



505 Nicollet Mall
PO Box 59038
Minneapolis, MN 55459-0038

April 23, 2020

Mr. Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 East Seventh Place, Suite 350
St. Paul, MN 55101-2147

**RE: Petition by CenterPoint Energy to Introduce a Renewable Natural Gas
Interconnection Tariff
Docket No. G-008/M-20-_____**

Dear Mr. Seuffert:

CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas, ("CenterPoint Energy" or the "Company") respectfully submits the following petition to the Minnesota Public Utilities Commission ("Commission") for approval to offer a Renewable Natural Gas ("RNG") interconnection service. CenterPoint Energy's proposed RNG interconnection service will allow producers of RNG to interconnect to CenterPoint Energy's distribution system. CenterPoint Energy is proposing this offering to meet demand from RNG producers who wish to sell their product within existing and developing national markets. In addition, this interconnection service will support Minnesota-produced RNG and further the development of RNG production and markets in Minnesota. This filing sets forth the Company's proposed RNG producer tariff class and the process by which an RNG producer will connect to CenterPoint Energy's distribution system. The Company respectfully requests the Commission approve this new tariffed offering to allow RNG projects to interconnect and transport RNG through CenterPoint Energy's system.

The Company thanks the Commission for the opportunity to present this new tariffed offering. Please contact me at (612) 321-4625 or amber.lee@centerpointenergy.com with any questions.

Sincerely,

/s/ Amber Lee

Amber Lee
Director, Regulatory Affairs

C: Service List

**STATE OF MINNESOTA
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

Katie Sieben
Valerie Means
Matt Schuerger
Joseph Sullivan
John Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of a Petition by CenterPoint Energy
To Introduce a Renewable Natural Gas
Interconnection Program

Docket No. G-008/M-20-_____

PETITION

Introduction

CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas, (“CenterPoint Energy” or the “Company”) respectfully submits the following Petition to the Minnesota Public Utilities Commission (“Commission”) for approval to offer a tariffed interconnection service.

CenterPoint Energy’s proposed RNG interconnection service would allow producers of RNG to interconnect to, and transport their gas via, CenterPoint Energy’s distribution system. This filing sets forth the terms and conditions of the tariffed service, the process by which an RNG producer will connect to the Company’s system, the gas quality standards the RNG producer must meet, and the proposed rates to be charged for the interconnection service.

CenterPoint Energy has structured its proposed interconnection program so that existing customers will not be harmed by the new offering. The gas quality specifications that CenterPoint Energy is proposing are designed to ensure that gas entering the distribution system is interchangeable with the conventional natural gas the Company provides. As a result, customers will see no difference in their natural gas service or operation of their gas appliances. In addition, the Company’s proposal should not result in increased costs for existing customers – the rates proposed for interconnect customers are designed to fully cover the Company’s costs for offering the interconnection service.

The Company submits the following Exhibits in support of its Petition:

- Exhibit A: Interconnection Feasibility Study Agreement
- Exhibit B: RNG Interconnection Agreement
- Exhibit C: RNG Quality Standards
- Exhibit D: RNG Interconnection Tariff

Exhibit E: Basis for Proposed RNG Producer Rates

Exhibit F: Contribution-In-Aid-of-Construction Example

Exhibit G: Proposed Tariff Changes

I. Summary of Filing

A one-page summary is attached to this filing pursuant to Minn. R. 7829.1300, subp. 1.

II. Service on Other Parties

Pursuant to Minn. R. 7829.1300, subp. 2, the Company has served a copy of this filing on the Department of Commerce and the Office of the Attorney General – Antitrust and Utilities Division. A summary of this filing has been served on all parties on the enclosed service lists.

III. General Filing Information

Pursuant to Minn. R. 7829.1300, subp. 3, the Company provides the following information.

A. Name, Address, and Telephone Number of Utility

CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas,
a Delaware Corporation
505 Nicollet Mall
PO Box 59038
Minneapolis, Minnesota 55402
(612) 372-4664

B. Name Address, and Telephone Number of Utility Attorney

Steven C. Clay, Senior Counsel
505 Nicollet Mall
Minneapolis, Minnesota 55402
(612) 321-4606
Steven.Clay@centerpointenergy.com

C. Date of Filing and the Date the Proposed Rate or Service Change Will Take Effect

Date Filed: April 23, 2020
Effective Date: Upon Commission Approval

D. Statute Controlling Schedule for Processing the Filing

CenterPoint Energy is unaware of any statute or rule that controls the timeframe for processing this filing.

E. Utility Employee Responsible for Filing

Amber S. Lee
Director, Regulatory Affairs
(612) 321-4625
Amber.Lee@centerpointenergy.com

F. Description of the Filing, Its Impact on Rates and Services, Its Impact on Any Affected Person, and the Reasons for the Filing

In this filing, the Company proposes a new tariffed service to allow RNG producers within the state to interconnect to the Company's distribution system and transport RNG to end-use customers. This filing includes the proposed process and rates for the interconnection service. This filing will not negatively impact any existing customer because the Company's proposal ensures that no existing customer will subsidize this interconnection process. If RNG producers connect to the Company's system, existing customers would benefit to the extent that the Company's fixed costs will be spread over additional customers. The Company submits this filing to offer a new service to meet potential customer demand for interconnection.

IV. Miscellaneous Information

CenterPoint Energy requests that the following employees be included in the service list for this proceeding.

Amber S. Lee
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505 Nicollet Mall
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V. Interconnection Service

CenterPoint Energy proposes to allow producers of RNG to interconnect to CenterPoint Energy's distribution system so that RNG can be transported and delivered in Minnesota and across the country. Once connected, the RNG will either be:

- (1) Transported by the Company to an interstate pipeline for delivery to a buyer who is not connected to CenterPoint Energy's Minnesota distribution system; or
- (2) Transported to a customer on CenterPoint Energy's distribution system who has purchased the RNG.

The Company expects that, in the near term, most if not all of the RNG put into CenterPoint Energy's distribution system will be sold to buyers who will use it as vehicle fuel in order to generate credits in the national RNG credit market.

Once RNG producers are connected to the Company's system, the Company plans to solicit local RNG supply and submit an amended green tariff offering to deliver RNG to sales customers who opt to purchase RNG as part of their natural gas supply.¹

The Basics of RNG and RNG Markets

The American Gas Association defines RNG as pipeline compatible gaseous fuel derived from biogenic or other renewable sources that has lower lifecycle CO₂ emissions than geologic natural gas. Essentially, RNG is biogas that has been cleaned of impurities so that it is interchangeable with traditional natural gas. Biogas is a product of decomposing organic material, and it can come from many sources including agricultural waste, food waste, landfills and wastewater treatment plants. Biogas can be burned for electricity or cleaned and converted into RNG and used interchangeably with conventional natural gas, including for use as a vehicle fuel.

