



2019

Environmental, Social and Governance Tear Sheet

Ticker Symbol: WTRG





The following tear sheets contain disclosure of relevant metrics to Essential Utilities, Inc.'s business, as well as those included in the Sustainability Accounting Standards Board (SASB) standards for the Water Utilities & Services and Gas Utilities & Distribution industries. Further, the tear sheet highlights how our environmental, social and governance (ESG) program helps achieve some of the United Nations Sustainable Development Goals (UN SDGs). We are committed to supporting ESG initiatives that are integrated into our strategy and culture and continue to drive our corporate responsibility. We believe these initiatives support our employees, customers, local communities among other stakeholders. This document covers ESG disclosures for Essential Utilities Inc. for the period Jan. 1, 2019 through Dec. 31, 2019, unless otherwise noted. In March of 2020, we completed the acquisition of Peoples, a private natural gas utility. The disclosure in the document is segmented by the two business units – our water and wastewater business and our natural gas business.



Essential's ESG Program Objectives

At Essential, looking to the future is ingrained in our corporate responsibility and in how we conduct our business with environmental, social and governance (ESG) initiatives. For over 130 years, it has been our mission to be the best possible provider of essential resources by serving the needs and expectations of our customers, shareholders, employees and the communities we serve. We are committed to being responsible stewards of our environment, maintaining a safe, diverse, competitive and respectful culture, and overseeing the governance of Essential with the utmost transparency.

About Us

With the closing of the Peoples acquisition in March 2020, Essential became one of the largest publicly traded water, wastewater and natural gas providers in the U.S., serving approximately 5 million people across 10 states under the Aqua and Peoples brands.

Each utility lends more than 130 years of experience in, and commitment to, proactive infrastructure investment, regulatory expertise, operational efficiency and environmental stewardship. We recognize the importance of water and natural gas in everyday life and are proud to deliver safe, reliable services that contribute to the quality of life in the communities we serve.

As utility infrastructure experts, we are passionate about responsibly making improvements that strengthen reliability and safety of our nation's infrastructure. We are grounded in a deep-rooted purpose that empowers people to live better lives. Integrity, respect and excellence are the core values that guide us. We put customers at the center of all we do, while creating a culture of trust and safety for employees. We recognize the importance water and natural gas play in everyday life and are proud to deliver safe and reliable services for the greater good of the communities we serve. We are Essential – providing natural resources for life.

Corporate Profile

- Revenue: \$889.7 million
- Employees (full-time): More than 1,600
- People served: 3.0 million people from 1,026,704 connections
- States: Eight— Illinois, Indiana, North Carolina, New Jersey, Ohio, Pennsylvania, Texas and Virginia
- Water systems: 1,497
- Water Connections: 885,032
- Gallons of drinking water produced: 83.8 billion
- Wastewater systems: 198
- Wastewater connections: 141,672
- Gallons of wastewater treated: 12.3 billion

**Please note that this is Aqua only, as of December 31, 2019*

Forward-Looking Statements

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, which generally include words such as “believes,” “expects,” “intends,” “anticipates,” “estimates” and similar expressions. The company can give no assurance that any actual or future results or events discussed in these statements will be achieved. Any forward-looking statements represent its views only as of today and should not be relied upon as representing its views as of any subsequent date. Readers are cautioned that such forward-looking statements are subject to a variety of risks and uncertainties that could cause the company's actual results to differ materially from the statements contained in this release. Such forward-looking statements include, but are not limited to, statements relating to the capital to be invested by the water, wastewater, and gas distribution divisions of the company. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including the factors discussed in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q, which is filed with the Securities and Exchange Commission. For more information regarding risks and uncertainties associated with the company's business, please refer to the company's annual, quarterly and other SEC filings. The company is not under any obligation — and expressly disclaims any such obligation — to update or alter its forward-looking statements whether as a result of new information, future events or otherwise.

