How Do We Define Renewable Natural Gas?

Renewable Natural Gas is:
Pipeline compatible gaseous fuel derived from biogenic or other renewable sources that has lower lifecycle CO2e emissions than geological natural gas.

- Examples include pipeline compatible gas derived from:
  - Wastewater treatment plants
  - Landfill gas
  - Anaerobic digestion gas
  - Power to gas from renewable electricity
  - Syngas
Where does RNG come from?

Agriculture

Dairy Manure

Organic Waste

Wastewater
What is Power to Gas and Syngas?
RNG Value Proposition

✓ Capture methane and/or CO2 that would otherwise escape to the atmosphere

✓ Increase the utilization of renewable electricity investments

✓ Utilize the country’s 2.8 million miles of pipeline infrastructure to store and deliver the product to homes, businesses and industry

✓ Reduce the overall emissions associated with the use of natural gas

✓ Provide sustainability solutions for customers

✓ Help reduce overall greenhouse gas emissions in a more cost-effective manner than other decarbonization alternatives
Assessing the Potential

American Gas Foundation Study

- Supply Potential
- Emissions Reduction Potential
- Cost of Emissions Abatement Potential
Challenges to Address

✓ Education
✓ Gas Quality Standards and Interconnection
✓ Policy Inequities
✓ Competition for RNG
✓ Opposition
LDC Programs

Two alternatives were evaluated. Sales and Access Tariffs

Voluntary Green Sales Tariff:
- **What?** Customer participation denominated in dollars and the therms purchased are reported on the customers bill
- Used electric green tariffs as model wherever possible
  - Voluntary price premium
  - “I don’t really get the energy, right?”
- **Who?** Residential and commercial customers

Access (interconnection) Tariff
- **What?** Tariff allowing RNG producers to inject pipeline quality RNG into CNP’s system
- **Who?** Producers of RNG
  - Several producers/potential producers interested in interconnecting
  - CenterPoint is developing a Tariff it plans to file with the PUC
LDC Programs

Customer Survey Results

• Little familiarity with RNG
• But the idea is appealing:
  – 75% prob/def willing to use RNG
  – 48% prob/def willing to pay extra for RNG
  – Willing to pay < $25/mo
• Customer education will be needed

Customer Willingness to Add Extra Charge to Monthly Bill for RNG

- 41% Definitely yes
- 39% Probably not
- 14% Probably yes
- 8% Definitely not
Filed RNG Sales Tariff Pilot in March

- 5-year pilot
  - Customers can enroll any time after launch
  - Customers designate extra dollar amount to pay for RNG (not therms or percent of use)
  - CNP will buy as much RNG as possible for the specified amount
  - Residential and C&I customers are eligible to participate
  - No source identified; plan to issue RFP
LDC Programs

Reactions to Filing:
• Environmental Stakeholders: Mixed
• Municipalities, Producers, Waste Sector: Favorable
• Regulatory Agencies: Skeptical
LDC Programs

Driver: RNG provides a clear path to address CA’s biggest methane emitters
LDC Programs

Joint Filing for Core Voluntary RG Tariff
• Joint filing for SoCalGas and SDG&E of a voluntary opt-in tariff for “core” residential and nonresidential customers, includes non-CARE and CARE.

Monthly RG Consumption by Dollar Amount or Percentage
• Residential customers designate a maximum dollar amount per month
• Non-residential customers can also select a percentage (25%, 50% or 100%) of their monthly natural gas usage to be provided from RG sources
• Educational materials to help customers understand bill impact of choice

Enrollment
• Customers enroll online and receive ‘welcome email’ explaining program and benefits
• Enrollment paired with EE and DR education and outreach

Funding
• All commodity costs and program overheads are paid by participants in the RG rate.
• Billing system upgrades funded through existing IT capital funds
Green-e certification of the RG
• Center for Resource Solutions has a process underway to define and establish national Green-e certification standards for Renewable Gas.
• SoCalGas is part of working group to develop standards.

Reporting
• **Annual reporting to program participants** - CO₂ reductions, environmental benefits of RG, sources/locations of RG, California GHG goals and how RG helps with those goals
• **Quarterly reporting to CPUC** - Statistics on program participation, customers enrolled, customers dis-enrolled, sources/locations of RG, and amount of RG sold by customer type

Timing
• Submission February 2019
• (Waiting for Prehearing Conference to be Scheduled)
• Goal for CPUC approval in 2019 to launch program in 2020
LDC Programs

Key Concerns/Issues

• Out-of-state RNG
• Additionality
• Unbundled Green Energy Credits
• Verification and carbon accounting
• Program marketing & information about source of RNG
• Stranded costs, even under a voluntary program
• Relationship between voluntary & mandatory programs
• Unsustainable agricultural and waste disposal practices
• Reliance on natural gas infrastructure
Thank you!

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