

# **NORTHWEST NATURAL GAS COMPANY**

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**AGA Qualitative & Quantitative Template  
2019 ESG Disclosure**

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# EEI/AGA ESG/Sustainability Qualitative Report



Published November 4, 2020

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## Introduction

NW Natural Holding Company (NW Natural Holdings) through its wholly owned subsidiary, NW Natural Gas Company (NW Natural), is among the American Gas Association (AGA) member companies using the Edison Electric Institute (EEI)/AGA voluntary Environmental, Social and Governance (ESG)/Sustainability reporting qualitative and quantitative templates for investors. This information is being provided in response to the desire of various stakeholders for ESG/Sustainability information that is consistent across the electric and gas utility sectors.

## ESG/Sustainability Governance

For years, NW Natural Holdings and NW Natural has conducted business with attention to matters that are now generally considered to be ESG. Our long-established core values of integrity, safety, service ethic, caring and environmental stewardship have, and continue to, form the foundation for everything we do.

## Management Leadership

Our 12-person officer team is responsible for leading and managing our business and for developing and implementing our business strategy, including ESG matters. As part of these responsibilities, our officer team is responsible for identifying, assessing and managing the company's risks and opportunities, including those related to climate and cybersecurity.

Each of our officers lead areas that are considered ESG. For example, our VP of Public Affairs and Sustainability leads our environmental management and sustainability, legacy environmental programs, community and government affairs and community involvement teams. Our VP of Human Resources and Chief Diversity Officer leads our safety, employee and labor relations, organizational effectiveness, diversity, equity and inclusion and human resources and benefits teams. Our VP and Chief Compliance Officer and Corporate Secretary leads our governance and business integrity and compliance teams. Each of these officers report directly to the CEO and serve as an executive liaison to a relevant committee of the Board of Directors.

Also reporting directly to our CEO, our SVP of Operations heads our efforts to pursue a low carbon pathway, which includes reimagining the fuel we put in our pipelines, pursuing a carbon savings goal of 30% by 2035, educating stakeholders on the role of natural gas today and in a deep decarbonization future, and managing pipeline integrity and safety. In addition, our VP of Business Development leads teams focused on procuring renewable natural gas (RNG), pursuing hydrogen gas initiatives, and furthering our acquisitions of water and wastewater utilities. And, our VP and Chief Information Officer, leads our cybersecurity and compliance, and information technology (IT) teams.

Each of our officers have identified goals in support of sustainable, long-term business performance attentive to ESG matters, with a portion of their compensation tied to the achievement of these goals. Our 12-person officer team meets regularly to discuss the development and implementation of company strategy, including ESG matters.

## Board Oversight

While our executives are responsible for day-to-day management and leadership of the company, the Board of Directors has responsibility for oversight of management and its development and implementation of company strategy, including ESG matters and risks and opportunities, including those related to climate and cybersecurity. The Board periodically reviews its full Board and committee oversight authority to ensure that the Board has adequate visibility and oversight to execute its responsibilities. Appropriate members of management serve as liaisons to Board committees, attend Board and committee meetings, and regularly discuss with the Board matters relevant to the company, including ESG matters and the company's risks and opportunities.

NW Natural Holdings' Board is composed of 12 directors all of whom, other than the CEO, have been determined to be independent under Securities and Exchange Commission (SEC) and New York Stock Exchange (NYSE) rules. The NW Natural Board consists of those directors who serve on the NW Natural Holdings Board plus an additional director who has also been determined to be independent under SEC and NYSE rules. There are five standing committees of the Board: Audit, Finance, Governance, Organization and Executive Compensation Committee (OECC) and Public Affairs and Environmental Policy Committee (PAEPC) with oversight responsibilities that includes, but are not limited to, those described below:

### AUDIT

- Ethics and compliance
- Whistleblower hotline
- Enterprise risk management
- Business continuity
- Significant legal matters
- Internal controls over financial reporting
- SEC reporting oversight
- Cybersecurity and IT

### BOARD

- Customer satisfaction metrics and affordability considerations
- Tone at the top
- Operational and business development initiatives (e.g. water and RNG)
- Strategic matters

### PAEPC

- Safety
- Diversity, equity and inclusion
- Civic and human rights
- Environmental matters
- Sustainability, including low carbon pathway
- Community and public relations
- Charitable giving and political contributions
- Legislative and regulatory matters and relationships
- Employee satisfaction

### OECC

- Human capital management
- Compensation and benefit programs, including alignment of incentives with ESG
- Talent strategy and succession
- CEO succession
- Labor relations
- Employee attrition rates

### GOVERNANCE

- Board structure, policies, governance and expectations
- CEO and Board succession planning
- Board composition, diversity and independence
- Board evaluations
- Committee oversight roles/responsibilities
- Continuing Board education and training

### FINANCE

- Financial policies and matters that may have ESG implications
- Investor relations
- Goal setting and performance metrics
- Rating agency relationships
- Capital markets

The Chair of the Board and each Board committee has been determined to be independent for purposes of SEC and NYSE rules.

