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May 10, 2022

VIA ELECTRONIC FILING

Ms. Antonia Dunston
Chief Clerk
North Carolina Utilities Commission
430 N. Salisbury Street, Dobbs Building
Raleigh, North Carolina 27603

Re: Docket No. G-9, Sub 698, et al.

Dear Ms. Dunston:

Pursuant to the March 31, 2022 *Order Requiring Information About Status of Renewable Natural Gas Projects*, Piedmont Natural Gas Company, Inc. hereby respectfully submits responses to the Commission enumerated questions in the above-captioned docket.

Please note that these responses contain information that is confidential in nature, accordingly, Piedmont requests that this information be treated as the confidential and proprietary trade secret of Piedmont as provided in N.C. Gen. Stat. § 132-1.2. Piedmont has also included for filing redacted public versions of these responses.

Thank you for your assistance with this matter. If you have any questions regarding this filing, you may reach me at the number shown above.

Sincerely,

/s/ James H. Jeffries IV
James H. Jeffries IV

JHJ/bms

cc: All Parties of Record
Elizabeth Culpepper
Bruce Barkley
Pia Powers

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. G-9, SUB 698
DOCKET NO. G-9, SUB 699
DOCKET NO. G-9, SUB 701
DOCKET NO. G-9, SUB 726
DOCKET NO. G-9, SUB 728
DOCKET NO. G-9, SUB 735
DOCKET NO. G-9, SUB 739
DOCKET NO. G-9, SUB 764

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Piedmont Natural Gas Company, Inc. for Approval of Appendix F to its North Carolina Service Regulations	)))))	**RESPONSES OF PIEDMONT NATURAL GAS COMPANY, INC. TO COMMISSION QUESTIONS**

Pursuant to the Commission's *Order Requiring Information About Status of Renewable Natural Gas Projects* issued March 31, 2022 in the above-referenced dockets, Piedmont Natural Gas Company, Inc. ("Piedmont" or "Company") responds to the Commission's questions as follows:

1. Has Piedmont developed a map and/or other planning tool(s) that demonstrate the anticipated locations, types (landfill gas, swine waste, poultry waste, etc.), quantities and pressures of RNG to be supplied at different interconnection points and injection points (collectively, interconnection points) by the RNG developers? If so, provide a copy.

Response: Over the past several years, Piedmont has been in discussions with several RNG developers concerning the interconnect process. Some developers seek general information about the overall process but never submit an application for a potential RNG project. For developers who have a potential RNG project, Piedmont provides an interconnect application. See Attachment 1 herein for the Receipt Interconnect Application. The application is then submitted to Piedmont's System Engineering Group for evaluation of the project.

For potential projects, Piedmont developed a reference map showing those potential projects within Piedmont's NC service territory. This reference map

shows potential project site locations but is not used as a planning tool since each project and pipeline have different volumes and pressures. See Confidential Attachment 2 herein for the RNG reference map of potential projects. A majority of the sites shown on the map represent potential sites from a single developer.

Name and title of preparer: David Nestor, Director – CNG

Name and title of responsible party: Adam Long, VP – Gas Pipeline Operations

2. Provide a description of any planning tool that Piedmont has for assessing the potential effects of RNG on heat rate, pipeline pressure, WOBBE index, and other quality of gas and pipeline safety factors, depending on: (a) type(s) of RNG, (b) location that the RNG is injected, and/or (c) quantity of RNG injected.

Response: Piedmont utilizes the Synergi Natural Gas Hydraulic Analysis software to evaluate system pressure and flow capabilities. All of Piedmont's RNG injection points are designed to monitor gas quality in real time and close valves to isolate the injection if gas quality tolerances exceed those indicated in Piedmont's Commission-approved North Carolina Service Regulations Appendix F.

Name and title of preparer: Neil Moser, Director – Gas Engineering & Asset Planning

Name and title of responsible party: Adam Long, VP – Gas Pipeline Operations

3. If Piedmont has a planning tool as described in Question No. 2 above, provide the information that Piedmont has gained about current and proposed RNG facilities from its use of the tool.

Response: RNG sites delivering gas qualities consistent with the requirements of Appendix F are providing a product in which Piedmont has thus far noted minimal variation from traditional natural gas supplies. Detailed information for these projects is filed monthly with the Commission.

Discussions for future sites are specific to the conditions of the RNG Supplier and pipeline system for the area being evaluated.

Name and title of preparer: Neil Moser, Director – Gas Engineering & Asset Planning

Name and title of responsible party: Adam Long, VP – Gas Pipeline Operations

4. Provide the maximum RNG capacity that Piedmont's pipeline system can handle in the eastern part of the state, and the current RNG capacity on the pipeline.

Response: The capacity of the system is based upon seasonal customer demand and the location and injection rate of the proposed RNG site. The maximum capacity of RNG that Piedmont's system can handle would be based on the summer demand rate, that maximum capacity is estimated at 20,000 DT/day.

CONFIDENTIAL RESPONSE DUE TO UNDERLYING CONTRACTS WERE FILED ON CONFIDENTIAL BASIS: The current RNG capacity on the pipeline is [redacted] DT/day.

Name and title of preparer: Neil Moser, Director – Gas Engineering & Asset Planning

Name and title of responsible party: Adam Long, VP – Gas Pipeline Operations

5. Provide the percentage capacity of RNG, on a daily or monthly basis, on Line 110 in Kenansville.

Response: On a daily basis, on average, less than 3% of the capacity on Line 110 is provided by RNG.

