

## RENEWABLE NATURAL GAS -- GAS SCHEDULE RNG

### 1. AVAILABILITY:

Available to any Customer who has signed and executed an Interconnection Agreement with the Company for an interconnection to the Company's Gas Distribution System ("System") for the delivery of Renewable Natural Gas ("RNG") produced from biomass. Customers that deliver RNG into BGE's System must do so for a minimum of one (1) year, and termination of the agreement is subject to the terms of the Interconnection Agreement. The maximum volume of RNG that BGE will accept shall be set forth in the Interconnection Agreement.

### 2. RATE TABLE:

	<b>Rate Year 1 Effective 2021</b>	<b>Rate Year 2 Effective 2022</b>	<b>Rate Year 3 Effective 2023</b>
<b>Customer Charge (Per Month)</b>	\$2,925.00	\$2,925.00	\$2,925.00
<b>Information Fee (Per Month)</b>	\$65.00	\$65.00	\$65.00

The Customer Charge shall recover all expenses associated with operating and maintaining the Company's facilities to interconnect and provide service under this Schedule.

#### 2.1 Extension Provision:

The Customer shall pay to the Company, in advance, all estimated costs necessary to effectuate and maintain the interconnection as outlined in the Interconnection Agreement, including but not limited to, computer programming changes, engineering, equipment and construction (pipes, valves, separators, meters, quality measurement, odorant, and other equipment), land rights, and permits necessary to regulate and deliver gas to and from the point of interconnection. Such estimates will be true-up to actual costs, and any amounts different will either be refunded to or paid by the Customer.

Application for service under Schedule RNG constitutes permission to install BGE's Interconnection Equipment on Customer-owned property where such Interconnection Equipment is solely for the Customer's use or the use of the Customer's tenant. Suitable rights-of-way obtained by the Customer are required under all other circumstances, including the right to install Interconnection Equipment on property not owned by the Customer.

The Company shall provide notice, except under emergency conditions, to the Customer if any Company facilities require repairs, upgrade, modifications, or replacement to ensure continued safety and reliability. The cost of all such repairs,

*Schedule RNG continued*

upgrades, modifications, or replacements of Company facilities shall be paid by the Customer. If the Customer does not pay any of the above, the Company can deny service under this Schedule.

Any other extension necessary to provide gas service to the Customer under other Schedules shall be subject to the extension provisions in Section 8 Extensions of the Gas Service Tariff.

### 3. GAS QUALITY STANDARDS:

Gas Quality Standards are specifications meant to ensure that the Renewable Natural Gas (RNG) entering BGE's System will be interchangeable with the natural gas that BGE currently distributes and will not damage BGE's or other BGE customers' equipment. An RNG Interconnect Customer's RNG shall conform to the following quality specifications at the time of receipt at the interconnection point. The specifications in Section 3 apply to RNG produced from biomass, interconnection of RNG produced from other sources will require additional review and modification of the specifications below, including but not limited to the levels and constituents specified below. With advance notice from the Customer in writing, BGE may allow deviations from these standards on a case-by-case basis at its sole discretion

#### 3.1 General Specifications:

- (a) BGE's Interconnection Equipment will have automatic and remote shut-off capabilities to ensure the following constituents and standards can be adequately monitored at the point of interconnection and the safety and reliability of the System protected. BGE may temporarily discontinue the receipt of RNG if it does not conform to the following specifications.

The following constituents and values will be monitored by BGE via chromatograph and monitored on an hourly basis:

- (i) **Heating Value:** The minimum higher heating value is 970 Btu (gross) per standard cubic foot on a dry basis. The maximum heating value is 1070 Btu (gross) per standard cubic foot on a dry basis.
- (ii) **Delivery Temperature:** The RNG delivery temperature is not to be below 50 degrees F or above 120 degrees F.
- (iii) **Methane:** The gas shall contain a minimum of 95% Methane.
- (iv) **Propane:** The gas shall contain a maximum of 20% Propane.
- (v) **Hydrogen Sulfide:** The gas shall contain no more than 4 PPM Hydrogen Sulfide.
- (vi) **Total Sulfur:** The gas shall contain no more than 16 PPM total sulfur. This includes COS and CS<sub>2</sub>, hydrogen sulfide, mercaptans and mono, di and poly sulfides.

