

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. G-9, SUB 728  
DOCKET NO. SP-13243, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. G-9, SUB 728

In the Matter of	)	
Application of GESS International North	)	
Carolina, Inc., for Approval to Participate	)	
in Alternative Gas Pilot Program and for	)	
Approval of Receipt Agreements	)	GESS'S PUBLIC
	)	RESPONSES TO
	)	ORDER REQUESTING
DOCKET NO. SP-13243, SUB 0	)	ADDITIONAL INFORMATION
	)	
In the Matter of	)	
Application of GESS International North	)	
Carolina, Inc., for Declaratory Rulings	)	

Pursuant to North Carolina Utilities Commission ("Commission") Rule R1-5 and the Commission's Order Requesting Additional Information issued on January 31, 2019, GESS International North Carolina, Inc. ("GESS") herewith responds through counsel to the Commission's request for additional information. GESS has designated its responses to Commission Questions 3, 5, 7 and 8 as the confidential and proprietary trade secrets of GESS pursuant to N.C. Gen. Stat. § 132-1.2.

**ADDITIONAL INFORMATION**

1. The number of acres contained in each of the proposed anaerobic digestion facility sites.

**RESPONSE:** Each of the proposed anaerobic digestion facility sites contains approximately ten acres. Each facility includes four (4) large anaerobic digestion tanks, a Renewable Natural Gas ("RNG") Upgrading System, other production and handling equipment, an office/Control Room, piping, and other ancillary buildings and facilities as further described in the response to Question 2 below.

2. A description of all other facilities that are currently located in the Bladen County Green Energy Biogas Park, the Columbus County Green Energy Biogas

Park, the Robeson County Green Energy Biogas Park, the Union County Green Energy Biogas Park, and the Wilson County Green Energy Biogas Park.

**RESPONSE:** The term "Biogas Park" is an operating name suffix for the location of each of the digester plant facilities to be operated by GESS. There are no existing permanent facilities on or immediately adjacent to any of these proposed plant sites. All of the leased sites for the digester plants are "Agricultural Green Space".

Each facility site will include one Anaerobic Digestion System, each consisting of four (4) concrete Anaerobic Digestion Tanks, piping, a RNG holding tank, a RNG Upgrading System, compressors, office/control room, equipment storage, green Biomass storage, and digestate storage, all sized to produce approximately 560,000 MMBtu, plus or minus 10%, of clean RNG each year. Each digester plant site will have the same basic design.

GESS recently determined that it can obtain benefits in the market for RNG by reducing the quantity of electric energy purchased by its digester plant sites in the production of RNG. GESS is considering installing at each digester plant, on an adjacent but separately leased site, new solar electric production facilities that will supplement the electric service of the local electric supplier with a private, "behind-the-meter" source of electric supply to be used solely for reducing the quantity of electricity purchased by GESS to operate each of the biogas digester plants. GESS does not contemplate any electric sales to third-parties or the interconnection of these facilities with the distribution or transmission systems of any electric supplier. The solar electric output would feed directly into the RNG production sites. GESS has discussed these "behind-the-meter" solar facilities with the relevant electric suppliers, and understands that it may incur fees for a "spinning reserve" and related electric services for the output of the proposed privately owned and operated electric production facilities. No such solar facilities are currently installed or under construction.

3. In addition to swine manure, all other elements, and the percentage of each such element, that will be included in GESS's swine-based biogas.

**RESPONSE:**

[REDACTED]

[REDACTED]

4. The number of farmers and other providers that GESS has contracted with to provide the swine manure and other elements of its swine-based biogas.

**RESPONSE:** GESS contracts with one farmer, called the Master Farmer, for each digester site. The contracts with the Master Farmer at each site include the land lease, and a contract for the Master Farmer to provide the entirety of the 170,000 tons of swine manure needed annually, and the total supply of 110,000 tons of Green biomass supply needed annually (except for the reduced Green biomass quantities associated with the use of poultry waste at the sites in Bladen County and Union County).

In some cases the Master Farmer can supply 100% of both the swine manure and Green biomass from a single farm, or from that farm and any nearby farmland rented by the Master Farmer. In other cases, the Master Farmer is expected to contract with other nearby local farmers to provide any shortfall in the annually required supply of swine manure or Green biomass.

GESS is informed that In some instances the Master Farmer has created or will create a local cooperative with a membership comprised of suppliers of swine manure and/or Green biomass.

GESS will manage and pay for any local professional tanker transport of swine manure from other farms to the Master Farm or to the GESS digester site. In these cases the manure will be maintained in a closed loop system, and GESS will operate the tanker fleet and will install wheel washing and truck washing systems to prevent cross-contamination between the supplying farms.

