Section 162(m) of the Code, to the extent applicable.

8. No Stockholder Rights.

No shares of Company Stock shall be issued to the Grantee at the time the grant is made, and the Grantee shall not be, nor have any of the rights or privileges of, a shareholder of the Company with respect to any Performance Units recorded in the account, including no voting rights and no rights to receive dividends (other than Dividend Equivalents).

9. No Right to Continued Employment.

Neither the award of Performance Units, nor any other action taken with respect to the Performance Units, shall confer upon the Grantee any right to continue to be employed by the Employer or shall interfere in any way with the right of the Employer to terminate the Grantee's employment at any time.

10. Termination or Amendment.

These Grant Conditions and the award made hereunder may be terminated or amended by the Committee, in whole or in part, in accordance with the applicable terms of the Plan.

11. Notice.

Any notice to the Company provided for in these Grant Conditions shall be addressed to it in care of the Company's Chief Human Resources Officer, and any notice to the Grantee shall be addressed to the Grantee at the current address shown on the payroll system of the Company, or to such other address as the Grantee may designate to the Company in writing. Any notice provided for hereunder shall be delivered by hand, sent by telecopy or electronic mail or enclosed in a properly sealed envelope addressed as stated above, registered and deposited, postage and registry fee prepaid in the United States mail or other mail delivery service. Notice to the Company shall be deemed effective upon receipt. By receipt of these Grant Conditions, the Grantee hereby consents to the delivery of information (including without limitation, information required to be delivered to the Grantee pursuant to the applicable securities laws) regarding the Company, the Plan, and the Performance Units via the Company's electronic mail system or other electronic delivery system.

12. Incorporation of Plan by Reference.

The Performance-Based Share Unit Grant and these Grant Conditions are made pursuant to the terms of the Plan, the terms of which are incorporated herein by reference, and shall in all respects be interpreted in accordance therewith. The decisions of the Committee shall be conclusive upon any question arising hereunder. The Grantee's receipt of the Performance Units constitutes the Grantee's acknowledgment that all decisions and determinations of the Committee with respect to the Plan, these Grant Conditions, and/or the Performance Units shall be final and binding on the Grantee, his or her beneficiaries and any other person having or claiming an interest in the Performance Units. The settlement of any award with respect to the Performance Units is subject to the provisions of the Plan and to interpretations, regulations and determinations concerning the Plan as established from time to time by the Committee in accordance with the provisions of the Plan. A copy of the Plan will be furnished to each Grantee upon request.

13. Income Taxes; Withholding Taxes.

The Grantee is solely responsible for the satisfaction of all taxes and penalties that may arise in connection with the award or settlement of Performance Units pursuant to these Grant Conditions. At the time of taxation, the Employer shall have the right to deduct from other compensation, or to withhold shares of Company Stock, in an amount equal to the federal (including FICA), state, local and foreign taxes and other amounts as may be required by law to be withheld with respect to the Performance Units, as approved in advance by the Committee.

14. Governing Law.

The validity, construction, interpretation and effect of the Performance-Based Share Unit Grant and these Grant Conditions shall exclusively be governed by, and determined in accordance with, the applicable laws of the Commonwealth of Pennsylvania, excluding any conflicts or choice of law rule or principle.

15. Assignment.

The Performance-Based Share Unit Grant and these Grant Conditions shall bind and inure to the benefit of the successors and assignees of the Company. The Grantee may not sell, assign, transfer, pledge or otherwise dispose of the Performance Units, except to a successor grantee in the event of the Grantee's death.

16. Section 409A.

The Performance-Based Share Unit Grant and these Grant Conditions are intended to comply with Code Section 409A or an exemption, and payments may only be made under these Grant Conditions upon an event and in a manner permitted by Code Section 409A, to the extent applicable. Notwithstanding anything in these Grant Conditions to the contrary, if required by Code Section 409A, if the Grantee is considered a "specified employee" for purposes of Code Section 409A and if any payment under these Grant Conditions is required to be delayed for a period of six (6) months after separation from service pursuant to Code Section 409A, such payment shall be delayed as required by Code Section 409A, and the accumulated payment amounts shall be paid in a lump sum payment within ten (10) days after the end of the six (6)-month period. If the Grantee dies during the postponement period prior to payment, the amounts withheld on account of Code Section 409A shall be paid to the personal representative of the Grantee's estate within sixty (60) days after the date of the Grantee's death. Notwithstanding anything in these Grant Conditions to the contrary, if the Performance Units are subject to Code Section 409A and if required by Code Section 409A, any payments to be made upon a termination of employment under these Grant Conditions may only be made upon a "separation from service" under Code Section 409A. In no event may the Grantee, directly or indirectly, designate the calendar year of a payment, except in accordance with Code Section 409A. Notwithstanding anything in these Grant Conditions to the contrary, if required by Code Section 409A, if CIC Earned Units are subject to Code Section 409A, and if a Change in Control is not a "change in control event" under Code Section 409A or the payment event does not occur upon or within two years following a "change in control event" under Code Section 409A, any vested CIC Earned Units shall be paid to the Grantee upon the Vesting Date and not on account of an earlier termination of employment.

