

2021 Environmental, Social and Governance (ESG) Report

REPORTED AS OF AUGUST 31, 2022



Leading and innovating
for a sustainable future.

Caring for our employees, customers and communities.



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To Our Stakeholders

In 2021, NW Natural Holdings entered a new stage of growth while building on our strengths as a trusted energy provider and environmental leader in our industry. Through a year of ongoing global uncertainty, we continued to deliver essential services safely and reliably, with great care. At the same time, we moved boldly forward, expanding our water and wastewater utility business, launching our new competitive NW Natural Renewables venture, and taking initiative on multiple fronts to help move our region to a low carbon, renewable energy future.

We grew up in the Pacific Northwest, and we're deeply connected to our environment, our customers, and our community. We owe our continued success to our more than 1,200 employees who sustain these connections, and we consider it an honor and central to our mission to safeguard their health and well-being. As a key employer and service provider, we look for ways to assist our most vulnerable community members, support our local economies, and foster a diverse, inclusive company culture where everyone can thrive and grow. Sustainability is at the heart of everything we do.

The principles that have kept our natural gas utility going strong for more than 160 years define our growing family of companies. Our core values of integrity, safety, caring, service ethic, and environmental stewardship guided our actions in 2021—as they always have. I'm incredibly proud of the way our dedicated employees embody these values every day.

This report contains the environmental, social and governance information recommended for our industry by the Sustainability Accounting Standards Board (SASB) and includes components of the Task Force on Climate-Related Financial Disclosures (TCFD). I hope it conveys the commitment and passion we bring to our work every day.



David H. Anderson
President and Chief Executive Officer



Awards and Certifications

- Earned the prestigious distinction as one of the Ethisphere® Institute's **2022 World's Most Ethical Companies®**
- Easiest to Do Business With, Customer Champion, and **Utility most trusted brand** – Escalent
- **J.D. Power** Top 2 in the West in residential customer satisfaction
- **Gold Shovel Standard** certification for damage prevention safety management
- **Top Workplaces** – The Oregonian
- **Fitwel** certification for health-promoting environments
- **50/50 Women on Boards** – Winning “W” Company in 2020
- Environmental Champion - Escalent



"Today, business leaders face their greatest mandate yet to be ethical, accountable, and trusted to drive positive change. We continue to be inspired by the World's Most Ethical Companies honorees and their dedication to integrity, sustainability, governance, and community. Congratulations to NW Natural Holdings for earning the World's Most Ethical Companies designation."

— Timothy Erblich, Ethisphere CEO

2021 Highlights

SUSTAINABILITY

Exceeded our Low Carbon Pathway target
pace for saving 30% of carbon emissions from our
own operations and customers' use of our product by 2035¹

Completed an in-depth analysis of potential models
for becoming a carbon neutral energy provider by 2050

Contributing to the sustainable economy, NW Natural issued an inaugural
sustainable bond and amended the credit facilities for NW Natural Holdings
and NW Natural to link borrowing costs to environmental and safety goals

Led the industry with one of the lowest ratios of leaks
per mile of distribution pipeline

Delivered the first environmental benefits of RNG under Senate Bill 98
and completed our first interconnection to a local RNG facility

SAFETY

Continued to operate one of the most modern, tightest systems in the nation

Lowest number of workplace injuries in over a decade

CUSTOMERS & COMMUNITIES

Ranked #2 in the West by residential customers in
J.D. Power survey for the 18th year running

Contributed more than \$950,000 to organizations
supporting families and children at risk

EMPLOYEES

92% of surveyed employees say
they are proud to work for NW Natural

DEI

NW Natural Holdings' board of directors elected
a woman as board chair for the first time and 45%
of the board are women

**Employee Resource Groups focused on diversity,
equity and inclusion**, building awareness, creating
connections among employees, and providing
company leaders with important feedback

WATER

Invested in critical infrastructure, cybersecurity,
safety and customer support improvements
across our growing family of water and
wastewater utilities

RENEWABLES

**Launched a competitive renewable energy
business** to provide renewable natural gas
to the utility, commercial, industrial and
transportation sectors

GOVERNANCE

Recognized by Ethisphere® as one of the
2022 World's Most Ethical Companies®

"World's Most Ethical Companies" and "Ethisphere" names and
marks are registered trademarks of Ethisphere LLC

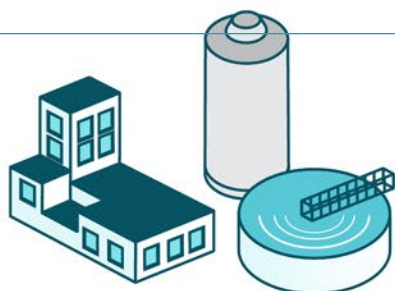
¹ This is an emissions savings goal equivalent to 30% of the carbon emissions from our customers' gas use and company operations in 2015.

About NW Natural Holdings

NW Natural Holdings, based in Portland, Oregon, owns NW Natural Gas Company, NW Natural Water Company, NW Natural Renewables Holdings and other business interests. In 2021, we entered a new stage of growth while leading our industry in environmental stewardship and delivering essential energy and services safely and reliably with great care.

163 YEARS

doing business as a respected energy provider in the Pacific Northwest



80,000 PEOPLE

in the Pacific Northwest and Texas depend on us for clean, safe water and wastewater utility services



2.5 MILLION PEOPLE

in 140 communities depend on us to deliver the energy and essential services they need to heat their homes, cook their meals and keep their businesses running

785,000 METERS

providing energy in Oregon and Southwest Washington

1,200 EMPLOYEES

serving customers safely and reliably each and every day

KEY INITIATIVES



Aggressively pursuing a renewable, **carbon-neutral future** for our gas utility



Expanding and investing in our **water and wastewater** utility business



Investing in **renewable energy** and the transition to a decarbonized future for a variety of sectors

Our Mission

We provide safe, reliable and affordable essential services in an environmentally responsible way to better the lives of the communities we serve.

Our Values

Since 1859, NW Natural Holdings has been a respected energy provider in the Pacific Northwest. We have maintained this reputation by keeping our five core values at the center of everything we do.



Integrity

has been our way of doing business for 163 years



Safety

is our top priority in all our operations



Caring

is the way we treat one another, our customers and our neighbors



Service Ethic

provides the foundation for everything we do



Environmental Stewardship

is our legacy, and our promise to future generations

Safety and Reliability

Safe, reliable delivery of natural gas is our greatest responsibility to our customers, our employees, and the communities we serve.

2021 FEDERAL REPORTS

ZERO

- Reportable pipeline incidents
- Corrective action orders
- Safety-related condition reports
- Notices of probable violation

Safety Highlights

Consistently low damages

- Received [Gold Shovel Standard](#) certification in 2021 for comprehensive damage-prevention actions
- Used a risk-assessment model that reduced NW Natural's already low rate of damages from dig-ins

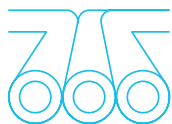


80% 

OF TRANSMISSION PIPELINE INSPECTED

- 2.8 times the rate required by regulations
- 87% performed through inline assessment

OUR MODERN SYSTEM



- No cast iron pipes since 2000, no bare steel pipes since 2015
- Leading the industry with one of the lowest ratios of leaks per 100 miles of pipeline in 2021, a fraction of the industry average

LOWEST NUMBER OF WORKPLACE INJURIES IN OVER A DECADE



ZERO 

reportable information
security breaches in 2021

Our Tight, Modern System

NW Natural operates one of the tightest, most modern natural gas distribution systems in the nation. In the mid-1980s, NW Natural worked with our public utility commissions to proactively create a pipeline replacement program. In 2000, we became one of the first companies in the country to eliminate cast iron pipes, and by 2015 we replaced all cast iron and bare steel pipe. We believe we are the first pure-play local distribution company to completely remove these legacy pipelines. Among U.S. natural gas utilities, NW Natural had one of the lowest ratios of leaks per mile of pipe in 2021.²

Having eliminated vintage materials from our distribution system years ago, we're able to invest more of our resources in the next wave of innovations, including renewable energy and other environmental advances.

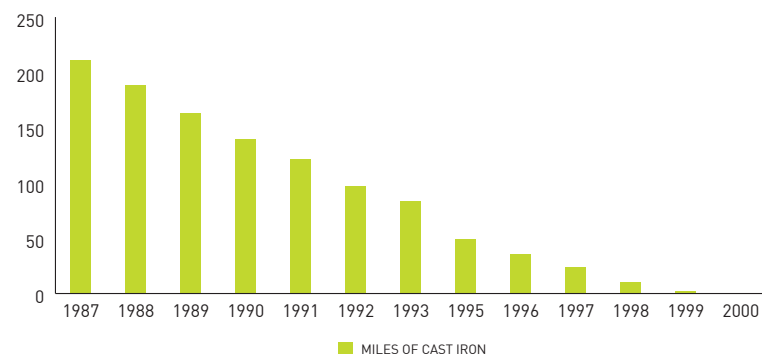
Continuous Inspection and Monitoring

We vigilantly manage our 736 miles of transmission pipelines and approximately 14,200 miles of distribution pipeline. That means proactive monitoring, preventative maintenance, and prompt identification and repair of potential issues. Our employees performed approximately 200,000 routine field visits in 2021. We operate a 24/7 emergency hotline so we can immediately dispatch responders if there is a problem, and on average, we respond to damage and odor calls across our service territory in about 30 minutes or less.

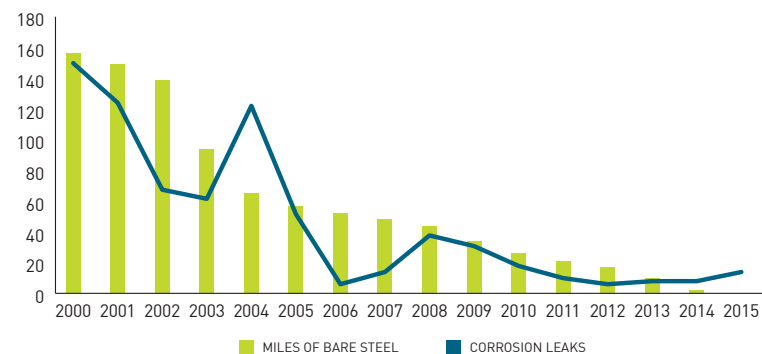
In 2021, we performed safety inspections on our transmission system at about 2.8 times the rate required by federal and state regulations. Our system makes it possible to perform a majority of our inspections through an inline approach—the best available today, as it can assess pipeline integrity from inside the pipe. At the end of 2021, we had inspected nearly 80% of our transmission system—588 miles—primarily through inline inspection.

² Based on DOT Annual Report data for natural gas operators reporting more than 7,000 miles of distribution main

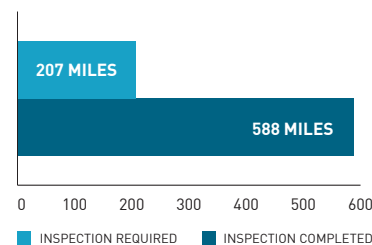
CAST IRON PIPE REPLACEMENT COMPLETED IN 2000



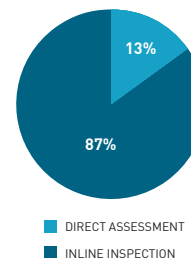
BARE STEEL PIPE REPLACEMENT COMPLETED IN 2015



EXCEEDED TRANSMISSION INSPECTION REQUIREMENTS



MAJORITY OF TRANSMISSION PIPELINE INSPECTED USING INLINE APPROACH



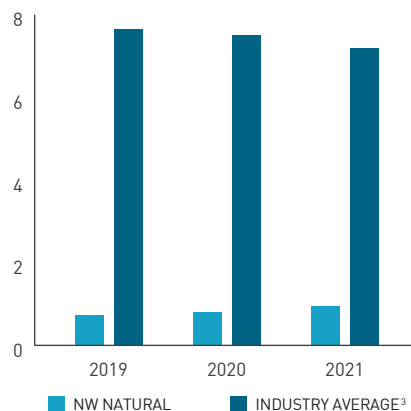
NW Natural consistently leads the industry in the lowest number of leaks per mile of distribution pipeline.

We strive to perform a leak survey on 20% of our gas mains every year and to survey each main at least every five years. We also strive to perform leakage and atmospheric corrosion surveys annually in business districts and high-occupancy buildings, and every three years on residential service lines—which exceeds the federal requirement.

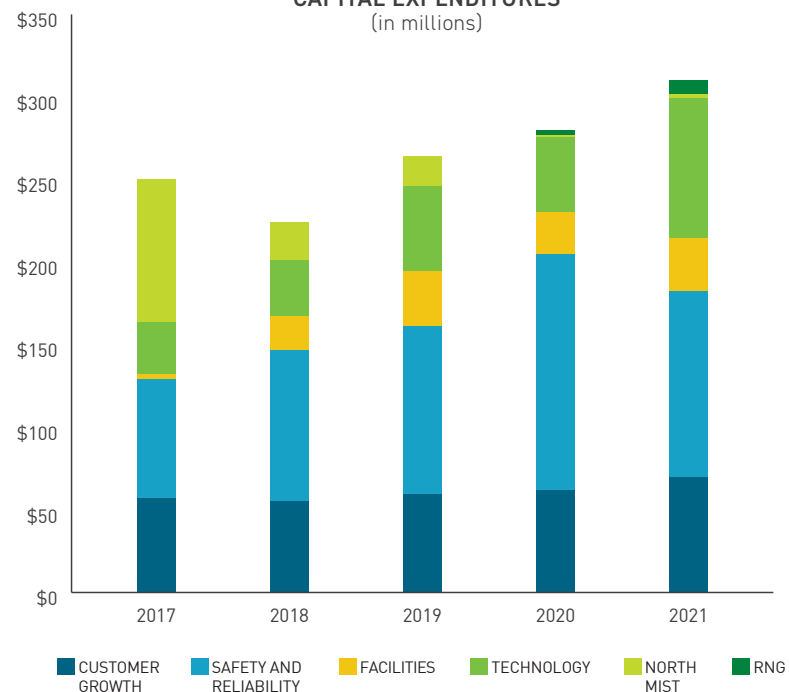
System Improvements for Safety & Reliability

In 2021, NW Natural invested over \$300 million⁴ in our natural gas infrastructure to support system safety and reliability. Those investments included system reinforcement projects and renovations to ensure we can continue serving our growing service territory well into the future. We also invested in our storage facility in Mist, Oregon, which supports reliable service on the coldest winter days. To protect our critical systems and customer data we enhanced our cybersecurity protocols and systems in 2021 and took important steps to upgrade our enterprise resource planning system, which is expected to go into service in 2022.

LEAKS PER 100 MILES



CAPITAL EXPENDITURES
(in millions)



Total investment in capital expenditures is calculated on an accrual basis and includes cloud-based software.



Doug Martin pictured third from left

Doug Martin, national award winner for system safety

In 2021, Doug Martin, NW Natural's leakage supervisor, received the [Milton W. Heath, Sr. Memorial Award](#). The award goes to one person in the nation who has made an outstanding contribution to leak detection, prevention or repair. Martin was recognized for leading the industry in the use of advanced technology for leakage surveys and vapor extraction. Upon receiving the award after 36 years in operations at NW Natural, he said, "It is a highlight of my career to know that things I've been working on all these years are getting attention."

³ Based on DOT Annual Report data for natural gas operators reporting more than 7,000 miles of distribution main

⁴ Cap-ex is on an accrual basis and includes cloud-based software

Reliability and Resiliency

Reliable Delivery

More than 2.5 million people depend on us to deliver the energy and essential services they need to heat their homes, cook their meals and keep their businesses running. NW Natural has developed a risk-based method for determining how to provide this energy to serve customers without interruption even when demand is at its highest. This modeling is done through a process of evaluating different energy-demand scenarios and resource-acquisition strategies, and is outlined in our current [Integrated Resource Plan](#) (IRP). These planning capabilities will continue to be essential as we transition to renewable fuels for the pipeline. To help lower costs for our customers and mitigate the risk of interruptions to our supply, we:

- Purchase natural gas from geographically varied sources
- Maintain a diversified portfolio of supply contracts
- Own and contract with natural gas storage facilities

NW Natural has abundant storage capacity in or near our service area—a unique and valuable resource for reliable energy delivery.

We expect to meet about 55% of our projected energy requirement with gas from storage in or near our service area. Underground gas stored at our facility near Mist, Oregon, can supply natural gas to the Portland metro area for approximately one month during an average winter.



Resilient Infrastructure

The need to maintain the resilience of the US energy system is imperative. Compared with above-ground infrastructure, the underground gas delivery system is [less vulnerable](#) to disruptive events from extreme weather such as hurricanes and snowstorms. Our modern pipes are also designed to withstand stress from ground movement associated with earthquakes, landslides and other natural disasters.⁵ A study by Portland State University's Center for Public Service suggests the natural gas system could be a crucial resource in the event of a major disaster that disrupts power to the Pacific Northwest.



IN FEBRUARY 2021, a record-breaking snow and ice storm hit Oregon, leaving hundreds of thousands of people without power. NW Natural customers were able to use their stoves to cook meals and gas fireplaces to keep warm without interruption because of our careful planning and resilient infrastructure, including storage facilities. These same assets can be used to deliver renewables in the future.

We take measures so that in the event of a disaster we can continue to operate critical business functions, including gas control and emergency response. Our operations and training center in Oregon is built to withstand an earthquake, and it meets the same seismic standards as essential facilities such as emergency operation centers, hospitals, and police and fire stations. Our Portland headquarters, opened in March 2020, is also designed to remain operational after an earthquake. In 2021, we completed construction of another NW Natural building that is designed to be operational after a large-scale seismic event. The Vancouver Resource Center in Southwest Washington is built to Level 4 seismic standards, which apply to structures that are most critical to resilience.

⁵ 2019 study by consulting firm ICF

Intensifying our Focus on Cybersecurity

Reliable service requires investing in technology to protect our critical systems and customer data. Our vigorous cybersecurity program is a significant and growing piece of our investment portfolio—about 5% of our total capital expenditures were related to cybersecurity and nearly 17% was IT related in 2021.

Our audit committee, currently comprised of four 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 vice president 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: information technology, security and procurement), apply their specific expertise to the company's strategy. In 2021, the audit committee was provided with a cybersecurity update three times during the year. The full board is briefed on matters reviewed by the audit committee, including cybersecurity, and received one additional cybersecurity update during 2021.

At NW Natural, we believe that cybersecurity is everyone's responsibility. Starting in 2019, the information technology and business integrity and compliance groups teamed up to create an online cybersecurity and information security training, which all employees are required to complete annually. 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 2021, 100% of our active employees participated in this online training.



In 2021 we had zero reportable information security breaches

In 2021 we launched a comprehensive set of measures to help secure technology systems and ensure the safe flow of gas to our customers. The program strives to align with federal security directives issued last year to address ongoing cybersecurity threats.

We continually review and update our cybersecurity strategy. The latest version, released in 2021, defines our path through 2025. It focuses on four key objectives:

- Increase visibility of security-related events and their causes
- Upgrade and simplify cybersecurity infrastructure
- Proactively manage security across enterprise, mobile, cloud and industrial control systems (ICS) environments
- Enhance governance and risk-management capabilities

While implementing new policies and plans, we continued adhering to process controls, performing security assessments and working to align our program to the NIST Cybersecurity Framework and other key standards. For example, we use multiple layers of security technology and follow cybersecurity frameworks like the Department of Energy's Cybersecurity Capability Maturity Model (C2M2). In addition we use a variety of technologies and processes like multifactor authentication (MFA) that allow us to have multiple verification factors and adds a layer of protection to the sign-in process, and endpoint protection that shield servers and laptops from cyber threats. We've also expanded our detection capabilities, and routinely test response actions. To further reduce cyber risks, we adhere to process controls, perform periodic maturity assessments and execute third-party penetration tests to expose vulnerabilities. In addition, we work closely with numerous local and federal agencies, including the U.S. Department of Homeland Security, Department of Energy, Transportation Security Administration and the FBI. Our cybersecurity operations received an excellent rating of 750, as of March 11, 2022, from BitSight, the world's foremost cybersecurity ratings platform.

Taking System Safety to the Next Level

NW Natural leverages new technologies and best practices to keep our employees, our system, and the public safe.

- We're active in the American Gas Association (AGA) Best Practices Program, a voluntary peer review forum for local natural gas utilities across the US to share information on safety and reliability. We support holistic safety management efforts at the industry level as a member of the program's steering committee.
- We are a member of the U.S. Environmental Protection Agency's (EPA) [Natural Gas STAR Program](#), which promotes safe and environmentally conscious practices for pipeline maintenance activities.
- We're taking our safety program to the next level by implementing a Pipeline Safety Management System (PSMS), a voluntary industry-developed framework for continuously improving safety performance. PSMS is designed to create a holistic and comprehensive approach to system safety by building on our existing procedures and risk management activities to enhance our ability to prevent small problems from becoming significant events.

PIPELINE SAFETY MANAGEMENT SYSTEM FURTHER MITIGATES RISK



Installing excess flow valves to extend system safety

Excess flow valves (EFVs) can automatically stop the flow of natural gas to a home or business if the service line is damaged by a seismic disturbance or other catastrophic event. We're installing EFVs on new service lines and planning to retrofit EFVs on existing service lines meeting certain specifications. To date, we've installed more than 287,000 EFVs on about 39% of the service lines in our system, which compares to an industry average of 24%.⁶

⁶ Based on 2020 Pipeline and Hazardous Materials Safety Administration (PHMSA) data for natural gas distribution companies with more than 400,000 service lines.

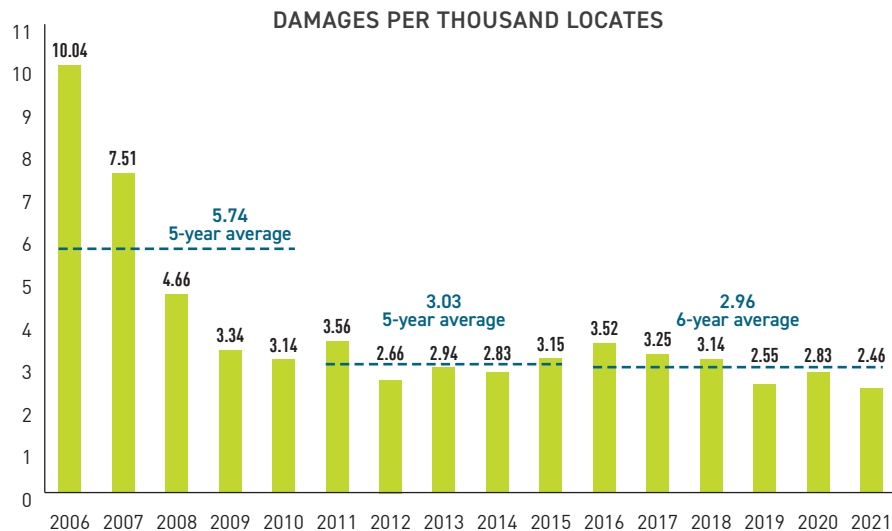


Damage Prevention

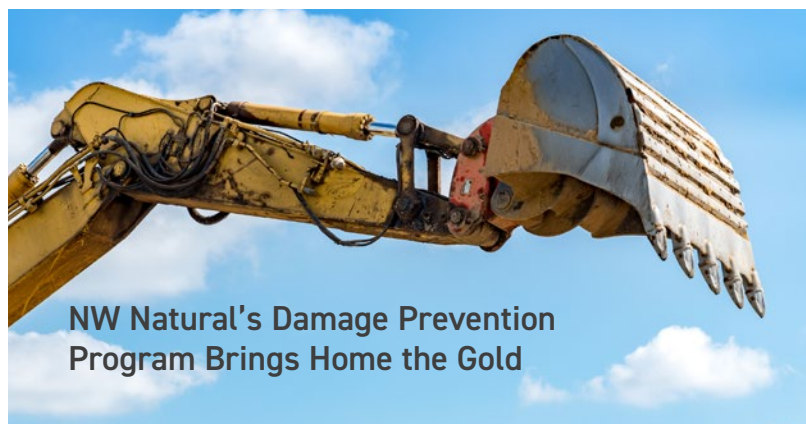
Damage to gas distribution pipelines by excavators is a leading cause of injury, and digging by third-party contractors is the most common cause of pipeline damages. NW Natural began comprehensive efforts to address this issue in 2006, working with our state regulators to implement more rigorous dig laws, and providing online training to help contractors excavate safely. Since then, **damages due to digging have declined by about 70%.**

Our damage rate dropped further in 2021 after we fully implemented a new prevention model supported by sophisticated technology that makes it possible to assess the risk level of every locate request. This data-driven approach helps us understand where the potential for damage is highest so we can effectively prioritize and intervene where necessary. We also rolled out a robust multimedia campaign, in Spanish and English, reminding landscapers, contractors and homeowners how to avoid damaging lines.

NW Natural's damage rate due to digging in 2021 was the lowest in the history of our program, and we saw a 16% drop in the number of incidents attributable to insufficient excavation practices—historically the largest cause of damages.



Source: Annual DOT Report



In 2021, NW Natural became the first Oregon-based utility to earn a **Gold Shovel Standard** certification for its commitment to practicing and promoting safe excavation practices. The widely recognized credential

certifies that the company is taking specific, comprehensive actions to prevent underground infrastructure damages. NW Natural's damage prevention team spent a year completing the requirements for certification, which involved extensive documentation of work the team was already doing in multiple areas, including investigation procedures, policies, corrective action plans and training curriculum. The next step: "Reaching out to other large-scale excavators in our community and advocating for them to become certified," said Jamie Lemke, NW Natural damage prevention supervisor. "It's another tool we can use to promote safe excavation practices."

"This industry certification is a tribute to our damage prevention team, and a step forward on the path to our ultimate goal of zero damages."

— Jon Huddleston, NW Natural vice president of engineering and utility operations

Employee Safety

NW Natural is engaged in a company-wide initiative to reduce safety incidents to zero. Our Journey to Zero program, launched in 2020, focuses on preventing injuries and building a safety culture based on open communication, collaboration, and a strong service ethic.

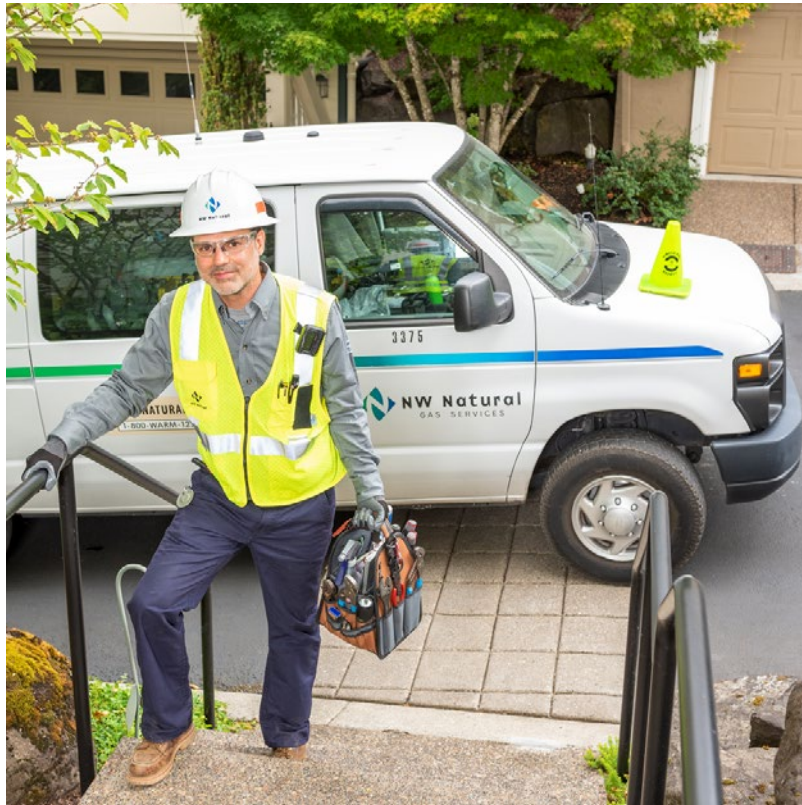
A Year of Strong Safety Results

Employee safety remained a top priority in 2021, and we continued to see the positive effects of our ambitious safety initiative.