Conservation & Stewardship

3 GOOD HEALTH
AND WELL-BEING



6 CLEAN WATER
AND SANITATION



7 AFFORDABLE AND
CLEAN ENERGY



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



Policies

Topic

Sustainability Environmental Policy

Water and Wastewater Business

Energy Use	2019	2018	2017
Energy consumed (MWh total energy consumed)	383,886	389,750	367,583
Energy derived from renewables (percentage renewable)	5%	5%	5%
Energy sourced from the grid (percentage grid electricity)	80.7%	80.8%	82%
Strategies to reduce energy use SASB: IF-WU-130a.1	See the Energy Consumption section of 2019 ESG Report		

Greenhouse Gas (GHG) Emissions	2019	2018	2017
Scope 1 emissions	16,057	16,304	14,383
Scope 2 emissions (market-based)	115,124	128,612	132,858
Total Scope 1 and 2 emissions (market-based)	131,181	144,916	147,241
Total Scope 3 emissions	110,675	150,780	Not calculated
Strategies to reduce GHG emissions	See the Climate Change and Greenhouse Gas Emissions section of 2019 ESG Report		

Distribution Network Frequency*	2019	2018	2017
Water main replacement (miles of main replaced)	130	181	176
SASB: IF-WU-140a.1			
Volume of non-revenue real water losses (billions of gallons)	16.8	17.7	16.1
SASB: IF-WU-140a.2			
% of total production	20.0%	21.1%	19.4%

* Note: Data is displayed here in both the absolute value of volume as well as a percentage of total production. This normalizes the data and accounts for changes in total water production, or send out, across years. We believe that, due to our acquisition of new water systems over time, and the practical margin of error with measurement equipment in the field, our levels of non-revenue real water loss have remained materially consistent over the past three years.

Non-revenue real water losses represented here include leakage (real losses), apparent losses, (such as theft and meter inaccuracies) and other instances, such as water main flushing and water for emergency fire services. These values are determined based on the difference between water production and water ultimately delivered to customers and billed.

Effluent Quality Management	2019	2018	2017
Number of incidents of non-compliance associated with water effluent quality permits, standards, and regulations	272 events, 95.5% of days in compliance	361 events, 94.3% of days in compliance	308 events, 95% of days in compliance
SASB: IF-WU-140b.1			
Strategies for managing effluents of emerging concern	See Managing Water and Wastewater Systems section of 2019 ESG Report		
SASB: IF-WU-140b.2			

Drinking Water Quality

2019 Drinking Water Violations	Tier 1 (acute health-based)	Tier 2 (non-acute health-based)	Tier 3 (non-health- based)	Total
System Count	12	8	63	83
# of Tiered violations	12	13	63	88
# of Essential Systems	1497	1497	1497	1497
% of Systems with Tiered Violations	0.8%	0.5%	4.2%	5.5%
2018 Drinking Water Violations	Tier 1 (acute health-based)	Tier 2 (non-acute health-based)	Tier 3 (non-health- based)	Total
System Count	18	9	57	84
# of Tiered violations	18	20	58	96
# of Essential Systems	1490	1490	1490	1490
% of Systems with Tiered Violations	1.2%	0.6%	3.8%	5.6%
2017 Drinking Water Violations	Tier 1 (acute health-based)	Tier 2 (non-acute health-based)	Tier 3 (non-health- based)	Total
System Count	6	18	58	82
# of Tiered violations	8	32	62	102
# of Essential Systems	1489	1489	1489	1489
% of Systems with Tiered Violations	0.4%	1.2%	3.9%	5.5%

Strategies for managing drinking water contaminants of emerging concern

See Managing Water and Wastewater Systems section of [2019 ESG Report](#)

SASB: IF-WU-250a.2

* Tiers as defined as per EPA regulations. <https://www.epa.gov/dwreginfo/public-notification-rule>

Tier 1 violations are defined as those violations of the National Primary Drinking Water Regulations (NPDWR) that require public notice and have significant potential to have serious adverse effects on human health as a result of short-term exposure.

Tier 2 violations are defined as violations of the NPDWR that require public notice and have potential to have serious adverse effects on human health.