17. Company Policies.

This Performance-Based Unit Grant and all shares issued pursuant to this grant shall be subject to any applicable recoupment or clawback policies and other policies implemented by the Board, as in effect from time to time.

Schedule A

Performance Goals for 2022 Performance Units

1. Performance Goals.

[_____]

2. Calculation of TSR.

[____]

3. Performance Units Earned Based on Comparative TSR to the Peer Group. _____ % of the Target Award of Performance Units (the "Peer Group Portion") shall be earned based on _____ for the Performance Period, in accordance with the following:

(a) The Peer Group for this purpose consists of:

.	.	.
.	.	.
.	.	.
.	.	.
.	.	.

(b) The Peer Group shall be subject to change as follows:

(i) In the event of a merger, acquisition or business combination transaction of a Peer Company in which the Peer Company is the surviving entity and remains publicly traded, the surviving entity shall remain a Peer Company.

(ii) In the event of a merger, acquisition or business combination transaction of a Peer Company, a "going private" transaction or similar event involving a Peer Company or the liquidation of a Peer Company, in each case where the Peer Company is not the surviving entity or is no longer publicly traded, the TSR for the Peer Company shall be calculated by dividing the Closing Average Share Value (as defined below) using the date immediately prior to the merger, acquisition, or business combination transaction by the Opening Share Value (as defined below).

(iii) In the event of an announced merger, acquisition or business combination transaction of a Peer Company, a "going private" transaction or similar event involving a Peer Company or the liquidation of a Peer Company, or the announcement of an intention to enter into a merger, acquisition or business combination of a Peer Company, a "going private" transaction or similar event, in each case where the Peer Company is not the surviving entity or is no longer publicly traded, the TSR for the Peer Company shall be calculated by dividing the Closing Average Share Value (as defined below) using the date immediately prior to the announcement of the merger, acquisition, or business combination by the Opening Share Value (as defined below).

(c) The term "Closing Average Share Value" means the average value of the common stock for the trading days during the two calendar months ending on the last trading day of the Performance Period, which shall be calculated as follows: (i) determine the closing price of the common stock on each trading date during the two-month period, (ii) multiply each closing price as of that trading date by the applicable share number described below, and (iii) average the amounts so determined for the two-month period. The Closing Average Share Value shall take into account any dividends on the common stock for which the ex-dividend date occurred during the Performance Period, as if the dividend amount had been reinvested in common stock at the closing price on the ex-dividend date. The share number in clause (ii) above, for a given trading day, is the sum of one share plus the cumulative number of shares deemed purchased with such dividends. Notwithstanding the foregoing, if the Closing Average Share Value is calculated as of a Change in Control, then the Closing Average Share Value shall be based on the two-month period ending immediately prior to the Change in Control.

(d) The term "Opening Average Share Value" means the average value of the common stock for the trading days during the two calendar months ending on the last trading day prior to the beginning of the Performance Period, which shall be calculated as follows: (i) determine the closing price of the common stock on each trading date during the two-month period, (ii) multiply each closing price as of that trading date by the applicable share number described below, and (iii) average the amounts so determined for the two-month period. The Opening Average Share Value shall take into account any dividends on the common stock for which the ex-dividend date occurred during the two-month period, as if the dividend amount had been reinvested in common stock at the closing price on the ex-dividend date. The share number in clause (ii) above, for a given trading day, is the sum of one share plus the cumulative number of shares deemed purchased with such dividends.

(e) The Peer Group Portion shall be earned based on how the Company's TSR ranks in comparison to the TSRs of the Peer Group in accordance with the following schedule, depending on how many companies remain in the Peer Group at the end of the Performance Period:

4. Performance Units Earned Based on Rate Base Growth. _____ % of the employee's target performance-based award (the "Rate Base Growth Portion") shall be earned based on _____.

5. General Terms. Any portion of the Performance Units that is not earned as of the end of the Performance Period shall be forfeited as of the end of the Performance Period (or as provided above upon an earlier Change in Control). In no event shall the maximum number of Performance Units that may be payable pursuant to these Grant Conditions exceed 200% of the Target Award.

