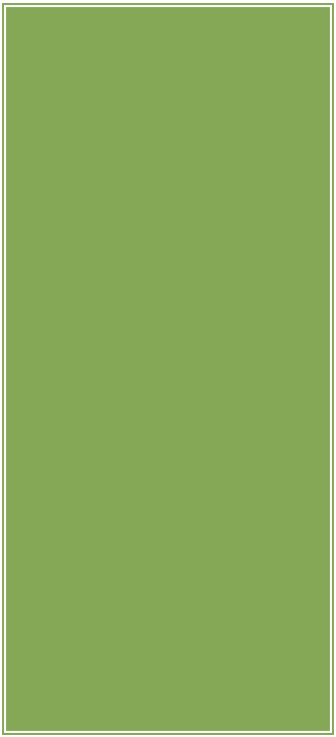


# Committee on Gas

Monday, February 11, 2019

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# **Pipeline Safety – Emerging Issues for 2019 and Beyond: Reauthorization of Pipeline Safety Act**



**NARUC 2019 Winter Policy Summit  
February 11, 2019**

**Susan A. Olenchuk**  
Partner  
Van Ness Feldman, LLP

# The Pipeline Safety Act

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- Protect against risks to life and property posed by pipeline transportation and facilities
  - Requires uniform national pipeline safety standards
  - Applies to interstate and intrastate pipelines, distribution, and storage
  - Preempts state safety regulations

# The Pipeline Safety Act

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- Who is the regulator?
  - Interstate pipeline facilities: PHMSA
  - Intrastate and distribution pipeline facilities: State Authorities meeting specific requirements
    - Adopt federal safety standards
    - Must inspect and enforce standard
    - May adopt more stringent standards for intrastate facilities, as long as compatible with federal requirements
  - 75% of pipelines are state-regulated for pipeline safety

# The Pipeline Safety Act

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- Reauthorized by Congress every 3-5 years
  - Last reauthorizations 2016 and 2011
  - Statutory amendments influenced by pipeline incidents
  - Funding expires September 30, 2019
  
- 2019 is a reauthorization year

# 2019 Pipeline Safety Act Reauthorization

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## ■ House and Senate committees:

- House Transportation and Infrastructure
- House Energy and Commerce
- Senate Commerce, Science and Transportation

## ■ Potential Scenarios

- “Clean” bill without statutory amendment?
- New requirements for PHMSA, operators and others?
- Stand-alone bill vs. incorporation into broader legislation?

# 2019 Pipeline Safety Act Reauthorization

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## ■ Potential Safety Issues

- preventing overpressurization
- incomplete directives from 2011 and 2016 reauthorizations
- expanded operator response options to population increases
- eliminate class location designations
- higher civil penalties for accidents
- mandated safety management systems
- voluntary information sharing system
- reduced standard for criminal liability
- pipeline security
- cybersecurity
- reducing methane emissions



# 2019 Pipeline Safety Act Reauthorization

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## ■ Potential Key Influences

- significant pipeline accident
- PHMSA's progress completing previous statutory directives
- New Democratic majority in House/divided Congress
- Priorities of new Democratic committee members
- Administration priorities and deregulatory objectives
- Other pipeline issues: security, cybersecurity, pipeline siting, eminent domain, state review of interstate pipeline projects
- Priorities of external stakeholder groups
- NTSB recommendations

# Thank You

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**Susan Olenchuk**  
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[sam@vnf.com](mailto:sam@vnf.com)



**Know what's below.**  
**Call before you dig.**

**Subscribe to Van Ness Feldman's free  
Pipeline Safety Update at**  
[www.vnf.com](http://www.vnf.com)

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# urb}int

Plan for what's next.

Why do we do what we do?

AT URBINT, OUR MISSION IS TO

**Help infrastructure operators  
make communities  
safer and more resilient.**



People who make it possible.

# Team.



Corey Capasso

**Founder & CEO**

Nomi (sold to Brickstream)  
Spinback (sold to BM / Salesforce)



Josh Attenberg

**Head of Data Science**

Etsy, NYU, Integral Ad Science,  
Yahoo



Amen Ra Mashariki

**Head of Urban Intelligence**

ESRI, New York City Mayor's Office,  
White House Fellow



Josh Troy

**Head of Finance & Operations**

KPMG, StreetEasy (sold to Zillow),  
CompStak



Benjamin Berry

**Head of Product**

Yext (IPO)  
Accenture Consulting

Our partners

# Energy Impact Partners.

The world's leading coalition of utilities investing a new energy future.

