

Oregon's Energy Future Conference

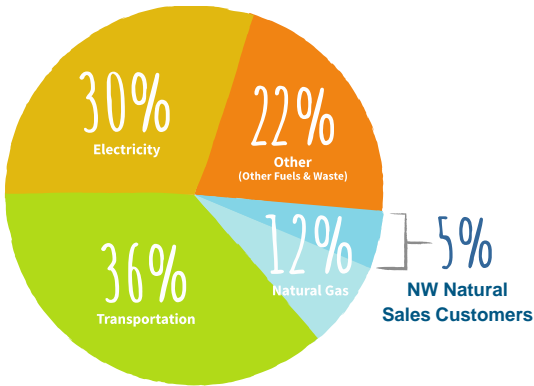
OUR LOW CARBON PATHWAY

Kim Heiting, SVP of Operations



What role does our system play?

Oregon Greenhouse Gas Emissions



Category	Percentage
Electricity	30%
Other (Other Fuels & Waste)	22%
Transportation	36%
Natural Gas	12%
NW Natural Sales Customers	5%

NW Natural's System

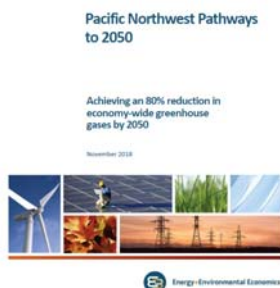
- **Delivers more** energy than any other utility in Oregon
- **Heats 74%** of residential square footage in the areas we serve
- **Provides 90%** of energy needs for our residential space and water heat customers on the coldest winter days

Source: ODEQ In-Boundary GHG Inventory 2015

NW Natural serves 2 million people in 140 communities

2050 Decarbonization Pathway

- All Pacific Northwest decarbonization studies agree on five key elements required for transformational success
 - Natural gas is a key part of a smart, effective climate strategy – along with other innovations
 - Goal can be achieved more affordably using infrastructure in place with a blend of 25% renewable natural gas



Renewable Natural Gas

- Closes the loop on waste - renewable fuel from organic waste streams
- Substantially reduces CO₂ – used directly in appliances or in vehicles
- Most efficiently used in the pipeline
- Turns costly waste into revenue generator with resiliency benefits for cities

ODOE STUDY POTENTIAL: 48 Bcf

Equals All Oregon Residential Gas Use

Wastewater Treatment Plants

Municipal Solid Waste

Landfills

Dairies

Wood and Agricultural Residues



100+ projects nationwide

First 3 projects online in Oregon in 2020

Driving Reductions Through RNG

- **E3 Deep Decarbonization Study:**

- 25% renewable natural gas in the system by 2050

- **Is that doable?** **YES**

- Just in Oregon = nearly 50 Bcf of potential
- Nationwide potential = estimated at 9 trillion cubic feet
- 25% in the system = 29 Bcf by 2050

Senate Bill 98
would support
RNG targets:

2030
15%

2035
20%

2050
30%

Thank You



NW Natural[®]
Celebrating 160 years