One of the tools used by management and the Board in their management of business risks, including risks related to ESG matters, is a comprehensive enterprise risk management (ERM) process. Using this process, management works to identify significant risks relevant to the company and to assess each risk's likelihood of occurrence, potential impact on the business and likely speed of onset. This process allows management to remain informed of relevant risks and

developing trends and work to adopt appropriate mitigative measures with respect to identified risks. Management conducts the ERM process annually with periodic interim updates, and discusses those findings with the Board at least twice a year. Additional review or reporting on the ERM process is conducted as needed or requested by the Board. The Board and management consider enterprise risks and opportunities, including those related to ESG matters, in their governance and oversight responsibilities.

In addition to the ERM process, management regularly presents to the Board directly or through its committees information relevant to the company's risk and opportunities. For example, the Audit Committee — currently comprised of five independent board members — oversees management's efforts with respect to cybersecurity, including strategies, investments and risks related to the company's IT systems, cybersecurity and compliance.

Our executive team, with leadership by our VP and Chief Information Officer, is responsible for implementing the company's information technology and services (IT&S) strategic plan and setting the tone at the top with respect to cybersecurity, while specialists in particular business areas (for example, IT, security and procurement), apply their specific expertise to the company's strategy.

In addition, at NW Natural, we believe that cybersecurity is everyone's responsibility. Starting in 2019, the IT and business integrity and compliance groups teamed up to require all employees complete annual online cybersecurity and information security training. The course demonstrates how to identify potential cybersecurity risks and protect confidential information at work and what to do if employees suspect a possible information security incident. In 2019, 100% of our active NW Natural and NW Natural Gas Storage employees participated in these online information security and ethics and compliance trainings.

Finally, our internal audit team conducts an annual internal audit of our cybersecurity program, and presents its report to the Audit Committee of the Board.

# ESG/Sustainability Goals at NW Natural Holding Company

NW Natural Holdings, through its subsidiaries, serves approximately 2.5 million people natural gas under the NW Natural brand and provide 62,000 people water and wastewater services across four states under the NW Natural Water brand. We employ over 1,200 people who are engaged in the communities we serve. Our business strategy is built on five pillars and core values — integrity, safety, caring, service ethic, and environmental stewardship — that drive our decision making, including those decisions related to ESG and sustainability matters. Our goals to support these pillars are as follows:

NW NATURAL HOLDINGS	
<b>GOVERNANCE</b>	<ul style="list-style-type: none"> <li>• Continue to maintain well-qualified, diverse, independent and active Board of Directors</li> <li>• Maintain a Board structure and function that supports appropriate business and risk oversight</li> <li>• Continue to foster a culture that mitigates risk and promotes integrity and ethical behavior</li> <li>• Maintain policies that align director and officer interests with shareholder and customer interests</li> </ul>

NW NATURAL	
<b>SAFETY</b>	<ul style="list-style-type: none"> <li>• Continue to operate one of the most modern natural gas systems in the nation safely &amp; reliably</li> <li>• Invest in people, processes and technology to enhance safety</li> <li>• Strive for zero system and employee safety incidents</li> </ul>
<b>ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>• Meet or exceed voluntary carbon savings goal of 30% by 2035<sup>1</sup> associated with our own operations and the use of our product by our residential and business sales customers from 2015 emission levels</li> <li>• Leverage renewables in our existing, modern system along with other innovations to further our decarbonization efforts</li> <li>• Our north star and vision forward is being a carbon neutral energy provider by 2050</li> </ul>
<b>COMMUNITIES &amp; CUSTOMERS</b>	<ul style="list-style-type: none"> <li>• Continue to deliver essential energy safely and reliably with excellent customer service</li> <li>• Communicate frequently and transparently with stakeholders</li> <li>• Invest time and resources to improve the communities in which we live and serve</li> </ul>
<b>EMPLOYEES</b>	<ul style="list-style-type: none"> <li>• Foster a culture of accountability, creativity and collaboration that is inclusive and supports opportunities for cross-functional effectiveness</li> <li>• Promote our Diversity, Equity and Inclusion vision, which is to acknowledge, embrace and value differences to give everyone the opportunity to thrive</li> <li>• Provide meaningful opportunities for career development and advancement</li> </ul>

<sup>1</sup> This is an emissions savings goal equivalent to 30% of the carbon emissions from our sales customers' gas use and company operations from 2015.