Tier 3 violations are defined as violations of the NPDWR not included in Tier 1 and Tier 2 that require public notice but are not considered to have a direct impact on human health (such as violations of monitoring and reporting).

End-Use Efficiency	2019	2018	2017
Percentage of water utility revenues from rate structures that are designed to promote conservation and revenue resilience SASB: IF-WU-420a.1	About 4%*	0%	0%
Customer water savings from efficiency measures, by market SASB: IF-WU-420a.2	<p>Across our other state operations besides Illinois, there are no formal rate structures designed to promote efficiency. However, Essential notes our customers' average consumption has fallen significantly over time, largely driven by more efficient appliances, and we also have efforts in place to educate customers on this issue and raise awareness of water-saving practices. It is difficult to ascertain the volumetric water savings directly attributable to Essential's efforts because this depends on many variables and factors, but we will continue to educate customers and encourage them to use water efficiently as we all share the responsibility of caring for our precious freshwater resources.</p> <p>For additional information see the Customer Education section of the 2019 ESG Report</p>		

** In Illinois, a volume balancing adjustment (VBA) was introduced and covers the volumetric revenues of our water and wastewater operations, which comprises roughly half of the state utility's total revenues. As Aqua Illinois, in 2019, comprised 8.4% of total Essential revenues, roughly half of this comes from the VBA rate structure. Customer drinking water consumption in the state has declined roughly 1.6%, on average, per year over the past 15 years. The VBA tracks actual volumetric revenue and compares against what is allowed in the regulatory rate case. The difference becomes the "rider" or financial adjustment. Essential began tracking this in April of 2018 and the first rider calculated 12 months later. It did not result in a financially material adjustment.*

Water Supply Resilience	2019
Total water sourced from regions with high or extremely high baseline water stress, percentage purchased from a third party SASB: IF-WU-440a.1	No water was sourced from High or Extremely High baseline water stress regions
Volume of recycled water delivered to customers SASB: IF-WU-440a.2	<p>Volume of recycled water delivered to customers was 0m³</p> <p>We operate several plants that feature a wastewater reuse program that provides safe and treated irrigate to local businesses, such as golf courses. This prevents discharge to streams and efficiently reduces demand for freshwater supply. We are currently in the process of quantifying the volume of irrigate delivered as part of this program and continue to proactively identify opportunities for wastewater reuse.</p>
Strategies for managing the quality and availability of water resources SASB: IF-WU-440a.3	<p>In the environment in which Essential currently operates, there is not a large-scale risk associated with quality and availability of water resources. On a case-by-case basis, sites that are more prone to water scarcity are monitored and addressed.</p> <p>For additional information see the Water Infrastructure and Resiliency section of the 2019 ESG Report</p>

Network Resiliency & Impacts of Climate Change	2019	2018	2017
Wastewater treatment capacity located in 100-year flood zones SASB: IF-WU-450a.1	Essential is currently working on collecting and analyzing this information. During our capital planning process, we take great care to consider climate impacts and associated risks to our infrastructure		
1) Number and 2) volume of sanitary sewer overflows (SSO), 3) percentage of volume recovered*	147 events	178 events	137 events
SASB: IF-WU-450a.2	8,487	38,288	8,020
	0.02%	0.09%	0.02%
1) Number of unplanned service disruptions and 2) Number of unplanned service disruptions (normalized by 100 miles)**	2,486	2,407	2,309
SASB: IF-WU-450a.3	18.2	17.6	16.9
Strategies for managing and identifying risks and opportunities related to the impact of climate change on distribution and wastewater infrastructure SASB: IF-WU-450a.4	Currently, Essential uses CDP and TCFD to align and document risks and opportunities resulting from climate change across the Company's portfolio See the Essential's most recent CDP report and TCFD report		

* Percent reflects the total flow treated in the year that overflowed or spilled was not treated.