- We ended the year with the lowest number of workplace injuries in over a decade—a 9% decline from 2020, and the second-lowest in 20 years.
- We also saw a 42% increase in safety observations reported (near-miss frequency rate or good-catch rate), which improved from 8.91 in 2020 to 12.64 in 2021—a leading indicator that reflects our expanded focus on field safety.
- Although there was an uptick in injuries that resulted in lost time or restricted duty, results were still among the lowest LTIR and DART numbers we've recorded in two decades.

These are encouraging results—and we know we have more work to do. Keeping employees safe requires sustained effort, and we're continuing to emphasize critical on-the-job safety practices and root cause analysis to reduce on-the-job injuries. To build on the progress we've made since 2020, we plan to:

- Implement an industrial athlete program. We're preparing to launch a program that uses the same techniques that keep athletes at peak performance to keep our employees healthy. Ergonomic-related injuries such as strains and sprains are the most common workplace injuries, and we aim to reduce lost time and days away/restricted duty numbers (LTIR and DART) by reducing these types of injuries through the implementation of this program.
- Double down on measures to prevent serious injury and fatality (SIF) incidents. NW Natural had no SIF incidents in 2021 and there have been zero fatalities every year for more than a decade. We have a low SIF rate, and we want to keep it that way. We plan to increase our focus on:
 - » Tasks that have the most potential for causing serious injuries and fatalities, including high-pressure lines, high-voltage environments, heights, and vehicles.
 - » Analysis of near-miss events that could have resulted in serious injury.



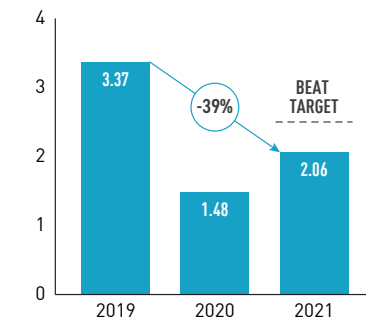
Our Safety Management Program

NW Natural's health and safety policies and procedures are designed to comply with all applicable regulations—and we strive to go beyond compliance.

- We have a strict stop-work policy when an employee is involved in an accident, and a 24/7 nurse care line available to all employees. We provide alternative working opportunities that allow employees to recover while continuing to contribute.
- A portion of our executives' compensation is tied to achieving our safety metrics, and our board of directors regularly reviews company safety metrics.
- We have a safety steering committee overseen by our executives, as well as a dedicated safety team led by our VP, chief human resources and diversity officer, who reports directly to the CEO.
- We monitor safety performance to help us understand the origins of incidents and develop root-cause trend analysis.
- We work to incorporate industry best practices and benchmarking, including peer analysis and assessments done by the AGA.
- Our internal auditors periodically audit our safety department and health and safety policies. We also conduct third-party assessments on a periodic basis to audit aspects of our safety management system.

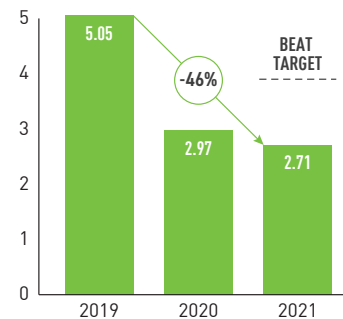
We seek to work with contractors that meet or exceed safety standards and practices for their industries. We use ISNetwork's contractor management services to help us evaluate contractors' safety performance and policies, including criteria such as insurance and drug and alcohol testing standards.

DAYS AWAY OR RESTRICTED TIME RATE (DART)



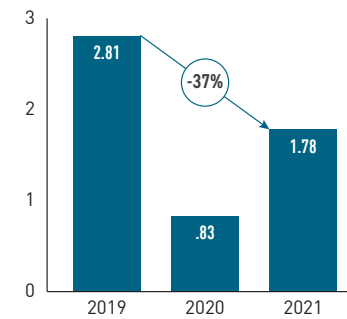
DART = $\frac{\text{\# of incidents with lost time or restricted duty} \times 200,000}{\text{Number of hours worked}}$

TOTAL RECORDABLE INCIDENT RATE (TRIR)



TRIR = $\frac{\text{\# of incidents requiring medical attention} \times 200,000}{\text{Number of hours worked}}$

LOST TIME INCIDENT RATE (LTIR)



LTIR = $\frac{\text{\# of lost time injuries} \times 200,000}{\text{Number of hours worked}}$

Focus on Training



Comprehensive Safety Training

We maintain training programs for compliance, emergency preparedness, identifying hazards and handling high-risk situations. Every year employees complete classroom instruction and hands-on training at our state-of-the-art Training Town facility, which features a simulated neighborhood complete with functioning underground natural gas lines. We also offer virtual training through our new learning management system.

We increased safety training hours for employees in 2021, even as class sizes were reduced to meet COVID-19 protocols. We also enhanced our training for contractors and continued to host immersive safety training to prepare firefighters to respond to emergencies that involve or affect the natural gas system.

Rigorous and routine training

Field staff also attended quarterly, annual, and scenario-based safety trainings, as well as monthly safety presentations



57 firefighters trained

in emergency procedures involving gas lines (external training was suspended for the majority of the year due to COVID)

Quality Assurance Program

Our quality assurance program, which has been in place since 2006, follows up on training to check the work employees and contractors are doing across field operations. In 2021, the Quality Assurance team completed more than 3,000 inspections of work performed by NW Natural employees or contractors. Since implementing the program we have seen consistent improvements in work performance, and we have data that helps enable us to provide timely feedback for employees and improve training, policies and procedures. Our leading practices in this area have allowed us to serve as a resource for companies looking to implement similar programs.



FOR MORE INFORMATION SEE ALSO:

[Residential Safety](#)

[Our Safety Measures](#)

[Pipeline Safety](#)

Environmental Stewardship

NW Natural's core value of environmental stewardship is a driving force behind everything we do. We believe NW Natural has an important role to play in helping our region move to a low-carbon, renewable energy future in a more resilient and affordable way.



Building on a Legacy of Environmental Leadership

Our long history of environmental leadership reflects the values we share with the people we serve in Oregon and Washington.

2000 REPLACED CAST IRON

Completed replacement of all cast iron pipe in our system



2007 VOLUNTARY CARBON OFFSET PROGRAM

Provided customers with a voluntary program that allows them to offset carbon emissions from their natural gas use



2002 DECOUPLING

Adopted a rate structure that encourages energy conservation



2015 REPLACED BARE STEEL

Completed replacement of bare steel pipe to create one of the nation's lowest-emitting systems, with a fugitive emissions rate less than half the national average



2016 ESTABLISHED CARBON SAVINGS GOAL

Established a Voluntary Carbon Savings Goal for our operations and customers' emissions from the use of natural gas



2022 FIRST RNG FACILITY

Commenced operations at our first RNG facility. We are the first local gas distribution utility in the continental U.S. to invest in a renewable natural gas facility on behalf of its sales customers



2019 OREGON SENATE BILL 98 ESTABLISHED

Groundbreaking legislation in Oregon was signed into law that supports gas utilities investing and procuring renewable natural gas, including hydrogen, for all its customers. Regulators completed rulemaking in 2020



TODAY OUR NATURAL GAS SYSTEM IS A POWERHOUSE

NW Natural's Pipeline System

- Delivers 50% more energy than any other utility in Oregon⁷
- Meets 74% of home heating needs in the area we serve⁸
- Meets 90% of energy needs for our residential space and water heat customers on the coldest winter days⁹

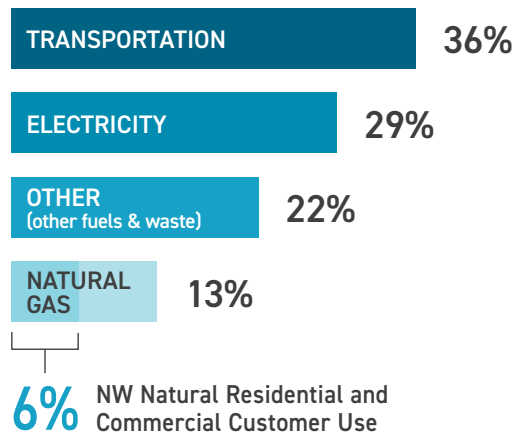
2x the Energy

During winter peak-demand periods, the natural gas system in the Pacific Northwest delivers about twice as much energy as the electric system

6% of Oregon's Emissions

The natural gas our residential and commercial customers use accounts for **around 6% of Oregon's greenhouse gas emissions**¹⁰

OREGON GREENHOUSE GAS EMISSIONS BY SECTOR



Source: Oregon DEQ In-Boundary GHG Inventory 2019 data.

Reducing emissions is crucial not only for gas utility systems, but also for electrical power generation, which is now the largest user of natural gas in the U.S. and accounts for more gas use than direct residential and commercial customers combined.¹¹

⁷ Per data from the Oregon Public Utility Commission, 2020 Oregon Utility Statistics Book

⁸ 2014 Residential Sites Database based on square footage on or near NW Natural mains that is served by natural gas

⁹ Based on electric usage of an average home with a 9.0 HSPF heat pump and standard electric water heater for the 6:30 to 7:30 a.m. hour in the winter with a temperature of 7° F

¹⁰ NW Natural sales load data from the Oregon Department of Environmental Quality In-Boundary Greenhouse Gas Inventory, 2019 data

¹¹ In 2021, U.S. natural gas deliveries for electric power was 11.3 million MMcf. Natural gas deliveries for residential and commercial sectors was 7.9 million MMcf. Source: EIA annual natural gas deliveries to consumers, U.S., 2021 https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm

The aggressive pipe replacement program we completed in 2015 has yielded important results. An [Environmental Defense Fund study](#) led by Washington State University found that methane emissions on our system were 90% lower than Environmental Protection Agency (EPA) assumptions at that time,¹² and our system's fugitive emission levels are below the EPA national average for distribution companies. As a result of continued emphasis on plastic pipeline upgrades and reduced component leaks, we saw a decrease in fugitive emissions in 2021 compared to 2020.

We're also focused on reducing emissions from our operations and our customers' use of natural gas. Although scope 1 and scope 2 emissions increased over 2020 levels as employees began returning to our headquarters and service facilities in 2021, scope 1 emissions were lower than in 2019 when people were working on-site. Due to the Uri winter storm that hit North America in February 2021, we used more natural gas to run compressors at our gas storage facilities, which contributed to the higher scope 1 emissions in 2021. In addition, scope 2 electricity usage increased due to more energy used to run ventilation for health reasons at our headquarters.

NW NATURAL'S DISTRIBUTION SYSTEM EMISSIONS

	2021	2020	2019
Fugitive Methane Emissions Rate ¹³	0.131%	0.135%	0.126%
Scope 1 Emissions ¹⁴	97,113	92,043	97,499
Scope 2 Facility emissions (electricity use) ¹⁵	2,972	2,312	N/A

N/A - information not available to perform calculation

¹² Study led by Washington State University and the Environmental Defense Fund (2013)

¹³ MMscf of methane emissions per MMscf of methane throughput

¹⁴ Greenhouse gas emissions expressed in metric tons CO₂e

¹⁵ Scope 2 Facility Electricity Emissions represent 12 months of electricity usage at the 18 main facilities operated by NW Natural. Due to the meter reading dates on the utility bills this value is approximate. The emissions are expressed in metric tons of CO₂e.

¹⁶ Industry average is 0.26% as reported by ONE Future using latest available data (2012) from EIA and greenhouse gas reporting program from EPA

As a result of our modern system and enduring commitment to environmental stewardship, NW Natural's fugitive emissions are less than half the industry rate¹⁶



On Track to Meet or Exceed Our Carbon Savings Goal

In 2016, we established our [Low Carbon Pathway](#) as a cornerstone of the company's strategic plan, setting a voluntary goal of 30% carbon savings by 2035.¹⁷ This is a unique and aggressive target since it includes our customers' emissions from the use of our product as well as emissions from our own operations. In 2021, we remained ahead of target pace for meeting this goal. We're taking steps right now to help achieve deep decarbonization in our region by:

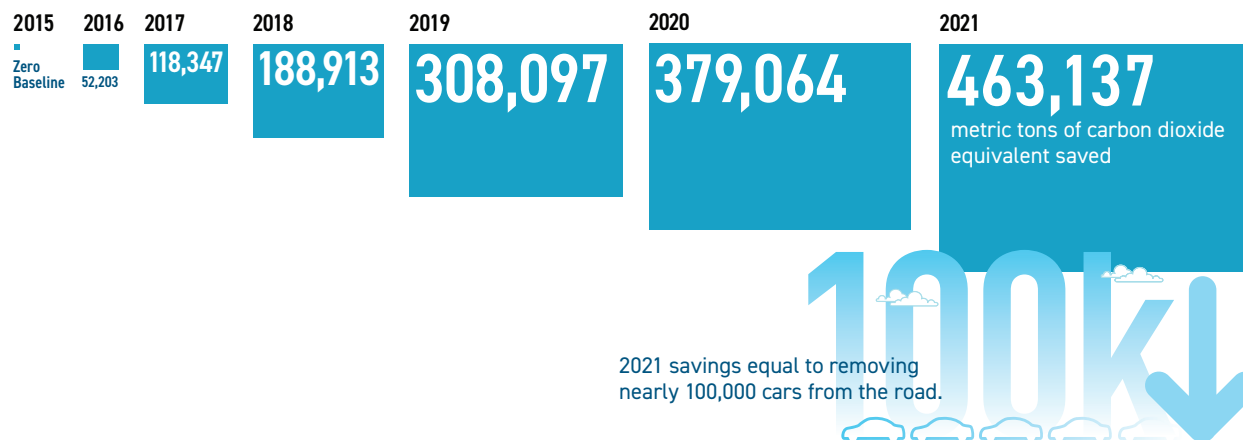
- Lowering energy use through aggressive energy efficiency and decreased consumption
- Providing customers with a voluntary program to purchase carbon offsets as an interim tool to reduce emissions
- Reducing the carbon intensity of conventional natural gas across the value chain
- Evolving our supply to include renewables in the pipelines

2021: Ahead of Target Savings Rate

463,137 metric tons of carbon dioxide equivalent saved.

This marks 36% of savings toward goal, ahead of target pace.

Annual Savings



2021 Source of Savings Mix



¹⁷ Based on 2015 emission levels attributable to NW Natural operations and customer use of our product

Reduced Energy Use

From conservation to energy-efficiency improvements, reduced energy use currently accounts for the largest savings toward our Low Carbon Pathway goal, and we're driving to increase that savings in the coming years.

- NW Natural residential customers have on average cut their emissions in half since 1970, and in our 2021 IRP Update we projected that energy efficiency will cut emissions by another 50% or more by 2050.¹⁸
- For two decades NW Natural's rate structure has been based on decoupling, which is intended to break the link between a utility's revenues and the quantity of gas used by its customers, removing any financial incentive a utility might have to discourage customers from conserving energy. Today more than 75% of our gas utility revenues are decoupled.
- Through our [Less We Can](#) public awareness campaign, we actively encourage customers to use less energy.

Through [Energy Trust of Oregon](#), we've consistently supported energy-efficiency measures such as cost-effective equipment upgrades, insulation and building improvements that last for many years. In 2021, NW Natural customers provided funding that covered approximately \$34.5 million of energy-efficiency expenses and

generated over 6.5 million therms in energy savings. That exceeded our IRP target and surpassed Energy Trust's goal for our Oregon service area by 20%. That's equivalent to removing greenhouse gas (GHG) emissions from over 7,500 cars for one year. Energy efficiency and reduced usage contributed nearly half of the savings we achieved in 2021 toward our voluntary goal of 30% carbon savings by 2035. That's about 208,000 metric tons saved in 2021 related to efficiency work since 2016.

	Energy-Efficiency Expenses (in millions)	Therms of Energy Savings (in million of therms)	Equivalent Cars Removed from Roads
2021	\$34.5	6.5	7,500
2020	\$28.8	6.8	7,800
2019	\$29.6	5.5	6,000

By market, in 2021 our Oregon service territory had 622,000 MMBtu of net energy savings and our Washington service territory had about 36,000 MMBtu of gross savings.



Equipment innovation

We are working to encourage the development of progressive technologies that use less energy. Through our partnerships with the [Gas Technology Institute](#), [Low Carbon Resources Initiative](#) and [Northwest Energy Efficiency Alliance](#) we seek to transform the market for innovative products. We co-founded the [North American Gas Heat Pump Collaborative](#) with local distribution companies across North America to support the adoption of highly efficient space and water heat equipment that are designed to reduce carbon emissions. Gas-powered heat pumps offer the opportunity to reduce natural gas consumption while maintaining equipment performance in cold weather—a challenge for electric heat pumps. Gas heat pumps are expected to be commercialized and available beginning in 2023. Research indicates that new technologies like these have the potential to reduce energy use by 40% or more in the residential sector.¹⁹

← Gas heat pumps like the one pictured can help reduce energy usage.

¹⁸ Based on 2020 emission levels

¹⁹ Opportunities for Reducing Greenhouse Gas Emissions Through Emerging Natural Gas Direct-Use Technologies. An American Gas Foundation report prepared by Enovation Partners, 2019



Industrial energy efficiency

Our industrial customers, though small in number, account for roughly half of NW Natural's gas delivery volume. Efficiency investments for industrial use can deliver large energy savings while enabling companies like Valley Milling & Lumber in Oregon to pursue strategic growth strategies. After purchasing a new lumber-drying kiln in 2020 to expand its in-house production capacity, the wood products manufacturing company installed a natural gas boiler to efficiently generate the heat a dry kiln requires. They expect to save more than 64,000 therms annually—a \$49,000 value at the time of installation. Thanks to those annual energy savings and the upfront help from Energy Trust of Oregon, nearly 70% of the cost of the boiler upgrade was offset.

"Saving energy supports our growth and our goal to be a more environmentally friendly operation."

— Eric Youel,
Valley Milling & Lumber plant manager

Carbon Offsets for Customers: Now That's Smart Energy

NW Natural was the first stand-alone gas utility in the U.S. to offer customers a voluntary program that allows them to offset carbon emissions from their natural gas use. Launched in 2007, our Smart Energy program purchases carbon offsets from projects that sequester, reduce and prevent the release of greenhouse gases. Many of these projects are biodigesters on family-owned dairy farms. The program's mantra, "Use Less, Offset the Rest," reflects our conviction that verifiable offsets are a valuable tool for effectively lowering emissions.

In 2021, we added [renewable natural gas \(RNG\)](#) to the program for our Washington customers. That gives them a new mitigation resource and aligns with recent [legislation](#) that requires natural gas companies in Washington to offer by tariff a voluntary RNG service.

In 2021 Smart Energy enrollments increased by nearly 20% and now more than 10% or nearly 75,000 of our residential customers are enrolled in the program. They funded over 197,000 metric tons in emission reductions, equivalent to removing over 42,000 cars from the road in 2021. That made Smart Energy the second largest contributor to our low-carbon goal NW Natural set in 2016 and accounted for nearly 188,000 metric tons of savings toward the goal in 2021.

Since its inception, the Smart Energy program has funded over 1.5 million metric tons of CO₂e emissions reductions.

SMART ENERGY PROJECTS



The average home enrolled in Smart Energy prevents more than 20 pounds of greenhouse gas emissions from entering the atmosphere every day.

Greener Natural Gas

Our residential and commercial customers' use of natural gas accounts for about 6% of Oregon's greenhouse gas emissions, and we are working to reduce that footprint even further. Cutting emissions across the supply chain is foundational to this effort.

- NW Natural procures natural gas from Canada and the Rocky Mountain region, two of the most stringently regulated production areas in North America, with lower methane leaks.
- NW Natural is one of the first utilities in the nation to develop and implement an emissions-screening tool that allows us to understand the carbon intensity of gas supplies and consider environmental impact when we evaluate supply purchases (alongside other key purchasing criteria such as price, credit worthiness and geographic diversity) and reward lower emitting producers with our contracts. Our program reduces the upstream emissions associated with the natural gas production of the product we procure and deliver to customers from our U.S. supply purchases by about 30%.
- Because upstream natural gas production and processing are where the bulk of emissions occur in the value chain,²⁰ we're working with like-minded industry members and trade groups to encourage producers to adopt best practices.
- We use alternative blowdown practices that reduce emissions from pipeline venting. In 2021, we avoided releasing 193 metric tons of CO₂e, reducing the amount that would have been vented into the atmosphere by 95%.

By targeting gas purchases from more environmentally conscious producers, we have avoided more than 55,000 dekatherms of methane emissions for savings of nearly 59,000 metric tons of CO₂e.

<p>NWN FOUNDING MEMBER</p> 	<p>The Natural Gas Supply Collaborative is a group of natural gas purchasers that deliver enough natural gas to meet the needs of more than 60 million households. The group focuses on promoting safe and responsible practices for natural gas supply, along with greater transparency around key issues such as water and land use, air quality, and emissions associated with natural gas production.</p>
<p>NWN MEMBER</p> 	<p>NW Natural is a member of Our Nation's Energy Future (ONE Future), a coalition representing more than 20% of the U.S. natural gas value chain and committed to reducing methane emissions through adopting science-based standards and best practices.</p> <p>ONE Future is on track to exceed its goal of reducing cumulative methane emissions from its members' production, midstream and downstream operations to below 1% by 2025.</p>
<p>NWN FOUNDING MEMBER</p> 	<p>Methane Challenge Program partners are recognized by the EPA as leaders in reducing methane emissions. As a founding partner, NW Natural is adopting practices such as alternative blowdown methods. By flaring gas or rerouting it to stay in a pipeline instead of venting it into the atmosphere to depressurize pipelines, we reduce potential greenhouse gas emissions by 90% to as much as 100%.</p>

Transportation

Replacing dirtier transportation fuels such as diesel with clean-burning natural gas is another source of carbon savings. Heavy-duty vehicles that run on compressed natural gas (CNG) rather than diesel emit 90% less nitrogen oxide (NOx) air pollutants and particulate matter,²¹ and emissions do not vary with engine load, as they do with diesel engines. Natural gas technology also provides reliability and cost-savings unmatched by other alternative fuels. In 2021, NW Natural supplied 14 companies with 5.2 million therms of CNG to power their fleets.

“Transportation is Oregon's single largest source of greenhouse gas emissions, as well as other harmful pollutants that put vulnerable communities at risk. We need to rapidly decarbonize the transportation sector.”

— Oregon Governor Kate Brown

²⁰ U.S. EPA, Inventory of U.S. Greenhouse Gases and Sinks: 1990 – 2018

²¹ Ultra-Low NOx Natural Gas Vehicle Evaluation. Report prepared by University of California Riverside's College of Engineering-Center for Environmental Research and Technology, 2016

Our Vision Forward: Carbon Neutral Energy Provider by 2050

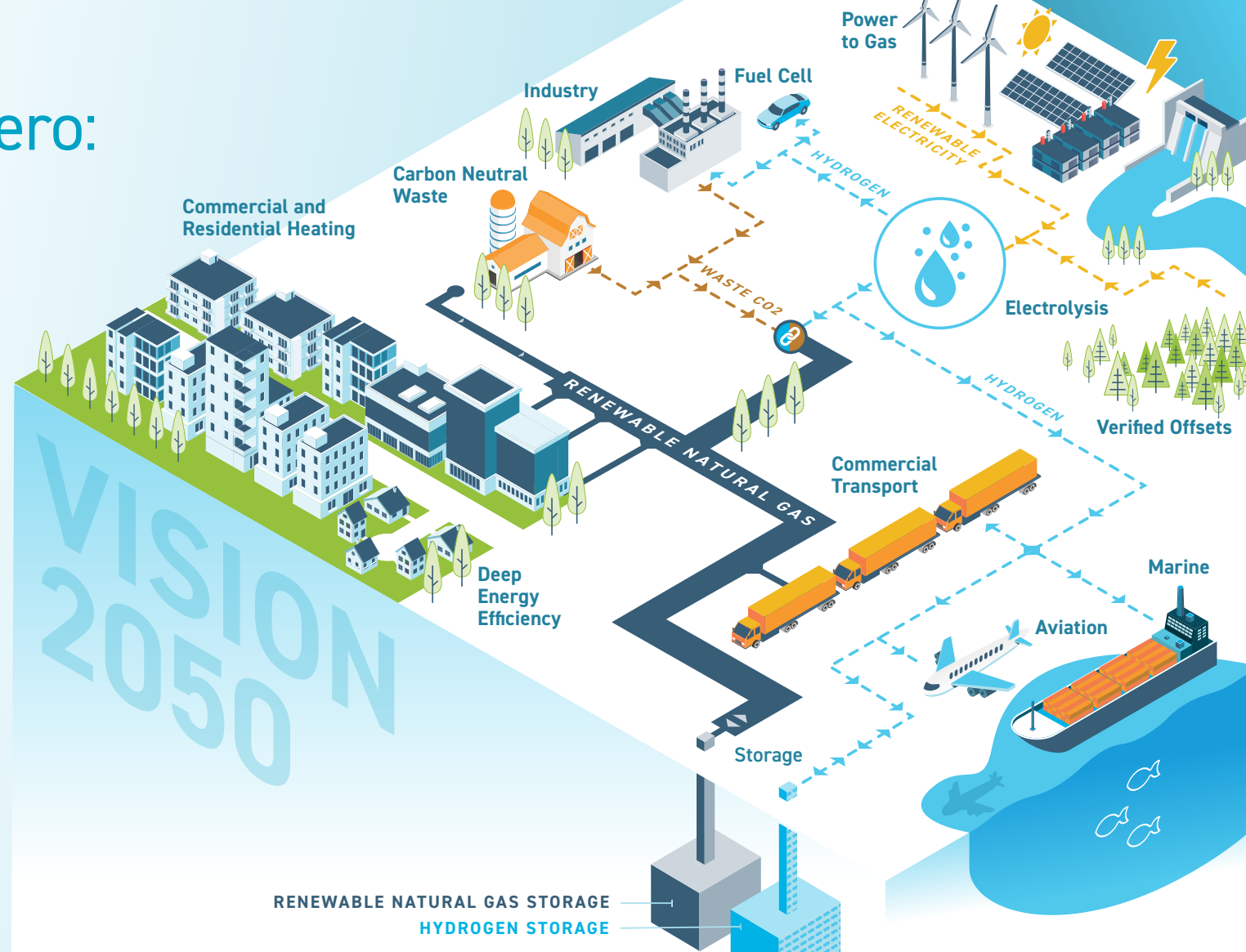
Taking steps to decarbonize the electric grid means rethinking the energy that could be transmitted and distributed across existing infrastructure—and that's our vision for the gas system.

Destination Zero:

Our vision of carbon neutrality

A decarbonizing network:

- Renewable Natural Gas
- Dedicated Hydrogen
- Waste CO₂
- Renewable Electricity



"NW Natural has evolved many times since 1859 to meet the essential energy needs of our region. The renewable supply is growing, the necessary technology exists, and our modern storage and delivery system is ready."

— David Anderson, NW Natural president and CEO

Vision 2050

Since NW Natural started delivering energy in 1859, the fuel going through our pipes has changed from manufactured gas to natural gas. We're on the path to our next evolution, from natural gas to renewable natural gas and clean hydrogen. As we've made progress on our 2035 [Low Carbon Pathway](#) goal, our thinking on what's possible for our system has evolved, based on promising advancements in renewables for the pipeline system.