**TransCanada**

**FORTIS** INC.



 **evergy**

**nationalgrid**



**OG+E**



**TEPCO**

**AVISTA**

urb}int

Core message

**Our world is changing.**  
The only way utilities can keep up  
**is with technology.**



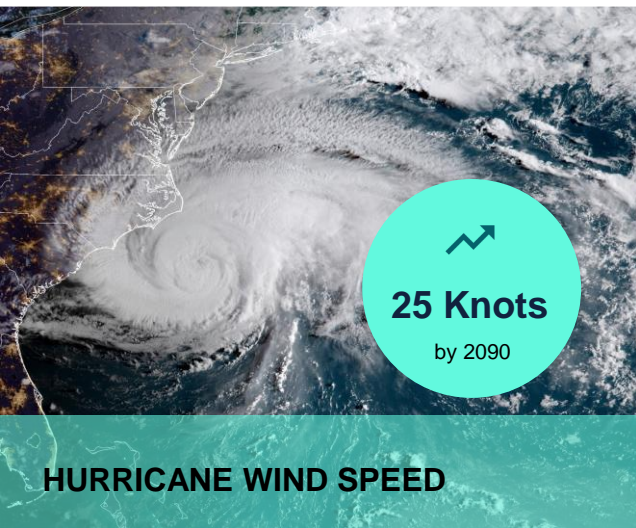
# New era of weather.



**2X**

since 1989

ACRES BURNED BY WILDFIRES



HEAVY DOWNPOURS



**30%**

since 1980





# Urbanization.



64%

Increase since 1950

U.S. POPULATION LIVING IN URBAN AREAS - **82%**



4-6%

Annual growth rate

CONSTRUCTION ACTIVITY

# Aging Infrastructure.

HIGH PRESSURE  
GAS PIPELINE

**\$177B**

Investment gap  
2016 - 2025

  
**\$ 270B**

Replacement cost for  
gas pipes.

**GAS INFRASTRUCTURE**



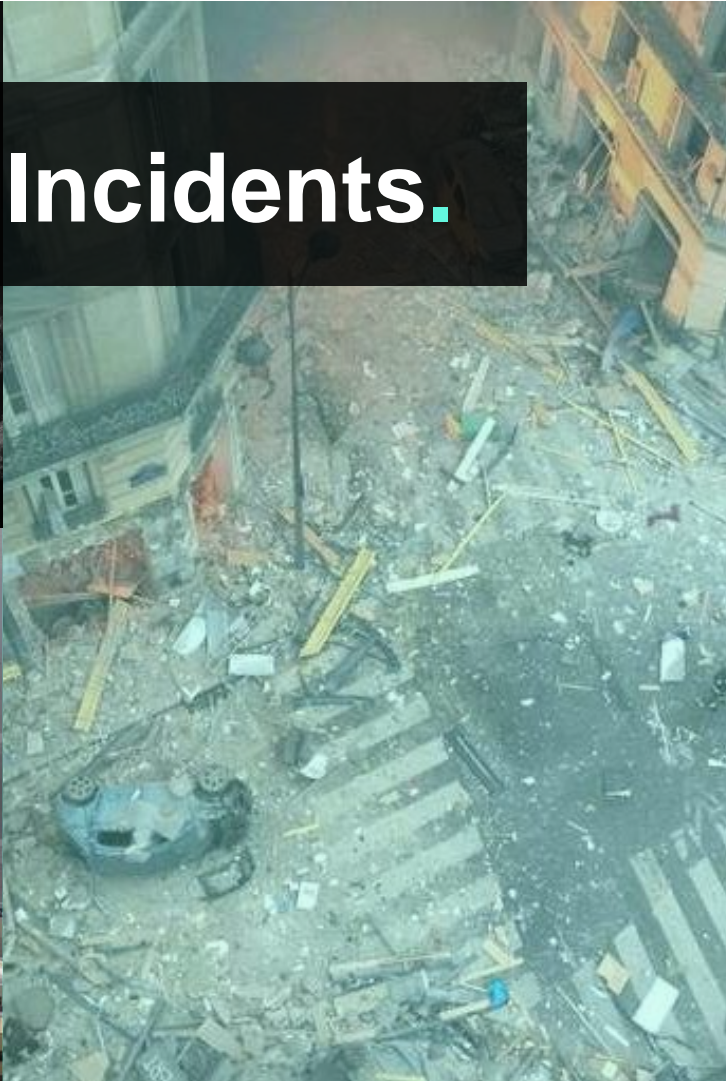
# Workforce Turnover.



