

**STATE OF NORTH CAROLINA UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. G-9, SUB 739

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

|                                    |   |                                                           |
|------------------------------------|---|-----------------------------------------------------------|
| In the Matter of Application of    | ) |                                                           |
| Foothills Renewables LLC For       | ) | <b>RESPONSE TO REQUEST FOR<br/>ADDITIONAL INFORMATION</b> |
| Approval to Participate in Pilot   | ) |                                                           |
| Program In Docket No. G-9, Sub 698 | ) |                                                           |
|                                    | ) |                                                           |

Pursuant to the North Carolina Utilities Commission's ("the Commission's") Order Requesting Additional Information ("Order"), issued in this docket on February 8, 2019, Foothills Renewables LLC ("Foothills" or the "Applicant") hereby provides the following additional information regarding its proposed project.

**RESPONSES**

1. *The number of acres contained in the proposed Foothill's facility site.*

**RESPONSE:** The proposed site encompasses approximately two acres, located adjacent to the Foothills Regional Municipal Solid Waste ("MSW") Landfill. The project site is under a long-term lease with Republic Services of North Carolina, LLC.

2. *The details of the facilities to be built by Foothills at MSWL, including:*

- a. *Whether Foothills will build a new or additional methane gathering system, or use the existing system of MSWL.*

**RESPONSE:** The existing system will be utilized. The existing flare system will be shut down (but maintained for backup purposes during facility downtime) and the landfill gas will be diverted to the new RNG plant. The plant will receive the landfill gas from the discharge of the landfill's existing blower system that currently feeds the flare.

- b. *A description of all pipeline and other infrastructure, new or existing, to be used in transporting the Alternative Gas from the methane collection system(s) to the Foothill's processing and compression facilities, including the location and length of all pipelines.*

**RESPONSE:** The raw landfill gas will be delivered to the RNG Facility via a new, approximately 300-foot long 18" HDPE SDR17 pipeline from the discharge of the existing landfill blower system to the RNG Facility inlet.

- c. *Whether any portion of a pipeline will cross a public right-of-way.*

**RESPONSE:** No. No facility pipeline will cross any public right-of-way.

- d. *The estimated cost of all facilities to be built by Foothills at MSWL*

**RESPONSE:** The estimated cost of all facilities to be built by Foothills at MSWL is approximately [REDACTED]

3. *Whether there is a Piedmont pipeline in close proximity to the Foothill's facility and, if so, why Foothills is choosing not to interconnect with Piedmont at that pipeline location.*

**RESPONSE:** A direct pipeline connection with Piedmont Natural Gas ("PNG") was initially investigated and was the preferred option for the project. Based on discussions with PNG, it was determined that the closest injection point would be approximately five miles from the project site. Foothills and PNG initially worked together with the goal of constructing a pipeline to support this, but PNG ultimately informed Foothills that the injection point would not be able to support year-round injection into the pipeline, and would only be able to handle the full capacity of the RNG facility in the winter time. Foothills requested that PNG provide an alternative location for injection that would support year round injection. PNG designated an approximately two-mile stretch of transmission pipeline as an acceptable injection location, the closest point of which was more than 15 miles from the landfill. This was determined to not be feasible for pipeline construction. Thus, it was decided to utilize a virtual pipeline approach.

4. *A detailed description of the manner in which Foothills will transport its Alternative Gas from its facility to the injection point in Connelly Springs, including:*

a. *If trucks will be used, the types of trucks to be used.*

**RESPONSE:** The project will utilize either Hexagon Titan 53 trailers or Quantum VPLite51 trailers. Hexagon and Quantum are the two most experienced suppliers of CNG transportation trailers in the industry. By way of example, a quote and technical specifications from Quantum Energy are provided in Attachment 1. The tractors that pull the trailers will be conventional tractors utilizing CNG fuel.

b. *The route that the trucks will travel, and the distance one way.*

**RESPONSE:** The proposed truck route will be between 17 and 25 miles one way. Attachment 2 is a map depicting potential truck routing options.

c. *The Alternative Gas capacity of each truck, and the number of full truck loads that Foothills estimates will be delivered to the injection point each day.*

**RESPONSE:** The expected capacity for each truck will be 530,009 scf/truck trailer. Generally it is expected that there will be about 4 truckloads delivered per day. Attachment 3 outlines planned Trucking Cycle Times.

d. *Whether Foothills will have access to other injection points and, if so, the location of those injection points.*

**RESPONSE:** No. The facility will not have access to other injection points.

5. *The meters, other facilities and methodologies by which Foothills and Purchaser will determine the quantity of Alternative Gas that Purchaser receives, and the renewable energy credits (RECs) earned by Purchaser for use of the Alternative Gas.*

**RESPONSE:** The primary metering and gas analyzing equipment for determining quantity/flow of RNG and calculation of renewable attributes is expected to be located at the injection site and

owned by PNG. PNG has indicated that it will provide more detailed information concerning its injection location monitoring equipment in a separate filing with the Commission. Note that the Project will not be eligible to generate RECs, but is intended to generate Renewable Identification Numbers (“RINs”) under the federal Renewable Fuel Standard Program, credits under the Low-Carbon Fuel Standard (“LCFS”), and other qualifying renewable attributes.

Secondarily (and for confirmation of PNG metering equipment), Foothills will have flow meters at both the injection site and the RNG Production Facility. The flow meters are expected to be Coriolis style flow meters (See an example specification included as Attachment 4). A mass spectrometer gas analyzer (See example specification included in Attachment 5) will be located at the RNG facility upstream of the product/truck injection compressor. The metering and analyzer equipment at the RNG facility will be capable of meeting the requirements outlined in Appendix F of NCUC order/docket NO. G-9, Sub 698 and will be regularly maintained.