Our goals are focused on collective action to:

- Further reduce energy use through aggressive energy-efficiency actions and new technologies
- Lower the carbon intensity of the product we deliver by shifting from conventional natural gas to renewable natural gas and clean hydrogen
- Leverage our tight pipeline system and long-duration storage to enable a faster, more affordable, resilient energy transition
- Look to emerging decarbonization models such as carbon capture, utilization and sequestration (CCUS) that align with our skills and services
- Facilitate adoption of policies that use joint gas and electric system planning and encourage the development of renewables for the pipeline

In 2021, we made progress on our vision of being a carbon neutral energy provider:

- Issued our [Destination Zero Report](#), one of the first comprehensive assessments by a gas utility that demonstrates possible scenarios to leverage our existing system to achieve carbon neutrality by 2050 for the energy services we provide to customers
- Accelerated our progress toward procuring renewable natural gas for our customers under Oregon's groundbreaking SB 98 legislation
 - » Secured agreements to purchase or develop RNG totaling 3% of our current annual sales volume in Oregon
 - » Invested in the development of a facility that converts methane from a Tyson Foods processing plant into RNG, which was completed in January 2022
 - » Completed interconnections to a biomethane facility and a wastewater treatment plant that are injecting RNG into our pipelines
- Successfully tested a 5% hydrogen blend at our training and operations facility
- Actively advocated for public policy support to accelerate the development of renewable energy for the pipeline and make it affordable for customers

We believe all forms of renewable energy, delivered through both the gas and electric systems, will be necessary in a low-carbon future.



Key Decarbonization Principles

- Helping customers use less energy is the fastest and least expensive way to reduce emissions
- All forms of renewable energy are needed in a balanced, low-carbon future
- Sustaining a dual energy system—gas and electric—to handle peak energy loads and to prepare for more extreme weather events
- Leveraging our existing modern system in new ways to help develop a renewable energy future while maintaining long-term affordability and dependability
- Energy system diversification and competition provides the best opportunity for accelerated innovation
- We must drive toward carbon neutrality in a way that leaves no one behind

Getting to Zero

The pathway to our vision of carbon neutral by 2050



RENEWABLE ENERGY

Renewable sources that do not contribute new carbon to the atmosphere



COORDINATED ENERGY SYSTEMS

Partnership with cleaner electric systems to create seasonal and peak energy storage



ENERGY EFFICIENCY

Encouraging end-use innovation for deep efficiency

Destination Zero Report: In-Depth Scenario Analysis to Achieve Carbon Neutrality

In 2021, we issued our [Destination Zero Report](#), an in-depth scenario analysis of possible scenarios to achieving carbon neutrality for our residential and commercial customer use by 2050. The scenarios we analyzed incorporate varying applications of:

- Enhanced energy efficiency coupled with new equipment technologies that reduce consumption
- Lower-carbon fuels such as RNG and hydrogen (along with small amounts of carbon capture)
- Declining amounts of verified offsets

Using varying levels of these applications, the report analyzes three different views of the future and demonstrates how it's possible to achieve carbon neutrality by leveraging our existing natural gas system. All scenarios draw on proven decarbonization measures that are already technically viable, and ready to be implemented with public policy support.

"This is one of the first comprehensive assessments by a gas utility that analyzes multiple scenarios to achieving carbon neutrality."

— David Anderson, NW Natural president and CEO

Renewable Natural Gas for the Pipeline

Multiple studies have shown that natural gas and the gas pipeline network will be needed for the Pacific Northwest to achieve its climate goals. A [report by the premier environmental consultant Energy and Environmental Economics \(E3\)](#) outlines how our system—leveraging renewables developed for the pipeline—can be instrumental in achieving deep decarbonization in our region most affordably and reliably.²² The E3 study found that our region can further its deep decarbonization goals by blending just 25% RNG into the existing gas system.

Waste streams are potent contributors to climate change. In the U.S., that includes methane emissions from 34 billion gallons of [wastewater](#), more than a billion tons of [livestock](#) manure, and 144 million tons of [food waste](#) every year. Renewable natural gas (RNG) can turn this waste problem into a powerful climate solution. RNG projects capture emissions from organic waste to produce renewable energy that can be used just like conventional natural gas. By adding RNG to our distribution system we can prevent the release of greenhouse gasses from waste streams and reduce the amount of conventional natural gas flowing through our pipelines.

"At NW Natural, we're proud to be aggressively pursuing renewable natural gas and clean hydrogen—allowing us to leverage our tight modern system in new ways to address the climate imperative."

— Kim Heiting, NW Natural senior vice president of operations

RENEWABLE NATURAL GAS IS AN ESSENTIAL ELEMENT OF OUR VISION FOR THE GAS SYSTEM BECAUSE:

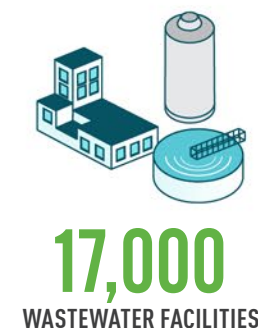
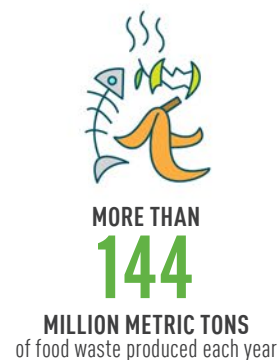
RNG can reduce greenhouse gas emissions, and it is interchangeable with conventional natural gas, so RNG can be added directly into existing gas pipelines

RNG can be stored for distribution on demand, and the supply of waste doesn't fluctuate the way weather-dependent renewable energy sources do

RNG can replace diesel fuel in transportation to reduce emissions and improve local air quality

Turning Waste Into Renewable Energy

North American sources of organic waste that can be converted to RNG to displace conventional natural gas are vast—and provide similar climate benefits to wind and solar:



Source: Coalition for Renewable Natural Gas

²² Independent consulting firm Energy and Environmental Economics [E3] study published in December 2018 and commissioned by NW Natural

Studies indicate that the potential supply of RNG is ample. An Oregon Department of Energy [report](#) identified nearly 50 billion cubic feet of technical potential, equivalent to the total amount of natural gas used by all Oregon residential customers today. Nationwide, RNG production potential is [estimated](#) to be 10 to 30 times greater than current production. In 2021, the number of production facilities in the U.S. grew [33.5%](#).

RNG Facilities

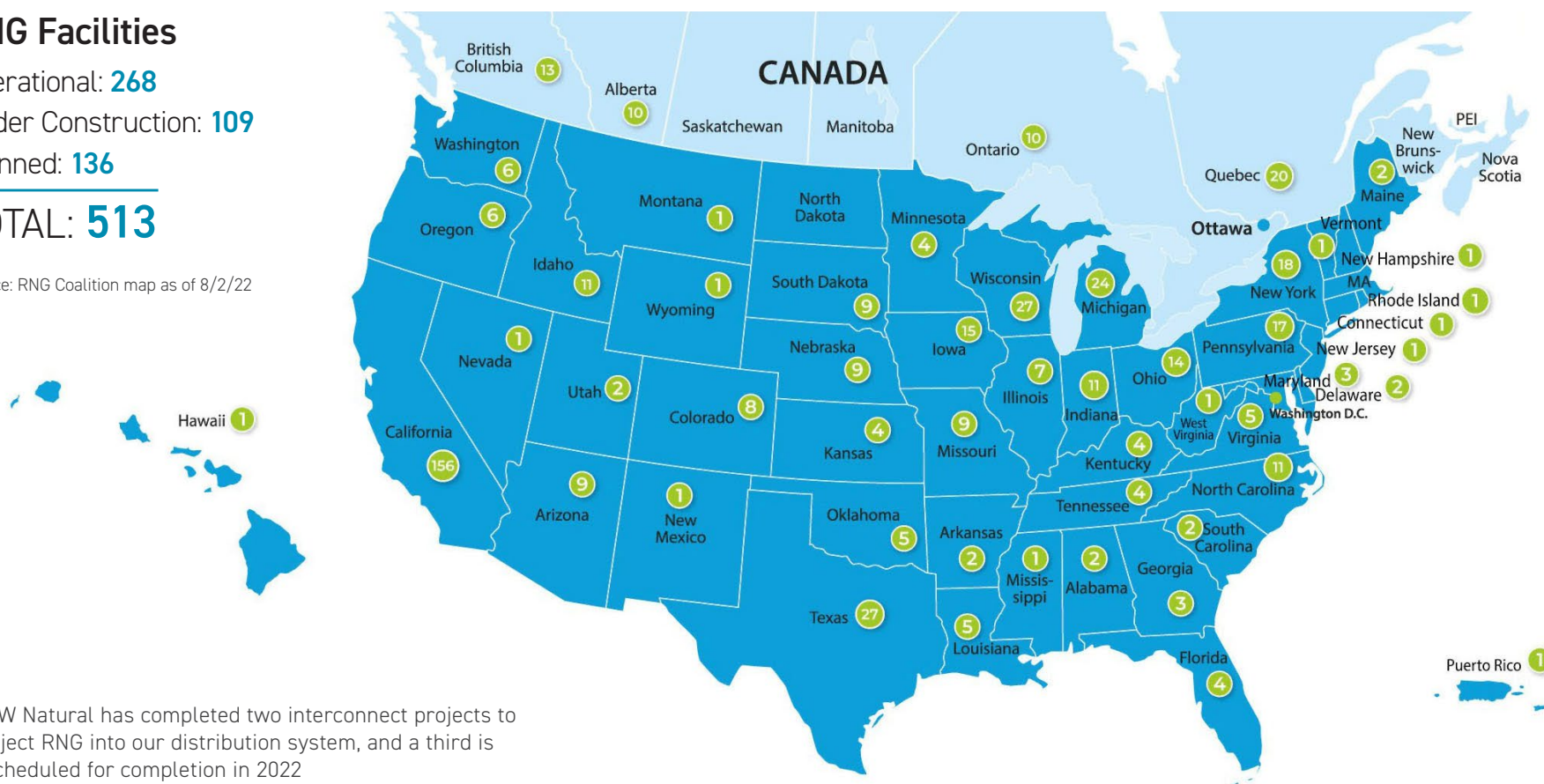
Operational: 268

Under Construction: 109

Planned: 136

TOTAL: 513

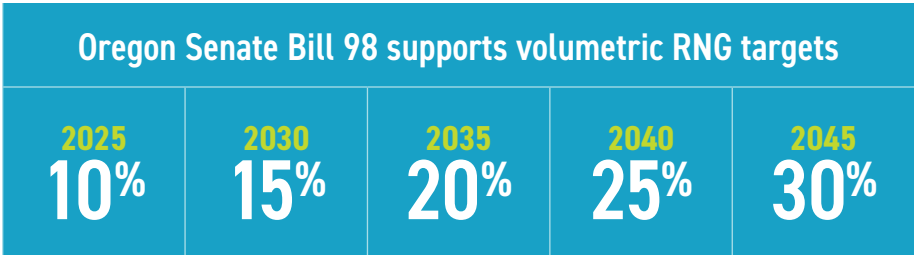
Source: RNG Coalition map as of 8/2/22



- NW Natural has completed two interconnect projects to inject RNG into our distribution system, and a third is scheduled for completion in 2022
- We're actively procuring RNG for our customers

Oregon Supports Renewables

In Oregon, [Senate Bill 98](#)—the first legislation of its kind—sets voluntary 30-year targets for gas utilities to procure renewable natural gas, and eventually renewable hydrogen, for our customers. The legislation, which was passed with bipartisan support, goes further than any other current U.S. law by outlining voluntary goals for adding as much as 30% RNG into the state’s pipeline system by 2050. Gas utilities can use up to 5% of their revenue requirement to cover the incremental cost of RNG.



Procuring RNG for our Customers

We believe NW Natural created the nation’s first dedicated RNG team at a natural gas utility in 2021. The team’s mission is to help us meet SB 98 targets and secure renewable supply at favorable prices for our customers. We have been vigorously pursuing contracts and establishing long-term relationships with RNG producers, developers and feedstock owners to procure RNG. In 2021, we had agreements with options to purchase or develop renewable natural gas totaling 3% of our current annual sales volume in Oregon.

"We're on track to procure enough RNG to get to at least 5% of our annual sales volume within the next two years and we've got sight lines to reach the voluntary target of 10% by 2029. For context, wind and solar generation currently supply just 12%²³ of our nation's electricity—after more than two decades of active development and public policy support."

— Anna Chittum,
director of renewables at NW Natural

"RNG is a resource that wasn't significantly developed even five years ago. NW Natural is proud to be an early mover in this market and we're committed to leading decarbonization efforts in our region and setting new precedents for our industry."

— Justin Palfreyman, vice president strategy and business development, NW Natural

In 2021, NW Natural:

- Made our first [investment](#) under SB 98, toward development of a biogas facility that is now operational and converting methane from a Tyson Foods processing plant into RNG. In Dec. 2021, NW Natural initiated investment in a second development project and construction of the biogas facility is underway.
- Signed agreements under SB 98 to purchase RNG on behalf of Oregon customers through Element Markets, Archaea Energy and BP Products North America.
- Completed our interconnection to a local RNG production facility at the [Shell New Energies Junction City](#) biomethane facility in Oregon.
- Partnered with [Metropolitan Wastewater Management Commission](#) (MWMC) of Eugene/Springfield to inject RNG derived from wastewater treatment into our system, which began producing in 2022—the first wastewater interconnect in Oregon.

²³ EIA 2021 electricity generation by source



RNG ENTERS NW NATURAL PIPELINES

The [Shell New Energies Junction City](#) biomethane facility in Oregon began sending renewable natural gas through NW Natural pipelines in Dec. 2021. The facility—Shell's first RNG production site in the U.S.—uses locally sourced cow manure and agricultural residues to produce an expected 736,000 MMBtu a year of RNG. As the interconnecting gas company, NW Natural played an important role in the startup and took a big step toward advancing our own low-carbon goals. Having a new fuel production resource directly connected to the local distribution pipelines adds resilience to our system. The Shell facility—now a NW Natural industrial customer—supports the local economy and helps farmers manage agricultural wastes, reduce expenses and protect air and water quality.

AN RNG MILESTONE

In 2022, the [Metropolitan Wastewater Management Commission's](#) wastewater treatment plant in Eugene became the first wastewater facility in Oregon to produce renewable natural gas. New equipment installed at the plant produces RNG by "scrubbing" biogas from the anaerobic digesters that stabilize and treat solids, transforming 100% of what would otherwise be a waste product into a sustainable energy source. The pure methane/natural gas is injected into NW Natural's system. MWMC is the first public agency in Oregon to complete a project of this kind.



[Watch a video about the project.](#)

TAKING THE LEAD ON RNG

NW Natural is a member of the [Coalition for Renewable Natural Gas](#), a member-led nonprofit representing nearly 300 companies, municipalities, universities, and organizations dedicated to advancing RNG through policy and education. The coalition's Sustainable Methane Abatement & Recycling Timeline ([SMART](#)) is an initiative to capture and control methane from 43,000+ organic waste sites in North America by 2050. NW Natural business development director Anna Chittum currently serves as chair of the coalition's Leadership Advisory Board for Advocacy.

NW Natural is also a member of the [American Biogas Council](#), which is a national trade association representing the entire U.S. biogas industry and is dedicated to maximizing the production and use of biogas from organic waste.



WHAT DO A COW, A TOILET AND A BANANA PEEL HAVE IN COMMON?

That's the riddle people were asked to ponder when NW Natural's community involvement team began reappearing at community events last summer. After more than a year of event cancellations due to COVID-19, the team wanted to bring a moment of surprise and delight when they went back out into the community. And so they came up with the "Cowhouse," a whimsical new way to build awareness of renewable natural gas and NW Natural's [Less We Can](#) program. The Cowhouse (think cow + outhouse) is an 8-foot-tall privy with two knobby cow legs sticking out beneath the door. At the familiar blue NW Natural tent next to the display, visitors get a sugar cookie with the three-letter answer to the cow-toilet-banana riddle: RNG. The Cowhouse appeared at 24 events in 2021, and the team also created a Candy Crush-style Waste to Energy game designed to be played on a mobile device.

"The Cowhouse has been a novel way to start conversations about our commitment to developing renewables for our customers."

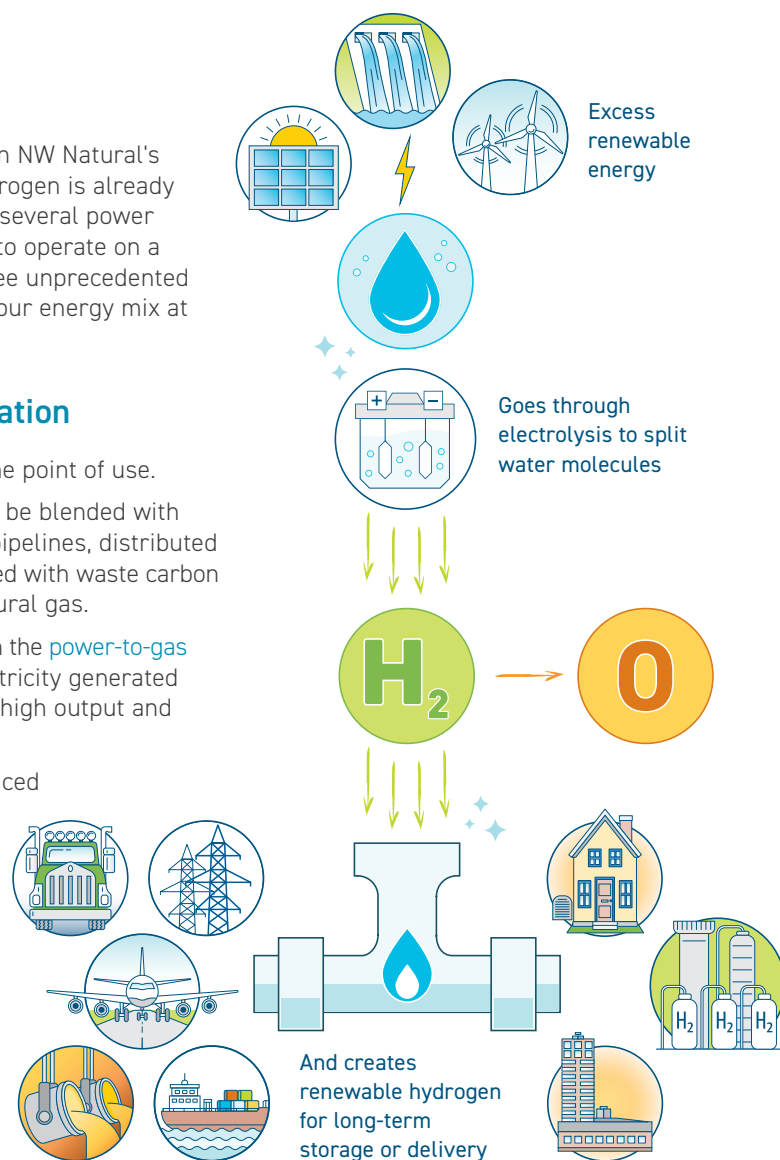
— Darrell Nelson, NW Natural community involvement senior manager

Hydrogen: The Other Piece of the Puzzle

Clean hydrogen plays an important role in NW Natural's long-term plans for decarbonization. Hydrogen is already flowing through the pipes in Europe, and several power plants in the U.S. have announced [plans](#) to operate on a natural gas/hydrogen fuel mixture. We see unprecedented opportunities for bringing hydrogen into our energy mix at a large scale.

Hydrogen is key to decarbonization

- Hydrogen has zero CO₂ emissions at the point of use.
- It is a versatile energy source that can be blended with natural gas and injected into existing pipelines, distributed in a dedicated pipe network, or combined with waste carbon dioxide and converted to synthetic natural gas.
- Clean hydrogen* can be created through the [power-to-gas](#) process, using surplus renewable electricity generated from solar and wind during periods of high output and low demand.
- Carbon neutral hydrogen can be produced by reforming conventional natural gas, paired with carbon capture and storage.
- Hydrogen can be stored on a large scale for long periods of time and delivered when needed.



*Clean hydrogen is defined in the federal Inflation Reduction Act as having an emissions profile of 4kgCO₂e/kgH₂ or less.

Testing hydrogen on our own system

We're conducting real-world research to determine maximum hydrogen blending levels we can safely add to our pipelines without significant modifications to our distribution system or our customers' appliances. In 2021, we tested a 5% blend at NW Natural's state-of-the-art training facility in Sherwood, Oregon, and confirmed that it will work in our system. We're now testing the blend on end-use equipment, including furnaces, fireplaces, and water heaters.

And we're not alone. More than a dozen North American utilities are actively working on hydrogen as a resource. Some have hydrogen already being blended in, some are under construction and others are looking at pure research and development. In addition, Hawaii Gas has been using hydrogen since the 1970s in its natural gas distribution system without issue.²⁴ In Italy, the largest gas utility, SNAM, successfully ran a trial blend of 5% and then 10% in sections of its pipelines system.

Countries like the Netherlands, United Kingdom and Germany are testing 20% hydrogen blending. The current thinking is that the 20% blending level would likely be the maximum that gas utilities can blend into their existing systems directly.²⁵ Based on that, we've also begun to research a 20% blend that is going into water heaters and some heating units in one of our own buildings.

We want to anticipate our customers' concerns. We are confirming that a hydrogen blend will operate the way natural gas does, that we can incorporate it safely in our systems."

— Chris Kroeker, NW Natural business development segment manager

Looking to the more distant future, we're working with technical partners to determine how to convert our large industrial customers from natural gas to pure hydrogen. We have evidence it can be done, because there are 1,600 miles of hydrogen infrastructure already operating successfully in the U.S. today. We'll need a lot of pieces to come together to launch these major projects, but we're starting to lay the foundation now.



Bonneville Environmental Foundation's CE – Clean Energy. Bright Futures is a national K-12 education program with a mission to prepare the next generation of leaders for a clean energy future. NW Natural is providing the program with a three-year grant to support the **NW Natural Clean Energy Fellows** project, which works with regional educators to build students' understanding of renewable gas technologies. In 2021, the second year of the partnership, teachers who were selected for the project developed career-centered curriculum that can be shared with K-12 educators throughout NW Natural's service territory. NW Natural staff engaged with these teacher-leaders to illuminate clean energy career pathways for students and link the learning content to the company's real-world renewable energy projects.

²⁴ Hawaii Gas: Clean Energy and Hydrogen, <https://www.hawaiigas.com/clean-energy/decarbonization>. In the 1970s, Hawaii Gas began producing and using hydrogen to convert naphtha, a by-product from the local oil refineries, for the manufacture of synthetic natural gas (SNG) on the island of Oahu. Today, 12% of the gas in its Oahu pipeline is hydrogen—the highest concentration of hydrogen reported by any gas utility in the U.S.

²⁵ The April 2021 report, Extending the European Hydrogen Backbone, involves 23 gas infrastructure companies from 21 countries, with a vision of nearly 40,000km of hydrogen pipeline infrastructure by 2040, 69% of which is repurposed from existing gas infrastructure. Source: https://gasforclimate2050.eu/wp-content/uploads/2021/06/European-Hydrogen-Backbone_April-2021_V3.pdf.

A public-private partnership to produce renewable hydrogen

NW Natural has partnered with Eugene Water & Electric Board (EWEB) and the Bonneville Environmental Foundation to propose the development of Oregon's first clean hydrogen* production plant. This working [power-to-gas](#) grid-connected facility would be designed to generate up to 4,300 MMBtu of clean hydrogen annually via an electrolyzer powered by EWEB's low-carbon electricity supplies. The hydrogen is planned to be blended at 5% into existing natural gas supplies and delivered to approximately 2,500 EWEB customers via NW Natural's pipeline infrastructure. This clean energy innovation project is expected to reduce carbon emissions by approximately 200 MTCO₂(e) annually over 20 years of service, while providing hands-on experience in the generation and distribution of low-carbon energy sources across increasingly interdependent gas and electric grids.

HyReady

The transition to clean and renewable hydrogen will require broad support and investments in best practices and science-based research. We're collaborating with like-minded businesses, organizations and public utility districts to advance the development of clean and renewable hydrogen. We're part of the Zero Carbon Hydrogen Coalition, and in 2020 we joined [HyReady](#), a worldwide collaboration on hydrogen, which is focused on creating guidelines and best practices for natural gas distribution companies blending hydrogen into their distribution systems. We are also partnering with other North American utilities to begin mapping out the technical tests we need to do at different blending percentages for hydrogen.

*Clean hydrogen is defined in the federal Inflation Reduction Act as having an emissions profile of 4kgCO₂e/kgH₂ or less.



NW Natural technician testing blended hydrogen gas at NW Natural's Sherwood facility

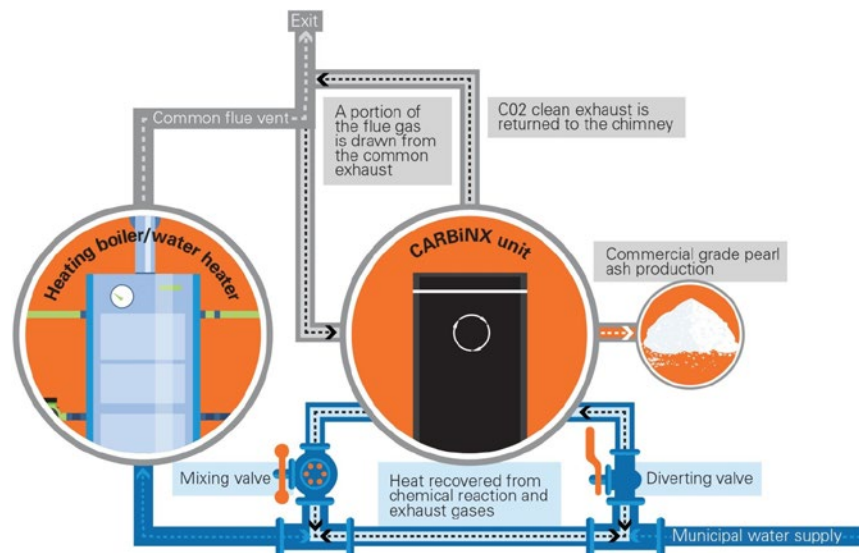
Promoting clean hydrogen to take decarbonization beyond the grid

NW Natural is a founding member of the [Renewable Hydrogen Alliance](#), a cross-industry coalition that advocates for using surplus renewable electricity to create hydrogen as a critical step to reducing dependence on fossil fuels. The alliance began after NW Natural hired Flink Energy Consulting in 2018 to write a report on the electrolyzer technology that uses electricity to break water into hydrogen and oxygen. In researching the report, Flink discovered that significant deployments in Europe had dropped the cost of electrolyzers precipitously in just a few years—news that appeared to be largely unknown among utilities, renewable developers, regulators, and environmental advocates in North America. As a result, Flink was committed to promoting the industry and formed the Renewable Hydrogen Alliance with NW Natural and four other founders.

The alliance has successfully backed legislation and policies in Oregon and Washington to advance the development and use of renewable hydrogen.

Carbon Capture

Carbon capture, use and storage (CCUS) is an [important emissions-reduction strategy](#) that involves capturing CO₂ and storing it underground or converting it to other substances. NW Natural is working with some of our biggest commercial customers on a program to pilot carbon capture equipment for commercial buildings. The CARBiNX equipment is designed to be fitted to existing gas-powered furnaces and boilers to reduce both energy use and greenhouse gas emissions. Carbon dioxide in the exhaust from the gas heating appliance is captured and converted to potassium carbonate, which is blended into soap products. The soap can be a value stream for customers to get a return on investment in a relatively short time. Through carbon capture and increased energy efficiency, each unit has the potential to reduce CO₂ emissions nearly 18,000 pounds annually. CARBiNX equipment has been installed in a variety of facilities in Canada, and several other direct capture technologies are approaching commercialization. We expect adoption rates to grow.