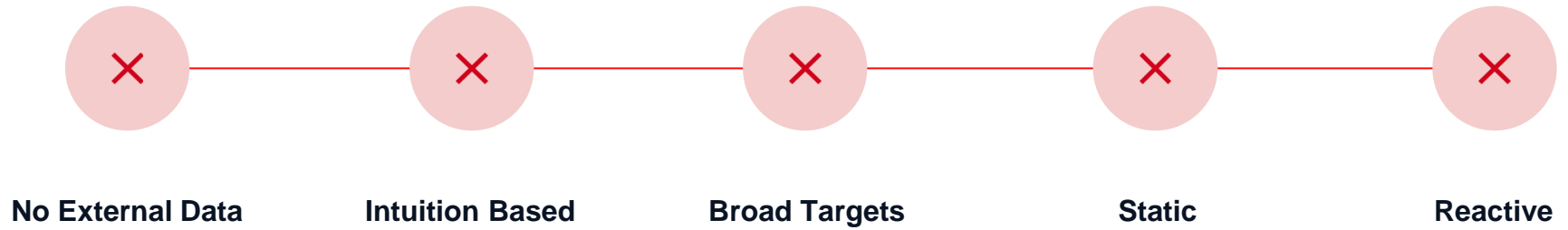
Nearly half of the utility workforce will be nearing retirement age.



# High-risk Incidents.



# Traditional Process.



# External Data.

EXTERNAL DATA

PREDICTIVE INTELLIGENCE

DECISION INTELLIGENCE



**Vegetation**



**Contractors**



**Pollution**



**Topography**



**Coastal Effect**



**Weather**

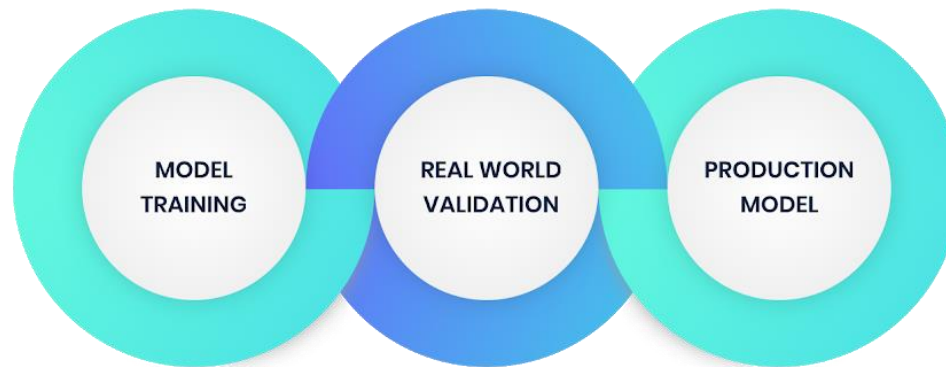


**Permits**



**Building**

# Predictive Intelligence.



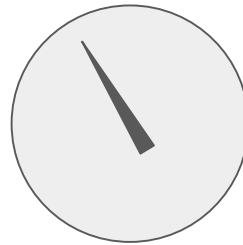


# Decision Intelligence.



Interventions

**6**



Leaks Prevented

**3.45**





No External Data



Intuition Based



Broad Targets



Static



Reactive

# AI helps utilities keep pace with change.



External Data



Empirical



Pinpointed



Dynamic



Proactive

# Committee on Gas

Monday, February 11, 2019

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# RNG: Transforming the Future of Sustainable Energy & Agriculture