¹ See In the Matter of a Petition by CenterPoint Energy to Introduce a Renewable Natural Gas Pilot Program, G-008/M-18-547, Order Denying Petition without Prejudice (Aug. 29, 2019). The interplay between this proposed interconnection service and a future green tariff program is further discussed in this Petition at page 10.

There are existing markets for RNG. State and federal programs exist to incentivize the use of cleaner transportation fuels. RNG when used as a transportation fuel is eligible to receive credits from the following programs:

Renewable Fuel Standard (“RFS”). Administered by the Environmental Protection Agency (“EPA”) through the Clean Air Act, the RFS mandates that blenders and refiners of petroleum-based fuels procure alternative fuels to comply with Renewable Volume Obligations set by the EPA. Alternative fuel providers receive Renewable Identification Numbers (“RIN”) for each gallon-equivalent of fuel used in transportation.

Low Carbon Fuel Standard (“LCFS”). In addition to qualifying for RINs, RNG qualifies for LCFS credits in California and Oregon. The LCFS program uses lifecycle analysis to determine the environmental impact for every fuel pathway issuing a Carbon Intensity (“CI”) score. CI is measured in grams of CO₂ equivalents per megajoule. As part of their Clean Air Plan, the California Air Resources Board has mandated a decreasing state-wide CI score each year until 2025. For each ton of CO₂ equivalents avoided, LCFS creditors, like RNG providers, receive credits. These credits are then sold to deficit-producing entities.

As a result of these policies, most RNG developed today is used in the vehicle fuels market. Some natural gas utilities and large natural gas users have also begun to purchase RNG and these purchasers represent an emerging market for RNG.

CenterPoint Energy is proposing this offering in response to demand from RNG producers to connect to our system. CenterPoint Energy has received more than a dozen recent inquiries from RNG producers regarding interconnection with CenterPoint Energy’s Minnesota distribution system. We are currently in discussions with project developers who plan to produce RNG from food waste, wastewater, or agricultural waste and wish to interconnect to our system to deliver RNG into the market.

In addition, many current CenterPoint Energy customers want the Company to develop solutions for carbon emissions from natural gas. For example, city of Minneapolis Council Members Cam Gordon and Jeremy Schroeder “are looking at CenterPoint Energy...to move more quickly toward alternative energy sources for buildings.”² While this interconnection proposal will not on its own directly address Minneapolis’s goals to reduce carbon emissions in the city, development of RNG resources is a necessary prerequisite to bringing RNG supply to customers.

² Miguel Otárola, *Minneapolis Needs to Make Drastic Cuts to Natural Gas Emissions, Officials Say*, Star Tribune (Aug. 28, 2019) <http://www.startribune.com/minneapolis-needs-to-make-drastic-cuts-to-natural-gas-emissions-officials-say/558497872/>.

Interconnection Process Overview

In this section the Company summarizes the overall process it plans to follow when it receives interconnection requests and provides an overview of the gas quality requirements and proposed testing procedures that RNG producers will need to meet to be able to connect to the Company's system.

Initial Engineering Review of Interconnection Project

Upon receiving an inquiry for interconnection CenterPoint Energy will request basic details about the proposed RNG production project such as location and an estimate of the quantity of RNG to be produced at the site. Using the basic information provided, the Company will conduct an initial engineering review of the project to preliminarily determine whether interconnection is feasible at the proposed site. That is, the initial review will assess whether the proposed RNG volumes could be used to supply the Company's load within the proximity of the proposed site. If the proposed volumes are in excess of the Company's load the project will be deemed infeasible because there is no space on the system to accept additional gas at that site. The demand within the region must be adequate to support the amount of gas expected to be produced by the RNG project.

Engineering Evaluation of Interconnection Project and the Interconnection Feasibility Agreement

If the initial engineering review determines that an interconnection may be feasible, the applicant may choose to move forward in the process and request the Company complete a full Interconnection Feasibility Study to determine the actual potential of the proposed RNG interconnection. The purpose of an Interconnection Feasibility Study is to confirm project feasibility and produce project cost and construction timeline estimates. If the applicant wishes to proceed with the Interconnection Feasibility Study, the Company will require the applicant to complete an Interconnection Feasibility Study Agreement and remit \$7,500 to CenterPoint Energy to offset the Company's costs incurred to complete the study. The Interconnection Feasibility Study Agreement allows the Company to confirm interconnection feasibility and determine the location, kind and type of equipment, and method of installation of the potential interconnect, and provide the potential interconnect applicant with an estimate for a contribution-in-aid-of-construction ("CIAC") that would be required to proceed with the interconnection process. The Interconnection Feasibility Study Agreement is attached to this Petition as Exhibit A.

As mentioned above, though many RNG producers will be able to benefit from the proposed interconnection service, the Company may not be able to satisfy every interconnection request. Some producers of RNG may be too geographically distant from CenterPoint Energy's distribution system and the project will therefore require too much piping and infrastructure to be feasible. In other cases, CenterPoint Energy may have system limitations that preclude interconnect at a nearby distribution system point. For example, the Company will be unable to interconnect RNG producers in cases where the downstream gas load is less than the expected

output of the RNG producer. In such cases, interconnection may be impossible or more expensive than the pipe proximity would suggest.

Interconnection Agreement

If an Interconnection Feasibility Study is completed and confirms project feasibility, the potential interconnection applicant may choose to proceed with construction. At this point in the process, and prior to beginning construction, CenterPoint Energy will require applicants to enter into an Interconnection Agreement. The Interconnection Agreement describes the applicant's obligations and requirements to receive service under the interconnect tariff, including the ongoing operational requirements, the obligation to deliver certain volumes, and the obligation to satisfy the Company's gas quality standards so that the RNG the Company receives is safe and compatible with the other natural gas on its system. The Interconnection Agreement is attached to this filing as Exhibit B.

Gas Quality Requirements

The quality of the renewable natural gas to be delivered to the Company's distribution system is an important consideration in the offering of this service. Historically, CenterPoint Energy has received natural gas delivered through the interstate pipeline system from suppliers located throughout the country and Canada. This interconnect service will provide a new avenue for deliveries, and the Company must ensure that accepting RNG into our system from local producers will not impact the Company's ability to deliver safe and reliable service to our customers. Therefore, CenterPoint Energy proposes a set of gas quality specifications for RNG that will ensure the RNG entering the Company's system is safe for use in customer appliances and in the Company's facilities. These gas quality specifications are derived in large part from those promulgated by the California Public Utilities Commission ("CPUC"). The CPUC has undertaken detailed investigation of the gas quality standards needed to protect distribution utility pipelines.³ The Company has reviewed the California proceeding and is satisfied that the standards decided on by the CPUC are also appropriate for CenterPoint Energy's Minnesota distribution system.⁴

The Gas Quality Standards RNG producers must meet to receive interconnect service are included in Exhibit C to this filing. In general, the specifications are meant to ensure that the RNG entering CenterPoint Energy's system will be interchangeable with the geologic natural

³ CPUC Rulemaking 13-02-008, https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R1302008 (last visited April 23, 2020).