Any product gas that does not meet the injection specifications as Alternative Gas at the RNG facility will be diverted to the facility flaring system prior to compression and delivery into the trucks for transportation. In the unlikely scenario that gas is refused at the injection site due to non-conformance with specification, the truck will return to the RNG facility to offload any non-conforming gas to the facility flaring system.

*6. The physical details of the injection point proposed by Foothills, including:*

*a. A detailed location description of the proposed injection point.*

**RESPONSE:** The proposed injection point is located at 2733 Rutherford College Road, Connelly Springs, NC, near exit 113 off of Interstate 40. The property is encumbered by a PNG transmission line right of way, including an existing utility pressure reduction/distribution connection station on-site. (See Attachment 6).

*b. A detailed description of all equipment that will be required at the injection point.*

**RESPONSE:** A Virtual Pipeline Basis-of-Design description document, outlining equipment at the injection site is included at Attachment 7. In addition to Foothills' injection equipment, PNG will have an injection/gate station on-site. PNG has indicated verbally that the footprint of the gate station will be approximately 100 feet by 100 feet. This is the area in which the gas will be received by PNG into the pipeline. PNG is in the process of assessing the cost of the gate station and the equipment required on PNG's side of the flange. PNG has indicated that it will provide additional information in a separate filing with the Commission.

*c. Whether the injection site will be fenced and have other security protections.*

**RESPONSE:** The injection site and offloading area will be fenced with an 8-foot chain link fence with vehicular access gate and man gate. Detailed design for the injection site has not yet been completed, but security cameras, signage, gate alarm system, and pole mounted lighting systems are expected to be included in the security protection systems at the injection site.

*d. Whether the injection site will be staffed full-time and, if so, the details of the number of employees, their jobs, and by whom they will be employed.*

**RESPONSE:** Consistent with industry standards, the injection site will not be staffed full time. Foothills will contract with a properly trained and licensed third-party transport logistics company, which will operate the injection site when trucks are injecting product into the pipeline. During the times of the day when injection is not taking place, the site will be unmanned. Except for periods of ingress and egress for trucks, the offloading area and injection site will be locked to outside access.

- e. *Whether other Alternative Gas suppliers will be offered use of the injection point facilities.*

**RESPONSE:** At this time it is not anticipated that other suppliers will be permitted to use the injection pint. To the extent that Foothills may want to use the injection point for additional internal and/or third-party RNG injections in the future, it is expected that Foothills and/or such third parties would be required to enter into separate injection agreements with PNG, subject to NCUC approval.

- f. *The estimated cost of all facilities to be built by Foothills at the injection point.*

**RESPONSE:** The estimated cost of Foothills-owned facilities at the injection point is approximately [REDACTED] PNG has indicated that it will provide cost estimates for the PNG-owned gate station, which will be funded by Foothills and constructed by PNG, in a separate filing with the Commission.

7. *The details of Foothill's plans for selling its Alternative Gas to Purchaser(s), including:*

- a. *The name(s) of the Purchaser(s).*

**RESPONSE:** [REDACTED]  
[REDACTED]  
[REDACTED]

- b. *The facilities to be used in delivering Alternative Gas from the injection point to the Purchaser(s).*

**RESPONSE:** The Alternative Gas will be purchased, sold, and title conveyed to the Purchaser at the Delivery Point, which shall be the location where the RNG is injected into the PNG transmission system. The RNG will be transported on PNG's system pursuant to pooling, marketing, or other contractual arrangements between PNG and the Purchaser. PNG has indicated that it will provide additional information in a separate filing with the Commission.

- c. *Whether the Purchaser(s) will be an end user of the Alternative Gas, or will re-sell it to another entity.*

**RESPONSE:** The Purchaser may act as an end user in its own right, or may act as purchasing agent for other customers receiving service from PNG, in compliance with Appendix F and all other terms of PNG's tariff.

- d. *The manner in which the price of the Alternative Gas will be determined.*

**RESPONSE:** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- e. *The size and operating pressure of Piedmont's pipeline at the proposed injection point.*

**RESPONSE:** PNG has indicated that it will provide this information in a separate filing with the Commission.

8. *The current winter and summer volumes on Piedmont's line at the proposed injection point, and the direction of flow.*

**RESPONSE:** PNG has identified this location as having sufficient flow capacity to accommodate the scheduled injection volumes of the RNG facility in both winter and summer months. PNG has indicated that it will provide more detailed information in a separate filing with the Commission.

9. *The legal relationship between Foothills and MSWL, if any, such as whether they are affiliate entities.*

**RESPONSE:** Foothills and MSWL are parties to arms-length, bilateral agreements governing the purchase and sale of landfill gas, and the associated site lease for project construction and operations. The parties are not affiliated entities.

Respectfully submitted, this the 2d day of April, 2019.

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## **Attachments**

Attachment 1 - CNG Trailer Specification

Attachment 2 - Proposed Trucking Route

Attachment 3 - Trucking Cycle Time Calculations

Attachment 4 - Coriolis Meter specification

Attachment 5 - Mass Spectrometer specification

Attachment 6 - Injection Site Map

Attachment 7 - Virtual Pipeline Description (Injection Site Equipment Description)

**CERTIFICATE OF SERVICE**

This is to certify that the undersigned has this day served the foregoing **RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION** upon all parties of record by electronic mail as follows:

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This the 2d day of April, 2019.



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Benjamin L. Snowden