All primary supply, secondary supply, and emergency supply agreements for swine manure, poultry waste and Green biomass have been executed for the five (5) digester plants that are the subject of the applications filed by GESS with the Commission. In addition, all projects are

fully insured for performance for the life of the project, including for risks of natural disasters and other developments that may impact the volume of either of the two key components of the feedstocks.

5. The elements and the percentage of each element that will make up "green" biogas.

**RESPONSE:**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

6. The number of farmers and other providers that GESS has contracted with to provide the elements of its "green" biogas.

**RESPONSE:** GESS contracts only with the Master Farmer for the ground lease and the associated supply contracts for supplying swine manure and Green biomass, and at two of the sites, poultry waste. If the involved farm, and nearby farms rented by the Master Farmer, do not produce the volume of swine manure or Green biomass needed annually to properly operate the associated RNG production plant, the Master Farmer is responsible for making contracts with other nearby farmers for the shortfall in manure and/or Green biomass supply. In addition, all projects are fully insured for performance for the life of the project, including coverage for natural disasters or other risks that may impact the volume of manure, Green biomass, or poultry waste used as feedstocks.

GESS is informed and believes that some of the Master Farmers have formed Green Biomass Supply Agreements and/or local cooperatives. At present, based on the best information available to GESS, the number of local Green biomass suppliers at the relevant digester plant sites is as stated below:

Bladen County Green Energy Biogas Park is projected to have a total of five (5) suppliers of Green biomass;

Columbus County Green Energy Biogas Park is projected to have a total of eight (8) suppliers of Green biomass;

Robeson County Green Energy Biogas Park is projected to have a total of nine (9) suppliers of Green biomass;

Wilson County Green Energy Biogas Park is projected to have a total of thirteen (13) suppliers of Green biomass.

The Master Farmer for the Union County Green Energy Biogas Park has more than enough feedstock to support the Green biomass needs for that site.

7. The percentages of swine-based biogas and "green" biogas that will be produced at each of GESS's facilities.

**RESPONSE:**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8. The formula or other methodology by which GESS will determine the percentages of swine-based biogas and "green" biogas that will be produced at each of GESS's facilities.

**RESPONSE:**

9. The meters, other facilities and methodologies by which GESS, DEC and DEP will determine the quantity of biogas that DEC and DEP receive, and the renewable energy credits (RECs) earned by DEC and DEP for use of the biogas.



**RESPONSE:** GESS understands that Piedmont Natural Gas (“PNG”) will set the upper limit on the quantity of RNG that GESS will be permitted to inject into the PNG pipeline system in the final form of the Receipt Agreement approved by this Commission. GESS also understands that PNG will measure the quantity and quality of gas delivered to DEC and DEP at their respective facilities using meters and other equipment owned and/or controlled by PNG. It is expected that the quantity limitation on injections for DEC and DEP will be fulfilled solely with that portion of the output of each of the RNG production plant sites associated with swine manure.

With respect to the renewable energy credits (“RECs”), GESS has provided in response to Commission Questions 5, 7 & 8 its proposed method for calculating the percentage of the RNG output of each of its digester plants associated with swine waste, poultry waste, and Green biogas, respectively. GESS anticipates that these percentages will be used to allocate or attribute the total RECs for RNG, and the relative proportion of the total RECs represented by swine waste RECS, poultry waste RECs, and Green biogas RECS.

10. The physical details of the three injection points proposed by GESS, including:

- (a) A description of all equipment that will be required.

**RESPONSE:** Most of the required equipment will be selected, installed, owned, operated and maintained by PNG. Accordingly, GESS refers the Commission to Piedmont’s response to Commission Question 10.

GESS will lease each of the parcels of land identified for each of the three (3) injection sites, all of which are adjacent to the PNG pipeline Right of Way. In addition, GESS will also lease a near-by site at each injection location to accommodate compression needs associated with the Receipt Station/Injection Points, including the Decompression sled and associated controls needed to provide proper flow and pressure, along with gas boilers to heat up the Compressed Natural Gas in order to de-compress the RNG Pressure in GESS’s CNG tank trailers (approximately 4200 Psi). The flow and volume of injections will be controlled to meet the agreed upon modeled rates of RNG injection provided by PNG.

- (b) Whether each injection site will be fenced and have other security protections.

**RESPONSE:** GESS will construct a gated and locked fence around the parcel of land for each injection site/receipt station that will be coordinated with the PNG fenced-in area, and will not be accessible to the public. These facilities will only be accessible to GESS and PNG personnel via a double lock system consisting of a GESS lock and a PNG lock, where authorized personnel from either company can access their respective facilities when needed. GESS Delivery/Gas Technicians will have access to off-load the compressed Alternative Natural Gas through the injection systems at each site. GESS intends to provide fencing, and an associated gate and locks, for the compression facilities. The compression and injection facilities are not expected to be manned.

