Eversource's Natural Gas Business is Driving a Cleaner, More Affordable and Safer Energy Option

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70% Reduction in Gas System Emissions Since 1990

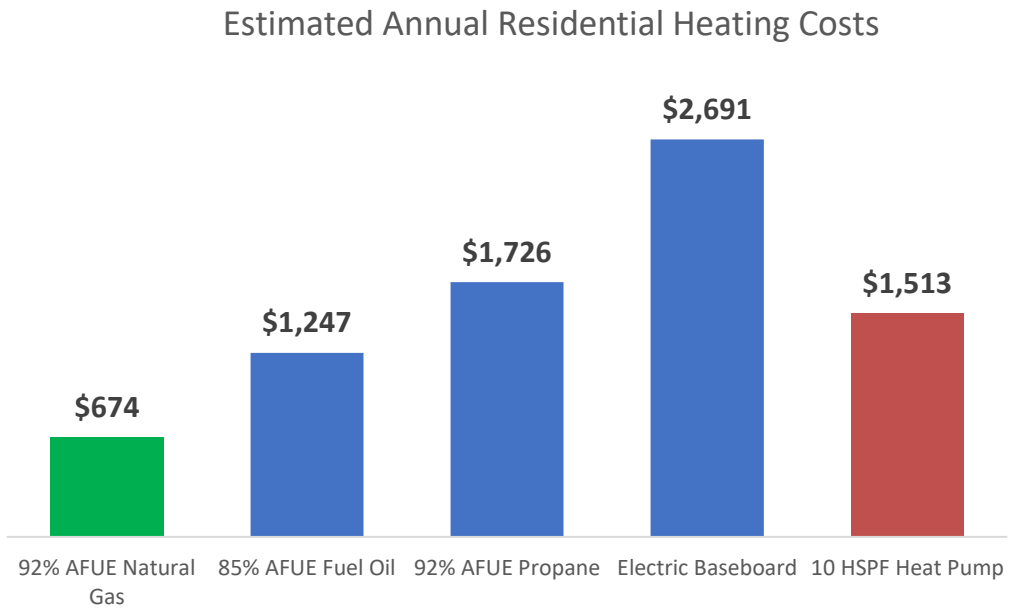
Strong Customer Demand & Reliance

- 2 million MA consumers rely on natural gas; not looking to switch to alternate fuel
- Hospitals, combined heat and power, critical network applications
- Natural gas essential for winter heating and electric system reliability

Unwavering Safety Commitment

- Replaced 225 miles of aging pipeline in MA between 2014 - 2019
- 24/7 system monitoring at state-of-the art dispatch and control center
- Among first utilities to pilot a Pipeline Safety Management System

Lowest Cost Residential Heating Source



Sources: MA & CT GHG Emissions Inventory; Energy Solutions Calculator

Clean Gas Pathway

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Leak Reduction

Responsible NG

Renewable NG

Power to Gas

Hydrogen

Near Term

- *Emission Leaks*
- *Gas Demand Response*
- *Pilot Alternatives (Geothermal)*

Mid Term

- *Cleaner Physical Gas*

Decarbonized Economy

- *Energy Storage*
- *Integration of Renewables*
- *System Asset Utilization*

- Focused on near-term opportunities to optimize current system to reduce carbon emissions
- Future Pathway depends on introducing cleaner gas solutions and new technologies so that gas infrastructure will be leveraged in a decarbonized economy

Phase I – Technology Demonstration

Gas Demand Response Pilot

Residential:

- 1-3 degree reduction for 2-8 hours on customers' wi-fi thermostats

Commercial & Industrial:

- Any method to lower consumption without fossil fuel backup system

Geothermal Networks

- Demonstration project to test the viability of geothermal networks in three applications

Multi-family

Mixed use/ dense urban

Residential neighborhood

Objectives:

- Shave peak demand/reduce the need for marginal gas supplies
- Alleviate temporary physical pipeline constraints
- Reduce emissions by lowering overall gas usage
- Determine if geothermal technology can provide an alternative to extending gas service, and is sufficient for all heating and cooling needs

Phase II – Responsible & Renewable Natural Gas

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- NSTAR Gas requested regulatory approval of **responsible** natural gas
  - Up to 10% of purchases
  - No greater than 1% increase in gas costs
- Yankee Gas has engaged with policy makers to discuss potential acquisition of responsible natural gas

- NSTAR Gas requested regulatory approval of **renewable** natural gas
- Yankee Gas engaged with policy makers and regulators
- DEEP draft legislation for RNG
- Decision pending on Biogas Quality Standards for Injection

Objectives:

- Address GHG emissions reductions from the supply side
- Opportunities to acquire RNG throughout the Gas Supply Chain
  - ✓ Delivered on trucks into the distribution system
  - ✓ Delivered directly via pipeline into the distribution system
  - ✓ Delivered to meter stations from Interstate pipeline

Phase III - Clean Gas Solutions

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Location	Netherlands	Denmark	Netherlands
Wind Capacity	759 MW		3-4 GW going to 10 GW
Electrolyzer	200 MW	1.3 GW	
H2 tonnes / yr	22,000	250,000	800,000
In-Service	2023	2023, full scale by 2030	2030 to 2040
H2 End Use	Refining for ULSD	Transportation Fuels	Gas for C&I, Residential

Objectives:

- Integrate renewable energy with storage and gas infrastructure
- Use existing gas assets with new technology to achieve transformative GHG reductions
- Actively monitor promising projects in Europe for potential technology adoption