# Align RNG™

## Partnership Between Global Industry Leaders

- **\$250-million, 50/50 joint venture** between Dominion Energy & Smithfield Foods
- **Largest RNG partnership** in history
- **90 percent of Smithfield's hog farms** in NC & UT over next 10 years
- **Carbon-negative fuel** – more GHG emissions captured from hog farms than released in end-use in homes & businesses
- **Around-the-clock renewable energy** – RNG generates power on-demand, 24/7, 365 days a year



**Dominion  
Energy®**

**Smithfield.**  
*Good food. Responsibly.®*

# Align RNG™ Initial Projects

## Virginia, North Carolina & Utah



**Waverly, VA**  
**19 Farms**



**Duplin & Sampson  
Counties, NC**  
**48 Farms**

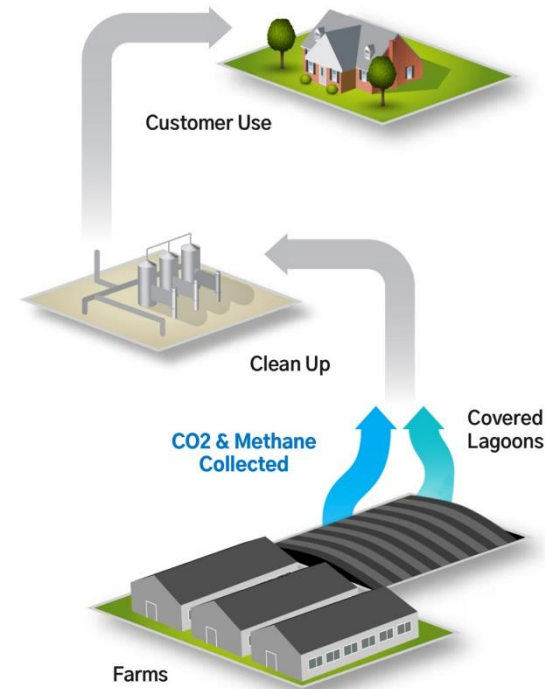


**Milford, UT**  
**26 Farms**

- Four initial projects will produce enough energy to **power 14,000 homes & businesses**
- GHG reductions equal to **taking 120,000 cars off the road or planting 14 million new trees.**
  - Initial projects in service **late 2019/2020.**

# RNG Quality Exceeds Geologic Gas

## >99 Percent CH<sub>4</sub> After Processing





# Corporate Sustainability Goals

## Strong Market Demand for Clean, Renewable Natural Gas



# Regulatory Partnerships

## How Can Utility Commissioners Help?

**As a trusted and knowledgeable voice, Utility Commissions can play an important role in RNG's future success:**

- Consumer education on benefits of RNG
- Broad policy support
- Consideration of RNG-specific tariffs
- Streamline interconnection policies to reduce cost and expedite project planning