** Note: This apparent increase is likely driven by better data collection and data quality that we have been working towards in recent years, across each of our states. We believe that, in actuality, there has been a decrease in unplanned service disruptions across the company and this is true when we look at certain individual state operations. We hope these data improvements will allow for more direct year-on-year comparisons in the future. We believe it is likely that these figures are artificially inflated due to a different definition of "unplanned service disruption" across some of our operations. We are investigating this matter and working towards a consistent definition across all of our states in line with AWWA guidance.

Solid Waste Generation and Management	2019
Solid waste (metric tons)	61,076
Strategies for managing solid waste	See the Waste section of 2019 ESG Report

Gas Business

Greenhouse Gas (GHG) Emissions

In March 2020, we completed the acquisition of Peoples Gas, and we are currently in the process of conducting a detailed assessment of GHG emissions and operations. We plan to provide further disclosure in 2021

See Peoples Acquisition section of [2019 ESG Report](#)

Integrity of Gas Delivery Infrastructure	2019	2018	2017
Number of (1) reportable pipeline incidents, (2) Corrective Action Orders (CAO), and (3) Notices of Probable Violation (NOPV)	2 reportable incidents	1 reportable incident	4 reportable incidents
SASB: IF-GU-540a.1	0 CAO	0 CAO	0 CAO
	3 NOPV	4 NOPV	6 NOPV
Percentage of distribution pipeline that is (1) cast and/or wrought iron and (2) unprotected steel	0.52%	0.55%	0.59%
SASB: IF-GU-540a.2	29.4%	30.2%	31.1%
Percentage of gas (1) transmission and (2) distribution pipelines inspected	100%	100%	100%
SASB IF-GU-540a.3	34.5%	30.2%	31.1%
Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions	In March 2020, we completed the acquisition of Peoples Gas, and we are currently in the process of evaluating the SASB metrics for the Gas Utilities and Distributors industry and plan to provide further disclosure in 2021		
SASB: IF-GU-540a.4			
End Use Efficiency	2019	2018	2017
Percentage of gas utility revenues from rate structures that (1) are decoupled or (2) contain a lost revenue adjustment mechanism (LRAM)	0.0%	0.0%	0.0%
SASB: IF-GU-420a.1	0.0%	0.0%	0.0%
Customer gas savings from efficiency measures by market	In March 2020, we completed the acquisition of Peoples Gas, and we are currently in the process of evaluating the SASB metrics for the Gas Utilities and Distributors industry and plan to provide further disclosure in 2021		
SASB: IF-GU-420a.2			



Employees

5 GENDER
EQUALITY



6 CLEAN WATER
AND SANITATION



8 DECENT WORK AND
ECONOMIC GROWTH



10 REDUCED
INEQUALITIES



Policies

Topic

Equal Employment Opportunity & Anti-Harassment

Position on Unions

Water and Wastewater Business

Health and Safety	2019	2018	2017
Lost Time/Restricted Time Rate (per 200,000 hours worked)	2.4	2.2	2.4
Lost Time Incidents (number of incidents)	9	12	14
Days Away, Restricted or Transferred (number of incidents)	36	37	34
Fatalities	0	0	0
Commitment to Safety	See the Health and Safety section of 2019 ESG Report		

Human Capital Management	2019
Employee turnover rate	<div> Executive/Sr. Manager turnover <ul style="list-style-type: none"> Voluntary: 0% Involuntary: 3% </div> <div> Mid-level manager <ul style="list-style-type: none"> Voluntary: 5% Involuntary: 4% </div> <div> Professional <ul style="list-style-type: none"> Voluntary: 5% Involuntary: 3% </div> <div> All Others <ul style="list-style-type: none"> Voluntary: 9% Involuntary: 4% </div> <div> Total <ul style="list-style-type: none"> Voluntary: 8% Involuntary: 3% </div> <div> Industry voluntary – 6% </div>
Description of human capital management programs and employee engagement efforts	See the Engaging our Employees section of 2019 ESG Report

Diversity and Inclusion	2019
Senior management gender diversity	28% women
Mid-level manager gender diversity	22% women
Professional level gender diversity	50% women
Total company gender diversity	26% women (19% industry benchmark)
Total workforce racial diversity	22% persons of color (16% industry benchmark)
Strategies for expanding and promoting company-wide diversity and inclusion efforts	See the Engaging our Employees section of 2019 ESG Report