GESS is informed and believes that PNG plans to fence, gate and lock the interjection sites, and to provide other security for these facilities. Accordingly, GESS supplements this response by referring to the response of PNG to Commission Question 10.

- (c) Whether each 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:** GESS will not provide any personnel to man the Injection Sites/Receipt Stations. GESS Delivery/Gas Technicians will enter the GESS gated and fenced area of each Injection Site/Receipt Station at scheduled intervals to switch out emptying Compressed Alternative Natural Gas Trailers with Full Compressed Alternative Natural Gas trailers from the relevant production site(s). The CNG/RNG Technicians/Drivers working for GESS will be fully trained in the connection and injection process. GESS also refers to the response of PNG to Commission Question 10 (c).

- (d) Whether other Alternative Gas suppliers will be offered use of the injection point facilities.

**RESPONSE:** GESS will not offer use of the injection point facilities to any other person without the prior written approval of Piedmont and the Commission. GESS refers to Piedmont's response to Commission Question 10 in further response to this question.

11. GESS stated that there will be one injection point in Bladen County for the GESS facilities in Bladen, Columbus and Robeson counties, one injection point in Union County for the Union County facility, and one injection point in Wilson County for the Wilson County facility.

- (a) Will there be situations in which a facility might use an injection point other than that designated for its use. For example, will the Bladen County facility be allowed to inject its Alternative Gas into the Wilson County injection point?

**RESPONSE:** No. GESS understands that its injection of RNG into the pipelines of PNG will be limited by volume under the terms of the proposed Receipt Agreement(s) with PNG. The designated production plants for each injection point will have sufficient production to meet the allowed volume.

GESS anticipates that Alternative Gas from a specific biogas production plant will not be injected into any point on the PNG pipeline system other than the three (3) injection points identified in the Receipt Agreement with PNG. GESS is informed that the flows and volumes for each specific injection site have already been determined by Piedmont based on current local volumes. Accordingly, GESS supplements its response with the response of PNG to the Commission's Question 11 (c).

- (b) If the answer to (a) is "Yes," please explain under what conditions and in whose discretion a facility will be allowed to use an injection point other than the one designated for that facility.

**RESPONSE:** N/A.

- (c) Will Piedmont have the authority to require or reject having a GESS facility use an injection point other than the one designated for that facility?

**RESPONSE:** See the response of PNG to Commission Question 11 (c).

In any event, GESS currently does not plan to use the Alternative Gas output of any digester plant site other than those identified as approved origin sources for the three specific injection sites that are the subject of the application in this Docket.

12. The details of GESS's plans for selling that portion of its Alternative Gas that is not sold to DEC and DEP, including:

- (a) The name(s) of the buyers.

**RESPONSE:** GESS at this time has no contracts in force relating to the sale of biogas other than the gas sold to DEC and DEP.

- (b) The facilities to be used in delivering Alternative Gas to the buyer(s).

**RESPONSE:** GESS has no other contracts for delivering Alternative Gas other than the deliveries to DEC and DEP. GESS anticipates that biogas produced at its plant sites in excess of the purchases by DEC and DEP will be delivered using pressurized tank trailers to injection sites on interstate pipelines in the region .

- (c) Whether the buyer(s) will be end users of the Alternative Gas, or will re-sell it to another entity.

**RESPONSE:** GESS at present has no contracts for delivery of the excess biogas. GESS does not know whether prospective buyers of excess Alternative Gas will be end users, or transportation or supply providers.

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

**RESPONSE:** GESS at present anticipates that the price of Alternative Gas delivered to injection sites on interstate pipelines will be determined based on interstate market prices.

13. A detailed location description of the proposed injection points for GESS's Alternative Gas onto Piedmont's pipeline.

**RESPONSE:**

The proposed sites for injection, as described in Exhibits 6-8 of the Supplemental Application filed by GESS, are located at the following addresses:

Bladen County Injection Site/Receipt Station is located on the 1000 Block of Mckinan Road, Bladenboro, NC

Wilson County Injection Site/Receipt Station is located on the 100 Block of Carrie Road, Stantonsburg, NC

Union County Injection Site/Receipt Station is located on the 7000 Block of 7000 Block of Pleasant Hill Church Road, Matthews, NC

Each of the 3 Injection Site/Receipt Station Parcels are a roughly square area of 1.5 acres located directly adjacent to the PNG pipeline Right of Way, and sited in



non-commercial and non-residential areas zoned as General/Agricultural to minimize impact on the surrounding community.

14. The size and operating pressure of Piedmont's pipeline at the proposed injection points.

**RESPONSE:** GESS refers the Commission to the response of PNG to Question 14.

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

**RESPONSE:** GESS refers the Commission to the response of PNG to Commission Question 15.

Respectfully submitted, this the 1<sup>st</sup> day of March, 2019.

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