ESSENTIAL UTILITIES, INC.
AMENDED AND RESTATED EQUITY COMPENSATION PLAN

RESTRICTED STOCK UNIT GRANT
TERMS AND CONDITIONS

1. Grant of Restricted Units.

These Restricted Stock Unit Grant Terms and Conditions (the "Grant Conditions") shall apply and be part of the grant made by Essential Utilities Inc., a Pennsylvania corporation (the "Company"), to the Grantee named in the Restricted Stock Unit Grant (the "Restricted Stock Unit Grant") to which these Grant Conditions are attached (the "Grantee"), under the terms and provisions of the Essential Utilities Inc. Amended and Restated Equity Compensation Plan, as amended and restated (the "Plan"). The applicable provisions of the Plan are incorporated into these Grant Conditions by reference, including the definitions of terms contained in the Plan (unless such terms are otherwise defined herein). The Grantee is an employee of the Company, its subsidiaries or its Affiliates (collectively, the "Employer").

Subject to the terms and vesting conditions hereinafter set forth, the Company, with the approval and at the direction of the Executive Compensation Committee (the "Committee") of the Company's Board of Directors (the "Board"), has granted to the Grantee the number of restricted stock units specified in the Restricted Stock Unit Grant (the "Restricted Units"). The Restricted Units shall become vested as set forth in these Grant Conditions. The Restricted Units are granted with Dividend Equivalents (as defined in Section 8).

2. Restricted Unit Account.

Restricted Units represent hypothetical shares of common stock of the Company ("Company Stock"), and not actual shares of Company Stock. The Company shall establish and maintain a Restricted Unit account, as a bookkeeping account on its records, for the Grantee and shall record in such account the number of Restricted Units granted to the Grantee. No shares of Company Stock shall be issued to the Grantee at the time the grant is made, and the Grantee shall not be, nor have any of the rights or privileges of, a shareholder of the Company with respect to any Restricted Units recorded in the account, including no voting rights and no rights to receive dividends (other than Dividend Equivalents). The Grantee shall not have any interest in any fund or specific assets of the Company by reason of this award or the Restricted Unit account established for the Grantee.

3. Vesting.

(a) Except as otherwise set forth in these Grant Conditions, the Grantee shall vest in the Restricted Units on the Vesting Dates specified in the Restricted Stock Unit Grant (the "Vesting Date"), provided that the Grantee continues to be employed by the Employer through the Vesting Date.

(b) Except as described in Sections 4 and 5 below, the Grantee must continue to be employed by the Employer on the Vesting Date in order for the Grantee to vest and receive payment with respect to Restricted Units.

4. Termination of Employment on Account of Retirement, Death, or Disability.

(a) Except as described below, if the Grantee ceases to be employed by the Employer prior to the Vesting Date, the Restricted Units shall be forfeited as of the termination date.

(b) If the Grantee ceases to be employed by the Employer prior to the Vesting Date on account of the Grantee's Retirement (defined below), the Grantee shall earn a pro-rata portion of the unvested Restricted Units. The pro-rated portion shall be determined based the number of unvested Restricted Units, multiplied by a fraction, the numerator of which is the number of completed full months following the Grant Date and prior to the Retirement Date in which the Grantee was employed by the Employer and the denominator of which is thirty-six (36). Shares of Company Stock equal to the pro-rata portion of the Restricted Units shall be issued to the Grantee within sixty (60) days following the Grantee's Retirement date, subject to applicable tax withholding and subject to Section 19 below.

(c) If the Grantee ceases to be employed by the Employer prior to the Vesting Date on account of the Grantee's death or Disability, the Grantee's Restricted Units shall fully vest and shares of Company Stock equal to the vested Restricted

Units shall be issued to the Grantee within sixty (60) days after the Grantee's date of termination, subject to applicable tax withholding and subject to Section 19 below.

5. Change in Control.

(a) Except as described below, if a Change in Control occurs prior to the Vesting Date, the Grantee's Restricted Units shall remain outstanding and shall vest on the Vesting Date if the Grantee continues to be employed by the Employer through the Vesting Date. Shares of Company Stock (or other consideration, as described below) equal to the vested Restricted Units shall be issued to the Grantee on the Vesting Date, subject to applicable tax withholding and Section 19 below.

(b) If the Grantee ceases to be employed by the Employer upon or following a Change in Control on account of (i) the Grantee's Retirement, (ii) termination by the Employer without Cause, (iii) termination by the Grantee for Good Reason (defined below), or (iv) the Grantee's Disability or death, the Grantee's outstanding unvested Restricted Units shall fully vest. Shares of Company Stock (or such other consideration, as described below) equal to the Grantee's vested Restricted Units shall be issued to the Grantee within sixty (60) days after the Grantee's date of termination, subject to applicable tax withholding and Section 19 below.

(c) If the Grantee terminates employment for any other reason prior to the Vesting Date, the Restricted Units shall be forfeited as of the date of termination.

(d) If, in connection with the Change in Control, shares of Company Stock are converted into the right to receive a cash payment or other form of consideration, the vested Restricted Units shall be payable in such form of consideration, as determined by the Committee.

