ANNUAL CERTIFIED NATURAL GAS REPORT
ORANGE AND ROCKLAND UTILITIES, INC. AND
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

Background

As part of the Orange and Rockland Utilities, Inc. ("Orange and Rockland) and Consolidated Edison Company of New York, Inc. ("Con Edison") (jointly referred to as the "Companies") joint proposals in Cases 21-G-0073 and 22-G-0065, the Companies are required to file an annual report by May 31 related to their Certified Natural Gas purchases. For gas supply purposes, the Companies operate under a joint portfolio where natural gas is purchased for the portfolio and costs are allocated based on the annual consumption of each utility. Given the structure of the joint portfolio, all certified natural gas purchases are done for both Companies simultaneously. The data in this report includes the requirements agreed to under both joint proposals and is split between Companies where possible.

In accordance with the joint proposals, certified gas purchases were limited to those certified as Project Canary Trustwell Platinum rating, MiQ Grade A rating; or 3. OGMP 2.0, Level 5 rating. The Companies purchased certified gas from three suppliers who provided certification reports from Project Canary (1 supplier) and MiQ (2 suppliers). The items evaluated under both certifications are listed below:

- MiQ – "A" rating . To achieve MiQ's "Grade A" certification, suppliers were ranked in three scoring categories: company practices, monitoring technology deployment, and methane intensity. Each facility, from production to boosting and gathering, processing, transmission and storage, liquefaction, LNG shipping and regasification is audited and is given a methane intensity grade that feeds into an overall grade and methane intensity for the aggregation of each stage of the supply chain. The methane intensity for MiQ grade A is $\leq 0.050\%$.
- Project Canary Trustwell – "Platinum" rating. To achieve Project Canary's "Platinum" certification, the certifier utilizes its Environmental Assessment program to review and analyze climate attributes, engineering principles, and social performance of individual wells and facilities. This data, combined with Project Canary's total site-level emissions data, help to inform operational, investment, safety, and reporting actions. To receive the Platinum grade, suppliers must be more responsible than 90% of other operators.

Purchase Data

The table below illustrates the volumes that were solicitated (for RFPs where a specific volume was not requested, the highest volume of the bids accepted was used and if not available, then the most frequent volume that was offered), total volume of certified gas purchases, the funds expended through the pilot broken out by rate year. The premiums reflect an additional \$0.01 - \$0.06/Dt on top of traditional gas purchases. The weighted average of the premiums was \$0.03/Dt.

2023 Con Edison

Total Solicitation Volume (MMBtu)	Total Certified Gas Volume Purchased (MMBtu)	Premium ($)
7,646,677	512,754	$26,873

2023 Orange and Rockland

Total Solicitation Volume (MMBtu)	Total Certified Gas Volume Purchased (MMBtu)	Premium ($)
1,294,592	97,246	$5,127

2024 Con Edison

Total Solicitation Volume (MMBtu)	Total Certified Gas Volume Purchased (MMBtu)	Premium ($)
70,337,320	7,376,577	$239,435

2024 Orange and Rockland

Total Solicitation Volume (MMBtu)	Total Certified Gas Volume Purchased (MMBtu)	Premium ($)
11,898,952	1,254,473	$40,678

Emissions Data

The emission reductions associated with the purchase of certified gas are only associated with production losses, and losses associated with midstream and downstream are unchanged. Since the methane emissions intensity is only provided after the flow of gas, volumes for which certifications have not yet been provided were assumed to have the same intensity as ones that did for purposes of estimating the emissions reduced and associated theoretical penalty.

The table below lists the methane emissions intensity of the certified gas purchased, an estimated volume of methane emissions reductions, and an estimate of avoided penalties broken out by rate year. The methane emissions intensity reflects what is reported by the certification companies. To calculate the estimated volume of methane emissions reduced, the reported methane emissions intensity was subtracted from the National Energy Technology Laboratory ("NETL") Appalachian Basin methane emission intensity of 23 g CH4/MMbtu. This difference was then multiplied by the volume of certified gas purchased. The estimated penalty avoided represents the resulting figure multiplied by $900/mt[1].

