

OUR LOW-CARBON PATHWAY

October 2017



NW Natural analysis, not for investment purposes.

OUR VALUE PROPOSITION



DOMINANT PREFERENCE

87% of homebuyers ranked having natural gas as an important factor to a home purchase, with 9 out of 10 saying they'd pay more to get it.



PREMIUM PRODUCT FOR LESS

Homebuyers know gas provides greater comfort for a lot less money. Our customers are paying less for natural gas today than 15 years ago.



STRONG CUSTOMER SATISFACTION

For 5 consecutive years, NW Natural has ranked 1st in the West in JD Power's Gas Utility Customer Satisfaction Study.



A LOW CARBON FUTURE

We believe climate change requires collective action.

NW Natural has an important role to play in a smart and affordable Northwest climate strategy.

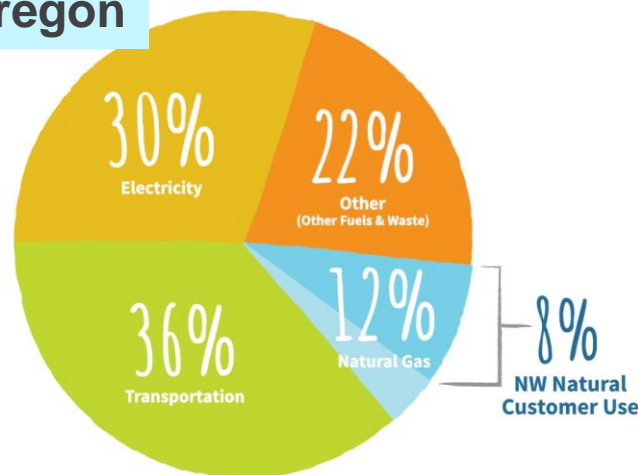
OUR OBJECTIVES:

- 1** Long-term goal of deep decarbonization that leaves no one behind.
- 2** Near-term actions take advantage of the natural gas infrastructure already in place.
- 3** Lead the way on natural gas innovations and share broadly for larger impact.

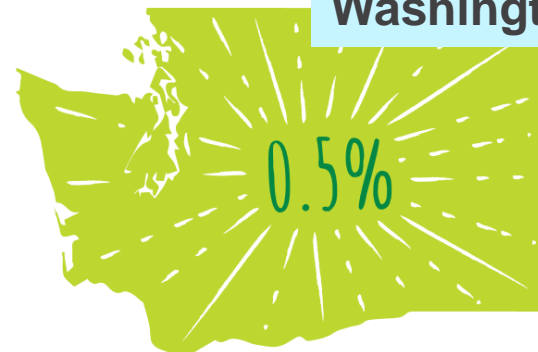
WHAT IS OUR STARTING POINT?

- **We serve 74%** of residential square footage in our territory where gas is available
- **We provide 90%** of peak day energy needs for our residential space and water heat customers
- Our customers direct use of gas accounts for 8% of Oregon's emissions and 0.5% of Washington's state missions