6. Definitions.

(a) For purposes of these Grant Conditions, "Good Reason" shall mean, except as otherwise provided in the last paragraph of this subsection, a Termination of Employment as a result of one or more of the following events, without the Executive's written consent to the event:

(i) any action or inaction that constitutes a material breach by Essential Utilities (or any successor thereto) of this Agreement;

(ii) a material diminution of the authority, duties or responsibilities of the Executive held immediately prior to the Change in Control;

(iii) a material diminution in the Executive's base salary, which, for purposes of this Agreement, means a reduction in base salary of ten (10) percent or more that does not apply generally to all executive officers of Essential Utilities; or

(iv) a material change in the geographic location at which the Executive must perform services under this Agreement, which, for purposes of this Agreement, means a requirement that the Executive be based at any office or location which is located more than fifty (50) miles from the Executive's primary place of employment immediately prior to the Change in Control on other than on a temporary basis (less than 6 months).

(v) a material diminution in the authority, duties, or responsibilities of the supervisor to whom the Executive is required to report, including a requirement that the Executive report to a corporate officer or employee instead of reporting directly to the board of directors of a corporation (or similar governing body with respect to an entity other than a corporation).

(vi) a material diminution in the budget over which the Executive retains authority.

A Termination of Employment after any of the foregoing events shall be a Good Reason only if the Executive provides written notice to Essential Utilities of the existence of such event within ninety (90) days after the initial occurrence of such event, and Essential Utilities fails to remedy the event within thirty (30) days following the receipt of such notice.

7. Payment with Respect to Restricted Units.

Except as otherwise set forth in Section 4 and 5 above, shares of Company Stock equal to the vested Restricted Units shall be issued to the Grantee on the Vesting Date, subject to applicable tax withholding and subject to Section 19. Any fractional Restricted Units shall be paid to the Grantee in cash.

8. Dividend Equivalents with Respect to Restricted Units.

(a) Dividend Equivalents shall accrue with respect to Restricted Units and shall be payable subject to the same vesting terms and other conditions as the Restricted Units to which they relate. Dividend Equivalents shall be credited when dividends are declared on shares of Company Stock from the Grant Date until the payment date for the vested Restricted Units. If and to the extent that the underlying Restricted Units are forfeited, all related Dividend Equivalents shall also be forfeited.

(b) While the Restricted Units are outstanding, the Company will keep records in a bookkeeping account for the Grantee. On each date on which a dividend is declared by the Company on Company Stock, the Company shall credit to the Grantee's account an amount equal to the Dividend Equivalents associated with the Restricted Units held by the Grantee on the record date for the dividend. No interest will be credited to any such account.

(c) Dividend Equivalents will be paid in cash at the same time as the underlying vested Restricted Units are paid.

(d) Notwithstanding the foregoing, if shares of Company Stock are converted to cash as described in Section 5(d) above in connection with a Change in Control, Dividend Equivalents shall cease to be credited with respect to Restricted Units.

9. [Reserved].

10. Certain Corporate Changes.

If any change is made to the Company Stock (whether by reason of merger,consolidation, reorganization, recapitalization, stock dividend, stock split, combination of shares, or exchange of shares or any other change in capital structure made without receipt of consideration), then unless such event or change results in the termination of all the Restricted Units, the Committee shall adjust, in an equitable manner and as provided in the Plan, the number and class of shares underlying the Restricted Units. Any adjustment that occurs under the terms of this Section 10 or the Plan will not change the timing or form of payment with respect to any Restricted Units.

11. No Right to Continued Employment.

Neither the award of Restricted Units, nor any other action taken with respect to the Restricted Units, shall confer upon the Grantee any right to continue to be employed by the Employer or shall interfere in any way with the right of the Employer to terminate the Grantee's employment at any time.

12. Termination or Amendment.

These Grant Conditions and the award made hereunder may be terminated or amended by the Committee, in whole or in part, in accordance with the applicable terms of the Plan.

13. Notice.

Any notice to the Company provided for in these Grant Conditions shall be addressed to it in care of the Company's Chief Human Resources Officer, and any notice to the Grantee shall be addressed to the Grantee at the current address shown on the payroll system of the Company, or to such other address as the Grantee may designate to the Company in writing. Any notice provided for hereunder shall be delivered by hand, sent by telecopy or electronic mail or enclosed in a properly sealed envelope addressed as stated above, registered and deposited, postage and registry fee prepaid in the United States mail or other mail delivery service. Notice to the Company shall be deemed effective upon receipt. By receipt of these Grant Conditions, the Grantee hereby consents to the delivery of information (including without limitation, information required to be delivered to the Grantee pursuant to the applicable securities laws) regarding the Company, the Plan, and the Restricted Units via the Company's electronic mail system or other electronic delivery system.