⁴ The standards CenterPoint Energy proposes are largely the same as the CPUC's but are simplified in some respects. In addition, CenterPoint Energy is proposing a different range for acceptable Wobbe Index values. The Wobbe Index is the ratio of a fuel's heating value to square root of its relative density. Wobbe indices vary throughout the United States and are generally higher in Minnesota than in California. CenterPoint Energy is proposing a Wobbe Index range for RNG that will ensure that the RNG is similar to other gas on CenterPoint Energy's distribution system in Minnesota.

gas that CenterPoint Energy currently distributes and will not damage CenterPoint Energy or customer equipment.

Testing Requirements

The Gas Quality Standards also detail the testing and monitoring procedures CenterPoint Energy will require to ensure RNG suppliers are continually meeting the gas quality specifications. These procedures require the applicant and Company to test for constituents of concern over a two-to-four-week period prior to interconnection, and the Company will not permit interconnection until the producer's RNG meets gas quality requirements. After interconnection, the Company will require the producer to periodically test the quality of the RNG to ensure that it is continuing to meet all gas quality standards. The Company will also continually monitor the quality of the gas as it flows into the distribution system. CenterPoint Energy will shut-in (refuse receipt of) any RNG delivered from interconnected producers that does not meet the gas quality specifications. The Company will also require producers to notify CenterPoint Energy before making any significant changes to their biogas feedstock or processing equipment, and when changes to feedstocks or equipment occur, the Company may require additional testing or temporarily shut-in the producer until the RNG quality is reestablished.

VI. Interconnect Pricing

Once the interconnection requirements are met, the relationship between CenterPoint Energy and the interconnected RNG producers will be governed by the terms and conditions of the RNG Interconnect Service Tariff, which sets terms and conditions similar to those for our interruptible transport customers. CenterPoint Energy proposes to offer service to RNG producers on generally the same terms that it provides it to existing transportation customers (with requirements to ensure the gas standards are being met and that the Company can accept the quantities of RNG being produced). The proposed RNG Interconnect Service Tariff is attached to this filing as Exhibit D. The Company proposes to charge RNG Producers a \$7,500 monthly basic charge and a receipt charge of \$0.1500 per therm for RNG delivered into the Company's system. The Company is also proposing a slightly modified method for calculating an RNG Producer CIAC.

The Company is proposing to charge RNG Interconnect Service customers more than the Company charges any other class of customer because the Company expects to incur higher costs to serve interconnect customers both upfront and on an ongoing basis. Many of these costs are associated with the need to monitor RNG to ensure it meets the Company's proposed RNG Quality Standards. Examples of costs that the Company will incur to ensure that the RNG is meeting quality standards include installation of equipment like gas chromatographs, moisture monitors, and hydrogen sulfide monitoring equipment, and, on an ongoing basis, employee time to maintain the equipment and review readings from the devices. The Company is also expecting to incur additional costs because many potential RNG production sites are located in

rural areas. The typical RNG producer looking to interconnect with the Company's system is further from the Company's pipe than the typical sales customer. Accordingly, the Company expects to incur higher costs in laying piping that it would for a typical new large sales customer.

Basic Monthly Charge and Per Therm Receipt Rate

As described in more detail in Exhibit E, the Company calculated the proposed per-therm receipt charge by adding to the Large Volume Dual Fuel Transport delivery charge a charge for the incremental capital required for the increased upfront investment for the typical RNG producer. Similarly, also set forth in Exhibit E, the Company calculated a new basic charge by adding to the Large Volume Dual Fuel Transport basic charge an additional amount to cover expected increased annual operating and maintenance costs. These additional operating and maintenance costs are largely fixed costs that the Company will incur regardless of the RNG Interconnect Customer's production, so the Company proposes to recover them in the monthly customer charge rather than the volumetric rate.

CIAC Calculation

The Company's existing Tariff, Section VI, Page 5, specifies that the Company's allowable investment for a dual fuel customer will be calculated by dividing the customer's estimated annual gas margin by the dual fuel cost of service factor. Exhibit F attached to this filing demonstrates the calculation of the CIAC for a representative RNG Production interconnection.

Other Charges Applicable to the RNG Producer Tariff

The Company omitted the Conservation Cost Recovery Charge ("CCRC") from the delivery charge for the RNG Interconnect Service Tariff. The Company believes it is not appropriate to charge RNG Producers for conservation programs because of the unique nature of the RNG Interconnect Service Tariff. The goal of the Conservation Improvement Program is to help users of natural gas reduce their use of gas and, accordingly, their gas bills and environmental impact. In contrast, the goal of RNG producers is to produce RNG, and if an RNG producer produces more it will result in increased environmental benefit. Because the production and use of RNG results in environmental benefits the Company believes it is appropriate to encourage producers to maximize the RNG that can be produced locally.

Incorporation into the General Revenue Requirement

The Company is requesting approval to begin offering this tariffed interconnect service. Currently, the Company also has a general rate case with a 2020 test year underway. The Company anticipates that the soonest it will begin offering and collecting revenues under this service would be spring of 2021. After interconnecting a few customers under this tariff, the Company expects to reevaluate the pricing structure to evaluate whether the customers in the interconnect class are appropriately covering their fixed and variable costs. The Company

anticipates incorporating this class of customers into the general revenue requirement calculation in its next rate case.

VII. Other Tariff Changes

In addition to the proposed RNG Interconnect Service customer class and associated agreements and requirements, the Company is proposing a few changes to other provisions of the tariff. These changes, set forth in Exhibit G to this filing, are meant to clarify that certain tariff provisions will apply to customers taking service under the RNG Interconnect Service Tariff. A complete listing of the tariff changes proposed and the justification of the changes is set forth in Exhibit G.

VIII. Interaction with RNG Sales Program

As the Commission is aware, the Company is also interested in providing RNG to its customers in Minnesota. The Commission denied without prejudice the Company's Petition in Docket No. G-008/M-18-547 to provide a renewable natural gas green tariff program but encouraged the Company to propose a modified RNG Sales pilot proposal. The Company intends to file another Petition for a similar program when it has identified a local source of RNG supply.