The Gas System Delivers What We Need for a Clean Energy Future

Leveraging our existing natural gas system in new ways is our priority. We are seeking paths to a renewable energy future with long-term dependability, resilience and affordability.

A coordinated energy system: Two systems are better

A diversified energy system is fundamentally stronger, more affordable, and more reliable—and diversification will be even more important as climate change and severe weather pose new risks to reliability and resiliency.

- The natural gas system in the Northwest meets 90% of energy needs for residential space and water heat customers on the coldest winter days. The system is critical for energy reliability in a region where the electric grid already faces serious [capacity limitations](#).²⁶
- NW Natural serves 74% percent of residential square footage in our service territory. Without the gas system, the electric system would need to be at least double in size to handle the additional load, that includes building new transmission and distribution lines.²⁷ That would come with a high price tag, and the investment in batteries to store renewable energy would drive the cost even higher.
- Without the gas system people would be required to replace their gas heating systems and other appliances, posing a barrier for low-income customers.

Electric utilities are the biggest users of natural gas in the U.S., and they rely on it to back up renewables that provide intermittent energy for power generation. For the foreseeable future, cities will be using natural gas for direct heating in homes and businesses and to generate electricity in power plants where energy is lost in electric generation process and through transmission to homes and businesses.

"An energy system with renewable electrons delivered over wires and renewable molecules delivered underground gives our communities a more effective hedge against potential risks posed by more extreme weather, and a more cost-effective way to reduce emissions."

— Kim Heiting, NW Natural senior vice president of operations

²⁶ Northwest Power and Conservation Council, 2019

²⁷ Independent consulting firm Energy and Environmental Economics (E3) study published in December 2018 and commissioned by NW Natural

Unmatched storage capacity

As the world transitions to decarbonized energy systems, long duration storage of renewable energy will be critical. Our natural gas infrastructure already provides a massive, long-term storage resource that makes it possible to deliver energy on demand to customers all year long. In the future, we envision the storage facilities we currently have in place could be used to store RNG or hydrogen. Leveraging that unique asset can make it possible to provide renewables at a significant cost advantage when compared to the battery storage that would be needed to decarbonize the electric grid.

NW Natural currently has 20 billion cubic feet of underground storage—equivalent to the capacity of a battery that would cost about \$2 trillion in today's market.²⁸

- The gas system in the U.S. can deliver 2.5 times the energy of hydrogeneration facilities²⁹ and gas storage provides about 1,500 times the energy delivered from current large-scale utility batteries,³⁰ which has significant cost implications for decarbonization strategies across the energy sector.
- A large power-to-gas plant can enable renewable energy storage in the gas system for less than half the cost per kilowatt hour of a battery storing the same energy.³¹

The gas system can also help protect customers from service interruptions as the demand for energy continues to grow and the electric distribution system relies more heavily on weather-dependent renewables like solar and wind that deliver an intermittent supply of energy.

²⁸ Prices based on NREL <https://www.nrel.gov/docs/fy19osti/73222.pdf>. That's equivalent to about 6 million megawatt hours of storage. To convert natural gas volumes to MWh for comparison, this figure uses a national average heat content of 1036 btu/cf and a direct energy conversion of 0.29307 MWh/MMBtu

²⁹ Source: [EIA Weekly Natural Gas Storage Report](#) - Withdrawals are calculated and aggregated from a weekly regional report. The figure for hydroelectric generation is the total net generation from hydroelectric facilities and does not distinguish between what can and cannot be stored.

³⁰ Source: [EIA 923 Form](#) - Hydroelectric and battery generation are pulled from generator level data identified with prime movers "HY" and "BA", respectively. Net generation is aggregated for hydroelectric generators and gross generation is aggregated for batteries.

³¹ [NREL Technical Report June 2019. PNNL-28866 Report. Caltech Report.](#)

³² 2021 American Gas Foundation/Guidehouse report, [Building a Resilient Energy Future](#)



Modernized dehydration equipment at our Mist gas storage facility to support reliability

Resilience

In the coming decades the U.S. energy system will need to be resilient to catastrophic events. The natural gas system's underground infrastructure is less vulnerable than above-ground systems to hurricanes, fires and other extreme events associated with climate change. This ability to withstand disruption will be needed for the transition to a carbon-neutral future, along with the flexible, large-scale storage the gas infrastructure provides. To ensure resilience, the energy system needs pipeline delivery infrastructure and storage capabilities meeting both short- and long-duration needs.³²

The resilience of the natural gas distribution system was essential during the February 2021 North American snow and ice storm unofficially known as Winter Storm Uri. The deadliest winter storm in nearly 30 years, Uri brought power outages to millions of households in the U.S., northern Mexico and southern Canada. The gas system's stored energy supplies provided significant support to the energy system. Feb. 14 and 15 set a national record for the largest natural gas demand for a two-day period, and there was sufficient delivery capacity to meet the unprecedented demand—thanks in large part to storage, which accounted for 38% of the gas delivered on Feb. 15. Events like these underscore that system resilience is gained through diversity and redundancy.

Our customers want choice—and renewables

Research conducted in NW Natural's service territory in 2021 by the independent opinion research firm DHM shows that Oregon and Southwest Washington citizens want the freedom to choose natural gas as an energy source for their homes and businesses. They want a diversified set of solutions to lower carbon emissions.

78%

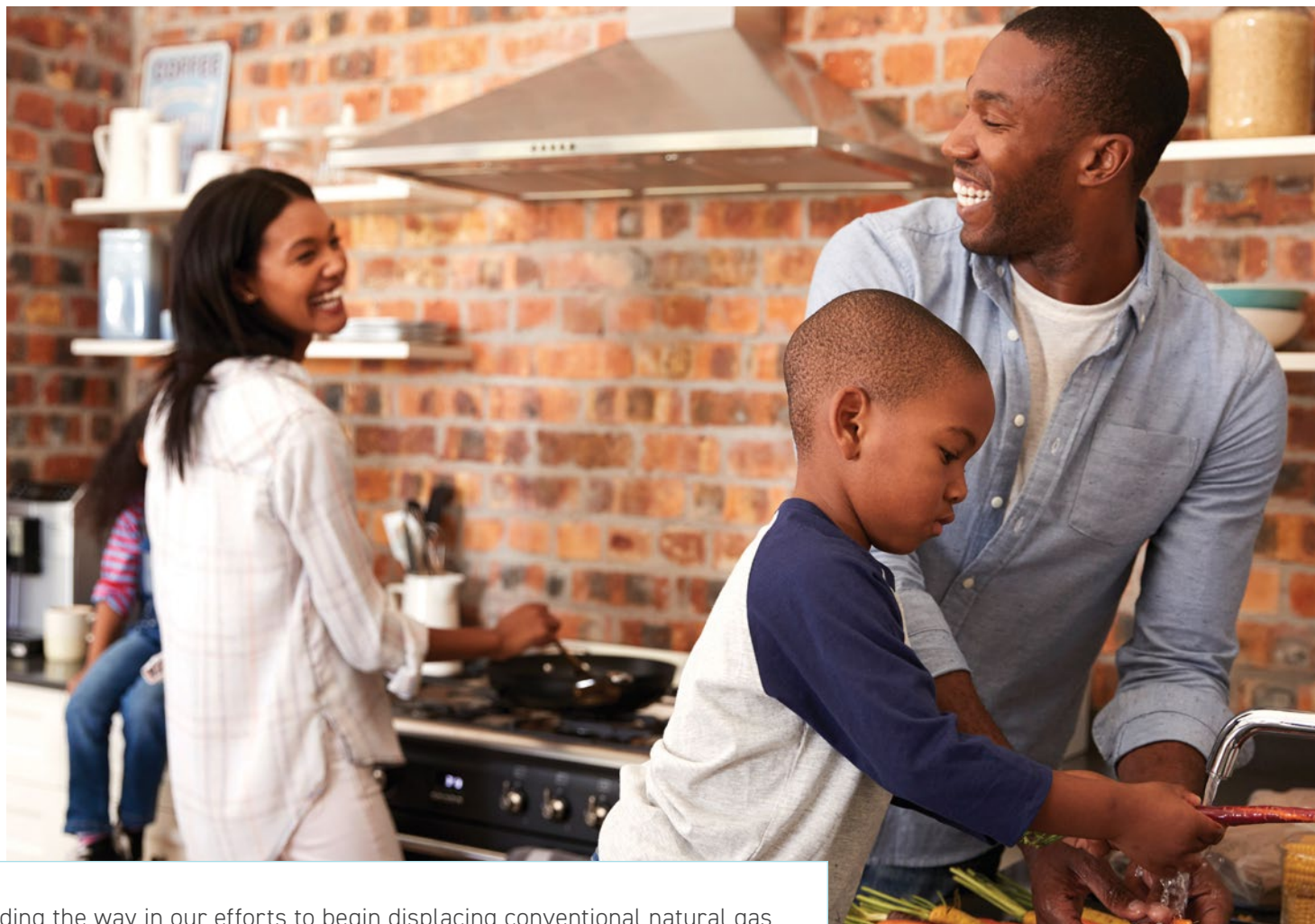
of voters value the natural gas system for its critical role in lowering emissions with both affordability and reliability as top priorities

78%

of voters support local government's efforts to encourage the use of renewable natural gas

73%

of voters agree that families and businesses should have a choice of energy options to meet their needs and not have those choices limited or mandated by their local government



"NW Natural has been leading the way in our efforts to begin displacing conventional natural gas with renewables, and this survey shows our communities strongly support this approach."

— Kim Heiting, NW Natural senior vice president of operations

Public Policy Support is Key

The effort to decarbonize the electric grid has depended on public policy that supports the development of renewable power sources, and policy is equally important in decarbonizing the gas system.

We're actively engaged advocating for thoughtful design of regulatory programs in Oregon and Washington state. While we're excited about early steps such as the passage of Oregon [SB 98](#), which creates a pathway for renewable natural gas, we're also working toward additional policy support to accelerate the development of renewable energy for the pipeline and make it affordable for gas customers.

Two decades ago, Congress began providing incentives to support solar and wind technologies until renewable sources of power generation could compete in the marketplace. NW Natural has joined other utilities in asking Congress to do the same thing for renewable natural gas and hydrogen.

At the federal level we hope to see large-scale investment in hydrogen R&D and deployment—as we're seeing in Europe, Australia, Asia and Canada—and production tax credits for RNG and hydrogen development, similar to the incentives that have had such a powerful impact for wind and solar. We're also looking for consideration and funding at both the state and federal level for biomass gasification as an important component of our nation's climate and wildfire mitigation strategy.



Where We Go from Here

NW Natural has initiated progress on multiple fronts in support of our vision to be a provider of carbon neutral energy.

We're pursuing solutions like gas heat pumps, efficient furnaces and water heaters that don't require electric ignition, hybrid systems and hydrogen-ready appliances and processing equipment. Our RNG procurement is ramping up following finalization of legislation and rulemaking in 2020. Through Dec. 2021, we've signed options or agreements for approximately 3% of our total current supply portfolio. NW Natural is also actively supporting the development of clean hydrogen in the Pacific Northwest.

We're Pleased with this Early Progress

In our pursuit of these advancements, we believe in the opportunity found in new ideas and the value of diverse perspectives. As we face decisions about the future of our energy system and our environment, it's critical that customers, communities, and other stakeholders take part in those discussions and decisions. We've shared a vision for how NW Natural intends to contribute to this common future.

Building on 163 years of success, we are looking forward —channeling the advantages of our modern infrastructure, our expertise, and our innovative spirit toward what's next: **Destination Zero.**

Environmental Stewardship is a Priority Within Our Organization

Our values are reflected in our operations, at our facilities and through policies and procedures that protect our environment as we serve customers.

LEED Core and Shell Gold Certified Headquarters

Our headquarters and operations center in Portland, Oregon, was built with environmental stewardship, seismic resiliency, and employees' health and wellness in mind and now informs how we operate this center. The building is LEED Core and Shell Gold certified, meeting the U.S. Green Building Council's rigorous standard for healthy and sustainable buildings. A range of features allow us to use less energy, conserve natural resources, minimize waste and support our strategic goals:

- **Energy Conservation Measures** – Through our high-efficiency building envelope (wall, roof and window assemblies), efficient heating, ventilation and air-conditioning system and controls, the use of 100% LED lighting and other measures, we estimate energy cost savings for the building's core and shell of approximately 28% annually, compared to a code-compliant building—more than 550,000 kilowatt hours and approximately 8,000 therms of natural gas.
- **Water Savings** – By installing efficient plumbing fixtures that use approximately 40% less water than code-compliant fixtures and planting native plants and a drip irrigation system, we've reduced water demand. In 2021, we used approximately 304,000 gallons of water.
- **Use of Green Building Materials** – Nearly 21% of the materials cost for the building core and shell construction came from recycled materials, reducing environmental impacts of extracting and processing virgin materials.
- **Convenient Downtown Location** – Our headquarters are conveniently located in downtown, within walking distance of transit stops for public bus lines, light rail and the streetcar. We provide secure and indoor bicycle parking, to further encourage sustainable transportation alternatives and reduce pollution from automobile use.
- **Onsite Recycling and Composting** –To limit waste, each floor is equipped with central recycling and compost stations.



CORE AND SHELL
GOLD CERTIFIED



Our building supports employees' health and wellness with an on-site wellness center, locker room and indoor bike parking, ample daylight in work areas and access to the outdoors and nature on our rooftop deck.

Clean Operations

- In 2021, NW Natural used approximately 13.4 megawatt hours of electricity and 4.8 million therms of natural gas in our own operations, and that energy was used with an emphasis on renewables.
- For our use of natural gas, we pay for carbon offsets through our Smart Energy program. In fact, in 2007 we became our own first Smart Energy customer and in 2020 and 2021 we offset 100% of the CO₂ associated with our natural gas heating.
- All our electricity is consumed from the grid. In 2021, NW Natural's largest electricity provider, Portland General Electric, derived 34.8% of the power it provided to retail customers from clean energy sources.
- We are part of Energy Trust of Oregon's [Strategic Energy Management](#) program, which helps us continually improve our own operations through equipment and building choices as well as employee behavior. In 2021, we expanded our involvement in the program to now include six enrolled facilities, up from three in 2020. We received the Strategic Energy Management award for "Attending Most Operations Calls" in 2021, and honorable mention for the "Most Engaged Energy Team."
- We are examining additional renewable electricity program options, and we expect to use increasing amounts of RNG in the future as we procure RNG under Oregon Senate Bill 98.

- We expanded our recycling programs in 2021 to include a personal protective equipment (PPE) recycling pilot and a plastic film recycling program at some NW Natural locations.
- We celebrated Earth Month 2021 with lunch and learns on sustainable landscapes, food justice, and climate and energy.
- Our facility in Sherwood, Oregon, received the Gold Level of the Washington County Green Business Leaders award, which recognizes a company's efforts in sustainable materials management, toxics reduction and social responsibility. As we're continuing to renovate and upgrade our facilities, we are inspired by LEED certification principles and focus on building resilient, energy-efficient structures that serve the needs of our customers, employees and the business.
- We strive to use the lowest carbon fuel available for our fleet vehicles, including renewable diesel and ethanol. In 2021, we began to purchase renewable natural gas to use in our CNG-powered fleet vehicles.



Environmental Policy and Leadership

Our board, executives, employees, and customers have been committed for decades to environmental stewardship, environmental protection and environmental performance. Our dedicated environmental management and sustainability team focuses daily on these issues, and reports to our VP of public affairs and sustainability, who reports directly to our CEO. The sustainability team provides direct monitoring of our environmental performance, reporting regularly on environmental issues and consulting with stakeholders on environmental issues. The Public Affairs and Environmental Policy Committee of the NW Natural Holdings and NW Natural boards of directors provides oversight of environmental matters.

The committee is guided by the company's environmental policy, which is reviewed and approved annually. It sets forth our commitment to:

- Environmental stewardship
- Reducing emissions, releases, and waste
- Using our natural resources and energy more efficiently
- Protecting and enhancing the quality of the natural environment
- Operating our business in an increasingly sustainable manner

Biodiversity, Land, Water, and Non-GHG Emissions Environmental Management

To help us use our precious resources wisely and efficiently, we have strong environmental programs that we diligently follow, and we strive for continual improvement.

Environmental management: With one of the most modern natural gas distribution systems in the country, in a well-established service territory, NW Natural performs a limited amount of new construction or other work that might disrupt local communities and the environment, including waterways. When work is required, our environmental management team strives to comply with all environmental regulations and leave the area the same as, or better than, it was when we began. We have a rigorous procedure manual that provides guidance on environmental matters, including EPA, Oregon Department of Environmental Quality (DEQ) and Washington Department of Ecology (DOE) regulations, and local jurisdictions' requirements. In certain instances, we take the strictest regulation within our jurisdictions and apply it to our entire service territory, which assists us in holding ourselves to a higher standard and facilitates consistent procedures across our operations.

Our internal Environmental Management System (EMS) addresses how our resource centers and field work sites are designed and operated. The procedure manual outlines how to design sites to prevent runoff and soil erosion, mitigate spills, obtain necessary Clean Water Act permits, and follow federal, state and local rules and regulations. These rules and regulations are primarily related to water quality, air quality, chemical handling, spill response, waste, cultural resources and threatened and endangered species.

In addition, the EMS is used as a guide to rigorously vet products, substances, activities and services to help us minimize our impact on the environment and use the safest and most environmentally responsible materials appropriate in our operations. We keep environmental records and provide environmental training for each project, and we offer awareness programs and trainings for new employees and refresher trainings for established employees. The EMS allows us to assign roles and responsibilities, as well as monitor activities for compliance with our permits. Our internal audit department performs periodic audits of our environmental programs and trainings, and external agencies such as EPA, DEQ and DOE also periodically audit our permitted facilities.

NW Natural has in-house environmental specialists that oversee all waste assessments. The environmental specialists participate on a chemical evaluation safety team to eliminate products that may produce potentially hazardous waste before it's generated, and periodically perform waste audits at our resource centers. Each specialist has over 10 years of experience managing waste stream assessments, has completed OSHA's 40-hour "hazwoper" certification, and attends annual waste management training seminars hosted by the Oregon Department of Environmental Quality. Our specialists implement several written environmental modules directed at managing commonly occurring waste streams and identifies opportunities for continued improvement.

Waste: We strive to reduce and recycle any byproducts of our process. We perform waste audits periodically at all our resource centers. We have implemented recycling programs in our operations and currently recycle 100% of the following items: batteries, waste oil from our fleet transportation, oil filters, antifreeze, scrap metal, and some types of plastic. NW Natural's recycling activities in 2021 eliminated over 77% of the total volume of total ordinary operating waste potentially requiring disposal. We follow EPA's rules and regulations for hazardous waste and report to the state government the amount of hazardous waste that is incinerated or sent to the landfill annually. In addition to materials recycled in 2021, NW Natural disposed of materials from ordinary operations as well as remedial site wastes. Of the ordinary operational waste that was disposed; 99% was nonhazardous waste (99% landfilled and 1% incinerated) and 1% was hazardous waste (12% landfilled and 88% incinerated).

Water: While our natural gas distribution operations are not water intensive, we strive to adhere to all Clean Water Act requirements, and we use limited water for hydrostatic testing and pipeline construction. We also repurpose water, use leading stormwater-management techniques and conduct regular audits at construction sites.

Air: We work to promote healthy air quality in several areas. We have invested in five CNG stations for our own fleet, which includes 185 vehicles. A station at our Sherwood Service Center is designed to provide backup service for our CNG customers. We strongly believe that natural gas as a transportation fuel provides significant economic and environmental benefits to our customers and to the overall community. For example, heavy-duty vehicles that run on compressed natural gas (CNG) rather than diesel emit 90% less nitrogen oxide (NOx) air pollutants and particulate matter. We also have an idling-reduction initiative aimed at reducing particulate emissions. Nongreenhouse gas emissions such as sulphur oxides (SOx), nitrogen oxides (NOx) and nonmethane volatile organic compounds (VOCs) are not significant to our operations.

Suppliers

In addition to our efforts to procure RNG and target gas purchases from more environmentally conscious producers described above, we have implemented a sustainable purchasing program covering various environmental, social and governance focus areas. We strive to procure goods and services in an increasingly sustainable manner and expect our suppliers to share our core value of environmental stewardship. Our Supplier Code of Ethics, which was developed in 2021, contains expectations for our suppliers related to environmental protection and sustainability. We also include language covering environmental stewardship and sustainability in our master contracts and agreements and launched a website specific to suppliers that allows them to better understand how we promote sustainable procurement efforts. We monitor key vendors' environmental record and have implemented a scorecard for certain vendors that addresses certain sustainability-related topics, including environmental performance. In addition, as part of our request for proposal (RFP) process, we give preference in bid evaluations to contractors who demonstrate their willingness to work together on finding ways to reduce environmental impacts, and we ask prospective suppliers to describe their current or planned practices for utilizing recycled products and minimizing waste.



FOR MORE INFORMATION SEE ALSO:

[Less We Can](#)

[Renewable Natural Gas](#)

[Vision 2050: Destination Zero](#)

[Public Affairs and Environmental Policy Committee](#)

[Environmental Policy](#)

Our Communities, Our Customers

WE GREW UP HERE

We've operated for over 160 years with a focus on serving our customers and investing in our communities. It's not just what we do, but how we do it.



Community & Customer Highlights



**CONTINUED TO RECEIVE
TOP-LEVEL CUSTOMER
SATISFACTION SCORES
IN J.D. POWER AND
ESCALENT STUDIES**

Bills remained low, about
↓ 30% LESS
than they were 15 years ago



Intensified our efforts
to help low-income
and COVID-affected
customers pay their
bills and stay warm

ISSUED A RECORD

**\$40
MILLION**

in bill credits to
Oregon customers
in 2022 related to
revenues in 2021



**DONATED
\$1.7 MILLION**
to local nonprofits and
heightened our focus
on organizations that
demonstrate a commit-
ment to diversity,
equity and inclusion

USED \$2.2 MILLION
to fund energy-efficiency programs
for low-income customers in Oregon



Resumed community outreach events in
summer 2021 with the launch of an engaging
new campaign to increase public awareness
of renewable natural gas



**Deployed our Catering & Events team to help nonprofit partners feed communities
in need when community events continued to be cancelled due to COVID**

Caring For Our Customers

We're a key employer and an essential service provider, and we look for ways to lead beyond our walls, with programs to assist our most vulnerable community members, robust support for local nonprofits, and substantial civic involvement.

Superior service and customer satisfaction

In 2021, our customer service center answered more than 700,000 calls, and our service technicians, along with other field resources, responded to about 200,000 requests. Our internal customer satisfaction survey continued to show high satisfaction ratings³³ among contacted customers:

	OVERALL	PHONE	SERVICE TECH
2021	83.5%	86.2%	96.2%
2020	77.1%	86.3%	92.9%

Top Two in J.D. Power Customer Satisfaction Study for 18 Years

Thanks to our customers, NW Natural scored second in the West for large utilities in the [2021 J.D. Power Gas Utility Residential Customer Satisfaction Study](#). We continue to be a customer favorite, placing in the top two for the 18th time in the West Large segment, which represents utilities serving 500,000 or more residential customers. The study measures residential customer satisfaction with natural gas utilities across six categories: safety and reliability; billing and payment; price; corporate citizenship; communications; and customer service.

"We're honored to receive this recognition from our customers who trust us to deliver safe, reliable and affordable energy, and provide excellent customer service. It is a testament to the hard work and dedication of our employees committed to serving our customers and communities with great care."

— David Anderson, NW Natural president and CEO

³³ Percentage of customers rated us either 9 or 10 on a 10-point scale, where 1 means poor and 10 excellent.

Customer Champion in Escalent study

NW Natural earned the designation of [Customer Champion](#) in the 2021 Syndicated Utility Trusted Brand & Customer Engagement™ Residential study by Escalent, placing third among all gas, electric and combo utilities in the West. The study goes beyond J.D. Power customer satisfaction scores to gauge the level to which customers want to do business with utility brands. It benchmarks and trends performance of the largest 140 utilities on the Engaged Customer Relationship (ECR) score, a composite index of service satisfaction, brand trust and product experience performance based on customer interviews.



A Great Customer Experience on Any Device

Excellent service includes investing in easy-to-use customer-facing technology. In October 2020, NW Natural launched a new website that is designed to give customers a seamless experience on any device. The redesign was developed with input from customers to create an experience tailored to their needs. With accessibility features such as keyboard navigation, larger font sizes, and transcripts available for videos, the site can also serve a more diverse set of customers.



In 2021, we saw an upsurge in adoption of self-service features available on our redesigned customer [website](#). Total online self-service transactions increased more than 36% over 2020, and online payments increased 35%, with over 5.4 million payments processed. To further promote online transactions and paperless billing to conserve resources, during Earth Month in April we promoted paperless billing. We also promote paperless billing to customers throughout the year via their bills, print and electronic newsletters, and more.

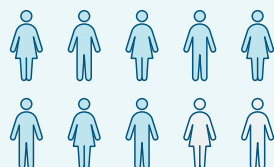
Homebuyers have a strong preference for natural gas

An independent [study](#) of energy preferences shows that homebuyers in NW Natural's service territory prefer natural gas to electricity for heating and cooking. They consider it a key feature when looking for their "ideal" single-family home, and they are willing to pay more for it.

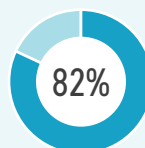
Our vision to deliver renewable molecules through our existing pipelines honors customer preferences for reliable, comfortable heat and the ease of a flame for cooking.



RESEARCH CONFIRMS A STRONG PREFERENCE FOR NATURAL GAS



8 IN 10 prospective homebuyers say natural gas is preferable to electricity for heating and cooking



82% would pay \$50,000 more for natural gas



83% choose a natural gas home

Natural gas is the most affordable utility bill our customers have

Reductions in bills in 2021 from 15 years ago



↓ **27%**

RESIDENTIAL BILLS

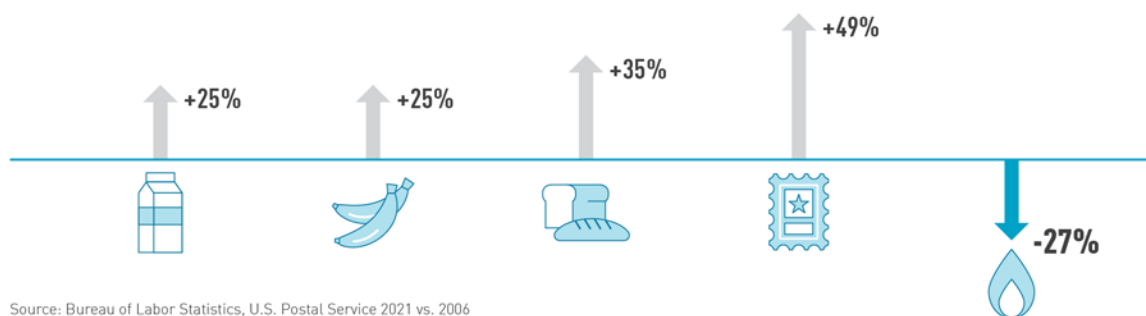


↓ **32%**

SMALL COMMERCIAL BILLS

GAS BILLS REMAIN AFFORDABLE

NW Natural customers paid nearly 30% less for their bills in 2021 than they did 15 years ago



Source: Bureau of Labor Statistics, U.S. Postal Service 2021 vs. 2006

In 2021, our residential and small-commercial customers paid about 30% less for natural gas than they did 15 years ago. NW Natural works to maintain affordability of natural gas utility bills by focusing on effective and efficient operations. Affordability also depends on the wider economic dynamics of our service territory and the cost of the natural gas commodity. The Portland metro area continues to be one of the most affordable cities on the West Coast. A typical monthly gas bill for a residential customer using 50 MMBtu or 100 MMBtu of gas delivered per year is \$45.74 and \$83.48, respectively.

