NW Natural
Public Engagement Webinar
Energy Planning

March 5, 2025

NW Natural®

Forward Looking Statement

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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 presentation 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.

Agenda

- Welcome
- Safety Moment
- About NW Natural
- Introduction to Energy Planning
  - Planning to meet energy needs
  - Planning to meet policy requirements
- Get Involved and Energy Assistance Programs

Using Zoom Webinar

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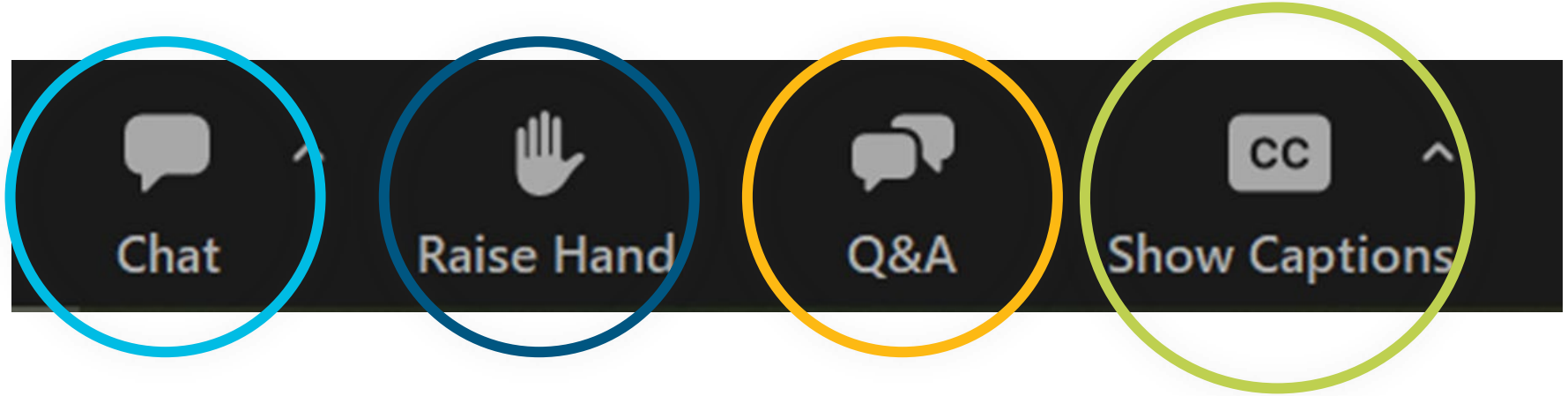
View messages from NW Natural in the Chat

Use the Q&A tool to ask written questions throughout the webinar



The Raise Hand tool is not available for this webinar – see Q&A tool

Click Show Captions to see real-time closed captioning in multiple languages

Take 2 Minutes for Safety:

Call before you dig

Before you dig, call 811 to locate underground utility lines

- Underground utility lines may include natural gas, electricity, telecommunications, water, and/or sewer
- To ensure your safety, call 811 to locate lines before you start any projects that involve digging
  - For example: landscaping, fence installation, construction
- It's free and it's the law

For more information, please visit: https://www.nwnatural.com/safety/call-before-you-dig

About NW Natural

Question:

How old is NW Natural as a company?

Answer:

More than 166 years old

A History of Looking Forward

1860s

Manufactured gas for lighting and heat

1950s

Network expands with arrival of Northwest pipeline

2000s

- Modernized system
- Leads rate decoupling
- First carbon offset program, Smart Energy

2019 ▸ Beyond

RNG, Clean Hydrogen, and Carbon Capture to deeply decarbonize

Who is NW Natural?

- 166-year-old Oregon company
- Over 800,000 customers
  - 88% Oregon
  - 12% Washington
- Operates in 2 states, 18 counties, 140 different communities
- More than 1,200 employees
- Own and operate 3 on-system natural gas storage facilities

We are a Local Distribution Company (LDC)….What does that even mean?

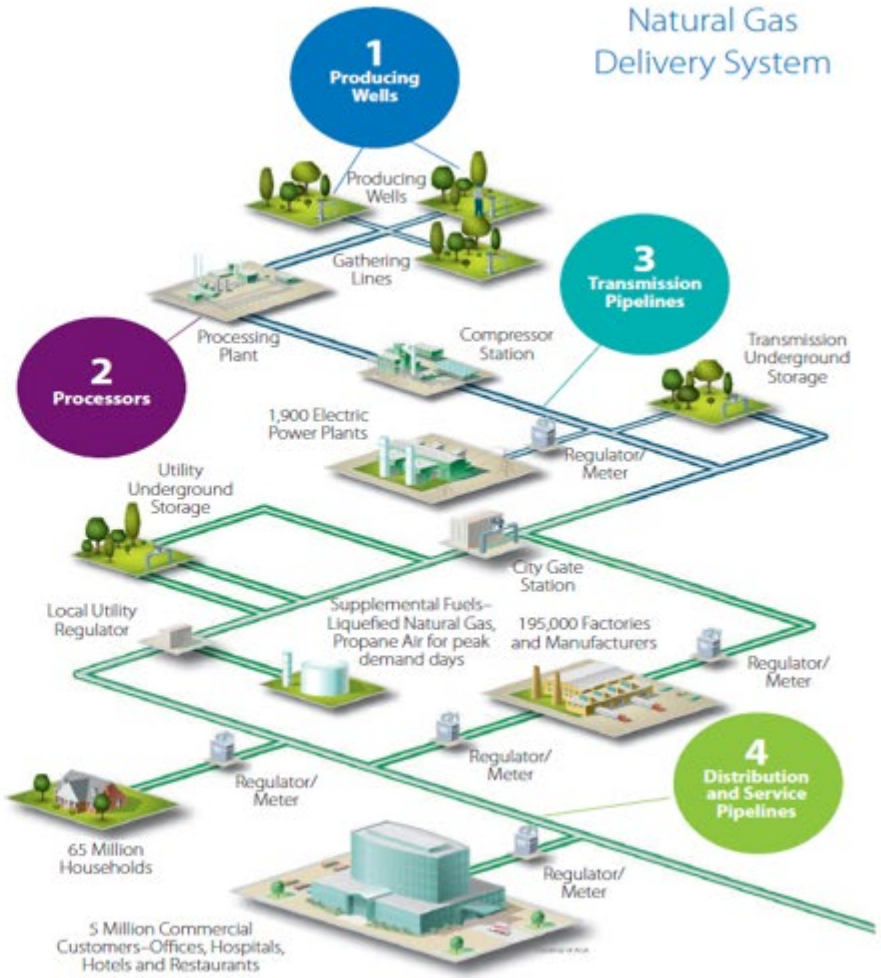
There are four segments of the natural gas industry involved in delivering natural gas from the wellhead to the consumer

1. Producing Wells (producers) such as Anadarko, BP, Devon, ExxonMobil and others, access natural gas by drilling wells into the rock then using pipes to bring the gas to the surface. In most wells, the pressure of the natural gas is enough to force it to the surface and into the gathering lines that run to central collection points. Where the gas can't flow naturally, advanced drilling technology combined with hydraulic fracturing is used to bring gas to the surface.