The Company expects that in the near term most RNG producers seeking to interconnect with its Minnesota system will be primarily interested in selling their RNG to customers operating in the RIN and LCFS markets and not necessarily customers located on CenterPoint Energy's distribution system. Nevertheless, the Company believes that offering this interconnection tariff is a useful first step towards encouraging the development of local supply that could be used in a future green tariff proposal.

IX. Conclusion

The Company thanks the Commission for consideration of this proposal. This offering will enable development of RNG projects in Minnesota. Development of RNG potential in Minnesota may help the state achieve its carbon reduction, waste management, and agricultural goals.

STATE OF MINNESOTA
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION
121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

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Chair
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In the Matter of a Petition by CenterPoint Energy
To Introduce a Renewable Natural Gas
Interconnection Program

Docket No. G-008/M-20-_____

PETITION

Summary of Filing

CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas, (“CenterPoint Energy”) submits a Petition for approval of a renewable natural gas (“RNG”) interconnection offering. The Petition includes a proposed tariff specifying a process for an RNG producer to apply for interconnection and pricing for RNG interconnection service. The Petition also proposes changes to other tariff pages to accommodate the proposed new RNG interconnection service. CenterPoint Energy is proposing this offering to answer a growing call from its customers, potential customers, and environmental stakeholders to find sustainable solutions for carbon emissions. Commercially available RNG is today derived almost entirely from organic waste streams and the development of RNG projects has important waste management benefits. This offering will increase the potential for development of RNG resources in Minnesota by making it easier for RNG producers to sell their product to the existing markets.

Exhibit A: Interconnection Feasibility Study Agreement

Docket No. G-008/M-20-_____

April 23, 2020

INTERCONNECTION FEASIBILITY STUDY AGREEMENT

This Interconnection Feasibility Study Agreement ("Agreement") is effective as of the _____ day of _____, 20____, between CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas ("CenterPoint Energy"), 505 Nicollet Mall, P.O. Box 59038, Minneapolis, Minnesota 55459-0038 and _____ ("Potential Interconnection Applicant").

Whereas Potential Interconnection Applicant is or has plans to become a producer of renewable natural gas ("RNG") and is planning a potential RNG project or project expansion in or near CenterPoint Energy's Minnesota Service territory;

Whereas CenterPoint Energy has previously completed an initial engineering review of the proposed project or expansion and determined preliminarily that interconnection may be feasible; and

Whereas Potential Interconnection Applicant desires CenterPoint Energy to confirm interconnection feasibility and provide Potential Interconnection Applicant with an estimate for contribution-in-aid-of-construction ("CIAC") that would be required to proceed with interconnection.

Therefore, CenterPoint Energy and Potential Interconnection Applicant are entering into this Agreement.

CenterPoint Energy agrees to complete a full engineering review of the project to confirm interconnect feasibility.

Potential Interconnection Applicant agrees to provide technical information about its proposed RNG production facilities, and their designed capabilities, as needed by CenterPoint Energy to perform the Interconnection Feasibility study.

If CenterPoint Energy confirms project feasibility, CenterPoint Energy agrees to determine the location, kind and type of equipment, and method and manner of installation of the potential interconnect and provide an estimate for any contribution-in-aid-of-construction that would be required.

Potential Interconnection Applicant agrees to remit payment with this signed Agreement to CenterPoint Energy for the amount of \$7,500.00. Payment is non-refundable, even in the event that interconnection is determined not feasible by CenterPoint Energy.

If an engineering review results in a conclusion that interconnection is feasible, this in no way constitutes a promise or guarantee by CenterPoint Energy to interconnection the potential RNG project or expansion.

IN WITNESS WHEREOF, this Agreement was signed by duly authorized representatives of CenterPoint Energy and Potential Interconnection Applicant.

CENTERPOINT ENERGY RESOURCES
CORP., d/b/a CenterPoint Energy Minnesota
Gas

By: _____
Title: _____
Dated: _____

POTENTIAL INTERCONNECTION
APPLICANT

By: _____
Title: _____
Dated: _____

Exhibit B: RNG Interconnection Agreement

Docket No. G-008/M-20-_____

April 23, 2020

RENEWABLE NATURAL GAS INTERCONNECTION AGREEMENT

THIS RENEWABLE NATURAL GAS INTERCONNECTION AGREEMENT ("Agreement") is between CenterPoint Energy, Resources Corp., d/b/a CenterPoint Energy Minnesota Gas ("CenterPoint Energy"), 505 Nicollet Mall, P.O. Box 59038, Minneapolis, Minnesota 55459-0038 and _____ ("Customer"), and is effective as of the _____ day of _____, 20____. The Customer has constructed or intends to construct and will operate its pipeline facilities connecting its renewable natural gas ("RNG") producing facilities to the Interconnection Point specified in Exhibits A and B as attached. CenterPoint Energy has constructed or intends to construct facilities at the Interconnection Point for the receipt of RNG as set forth in this Agreement. The Customer and CenterPoint Energy shall also be hereinafter referred to individually as "Party" and jointly as the "Parties". Therefore, the Parties, desiring to be legally bound, for themselves, their successors and assigns, agree as follows:

Section 1. Scope of Agreement.

This Agreement sets forth the terms and conditions under which CenterPoint Energy agrees to provide facilities for Interconnect Service from the Customer's pipeline facilities near _____ in _____, Minnesota to CenterPoint Energy's existing utility system. Such facilities, which include all facilities and equipment necessary for receipt of Customer's RNG, shall permit RNG to be delivered by Customer to CenterPoint Energy and for transport on CenterPoint Energy's pipeline system in Minnesota. This Agreement does not provide for or address in any way any right of the Customer to receive firm access rights on CenterPoint Energy's system at the Interconnection Point. Customer's facilities and the Interconnection Point are further described in Exhibit A. The Interconnection Point will be completed by _____ or as soon thereafter as is practicable. The Interconnection Point shall have the capability to receive up to _____ MMBTU/hour if delivered by Customer at _____ PSIG.

Additional terms are specified in Exhibit B.

This Agreement is effective upon signing and shall remain in effect for a primary term of _____ () years.

Section 2. Delivery Obligations and RNG Receipts.

Beginning _____ through _____ and for each consecutive 12-month period thereafter (each a "Contract Year"), Customer agrees to purchase RNG Interconnect Service of the equivalent annual minimum volumes ("Minimum Volume Requirement") of _____ therms per Contract Year from CenterPoint Energy. If the Minimum Volume Requirement applicable to any Contract Year is not met for any reason, CenterPoint Energy may immediately invoice Customer for an amount equal to the difference between the Minimum Volume Requirement and the volume of natural gas actually received from the Customer facility during said Contract Year multiplied by the applicable tariffed rate. Such payment shall not be used as a credit for RNG received in subsequent years.