Customers and Community

3 GOOD HEALTH
AND WELL-BEING



6 CLEAN WATER
AND SANITATION



Water and Wastewater Business

Water Affordability and Access	2019	2018	2017
Average retail water rate for (1) residential, (2) commercial, and (3) industrial customers SASB: IF-WU-240a.1	We do not believe these SASB water utility standards provide enough clarity and usefulness to our stakeholders as part of an assessment of water affordability and access for our customers, which are critical issues our company takes very seriously. Given Essential's wide geographic footprint across 8 states and operation of over 1,500 systems of varying size, the complexity of our operations makes calculation of average and typical rates in the manner SASB prescribes difficult to apply meaningfully and accurately for large diversified non-municipal water utilities such as Essential. We will continue to support efforts to further develop and refine SASB's industry guidance so that is applicable to a varied and diverse set of water utilities. Currently, we are also evaluating the most appropriate methodology to calculate metrics in place of IF-WU-240a.1-2 that Essential believes can better illustrate our ability to provide affordable service for our customers throughout our operations. For more information on our efforts surrounding water affordability and access, please see our ESG Report		
Typical monthly water bill for residential customers for 10 Ccf of water delivered per month SASB: IF-WU-240a.2			
Number of residential customer water disconnections for non-payment, percentage reconnected within 30 days SASB: IF-WU-240a.3	31,078 60.0%	35,600 62.6%	32,778 63.1%
Factors impacting customer ability to afford water services, including economic conditions of service territories SASB: IF-WU-240a.4	For information on our customer access and affordability programs, see the Water Affordability and Access section of the 2019 ESG Report		

Gas Business

Energy Affordability and Access	2019	2018	2017
Average retail gas rate per MMBtu for (1) residential, (2) commercial, (3) industrial customers, and (4) transportation services only SASB: IF-GU-240a.1	\$8.50 \$6.89 \$6.67 \$1.47	\$7.95 \$6.77 \$6.21 \$1.40	\$8.91 \$7.56 \$7.00 \$1.35
Typical monthly gas bill for residential customers for (1) 50 MMBtu and (2) 100 MMBtu of gas delivered per year SASB: IF-GU-240a.2	\$50.28 \$86.06	\$46.97 \$80.46	\$51.51 \$89.02
Number of residential customer gas disconnections for non-payment, percentage reconnected within 30 days SASB: IF-GU-240a.3	23,528 49.6%	18,605 49.5%	19,322 43.9%
Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory SASB: IF-GU-240a.4	In March 2020, we completed the acquisition of Peoples Gas, and we are currently in the process of evaluating the SASB metrics for the Gas Utilities and Distributors industry and plan to provide further disclosure in 2021		



Governance

8 DECENT WORK AND
ECONOMIC GROWTH



16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS



Policies

Topic

Code of Ethical Business Conduct

Human Rights

Human Right to Water

Political Spending

Corporate Governance Highlights

Board Composition

Metric

Age of Directors

60.6

Gender diversity (% women)

33.3

2020 Women on Boards

Awarded a W for Winning: 20% or more women on the board

Total diversity (% diverse)

55.6

Average tenure (years)

6.2

Independence (% independent)

77.8

Best Practices

Shareholder engagement program

Diverse board

Board oversight of ESG

Board oversight of corporate strategy

Stock ownership guidelines for executive officers and directors

Continuing education for directors and orienting for new directors

Mandatory retirement age of 75

Independence

Lead Independent Director with delineated responsibilities

100% standing Board Committee membership independence

Accountability

All directors elected annually

Annual Board and Committee self-evaluation

Annual evaluation of CEO by independent directors

Clawback policy

Resignation policy

Shareholder Rights

No poison pill

One-share, one-vote

No dual-class common stock

No cumulative voting



762 Lancaster Ave
Bryn Mawr, PA 19010
610.525.1400
ESG@essential.co
essential.co

Ticker Symbol: WTRG