[1] This is based on the IRA Waste Emission Charge ("WEC") which is applicable to emissions occurring in 2024 for producers who had exceeded the reporting threshold during the year. Because the emissions reduction calculation methodology reflected emissions factors from a federal agency, the proxy penalty selected was a publicly available federal rate that applies to methane emissions.

2023 Con Edison

Certified Gas Purchased (MMBtu)	Methane Emissions Intensity (g CH4/MMbtu)	Estimated volume of Methane Emissions Reduced (Metric Tons)	Estimated Penalty Avoided $
512,754	9.5	6.9	$6,230

2023 Orange and Rockland

Certified Gas Purchased (MMBtu)	Methane Emissions Intensity (g CH4/MMbtu)	Estimated volume of Methane Emissions Reduced (Metric Tons)	Estimated Penalty Avoided $
97,246	9.5	1.3	$1,182

2024 Con Edison

Certified Gas Purchased (MMBtu)	Methane Emissions Intensity (g CH4/MMbtu)	Estimated volume of Methane Emissions Reduced (Metric Tons)	Estimated Penalty Avoided $
7,376,577	9.5	99.6	$89,625

2024 Orange and Rockland

Certified Gas Purchased (MMBtu)	Methane Emissions Intensity (g CH4/MMbtu)	Estimated volume of Methane Emissions Reduced (Metric Tons)	Estimated Penalty Avoided $
1,254,473	9.5	16.9	$15,242

Survey Responses

Anonymized responses to the supplier surveys are included in the Appendix of this report.

Reliability

The Companies did not experience any reliability issues as a result of the added equipment/process by the producers.

Lessons Learned

Suppliers are more interested in providing certified gas for multi-month solicitations. Two monthly RFPs were held in 2023 where one supplier responded to each. One multi-month RFP was held in 2023 and one in 2024. The 2023 multi-month RFP received offers from six suppliers and the one in 2024 received offers from two suppliers.

Appendix

Survey for Certified Gas Procurement

Indicate which certification will be provided:
[ ] Project Canary Trustwell Platinum rating
~~[~~[X] MiQ Grade A rating
[ ] OGMP 2.0, Level 5 rating

[X] Producer [ ] Marketer

If Marketer – Identify the supply chain back to a producer then answer questions (1) and (2) and obtain answers for questions (3) through (11) from the Producer.
If Producer – Please answer questions (1) through (11).

1. **Source of Supply**
   a. Gathering
   b. Wellhead
   c. Pipeline Receipt point for the intent of responding to this RFP, TETCO M2 pool, TCO Pool

2. **Location of Supply**
   a. State, County Washington and Greene Counties, PA
   b. Injection point to pipeline Muliple locations flowing to TETCO M2 pool and TCO Pool

3. **Leak detection & repair (LDAR)**:
   a. What is the frequency of instrument-based monitoring for leaks and abnormal emissions at well production facilities, compressor stations, gathering and boosting facilities and transportation pipelines, including at smaller sites? Leaks are monitored in real time.
   b. What is the type of instrument used to detect/monitor leaks? Optical Gas Imaging (OGI Cameras)
   c. What is the estimated minimum detection threshold of the leak detection instrument?
   d. What is the approximate time for repair of leaks? It varies however, over 30% of leaks were repaired immediately. Over 97% of leaks detected were repaired within 15 days of leak detection.

4. **Pneumatic devices**:
   a. What is the number of non-zero-emitting pneumatic devices utilized by the potential provider in its supply chain? Unknown
   b. Does the potential provider have a timeline for transition to zero-emitting pneumatic devices? Unknown. [redacted]s goal is to reduce GHG emissions

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intensity to below 160 MTs carbon dioxide equivalent per Bcf of NG, by or before the year 2025

c. If yes to (b), what is the target date?
d. Does the potential provider monitor and quantify emissions from pneumatic devices? Yes

5. **Venting and flaring**:
   a. What best practices does the potential provider implement to minimize emissions from venting Please refer to page 39 of the link at the bottom of this survey.
   b. What is the annual amount of gas lost to routine venting and flaring in the potential provider's supply chain? Unknown

6. **Tank emissions**:
   a. What control/capture measures are implemented to mitigate tank emissions in the potential provider's supply chain? Please refer to page 39 of the link at the bottom of this survey.
   b.