During the first quarter of 2022, NW Natural customers in Oregon received a record \$40 million in bill credits. That's after Oregon customers received \$9 million of credits on their bills during the winter of 2021. The credits are a result of our efficient pipeline capacity management and effective use of the company's underground natural gas storage facility. The 2022 credits mark the 19th year NW Natural has issued credits to customers, resulting in a total \$212 million of savings passed on to Oregon customers.

RESIDENTIAL AVERAGE MONTHLY UTILITY BILLS

Natural Gas ³⁴	Electricity ³⁵		Water & Sewer ³⁶	Cell Phone ³⁷
Gas Space & Water Heating	Has Gas Space & Water Heating	All-Electric Home	\$112	\$147
\$57	\$69	\$150		
\$126				

³⁴ Natural gas bill data for NW Natural customers from 11/1/20 – 10/31/21 using normal weather assumptions

³⁵ Electric bill information uses rates for 2021 in NW Natural's service territory and data obtained from 2020 Oregon Public Utility Commission Stat Book (latest data available) and other regional sources for usage information

³⁶ Water and wastewater bill is from the Bluefield Insight Report: U.S. Municipal Water & Wastewater Utility Rate Index, 2021 (published in August 2021). Average Oregon rates could differ from this.

³⁷ Cell phone bill data is from J.D. Power's 2021 U.S. Wireless Purchase Experience Full-Service Performance Study

NW NATURAL GAS UTILITY STATS

Sector	Customers (as of 12/31/2021)	Gas Delivered (During 2021)		Natural Gas Rate (Weighted Average Rates from 11/1/20 – 10/31/21)	
		THERMS	MMBtu	VARIABLE RATE PER THERM	FIXED RATE PER MONTH
Residential	715,958	445,550,116	44,555,012	\$0.91	\$8
Commercial	68,864	257,503,592	25,750,359	\$0.80	\$24
Industrial	762	90,848,827	9,084,883	\$0.61	\$244
Transportation	313	390,871,096	39,087,110	\$0.11	\$889
TOTAL	785,897	1,184,773,631	118,477,364		

Caring For Our Communities

We're investing time and resources to benefit the communities we live in and serve. Our customers, our neighbors, our families and friends are key stakeholders in our business. Community matters are overseen by our Public Affairs and Environmental Policy Committee of our board of directors. Our VP of public affairs and sustainability is the NW Natural executive tasked with primary responsibility for community and government affairs and community involvement.

Stakeholder Engagement

We value our community stakeholders, and we actively seek a broad range of perspectives in our decision-making processes. Our senior management and board of directors use feedback received through our various outreach activities to help inform business strategy and decisions. Our community of stakeholders starts with our employees and extends to our customers, business partners, suppliers, organized labor unions, shareholders, lenders, financial analysts, regulators, government officials, community leaders, the media and nonprofits and other organizations. Our Human Rights Policy sets forth our public commitment to work to engage with stakeholders where appropriate to better enable us to listen to, learn from, collaborate with and incorporate the views of stakeholders into our business.

As a regulated utility, we remain transparent through regular public meetings, workshops and proceedings before the public utility commissions in the states where we do business. Approximately every two years, we develop our [integrated resource plan](#) (IRP), which describes how we plan to meet our customers' energy

needs now and in the future while working to help the region achieve important climate goals. The IRP is developed through a process open to the public, informed by feedback, reviewed by a diverse set of interested parties, and ultimately filed with the public utility commissions that regulate our business.

Service ethic is one of our core values, and one way we foster this value is by engaging regularly with customers and community members through satisfaction and opinion surveys and our website, newsletter and social media channels. Our government affairs team regularly solicits feedback from governments, legislators, nonprofit organizations and community members on important issues, trends and policies so we can be responsive to the communities we serve. We also engage with our communities through partnership, programs and philanthropic support of nonprofit organizations that provide essential services. In 2021, continued community and customer needs associated with the pandemic resulted in additional direct engagement with nonprofits serving those most vulnerable.

We aim to be the employer of choice and regularly engage with employees through a wide variety of channels such as internal and external websites, meetings and events, communications and surveys, including our annual engagement survey that is designed to enable company leaders to gather valuable feedback and guidance from

employees. In 2021, we also engaged more frequently via “pulse” surveys and other means in order to attend to employee concerns related to COVID-19, remote work and NW Natural’s return to office plans. We have a hotline, maintained by a third party, available for our employees, our communities or anyone else to anonymously raise concerns.

NOTABLE ENGAGEMENTS IN 2021

- Conducted residential customer surveys in an online format for the first full year, allowing us to gain feedback from more than 9,000 customers, compared to 1,800 in 2019, when customer surveys were conducted via telephone, and 3,650 in 2020, when customer surveys moved online during the year
- Participated in ongoing policy, renewables project and climate action planning discussions at the federal, state and local level, and worked with elected officials, community leaders and nongovernmental organizations to share our low carbon pathway goals and pipeline decarbonization strategies
- Launched an online customer survey and digital platform to engage with customers on our Low Carbon Pathway. Through this process, customers who have a greater interest in these issues can receive updates from the company and are provided with more opportunities to engage with NW Natural and with policymakers as part of an ongoing dialogue and feedback loop
- Created and staffed two positions focused on community engagement and partnership to continue to improve participation in low income and community serving programs and to increase responsiveness to complex needs of frontline communities
- Continued funding and enhanced community outreach on arrearage management resources, including partnering with community organizations to reach populations experiencing hardship during COVID-19
- Developed partnerships with local Community Action Agencies to increase awareness of low-income assistance and weatherization resources
- Resumed in-person community event engagement on a limited basis with COVID-19 protocols in place, attending 36 events and directly engaging with over 12,000 individuals on topics ranging from natural gas safety to renewable energy education
- Established a framework for a Community and Equity Advisory Group, which is expected to be launched in 2022, to better incorporate underrepresented voices into our feedback channels, processes and programs
- Launched a website specific to vendors in furtherance of our efforts to engage with diverse suppliers and promote sustainable procurement
- Conducted a survey of NW Natural headquarters employees on returning to the office, which informed the development of NW Natural’s flexible workplan



Bill Payment Assistance

As a partner in the communities we serve, we care deeply about equity, and we have multiple [programs](#) to financially assist our most vulnerable community members. More than \$4.5 million was disbursed to 12,488 households in need during the 2021 program year—the largest distribution in a decade.

As the pandemic took a financial toll on many households in 2021, we intensified our efforts to help low-income and COVID-affected customers pay their bills and stay warm. Our focus was on assisting customers who fell behind in making payments during the 18 months we suspended our normal disconnection practices to help the community through the pandemic and prevent disconnections. We provided flexible payment arrangements and offered new options for our customers.

- We introduced an Arrearage Management Program (AMP) in Oregon for our low-income residential customers. A COVID-19 Assistance Program (CAP) was also introduced in Washington that offered grants for low-income residential customers in need. NW Natural provided up to 1% of our 2020 retail revenues to fund these programs and help customers reduce or eliminate past-due balances and avoid disconnection.
- We doubled the amount of time for customers to make payments through our Time Payment Agreement program (TPA) for Oregon, to 24 months.
- We launched a comprehensive outreach program to inform customers in need about options for bill assistance. In addition to working with organizations that assist low-income and elderly customers, we did four extensive outbound calling campaigns to proactively reach customers, and we created communication materials in multiple languages to reach diverse communities.
- We made changes to our business processes, adopting new practices that encourage openness and flexibility in our interactions with customers.
- We provided bill forgiveness for customers whose homes or businesses were destroyed by wildfires.

As a result of our efforts and changes to our practices, we saw a reduction in the number of customers disconnected for nonpayment after we resumed normal business processes in August 2021. In 2021, we had a 0.36% disconnection rate for residential customers, compared to a 0.5% rate in early 2020. For 2021, 57% of customers were reconnected within 20 days.



PROGRAMS TO ASSIST CUSTOMERS

- Suspension of disconnections during extreme winter weather events, prolonged periods of extreme cold, poor air quality, the winter holidays, and wildfires
- Arrearage Management Program (AMP) in Oregon that provides grants to help residential customers reduce their balance and avoid disconnection
- COVID-19 Assistance Program (CAP) in Washington that provides grants to help low-income customers in need reduce their past-due balances and avoid disconnection
- Time Payment Agreements (TPAs) that allow low-income customers in need pay a portion of their bill in installments for up to 24 months in Oregon to avoid disconnection
- Energy assistance programs that provide funding to our low-income customers
- Installment payment plans
- Medical Certificate exemptions and TPAs for customers with medical conditions

Gas Assistance Program

In addition to amounts provided by the company, customers and shareholders contributed \$163,000 to NW Natural's [Gas Assistance Program](#) (GAP) in 2021 to help the most vulnerable low-income families and seniors in our communities cover heating costs. Since GAP began in 1982, it has raised more than \$6.5 million for community action agencies to distribute directly to those in need. NW Natural covers the program's administrative costs so 100% of the funds raised can be donated. GAP supplements federal and state assistance programs.

Low-Income Energy-Efficiency Programs

For many customers, upgrading to energy-efficient equipment is too costly. The Oregon and Washington Low-Income Energy-Efficiency Programs paid for by public purpose charges help income-qualified customers weatherize and upgrade to high-efficiency equipment. Households earning less than 200% of the federal poverty level can receive assistance at no cost. Improvements include caulking and sealing, insulation, window upgrades and furnace tuneups or replacements.

Starting in 2020, NW Natural added \$1.7 million each year to the energy-efficiency funds dedicated to low-income customers in Oregon and now provides \$4.8 million total each plan year. Funding goes toward weatherization projects and deeper energy-efficiency upgrades, reaching additional low-income households and supporting the development of new programs each year. The expansion to reach more households faster is made possible by establishing new partnerships with affordable-housing agencies, serving multifamily properties in addition to single-family homes, and allowing low-income customers to access Energy Trust of Oregon efficiency incentives.

We spent \$2.2 million of those funds on low-income projects in Oregon last year as the impacts of COVID continued to disrupt program operations. The remainder of the funds collected are expected to be used in 2022 to support our community action partners and promote NW Natural's Open Solicitation Program (OSP), which extends support to tenant buildings that do not fit into the standard low-income weatherization program.

Helping Homes for Good

Homes for Good in Eugene, Oregon, serves as a hub for affordable housing and owns over 1,000 low-income units it operates on a limited maintenance budget. In 2021, NW Natural worked on a plan to further support weatherization for this housing group and in 2022, NW Natural took action and was able to put dollars to work helping income-qualified homeowners and renters improve their quality of life and reduce energy use in their homes with services and upgrades such as duct sealing, heating-equipment repairs, insulation, improved ventilation, and health and safety repairs.

"We are beyond grateful for our partnership with NW Natural."

— Ela Kubok, Homes for Good communication director

Not to be used for investment purposes—see NW Natural and NW Natural Holdings most recent Form 10-Ks as updated by the most recent quarterly and periodic reports for information relevant to investment decisions.

2021 ENERGY-EFFICIENCY PROJECTS EQUAL SAVINGS FOR LOW-INCOME CUSTOMERS



341 OREGON DWELLINGS

SAVING OVER 60,000 THERMS OR 6,000 MMBTU



11 WASHINGTON HOMES

SAVING ABOUT 3,500 THERMS OR 350 MMBTU



20% REDUCTION

AVERAGE ANNUAL GAS USAGE REDUCTION



Charitable Donations

NW Natural gave \$1.7 million to local nonprofits in 2021 through our shareholder-funded corporate philanthropy fund. These funds go to more than 200 organizations and focus on the needs and resiliency of children and families at risk, with additional support for education and health; diversity, equity and inclusion; environmental stewardship; and arts and culture. NW Natural increased contributions to support families and children at risk in 2021 in response to the pandemic’s impacts on housing and family stability. Donations in that category alone totaled more than \$950,000.

Diversity, equity and inclusion (DE&I) guide our priorities for giving, and we heightened that focus in 2021. We’re committed to working with the community to improve outcomes for people who face barriers based on racial, social, economic and geographic inequalities. We prioritize requests from organizations that demonstrate actions, programming and practices that align with a commitment to DE&I principles.

Spirit of Giving

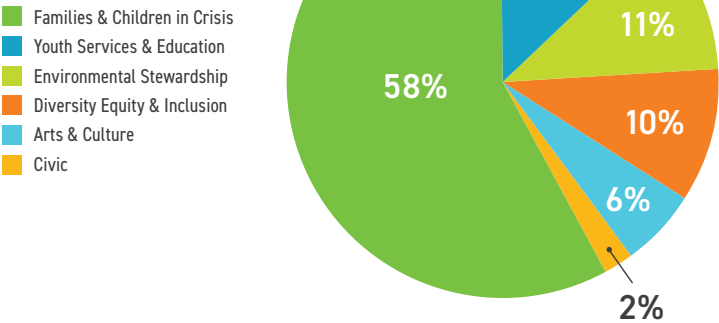
Responding to the great needs they continued to see in 2021, employees gave generously to their favorite local nonprofits through the company’s annual Spirit of Giving campaign. Together with a 100% company match from the shareholder Corporate Philanthropy Fund, employees and retirees contributed nearly \$280,000 to local charities.

Top 10 Employee-Supported Nonprofits in 2021

BASED ON THE NUMBER OF EMPLOYEE CONTRIBUTIONS:

- | | |
|---------------------------------------|--|
| 1. Portland Homeless Family Solutions | 6. Planned Parenthood of the Columbia Willamette |
| 2. Oregon Food Bank | 7. Meals on Wheels |
| 3. Oregon Humane Society | 8. Oregon Community Warehouse |
| 4. CASA for Children | 9. Black United Fund of Oregon |
| 5. Janus Youth Programs | 10. A Village for One / Oregon Public Broadcasting / United Way of the Columbia-Willamette |

2021 CORPORATE CONTRIBUTIONS BY CATEGORY



Dollars for Doers

Through our Dollars for Doers program, NW Natural makes financial contributions to the nonprofit organizations employees support with their time. The program, funded with shareholder dollars through the corporate philanthropy fund, is one of the ways NW Natural supports our culture of caring and the good work employees do in the community.



Watch a video about Dollars for Doers

26	Number of 2021 Dollars for Doers grants
2,640	Estimated Dollars for Doers volunteer hours in 2021
9.2	Average number of years Dollars for Doers volunteers have been engaged with their organizations

Focusing on Safety with our Communities



NW Natural features safety messages, like call 811 before you dig, at local community events



Living NW Natural's core value of caring

John Budiao, NW Natural's 2021 Volunteer of the Year, is a Marine veteran committed to saving veterans' lives. The suicide rate for veterans in Oregon is significantly higher than the national rate, and Budiao created Operation Spartan Flags to reduce suicide and the effects of PTSD. Veterans come together to learn a craft through creating flag-themed products from salvaged wood, but Budiao notes that it's more about support, healing and connecting with others who have experienced the trauma of war. Budiao himself was deployed to hot spots all over East Asia and the Middle East while he was in the Marines. "I made a pact with myself that if I made it back, I would do whatever I needed to help young men know that their lives are worthwhile," he said. Since joining NW Natural in 2003, Budiao has served in the U.S. Air Force Reserves and the Coast Guard. Now a communications and controls technician, he appreciates the company's flexibility in allowing him time off to meet his military commitments.



Watch a video about John Budiao
and Operation Spartan Flags

Programs of Focus

Through Programs of Focus, NW Natural is giving a total of a half million dollars over three years (2020 - 2022) to five local organizations that support children and families at risk. The funding is for unrestricted operational support and in addition NW Natural provides in-kind resources and volunteer support from NW Natural's employees. Organizations are selected through a competitive process by a selection committee of NW Natural employees from across the company.



A Village for One empowers each member of the community to unite with others to heal the impact of commercial sexual exploitation on our youth and our community.



Community Warehouse is the only furniture bank serving the greater Portland area. Its mission is to provide essential household furnishings to neighbors in need.



Bonneville Environmental Foundation's "Clean Energy. Bright Futures" is a national K-12 education program that supports educator leadership and seeks to illuminate pathways to clean energy careers for all students.



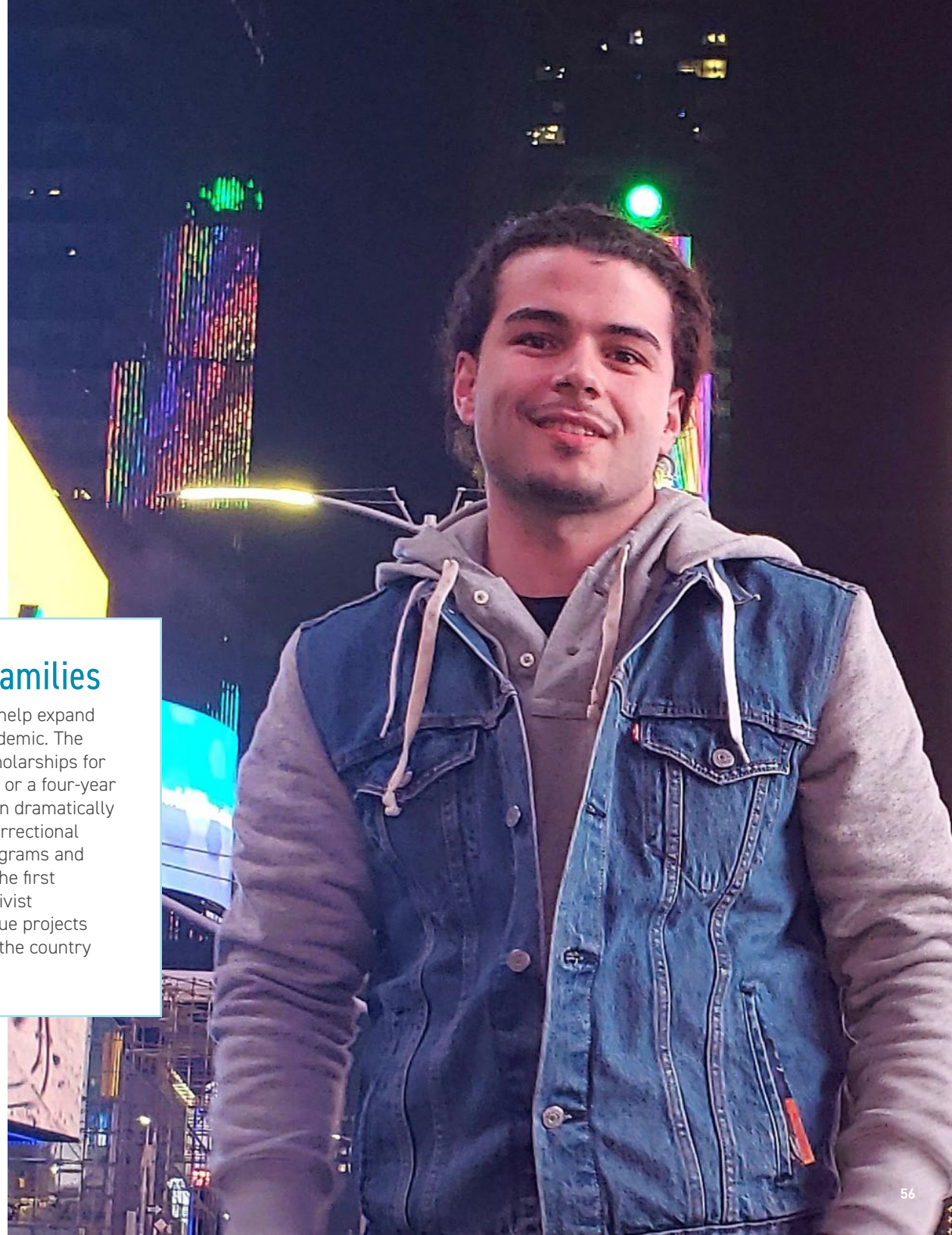
Portland Homeless Family Solutions empowers homeless families with children to get into housing and stay long term.



Janus Youth Programs serves at-risk youth and their families, providing more than 40 programs that provide opportunities for 6,000 children every year at critical junctures of their lives. Over half of those served are people of color.

Supporting at-risk youth and their families

Janus Youth Programs has used Programs of Focus funds to help expand programs for housing and other critical needs during the pandemic. The funds have also helped launch new programs and provide scholarships for Janus youth to enroll in technical training, community college or a four-year college. A young man named Bobby exemplifies how Janus can dramatically change lives. Bobby spent six years at the MacLaren Youth Correctional Facility in Oregon, where he participated in various Janus programs and received a scholarship to attend college. In 2021, Bobby was the first incarcerated youth to be awarded the Soros Justice Youth Activist Fellowship, which supports outstanding young people to pursue projects focused on the U.S. criminal justice system. Today, he travels the country speaking about juvenile justice reform.



Community Events

NW Natural's blue tents and canopies have long been a familiar sight at local gatherings, from cultural fairs and outdoor concerts to events that feed people experiencing homelessness. The tents were folded in 2020 because of the pandemic, and in summer 2021 they started popping up again.

With events suspended, NW Natural's catering & events team came out to feed people in need

When COVID caused the cancellation of events throughout the community, NW Natural's catering & events team brought their time and culinary expertise to help our nonprofit partners feed communities in need—sometimes even on weekends. From delivering hot meals and tents for an outdoor Homeless Family Solutions event, to providing lunch supplies for homeless youth, the team demonstrated NW Natural's core value of caring.



"NW Natural's community outreach and hospitality departments teamed up to bring joy to community partners by delivering free lunches to our residents and staff. Having a special treat brought onsite meant a lot to everyone."

— Ashley Amato, events & donor relations officer at NW Natural's long-time nonprofit partner, [LifeWorks NW](#)

Political Contributions

NW Natural makes campaign contributions to state and local candidates and political committees and caucuses, as allowed by law. Our [Code of Ethics](#) sets forth our expectations regarding the use of company funds for political purposes. We also maintain memberships in various business and trade associations that advocate on public policy. In 2021 we made campaign contributions and had lobbying expenditures totaling approximately \$579,000.³⁸



FOR MORE INFORMATION SEE ALSO:

[Supporting our Community](#)

[Bill Assistance Programs](#)

³⁸ Calculated using Internal Revenue Service guidance

Employees

We owe our success to the dedication of our employees, and we're committed to supporting, engaging and empowering them in a work environment where they can thrive and grow.



Employee Highlights



Earned a spot in the 2021 Top Workplaces from The Oregonian/Oregon Live in the large employers category



100%

of full-time employees eligible for medical, dental, paid time off and other benefits and employees that work more than 20 hours are also eligible for certain benefits



Growth and development opportunities include mentoring, leadership training and tuition support for undergraduate and graduate degree programs



EMPLOYEE-LED GROUPS

drive significant employee engagement around issues important to their co-workers, customers and our communities

91%

OF NW NATURAL
EMPLOYEES DESCRIBE
THEMSELVES AS ENGAGED

(2021 employee satisfaction survey)



Revised NW Natural policies in 2021 to implement a flexible hybrid work model that aims to accommodate employees' needs and working styles

Our employees bring their best to work every day, and our imperative is to cultivate an ethical workplace that compensates workers fairly, fosters well-being, engenders trust, and promotes growth.

"I'm incredibly proud of the steadfast way our employees prioritize our customers every day, overcoming challenges to deliver essential services safely, reliably and with care."

— David Anderson, NW Natural president and CEO

Wilhelmina Proby, long-time March of Dimes volunteer, has chaired the March for Babies since 2019.

1,173
Number of employees

3.86%
Retirement rate

100%
of full-time employees eligible for health insurance, PTO and other benefits







3.17%
Voluntary turnover (nonretirement) rate

46
Average age of employees

11
Average years of employment

Employee Benefits

NW Natural strives to offer competitive total compensation packages to attract employees and meet the needs of our workforce. We continuously look for ways to enhance employees' physical, psychological and financial well-being, and this is reflected in the programs we offer to meet the needs of employees and help them care for their families. These benefits are outlined below:³⁹

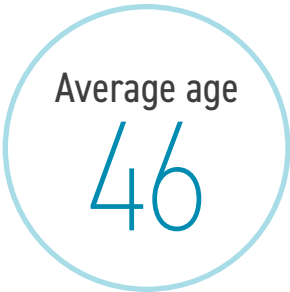
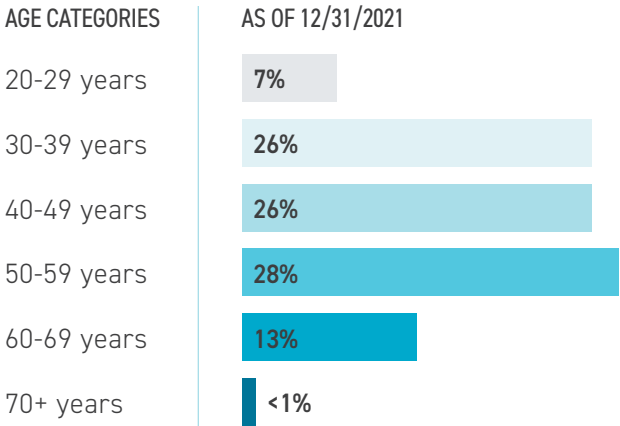
 Healthcare & Insurance	 Wellness	 Financial	 Work-Life Balance	 Culture & Community	 Employee Recognition & Discounts
Medical	Health screenings	401(k)	Paid time off (PTO)	Employee resource groups	Formal employee-recognition program
Dental	Flu shots	Enhanced 401(k) for employees not in pension plan	Paid holidays and floating holidays	Connecting employees with volunteer opportunities and providing recognition and financial support for volunteer work	Recognition of years of service (every five years)
Vision	Activity rewards program		Flexible and remote work arrangements, based on employees' needs and working styles		20% off natural gas service
Flexible Spending Accounts	Tobacco cessation	Financial education	Employee assistance program	Sustainability committee	Free public transit pass (company headquarters) and carpooling support programs
	Weight loss program	Employee Stock Purchase Plan			
Health Savings Account	Wellness Advisory Committee	Pension for employees hired before January 1, 2007 for nonunion and January 1, 2010 for union employees	Education assistance	Diversity, equity & inclusion committee	Discounts on natural gas appliances and equipment at the NW Natural Appliance Center
Life Insurance	Lactation & quiet rooms (company headquarters)		Paid parental leave	Employee charitable giving with company match	
Short-Term and Long-Term Disability	Free fitness centers (company headquarters & certain resource centers)		PTO Buy-back Program (union employees)	Paid bereavement leave	Casual attire dress code in the office
		Predictable scheduling for hourly employees		Learning opportunities, including lunch & learns	Discounts on culture and entertainment

³⁹ Our package options vary depending on date of hire and whether the employee is full-time, part-time or a union member.