## NW NATURAL WATER

### WATER & WASTEWATER

- Provide safe, clean, reliable and affordable water and wastewater service to our customers
- Upgrade aging infrastructure and invest in people, processes and technology to enhance safety and reliability

Using these goals, we've identified milestones and targets that our teams are working to achieve. Our ESG report highlights the key metrics and milestones we track regarding the company's strategic priorities.

## Managing and Adapting to ESG/Sustainability Issues

### Safety and Reliability

Safety is our greatest responsibility to our customers, our employees and the communities we serve. In 2019, we invested over \$260 million<sup>1</sup> in our natural gas infrastructure on an accrual basis to support system reliability, growth, and improvements.

In the 1980s, NW Natural proactively created a pipeline replacement program with regulators, and by 2015 the company had replaced all its cast iron and bare steel pipe. Today, we operate one of the most modern and tightest natural gas systems in the nation. In 2018, NW Natural had the lowest ratio of leak-repairs per mile of pipe among natural gas utilities in the United States, according to S&P Global.

We continue to invest in safety improvements, implement policies and procedures for system and employee safety, develop technical training and guidelines for our employees, and leverage new tools and technology to improve our maps, records and infrastructure performance.

For more information see the Safety section of our [2019 ESG Report](#).

### Environmental Stewardship

NW Natural's core value of environmental stewardship is a driving force behind the choices we make every day and in planning for our future. We believe today's challenge is climate change — an imperative that requires our collective action. And, we're committed to doing our part to address risks from climate change and reducing the carbon impacts of the energy we deliver. We're also reimagining the fuel we deliver and are pursuing our vision of a decarbonized system for our residential and business sales customers, while striving to keep energy safe, reliable and affordable.

We've been leading on climate change for years. NW Natural was among the first gas utilities to adopt a rate structure that encourages energy conservation and provide a voluntary offset program for customers. In 2016, we laid out a voluntary carbon savings goal of 30% by 2035 including greenhouse gas emissions from our own operations and the use of our product by customers based on 2015 usage.<sup>2</sup> We're proud of the progress we've made and are on track to meet or exceed our goal.

In addition, we are a founding member of the Natural Gas Supply Collaborative and Methane Challenge and a member of ONE Future. These organizations are focused on reducing methane emissions.

We know we can do more. Our north star and vision forward is being a carbon neutral energy provider by 2050. We believe replacing more and more of our natural gas supply with renewables using our existing pipeline infrastructure — combined with expanded energy efficiency and wide adoption of our carbon offset program — yields the fastest and most affordable climate results for our communities and the planet.

For more information see the Environmental Stewardship section of our [2019 ESG Report](#).

<sup>1</sup> Cap-ex is on an accrual basis

<sup>2</sup> This is an emissions savings goal equivalent to 30% of the carbon emissions from our sales customers' gas use and company operations from 2015

## Our Communities, Our Customers

At NW Natural, we owe our continued success to our customers and our dedicated employees, who live our core value of service every day. Thanks to our customers, NW Natural consistently scores high in J.D. Power Gas Utility Residential and Business Customer Satisfaction Studies. We also focus on affordability. Currently, natural gas is the most affordable utility bill our customers have. As a company, we maintain a constant focus on efficient operations as we strive to maintain affordable service for our customers. That, combined with the decline in natural gas prices, has led to residential natural gas bills being about 40% lower today than they were 15 years ago, which is good news for our customers.

NW Natural is also focused on giving back to its communities. In 2019, NW Natural gave over \$1.2 million to local nonprofits as part of our shareholder-funded corporate philanthropy fund. These funds go to more than 150 organizations that support stronger communities through resources for children and families at risk, the arts, the environment and education. In addition, NW Natural helps low-income customers manage their bills and energy usage through a variety of programs.

For more information see the Our Communities, Our Customers section of our [2019 ESG Report](#).

## Our Employees

NW Natural's core values of integrity, safety, caring, service ethic and environmental stewardship guide how we engage with customers, stakeholders, shareholders and communities. We also actively work to foster these values in our employee culture, and expect our employees to model these values every day.