*Schedule RNG continued*

- (vii) **Diluent Gases:** The gas shall contain no more than 4% by volume of combined nonhydrocarbon gases including, but not limited to, CO<sub>2</sub>, N<sub>2</sub>, and O<sub>2</sub>.
- (viii) **Hydrogen:** The gas shall contain no more than 0.1% by volume of hydrogen.
- (ix) **Oxygen:** The gas shall not contain in excess of 0.3% by volume of oxygen, and the parties agree to exercise every reasonable effort to keep the gas completely free of oxygen.
- (x) **Hydrocarbons:** The RNG hydrocarbon dew point is not to exceed 15 degrees F.

### 3.2 RNG Constituents:

- (a) Customers shall complete laboratory testing, as described in Section 3.3, for the trace constituents listed in the following table. If testing results do not meet the standards listed in the table below, BGE may temporarily interrupt RNG service as outlined in Section 3.4.

Table 1:

Parameter	Symbol	Level (all levels Maximums unless otherwise noted)	Unit
Silicon	Si	0.5	mg Si/m <sup>3</sup>
Hydrogen	H <sub>2</sub>	0.1	% vol.
Ammonia	NH <sub>3</sub>	0.001%	Mol%
Mercury	Hg	0.08	mg/m <sup>3</sup>
Arsenic	As	0.19	mg/m <sup>3</sup>
Copper	Cu	0.6	mg/m <sup>3</sup>
Oxygen	O <sub>2</sub>	0.3	% vol
Propane	C <sub>3</sub> H <sub>8</sub>		% vol
Nitrogen	N <sub>2</sub>	3	% vol
Methane	CH <sub>4</sub>	95*	% vol
Hydrogen Sulfide	H <sub>2</sub> S	4	ppmv
Carbon Dioxide	CO <sub>2</sub>	2	% vol
Carbon Monoxide	CO	0.1	% vol
Volatile Organic Compounds	VOC's	5	PPM
Moisture or Water Content		7	Pounds per million cubic ft.
Total Sulphur	S	16	PPM

\* - Minimum level

*Schedule RNG continued*

(b) **Additional Quality Requirements:**

- (i) **Wobbe Index:** The RNG shall have a minimum Wobbe Number of 1270 Btu/ft<sup>3</sup> and shall not have a maximum Wobbe Number greater than 1400 Btu/ft<sup>3</sup>.
- (ii) **Dust, Gums, etc.:** The gas shall be free of objectionable odors, dust, gum, dirt, impurities and other solid or liquid or hazardous matter which might interfere with proper operation of the facilities, lines, regulators, meters or other appliances through which it flows.
- (iii) **Bacteria:** The gas and any associated liquids shall not contain any active bacteria or bacterial agent capable of contributing to or causing operational problems.

### 3.3 Testing Requirements:

- (a) To ensure adherence to the Gas Quality Standards, testing required under this Schedule will be performed by the RNG customer using independent, certified third-party laboratories. BGE shall be notified at least five calendar days in advance of the RNG sampling and tests and have the option to observe the samples being taken. Test results will be shared with BGE within five calendar days of the test results being received by the RNG Interconnect Customer. Unless otherwise noted herein, the costs associated with the required testing shall be paid by the Customer.

In its discretion, BGE may, at its own cost and expense, collect samples for testing at the utility meter at the point of interconnection.

Re-testing shall be allowed to verify and validate the results of any test. The cost of retesting shall be paid by the entity requesting the re-test.

- (b) **RNG Pre-Interconnection Testing:** Prior to the injection of RNG into BGE's System, the RNG Interconnect Customer shall conduct two tests over a two (2)-to four (4)-week period for the Gas Quality Standards. If during pre-injection testing, the RNG is found to be non-compliant with the Gas Quality Standards, the RNG Interconnect Customer shall make necessary modifications to reduce constituent levels and restart Pre-Interconnection testing. Connection to BGE's System is subject to successfully passing these two (2) tests.