2. Processors (midstream companies), like Enbridge, TransCanada and Williams typically connect the various producing wells via a raw-gas-gathering network of small diameter pipelines, and process the gas to transmission pipeline specifications.

3. Transmission Pipelines, such as Enbridge's BC Pipeline, TransCanada's GTN System and Williams NW Pipeline, act like interstate highways for gas, moving huge amounts of natural gas thousands of miles from production regions to market regions served by local distribution companies. Compressor stations located about every 50 to 60 miles boost pressure to counter what is lost from the friction of gas moving through the pipe.

4. Distribution and Service Pipelines (local distribution companies), such as those operated by Avista, Cascade Natural, FortisBC Energy, Intermountain, NW Natural, and Puget Sound Energy, are where the familiar "rotten egg" smell is added to natural gas before it is delivered to homes and businesses through distribution mains (utility pipelines). Finally, after passing through a meter that measures use, the gas travels to a customer's equipment, appliances and vehicles.



Source: Adapted from Northwest Gas Association

Energy Planning

Question:

How far into the future does NW Natural plan its resources to serve customers?

Answer:

20 years and beyond!

What is Energy Planning?

Every 2 years, we develop a long-term plan to ensure that we will meet our customers energy needs reliably for the **next 20 years.**

Cost and risk  Reliable service

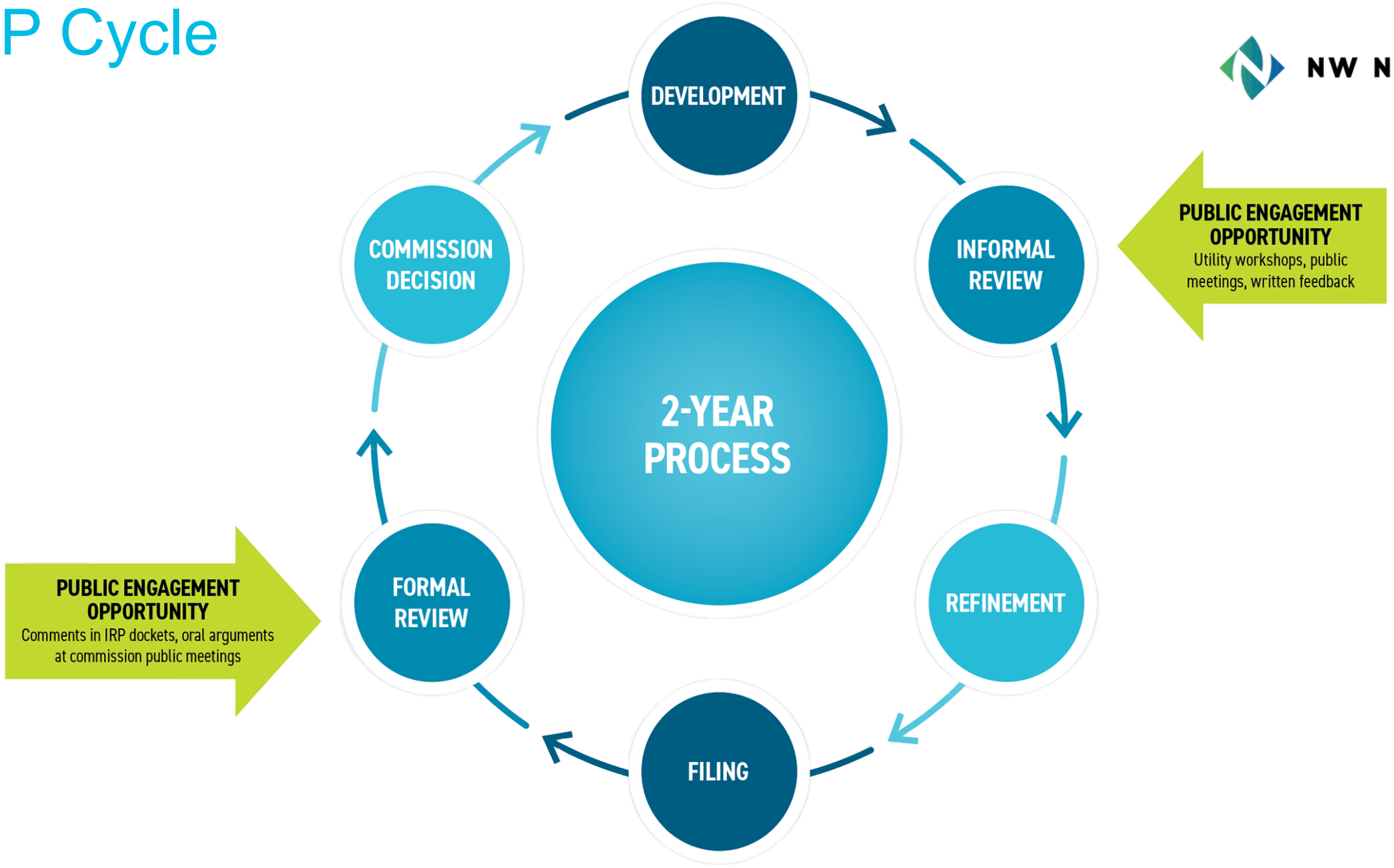
*This plan is known as an **Integrated Resource Plan (IRP).***

Integrated Resource Plan Process

Utility Regulation

- NW Natural is an Investor-Owned Utility (IOU)
- IOUs are regulated by state agencies
  - Oregon Public Utilities Commission (OPUC)
  - Washington Transportation and Utilities Commission (WUTC)
- Oregon utility regulation dates back to the Public Utility Act in 1911
- Utility Commissions approve consumer rates and ensure safety standards are met
- Other IOUs that operate in Oregon and Washington:
  - Cascade Natural Gas, Avista, Puget Sound Energy, Portland General Electric (PGE), Pacific Power, and Idaho Power

IRP Cycle



NW Natural Customers

Question:

What is the largest customer group (sectors) NW Natural serves?