We actively work to build a more diverse workforce that reflects and supports the communities we serve. Today, 22% of our employees self-identify as Black, Indigenous or People of Color (BIPOC) — a 100% increase since 2000. Currently, approximately 25% of Oregonians identify as BIPOC. We have also expanded the number of women and BIPOC in leadership positions. Today, our 12-person officer team includes five women, and our 12-member NW Natural Holdings Board of Directors includes four women, an achievement that earned us recognition for the third year in a row from the nonprofit Women on Boards, and two Directors that identify as BIPOC. In 2019, we purchased \$54 million in goods and services from verified Minority, Woman or Veteran Owned businesses, a 45% increase since 2014. NW Natural has long prioritized supporting community organizations that advocate for equal rights and justice. In the past year, this focus has increased and now NW Natural supports 26 organizations, up from 20 organizations, that advocate for minority communities' civil rights and economic access.

A significant focus for us going forward is to understand, and increase awareness of, internal systems and structures that could limit representation and equity for underrepresented employees. To that end, we're working toward revising and refocusing new manager and new hire training to include implicit bias, diversity, equity and inclusion, and anti-racism education. We're also working to expand involvement and engagement of employees in field center locations. In 2020, we are working to expand our network of suppliers even further, in an effort to provide more business to vendors owned by people of color and women.

For more information see the Employees section of our [2019 ESG Report](#).

## Governance

We strive to foster a culture that mitigates risk and promotes ethical behavior and integrity, and we expect our employees to do what is right for our stakeholders, conduct business ethically, act with accountability, and work with business partners who share our high standards and principles. To reinforce the company's core value of integrity, every employee completes an annual online code of ethics training to refresh their understanding of the company's business compliance and integrity program and code of ethics. NW Natural's program received the national award for Best Ethics and Compliance Program (Small and Mid-Cap) for the 2018 Corporate Governance Awards, in recognition of its new code of ethics document and refreshed online training and certification program.

We plan to continue using trainings and our ethics and compliance programs to promote integrity and ethical behavior in our organization.

For more information see the Governance section of our [2019 ESG Report](#).

## ESG/Sustainability Risks and Opportunities

Please read our 2019 ESG Report, published in October 2020, and our 2019 Form 10-K, published in March 2020. These reports describe our ongoing journey to achieve our aggressive greenhouse gas emissions savings target and vision for a carbon neutral pipeline, along with several of the risks and opportunities associated with climate change.

## Sustainability Plans and Progress

NW Natural's climate-related investments and initiatives include: providing energy-savings incentives for customers, procuring renewable natural gas resources, planning to integrate power-to-gas or hydrogen into our system, and reducing methane emissions from company natural gas systems. NW Natural continues to plan for a carbon-reduced and carbon-neutral future.

### Low Carbon Pathway

In 2016, we established a 30% carbon savings goal to be achieved by 2035, starting from 2015 emissions associated with our own operations and the use of our product by customers.<sup>3</sup> In addition to the actions we have taken operationally, this voluntary goal has been a catalyst for us to lead beyond our walls by building public policy coalitions that support innovation and new thinking.

We're proud of the progress we've made and are on track to meet or exceed our goal.

### Vision 2050: Destination Zero

We know natural gas is a critical part of a low-carbon energy future, and we can do more. A study by the premier environmental consultant Energy and Environmental Economics (E3) shows how our system — leveraging renewables developed for the pipeline — can be instrumental to helping achieve deep decarbonization in our region most affordably and reliably.<sup>4</sup>

According to the E3 study, by blending just 25% of renewable natural gas (RNG) into the existing gas system, our region can achieve its deep decarbonization goals. Additionally, renewable hydrogen produced from excess wind, hydro and solar energy that would otherwise go to waste can also be blended or methanated for delivery into the existing pipeline system as another climate solution.

<sup>3</sup> This is an emissions savings goal equivalent to 30% of the carbon emissions from our sales customers' gas use and company operations from 2015

<sup>4</sup> Independent consulting firm Energy and Environmental Economics (E3) study published in December 2018 and commissioned by NW Natural

Replacing more and more of our natural gas supply with renewables using our existing pipeline infrastructure — combined with expanded energy efficiency and wide adoption of our carbon offset program — yields the fastest and most affordable climate results for our communities and the planet.