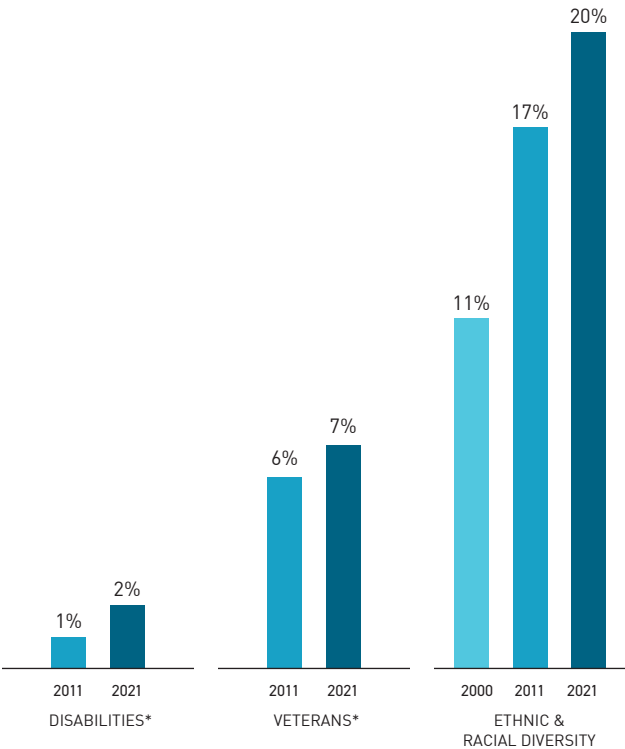
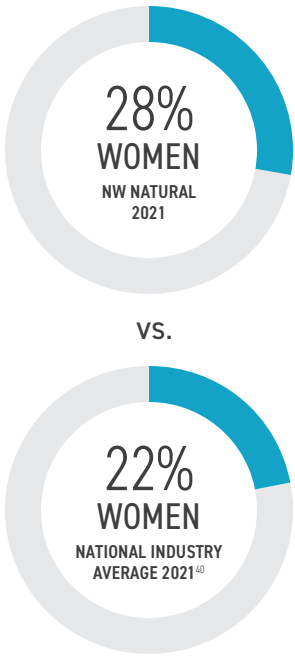
Workforce Demographics

We actively work to build a more diverse workforce that reflects the communities we serve. The company highly values every employee from every generation, background, and way of life. Their diverse skills, deep company knowledge and broad experience help us meet customers' needs. For more information see Diversity, Equity and Inclusion section.

A MULTIGENERATIONAL WORKFORCE



EMPLOYEE DEMOGRAPHICS



*Data is collected via voluntary employee disclosure beginning in 2015 and may be underreported.

⁴⁰ 2021 US Bureau of Labor Statistics – Annual Average for Women for Natural Gas Distribution Utilities

Pay equity

At NW Natural, we believe in economic equality, and we have multiple procedures to help us achieve pay equity across our workforce.

- We do a comprehensive pay analysis for each new hire.
- An external consultant annually reviews all our regular employees' pay data, including protected characteristics such as gender and race.
- We periodically review pay to provide adjustments when needed during an employee's tenure. These reviews include: internal and external equity reviews, promotions, reclassifications and reorganizations.
- We will continue to strive for equal pay for all our employees.

Over 90% of NW Natural employees described themselves as engaged, compared with just 34% of employees nationwide.



Employee Satisfaction

Every year we ask our employees how satisfied they are with their individual jobs, their work groups and the company overall. This feedback gives company leaders valuable guidance on ways to make NW Natural a more effective company and a better place to work.

More than 74% of employees completed the survey in 2021—in contrast to the average employee-survey response rate of 30-40% in U.S. companies. NW Natural donates up to \$1,250 to the Oregon Food Bank every year based on survey participation, and for more than a decade the company has contributed the maximum amount.

2021 EMPLOYEE SURVEY RESULTS

74%	Employees participated (surveys returned)
92%	Proud to work for NW Natural
91%	Engaged, committed, and enthusiastic about their work at NW Natural
87%	Feel like they belong at NW Natural

EMPLOYEES ALSO AGREED OR STRONGLY AGREED WITH THE FOLLOWING:

- In my work area, we operate with integrity and ethical conduct. (97%)
- We demonstrate safe work practices in our work area. (96%)
- We provide excellent service to our external customers. (96%)
- I understand the importance of my job to the success of NW Natural (96%)
- We engage with customers and the community in a way that respects and values diversity and inclusion. (95%)

NW Natural’s employee turnover rate, including retirements, was 9.5% in 2021, compared with 54% for trade, transportation and utilities nationwide

Named one of the top workplaces in 2021

Employees responses to a survey about workplace culture earned NW Natural a spot in the 2021 Top Workplaces awards. The Oregonian/Oregon Live announced 119 companies that earned recognition through its annual [Top Workplaces](#) awards for Oregon and Southwest Washington. NW Natural is one of 15 companies honored in the large employers category of organizations with 500 or more employees.

Employers were selected as Top Workplaces based on the results of an employee survey, which asked participants to rate their employers on aspects of workplace culture ranging from pay and benefits to company values, productivity and leadership. Employers that score high enough are recognized as Top Workplaces.

"I want to thank everyone who took time to complete the survey. The results reinforced that our employees feel a sense of belonging and opportunity at NW Natural, which we're working to nurture now more than ever. The award is something every employee can be proud of, and it's a designation that will help us attract candidates who value a strong workplace culture."

— Melinda Rogers, vice president and chief human resources and diversity officer



Encouraging time away for well-being

As the coronavirus continued to disrupt "normal" life in 2020 and 2021, many employees delayed taking vacation time. To ensure everyone gets away from work to rest, NW Natural encouraged employees to use their vacation time by year-end. Vacation is intended to support employee well-being and allow employees to gain perspective.

A work model that works for employees

NW Natural employees who made a swift transition to working from home during the pandemic have demonstrated tremendous resilience and self-motivation, remaining engaged and maintaining productivity without missing a beat. Last year, as we planned for the transition to a “new normal,” we asked them to give us their thoughts about what our workplace should look like going forward. In surveys and conversations, they said they preferred to continue working from home at least part of the week—and we listened. Based on their feedback, our officer team revised company policies in 2021 and implemented a flexible hybrid work model that doesn’t mandate any minimum days in the office on a company-wide basis. The revised policies aim to accommodate individual employees’ needs and working styles while meeting business and customer requirements.

Productive partnership with our union employees

More than half of NW Natural employees are represented by the Office and Professional Employees International Union Local 11. We work hard to maintain good relations through communication and collaboration with union employees and leaders. Working together, union leadership and NW Natural reached a mutually beneficial agreement that is in effect from December 2019 through May 2024. During calendar year 2021, NW Natural did not experience any work stoppages (strikes or lockouts) and had zero idle days for the year.

Growth and development

To help employees reach their full potential, NW Natural provides growth and development opportunities through programs designed to build skills and relationships. In 2021, the company offered many learning and development options including:

- **Mentoring program** – Creates opportunities for career growth by building relationships. Since the program began in 2006, more than 200 employees have participated. We developed a plan in 2021 to increase the program’s cultural relevance for racially and ethnically diverse employees.
- **Scholarships and Tuition** – Qualified employees are eligible for tuition support of up to \$5,250 per year for undergraduate and graduate degree programs. Employees have received nearly \$330,000 in assistance for higher education over the past six years.
- **Gas Class** – Our three-month internal class provides a big-picture understanding of the industry and how we operate, helps participants understand how they contribute to achieving our key goals, and identifies opportunities for career growth. The course returned in early 2021 in a flexible, remote format with no limit on class size.
- **Leadership and Employee Development** – Many employees attend internal and continuing education courses relevant to their areas of expertise, as well as ongoing management and leadership training through a variety of programs including: University of Idaho Energy Executive Course, Portland Business Alliance Leadership Portland program, AGA Executive Leadership Development Program, Willamette Utility Management Certificate Program, WEI Business Acumen for Emerging Leaders, Willamette Leadership for Attorneys in Business, Executive Development Institute (EDI) programs, Executive Forum Advanced Leadership program, AGA Next Level Leadership Women’s Program and Utility Finance for Non-Finance Professionals.
- **Access to comprehensive learning programs** – In 2021 employees were given full access to LinkedIn Learning’s massive collection of online skill-building courses taught by industry experts.

Workplace culture and community

NW Natural offers a multitude of ways for employees to pursue their interests and connect with their colleagues. In 2021, employees participated in a range of activities that strengthened and celebrated our work community.

EMPLOYEE RESOURCE GROUPS (ERGS) NW Natural’s Employee Resource Group program is an important initiative of NW Natural’s Diversity, Equity & Inclusion Council. ERGs recognize the diversity of NW Natural employees and contribute to a more equitable and inclusive workplace culture, creating opportunities for NW Natural employees to connect with each other around shared backgrounds, interests and experiences.

“Expressions in Black” – A new series sponsored by NW Natural and four other local sponsors featured Black Oregonians and their inspiring stories of excellence. The goal of “Expressions in Black” is to “reillustrate the image of the black citizen in Oregon,” said Rashad Floyd, the show’s director. See also the [Diversity, Equity & Inclusion](#) section for more detail.

Honoring the legacy of MLK – NW Natural invited employees to celebrate Martin Luther King, Jr. Day, honor Dr. King’s achievements, and reflect on how to continue the civil rights work to which he dedicated his life. MLK day was added as a paid-company holiday in 2021.



Billboard Rises Up – Since spring 2020, NW Natural has joined with Asian Americans and Pacific Islanders and their allies to call for an end to racism and violence toward Asians in the United States. The company provided in-kind support for a Rise Against Hate event in May 2021, and NW Natural's very own graphic designer Joyce Leong volunteered her time to design a logo and materials for Rise Against Hate Oregon.

Welcoming the New Year – Members of NW Natural's Asian American Network shared history, memories, and traditions related to the Chinese New Year, Tet, Losar, or Spring Festival. The focus of the holiday is always the same. It's about family, past, present and future.

Celebrating Black History Month - The month-long Black History Month celebration is the first company-wide event sponsored by NW Natural's African American Employee Resource Group, one the ERGs established to recognize the diversity of NW Natural employees and contribute to a more equitable and inclusive workplace culture. Each week during the month, the group featured a different theme—art and science, sports, history and civil rights, and politics—with a notable African American profiled on the intranet daily.

Women's History Month – NW Natural's Women's Network held a month-long celebration of the economic, cultural and political achievements of women, with a special focus on International Women's Day. Events included a photo contest with the theme "Choose to Challenge," a lunch and learn titled "From Challenge Comes Change," a campaign to donate to Dress for Success, and a daily feature from the Women's History Museum.

Honoring Asian American heritage – To celebrate Asian Pacific American Heritage Month in May, NW Natural's Asian America Network curated a lineup of virtual events, documentaries and articles that showcase the diversity, struggles and achievements of Asian Americans.

Picturing Pride – June 2021 was Pride Month and NW Natural's Rainbow Alliance celebrated the LGBTQIA+ community and encouraged employees to learn about the history of the gay rights movement. To celebrate, NW Natural's Rainbow Alliance hosted a drag queen bingo party, a "Beyond Stonewall" lunch and learn event, and a photo contest.

Paying Tribute on Memorial Day – To mark the Memorial Day holiday, NW Natural's Veterans Employee Resource Group invited members to share personal stories of friends and family members who lost their lives in military service.

Honoring Juneteenth - To honor the holiday, NW Natural's African American Employee Resource Group (AAERG) invited co-workers to learn more about the history of enslaved Africans through the New York Times 1619 Project and other resources.

"For many Americans, 2020 brought a new awareness since we witnessed social justice movements first hand. As a result, the AAERG felt that this year it was important to encourage education and celebration—and Juneteenth is an excellent opportunity to do that," said Willa Proby, who is AAERG co-chair and works in the Emergency Contact Center.

Indigenous People's Day – The holiday was the focus of the October "Be the Change Challenge" through NW Natural's Virgin Pulse program with employees watching a video, reading articles, listening to a podcast, and/or supporting a nonprofit related to Indigenous People.

Focus on LGBTQ History – During October, NW Natural's Rainbow Alliance celebrated LGBTQ+ History Month, reflecting on the accomplishments of lesbian, gay, bisexual, transgender and queer people—and those with other noncisgender and non-straight identities, represented by the "plus" sign. To shine a light on the accomplishments and diversity of the LGBTQ+ community, the Rainbow Alliance featured a series of profiles during the month.

Veterans Day Honored – To pay tribute, NW Natural's Veterans Employee Resource Group (VERG) invited members to reflect on and share the importance of the holiday. Then on Nov. 18, the group hosted a lunch and learn event with author and Air Force veteran Angel Pilato. In addition, the Virgin Pulse "Be the Change Challenge," sponsored by the Diversity, Equity and Inclusion Council, features content focused on veterans. NW Natural also added Veterans Day as a paid-company holiday in 2021.



PERSONAL RESILIENCE WEEK – To help employees better navigate the challenges of 2021, NW Natural's Organizational Effectiveness team hosted Personal Resilience Week. During the week, the team shared videos each day with simple skills and strategies employees could put into action right away. "These are challenging times, and we don't want employees to feel like they're alone," Ashley Huff NW Natural's Organizational Effectiveness consultant said. "We created the videos to share ways to deal with difficult emotions, which can compound if we don't manage them. We want to send the message that we're here to help you take good care of yourself."

STEP CHALLENGES – In 2021 NW Natural employees logged millions of steps during multiple step challenges as part of the company's voluntary wellness and healthy-habits program. Teams competed to rack up the most average daily steps and earn rewards points on the Virgin Pulse health and well-being platform. NW Natural teams joined with employees from 109 organizations around the world in the "Connecting for Good" challenge, in which Virgin Pulse donated \$10 to COVID relief for every million steps logged. Participants logged nearly 6 trillion steps globally, and NW Natural steppers contributed 23,478,496 steps.



Hispanic Heritage Month Celebration – Honoring the contributions and achievements of Hispanic and Latinx Americans, the four-week event helped NW Natural's Latinx employee resource group showcase the rich diversity of Latin culture through a video titled "Yo Soy," which featured NW Natural employees sharing a bit about their Hispanic and Latinx roots, inviting NW Natural employees to a local cultural celebration El Grito Portland 2021, and compiling a cookbook from Somos Unidos employee resource group members.

Earth Month

The employee-led Sustainability and Equity Engagement Committee (SEEC) organized a month-long series of virtual events, activities and online resources featuring a different theme each week.



ECOCHALLENGE – NW Natural was a title sponsor of the 2021 [People's Ecochallenge](#) event. Presented by NW Natural's Sustainability and Equity Engagement Committee and Diversity, Equity and Inclusion Council, the three-week event provided meaningful ways for employees to engage on environmental and social justice issues. The event included 37 participants from both the headquarters and field locations. Participants could create their own action cards to highlight actions specific to NW Natural operations. In 2021, NW Natural placed extra emphasis on environmental justice action track provided by Ecochallenge.

HOLIDAY GIFT DRIVE – NW Natural employees team up every year on a holiday gift drive in partnership with local nonprofits. In 2021 NW Natural's Community Affairs and the Women's Network supported SnowCap Community Charities, which provides food, clothing, advocacy and other services to those in need. Employees could shop virtually or shop in person and deliver items to SnowCap.

BIKE CHALLENGE – The first-ever NW Natural Bike Challenge, sponsored by the Sustainability and Equity Engagement Committee, encouraged employees to reduce their carbon footprint, connect with others and get some exercise. Participants logged a total of more than 1,500 miles.

IT'S BEEN A YEAR – Employees from around the company reflected back on adapting to another year of COVID-19 and shared their hopes for returning to a more normal work life.

"It was a year where we honed our abilities to work from home, continued to achieve the highest standards and stayed connected with our work groups and as a company. I appreciated getting to know my coworkers in a new way through video meetings—learning who has pets, kids, and significant others at home—which allowed us to open up to one another on a deeper level. We embraced diversity in each other and saw how we're all giving our best to make NW Natural a great place to work."

— Marsha Taylor, capital accounting lead

"I'm most proud that during this highly stressful time NW Natural employees responded, not by worrying about their own needs, but by consistently reaching out and caring for each other."

— Melinda Rogers, vice president and chief human resources and diversity officer



SUPPORTING EMPLOYEES DURING COVID-19 – Throughout the pandemic, NW Natural supported employees with special paid time off for COVID-19 illness, and expanded our leave share program (allowing employees to give each other their excess paid time off), payroll advancement policy, paid time off advancements, and new hire health insurance enrollments for nonunion employees. We also expanded our employee assistance program and held lunch and learn webinars related to mental health.

In the spring of 2021, to celebrate great progress on the path to overcoming COVID-19, NW Natural sponsored a confidential vaccine form where employees could report if they'd receive the vaccine and a Got My Shot photo contest with participants entered into a drawing for gift cards to local restaurants. Employees also shared their experiences scheduling or getting the vaccine. NW Natural also joined forces with another local utility to host a special vaccine clinic for utility employees in the Portland area. NW Natural offered paid time off to get a vaccine or to recover if there was a reaction to the vaccine.



FOR MORE INFORMATION SEE ALSO:
[Careers at NW Natural](#)

Diversity, Equity and Inclusion

NW Natural has a longstanding commitment to creating a diverse, inclusive culture that reflects and supports the communities we serve. We believe that excellence and innovation requires a focus on diversity, equity and inclusion of all our employees.

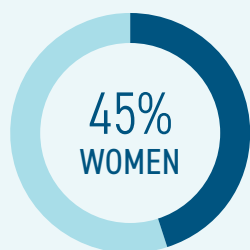


Diversity, Equity and Inclusion Highlights

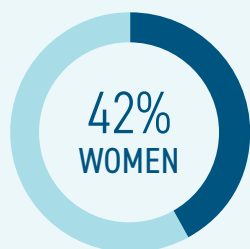


Actively building a workforce that reflects our communities—20% ethnic and racial diversity in 2021

NW NATURAL HOLDINGS
BOARD OF DIRECTORS⁴¹



NW NATURAL EXECUTIVES⁴¹



In 2021 the NW Natural Holdings' board elected a woman as chair, one of only 7% of publicly traded companies in the United States⁴²

Comprehensive diversity, equity and inclusion (DE&I) strategy overseen by our board of directors



MLK Day and Veterans Day added as paid-company holidays in 2021



Launched new procurement initiatives in 2021 to help us expand our work with diverse suppliers

Employee Resource Groups focused on diversity, equity and inclusion build awareness, create connections among employees, and provide company leaders with important feedback



⁴¹ As of January 1, 2022

⁴² According to the Women Business Collaborative April 2022 report

At NW Natural, we know all of us benefit when we amplify underrepresented voices, celebrate our differences and create an environment where everyone can contribute, thrive and prosper. We prioritize racial and gender equity in all aspects of our work, from our hiring and daily operations, to the way we interact with our customers and communities, to the biggest decisions we make as a business.

To accelerate our work in this area, in 2017 we hired an outside consultant to review our progress on diversity, equity and inclusion. We convened focus groups and created an assessment and set of recommendations for our executives. Incorporating this feedback, in 2019 we introduced a comprehensive new diversity, equity and inclusion strategy focused on three pillars: People, Partners and Customers & Community. The strategy is overseen by the Public Affairs and Environmental Policy Committee of our board of directors. We see the events of 2020 and 2021 and the growing movement for racial equity as opportunities to accelerate our work and serve as an active force for change.

NW Natural Gender 2021	NW Natural Holdings' Board	Executive Management	Mid & Other Management	All Employees
Women	45%	42%	30%	28%
Men	55%	58%	70%	72%
Decline to Respond	0%	0%	0%	<1%

Actively building a workforce that reflects our communities

Race/Ethnicity	NW Natural 2021	Oregon 2020 (Census Data)
American Indian or Alaska Native	2%	1%
Asian	5%	5%
Black or African American	4%	2%
Decline to Respond	1%	N/A
Hispanic or Latino	6%	13%
Native Hawaiian or Other Pacific Islander	1%	0%
Two or More Races	2%	4%
Undeclared	2%	N/A
White	77%	75%

Women hold 45% of NW Natural Holdings' board seats, and in 2021 the NW Natural Holdings' board elected a woman as chair. Nationally, women hold 27% of seats on the boards of publicly traded companies, and only 7% of publicly traded companies have a woman board chair.⁴²

DIVERSITY, EQUITY & INCLUSION STRATEGIC FOCUS



Diversity at NW Natural

We actively work to build a diverse workforce that reflects the communities we serve. Today, about 20% of our employees self-identify as racially or ethnically diverse—an 82% increase since 2000. NW Natural maintains an affirmative action plan for its three primary employee centers, and these programs have been in compliance with every federal audit since the first one in 2003. Diversity starts at the top, and we have expanded the number of women and racially or ethnically diverse individuals in leadership positions. Our officer team includes five women, and five members of our 11-member NW Natural Holdings board of directors are women and three identify as racially or ethnically diverse.



2021 DE&I highlights - People

Recruiting, promoting and retaining diverse talent, building inclusive teams, and creating a culture that embraces differences are at the core of our People strategy. We view this emphasis on empowering a diverse workforce as a solid business decision that makes our company stronger and more innovative. We have a diversity strategy for all levels in our organizations, including senior management. Our VP, human resources and chief diversity officer leads these efforts and reports directly to the CEO, because we believe a diverse, equitable and inclusive workplace is vital to our long-term success.

Our People strategy has two key components:

STRATEGY 1 - Fostering an inclusive and diverse culture within our existing employee population

STRATEGY 2 - Recruiting more diversity into NW Natural, focusing on women and historically underrepresented groups

PEOPLE STRATEGY 1: Foster an inclusive and diverse culture

- Launched a year-long “Be the Change” challenge to engage employees in DE&I activities
- Announced MLK Jr Day and Veterans Day as new company-paid holidays
- Hosted quarterly sessions with cross-industry DE&I councils and ERGs
- Invested in DE&I learning and development by providing all-employee access to LinkedIn Learning

In our 2021 employee engagement survey, 87% of respondents said they felt a strong sense of belonging, which is strongly correlated to successful diversity, equity and inclusion initiatives.

Year-long DE&I program encourages employees to “Be the Change”

In 2021, NW Natural introduced “Be The Change” Challenge, a new way for employees to learn and think about topics related to diversity, equity and inclusion. Each month, all employees were invited to engage with new curated content through the Virgin Pulse health and well-being platform. In addition, employee resource groups (ERGs) sponsored wide-ranging events to celebrate observances such as Black History Month, Indigenous Peoples Day, Asian Pacific American Heritage Month, Women’s History Month, Hispanic Heritage Month and Veterans Day. The challenge and ERG events were part of our ongoing initiative to create connections and make our employees visible to each other, even while working remotely.





Embracing differences and diverse perspectives

As a gay, bi-racial woman raised in a small Colorado town, Mickey Lee has a diverse background that informs her work as co-chair of NW Natural's Diversity, Equity & Inclusion Council. Lee, an energy consultant on NW Natural's Customer Acquisition team, is passionate about the DE&I Council's vision to create a company culture that values and honors differences so that everyone may thrive. Looking back on 2021, she is proud of the progress the company is making. In 2022 one of her goals is to involve more field employees in DE&I work and reflect their perspectives.

"I have seen a powerful intersection between the DE&I Council, employee resource groups, company leaders and employees. And it's rewarding to see important adjustments the company has made to hiring and purchasing practices, to our philanthropy decisions, and to recognizing Martin Luther King Jr. Day and Veterans Day, which are now official company holidays."

— Mickey Lee, NW Natural Diversity, Equity & Inclusion Council co-chair



NW Natural-sponsored series features inspiring stories of Black Oregonians

NW Natural was one of five sponsors of a locally produced documentary series, “[Expressions in Black](#),” that focuses on creative, successful Black Oregonians and their inspiring stories. The show’s creators sought to widen the lens through which the Black community is often viewed, and present “the side of the Black Experience that will inspire people to change their views and enlighten us all about real Black excellence.” Portland’s Heart & Hustle Productions created the series with a team that produces cutting edge video content for brands like NIKE, the NBA and Brand Jordan.

PEOPLE STRATEGY 2: RECRUIT MORE DIVERSITY INTO NW NATURAL

A significant focus in 2021 and going forward is to understand and increase awareness of internal systems and structures that could limit representation and equity for underrepresented employees. In 2021, we developed a comprehensive “Philosophy & Practice” approach that includes: implementing new recruitment and hiring strategies, strengthening our community partnerships to increase our pool of diverse candidates, providing anti-bias training for HR and hiring managers, and creating an inclusive onboarding process.

- Developed strategy to include at least one diverse candidate for each external hire
- Increased diversity of interview panels

In collaboration with NW Natural’s employee resource groups, we are revising our mentoring program to focus on career advancement for women and diverse employees to ensure it is culturally relevant.

To continue promoting diversity within our field workforce, in 2021 we resumed NW Natural’s innovative Construction Internship Program, which was on pause in 2020 due to the pandemic. The paid internship provides members of underserved populations with on-the-job training to develop the skills they need to begin a construction career at NW Natural. The program recruits candidates through public schools, online channels, social media and community organizations focused on diversity, equity and inclusion. Internships include practical work experience for up to nine months, and can lead to full-time employment. For the 2021 construction class, 66% of the candidates were offered positions at the end of the program.

- Developed plan to create a Construction Field Services internship program similar to our existing Construction Intern program
- Increased the diversity of construction team by 8% from 2018 to 2021, now 26% of our construction team is diverse (women or people from underrepresented communities). Our internship program is a major contributor to this effort. In 2021, all the construction interns were diverse or a military veteran
- Continued to build relationships with DE&I community partners ([National Association of Minority Contractors](#), [Oregon Tradeswomen](#) and [Constructing Hope](#))

“Sponsoring ‘Expressions in Black’ is a great opportunity to highlight success stories of Black people in Oregon. It is cutting-edge work, and we’re excited to help make it possible.”

— Melinda Rogers, vice president and chief human resources and diversity officer

Employees engaged in DE&I recruiting

- “Say Hey” virtual networking events sponsored by [Partners in Diversity](#) to welcome professionals of color who are new to Oregon and Southwest Washington. NW Natural is a founding member of Partners in Diversity, and our VP, chief human resources and diversity officer serves on the organization’s board.
- The [Urban League of Portland Job Fair](#), which focuses on providing job opportunities to African Americans.
- [Constructing Hope](#), which supports women and people of color in various industries.
- Participated in the Military Western Regional Virtual Career hosted by [Military X](#). The career fair is for active and retired personnel looking for jobs in the civilian world.
- Happy hours sponsored by [Portland Women in Tech](#), which helps empower women, nonbinary and underrepresented people to join and remain in the technology field.
- Used advertising platform Handshake, which shares NW Natural jobs with universities and their job boards, including colleges that are ethnically diverse institutions.

Not just a job, a career

NW Natural's Construction Intern program provides members of underserved populations with paid on-the-job training to prepare for potential full-time employment at NW Natural. The program recruits candidates through public schools, online channels, social media and community organizations focused on diversity, equity and inclusion.

TONY THAO had no experience with underground construction when he entered NW Natural's first class of construction interns in 2018. Today he leads a construction crew—a position that requires expertise and leadership skills typically gained with many more years of on-the-job experience.

Thao wasn't in search of a career when he joined NW Natural. "I started working when I was 9 or 10, and a job was always just another job—something I needed to do," he said. During the short time it has taken him to be promoted to crew lead, he has come to realize that he now has a profession. "I didn't anticipate the advancement was possible to achieve," he said. "Now I have expertise in putting in gas lines. And there are so many opportunities in this company if I want to move up. NW Natural has a lot to offer."

Thao credits his success at NW Natural to hard work and his fellow crew members. "My team was fantastic about getting me to the level I needed to be at," he said. "Without them I wouldn't be where I am." Now Thao is the one training crew members on their way up. Leading a crew brings with it some weighty responsibilities he didn't have before, but he likes it. "Knowing people trust you to get things done feels good," he said. When he talks with friends who might aspire to something more than "just another job," he urges them to consider the construction internship program: "I tell people, 'You'll learn a lot, and you'll be here for a very long time.'"