14. Incorporation of Plan by Reference.

The Restricted Stock Unit Grant and these Grant Conditions are made pursuant to the terms of the Plan, the terms of which are incorporated herein by reference, and shall in all respects be interpreted in accordance therewith. The decisions of

the Committee shall be conclusive upon any question arising hereunder. The Grantee's receipt of the Restricted Units constitutes the Grantee's acknowledgment that all decisions and determinations of the Committee with respect to the Plan, these Grant Conditions, and/or the Restricted Units shall be final and binding on the Grantee, his or her beneficiaries and any other person having or claiming an interest in the Restricted Units. The settlement of any award with respect to the Restricted Units is subject to the provisions of the Plan and to interpretations, regulations and determinations concerning the Plan as established from time to time by the Committee in accordance with the provisions of the Plan. A copy of the Plan will be furnished to each Grantee upon request.

15. Income Taxes; Withholding Taxes.

The Grantee is solely responsible for the satisfaction of all taxes and penalties that may arise in connection with the award or settlement of Restricted Units pursuant to these Grant Conditions. At the time of taxation, the Employer shall have the right to deduct from other compensation, or to withhold shares of Company Stock, in an amount equal to the federal (including FICA), state, local and foreign taxes and other amounts as may be required by law to be withheld with respect to the Restricted Units, as approved in advance by the Committee.

16. Company Policies.

This Restricted Unit Grant and all shares issued pursuant to this grant shall be subject to any applicable recoupment or clawback policies and other policies implemented by the Board, as in effect from time to time.

17. Governing Law.

The validity, construction, interpretation and effect of the Restricted Stock Unit Grant and these Grant Conditions shall exclusively be governed by, and determined in accordance with, the applicable laws of the Commonwealth of Pennsylvania, excluding any conflicts or choice of law rule or principle.

18. Assignment.

The Restricted Stock Unit Grant and these Grant Conditions shall bind and inure to the benefit of the successors and assignees of the Company. The Grantee may not sell, assign, transfer, pledge or otherwise dispose of the Restricted Units, except to a successor grantee in the event of the Grantee's death.

19. Code Section 409A.

The Restricted Stock Unit Grant and these Grant Conditions are intended to comply with Code Section 409A or an exemption, and payments may only be made under these Grant Conditions upon an event and in a manner permitted by Code Section 409A, to the extent applicable. Notwithstanding anything in these Grant Conditions to the contrary, if required by Code Section 409A, if the Grantee is considered a "specified employee" for purposes of Code Section 409A and if any payment under these Grant Conditions is required to be delayed for a period of six (6) months after separation from service pursuant to Code Section 409A, such payment shall be delayed as required by Code Section 409A, and the accumulated payment amounts shall be paid in a lump sum payment within ten (10) days after the end of the six (6)-month period. If the Grantee dies during the postponement period prior to payment, the amounts withheld on account of Code Section 409A shall be paid to the personal representative of the Grantee's estate within sixty (60) days after the date of the Grantee's death. Any payments to be made upon a termination of employment under these Grant Conditions may only be made upon a "separation from service" under Code Section 409A. In no event may the Grantee, directly or indirectly, designate the calendar year of a payment, except in accordance with Code Section 409A.

* * *

ESSENTIAL UTILITIES, INC.
AMENDED AND RESTATED EQUITY COMPENSATION PLAN

STOCK OPTION
TERMS AND CONDITIONS

1. Grant of Option.

These Stock Option Terms and Conditions (the "Grant Conditions") shall apply and be part of the grant made by Essential Utilities, a Pennsylvania corporation (the "Company"), to the Grantee named in the Stock Option Grant (the "Option") to which these Grant Conditions are attached (the "Grantee"), under the terms and provisions of the Essential Utilities, Inc. Amended and Restated Equity Compensation Plan, as amended and restated (the "Plan"). The applicable provisions of the Plan are incorporated into the Grant Conditions by reference, including the definitions of terms contained in the Plan (unless such terms are otherwise defined herein). The Grantee is an employee of the Company, its subsidiaries or its Affiliates (collectively, the "Employer").

Subject to the terms and vesting conditions hereinafter set forth, the Company, with the approval and at the direction of the Executive Compensation Committee (the "Committee") of the Company's Board of Directors (the "Board"), has granted to the Grantee a nonqualified stock option (the "Option") to purchase the number of shares of common stock of the Company (the "Shares") as specified in the Stock Option Grant at the exercise price per Share set forth in the Stock Option Grant (the "Exercise Price"). The Option shall vest according to Section 2 below.

2. Vesting of Option.

The Option shall vest on the following dates (each date, a "Vesting Date") if (i) the Grantee continues to be employed by the Employer through the Vesting Date and (ii) the Performance Goal described on the attached Schedule A is achieved for the calendar year ending on December 31 immediately preceding the Vesting Date (each such calendar year, a "Performance Year"), except as otherwise provided in Sections 3 and 5 below.