The renewable supply exists, the technology exists, and we already have a tight, modern delivery system in place. Our focus is to drive these new innovations forward for a substantial climate benefit and carbon-neutral pipeline.

### **Renewable Energy — Customer Offset Program**

Our customers play a vital role in fighting climate change. In 2007, NW Natural was the first stand-alone gas utility to offer customers a voluntary program that allows them to offset some or all of the carbon emissions from their natural gas use by funding biogas projects on local farms. The program's mantra, "Use Less, Offset the Rest," reinforces that offsets, coupled with aggressive efficiency, are a valuable tool to address remaining emissions. More than 8% of our customers — about 58,000 — have enrolled in the SMART energy program.

### **Energy Efficiency and Energy Assistance Programs**

Energy efficiency is a powerhouse for reducing emissions. Since 1970, NW Natural residential customers have cut their emissions in half. From conservation to equipment innovation, energy efficiency has driven the single largest savings toward our low carbon pathway goal to date, and we are driving to grow that savings in the coming years.

NW Natural was one of the first gas utilities in the nation to have a decoupling mechanism beginning in 2002. Decoupling is intended to break the link between earnings and the quantity of gas consumed by customers, removing any financial incentive to discourage customers' efforts to conserve energy. Today approximately 80% of our gas utility revenues are decoupled.

Through Energy Trust of Oregon and Washington, NW Natural supports energy-efficiency programs such as cost-effective equipment upgrades and insulation in homes and businesses, as well as building improvements that last for many years.

We advocate for federal funding to ensure that customers who struggle to heat their homes in the winter have access to funds to help maintain their service. We also educate eligible customers about local energy assistance programs available and we offer payment options to help spread seasonal utility costs more evenly throughout the year.

For more information see the Our Communities, Our Customers section and Environmental Stewardship section of our [2019 ESG Report](#).

## **For More Information**

For more ESG and sustainability-related information please visit the following related links:

- [2019 ESG Report](#)
- [2019 Annual Report and Form 10-K](#)
- [2020 Proxy](#)

## FORWARD-LOOKING STATEMENTS

This report and other materials prepared by NW Natural Holdings from time to time, may contain forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to the safe harbors created by such Act. Forward-looking statements can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects” and similar references to future periods. Examples of forward-looking statements include, but are not limited to, statements regarding the following: plans, objectives, estimates, timing, goals, strategies, future events, projections, expectations, outlooks, commitments, intentions, acquisitions and timing, completion and integration thereof, infrastructure investments, safety and implementation of safety initiatives, system modernization, improvements and reliability, infrastructure resiliency, risk management programs, commodity costs and sourcing, competitive advantage, marketing, service territory, customer service including implementation of new customer service technologies, customer and business growth, customer satisfaction ratings, weather, customer rates, customer preference, business risk, efficiency of business operations, business development and new business initiatives, water and wastewater industry and investments including timing, completion and integration of such investments and related operational initiatives, financial positions and performance, economic and housing market trends and performance, capital expenditures, technological innovations and investments, strategic goals and visions, environmental initiatives, decarbonization and the role of natural gas and the gas delivery system, including use of renewables, carbon emissions, targets and savings, renewable natural gas projects or investments and timing and completion thereof, renewable hydrogen projects and programs, procurement of renewable natural gas for customers, energy efficiency initiatives, investments and funding, energy usage and savings, charitable donations and volunteer programs, workforce trends, diversity, equity and inclusion initiatives, employee training,

the regulatory environment, timing or effects of future regulatory proceedings or future regulatory approvals, effects of legislation and changes in laws and regulations, including but not limited to carbon, renewable natural gas and renewable hydrogen regulations, effects, extent, severity and duration of COVID-19 and resulting economic disruption, the impact of efforts to mitigate risks posed by its spread, ability of our workforce, customers or suppliers to operate or conduct business, reopening and remote work plans, governmental actions and timing thereof including actions to reopen the economy, and other statements that are other than statements of historical facts.

The forward-looking statements contained in this report are provided for the general information of our stakeholders and are not intended to induce any sales or purchases of securities or to be used in connection therewith for any investment purposes. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements, so we caution you against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements are discussed by reference to the factors described in Part I, Item 1A “Risk Factors,” and Part II, Item 7 and Item 7A “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Quantitative and Qualitative Disclosure about Market Risk” in the Company’s most recent Annual Report on Form 10-K, and in Part I, Items 2 and 3 “Management’s Discussion and Analysis of Financial Condition and

Results of Operations” and “Quantitative and Qualitative Disclosures About Market Risk”, and Part II, Item 1A, “Risk Factors”, in the Company’s quarterly reports filed thereafter.