# Committee on Gas

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# Future of Heat

Renewable Natural Gas - A Straight “Trash” Talk

Sheri Givens – VP US Regulatory & Customer Strategy

NARUC Winter Policy Summit  
February 11, 2019

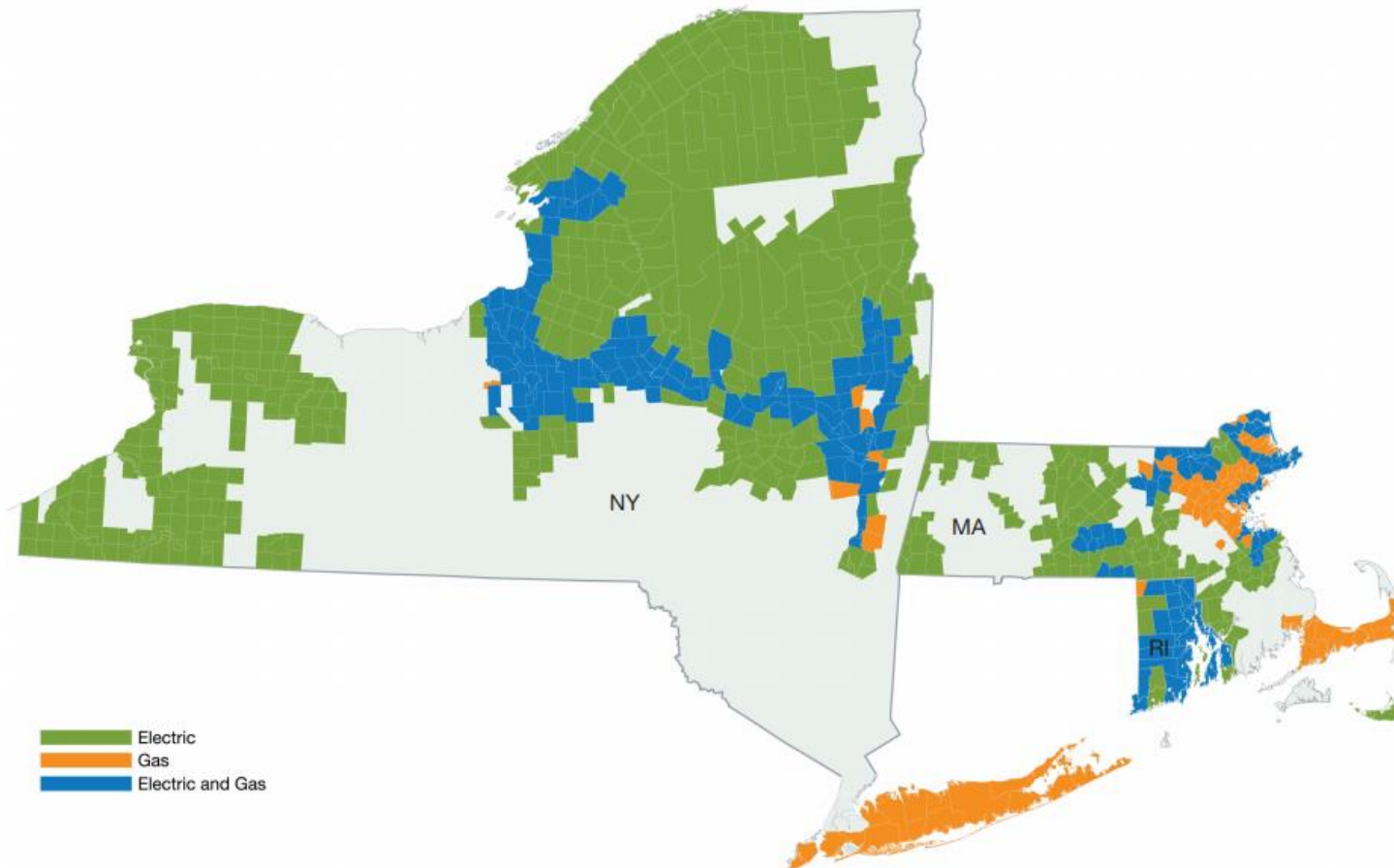
**nationalgrid**



# Who We Serve

Gas and electric distribution company providing energy to 20 million customers in NY, MA, and RI.

We deliver **safe, affordable, reliable** and **sustainable** energy.



# Key Takeaways From Our 80x50 Pathway Modeling

Our 80x50 Pathway is ambitious and comprehensive, with implications for customers, communities, utilities, automakers, and policymakers.

## 40% x 2030

## 80% x 2050

### Power

- Ramp up renewable electricity deployment to achieve 67% zero-carbon electricity supply vs. 45% today

- Zero carbon electricity system
- Increase large-scale renewables
- Inter-seasonal energy storage
- New clean electricity options (gas + CCS, modular nuclear)

### Transport

- Reach more than 10 million light-duty electric vehicles on Northeast roads (50% of all light-duty vehicles) vs. < 75,000 today

- More than 20 million light-duty vehicles (100% of the fleet)
- Low-carbon heavy duty, rail, and off-road transportation
- Reductions in vehicle miles traveled

### Heat

- Double the rate of EE retrofits
- Triple the rate of oil-to-gas heating conversions
- Transform the oil-to-electric conversion market (10X scale up)

