Renewable Natural Gas
Utility Opportunity and Challenges

Northeast Gas Association
September 11, 2018
Potential – a 2011 AGA study found RNG could meet the natural gas needs 50% of American homes or 10% of overall demand

Current development – today the industry experiencing significant growth, primarily driven by federal and state policies

- 78 sites in North America +12 more sites online by end of 2018
- From 2013 to 2018 production increased 10X (28.9 million to 288 million EGE)
Heat: No state or federal policies
Electricity: Renewable Portfolio Standard (RECs)
Transportation: Federal Renewable Fuel Standard (RINs), California Low Carbon Fuel Standard (LCFS)
Challenges to RNG Development

1. INTERCONNECTION
   “Utilities are the biggest barrier for RNG projects”

2. POLICY SUPPORT
   Regulation only values RNG in transportation and power generation

3. COMMUNICATION
   Educating stakeholders on opportunity for gas system to decarbonize
One of the largest hurdles facing RNG developers is the challenge of interconnecting with the natural gas network:

- A lack of technical understanding on how to integrate this resource into the gas network
- A lack of consistency and certainty in the interconnection process

National Grid, in collaboration with NY utilities and other stakeholders, is developing a standard interconnection guideline.

It will be released in 2018.
Newtown Creek Demonstration Project

- Converting NYC’s largest wastewater treatment plant into a source of clean energy
  - Partnership with NYC Department of Environmental Protection
  - Processes 250 million gallons/day of wastewater
- Operational August 2019
- Project will inject enough RNG to
  - Heat ~2,500 homes and
  - Reduce CO₂ emissions by ~16,000 metric tons
  - Equal to emissions of 3,000 cars
- Significant potential to increase RNG production if NYC food waste pilot project becomes permanent

Source: New York City Department of Environmental Protection
Opportunities for Utilities

1. Develop a Green Gas Offering to allowing gas customers to decarbonize

2. Open up new business opportunities while supporting RNG development
   - additional capital investment
   - facilitate RNG marketplace
   - transportation service for producers
   - performance based mechanisms
   - electric grid support services

3. Grow potential for RNG through research and demonstration projects
Storage capacity of power-to-gas compared to other storage methods: **longest duration, highest capacity**
Communicating Holistic Energy System Decarbonization

Message: a deeply decarbonized gas & electric system is integrated & complimentary

“Combining electricity with gas can allow Europe to achieve the Paris Agreement target at the lowest possible cost.”
Ecofys 2018, “Gas for Climate”