

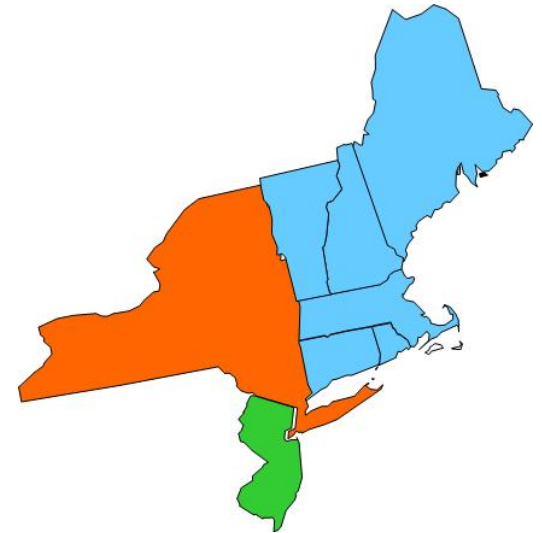


New York State Interconnect Guide for RNG

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Northeast Gas Association
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About NGA

- ▶ Non-profit trade association
- ▶ Local gas utilities (LDCs) serving New England, New York, New Jersey and Pennsylvania
- ▶ Several interstate pipeline companies
- ▶ LNG importers (Distrigas, Repsol) and LNG trucking companies
- ▶ Over 300 “associate member” companies, from industry suppliers and contractors to electric grid operators
- ▶ www.northeastgas.org



NGA Function Areas

Education & Training



RD&D



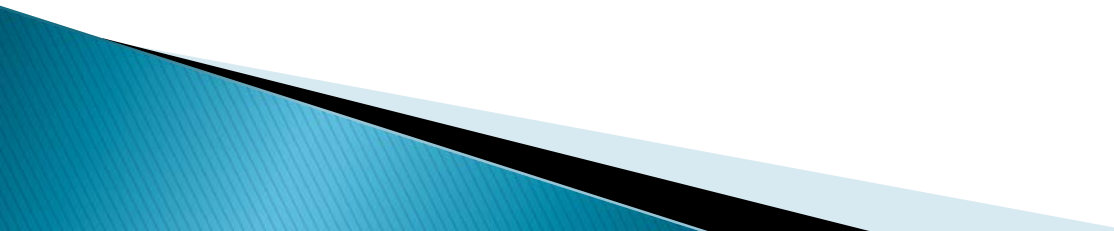
Advocacy



RNG Guide Sponsors and Participants

- ▶ Sponsors
 - Central Hudson
 - Con Edison
 - National Fuel
 - National Grid
 - NYSEG/RGE
 - Orange and Rockland
 - ▶ Project Manager
 - NGA
 - ▶ Consultant
 - Gas Technology Institute
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What is RNG and Why should LDCs be Aware of It?

- ▶ RNG is already accepted and used in New York and in the US. Introduction of RNG directly into a gas distribution system has been successfully practiced for over 30 years from the Staten Island, NY landfill.
 - ▶ Project developers are in discussion with gas distributors but the processes, requirements, and agreements are not uniform, resulting in commercial and technical uncertainty for both parties.
 - ▶ ***A consistent approach will bring certainty for all parties involved in negotiations with regard to safety, reliability, continuity, and interchangeability.***
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Essential Elements of Assessing an RNG Project

- ▶ Preliminary Evaluation / Assessment
- ▶ Engineering Service Agreement
- ▶ Gas Sales or Interconnect Agreement

Preliminary Evaluation/Operator Assessment

- ▶ Focused on the ability of a pipeline operator to receive gas into its system based on the interconnection location and associated system flow capacity.
- ▶ The developer provides a preliminary project scope description that includes:
 - Proposed facility Location
 - Anticipated interconnect pressure
 - Heating value and specific gravity
 - Production flow rates (net anticipated hourly/daily flow rates)
 - Deliverability of gas to the pipeline operator (including daily/seasonal variations)
 - Any other key process variables
- ▶ The pipeline operator will make a high-level go/no-go appraisal based on the preliminary information provided.

Engineering Services Agreement (ESA)

An ESA is executed to develop a deeper evaluation of the technical aspects of the project including assessment of biogas feedstock to determine reasonable trace constituents of concern that may impact safety and reliability of the gas pipeline distribution system.

ESA Components

- ▶ Developer's Technical Proposal/Operator Assessment
- ▶ System Engineering Feasibility Study
- ▶ Feedstock Gas Quality and Safety Assessment
- ▶ Clean-up Technology Evaluation

Developer's Technical Proposal/Operator Review

The developer's technical proposal should include the following items:

- Source of biogas
- Precise site location and who owns the land
- How much gas will be produced
- What flow rates are anticipated
- What pressure will be available
- Any seasonality changes to the gas stream, both in composition and availability
- What cleanup technology will be used and how efficient it will be
- Prior experience with the proposed cleanup technology relative to the biogas feedstock

System Engineering Feasibility Study

The pipeline operator will assess many variables including:

- ▶ Will the RNG be aggregated with pipeline gas or will the gas be introduced with limited pipeline blending capability?
- ▶ What is the zone of influence?
- ▶ How will the gas be utilized by potentially sensitive end-users?
- ▶ Will accepting RNG have any impact on other local pipeline interconnects?
- ▶ Does the proposed connection point have sufficient capacity?
- ▶ Can the pipeline operator accept the proposed quantity of gas?
- ▶ Evaluation of the raw gas analysis

Clean-up Technology Evaluation

- ▶ The developer provides information about the cleanup technology and plant operations to ensure that COC's are sufficiently removed.
- ▶ As soon as possible, results of a gas quality analysis on the cleaned RNG should be provided to the pipeline operator. This analysis may be from similarly completed projects so long as the raw biogas analysis and feedstock are comparable and the cleanup technology is the same.

GSA or Interconnect Agreement

- ▶ Once engineering feasibility is established, a Gas Sales Agreement or Interconnect Agreement is negotiated.
- ▶ Essential elements of a GSA include:
 - Commodity and receipt point
 - O&M compensation
 - Delivery obligations (volume, energy content, pressure, temperature, flow rate etc.)
 - Gas pairing agreements (contractual blending if applicable)
 - Gas measurement requirements (schedule, equipment, etc.)
 - O&M requirements (monitoring and measurement maintenance, odorization , etc.)
 - Facility access
 - Gas quality monitoring requirements
 - Conditions that impact acceptance of upgraded gas
 - Billing and payment terms
 - Tariff or a contract that enables transportation if RNG is sold to a third party

Next Steps

- ▶ NGA has shared a draft of the NYS RNG Guide to the NYSDPS staff and we have begun to share it with other stakeholders.
- ▶ NGA is developing recommendations for changes to the gas quality requirements portion of the NYS Code (Part 229) in order to update it to address RNG.