CenterPoint Energy agrees to accept, on an interruptible basis, daily volumes of the Customer's RNG meeting the Gas Quality requirements of the tariff and deliver those volumes from the Interconnection Point to another location on CenterPoint Energy's distribution system, as nominated by the Customer. CenterPoint Energy shall have the continuing right at any time in its sole discretion to refuse to accept delivery of any RNG that does not meet CenterPoint Energy's gas quality specifications as addressed in the RNG Quality Standards Tariff. CenterPoint Energy shall provide notice to the Customer as soon as commercially practicable after any decision is made not to accept deliveries.

CenterPoint Energy shall have the continuing right at any time to interrupt or curtail RNG deliveries at the Interconnection Point to manage the operation of its gas distribution system. CenterPoint Energy shall interrupt or curtail on a non-discriminatory basis.

RENEWABLE NATURAL GAS INTERCONNECTION AGREEMENT (CONTINUED)**Section 2. Delivery Obligations and RNG Receipts. (Continued)**

CenterPoint Energy may allow deviations from the RNG Quality Standards Tariff if, in the judgment of CenterPoint Energy, deviation will not risk harm to CenterPoint Energy facilities, the facilities of any CenterPoint Energy customer, human health, or the environment.

The Parties intend that the quantity of RNG actually delivered each day at each Interconnection Point will be delivered on a reasonably uniform hourly basis and equal the nominated volumes for that Interconnection Point or at a rate as mutually agreed by the Parties. If the Customer is not abiding by this provision, then CenterPoint Energy reserves the right to suspend service until such time appropriate actions have been taken to ensure compliance with this provision.

The Customer shall deliver RNG to CenterPoint Energy at the Interconnection Point at a delivery pressure as agreed to by the Parties.

CenterPoint Energy shall install equipment necessary to measure deliveries from the Customer and infuse odorant at the Interconnect Point. Measurement of RNG for all purposes of and at all times under this Agreement shall be by CenterPoint Energy instruments and meters.

Customer will, without expense to CenterPoint Energy, provide, and maintain on the premises, at a location satisfactory to CenterPoint Energy, proper space for CenterPoint Energy's piping, meters, regulators and other equipment. CenterPoint Energy representatives have the right at all reasonable times to have access to its equipment for any reason related to this Agreement, including the right to read meters, make inspections or repairs or remove CenterPoint Energy's equipment. Customer will obtain consent from its lessor, if any, for CenterPoint Energy to enter the premises for these purposes. Access will be granted at all times for emergency purposes. Customer will provide for the safekeeping of CenterPoint Energy's meters and other equipment. Customer will reimburse CenterPoint Energy for the cost of any alterations to its property necessitated by Customer, and for any loss or damage to CenterPoint Energy's property due to negligence of Customer, its agents or employees. CenterPoint Energy may suspend or discontinue service until any such damage or loss is settled to its satisfaction.

All RNG production, refining, piping and equipment upstream of the Interconnection Point, including telephone lines and any necessary electrical power for remote meter reading equipment, will be installed, owned and maintained by Customer and remain Customer's responsibility. Any inspection by CenterPoint Energy of Customer's piping and equipment will not impose any obligation or liability on CenterPoint Energy.

CenterPoint Energy will not initiate RNG Interconnection Service until all Customer equipment necessary for RNG production is installed and performs in compliance with applicable laws, ordinances and codes and Customer meets CenterPoint Energy's credit requirements as described in CenterPoint Energy's Tariff, Section V, Pages 26-26.a.

Either Party may suspend deliveries or receipts immediately, and at any time, in the event that there is any system or pipeline operations or other action or inaction, that could impair the safety or reliability of either Party's facilities or systems, could impair the deliverability of the gas to be delivered through the Interconnection Point, or would constitute a material default of this Agreement. The Party suspending deliveries or receipts will provide notice to the other Party of such suspension and the cause, to the extent identifiable, as soon as commercially reasonable. In the event such suspension continues for a period of six (6) months without either resolution of the underlying situation, or a mutually agreed upon written plan of resolution, either Party may terminate this Agreement at any time thereafter upon providing an additional thirty (30) days written notice.

RENEWABLE NATURAL GAS INTERCONNECTION AGREEMENT (CONTINUED)**Section 3. Price.**

The rate charged Customer for transported RNG will be governed by the applicable RNG Interconnect Service Tariff.

Section 4. Payment.

The payment due date and late charge are outlined in the applicable RNG Interconnect Service Tariff.

Section 5. Termination and Assignment.

5.1. This Agreement shall renew year to year unless terminated by either party with a minimum of twelve (12) months written notice to the other party prior to the end of the Initial Term or any succeeding term.

5.2. This Agreement shall immediately terminate on any date on which any applicable statute, regulation or other jurisdictional authority renders it illegal, null or void.

5.3. This Agreement may not be assigned without the written consent of the other Party, which shall not be unreasonably withheld. Notwithstanding the foregoing, CenterPoint Energy may, without Customer's consent assign its rights and obligations under this Agreement to any corporation or other person or business entity to which CenterPoint Energy may sell or transfer all or substantially all of its assets.

5.4. If either Party believes the other to be in material breach of this Agreement, the former Party shall provide the other with written notice specifying in reasonable detail the nature of the breach. If the breach has not been cured within six (6) months of this initial notice, the Party not in breach may terminate this Agreement by providing five (5) days written notice.

Section 6. Notices.

CenterPoint Energy, Commercial & Industrial Sales, 505 Nicollet Mall, P.O. Box 59038, Minneapolis, Minnesota 55459-0038, 612-321-4330

End User:

Section 7. Indemnification.

Customer agrees to assume entire responsibility and liability, to the fullest extent permitted by law, for all damages or injury to all persons, whether employees or otherwise, and to all property, arising out of it, resulting from or in any manner connected with, the delivery of RNG as provided for in this Agreement or occurring or resulting from the use by Customer, its agents or employees, of materials, equipment, instrumentalities or other property, whether the same be owned by CenterPoint Energy, Customer or third parties, or any interruption, curtailment, or termination of interconnection or gas transportation services, and Customer, to the fullest extent permitted by law, agrees to indemnify, defend and hold harmless CenterPoint Energy, its agents and employees from all such claims including, without limiting the generality of the foregoing, claims for which CenterPoint Energy may be, or may be claimed to be, liable and legal fees and disbursements paid or incurred to enforce the provisions of this Section and the Customer further agrees to obtain, maintain and pay for such general liability insurance coverage and endorsements as will insure the provisions of this Section.