Name and title of preparer: Neil Moser, Director – Gas Engineering & Asset Planning
Name and title of responsible party: Adam Long, VP – Gas Pipeline Operations

RNG Developers

2. State the size and operating pressure of Piedmont's pipeline at all planned interconnection points.

Response: While the NCUC did not direct this question to Piedmont, after discussion with the developers, both parties agreed that Piedmont was in the best position to answer this question in the spirit of being efficient and helpful. Please see CONFIDENTIAL Attachment 3 herein.

Name and title of preparer: David Nestor, Director – CNG

Name and title of responsible party: Adam Long, VP – Gas Pipeline Operations

Respectfully submitted, this the 10th day of May, 2022.

Piedmont Natural Gas Company, Inc.

/s/ James H. Jeffries IV
James H. Jeffries IV
McGuireWoods LLP
201 North Tryon Street, Suite 3000
Charlotte, NC 28202
Telephone: 704-343-2348
Email: jjeffries@mcguirewoods.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the attached is being served this date upon all of the parties to this docket electronically or by depositing a copy of the same in the United States Mail, First Class Postage Prepaid, at the addresses contained in the official service list in this proceeding.

This the 10th day of May, 2022.

/s/ Brooke M. Szymanski
Brooke M. Szymanski

ATTACHMENT 1

Application for Receipt Interconnection of Alternative Gas

Please complete this form in its entirety and return via U.S. Mail or e-mail (preferred) to:

Piedmont Natural Gas
Attn: David Nestor
4720 Piedmont Row Drive
Charlotte, NC 28210

e-mail: david.nestor@duke-energy.com

Date of Application: _____

Company Name: _____

Physical Address:

Address: _____

City: _____ State: ____ Zip Code: _____

Mailing Address:

Address (or P.O. Box): _____

City: _____ State: ___ Zip Code: _____

If Customer will be using another corporate or partnership entity for contractual purposes please complete the following section:

Contracting Entity: _____

Company Structure (e.g.: LLC, LP, Corporation, etc.): _____

State of Incorporation: _____

Contact Information:

Commercial/Business Contact:

Name: _____

Title: _____

Phone: _____

Mobile Phone: _____

e-mail: _____

Engineering/Project Manager Contact:

Name: _____

Title: _____

Phone: _____

Mobile Phone: _____

e-mail: _____

Engineering Data:

Proposed Receipt Interconnect Location:

County: _____ State: _____

Latitude: _____ ° N Longitude: _____ ° W

Parcel Name/Number: _____

Nearest Road(s) or Landmark: _____

Street Address (if applicable): _____

(Must provide a plat or area map showing facility location(s) & the proposed interconnection site)

Anticipated Injection/Production Volumes:

YEAR 1 – Anticipated Volumes in Mcf:

	DAILY Injection		HOURLY Injection	
Initial		*Mcf / day*		*Mcf / hour*
Minimum		*Mcf / day*		*Mcf / hour*
Maximum		*Mcf / day*		*Mcf / hour*
Average		*Mcf / day*		*Mcf / hour*

YEAR 2 thru 5 (or life of project time period) – Anticipated Volumes in Mcf:

	DAILY Injection		HOURLY Injection	
Initial		*Mcf / day*		*Mcf / hour*
Minimum		*Mcf / day*		*Mcf / hour*
Maximum		*Mcf / day*		*Mcf / hour*
Average		*Mcf / day*		*Mcf / hour*

When in full production do you anticipate the "Hourly" injection rate to:

☐ Remain constant within +/- 10%
☐ Fluctuate within +/- 25%
☐ Fluctuate within +/- 50% or greater
☐ Other; please explain _____

Is your injection rate affected seasonally by either winter and/or summer:

☐ No
☐ Yes, please explain _____

Forecasted Operating Profile:

☐ 24 hours/day, 7 days/week

☐ 8 hours/day, 5 days/week

☐ Other, please specify your forecasted working hours and days _____

How often do you anticipate having to take the operation off-line? If you were to take it off-line how long do you anticipate it would be down for?

_____

_____

Estimated Date Facilities Needed: _____

Estimated Production Lifetime (years): _____

Alternative Gas Feedstock (e.g.: landfill, swine-derived, etc.): _____

Briefly describe your digestion process and gas treatment/processing that will be utilized?

_____

_____

_____

What parameters or monitoring equipment do you plan on using to control the gas quality limits?

_____

_____

_____

Does any equipment on your site require natural gas service provided by Piedmont?

☐ No

☐ Yes, if so, what is the peak hourly load, daily load and delivery pressure required? _____

_____

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The information provided herein is provided by, and warranted to be, accurate to the best of the knowledge of the undersigned. Any changes to, or modifications of, this data could result in (but not limited to): project delays, inaccurate contracts between Customer and Piedmont Natural Gas and/or inaccurate assessment of the project feasibility and corresponding approvals. Piedmont Natural Gas will utilize the information provided to assess viability of a potential injection point. This application does not obligate Piedmont Natural Gas to receive the alternative gas. Completion of this form does not constitute an agreement to provide services. .

==========

Name: _____

Title: _____

Signature (type name): _____

Date Signed: _____

ATTACHMENT 2

CONFIDENTIAL ATTACHMENT FILED UNDER SEAL

ATTACHMENT 3

CONFIDENTIAL ATTACHMENT FILED UNDER SEAL