Partners: Our Suppliers

Expanding the diversity of our vendor base is a priority at NW Natural. Through our Sustainable Purchasing Program, initiated in 2021, we form strategic partnerships that help us expand our work with diverse suppliers and increase the impact of that work. These relationships include businesses owned by minorities, women, veterans and other traditionally disadvantaged groups. Our CFO and our VP, controller and treasurer work with our chief diversity officer to oversee our diversity procurement activities.

2021 DE&I Highlights - Partners

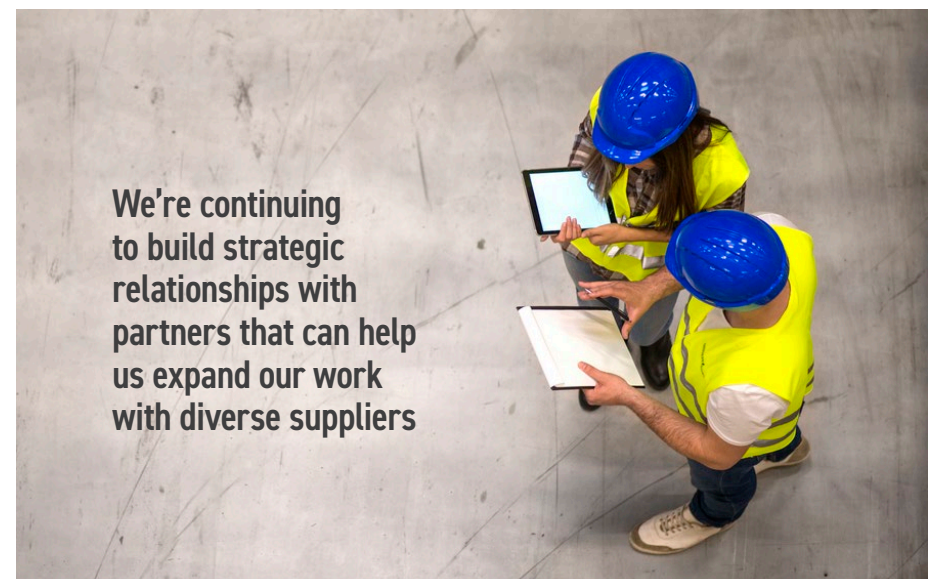
- Built a framework for our Sustainable Purchasing Program under which we strive to work with suppliers, and to procure products and services that deliver value and generate benefit—not just for NW Natural, but for the environment, society, and the economy
- Launched a [supplier website](#) with information about opportunities for diverse businesses to work with us in order to better encourage participation among diverse suppliers in our procurement process
- Developed tools to share with vendors on how to register as a diverse vendor
- Introduced vendor-management improvements, including engaging a third party to help update vendor classification and facilitate vendor analysis and reporting, including with respect to diversity measures; implementing technology improvements that will allow us to better measure and track our work with diverse vendors; and measuring our suppliers' spend on tier 2 subcontractors to determine impact on our diversity goals

PURCHASED
\$20.5
MILLION

in goods and services
from verified minority-,
woman- or veteran-
owned businesses
in 2021

PURCHASED
\$140.5
MILLION

from small businesses
in 2021



Our Corporate Purchasing and Expenditures Policy sets forth certain business requirements that are considered when reviewing purchase orders, including diversity. When evaluating requests for proposals (RFPs), we consider the prospective supplier's ability to help NW Natural increase our diverse business participation and seek information from the prospective supplier regarding, among other things: the prospective supplier's certification as a minority-owned, women-owned, disadvantaged or emerging small business, as well as its own diverse supplier program and opportunities to utilize diverse subcontractors.

We're continuing to build strategic relationships with partners that can help us expand our work with diverse suppliers, including Northwest Mountain Minority Supplier Development Council, National Association of Minority Contractors (NAMC), National LGBT Chamber of Commerce (NGLCC), Oregon Association of Minority Entrepreneurs (OAME), Oregon Native American Chamber (ONAC), Women's Business Enterprise Council (WBEC), and Latino Built, a trade association for Latino contractors in Oregon. We also continued to communicate our internal strategy with key stakeholders that routinely make significant purchases, such as construction, engineering and information technology & services.



Customers & Community

To serve our increasingly diverse community, our customers and community strategy is focused on:

STRATEGY 1 - Fostering diversity, equity and inclusion in our communities through partnerships, volunteering and financial support

STRATEGY 2 - Ensuring all customers have equitable access to natural gas programs

Multiple groups within our organization work to execute this strategy, including our customer service team, diversity council, and environmental and sustainability team. These groups work closely with our chief diversity officer.

2021 DE&I Highlights – Customers & Community

- Created more diverse language documentation for customers, specifically for bill assistance outreach
- Began developing a Community & Equity Advisory Group to provide NW Natural with feedback and recommendations related to low-income and arrearage programs, company philanthropic investments, system planning and renewable resource development
- Continued to employ an equity lens in our internal structures and how we engage externally as a funder, community partner and energy provider. In our philanthropic activities, this means that we seek out, acknowledge and fund nonprofit partners that demonstrate a shared commitment to diversity, equity and inclusion
- Redesigned and re-established a competitive grant program that increases, expands and accelerates funding for weatherization projects for income-qualified customers
- Proactively worked with our employee resource groups to identify and fund new partners in the energy justice, social justice and community specific space, and creating programs for philanthropy to match the funds the employee resource group raises for these initiatives
- Launched an emergency bill payment program and robust outreach campaign in partnership with community stakeholders to help customers pay down past due bills, focusing on our hardest to reach customers



Human Rights, Equal Opportunity and Prohibition on Discrimination

At NW Natural, we believe human rights are fundamental freedoms and standards of treatment to which all people are entitled. Our [Human Rights Policy](#) was reviewed and approved by our board of directors and articulates our commitment to identifying, preventing and mitigating human rights risks, including: prevention of harassment and discrimination; commitment to diversity; freedom of association; safety and security; land rights and biodiversity; and prohibition of child or forced labor, among other things. We also maintain policies on equal employment opportunity and prohibition of discrimination and harassment, in keeping with our intention to foster a culture of inclusivity and support employees' right to work in an environment free of discrimination and harassment.



FOR MORE INFORMATION SEE ALSO:

[Diversity, Equity & Inclusion](#)

[Human Rights Policy](#)

Water & Wastewater

Water is essential for life, security and stability, and we take our responsibility seriously to provide and protect this critical resource. The core values and competencies that have made our natural gas utility successful for over 160 years also guide our growing family of water and wastewater utilities.

Water Highlights

Extended our operations

in our existing footprint in 2021, with our nineteenth acquisition pending in Arizona

400%

**CUSTOMER BASE INCREASE
SINCE ENTERING THE WATER
UTILITY SECTOR IN 2017**

\$17.6 MILLION

invested in critical infrastructure on an accrual basis in 2021, including new wells and backup generation to maintain water and wastewater services during power outages



**Formalized safety standards
and expanded safety training
across our water subsidiaries**



94%

of NW Natural Water employees responding to 2021 employee satisfaction survey described themselves as engaged, committed, and enthusiastic about their work

Building on a Strong Foundation

Reliable Delivery

NW Natural Water provides our service territories with financial, technical, and regulatory resources to help ensure safe, reliable and affordable delivery of water and wastewater services to our customers every day. As a subsidiary of NW Natural Holdings, we're building on a strong foundation of superior customer service, responsible environmental stewardship and constructive regulatory engagement.

We've grown exponentially since NW Natural Holdings entered the water utility sector in Dec. 2017. Through a deliberate and measured growth strategy, NW Natural Water has expanded its service territory and increased the number of customers we serve by 400% since our initial transactions. In 2021, we acquired an ownership stake in Oregon's largest investor-owned water utility, and signed purchase agreements that extended our operations in the Pacific Northwest with pending transactions in Texas and a new foothold pending in Arizona.

"We're excited to see NW Natural Water expand and grow, and we look forward to enhancing customer service and investing in these communities."

— Justin Palfreyman, NW Natural Water president

Safety & Reliability

Investing in new infrastructure and meeting customer needs safely and efficiently requires significant resources. We regularly invest in infrastructure improvements and safety measures that can be out of reach for small water utilities. In 2021, we invested \$17.6 million in our water and wastewater infrastructure on an accrual basis with plans to invest \$60 to \$70 million in capital expenditures over the next five years.

"NW Natural Water takes system reliability and security seriously. Having operated water systems since 1988, I'm more confident than ever that we have the capital, technical and regulatory resources to support our rapidly expanding service territory."

— Tony Wise, Falls Water Company operations manager



Moving into Arizona

NW Natural Water's 19th announced acquisition, an agreement to purchase Far West Water & Sewer in Yuma, Arizona, will establish our operations in a fifth state and will nearly double the number of connections we serve upon closing.

"We're very pleased to partner with NW Natural Water. It is a strong utility with a proven track record and an outstanding commitment to its customers. NW Natural Water's industry expertise, reputation and financial capacity will be critical to meeting the needs of our growing community."

— Andrew Capestro,
Far West Water & Sewer general manager

2021 investments

- We made broad investments in backup generation to keep electric-driven equipment operating in the event of a power outage. This equipment prevents pressure drops that can compromise water quality and cause service interruptions.

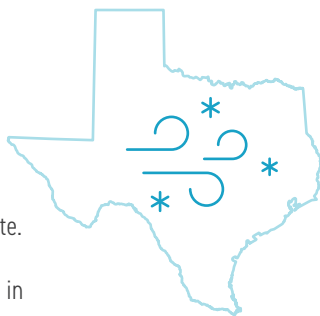
"Standby generators to protect reliability and safety aren't required for some of our smaller water utilities, but we're investing in them because it helps us provide the superior service our customers deserve."

— Justin Palfreyman, NW Natural Water president

- We provided our water systems with infrastructure capital to bring on new wells —one of the most involved and expensive projects in the water business.
- We're investing in a major upgrade to our wastewater treatment plant in Sunriver, so we can continue reliably and safely serving the community.
- We invested in technology to prevent business disruptions.
 - » We moved core systems to the cloud to improve efficiency and security.
 - » We implemented supervisory control and data acquisition (SCADA) systems at all our subsidiaries, making it possible to proactively detect leaks and pressure drops.

Our commitment to safety and reliability

served NW Natural Water customers well in February 2021 when many Texans faced water disruptions due to winter storms. Power outages resulted in freezing and bursting pipes on roughly half of our systems in Texas, but we were able to restore water service within 24 to 48 hours and get customers back online very rapidly relative to many other utilities in the state. Backup generation is not required for many of our smaller water systems in Texas, but we have been making prudent investments in standby backup capabilities and portable generators to bolster reliability and resiliency for our customers during power outages.



Safety training

To build a culture of safety, we've formalized safety standards and training across our water subsidiaries. Building a comprehensive safety training program from the ground up is typically a long and challenging process, and we have been able to make swift, steady progress with support from our experienced safety team. In 2021, the second year of our program, we expanded our safety training to include new topics such as business-interruption planning and setting benchmarks for safety metrics.

"It's great to partner with a company that has hands-on experience with safety issues that affect the utility industry."

— Tony Wise, Falls Water Company
operations manager

New well improves water quality and supply for our smallest water utility

The owners of Salmon Valley Water knew five years ago that their small family-run water system in Northwest Oregon was going to need a new well. Faced with this significant investment, they went looking for a partner with the capital and expertise to make system improvements. They selected NW Natural Water, becoming one of the company's first acquisitions.

"With NW Natural Water's support, the new well was completed last summer. We replaced three old wells that needed it," said Michael Bowman, Salmon Valley Water general manager.

In addition to providing capital, NW Natural Water gave Salmon Valley Water access to contractors that small utilities with limited budgets have trouble connecting with. The new well came online in July," said Bowman. "We had a lot of happy customers."

Environmental Stewardship

Water is a precious resource, and we're committed to using it wisely.

- **We strive to operate and maintain high-quality** water and wastewater systems so that our facilities deliver safe and clean water to our customers.
- Through **comprehensive planning**, we seek to ensure that our investments in infrastructure and technology are resource-efficient, cost-effective over their lifecycle, protect the environment, and are consistent with the goals of our communities.
- **We invest in critical infrastructure** that's essential for meeting water-quality regulations. For example, across our water utilities we've invested in new wells, valves, pressure regulating valves, water mains, and technology like SCADA and GIS systems.
- At our wastewater treatment plants, **we strive to meet the highest standards** for environmental sustainability. For example, the SCADA systems we installed at lift stations help prevent wastewater overflow to protect lakes, rivers and streams.

A major upgrade to our wastewater treatment plant in Sunriver is designed to bring the water quality at the plant to the class "A" reclaimed water profile, the Oregon Department of Environmental Quality's highest standard.

- **We seek to conserve water** and prevent waste.
 - » We have installed technology to help minimize water leakage across our infrastructure. Our subsidiaries now have tools to perform water-loss analysis.
 - » We encourage customers to reduce water use. Our water utilities now feature water conservation tips on their websites, and Sunriver Utilities launched a program in 2021 to provide low-flow faucet kits for homeowners who want to conserve water.
 - » Many of our water utilities have also adopted measures designed to reduce the amount of water used by residential customers who consume the highest percentage of water. For example, we encourage customers to use water saving household fixtures, we post conservation tips, and in certain cases we work with heavy water users to identify ways to improve water efficiency.
- **We look for opportunities to implement water reuse strategies** in areas of limited supply—a practice we believe is good business as well as our responsibility to the environment.

Sunriver closing the loop on waste

Treated wastewater from our Sunriver wastewater treatment plant is used to irrigate 64 acres of hay fields and nearby golf courses. Putting to work about 117 million gallons of water that would otherwise be released into local waterways yielded approximately 70 tons of orchard grass hay in 2021. Using the solid biproducts of the treatment process, we created more than 174 tons of rich, black compost that our community can use in their gardens. Sustainable practices like these benefit the environment and help reduce costs for our customers.





Continuing a tradition of putting customers first

After owning and operating a group of small water utilities in Northwest Washington for more than 40 years, the Lehman family knew they needed to make system upgrades that would require access to a bigger balance sheet. They had been approached to sell before, but they wanted a partnership that would preserve their deep ties to the communities they serve. They decided to sell to NW Natural Water in 2018 because of the company's strong community-oriented reputation. After the acquisition, former owners Culley Lehman and his wife, Amy, stayed on as general manager and office manager of Cascadia Water. Their commitment to continuous improvement and customer service aligns with NW Natural Water's long-term approach to investing, and they have been able to complete projects that once seemed unattainable, including backup generators that minimize service disruptions, technology that monitors the water system in real time, and new billing software that enables customers to pay online. With access to capital from NW Natural Water, they're planning more upgrades to improve service for their customers.

"Before partnering with NW Natural Water, some of these projects were more of a dream. It's gratifying to watch them become a reality, and they ultimately help us help our customers."

— Amy Lehman, Cascadia Water

Our Communities, Our Customers

Our customers are our community, and we are committed to serving and supporting them.

SAFE, RELIABLE SERVICE – In 2021, our water utilities continued to work together as the pandemic endured and supply-chain disruptions caused longer lead times for key parts such as generators, meters and pipe. This required careful planning, proactive ordering, and sharing supplies to meet critical needs. We continued rotating shift cycles and other safety procedures to protect both employees and customers.

CUSTOMER EXPERIENCE – We improved the quality and consistency of the online experience customers have when they do business with our water utilities. We updated and standardized a disparate collection of websites, so customers now have a one-stop shop and features and information, including water quality (consumer confidence) reports, rate structure, a "call us" button, and water-emergency resources. We also made it easier for customers to pay their bills.

BILL PAYMENT ASSISTANCE – To support people experiencing hardship during the pandemic, we put together time payment agreements that allow customers in need to pay a portion of their bill in installments.

ENGAGEMENT – Our subsidiaries have deep roots in the communities they serve, and they work diligently to meet their customers' needs, understand their stakeholders' concerns, and operate as good neighbors. Our water and wastewater companies support a range of local nonprofits and they solicit community input on important matters such as rate cases and infrastructure upgrades.

"I'm proud of the proactive community meetings we hold and the project updates we provide to our communities to help make our process transparent and address customers' questions."

— Tim Smith, Sunriver utilities general manager



Treated wastewater yields a gift for a local nonprofit

Every year treated wastewater from our Sunriver Environmental plant irrigates a bountiful crop of orchard grass hay. Last year the utility donated the entire crop—70 tons of hay—to [Healing Reins Therapeutic Riding Center](#) in nearby Bend, Oregon. Healing Reins offers nationally accredited programs that incorporate specially trained horses into therapy for people with a wide range of disabilities and challenges. In partnership with the local medical community and more than 100 volunteers, the organization serves 150+ children, teens, adults and veterans every week.

Employees

Attracting and retaining a talented workforce is vital to the success of NW Natural Water, and we continuously look for ways to meet the needs of the dedicated employees who keep our water businesses running smoothly.

In 2021, NW Natural Water conducted its second employee engagement survey with 81% of employees participating, and 94% of employees reported that they take pride in their work and in the company. In addition, 94% of NW Natural Water employees described themselves as engaged—compared with just 34% of employees [nationwide](#).

94%

Employees engaged, committed, and enthusiastic about their work at NW Natural Water

94%

Employees proud to work for NW Natural Water

100%

Believe their company provides excellent service to customers

Employees also agreed or strongly agreed with the following:

- We demonstrate safe work practices in our work area (89%)
- In my work area, we operate with integrity and ethical conduct (89%)
- We engage with customers and community in a way that values diversity and inclusion (98%)

Smaller water systems often experience challenges providing competitive compensation packages for their employees. We continue to seek opportunities to bring our employees' wages in line with market rates, and we do an annual wage analysis of all subsidiaries to make sure we're staying competitive. In 2021, all our subsidiaries provided pay increases to keep us within the market analysis. Partnering with NW Natural Water has also enabled our smaller water utilities to provide benefits they weren't previously able to offer, including formalized paid time off programs, 401(k) retirement accounts, and in 2021 water employees were eligible to participate in the NW Natural Holdings' employee stock purchase program.

In 2021, we rolled out annual ethics and compliance training to our water employees to further foster a culture that mitigates risk and promotes integrity and ethical behavior.

We're Committed

We're committed to managing our water and wastewater systems responsibly, and we intend to continue focusing on the following priorities:

- Maintaining and investing in systems as aging infrastructure needs to be replaced
- Providing financial capital for infrastructure improvements
- Complying with increased and expanding regulation for water and wastewater systems
- Monitoring for contamination and proactively addressing emerging threats from climate change and natural disasters
- Implementing new technologies, including cybersecurity measures
- Attracting and developing talented employees, as well as managing an aging workforce



FOR MORE INFORMATION SEE ALSO:
NW Natural Water

NW Natural Renewables

NW Natural Renewables is investing in renewable energy and the transition to a decarbonized future, through the supply of low-carbon fuels—supporting a variety of sectors including utilities, commercial, industrial and transportation customers.

Building on a long-standing commitment to a low-carbon future, we launched a competitive renewable fuels business in 2021. As a subsidiary of NW Natural Holdings, NW Natural Renewables is well positioned to support the energy transition through the supply of low-carbon fuels to the utility, commercial, industrial and transportation sectors. Our experienced team of experts is focused on providing decarbonization solutions by utilizing waste streams and renewable energy sources to supply renewable natural gas (RNG) and provide customers with cost-effective sustainable solutions. These efforts are separate from and in addition to NW Natural's gas utility efforts related to low-carbon fuels.

With NW Natural Holdings' strong operational performance and success on reducing carbon emissions across its businesses, this expansion aligns with our core competencies. Our country and region are in the early stages of a historic energy transition, and we project the demand for renewable fuels will only continue to grow. NW Natural Renewables is equipped to help customers achieve their decarbonization goals and drive down emissions in our region and throughout the country.

In Nov. 2021, we announced our first project, which represents a combined \$50 million total investment under two contracts to convert landfill waste gasses to RNG and a 20-year RNG supply agreement. We recognize our role and responsibility in moving toward a clean energy future, and we remain focused on advancing other RNG investments that support this important transition.

"The renewables business is a natural progression of the insights and capabilities we've gained as a leader addressing the energy transition. We have strong confidence in the long-term demand for renewable fuels across the country and across various customer classes. This business represents a significant opportunity for us in a fast-growing market segment."

— David Anderson, NW Natural Holdings president and CEO



FOR MORE INFORMATION SEE ALSO:
NW Natural Renewables

Sustainable Financings

Through our Sustainable Financing Framework, we can issue Sustainable Financing Instruments, helping us further support and contribute to the transition to a sustainable economy.

In Nov. 2021, Northwest Natural Holdings and NW Natural closed on several sustainable financings as the companies strive to continue supporting the energy transition and movement toward a sustainable economy.

Sustainable Bond and Sustainable Financing Framework

NW Natural successfully placed its first \$130 million sustainable bond in November 2021. The bond was issued under NW Natural's new Sustainable Financing Framework. NW Natural expects to allocate an amount equivalent to the \$130 million proceeds from the sustainable bond to refinance or finance NW Natural's renewable natural gas investments and procurement; its sustainable and seismically secure headquarters building, which is LEED core and shell gold certified; energy-efficiency programs; and purchases or support of minority-owned, women-owned, veteran-owned, LGBTQ-owned and/or small businesses.

NW Natural Holdings and NW Natural can each issue sustainable bonds under our [Sustainable Financing Framework](#), with an amount equivalent to the proceeds of the bond issuance being used to finance or refinance projects related to renewable energy, energy efficiency, green buildings, and our supplier diversity program. The framework has been reviewed by [Vigeo Eiris \(V.E\)](#), an independent global provider of ESG research and analysis. V.E issued a second-party opinion confirming that the framework aligns with the four core components of the Sustainable Bond Principles 2021 and that investments in the eligible categories will lead to positive environmental and social impacts and advance the UN Sustainable Development Goals.

Sustainability-linked Credit Facility

Also in Nov. 2021, each of NW Natural Holdings and NW Natural amended and restated its revolving credit facility, resulting in the extension of the maturity date to Nov. 3, 2026, and an increase in NW Natural Holdings and NW Natural's total borrowing capacity to \$600 million. The amendments include provisions that link each company's borrowing costs to an environmental metric related to NW Natural's carbon savings goal of 30% by 2035 and a safety metric related to in-line inspections of NW Natural's transmission pipeline.

"We are working to invest in and support a low-carbon energy future and a sustainable economy for our customers. With these financings, we've incorporated sustainability, a long-held focus of our company, into another important component of our business strategy. I'm proud to continue leading on sustainability and continuing our rich legacy of customer care, diversity, and environmental stewardship."

— David Anderson, NW Natural Holdings president and CEO

Governance

Strong corporate governance and integrity form the foundation for everything we do. Our board strives to adopt and maintain appropriate corporate governance practices. 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. Our [2022 Proxy Statement](#) provides a full discussion of our governance practices.

Governance Highlights



Board of Directors

- Maintain a well-qualified, diverse and active board of directors
- Determine independence of directors (10 of 11 directors meet independence criteria)
- Engage in robust succession planning process supporting board refreshment (over one-half of our directors are new within the last five years)
- Separate roles of Chair and CEO under current leadership structure
- Hold regular executive sessions of nonmanagement directors
- Oversee company's risk management programs and policies
- Evaluate board of directors, committees and individual directors on an annual basis
- Provide comprehensive director orientation and continuing education to enable directors to develop and maintain skills necessary or appropriate for the performance of their duties



Other Governance Practices

- Maintain stock ownership guidelines
- Maintain insider trading policy applicable to directors, officers and employees, agents, advisors and independent contractors
- Maintain a hedging and pledging policy applicable to directors and officers



Business Integrity and Ethics

- Maintain and promote an active ethics and compliance program
- Foster a culture that mitigates risk and promotes ethical behavior and integrity
- Recognized by Ethisphere® as one of the 2022 World's Most Ethical Companies®

"World's Most Ethical Companies" and "Ethisphere" names and marks are registered trademarks of Ethisphere LLC

Governance Practices

Board of Directors

The board of directors of [NW Natural Holdings](#) establishes policies designed to ensure that our business is well managed to serve our stakeholders and maximize long-term shareholder value, that we conduct our business in compliance with all applicable laws and regulation, and that we do so with the highest standards of integrity. For complete information on our approach to corporate governance, please visit the Governance portion of our website at [nwnaturalholdings.com](#). The following sections highlight our approach to corporate governance.

Board Composition and Refreshment

The board is responsible for selecting candidates for board membership, and the Governance Committee of the board of directors has been assigned the responsibility of recommending nominees to the board of directors for election as directors.

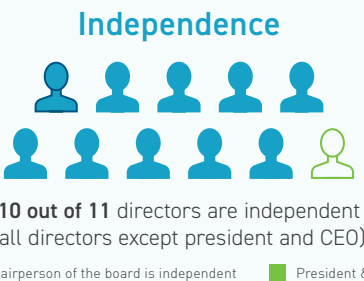
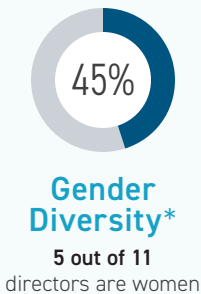
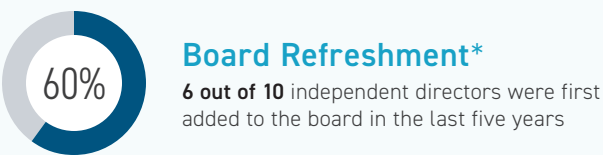
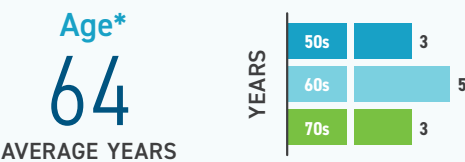
The governance committee reviews director nominees in the context of the current composition and diversity of the board, the operating requirements and existing and prospective business environment faced by NW Natural Holdings, NW Natural Holdings’ business strategy, and the long-term interests of shareholders. Director candidates must be able to make a significant contribution to the governance of NW Natural Holdings by virtue of their business and financial expertise, educational and professional background, and current or recent experience as a chief executive officer or other senior leader of a public company or other relevant organization.

The business discipline that may be sought at any given time will vary depending on the needs and strategic direction of our company and the disciplines represented by our incumbent directors. In addition, the governance committee looks at the overall composition of the board and how a candidate would contribute to the overall synergy and collaborative process of the board. In conducting its assessment, the governance committee considers a variety of criteria, including, but not limited to, the candidate’s integrity, reputation, judgment, knowledge, experience, commitment, skills, diversity, and independence.

In recent years, the board undertook a comprehensive succession planning and refreshment review in anticipation of the retirements of several long-tenured directors. In line with those plans, the board has undergone substantial refreshment in recent years, with six of the 10 current independent directors being added to the board in the last five years. Our corporate governance standards provide for several mechanisms to encourage director refreshment, including: annual peer reviews of individual directors, a requirement to offer notice of resignation upon a change in principal position, and a mandatory retirement age of 75.

Not to be used for investment purposes—see NW Natural and NW Natural Holdings most recent Form 10-Ks as updated by the most recent quarterly and periodic reports for information relevant to investment decisions.

Our Board Composition



■ Chairperson of the board is independent ■ President & CEO

COMMITMENT TO DIRECTOR INDEPENDENCE

The board of directors of NW Natural Holdings has adopted director independence standards that comply with New York Stock Exchange (NYSE) rules. The board of directors has affirmatively determined that 10 out of 11 directors are independent, according to NW Natural Holdings' director independence standards as well as additional qualifications prescribed under the listing standards of the NYSE and applicable state and federal statutes. All standing committees of the board are chaired by independent directors. The current board leadership structure also separates the roles of chair and CEO and is designed to promote independence between board and management. Additionally, to support independence, the directors of the board meet regularly in executive sessions at which the independent board chair presides and only the nonmanagement directors are present.