Vesting Date	Shares for Which the Option is Vested
First Anniversary of the Grant Date	_____ of the Shares
Second Anniversary of the Grant Date	_____ of the Shares
Third Anniversary of the Grant Date	_____ of the Shares

The vesting of the Option is cumulative but shall not exceed 100% of the Shares subject to the Option. If the foregoing schedule would produce fractional Shares, the number of Shares for which the Option becomes vested shall be rounded down to the nearest whole Share; provided that, the portion of the Option subject to vesting on the Third Anniversary of the Grant Date shall include the Shares subject the Option that did not previously vest as a result of such rounding.

3. Term of Option.

(a) The Option shall have a term of _____ (__) years from the Grant Date specified in the Stock Option Grant (the "Grant Date") and shall terminate at the expiration of that period, unless it is terminated at an earlier date pursuant to the provisions of these Grant Conditions or the Plan.

(b) If the Grantee ceases to be employed by the Employer for any reason, the unvested portion of the Option will terminate on the date the Grantee ceases to be employed by the Employer (the "Termination Date"), unless otherwise provided in this Section 3. Any vested portion of the Option as of the Termination Date may be exercised for the period described in this Section 3.

(c) If the Grantee ceases to be employed by the Employer for the following reasons, the Option will be treated as follows:

(i) *General Rule*. If the Grantee ceases to be employed by the Employer, except as provided below, the Option will thereafter be exercisable only with respect to that number of Shares with respect to which the Option has vested as of the Termination Date. The vested portion of the Option will terminate upon the earlier of the expiration of the term of the Option or the expiration of the ninety (90) day period commencing on the Termination Date.

(ii) *Retirement*. If the Grantee ceases to be employed by the Employer on account of the Grantee's Retirement, except as otherwise provided in subsection (iv) below, a pro-rated portion of the unvested Option will vest on the Vesting Date coincident with or immediately following the Termination Date (the "Retirement Vesting Date") if the Performance Goal is achieved for the Performance Year that relates to the Retirement Vesting Date. Such pro-rated portion (the "Pro-Rated Portion") shall be equal to the product of (A) the number of Shares with respect to which the Option would have vested on the Retirement Vesting Date if the Grantee had remained employed through the Retirement Vesting Date, multiplied by (B) a fraction, the numerator of which is the number of days that the Grantee was employed during the period beginning on the date following the immediately preceding Vesting Date and ending on the Termination Date, and the denominator of which is 365. Any portion of the Option, other than the Pro-Rated Portion, that has not vested as of the Grantee's Termination Date shall be forfeited and cease to be outstanding as of the Termination Date. If the Grantee ceases to be employed by the Employer on account of Retirement, the vested portion of the Option shall remain outstanding until the expiration of the term of the Option. For purposes of these Grant Conditions, "Retirement" shall mean the Grantee's voluntary termination of employment after the Grantee has attained age fifty-five (55) and has five (5) full years of service with the Employer.

(iii) *Death or Disability.* If the Grantee ceases to be employed by the Employer on account of the Grantee's death or Disability, any unvested portion of the outstanding Option will become immediately vested on the Termination Date. The Option will terminate upon the earlier of the expiration of the term of the Option or the date that is 12 months following the Termination Date.

(iv) *Termination Upon or Following a Change in Control.* Notwithstanding the foregoing, if the Grantee ceases to be employed by the Employer upon or following a Change in Control on account of (i) the Grantee's Retirement, (ii) Involuntary Termination by the Employer without Cause, or (iii) the Grantee's Disability or death, any unvested portion of the outstanding Option shall become fully vested on the Termination Date. The vested Option shall be exercisable for the applicable period described in subsections (i) through (iii) above.

(v) *Termination for Cause.* If the Committee determines that the Grantee has engaged in conduct that constitutes Cause at any time while the Grantee is employed by the Employer or after the Grantee's termination of employment (A) the vested and unvested Option shall immediately terminate and (B) the Grantee shall automatically forfeit all Shares underlying any exercised portion of the Option for which the Company has not yet delivered the share certificates, upon refund by the Company of the Exercise Price paid by the Grantee for such shares.

4. Exercise of the Option.

(a) Subject to the provisions of Section 2 and 3 above, the Grantee may exercise any vested portion of the Option, in whole or in part, by delivering a notice of exercise to the Company. Payment of the Exercise Price and any applicable withholding taxes must be paid prior to issuance of the Shares and must be received by the Company by the time specified by the Company, depending on the type of payment being made, but in all cases prior to the issuance or transfer of such Shares.