RENEWABLE NATURAL GAS INTERCONNECTION AGREEMENT (CONTINUED)**Section 8. Applicable Law and Regulation.**

This Agreement will be construed in accordance with the laws of the State of Minnesota. However, in the event of a conflict between this Agreement and the Tariff, the Tariff shall govern. Further, the operation and effectiveness of this Agreement shall not continue if such continuance would violate any applicable statute, regulation or other jurisdictional authority.

Section 9. Title

At no time under this Agreement shall CenterPoint Energy take or hold title to the RNG delivered at the Interconnect Point by the Customer. This Agreement does not prohibit CenterPoint Energy and Customer from entering into a separate agreement for the purchase of Customer's RNG.

Section 10. Complete Agreement.

This Agreement and the Tariff constitute the parties' complete agreement. With the exception of changes to the Tariff, this Agreement cannot be changed except in a writing signed by both parties.

CUSTOMER

By: _____

Title: _____

Dated: _____

CENTERPOINT ENERGY RESOURCES CORP., d/b/a CenterPoint Energy Minnesota Gas

By: _____

Title: _____

Dated: _____

Exhibit C: RNG Quality Standards

Docket No. G-008/M-20-_____

April 23, 2020

17.00 RENEWABLE NATURAL GAS QUALITY STANDARDS

A Renewable Natural Gas ("RNG") Interconnect Customer's RNG shall conform to the following quality specifications at the time of receipt at the interconnection point. CenterPoint Energy may allow deviations from these standards on a case-by-case basis in its discretion.

17.01 General Specifications

CenterPoint Energy's Interconnection equipment will have automatic and remote shut off capabilities for quality standards measured at the receipt station. CenterPoint Energy may shut-in an RNG Interconnect Customer not conforming to the following specifications:

1. Wobbe Index: The RNG shall have a minimum Wobbe Number of 1290 and shall not have a maximum Wobbe Number greater than 1400.
2. Heating Value: The minimum higher heating value is nine hundred and seventy-five (975) Btu (gross) per standard cubic foot on a dry basis. The maximum heating value is one thousand (1100) Btu (gross) per standard cubic foot on a dry basis.
3. Moisture Content or Water Content: The RNG shall have a water content not in excess of seven (7) pounds per million standard cubic feet.
4. Mercaptan Sulfur: The RNG shall not contain more than three tenths (0.3) grains of mercaptan sulfur, measured as sulfur, per hundred standard cubic feet (5 ppm).
5. Total Sulfur: The RNG shall not contain more than seventy-five hundredths (0.75) of a grain of total sulfur compounds, measured as sulfur, per one hundred (100) standard cubic feet (12.6 ppm). This includes COS and CS₂, hydrogen sulfide, mercaptans and mono, di and poly sulfides.
6. Carbon Dioxide: The RNG shall not have a total carbon dioxide content in excess of three percent (3%) by volume.
7. Oxygen: The RNG shall not have an oxygen content in excess of two-tenths of one percent (0.2%) by volume, and customer will make every reasonable effort to keep the gas free of oxygen.
8. Inerts: The RNG shall not contain in excess of four percent (4%) total inerts (the total combined carbon dioxide, nitrogen, oxygen and any other inert compound) by volume.
9. Hydrocarbons: The RNG hydrocarbon dew point is not to exceed 45 degrees F at the delivery pressure.
10. Merchantability: The RNG shall not contain dust, sand, dirt, gums, oils and other substances at levels that would be injurious to utility facilities or that would cause gas to be unmarketable.
11. Delivery Temperature: The RNG delivery temperature is not to be below 50 degrees F or above 105 degrees F.
12. Liquids: The RNG shall contain no liquids at or immediately downstream of the receipt point.

17.02 Constituent Laboratory Testing Based on Source for Health Protective and Pipeline Integrity Protective Constituent Levels

Depending on the source of the RNG, CenterPoint Energy may require an RNG Interconnect Customer to complete laboratory testing for some or all of the trace constituents listed in the following table.

17.00 RENEWABLE NATURAL GAS QUALITY STANDARDS (CONTINUED)

17.02 Constituent Laboratory Testing Based on Source for Health Protective and Pipeline Integrity Protective Constituent Levels (Continued)

<u>Constituent</u>	<u>Trigger Level</u> <u>mg/m³</u>	<u>Lower Action Level</u> <u>mg/m³ (ppmv)</u>	<u>Upper Action Level</u> <u>mg/m³ (ppmv)</u>
<i>Health Protective Constituent Levels</i>			
<i>Carcinogenic Constituents</i>			
Arsenic	0.019 (0.006)	0.19 (0.06)	0.48 (0.15)
p-Dichlorobenzenes	5.7 (0.95)	57 (9.5)	140 (24)
Ethylbenzene	26 (6.0)	260 (60)	650 (150)
n-Nitroso-di-n-propylamine	0.033 (0.006)	0.33 (0.06)	0.81 (0.15)
Vinyl Chloride	0.84 (0.33)	8.4 (3.3)	21 (8.3)
<i>Non-Carcinogenic Constituents</i>			
Antimony	0.60 (0.12)	6.0 (1.2)	30 (6.1)
Copper	0.060 (0.02)	0.6 (0.23)	3 (1.2)
Hydrogen Sulfide	30 (22)	300 (216)	1500 (1080)
Lead	0.075 (0.009)	0.75 (0.09)	3.8 (0.44)
Methacrolein	1.1 (0.37)	11 (3.7)	53 (18)
Toluene	904 (240)	9000 (2400)	45000 (12000)
Alkyl Thiols (mercaptans)	(12)	(120)	(610)
<i>Pipeline Integrity Protective Constituent Levelsⁱⁱ</i>			
Siloxanes	0.01 mg Si/m ³	0.1 mg Si/m ³	=
Ammonia	0.001vol%	=	=
Hydrogen	0.1vol%	=	=
Mercury	0.08 mg/m ³	=	=
Biologicals	4 x 10 ⁴ /scf (qPCR per APB, SRB, IOB ⁱⁱⁱ group) and commercially free of bacteria of >0.2 microns	=	=

Notes: i) The first number in this table are in milligrams per cubic meter of air (mg/m³), while the second number () is in parts per million by volume (ppmv). ii) RNG supplies that contain Pipeline Integrity Protective Constituents exceeding the Trigger Level, but lacking a Lower or Upper Action Level, will be analyzed and addressed on a case-by-case basis based on the RNG's potential impact on pipeline system integrity. iii) APB – Acid producing Bacteria; SRB – Sulfate-reducing Bacteria; IOB – Iron-oxidizing Bacteria

17.00 RENEWABLE NATURAL GAS QUALITY STANDARDS (CONTINUED)**17.03 RNG Constituent Testing shall be based on the RNG source**

1. RNG from landfills shall be tested for all Health Protective and Pipeline Integrity Protective Constituent Levels.
2. RNG from dairies shall be tested for Ethylbenzene, Hydrogen Sulfide, n-Nitroso-di-n-propylamine, Mercaptans, Toluene, and the Pipeline Integrity Protective Constituent Levels.
3. Other organic waste sources, including RNG from publicly owned treatment works (i.e., water treatment and sewage treatment plants) shall be tested for p-Dichlorobenzene, Ethylbenzene, Hydrogen Sulfide, Mercaptans, Toluene, Vinyl Chloride, and the Pipeline Integrity Protective Constituent Levels.