COMMITMENT TO BOARD DIVERSITY

NW Natural Holdings' director selection criteria include a consideration of diversity as a factor in evaluating candidates for board membership. The board believes that diversity with respect to factors such as background, experience, skills, geographic location, race, gender, ethnicity, culture, veteran status, age, disability, and sexual orientation are important considerations in board composition. The governance committee discusses diversity considerations in connection with each director candidate, as well as on a periodic basis in connection with the composition of the board as a whole. In addition, the governance committee and the board conduct formal self-evaluations each year that include an assessment of whether the governance committee and the board have adequately considered diversity, among other factors, in identifying and discussing director candidates. Currently, of 11 members of our board, five directors are women, including our Board Chair, and three directors identify as People of Color. Our composition of women on our board has earned a "Winning Company" award three times from Women on Boards, which described the board's gender diversity as a "shining example of enlightened business leadership."

Board's Role in Risk Oversight

Management is responsible for managing the day-to-day risks faced by the company, while the board of directors, collectively and through its committees, has responsibility for the oversight of risk management. The corporate governance standards describe the board's primary responsibilities, which include oversight of NW Natural Holdings' mission, and key programs that enable the board to assess and manage material risks, including, but not limited to, risks related to business continuity and disaster response, gas supply, distribution and storage operations, strategic planning and business development, environmental and climate change matters, business improvement and information technology, market competition, economic environment, governance, legislative and regulatory risk and compliance, state and federal regulatory process and environment, financial performance, business integrity and compliance, financial reporting and internal controls,

financing programs, pensions and retirement plans, reputational risk, human capital management, compensation and employee benefits, succession planning (including the CEO), human risks such as safety and diversity, equity and inclusion matters, and company culture. The board periodically reviews its committee oversight authority to ensure the board has adequate visibility and oversight of the company's key areas of risk 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 and the committees various risks confronting the company.

An important aspect of the board's oversight role is the comprehensive enterprise risk management process, under which significant enterprise-wide risks have been identified and assessed with respect to likelihood of occurrence, potential impact on the business, and likely speed of onset, along with the mitigative measures to address and manage such risks. The enterprise risk management process allows the board to remain informed of risks, developing trends, or potential problems that might require their attention. Management conducts the enterprise risk management process annually with periodic interim updates and discusses those findings with the board and reports regularly to the board on significant risk categories. Additional review or reporting on enterprise risks is conducted as needed or requested by the board. The board and management consider enterprise risks and opportunities in their strategic and capital spending decision process and in their governance and oversight responsibilities.

Board Structure and Function

COMMITTEES

There are five standing committees of the board: Audit, Finance, Governance, Organization and Executive Compensation Committee (OECC), and Public Affairs and Environmental Policy. Each of the standing committees operates according to a formal written charter, all of which are reviewed annually and are available at nwnaturalholdings.com. Each committee is comprised entirely of independent directors.

BOARD AND COMMITTEE OVERSIGHT

The full board considers key risks, issues and initiatives. Board committees additionally have primary responsibility and oversight with respect to the areas described below.

Audit Committee

- Oversight and evaluation of policies with respect to significant risks and exposures and the procedures for assessing, monitoring and managing those risks.
- Oversight of accounting, financial reporting, internal controls, auditing, information technology systems and cybersecurity, enterprise risk management process, business continuity and disaster planning, capital projects and contingencies, and material litigation.
- Oversight of business compliance and integrity program, including code of ethics, and the company's system for review and treatment of integrity hotline complaints.

Public Affairs and Environmental Policy Committee

- Oversight of legislative and regulatory matters and policies and practices on public and political issues, including charitable and political contributions and budgets.
- Oversight of current and emerging political and societal trends.
- Oversight of programs and policies relating to civic affairs, human rights, charitable and community affairs, safety, diversity, equity and inclusion, equal employment opportunities, employee well-being, customer engagement and other corporate social responsibility matters.
- Review and recommendation of environmental matters and policies and sustainability efforts.
- Review of major environmental risks, and plans for managing those risks.

Finance Committee

- Oversight of financing programs, budgets and forecasts, financial policy matters, including hedging policies and practices, economic environment, gas supply and pricing, including liquidity and cash flow impacts, and material regulatory issues, including regulatory policy related to financial strategy and policy, capital structure and dividend policy.
- Oversight of investor relations program, and credit agency and New York Stock Exchange relationships.
- Financial oversight of pension and retirement plans.
- Review and recommendation of finance aspects of corporate development strategies.

Organization and Executive Compensation Committee

- Oversight of company's human capital management.
- Review and recommendation of plans and preparations for talent succession and management of risks associated with transfer of knowledge and expertise.
- Recommendation of executive compensation programs and benefit plans to the board, as well as monitoring of risks and alignment of incentives related to such plans and programs.
- Review and approval of grants under equity incentive plans to eligible employees.
- Primary responsibility for ensuring executive compensation programs and plans are consistent with corporate objectives and OECC's compensation philosophy.

Governance Committee

- Recommendations to the board regarding nominees for election to the board, and committee composition and structure.
- Establishment of criteria for board and committee membership and policies that govern the board's activities.
- Review and recommendation of governance policies and structure, including the corporate governance standards, to the board.
- Evaluation of board and individual director performance and oversight of director onboarding and continuing education.
- Oversight and consideration of plans and preparations for board succession.
- Oversight of integrated environmental, social and governance matters.

MANAGEMENT LEADERSHIP

Our officer team is responsible for leading and managing our business and for developing and executing company strategy as approved by the board, and meets regularly to actively monitor operations, financial performance, and legal, regulatory, policy and other external developments; ensure compliance with policies, procedures and ethical business practices; identify, assess and manage company risks and opportunities; and develop and implement strategy to achieve sustainable, long-term performance. Each of our officers has identified goals in support of sustainable, long-term business performance, with a portion of their compensation tied to the achievement of these goals. We have a diverse group of corporate officers and have expanded the number of women in leadership positions. Today, our officer team includes five women.

ESG Governance and 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 Governance Committee oversees the company's integrated ESG strategy and 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. Areas of ESG oversight include, but are not limited to:

Audit

- Business Integrity
- Whistleblower Hotline
- Enterprise Risk Management
- Business Continuity
- Significant Legal Matters
- Internal Controls Over Financial Reporting
- SEC Reporting Oversight
- Cybersecurity and IT

Board

- Decarbonization; Including Low Carbon Pathway and Vision 2050
- Customer Preference/Satisfaction
- Tone at the Top
- Operational and Business Development Initiatives (e.g., Water and RNG)
- Other Natural Gas Applications
- Strategic Matters
- Pipeline Safety

Public Affairs and Environmental Policy

- Employee Safety
- Diversity, Equity and Inclusion
- Employee Engagement and Well-Being
- Civic and Human Rights
- Environmental and Sustainability
- Community and Public Relations
- Charitable Giving and Political Contributions
- Legislative and Regulatory Matters
- Employee Satisfaction
- Procurement
- Customer Metrics, Engagement and Affordability Considerations

Organization and Executive Compensation

- 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
- ESG Strategy (incl. developments from SEC, Major Shareholders, Proxy Advisers and Others)
- Shareholder Activism

Finance

- Financial Policies and Matters That May Have ESG Implications
- Investor Relations
- Goal Setting and Performance Metrics
- Rating Agency Relationships
- Capital Markets/Green Financings
- Investment in Key ESG Improvements

Management ESG Leadership

Each of our officers is responsible for developing and implementing our business strategy and 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 and co-leads our ESG Steering Committee. 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 and Vision Net Zero by 2050, 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, pursuing hydrogen gas initiatives, and furthering our acquisitions of water and wastewater utilities. Our VP, treasurer, chief accounting officer and controller oversees our sustainable financing and sustainable procurement efforts. And, our VP and chief information officer, leads our cybersecurity and compliance, and information technology (IT) teams. Each of our officers has 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 officer team meets regularly to discuss the development and implementation of company strategy, including sustainability matters.

Stock Ownership Requirements

To closely align director interests with shareholder interest, the board has adopted stock-ownership guidelines that require directors to own NW Natural Holdings shares of at least \$400,000 in value within five years of joining the board. Similarly, executive officers are required to hold stock at a dollar value that is a multiple of base salary, with the CEO holding five times his or her annual salary, senior vice presidents holding two times their annual salary and vice presidents holding one times their annual salary.



Insider Trading

To foster integrity in trading in NW Natural Holdings stock, the company maintains an insider trading policy that specifies that if a director, officer, any employee of NW Natural Holdings or its subsidiaries, has material nonpublic information relating to the company, it is the company's policy that neither that person nor any related person may buy or sell securities of the company or engage in any other action to take advantage of, or pass on to others, that information.

Policy on Hedging and Pledging of NW Natural Holdings Securities

NW Natural Holdings has adopted a policy on hedging and pledging of securities that prohibits the directors and executive officers of the company and its subsidiaries from engaging in any short sales, zero-cost collars, or forward sale contracts with respect to the company's securities, or purchasing or selling puts, calls, options, or other derivatives securities based on the company's securities. In addition, the policy restricts the ability of directors and executive officers to pledge their ownership of company securities in a nonrecourse loan, failing to meet a margin call with respect to a margin account resulting in the sale of company stock, or buying company securities on nonrecourse margin.

Business Integrity

Since 1859, NW Natural has been viewed as a respected leader in Oregon and Southwest Washington. We could not have maintained this reputation for over 160 years without one fundamental characteristic—integrity. Our customers trust us to provide them with essential energy and deal with them fairly, in a caring and equitable fashion. Our business integrity program aims to reinforce our core values in our everyday work.

We are honored to have been recognized by Ethisphere®, a global leader in defining and advancing the standards of ethical business practices, as one of the 2022 World's Most Ethical Companies®. It is the first year NW Natural Holdings has been recognized and the company is one of only nine honorees in the Energy & Utilities industry. In all, 136 honorees were recognized spanning 22 countries and 45 industries.

"Receiving this distinction underscores our commitment to our values and honors our employees' achievements on behalf of our customers,"

— David Anderson, NW Natural Holdings president and CEO

Oversight of Business Integrity Program

Our Business Integrity program is overseen by the Audit Committee of the board of directors and is managed on a day-to-day basis by our business integrity team, which is a cross-functional team led by our chief compliance officer and consisting of members of the internal audit, legal and human resources departments. Our chief compliance officer and director of internal audit each regularly provide updates on business integrity matters to the Audit Committee of the board of directors, including updates on business integrity reports, management actions, business integrity trends and updates, and benchmarking analysis.

Code of Ethics

We maintain a Code of Ethics that applies to all of our employees, including supervisors, managers and officers, as well as to our board of directors and other agents, vendors and business partners working on our behalf. Our Code of Ethics is intended to set expectations for conduct that is consistent with our core values; help promote compliance with laws and NW Natural policies; establish our high standards of integrity; and provide information about how to resolve real-life questions or concerns. Employees are required to annually certify their commitment to the principles outlined in the Code of Ethics and disclose any business integrity concerns. Our Code of Ethics is approved annually by the board upon the review and recommendation of the Audit Committee of the board of directors.

Code of Ethics Training and Communications

To reinforce the company's core value of integrity, every employee and director 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) at the 2018 Corporate Governance Awards event, in recognition of its new Code of Ethics document and refreshed online training and certification program.



In 2021, 100% of our active employees participated in these online information security and ethics and compliance trainings.

Starting in 2019, all employees also complete annual online information security training. The course demonstrates how to identify potential cybersecurity risks and protect confidential information at work and provides guidance on what employees should do if they suspect a possible information security incident. In 2021, 100% of our active employees participated in these online information security and ethics and compliance trainings. We also regularly provide specialized live training to help managers and supervisors navigate pertinent business integrity questions and emphasize their role as the front line of integrity at NW Natural and the resources available to them.

We reinforce our annual Code of Ethics and Information Security trainings with periodic communications spotlighting pertinent business integrity topics and messages from senior leadership. We also provide additional resources to employees via an internal intranet page dedicated to business integrity.

"World's Most Ethical Companies" and "Ethisphere" names and marks are registered trademarks of Ethisphere LLC

97% of NW Natural employees that completed the annual engagement survey agree that “in my work area, we operate with integrity and ethical conduct.”

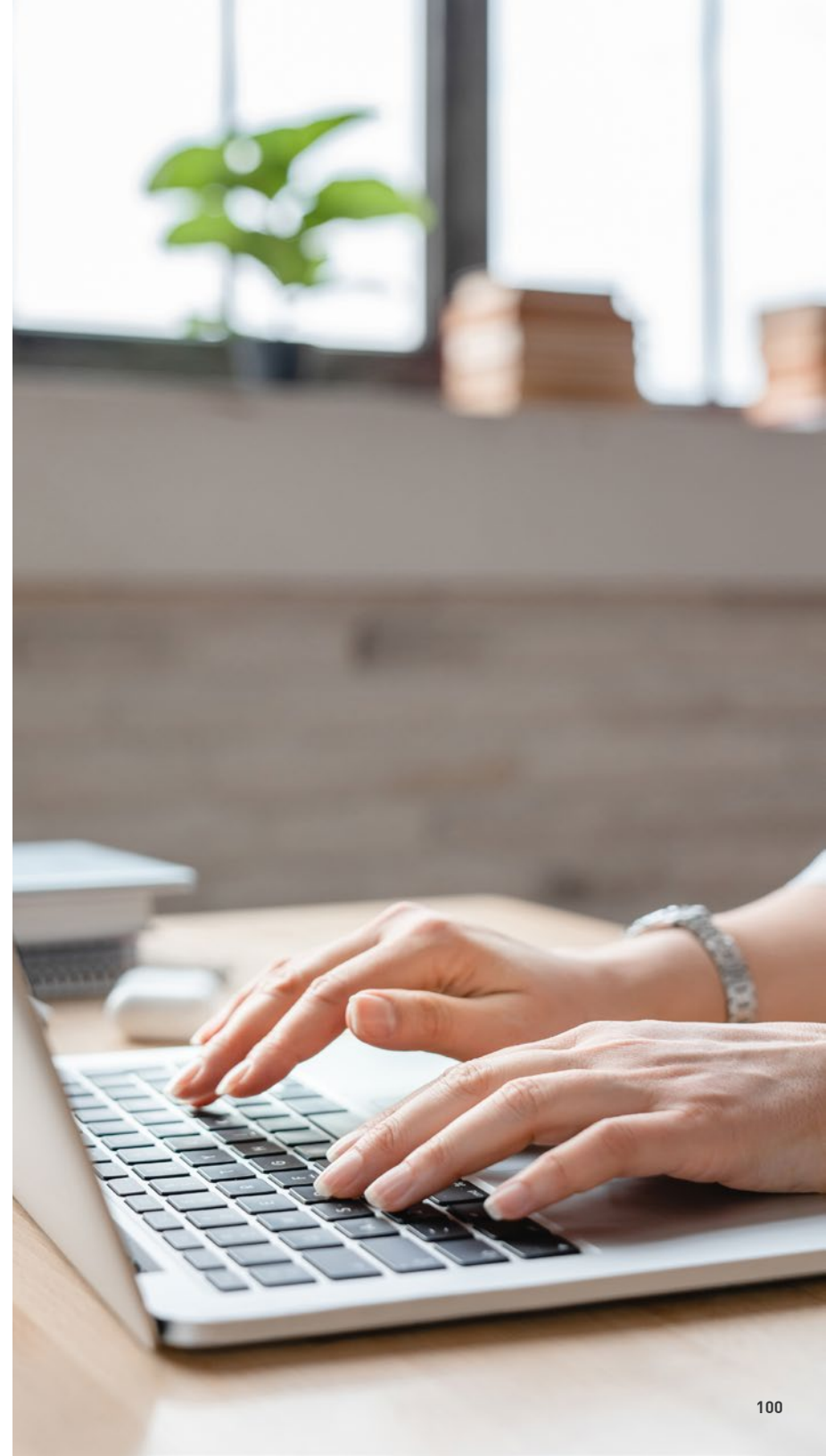
Reporting, Investigations and Actions

We maintain our Integrity Hotline to empower employees, shareholders, customers, the public and other third parties to raise issues or submit concerns anonymously at 1-866-546-3696 or [NWNIntegrity.com](https://www.nwnatural.com/integrity), which is managed by a third party and is available through our external and internal websites. Our hotline offers employees and others the opportunity to anonymously ask questions about ethical decisions. We also provide several other avenues to raise issues or report concerns in addition to our hotline.

Our chief compliance officer and our director of internal audit handle matters reported on the hotline and through other reporting avenues. Both regularly report to the audit committee regarding hotline activity, and the chief compliance officer regularly reports to the audit committee regarding our Business Compliance and Integrity program.

NW Natural is committed to investigating all potential violations of law, company policy or business integrity and handling each report fairly and reasonably. In 2021, we received 32 interactions with our hotline and other business integrity reporting channels (approximately 2.6 per 100 employees), of which 27 (approximately 2.2 per 100 employees) were determined to involve business integrity reports. Business integrity reports are reviewed by our Business Integrity team and investigated as necessary with assistance from the company’s internal audit, human resources, legal, or other departments and/or other internal or external resources as appropriate under the circumstances, depending on the type and nature of the allegation. When violations are detected, appropriate actions are taken, which may include coaching or counseling, administering disciplinary action, up to and including termination and/or improvements to our policies, procedures or practices.

We maintain a [Violation Reporting Policy](#), approved by the Audit Committee of the board of directors, that prohibits retaliation and offers protections for individuals that make good faith reports of possible violations of the Code of Ethics, company policy or law. Employees who have engaged in retaliation may face disciplinary action, up to and including termination. We proactively communicate our prohibition on retaliation in multiple forums including our annual Code of Ethics Training, manager trainings, integrity website and periodic communications to employees.



Supplier Code of Ethics and Fair Business Dealings

We seek to do business with organizations and service providers that embrace our core values, including integrity. We maintain a Supplier Code of Ethics, which is available on our [supplier website](#) and sets forth our expectations for our suppliers in areas of ethics and compliance, safety, human rights, and diversity, among other things. Under the Supplier Code, suppliers have a responsibility to report any suspected illegal or unethical conduct involving NW Natural or its business partners, and NW Natural's business integrity hotline is available to suppliers and other third parties to anonymously report concerns. We monitor key suppliers on an ongoing basis and have implemented a scorecard for certain vendors that considers whether such vendor operated in accordance with our core values in doing business with us.

As set forth in our Code of Ethics, we strive to deal fairly and in good faith with NW Natural's customers, shareholders, employees, regulators, suppliers, competitors and others. We strive to avoid any attempt to take unfair advantage of any person through manipulation, misrepresentation, fraud, misuse of confidential information or any other unethical dealing, practice or act. Our Code of Ethics sets forth our policies and expectations regarding fair business dealings, including our expectations regarding expenses, purchasing and contracting, gathering competitive data, and engaging in transactions between utility and non-utility subsidiaries. Our Code of Ethics also sets forth our strict prohibition on bribes and kickbacks. In 2021, we received zero reports of bribery or corruption through our Integrity Hotline.



For more information see also:
Governance website



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, likelihood and success associated with any transaction, infrastructure investments, safety and implementation of safety initiatives, system modernization, improvements and reliability, system inspections, storage capabilities, infrastructure resiliency, risk management programs, financing strategy, use of proceeds from financings, 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, customer and community support, weather, customer rates, customer preference, business risk, efficiency of business operations, business continuity and disaster recovery measures, 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 and cybersecurity innovations and investments, strategic goals and visions, environmental initiatives and innovations, 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, magnitude and completion thereof, competitive renewable natural gas strategy and initiatives, renewable hydrogen projects and programs and timing, magnitude and completion thereof, procurement of renewable natural gas or hydrogen for customers, energy efficiency initiatives, investments and funding, carbon capture technology, demand for renewable fuels, energy usage and savings, outreach initiatives, 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 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, 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.

APPENDIX

Sustainability Accounting Standards Board (SASB) Disclosures

WORKFORCE STATISTICS

NORTHWEST NATURAL HOLDING COMPANY SASB DISCLOSURES

For the year ended Dec. 31, 2021

The following index sets forth Northwest Natural Holding Company's SASB reporting disclosures for our primary industry, Gas Utilities & Distributors. While we report information on nearly all of SASB's metrics, we may report a different unit of measure, different metric or partial information for the topic area or accounting metric as noted. Unless otherwise noted, data in the below SASB disclosure is as of, or for the year ended Dec. 31, 2021.

Gas Utilities & Distributors Accounting Standard

ENERGY AFFORDABILITY		
SASB CODE	ACCOUNTING METRIC	2021 DISCLOSURE RESPONSE
IF-GU-240a.1	Average retail gas rate for residential customers ⁴³ per MMBtu	\$9.06
	Average retail gas rate for commercial customers ⁴³ per MMBtu	\$8.02
	Average retail gas rate for industrial customers ⁴³ per MMBtu	\$6.10
	Average retail gas rate for transportation services ⁴³ per MMBtu	\$1.14
IF-GU-240a.2	Typical monthly gas bill for residential customers for 50 MMBtu of gas delivered per year ⁴⁴ (USD)	\$45.74
	Typical monthly gas bill for residential customers for 100 MMBtu of gas delivered per year ⁴⁴ (USD)	\$83.48
IF-GU-240a.3	Number of residential customer gas disconnections for nonpayment, percentage reconnected within 30 days	Approx. 2,552 within 20 days ⁴⁵ 2021 ESG Report, "Our Communities, Our Customers"
	Percentage of residential customer gas disconnections for nonpayment reconnected within 30 days	57% reconnected within 20 days ⁴⁵ 2021 ESG Report, "Our Communities, Our Customers"
IF-GU-240a.4	Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory	2021 ESG Report, "Our Communities, Our Customers"

⁴³ Weighted average rates from 11/1/20 - 10/31/21.

⁴⁴ Based on weighted average rates for the heating year beginning 11/1/2020 and ending 10/31/2021.

⁴⁵ We report reconnections within 20 days rather than 30 days, consistent with our internal practice regarding measurement and reporting of reconnections.

END-USE EFFICIENCY		
SASB CODE	ACCOUNTING METRIC	2021 DISCLOSURE
IF-GU-420a.1	Percentage of gas utility revenues from rate structures that are decoupled	78%
	Percentage of gas utility revenues from rate structures that contain a lost revenue adjustment mechanism	0%
IF-GU-420a.2	Customer gas savings from efficiency measures by market (MMBtu)	Oregon Service Territory: 622,000. Washington Service Territory: 36,000 2021 ESG Report, " Reduced Energy Use "
INTEGRITY OF GAS DELIVERY INFRASTRUCTURE		
SASB CODE	ACCOUNTING METRIC	2021 DISCLOSURE
IF-GU-540a.1	Number of reportable pipeline incidents	0
	Number of corrective action orders	0
	Number of notices of probable violation	0
IF-GU-540a.2	Percentage of distribution pipeline that is cast and/or wrought iron	0%
	Percentage of distribution pipeline that is unprotected steel	0%
IF-GU-540a.3	Percentage of gas transmission pipelines inspected	80% as of December 31, 2021 ⁴⁶
	Percentage of gas distribution pipelines inspected	20% ⁴⁷
IF-GU-540a.4	Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions	2021 ESG Report, " Safety and Reliability ", " Environmental Stewardship "

⁴⁶ Pipeline inspected through Dec. 31, 2021, but not limited to inspections during the calendar year 2021. As of Dec. 31, 2021, we inspected 588 miles compared to 207 miles required by 49 CFR 192.903 and reassess covered pipelines every seven years as set forth in 49 CFR §192.939(6) by the Pipeline and Hazardous Materials Safety Administration [PHMSA].

⁴⁷ We strive to perform a leak survey on 20% of our gas mains annually, with every gas main surveyed at least every five years. We also perform leakage and atmospheric corrosion surveys every three years on residential service lines and annually in business districts and high-occupancy buildings.

ACTIVITY METRICS		
SASB CODE	ACTIVITY METRIC	2021 DISCLOSURE
IF-GU-000.A	Number of residential customers served	715,958
	Number of commercial customers served	68,961
	Number of industrial customers served	978
IF-GU-000.B	Amount of natural gas delivered to residential customers (MMBtu)	44,555,012
	Amount of natural gas delivered to commercial customers (MMBtu)	25,750,359
	Amount of natural gas delivered to industrial customers (MMBtu)	9,084,883
	Amount of natural gas transferred to a third party (MMBtu)	39,087,110
IF-GU-000.C	Length of gas transmission pipelines	736 miles
	Length of gas distribution pipelines	Approx. 14,200 miles

NORTHWEST NATURAL GAS COMPANY WORKFORCE STATISTICS

For the payroll ending Oct. 15, 2020

The following table sets forth Northwest Natural Gas Company's consolidated EEO-1 data as submitted for the payroll period Oct. 1, 2020 through Oct. 15, 2020.

JOB CATEGORIES	HISPANIC OR LATINO		NOT-HISPANIC OR LATINO												OVERALL TOTALS
	MALE	FEMALE	MALE						FEMALE						
			WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	
EXECUTIVE/SR OFFICIALS & MGRS	2	0	58	2	1	3	1	1	34	0	0	1	2	0	105
FIRST/MID OFFICIALS & MGRS	4	0	54	1	0	3	1	1	14	3	0	0	0	0	81
PROFESSIONALS	12	7	176	5	1	15	4	3	101	4	0	16	1	3	348
TECHNICIANS	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
SALES WORKERS	0	0	3	0	0	0	0	0	2	0	0	0	0	0	5
ADMINISTRATIVE SUPPORT	5	9	34	4	0	1	1	1	87	15	2	7	1	8	175
CRAFT WORKERS	20	1	299	8	2	6	19	1	6	1	0	0	0	0	363
OPERATIVES	4	0	46	2	0	2	1	0	5	0	0	0	0	0	60
LABORERS & HELPERS	0	0	15	3	0	2	0	2	0	0	0	0	0	0	22
SERVICE WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	47	17	686	25	4	33	27	9	249	23	2	24	4	11	1,161
PREVIOUS REPORT TOTAL	46	21	697	25	0	31	26	9	247	25	0	25	6	9	1,167

NORTHWEST NATURAL GAS COMPANY WORKFORCE STATISTICS

For the payroll ending Dec. 31, 2021

The following table sets forth Northwest Natural Gas Company's consolidated EEO-1 data as submitted for the payroll period Dec. 15, 2021 through Dec. 31, 2021.

JOB CATEGORIES	HISPANIC OR LATINO		NOT-HISPANIC OR LATINO												OVERALL TOTALS
	MALE	FEMALE	MALE						FEMALE						
			WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	
EXECUTIVE/SR OFFICIALS & MGRS	2	0	24	0	0	2	0	0	16	0	0	0	0	0	44
FIRST/MID OFFICIALS & MGRS	4	1	88	3	1	6	1	2	35	2	0	1	2	1	147
PROFESSIONALS	19	10	168	5	2	13	3	4	109	2	0	19	1	5	360
TECHNICIANS	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
SALES WORKERS	0	0	3	0	0	0	0	0	2	0	0	0	0	0	5
ADMINISTRATIVE SUPPORT	4	9	33	5	1	2	1	2	76	15	2	6	1	7	164
CRAFT WORKERS	18	0	304	7	3	9	19	5	5	1	0	0	0	0	371
OPERATIVES	10	0	52	3	0	2	0	0	3	0	0	0	0	0	70
LABORERS & HELPERS	1	0	1	1	0	1	0	1	1	0	0	0	0	0	6
SERVICE WORKERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	58	20	674	24	7	36	24	14	247	20	2	26	4	13	1,169
PREVIOUS REPORT TOTAL	47	17	686	25	4	33	27	9	249	23	2	24	4	11	1,161