(b) The Grantee may pay the Exercise Price (i) in cash, (ii) by delivering shares of Company Stock owned by the Grantee and having a Fair Market Value on the date of exercise at least equal to the Exercise Price or by attestation (on a form prescribed by the Committee) to ownership of shares of Company Stock having a Fair Market Value on the date of exercise at least equal to the Exercise Price, (iii) by payment through a broker in accordance with procedures permitted by Regulation T of the Federal Reserve Board, or (iv) by such other method as the Committee may approve. The Committee may impose such limitations as it deems appropriate on the use of shares of Company Stock to exercise the Option,and shares of Company Stock used to exercise the Option shall have been held by the Grantee for the requisite period of time necessary to avoid adverse accounting consequences to the Company with respect to the Option.

(c) The obligation of the Company to deliver Shares upon exercise of the Option shall be subject to all applicable laws, rules, and regulations and such approvals by governmental agencies as may be deemed appropriate by the Committee, including such actions as the Company's counsel shall deem necessary or appropriate to comply with relevant securities laws and regulations. The Company may require that the Grantee (or other person exercising the Option after the Grantee's death) represent that the Grantee is purchasing Shares for the Grantee's own account and not with a view to or for sale in connection with any distribution of the Shares, or such other representation as the Company deems appropriate.

5. Change in Control.

(a) If a Change in Control before the end of the third Performance Year, vesting of the Option shall cease to subject to achievement of the Performance Goal and the Option shall vest on each Vesting Date that occurs following the Change in Control if the Grantee continues to be employed by the Employer through the applicable Vesting Date.

(b) If a Change in Control occurs following the Grantee's termination of employment on account of Retirement and during the Performance Year in which the Termination Date occurs, the Pro-Rated Portion of the Option that would have otherwise vested on the Retirement Vesting Date pursuant to Section 3(c)(ii) shall become immediately vested upon the Change in Control, without regard to whether the Performance Goal is met.

6. Certain Corporate Changes.

If any change is made to the Company Stock (whether by reason of merger, consolidation, reorganization, recapitalization, stock dividend, stock split, combination of shares, or exchange of shares or any other change in capital structure made without receipt of consideration), then unless such event or change results in the termination of the Option, the Committee shall adjust, in an equitable manner and as provided in the Plan, the number and class of shares underlying the Option and the Exercise Price to reflect the effect of such event or change in the Company's capital structure, and the Committee shall adjust the Performance Goal as necessary to reflect the effect of such event or change in the Company's capital structure.

7. Restrictions on Exercise.

Except as the Committee may otherwise permit pursuant to the Plan, only the Grantee may exercise the Option during the Grantee's lifetime and, after the Grantee's death, the Option shall be exercisable by the Grantee's estate, to the extent that the Option is exercisable pursuant to these Grant Conditions.

8. No Right to Continued Employment.

Neither the award of the Option, nor any other action taken with respect to the Option, shall confer upon the Grantee any right to continue to be employed by the Employer or shall interfere in any way with the right of the Employer to terminate the Grantee's employment at any time.

9. No Shareholder Rights.

Neither the Grantee, nor any person entitled to exercise the Grantee's rights in the event of the Grantee's death, shall have any of the rights and privileges of a shareholder with respect to the Shares subject to the Option until certificates for Shares have been issued upon exercise of the Option.

10. Termination or Amendment.

These Grant Conditions and the award made hereunder may be terminated or amended by the Committee, in whole or in part, in accordance with the applicable terms of the Plan.

11. Notice.

Any notice to the Company provided for in these Grant Conditions shall be addressed to it in care of the Company's Senior Vice President and Chief Human Resources Officer, and any notice to the Grantee shall be addressed to the Grantee at the current address shown on the payroll system of the Company, or to such other address as the Grantee may designate to the Company in writing. Any notice provided for hereunder shall be delivered by hand, sent by telecopy or electronic mail or enclosed in a properly sealed envelope addressed as stated above, registered and deposited, postage and registry fee prepaid in the United States mail or other mail delivery service. Notice to the Company shall be deemed effective upon receipt. By receipt of these Grant Conditions, the Grantee hereby consents to the delivery of information (including without limitation, information required to be delivered to the Grantee pursuant to the applicable securities laws) regarding the Company, the Plan, and the Option via the Company's electronic mail system or other electronic delivery system.

12. Incorporation of Plan by Reference.

The Stock Option Grant and these Grant Conditions are made pursuant to the terms of the Plan, the terms of which are incorporated herein by reference, and shall in all respects be interpreted in accordance therewith. The decisions of the Committee shall be conclusive upon any question arising hereunder. The Grantee's receipt of the Option constitutes the Grantee's acknowledgment that all decisions and determinations of the Committee with respect to the Plan, these Grant Conditions, and/or the Option shall be final and binding on the Grantee, his or her beneficiaries and any other person having or claiming an interest in the Option. The settlement of any award with respect to the Option is subject to the provisions of the Plan and to interpretations, regulations and determinations concerning the Plan as established from time to time by the Committee in accordance with the provisions of the Plan. A copy of the Plan will be furnished to each Grantee upon request.