7. **Completions**:
   a. What are measures taken by the potential provider to minimize emissions during well completions? Please refer to page 39 of the link at the bottom of this survey.
   b.

8. **Liquids unloading**:
   a. What are measures taken by the potential provider to minimize emissions from liquids unloading? Please refer to page 39 of the link at the bottom of this survey.
   b.

9. **Compressors**:
   a. What measures are implemented to mitigate emissions from reciprocating and centrifugal compressors? Please refer to page 39 of the link at the bottom of this survey.
   b.

10. **Greenhouse Gas Emissions**:
    a. Describe supplier efforts to incorporate empirical measurement data into their reporting and efforts to achieve compliance with reporting standards outlined in the Oil and Gas Methane Partnership (OGMP) 2.0 Level 5 standard (available at [redacted]). Please refer to page 41 of the below presentation link.
    b. Is the supplier a part of OGMP, and if so, at what reporting status level? Yes, [redacted] qualified for the Gold Standard rating under OGMP 2.0 for 2022

11. **Methane Intensity Information**:

a. What is the numeric methane intensity of the differentiated gas, calculated (consistent with the calculation methods set forth by the Oil and Gas Climate Initiative) as a percentage representing the volume of methane emissions from the
certified gas (mcf) divided by the total certified production from the facility (mcf)? 0.035% giving [redacted] an A rating for MiQ Certification in 2022

b. What share does the certified production represent of the total production portfolio? About 55% as of 2022

c. What is the estimated methane intensity of the total portfolio, calculated as a percentage representing the volume of methane emissions divided by the total marketed gas across the potential provider's entire portfolio? Unknown

Please refer to the this link for further details regarding [redacted] RSG Certified Gas, and other environmental efforts [redacted] is undertaking.

https://esg[redacted]com/content/[redacted]-ESG-Report-Calendar-Year-2022.pdf

Field Code Changed

Survey for Certified Gas Procurement

Indicate which certification will be provided:
[ ] Project Canary Trustwell Platinum rating
[x] MiQ Grade A rating
[ ] OGMP 2.0, Level 5 rating

[x] Producer [ ] Marketer

If Marketer – Identify the supply chain back to a producer then answer questions (1) and (2) and obtain answers for questions (3) through (11) from the Producer.
If Producer – Please answer questions (1) through (11).

1. **Source of Supply**
    a. Gathering
    b. Wellhead
    c. Pipeline Receipt point

2. **Location of Supply**
    a. State, County Pennsylvania, Bradford, Sullivan, Susquehanna, Wyoming, Lycoming, Potter, Chemung, Tioga, Grant, and Steuben County
    b. Injection point to pipeline

3. **Leak detection & repair (LDAR)**:
    a. What is the frequency of instrument-based monitoring for leaks and abnormal emissions at well production facilities, compressor stations, gathering and boosting facilities and transportation pipelines, including at smaller sites? Quarterly
    b. What is the type of instrument used to detect/monitor leaks? Optical Gas Imaging
    c. What is the estimated minimum detection threshold of the leak detection instrument? < 50ppm-m
    d. What is the approximate time for repair of leaks? 6 days is the average time frame for facilities subject to NSPS OOOO inspections. Our OGI Technicians are able to perform repairs onsite if they have the components and it is safe to perform.

4. **Pneumatic devices**:
    a. What is the number of non-zero-emitting pneumatic devices utilized by the potential provider in its supply chain? [redacted] has approximately 1300 non-zero emitting pneumatic devices remaining in the inventory with approximately 1100 of the devices existing in the Marcellus portfolio.

b. Does the potential provider have a timeline for transition to zero-emitting pneumatic devices? Yes. [redacted] has been eliminating or routing gas from emitting pneumatic devices to processes over the past two years.
c. If yes to (b), what is the target date? End of 2024
d. Does the potential provider monitor and quantify emissions from pneumatic devices? [redacted] utilizes fixed methane monitors at more than 50% of facilities and semi-annual flyovers to help identify malfunctioning pneumatic controllers.