Answer:

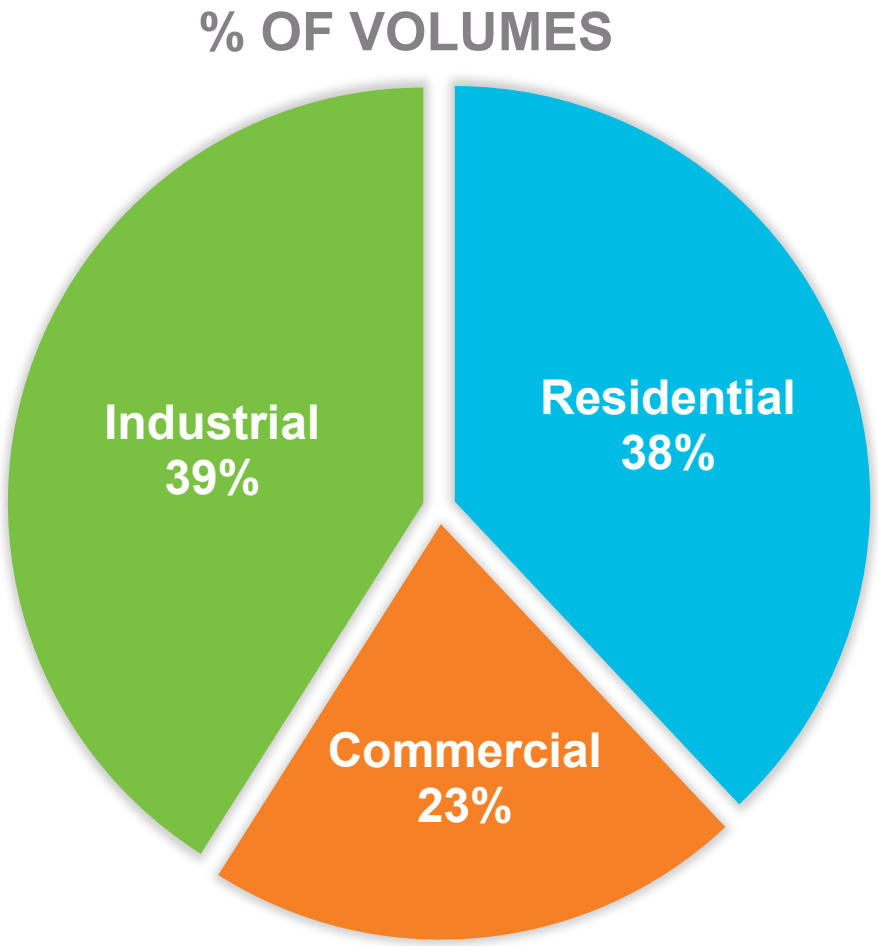
Residential customers

Types of Customers

Approx. Customer Counts

Residential	731,497	91%
Commercial	69,390	9%
Industrial	1,056	<1%

Source: NW Natural 2024 10-K



Source: NW Natural 2024 10-K

Question:

By volume, what is the most common use of natural gas by residential customers?

Answer:

Space heating

How do our sales customers use natural gas?