17.04 Testing To Be Completed By Certified Labs

Testing required by this tariff will be performed by the RNG Interconnect Customer using independent certified third-party laboratories (Environmental Laboratory Accreditation Program (ELAP) certified, where applicable). CenterPoint Energy shall be notified of the RNG sampling and tests and have the option to observe the samples being taken. Test results will be shared with CenterPoint Energy within five calendar days of the test results being received by the RNG Interconnect Customer.

In its discretion, CenterPoint Energy may collect samples for testing at the receipt point utility meter.

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

17.05 RNG Pre-Interconnection Testing

1. Prior to the injection of RNG into CenterPoint Energy's distribution system, the RNG Interconnect Customer shall conduct two tests over a two- to four-week period for the Health Protective and Pipeline Integrity Protective Constituent Levels identified for that RNG source.
2. If during pre-injection testing, the RNG is found to contain Health Protective or Pipeline Integrity Protective Constituent Levels above the Lower Action Level, the RNG will not be accepted or transported by CenterPoint Energy. The RNG Interconnect Customer shall make necessary modifications to reduce constituent levels below the Lower Action Level and restart pre-injection testing.

17.06 RNG Periodic Testing

CenterPoint Energy will require periodic testing for Health Protective or Pipeline Integrity Protective Constituent Levels as follows:

1. If a Health Protective or Pipeline Integrity Protective Constituent Level has never been found at or above the Trigger Level or the most recent four periodic tests for that Constituent have shown concentrations bellow the Trigger Level, the RNG Interconnect Customer will retest for the Constituent at least once in every twelve-month period.
2. If a Health Protective or Pipeline Integrity Protective Constituent Level has been found above the Trigger Level in one of the four most recent tests for the Constituent, the RNG Interconnect Customer shall retest for that Constituent quarterly (at least once in every three-month period).

17.00 RENEWABLE NATURAL GAS QUALITY STANDARDS (CONTINUED)**17.07 RNG Shut-Off and Restart Procedures**

The RNG Interconnect Customer may be shut-off at CenterPoint Energy's sole discretion if any of the following occurs:

- RNG is found to be not in compliance with any of the General Specifications.
- CNP determines that a change in the biogas source at the facility or the upgrading equipment will potentially increase the level of any constituent over the previously measured baseline levels.
- Testing indicates that Health Protective or Pipeline Integrity Protective Constituent Levels are exceeding allowable concentration levels:
 - Any Health Protective Constituent Level is found at or above the Lower Action Level three times in a 12-month period.
 - Any Health Protective Constituent Level is found at or above the Upper Action Level.
 - Any Pipeline Integrity Protective Constituent Level is found at or above the Lower Action Level three times in a 12-month period.
- The RNG contains constituents at concentrations which prevent or restrict the normal marketing of RNG, are at levels that are injurious to pipeline facilities, or are at levels that present a health and/or safety hazard to CenterPoint Energy employees and/or the general public.
- Any other issue that CenterPoint Energy determines may jeopardize the safety or reliability of its employees, customers, service, or systems.

In the event that CenterPoint Energy rejects RNG for being outside of any specified gas quality range, it is the RNG Interconnect Customer's responsibility to divert the rejected RNG from the point of interconnection. In order to restart injection after an RNG Interconnect Customer has been shut-in, the RNG Interconnect Customer shall repeat Pre-Injection Testing procedures.

17.08 Notice of Change in Feedstock or Conditioning Process

Customer shall provide thirty (30) days advance notice to CenterPoint Energy before changing its RNG feedstock, feedstock source, or RNG conditioning process.

Exhibit D: RNG Interconnection Tariff

Docket No. G-008/M-20-_____

April 23, 2020

RENEWABLE NATURAL GAS INTERCONNECT SERVICE**Availability:**

Available to any customer who has signed and executed an Interconnection Agreement for the delivery of renewable natural gas ("RNG") at a metered location on the customer's premises. CenterPoint Energy's acceptance of the RNG is contingent on the RNG meeting the testing and quality requirements as set forth in the Gas Quality Standards.

Customers that deliver natural gas into CenterPoint'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.

<u>Monthly Basic Charge</u>	<u>Charge Per Therm</u>
<u>\$7,500.00</u>	<u>\$0.1500</u>

Special Conditions:

Subject to conditions included in the Interconnection Agreement and Gas Quality Standards.

Nomination and Gas Delivery Specifications:

Customers must supply the volumes designated in the Interconnection Agreement, at the rate and pressure specified in the Interconnection Agreement, and per the quality requirements set forth in the Gas Quality Standards.

Due Date:

The due date printed on customer bills will not be more than five days before the next scheduled billing date. However, customers who have selected the AutoPay option may select a due date which is greater than five days before the next scheduled billing date.

Late Payment Charge:

Delinquent amounts are subject to a late payment charge of 1.5% or \$1.00, whichever is greater. No late payment charge will be applied if the delinquent amount is \$10.00 or less.

All payments received will be credited against the oldest outstanding account balance before application of any late payment charge. The late payment charge will be assessed on unpaid amounts at the next scheduled billing date.

Feasibility:

Consistent with the terms set forth in the Interconnect Agreement, the rendering of service to the Customer shall be economically feasible so that the cost of extending such service will not have an undue burden on other customers. All RNG Interconnection projects will be justified using the following formula:

$$\frac{\text{Allowable Investment}}{\text{Est. Annual Gas Margin}} = \text{Divided by Cost of Service Factor}$$

Estimated annual gas margin is the annualized per therm receipt charge for the RNG the Customer delivers into the Company's system and \$12,000 of the annualized basic charge, plus the estimated annualized per therm delivery charge for natural gas delivered to the Customer for use in producing RNG and the annualized basic charge for the delivered natural gas. The Cost of Service Factor is the currently effective Cost of Service Factor for Dual Fuel service as defined in Section VI, Page 5.