5. **Venting and flaring**:
   a. What best practices does the potential provider implement to minimize emissions from venting and flaring? There is no associated gas venting and flaring conducted. [redacted] evaluates fixed methane monitoring and flyover data to determine cause of emissions and implement best practices to minimize venting.
   b. What is the annual amount of gas lost to routine venting and flaring in the potential provider's supply chain? There is no associated gas venting and flaring conducted. [redacted] evaluates fixed methane monitoring and flyover data to determine cause of emissions and implement best practices to minimize venting.

6. **Tank emissions**:
   a. What control/capture measures are implemented to mitigate tank emissions in the potential provider's supply chain? Storage tank emissions are very low, as this is a dry gas play. There is currently no vapor recovery or flaring associated with storage tank emissions.

7. **Completions**:
   a. What are measures taken by the potential provider to minimize emissions during well completions? [redacted] ensures pipeline is in place prior to completion activities and directs flow to the pipeline as soon as there is sufficient pressure to operate separator.

8. **Liquids unloading**:
   a. What are measures taken by the potential provider to minimize emissions from liquids unloading? We have a technical bulletin that explains the practices taken to minimize emissions from liquids unloading. In general, we attempt to lengthen the shut-in time to allow pressure to build.

9. **Compressors**:
   a. What measures are implemented to mitigate emissions from reciprocating and centrifugal compressors? The fleet does not include centrifugal compressors. Approximately 220 reciprocating compressors are in use. Rented compressors require maintenance by the owner. Company utilizes fixed methane monitors to detect abnormal events at more than 50% of facilities that could occur from compressors, alarm, and respond.

10. **Greenhouse Gas Emissions**:
    a. Describe supplier efforts to incorporate empirical measurement data into their reporting and efforts to achieve compliance with reporting standards outlined in the Oil and Gas Methane Partnership (OGMP) 2.0 Level 5 standard (available at [redacted]). [redacted] announced joining OGMP October 31, 2023. [redacted] currently incorporates empirical measurement data in determining the MIQ Level A certification in addition to bottom-up inventory data and is developing an implementation plan for OGMP.
    b. Is the supplier a part of OGMP, and if so, at what reporting status level? [redacted] is developing an implementation plan for OGMP.

11. **Methane Intensity Information**:
    a. What is the numeric methane intensity of the differentiated gas, calculated (consistent with the calculation methods set forth by the Oil and Gas Climate Initiative) as a percentage representing the volume of methane emissions from the
    certified gas (mcf) divided by the total certified production from the facility (mcf)? The emission intensity of all company assets in the Marcellus business unit was 0.022% in CY2022.

What share does the certified production represent of the total production portfolio? The certified Marcellus production represents 63% of the Marcellus and Haynesville portfolio. The certified Marcellus production represents 55% of the production reported in 2022 from all assets including STX, BV, Haynesville, and Marcellus.

244,139,840 BOE Marcellus / 387,960,112 BOE Marcellus + Haynesville = 63%. 244,139,840 BOE Marcellus / 440,356,690 BOE STX, BV, HAY, MAR = 55%

    b. The certified Marcellus production represents X % of the reported portfolio emission reported in CY 2022.
    c. What is the estimated methane intensity of the total portfolio, calculated as a percentage representing the volume of methane emissions divided by the total marketed gas across the potential provider's entire portfolio? The emission intensity of Haynesville + Marcellus is 0.022% in CY 2022. The emission intensity of all assets (STX, BV, Haynesville, Marcellus) reported to USEPA in CY2022 is 0.046%.

Survey for Certified Gas Procurement

Indicate which certification will be provided:
[X] Project Canary Trustwell Platinum rating
[ ] MiQ Grade A rating
[ ] OGMP 2.0, Level 5 rating

[X] Producer [ ] Marketer

If Marketer – Identify the supply chain back to a producer then answer questions (1) and (2) and obtain answers for questions (3) through (11) from the Producer.
If Producer – Please answer questions (1) through (11).