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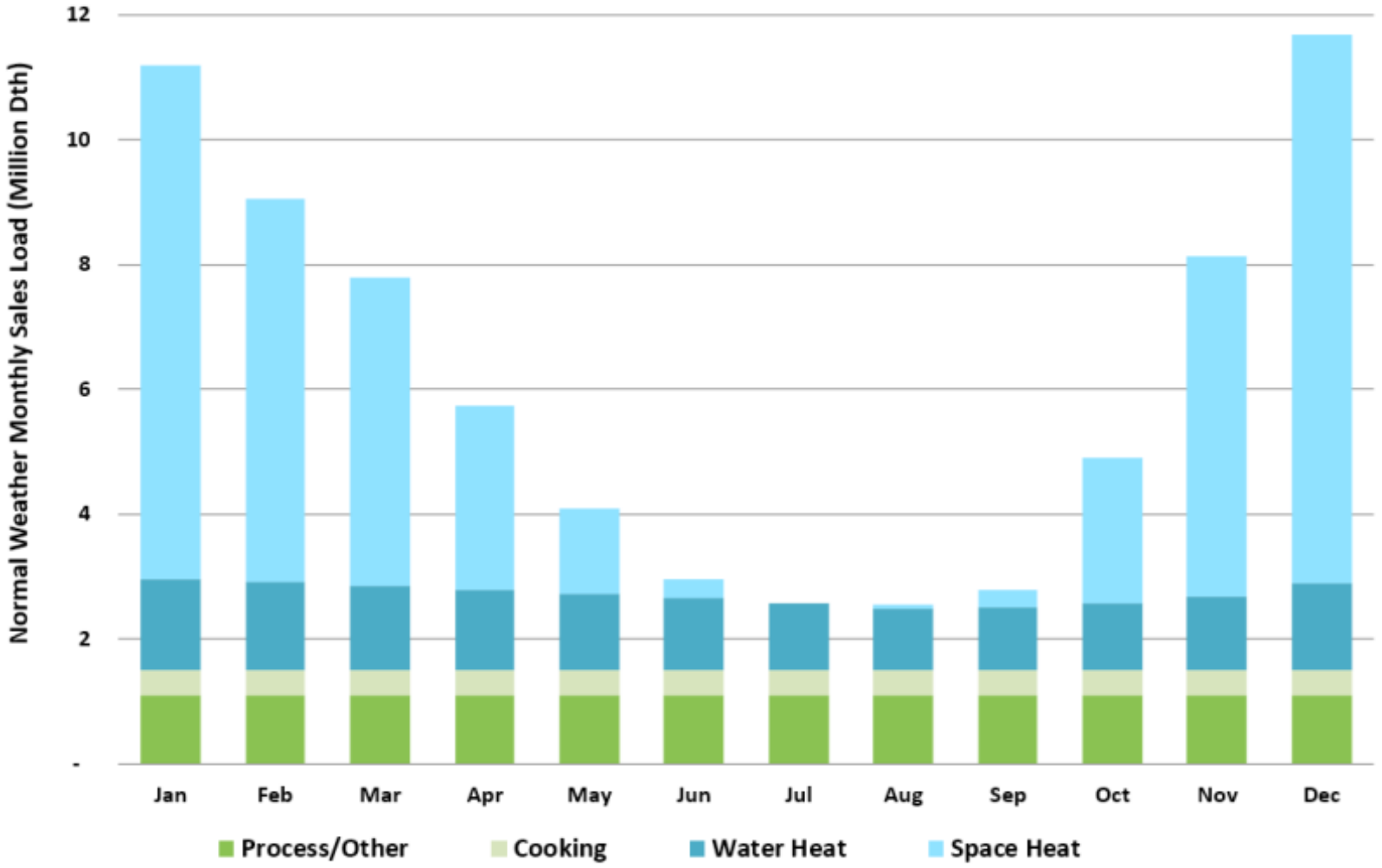
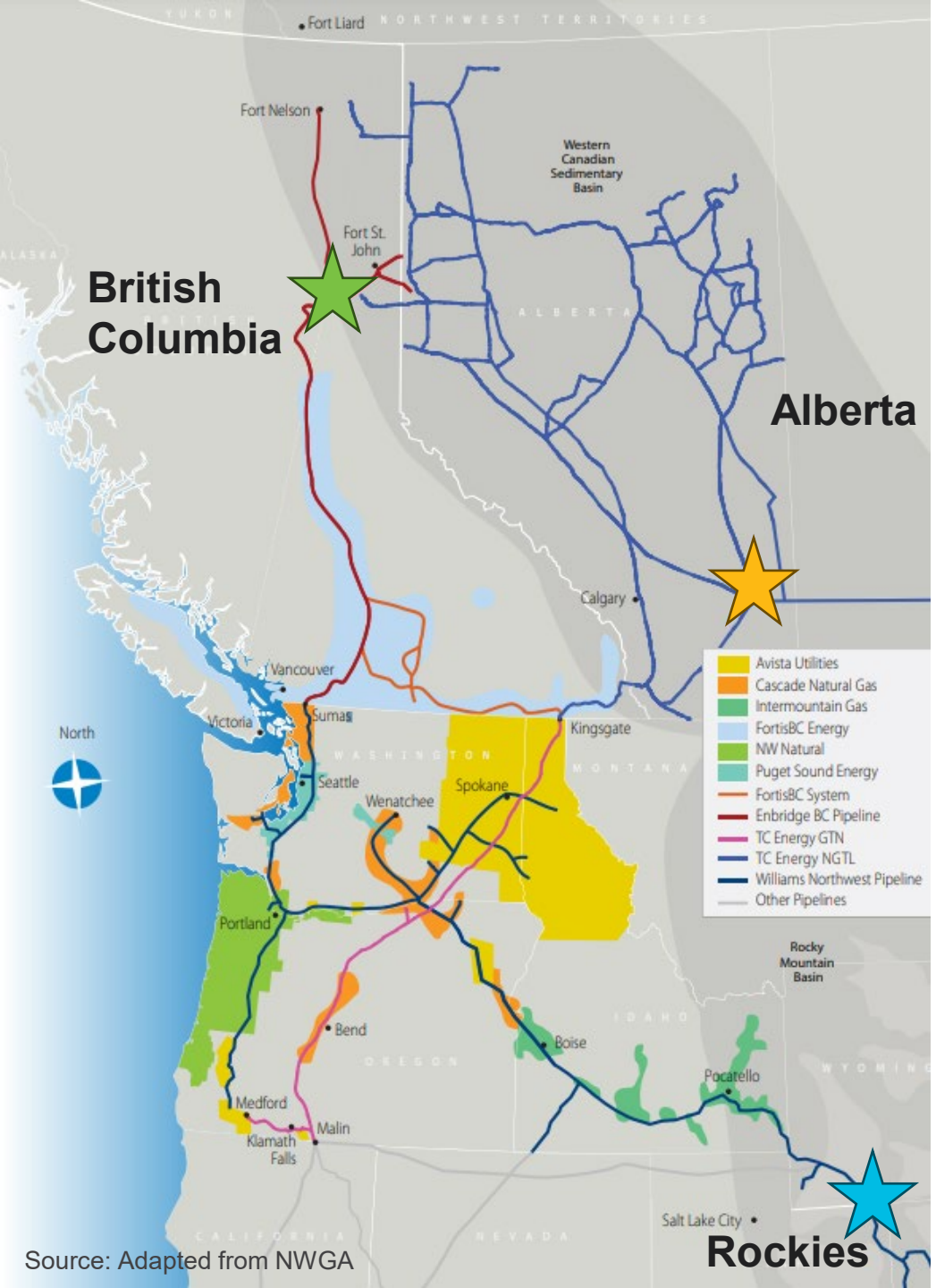
Figure 1.6: Monthly Sales Load by End Use