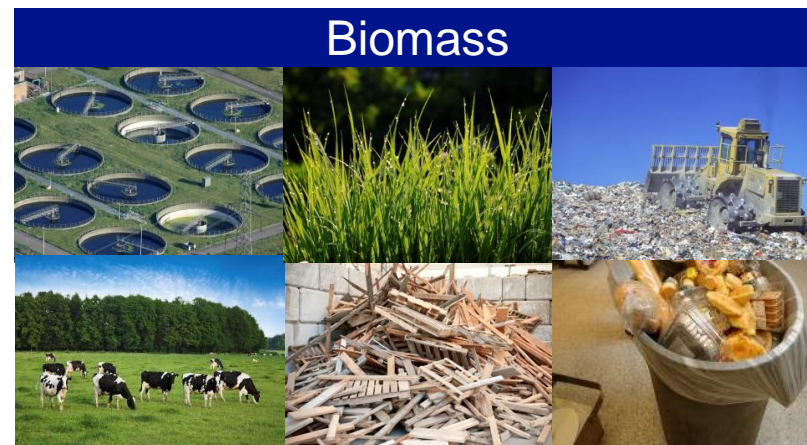
- Sustain thermal efficiency investment
- Decarbonize natural gas supply for heating
- Hybrid gas/electric heating



# Renewable Natural Gas (RNG)

## Current definition

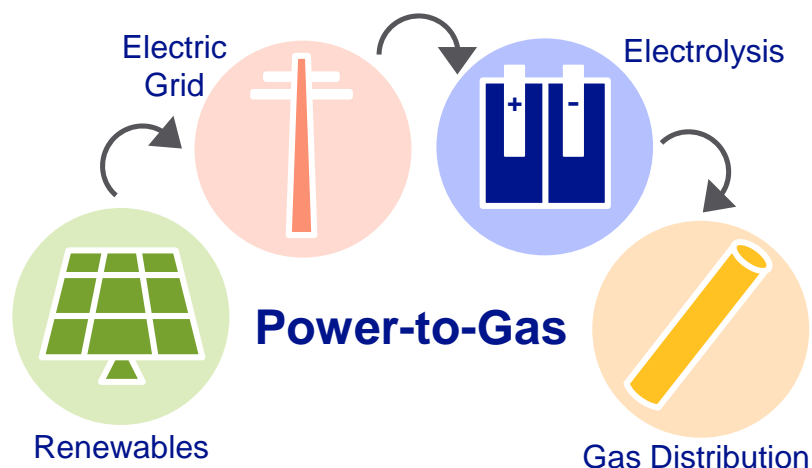
- Pipeline-quality gas produced from biomass



+

## 2<sup>nd</sup> Generation RNG

- Pipeline compatible gas derived from biomass or other renewable sources that has lower lifecycle CO<sub>2</sub>e emissions than geologic natural gas.
- e.g. – Power-to-Gas, Methane Reforming



# National Grid's RNG Journey

**1982** Staten Island Landfill – oldest operating RNG facility in the U.S.

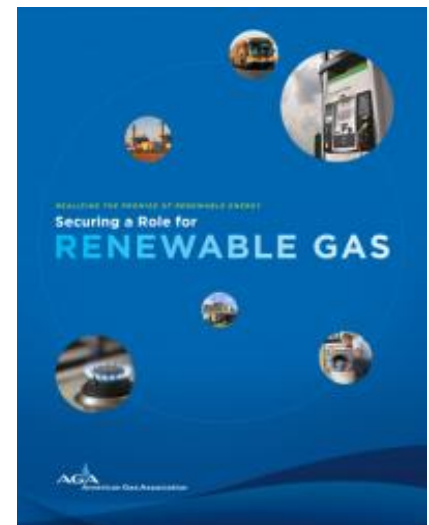
**2009** Newtown Creek Demonstration Project

**2010** National Grid RNG Whitepaper

**2011** AGA Nationwide RNG Whitepaper

**2017** Standard Interconnection Guideline for all NY LDCs

**2018** Facilitating interconnection for RNG producers, developing RNG offerings, R&D for new sources





# Newtown Creek Demonstration Project

**Partnership with NYC DEP to convert city's largest wastewater treatment plant into a source of clean energy**

- Processes 250 million gallons/day of wastewater
- Operational October 2019
- Inject enough RNG to heat 2,500 homes, reduce CO<sub>2</sub> emissions by ~16,000 metric tons
- Significant potential to increase RNG production if NYC food waste pilot project becomes permanent



