

# Renewable Natural Gas (RNG)

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# NW NATURAL OVERVIEW



- 160 year old Oregon company
- Serve over 2.1 Million Oregonians – more than half the state’s population
- Deliver natural gas safely and affordably to businesses and homes

# RENEWABLE NATURAL GAS:

*Making energy for our customers from waste*



**ODOE potential study volume = all the residential gas use in Oregon**



# Why is RNG Important to NW Natural?

- RNG is completely interchangeable with conventional natural gas
  - No need for new equipment
  - No need for new distribution infrastructure
  - Can be stored in our existing storage resources
  - Leverages the modernized gas infrastructure our customers have already paid for over the years
- Why are we excited about RNG in our pipes?
  - We anticipate a future cost to emitting carbon in Oregon
  - RNG allows us to meet our own voluntary carbon goals

# Market Dynamics of RNG

- RNG costs more to produce compared to conventional natural gas
- There are benefits of RNG that are valuable to our customers and the communities we serve:
  - Low-carbon, renewable resource
  - Local resource (we currently buy all our gas from outside Oregon, because Oregon does not produce natural gas)
  - We can put RNG from local waste sources right onto local pipes
- Our customers and communities want us to deliver renewable resources
- Most RNG today is sold into the vehicle fuel (CNG) market to displace diesel due to existing policies focused on supporting alternative and low-carbon transportation fuels

# Two Barriers to Highlight

- Vehicle fuel (CNG) incentive programs for RNG:
  - Volatile and subject to political risk, which makes projects hard to finance
  - Have been very effective to kick-start RNG market
  - By definition only available to RNG for *vehicle* use; CNG vehicles very limited in Oregon
  - RNG projects interconnect in Oregon to sell RNG to CNG vehicles in California
- NW Natural is required to buy only the lowest-cost gas for our customers
  - NW Natural would like to buy the RNG being produced by the City of Portland project
  - We cannot compete with the very lucrative CNG incentive programs in the short term
  - We cannot buy any renewable products for our customers in the long term



# RNG Can Help Cost-Effectively Decarbonize Our Energy System

- ODOE report is critical step to better understanding the extensive RNG potential in the state
- RNG is key to reducing emissions for our customers using a distribution system that is already in place
- RNG can help decarbonize traditionally hard-to-decarbonize uses (space heating, industry, etc.)
- NW Natural can serve its customers immediately (available day or night, year round) with RNG, which is a safe and reliable renewable energy resource
- Based on the total RNG potential identified in ODOE study, we could serve about 62% of our total annual natural gas load with RNG