NW Natural Gas Supplies



Source: Adapted from NWGA

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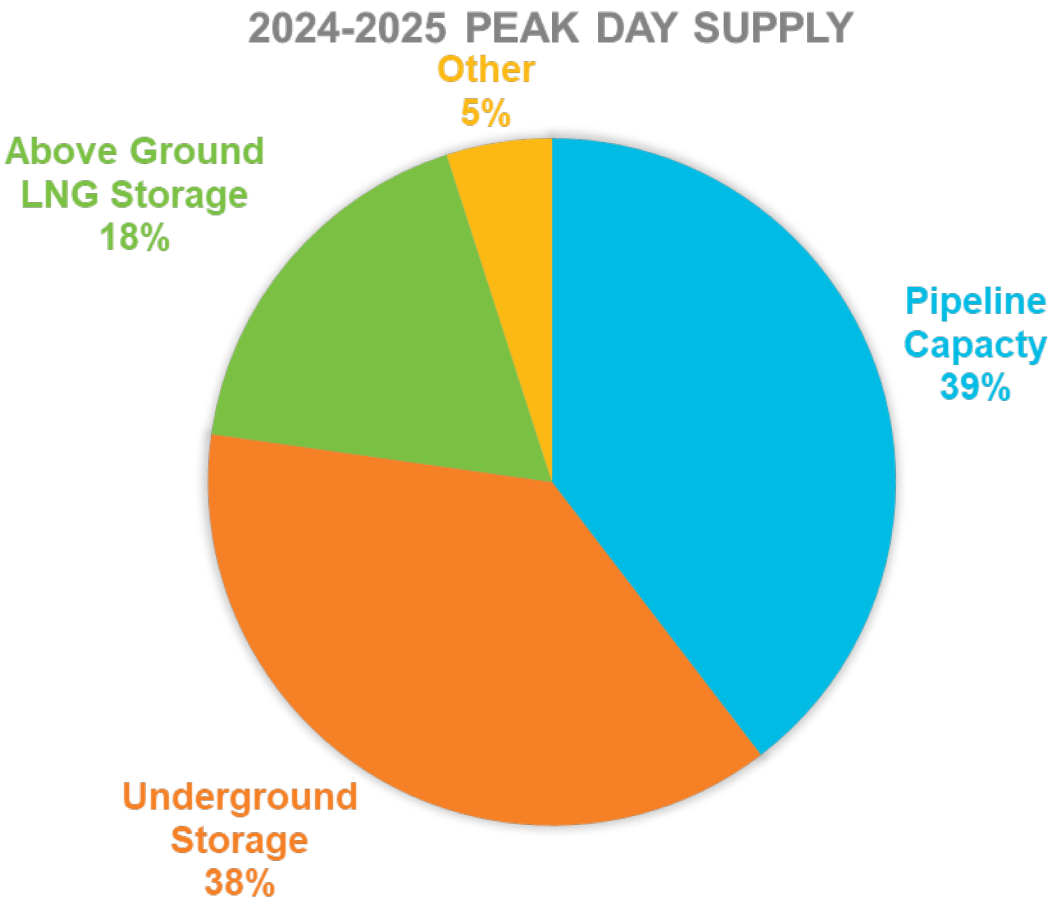
NW Natural Gas Purchases

All conventional gas purchases ultimately travel through interstate pipelines to our service territory

- 1/3 from Alberta
- 1/3 from British Columbia
- 1/3 from U.S. Rockies

Cold Winter Day Planning



Demand-Side Resources

Demand Side Resources

Demand side resources are ways to use less natural gas by making things more efficient or shifting when resources are used

Customer Program Offerings

- Energy Trust of Oregon incentives and program offerings for energy efficiency
  - Rebates on installing insulation, windows, high efficiency appliances, etc.
- Oregon and Washington Low Income Energy Efficiency (OLIEE and WALIEE)
- NW Natural Thermostat Rewards

We rely on energy efficiency and conservation measures to help reliably provide energy service to our customers

- NW Natural has been working with the Energy Trust of Oregon since 2003 to promote conservation and energy efficiency measures
- Without this work, we estimate that residential and commercial demand for natural gas would otherwise be about 11% more today
- Energy efficiency will further reduce total demand by an estimated 19% by 2050

Poll:

Have you ever participated in any of these programs?

Energy Trust of Oregon incentives and program offerings

Oregon and Washington Low Income Energy Efficiency (OLIEE and WALIEE)

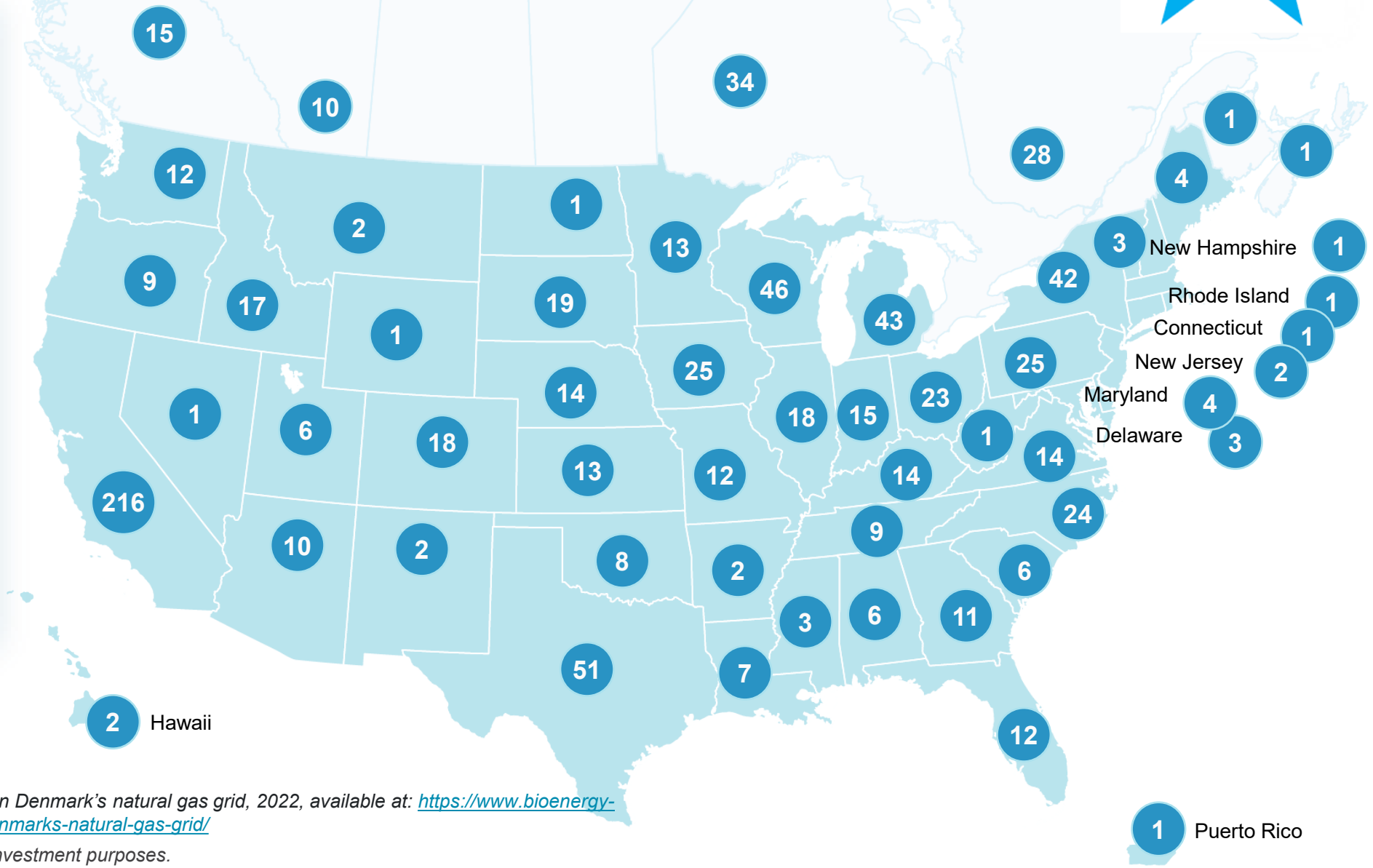
NW Natural Thermostat Rewards

How the natural gas system can play a role in decarbonizing the economy

Renewable Natural Gas (RNG)

What is RNG?