All forward-looking statements made in this report and all subsequent forward-looking statements, whether written or oral and whether made by or on behalf of the Company, are expressly qualified by these cautionary statements. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.



# Gas Company ESG/Sustainability Quantitative Information

**Parent Company:** NW Natural Holding Co.  
**Operating Company(s):** NW Natural  
**Business Type(s):** Natural gas distribution  
**State(s) of Operation:** OR & WA  
**Regulatory Environment:** Regulated Utility  
**Report Date:** 11/4/20

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Prior Year	Current Year	Definitions
		2018	2019	
<b>Natural Gas Distribution</b>				
1	<b>METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS</b>			All methane leak sources per 98.232 (i) (1-6) are included for distribution. Combustion sources are excluded. CO <sub>2</sub> is excluded.
1.1	Number of Gas Distribution Customers	750,421	762,877	Residential, commercial and industrial customers.
1.2	Distribution Mains in Service	-	-	These metrics include all local distribution companies (LDCs) held by NW Natural that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule.
1.2.1	Plastic (miles)	7,310	7,468	
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	7,293	7,286	
1.2.3	Unprotected Steel - Bare & Coated (miles)	-	-	
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	-	-	NW Natural has completed pipeline modernization system wide. As a result the values for these fields are all zero. Through partnership with regulators, NW Natural was able to accelerate replacement of cast iron and bare steel pipe. This has resulted in one of the lowest emitting natural gas distribution pipeline systems in the nation and provides the opportunity for the company to pursue emission reduction elsewhere in operations and along the supply chain.
1.3	Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)	-	-	
1.3.1	Unprotected Steel (Bare & Coated) (# years to complete)	-	-	
1.3.2	Cast Iron / Wrought Iron (# years to complete)	-	-	
2	Distribution CO <sub>2</sub> e Fugitive Emissions	-	-	Fugitive methane emissions (not CO <sub>2</sub> combustion emissions) stated as CO <sub>2</sub> e, as reported to EPA under 40 CFR 98, Subpart W, sections 98.236(q)(3)(ix)(D), 98.236(r)(1)(v), and 98.236(r)(2)(v)(B) - i.e., this is Subpart W methane emissions as input in row 2.2.1 below and converted to CO <sub>2</sub> e here. This metric should include fugitive methane emissions above the reporting threshold for all natural gas local distribution companies (LDCs) held by the Parent Company NW Natural that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule. Calculated value based on mt CH <sub>4</sub> input in row 2.2.1 (below).
2.1	CO <sub>2</sub> e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	65,836	66,192	
2.2	CH <sub>4</sub> Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	2,630	2,644	INPUT VALUE (total mt CH <sub>4</sub> ) as explained in definition above. Subpart W input is CH <sub>4</sub> (mt).
2.2.1	CH <sub>4</sub> Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	137	138	
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)	105,195,227	115,182,216	This metric provides gas throughput from distribution (quantity of natural gas delivered to end users) reported under Subpart W, 40 C.F.R. 98.236(aa)(9)(iv), as reported on the Subpart W e-GRRT integrated reporting form in the "Facility Overview" worksheet Excel form, Quantity of natural gas delivered to end users (column 4).
2.3.1	Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year)	99,935	109,423	
2.4	Fugitive Methane Emissions Rate (MMscf of Methane Emissions per MMscf of Methane Throughput)	0.1%	0.1%	$\frac{E_C}{TP_C} = \frac{\text{tonnes } CH_4}{MMscf \text{ gas}} \times \frac{10^6 \text{ g } CH_4}{\text{tonne } CH_4} \times \frac{\text{g mole } CH_4}{16 \text{ g } CH_4} \times \frac{\text{gmol Nat.Gas}}{0.95 \text{ gmol } CH_4} \times \frac{\text{scf gas}}{1.198 \text{ gmol gas}} \times \frac{MMscf \text{ gas emissions}}{10^6 \text{ scf gas}} = \frac{MMscf \text{ gas emissions}}{MMscf \text{ gas throughput}} = \%$
<b>Natural Gas Transmission and Storage</b>		N/A	N/A	NW Natural's storage does not meet the threshold for EPA reporting.
<b>Natural Gas Gathering and Boosting</b>		N/A	N/A	NW Natural does not have gathering and boosting.
<b>Additional Metrics (Optional)</b>				

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