Oregon



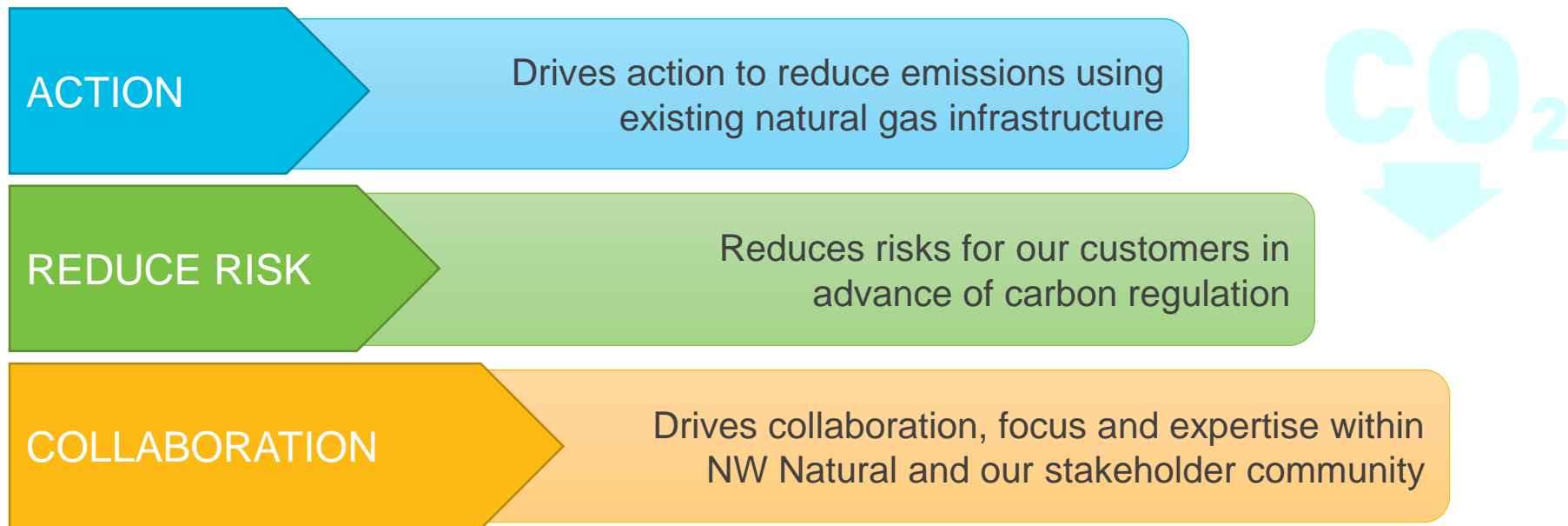
Washington



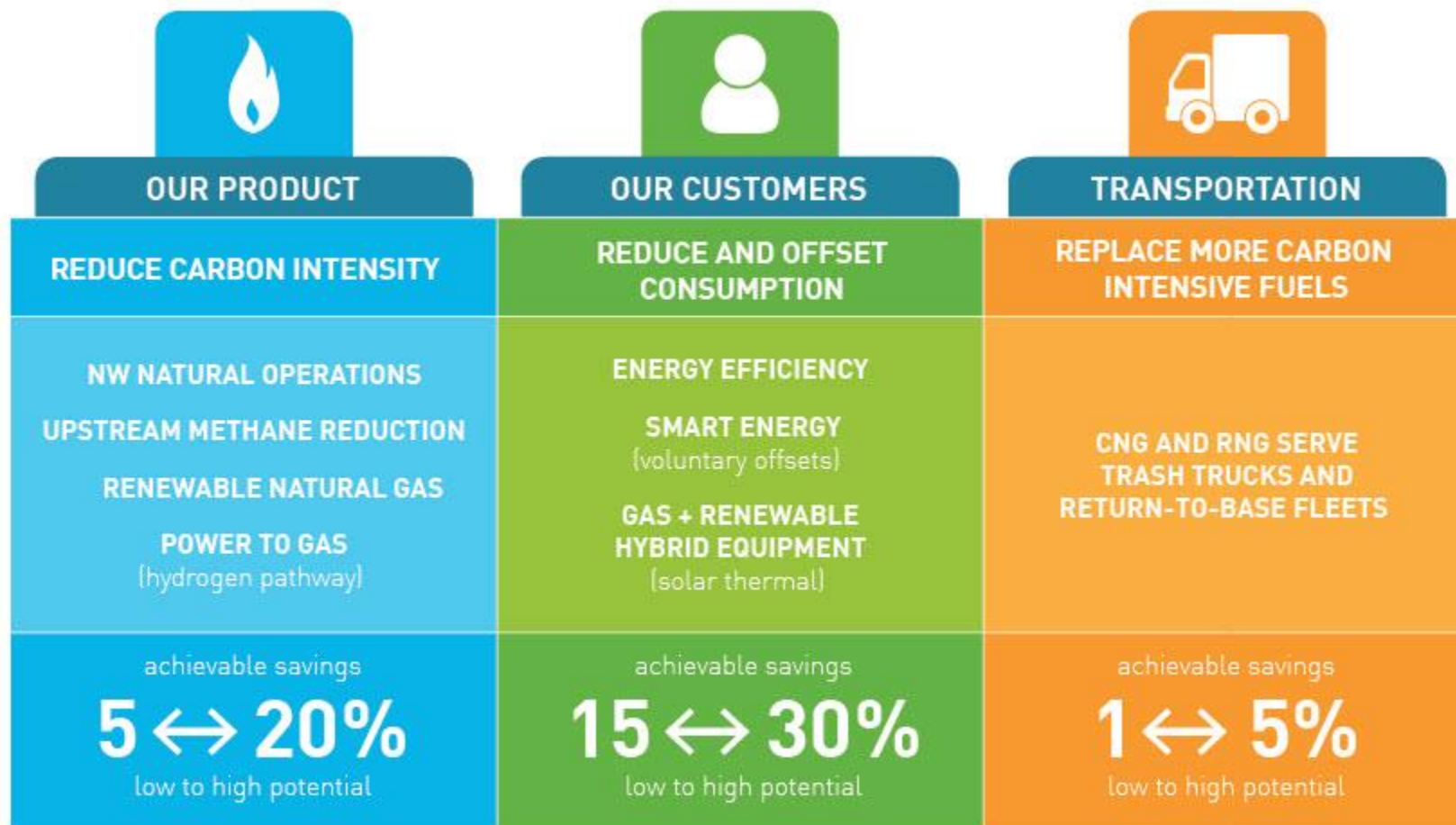
GOAL: 30% CARBON SAVINGS BY 2035

A focus on **savings** allows for absolute reductions across sectors - resulting in lower emissions overall.

Baseline: 2015 emissions from customer end use and NWN operations



SAVINGS OPPORTUNITIES

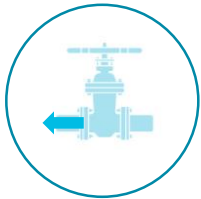


OUR PRODUCT



OPERATIONS

Continue to shrink the company operational footprint through fleet and facility upgrades



PRODUCTION PRACTICES

Production sector holds the largest opportunity to reduce emissions, so we will work with producers to drive best practices at the wellhead