- (i) **RNG Periodic Testing:** BGE will require the RNG customer to conduct periodic testing for the Gas Quality Standards on a quarterly basis (at least once in every three-month period).

*Schedule RNG continued*

### **3.4 Temporary Discontinuance of Gas Receipt:**

- (a) **Temporary Discontinuance:** BGE reserves the right to temporarily discontinue the receipt of gas on an immediate basis whenever the RNG is non-compliant with any of the specifications as outlined in the Gas Quality Standards, whenever there is an imminent safety risk (including any risk stemming from either Company or Customer-owned facilities or equipment), or whenever Company reasonably determines it is necessary to maintain System integrity.
- (i) The Company may temporarily disconnect the RNG Production Facility from the System in the event of an Emergency Condition, for scheduled maintenance, construction or repair, or if it is reasonably determined to be necessary in order to maintain the safety and reliability of the System.
  - (ii) BGE shall notify the Customer promptly when it becomes aware of an Emergency Condition or any other condition that that may reasonably be expected to affect the Customer's operation of the RNG Production Facility. The Customer shall notify BGE promptly when it becomes aware of an Emergency Condition or any other condition that may reasonably be expected to affect the BGE System. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both parties' facilities and operations, its anticipated duration, and the necessary corrective action.
  - (iii) In the event BGE temporarily discontinues the receipt of RNG for any reason, the Customer is responsible for ceasing production or diverting RNG from the point of interconnection.
  - (iv) BGE shall provide the Customer with five business days' notice prior to a temporary interruption due to scheduled maintenance, construction, or repair. BGE shall use reasonable efforts to coordinate such temporary disconnection with the Customer.
  - (v) The Company and the Customer shall cooperate with each other to restore the RNG Production Facility, Interconnection Facilities, and BGE's System to their normal operating state as soon as reasonably practicable following any disconnection pursuant to this section, as long as the safety and reliability of the System is ensured, including ensuring that all Gas Quality Standards are met. During a temporary discontinuance of service, the Customer shall still be charged the Customer Charge and Information Fee.

*Schedule RNG continued*

**(b) Restart Procedures:**

- (i) To restart RNG injection following a temporary discontinuance, the Customer will complete a minimum of one test of the RNG in accordance with the Customer testing requirements specified above. Injection may then resume if the test indicates the RNG complies with the RNG Quality Standard. This test must be reviewed and approved by both BGE and the Customer.
- (ii) To restart RNG injection following a shut-off resulting from above concerns, the Customer may begin injections once BGE has given approval.
- (iii) When BGE crews are required on-site to restart the RNG injection, including but not limited to on-site testing, the Customer will pay the costs of the labor and materials required for such activities.
- (iv) The Customer and BGE may agree to modify the restart procedures identified in this Section on a case-by-case basis, upon written agreement between each party.

**3.5 Changes Impacting Gas Quality:**

BGE must be notified as soon as possible of any substantive expected change to the feedstock, raw gas quality or conversion process that has the potential to impact RNG quality, so that BGE can review whether any action is required including, but not limited to, additional testing, new or revised Gas Quality Standards as approved by the PSC or a suspension of the receipt of RNG into BGE's System.

**4. RNG COMMODITY:**

The scheduling of RNG is subject to the provisions of Appendix B (BGE's Gas Supplier Tariff).

The Customer may only contract with one (1) Renewable Gas Authorized Marketer at a time. All marketer relationship or agreements between the Customer and their Renewable Gas Authorized Marketer should be maintained for the duration of the entire calendar month. The Customer may also be an authorized marketer and act on its own behalf. BGE may limit the number of suppliers to which the RNG can be allocated.

*Schedule RNG continued*

#### **4.1 Balancing:**

To the extent that the Customer has contracted with a Renewable Gas Authorized Marketer to sell the gas to end users on BGE's System, the balancing provisions in Appendix B and the other Rate Schedules apply.