13. Income Taxes; Withholding Taxes.

The Grantee is solely responsible for the satisfaction of all taxes and penalties that may arise in connection with the Option or the exercise of the Option pursuant to these Grant Conditions, and all obligations of the Company under these Grant Conditions shall be subject to the rights of the Employer as set forth in the Plan to withhold amounts required to be withheld for any taxes, if applicable. At the time of taxation, the Employer shall have the right to deduct from other compensation, or to withhold shares of Company Stock, in an amount equal to the federal (including FICA), state, local and foreign taxes and other amounts as may be required by law to be withheld with respect to the Option, as approved in advance by the Committee.

14. Company Policies

This Option and all shares issued pursuant to this grant shall be subject to any applicable recoupment or clawback policies and other policies implemented by the Board, as in effect from time to time.

15. Governing Law.

The validity, construction, interpretation and effect of the Stock Option Grant and these Grant Conditions shall exclusively be governed by, and determined in accordance with, the applicable laws of the Commonwealth of Pennsylvania, excluding any conflicts or choice of law rule or principle.

16. Assignment.

The Stock Option Grant and these Grant Conditions shall bind and inure to the benefit of the successors and assignees of the Company. The Grantee may not sell, assign, transfer, pledge or otherwise dispose of the Option, except to a successor grantee in the event of the Grantee's death.

Schedule A

Performance Goal

Provided the Grantee has remained in the continuous employment of the Employer through the applicable Vesting Date (except as otherwise provided in Section 3), the applicable portion of the Option shall become vested on the Vesting Date as follows:

For purposes of this Option award, the achievement of the Performance Goal shall be determined as follows: [_____].

ESSENTIAL UTILITIES, INC. AND SUBSIDIARIES

The following table lists the significant subsidiaries and other active subsidiaries of Essential Utilities, Inc. at December 31, 2022:

Aqua Pennsylvania, Inc. (Pennsylvania)
Aqua Resources, Inc. (Delaware)
Essential Utilities Services, Inc. (Pennsylvania)
Aqua Services, Inc. (Pennsylvania)
Aqua Infrastructure, LLC (Pennsylvania)
Aqua Ohio, Inc. (Ohio)
Aqua Illinois, Inc. (Illinois)
Aqua New Jersey, Inc. (New Jersey)
Aqua North Carolina, Inc. (North Carolina)
Aqua Texas, Inc. (Texas)
Aqua Indiana, Inc. (Indiana)
Aqua Virginia, Inc. (Virginia)
Aqua Water Holdings, Inc. (Pennsylvania)
LDC Funding, LLC (Delaware)
LDC Holdings, LLC (Delaware)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-240088, 333-255235, and 333-257234), on Form S-4 (No. 333-202393), and on Form S-8 (Nos. 033-52557, 033-53689, 333-26613, 333-70859, 333-81085, 333-61768, 333-107673, 333-113502, 333-116776, 333-126042, 333-148206, 333-156047, 333-159897, and 333-181389) of Essential Utilities, Inc. of our report dated March 1, 2023 relating to the financial statements and financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
March 1, 2023

CERTIFICATION OF CHIEF EXECUTIVE OFFICER, PURSUANT TO RULE 13A-14(A) AS ADOPTED UNDER THE SECURITIES AND EXCHANGE ACT OF 1934

I, Christopher H. Franklin, certify that:

1. I have reviewed this annual report on Form 10-K of Essential Utilities, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Christopher H. Franklin

Christopher H. Franklin

Chairman, President and Chief Executive Officer
March 1, 2023

CERTIFICATION OF CHIEF FINANCIAL OFFICER, PURSUANT TO RULE 13A-14(A) AS ADOPTED UNDER THE SECURITIES AND EXCHANGE ACT OF 1934

I, Daniel J. Schuller, certify that:

1. I have reviewed this annual report on Form 10-K of Essential Utilities, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

\s\ Daniel J. Schuller

Daniel J. Schuller

Executive Vice President and Chief Financial Officer
March 1, 2023

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with the Annual Report on Form 10-K for the year ended December 31, 2022 of Essential Utilities, Inc. (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Christopher H. Franklin, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. Section 78m(a) or Section 78o(d)); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Christopher H. Franklin

Christopher H. Franklin

Chairman, President and Chief Executive Officer
March 1, 2023

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with the Annual Report on Form 10-K for the year ended December 31, 2022 of Essential Utilities, Inc. (the "Company") as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Daniel J. Schuller, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. Section 78m(a) or Section 78o(d)); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Daniel J. Schuller

Daniel J. Schuller

Executive Vice President and Chief Financial Officer
March 1, 2023