- When organic waste decomposes, methane is produced.
- RNG is made by capturing and cleaning that waste methane and displacing fossil gas with it.
- Renewable natural gas (RNG) is not a fossil fuel- it recycles CO2 already in the atmosphere.
- Examples of sources of RNG include animal manure, wastewater, and landfills
- Denmark is at 40% of their gas supply as RNG.[1]



[1] *Bioenergy Insight, Biogas takes up 40% of methane in Denmark's natural gas grid, 2022, available at: https://www.bioenergy-news.com/news/biogas-takes-up-40-of-methane-in-denmarks-natural-gas-grid/*

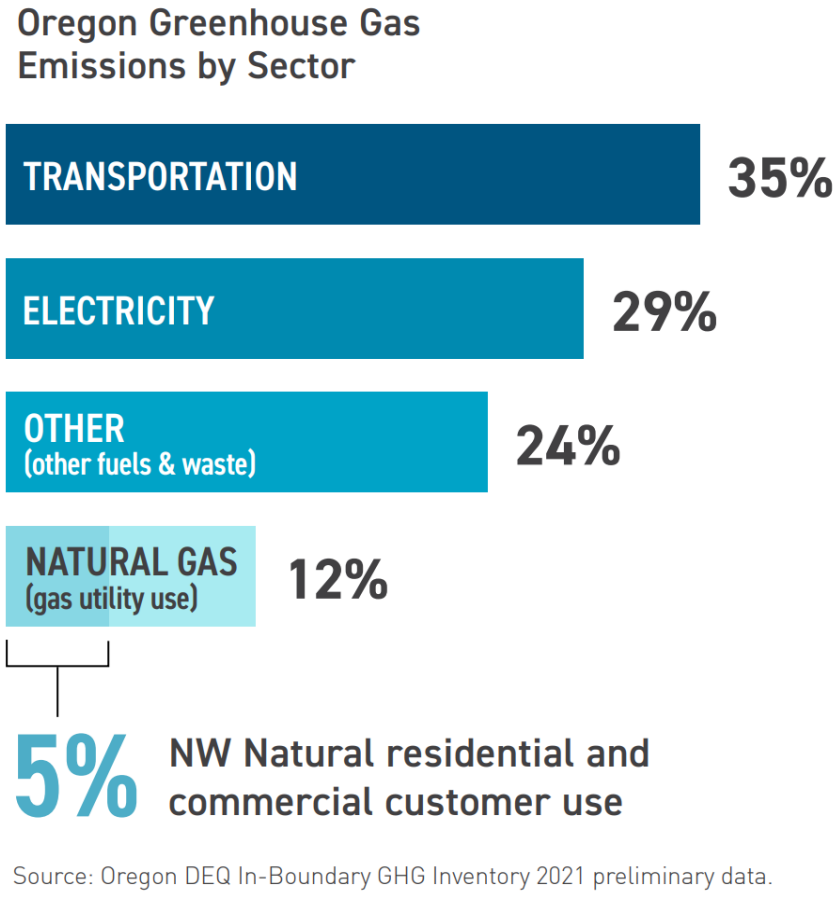
What about Hydrogen?

- Like RNG, hydrogen can be used as a carbon reduction compliance resource in Oregon and Washington
- Hydrogen can be blended into the natural gas distribution system to reduce carbon emissions as no carbon is produced when combusted
- More than a dozen North American utilities have deployed hydrogen as a decarbonization resource
- For over 50 years, Hawaii Gas has been delivering up to 15% hydrogen to approximately 70,000 customers
- NW Natural has been safely blending varying levels of hydrogen at our Sherwood facility for more than three years
- We have a partnership with Modern Hydrogen to remove carbon from gas and produce clean hydrogen at our Central facility

Carbon reduction regulations in Oregon and Washington relevant for NW Natural

Role of Our Gas System Today

- NW Natural's system delivers 50% more energy than any other utility in Oregon over the course of a year.[1]
- NW Natural's is among the tightest systems in the country, consistently leading the industry with one of the lowest leaks per mile of distribution pipeline.[2]



Source: Oregon DEQ In-Boundary GHG Inventory 2021 preliminary data.

Source: https://www.oregon.gov/deq/ghgp/Pages/GHG-Inventory.aspx

Sources:

[1] 2023 Oregon Utility Statistics Report: https://www.oregon.gov/puc/forms/Forms%20and%20Reports/2023-Oregon-Utility-Statistics-Book.pdf