1. **Source of Supply**
    a. Gathering
    b. Wellhead *(X)*
    c. Pipeline Receipt point

2. **Location of Supply**
    a. State, County *Pennsylvania, Greene*
    b. Injection point to pipeline *TETCO*

3. **Leak detection & repair (LDAR)**:
    a. What is the frequency of instrument-based monitoring for leaks and abnormal emissions at well production facilities, compressor stations, gathering and boosting facilities and transportation pipelines, including at smaller sites?

    Certain wellsites have Project Canary continuous emissions monitors (CEMs) deployed measuring emissions concentrations once per second and reporting values once per minute.

    All wellsites and compressor stations are monitored with a FLIR camera on a quarterly basis (no less than 60 days, no more than 90 days apart).

    b. What is the type of instrument used to detect/monitor leaks?

    Canary X TDLAS CH4 Continuous Emissions Monitor
    FLIR model GF320 optical gas imaging (OGI) camera.

    c. What is the estimated minimum detection threshold of the leak detection instrument?

    Project Canary CEMs have a POD of 90% and a detection threshold of 0.6 kg/hr.

FLIR detection threshold equals 0.6 kg/hr.

d. What is the approximate time for repair of leaks?

Each identified source of fugitive emissions will be repaired or replaced as soon as practicable but no later than 15 calendar days for PA facilities or 30 calendar days for the other facilities after the detection of the fugitive emissions.

4. **Pneumatic devices**:
   a. What is the number of non-zero-emitting pneumatic devices utilized by the potential provider in its supply chain? *396*
   b. Does the potential provider have a timeline for transition to zero-emitting pneumatic devices? *Yes*
   c. If yes to (b), what is the target date? *Year-end 2024.*
   d. Does the potential provider monitor and quantify emissions from pneumatic devices? *Quantification based on EPA-Subpart W methodology.*

5. **Venting and flaring**:
   a. What best practices does the potential provider implement to minimize emissions from venting and flaring?

   Venting from pneumatics and dehydrators are routed to ground flares (may be enclosed combustor) or for other process use.

   b. What is the annual amount of gas lost to routine venting and flaring in the potential provider's supply chain? *36,027 mcf*

6. **Tank emissions**:
   a. What control/capture measures are implemented to mitigate tank emissions in the potential provider's supply chain?

   Sealed tank batteries vent to vapor destruction units rated at 95% control efficiency or higher.

7. **Completions**:
   a. What are measures taken by the potential provider to minimize emissions during well completions?

   100% use of electric frac fleets.
   Green completions practices – gas is captured instead of vented to atmosphere.

8. **Liquids unloading**:
   a. What are measures taken by the potential provider to minimize emissions from liquids unloading?

Improved plunger lifts are being installed at several locations. Where possible, vented gas is sent to onsite combustion devices for control to a minimum of 95%.

9. **Compressors**:
    a. What measures are implemented to mitigate emissions from reciprocating and centrifugal compressors?

    Rod packing is changed at frequencies that are less than the EPA-required 26,000 operational hours restriction

10. **Greenhouse Gas Emissions**:
    a. Describe supplier efforts to incorporate empirical measurement data into their reporting and efforts to achieve compliance with reporting standards outlined in the Oil and Gas Methane Partnership (OGMP) 2.0 Level 5 standard (available at [redacted]).

    Aerial flyovers by fixed-wing aircraft with methane detection and quantification technology will begin in first quarter 2024.

    b. Is the supplier a part of OGMP, and if so, at what reporting status level? *No.*

11. **Methane Intensity Information**:
    a. What is the numeric methane intensity of the differentiated gas, calculated (consistent with the calculation methods set forth by the Oil and Gas Climate Initiative) as a percentage representing the volume of methane emissions from the certified gas (mcf) divided by the total certified production from the facility (mcf)? *0.0152%*
    b. What share does the certified production represent of the total production portfolio? *37%*
    c. What is the estimated methane intensity of the total portfolio, calculated as a percentage representing the volume of methane emissions divided by the total marketed gas across the potential provider's entire portfolio? *0.046%*