Source: New York City Department of Environmental Protection

# Challenges to RNG Development

## 1. POLICY & REGULATORY SUPPORT

Regulators can work on valuing RNG used for heating

## 2. INTERCONNECTION

Utilities and regulators can collaborate on guidelines

## 3. EDUCATION

Utilities, regulators & developers can work together to raise awareness

# Where Are We Going Next?

1. Develop new products – e.g. Green Gas Tariff
2. Connect customer driven biomass based projects – e.g. Interconnection Incentives
3. Grow RNG potential through demonstration projects



**Renewable Natural Gas**



**Power-to-Gas**

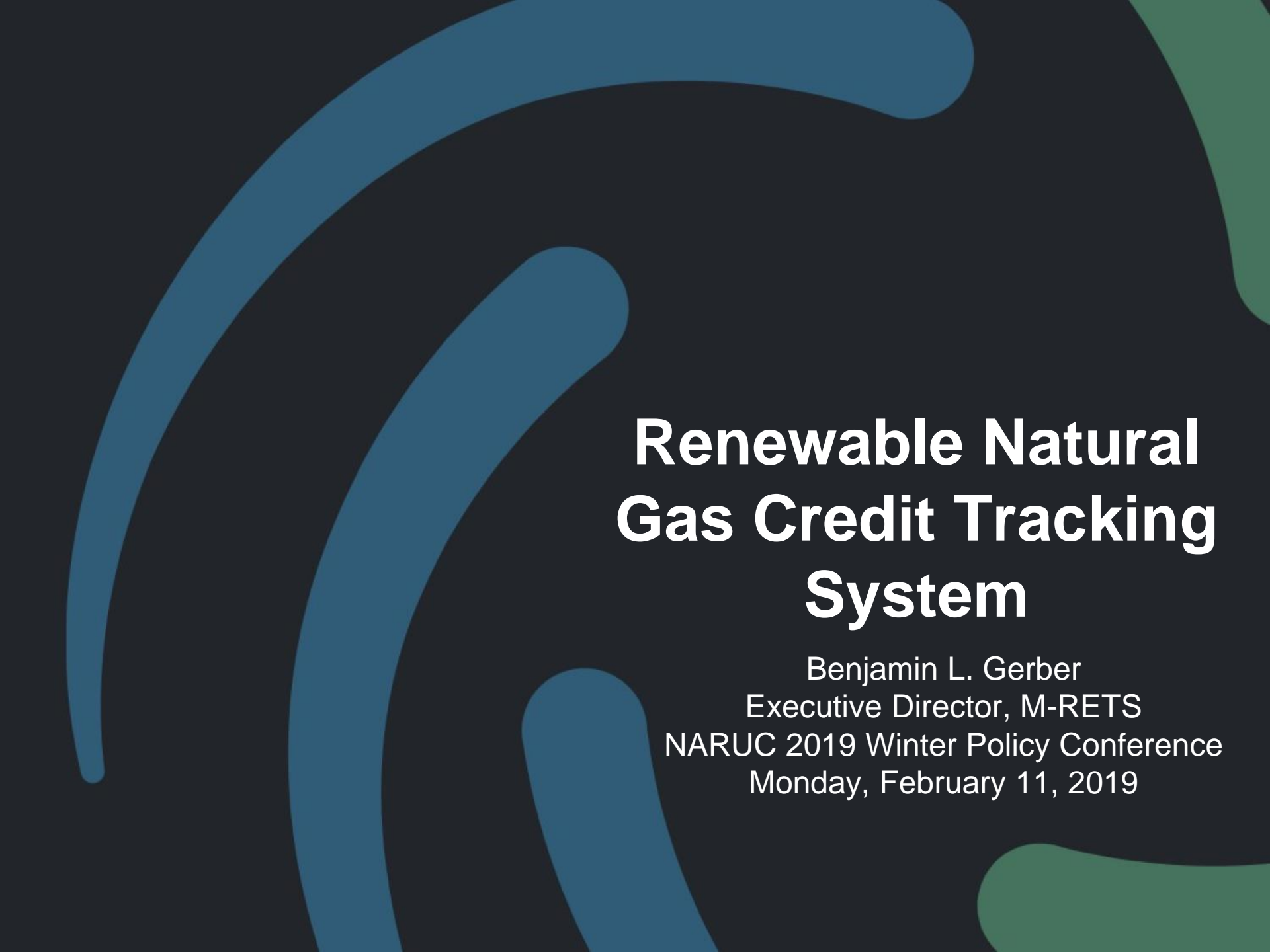


**Hydrogen Blending**

nationalgrid

# Committee on Gas

Monday, February 11, 2019



# **Renewable Natural Gas Credit Tracking System**

Benjamin L. Gerber  
Executive Director, M-RETS  
NARUC 2019 Winter Policy Conference  
Monday, February 11, 2019