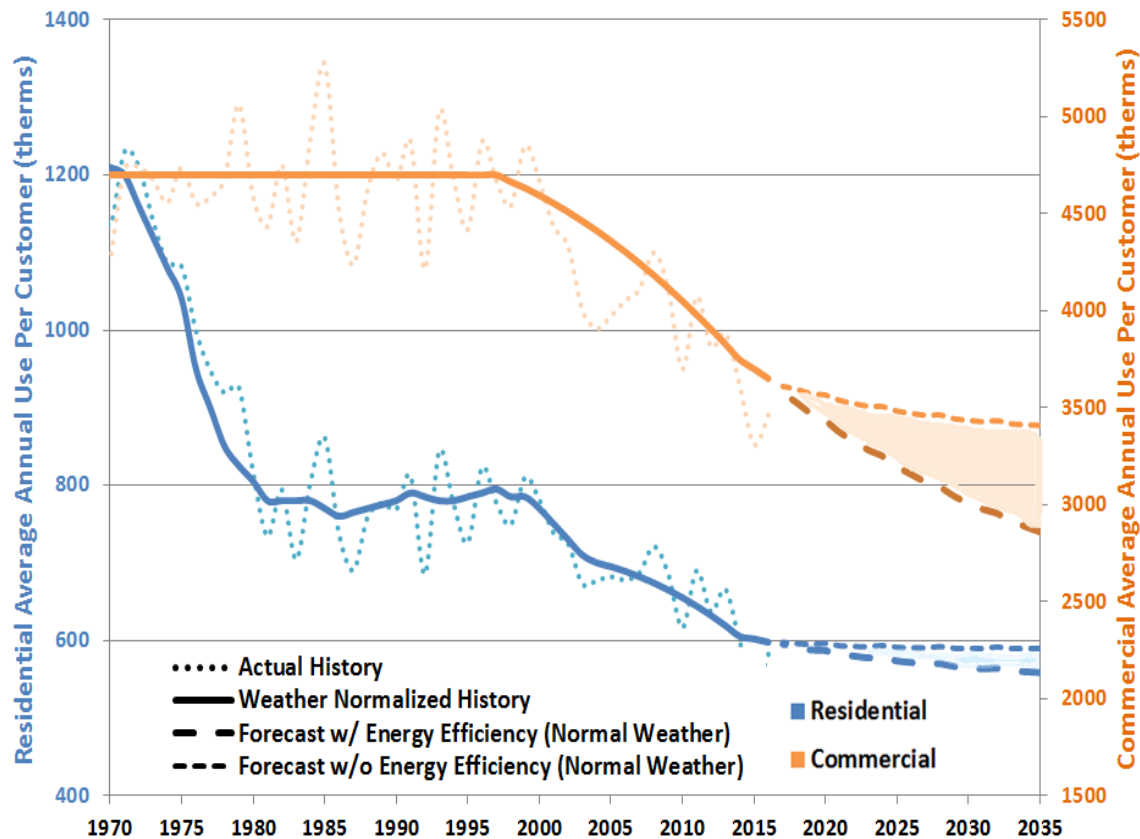
DELIVERING RENEWABLES

The natural gas system can transport more than conventional natural gas. Renewable natural gas from waste streams and hydrogen from excess renewable generation can also flow through our pipes.

OUR CUSTOMERS



“Use Less, Offset the Rest”



SMART ENERGY

Presented by NW Natural



INNOVATION



Natural Gas Zero Energy Homes

- Lower cost to build and operate
- Has amenities homeowners prefer



Low-Cost Absorption Heat Pumps



- High-efficiency alternative to boilers
- Can be used for combo systems
- Low-cost residential option - commercially available now

Gas-Fired Heat Pump Water Heater



- Full fuel-cycle efficiency = 200%
- Installed in conditioned spaces
- Operates in low temps
- Undergoing market testing



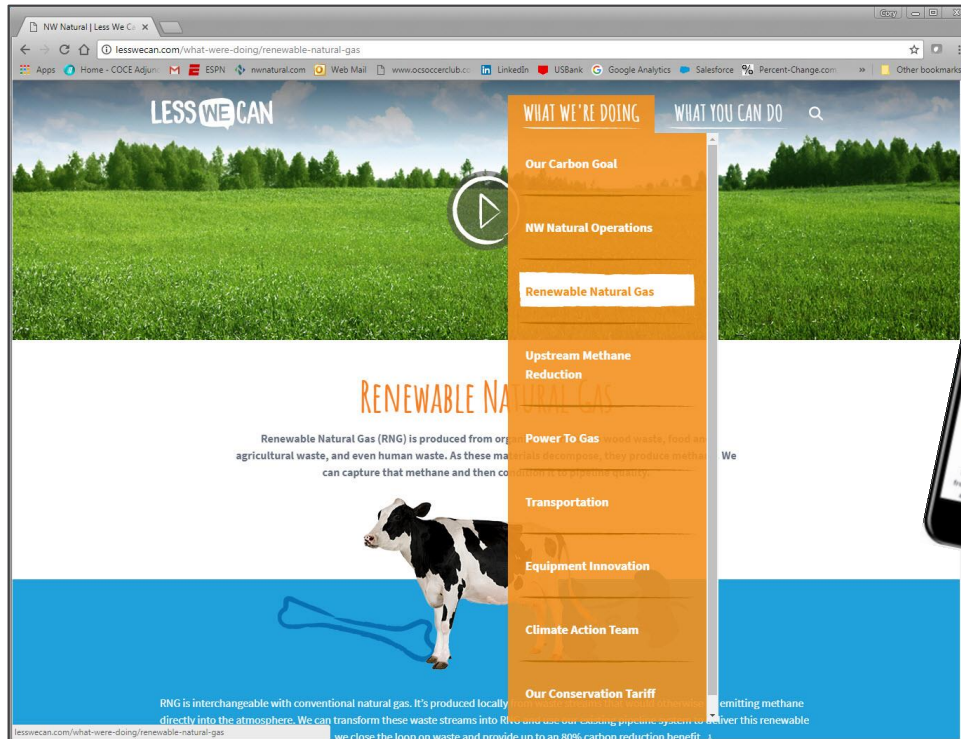
TRANSPORTATION

- Largest contributor to carbon emissions and growing.
- New CNG engines provide the cleanest, most cost effective solution for heavy duty vehicles.
- Delivers 20% reduction in carbon emissions compared to diesel and a 90% reduction in air pollution.
- Allows for drop-in renewable natural gas for an 80%+ reduction in carbon emissions.



NEW CAMPAIGN:

LESS WE CAN



THANK YOU