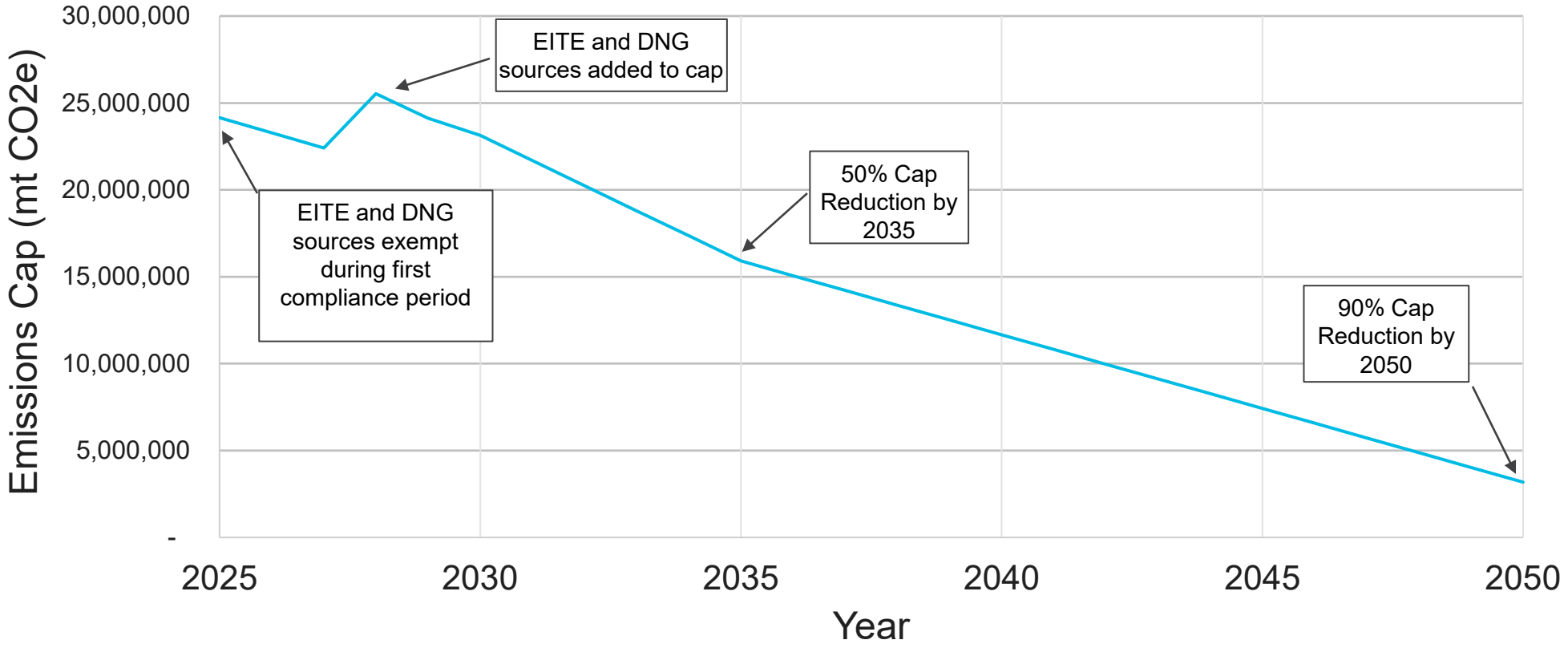
[2] Based on Annual DOT Report Data for natural gas operators reporting more than 7,000 miles of distribution main.

Oregon Climate Protection Program (CPP)

- Oregon's Greenhouse Gas (GHG) Cap and Reduce Program
- Approved by the Environmental Quality Commission on Nov. 21, 2024
- Impacted Sectors
  - Natural gas suppliers (e.g., NW Natural)
  - Transportation fuel suppliers
  - Emission Intensive Trade Exposed (EITEs) Facilities and Direct-use Natural Gas Facilities
- Allowed Compliance Tools: Compliance Instruments, Community Climate Investments (CCI), energy efficiency, RNG, H2, carbon capture
- More information: https://www.oregon.gov/deq/ghgp/cpp/pages/default.aspx

Oregon CPP Program Cap

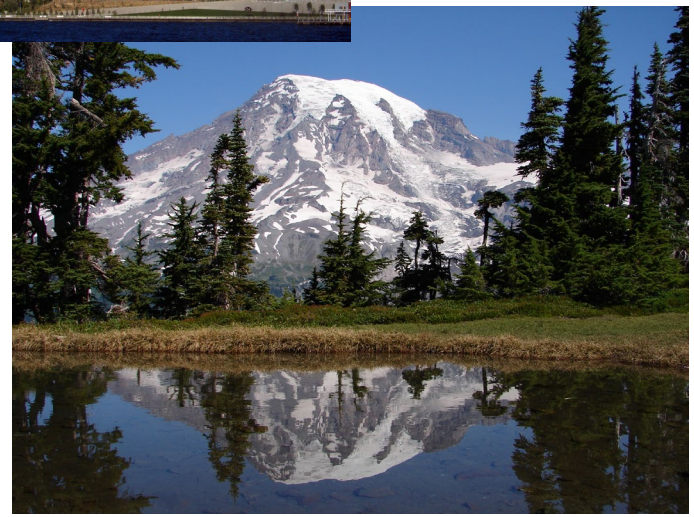
50% reduction by 2035 and 90% reduction by 2050 all from average of 2017-2019 emissions



Source: OAR 340-273-9000 Table 2

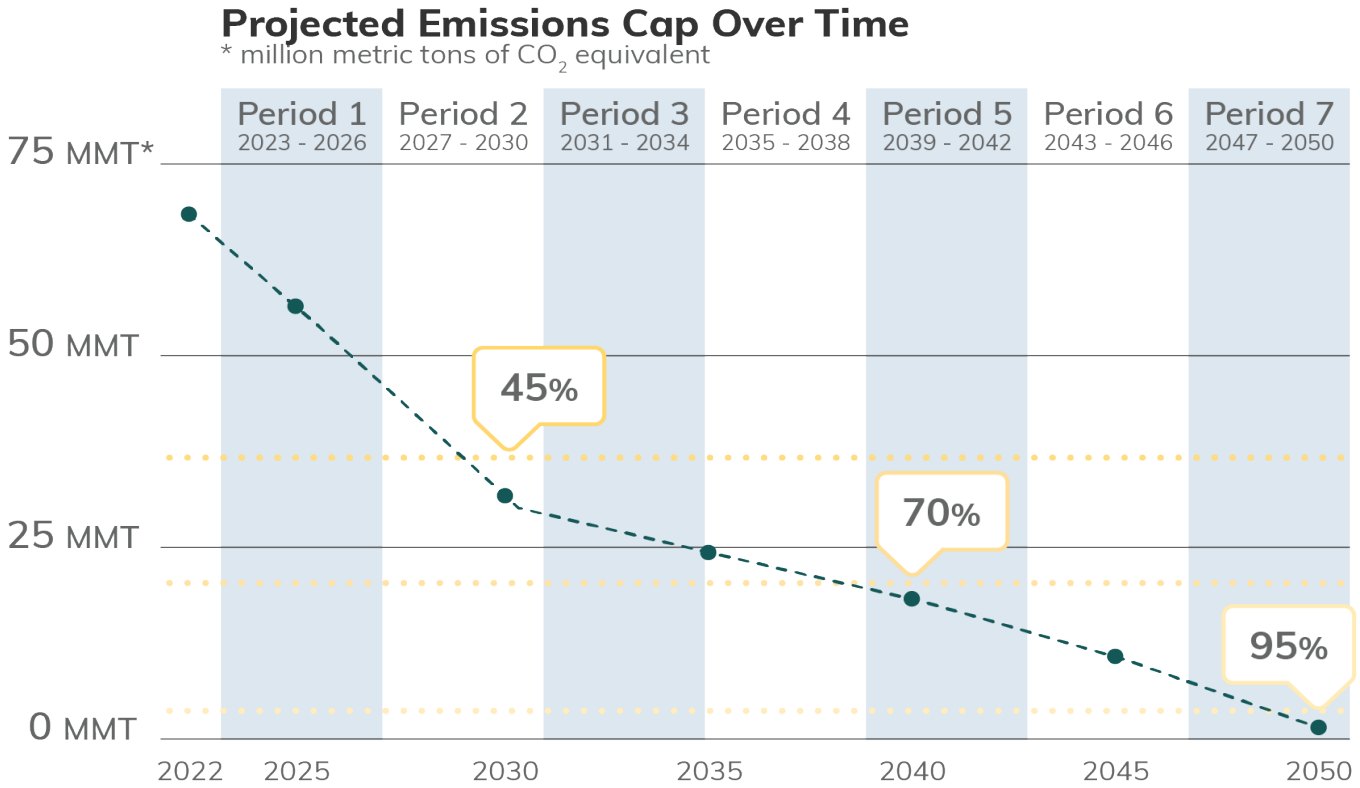
WA Climate Commitment Act (CCA)