# Background

- Mission: M-RETS validates the environmental attributes of energy to serve as a trusted centralized gateway to environmental markets.
- Independent non-profit with a broad stakeholder board including regulators.
- M-RETS able to track in all states and provinces.
- Planned new functionality for 2019 includes hourly and peak level certificate data, RNG tracking, and renewable storage credits.



# Why do REC tracking systems exist?

- **Generation:** REC systems prevent double counting for both generators and parties making claims
- **Compliance:** Provide regulators with an independent, easy to use, and reliable source to verify compliance
- **Liquidity:** Create a mechanism to manage holdings, effectuate transactions, disseminate data, and maintain claims

# RNG Tracking System Goals

Partner with the RNG community to build a web-based tracking system that both supports existing markets and establishes robust new markets through:

- **increased market transparency**
- higher level of integrity and assurance over paper attestations
- facilitation of transactions (both exchange-based and OTC), providing greater liquidity and enhancing the value of RNG
- **scientifically validated carbon values to facilitate GHG reduction claims**

# EU RNG GO Scheme / Danish Biomethane

BMGoO # Country # Registry # Plant #  
metering point # prodfromdate # prodtodate #  
timestamp # checkcharacter

- BMGoO = Biomethane GoO
- Country = Country Code (like AT, CH, DE, DK, FR, UK etc.).
- Registry = Biomethane registry, alias
- Metering point = Metering point, number
- Prodfromdate = From date, date when injection of biomethane started
- Prodtodate = To date, date when injection of biomethane ended
- Timestamp (of GoO created)
- Check character: The check character can be based on a various number of previous characters used to ensure the validity of the ID. The principle of the check character is a standard for ID validation. The implementation of an algorithm for the calculation of the check character must be agreed mutually.

For each Biomethane Certificate, the following is registered:

1. CVR number of the Biogas Facility
2. Location of the Biogas Facility
3. Capacity of the Biogas Facility in kWh/year
4. Start-up date of the Biogas Facility
5. Type of the Biogas Facility
6. GSRN for Metering Point for Price Supplement
7. Issuing body
8. Date of issue
9. Country of issue
10. Identification number of certificate
11. Unit used in the certificate (1 MWh)
12. Production period for the Biomethane
13. Expiry date (12 months after date of production).

# RNG Certificate – Data

- Generator #
- State/Province
- Facility Type (source(s) biogas)
- Day/Month/Year of Injection
- Month/Year Certificate Created
- Natural Gas Injection Point
- Volume (Dekatherms suggested)
- Unique Certificate Serial #
- Carbon intensity (CI) as measured in grams of carbon dioxide equivalent gases per megajoule of energy (gCO<sub>2</sub>e/MJ) and GREET carbon pathway
- Program Eligibilities (if any)

# Important Market Dynamics

A modern registry platform works to support goals of regulators and those seeking to verify, certify, and/or market claims and builds trust between all parties. It should be flexible enough to accommodate:

- System compatibility – 1 system nationally
- Pass/fail vs. calculated carbon reductions
- **Compliance markets (working with state & federal regulators) and voluntary markets (working with CRS on their Green-e Thermal program)**

# Why M-RETS?

- **Well-Established Relationships** – M-RETS maintains strong relationships with many state regulators
- **Industry Credibility** – A long track record in commodity tracking among clean energy stakeholders
- **Proven Platform** – Using the M-RETS platform saves high initial startup costs and ensures a stable rollout
- **Responsiveness** – In-house development staff
- **Business Model** – 501(C)(4) status allows M-RETS to focus resources on maintenance and improvements
- **Accepted Practice** – Similar market structures and complimentary processes between RECs and RNG justify using a system already trusted by regulators and market participants

# THANK YOU

Contact: [ben@mrets.org](mailto:ben@mrets.org)





# Committees on Gas & Energy Resources and the Environment

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# Committees on Gas & International Relations

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