#### **4.2 Buyer of Last Resort:**

It is the responsibility of the Customer or their Renewable Gas Authorized Marketer to find end users for the gas. To ensure the RNG stays on BGE's System, BGE will act as the Buyer of Last Resort on a month-to-month basis if the Customer or their Renewable Gas Authorized Marketer provides notice to the Company three (3) days prior to the beginning of the month. The Company will purchase all of the RNG produced by the Customer for that month at 90% of the City Gate Index for that month as determined under Rider 2. If notice of less than three (3) days is provided, the Company will purchase the RNG on a best-efforts basis.

At any time, the Customer's accumulated imbalance between nominations and actual metered deliveries sold to BGE exceeds 1,000 Dth, the following Accumulated Imbalance Corrective Measures apply:

- (a) **Over-Tendered Accumulated Imbalance:** When the Customer's accumulated imbalance exceeds the applicable limit, the Company will purchase the total accumulated over-tendered imbalance at the lower of the Gas Commodity Price, or 90% of the lowest Transcontinental Gas Pipeline Corporation (Transco) Zone 6 (non-New York) price for the current month.
- (b) **Under-Tendered Accumulated Imbalance:** When the Customer's accumulated imbalance exceeds the applicable limit, the Customer will purchase all gas used in excess of delivered Transportation Gas at the following rates:
  - (i) During periods other than an interruption for system distribution reasons or Gas Production Days, all gas used will be billed at the higher of the Gas Commodity Price or 110% of the highest Transco Zone 6 (non-New York) price for the current month.

*Schedule RNG continued*

## **5. MISCELLANEOUS:**

The Customer agrees to ensure that all RNG produced by the RNG Production Facility shall be consumed by an end user on BGE's System unless BGE receives appropriate approval from the Federal Energy Regulatory Commission that allows the Customer to transport RNG off BGE's System via interstate pipelines. BGE shall have access to all its equipment.

The Customer shall be deemed to be in control and possession of, and responsible for, all gas transported under the contract from the time that such gas is produced by the Customer until such gas is delivered to BGE at the point of interconnection and meets all agreed quality requirements.

## **6. GENERAL TERMS:**

**6.1 MINIMUM CHARGE:** Customer Charge stipulated in the Rate Table at Section 2 herein

**6.2 LATE PAYMENT CHARGE:** Standard (Sec. 7.5)

**6.3 PAYMENT TERMS:** Standard (Sec. 7)

**6.4 TERM OF CONTRACT WITH BGE:** The initial term of contract is 1 year or as required for allowance under the Extension Provisions above. The contract continues thereafter from year to year until terminated at the expiration of any such term by at least 30 days' notice from either party to the other.

**6.5 METERING EQUIPMENT:** BGE will install, maintain, and operate the necessary equipment to determine the volume of the gas delivered into BGE's System from the customer, and the day and hours of such delivery.

## **7. DEFINITIONS:**

- (a) **Emergency Condition:** Any condition including but not limited to an explosion, fire, storm, force majeure or other imminent threats to life, property or the safety and reliability of BGE's System.
- (b) **Interconnection Agreement:** A business contract between BGE and the Customer governing the interconnection of the Renewable Gas Production Facility and BGE's System.



*Schedule RNG continued*

- (c) Interconnection Equipment: All BGE owned piping, equipment, and associated appurtenances associated with and the receipt and delivery of the RNG gas before injecting the gas into BGE's System.
- (d) Renewable Natural Gas (RNG): Pipeline quality gas derived from biogenic or other renewable sources that is fully interchangeable with natural gas. RNG does not include any non-energy attributes, including all avoided emissions, environmental benefits, and other aspects associated with the production, combustion, use and transport of the RNG when compared to geologic natural gas.
- (e) Renewable Gas Authorized Marketer: The RNG Customer or a third party that has been authorized by the Customer to take possession of the RNG and be responsible for the sale and scheduling to end users on BGE's system. The Authorized Marketer must be a licensed supplier of natural gas that has been licensed by the Commission to sell natural gas within the State of Maryland in BGE's service territory.
- (f) Renewable Natural Gas Production Facility: Customer-owned facilities interconnected to the Company's System which effectuate the delivery of RNG.

**8. RIDERS APPLICABLE:**

- 9. Demonstration and Trial Installations
- 10. Billing in Event of Service Interruption