- Signed into law 2021
- Washington's GHG Cap and Invest Program
- Economy wide coverage and point of regulation
  - Natural gas suppliers (e.g., NW Natural customers under 25,000 mt CO2e / year)
  - Transportation fuel suppliers
  - Facilities (>25,000 mt CO2e / year)
  - Electricity generators and importers
  - Landfills
- Allowed Compliance Tools: Allowances, offsets, energy efficiency, RNG, H2, carbon capture
- More information: https://ecology.wa.gov/air-climate/climate-commitment-act



CCA Cap Trajectory

45% reduction by 2030 and 95% reduction by 2050 all from average of 2015-2019 emissions



Source: Cap-and-invest - Washington State Department of Ecology

Get involved in planning and energy assistance programs

NW Natural IRP Engagement Opportunities

- **Technical Working Groups (TWGs)**
  - Focus on **analytical requirements** and gathering feedback
  - Open to the public and ongoing
- **Public Engagement Webinars**
  - Focus on **informing & educating**
  - Open to the public
- **Energy Resource Fair**
  - In-person public event focused on **informing & educating**
  - Partnered with local organizations to host
- **Feedback Form, IRP Contact, Office Hours**
  - Provide feedback and ask questions via form on IRP webpage
  - IRP Team contact: IRP@nwnatural.com
  - Team may host office hours as needed during IRP development

More information: https://www.nwnatural.com/about-us/rates-and-regulations/integrated-resource-plan

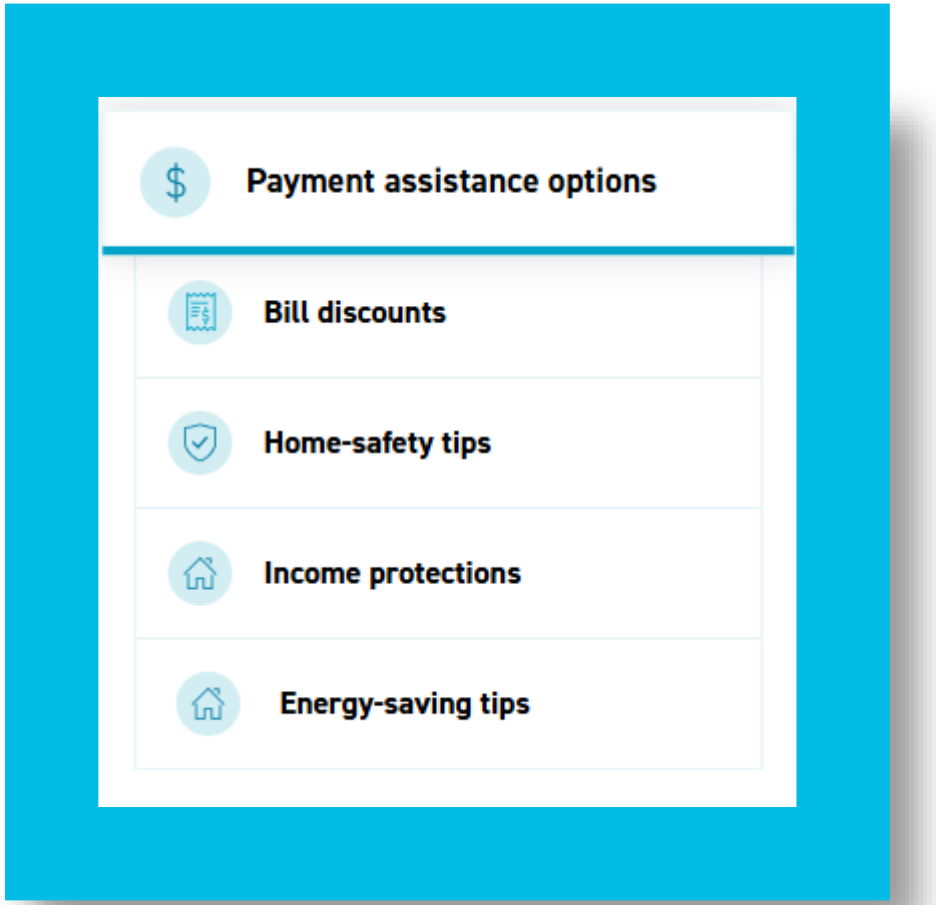
Energy Assistance Programs

NW Natural

NW Natural offers ways to save on your gas bills through energy efficiency and bill assistance programs

We work with community organizations in Oregon and Southwest Washington

Learn more about our offerings: https://www.nwnatural.com/ways-to-save/savings-programs



Thank you!

We value your feedback.

IRP@nwnatural.com

IRP Website

IRP Feedback Form