If in the opinion of CenterPoint Energy, RNG Interconnect Service is not economically feasible, CenterPoint Energy will make an estimate of the cost of the project and move forward with the RNG Interconnect only if the applicant pays a non-refundable contribution-in-aid-of-construction to CenterPoint Energy for the portion of the capital expenditure and annual operating costs not justified by the annual revenue.

RENEWABLE NATURAL GAS INTERCONNECT SERVICE (CONTINUED)**Contract:**

Customer must sign a separate Interconnection Agreement for each delivery point.

Applicable Riders:

RNG Interconnection Service is subject to the Large Commercial / Industrial Credit Policy Rider and Franchise Fee Rider. The Franchise Fee applicable to Large Volume Dual Fuel customers shall be applicable to customers taking service under this tariff.

RNG Interconnection Service is not subject to the Gas Affordability Program, Decoupling, or Conservation Improvement Program Riders.

Exhibit E: Basis for Proposed RNG Producer Rates

Docket No. G-008/M-20-_____

April 23, 2020

Exhibit E: Basis for Proposed RNG Producer Rates

The Company based its proposed rates for RNG producers on existing rates for Large Volume Dual Fuel Transportation Service. The investments required to connect a large interruptible transport customer (e.g. pipe, metering equipment) will also be required to connect an RNG producer to the Company's system. RNG Interconnection Service, however, will require the Company to install additional equipment that large interruptible customers do not need. Similarly, RNG Interconnect Service customers will also cause the Company to incur higher annual operations and maintenance ("O&M") expenses than the Company incurs to serve interruptible sales customers.

As explained in detail below, the Company is proposing the following Monthly Customer Charge and Receipt Rate for the RNG Producer customer class:

Proposed RNG Producer Rates	
Monthly Charge	\$7,500
Per therm Receipt Rate	\$0.1500

Exhibit E, Attachment 1:

Development of RNG Interconnection Monthly Customer Charge

In Table 1 below, the Company has set forth the annual O&M services it will need to provide to serve an RNG Producer. These O&M services are in addition to the services necessary to serve large interruptible customers.

Table 1: Annual O&M Costs to Serve RNG Producers	
Description	Quantity
Chromatograph Maintenance Trip Charge	4
Helium (Cylinders)	6
Remote Terminal Unit Maintenance (Cost of Parts needed for Repairs)	1
RTU & Instrument Maintenance Mileage	5000
Telemetry - DSL and Cell Service	12
Gas Quality Compliance (laboratory costs for sample testing)	4
Meter & Regulator Maintenance Mileage	500
Odorant (Gallons)	400
FTE Engineer to Support projects	0.25
Total O&M (Annual)	\$74,639
Total O&M (Monthly)	\$6,220

Using the above estimate of annual ongoing costs, the Company proposes a monthly basic charge of \$7,500 for the RNG Interconnect Service customer class, as shown in Table 2 below. The monthly charge of \$7,500 is the sum of the \$1000 monthly basic charge that applies to Large Volume Dual Fuel Transportation Service under the Company's existing tariff and \$6,500, which is the approximate amount needed to cover ongoing maintenance charges as shown in Table 2 above. These additional O&M expenses are largely fixed costs that the Company will incur regardless of the RNG Interconnect Service customer's production volumes, so the Company proposes to recover these costs in the monthly charge, and not through the volumetric receipt rate.

Table 2: Calculation of Proposed Basic Charge	
Large Interruptible Monthly Customer Charge	\$1,000
Estimated Monthly RNG Producer O&M Expenses	\$6,500
Total Proposed Monthly RNG Producer Customer Charge	\$7,500

Exhibit E, Attachment 2:

Development of RNG Interconnection Per-Therm Receipt Charge

The Company has set forth in the table below the types of equipment that it will install to serve an RNG Producer and additional costs that the Company will incur to establish RNG Interconnect Service. These equipment and costs are in addition to the equipment and costs needed to establish service to an interruptible sales customer.

Table 3: Company Equipment Necessary to Serve and RNG Producer	
Description	Quantity
Gas Chromatograph	1
CO2 Monitor	1
Moisture Monitor	1
Remote Terminal Unit Complete	1
Instrumentation - Transmitters	3
Network equipment	1
Power	1
Installation Labor, Electrical (Hrs)	120
Installation labor - Instrumentation and Controls (Hrs)	80
Startup Services (Hrs)	80
Pressure Regulator	1
Pressure Relief	1
Remote Control Valves	2
Odorizer	1
Check Valve	1
Coalescing Filter	1
Installation Labor - Piping and valves (hrs)	320
Foundations and Enclosures	1
Hydrogen Sulfide Monitoring Equipment	1
Additional Piping (feet)	15,840
Total	\$857,400

The calculation below is the cost of service calculation used to determine the proposed RNG Producer per therm receipt rate.¹

1	Gross Plant (From Table 3 above)	\$857,400
2	Depreciation Expense (Line 1 x 4.14%)	\$35,496
3	Tax Depreciation (Line 1 x 3.75%)	\$32,153
4	Deferred Tax ((Line 3 - Line 2) x 28.74%)	\$961
5	Rate Base (Line 1 - Line 2 - Line 4)	\$822,865
6	Return on Rate Base (Line 5 x 7.12%)	\$58,588
7	O&M Expense (From Table 1 above)	\$74,639
8	Property Tax (Line 3 x 3.75%)	\$30,857
9	Income Tax (Line 6 / (100%-28.74%) - Line 6)	\$23,629
10	Cost of Service (Line 2 + Line 6 + Line 7 + Line 8 + Line 9)	\$223,210
11	Estimated Annual Production (Dth)	120,420
12	Proposed Monthly Basic Charge	\$7,500
13	Annual Basic Charge Revenues (Line 12 x 12)	\$90,000
14	Cost of Service Less Basic Charge Revenues (Line 10 - Line 13)	\$133,210
15	Calculated Rate Per Therm (Line 10 / Line 11 / 10)	\$0.11062

¹ Rates for depreciation, property taxes, and income taxes are consistent with *In the Matter of a Petition by CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Minnesota Gas, for Approval of Tariff Revisions Related to Section VI, Part 4.04, Economic Feasibility*, Docket Nos. G-008.M-07-1062, G-008/M-18-697 Order (Jan. 9, 2019).

As shown in the table below, the Company's proposed per therm delivery charge for RNG producers is \$0.1500 per therm. This is slightly less than the \$0.07048 per therm delivery charge for existing Large Volume Dual Fuel Transportation Service customers less the Conservation Cost Recovery Charge of \$0.02382 per therm plus an additional charge of \$0.11062 for RNG-specific investments that the Company will make for RNG producers. The Company calculated the additional RNG specific charge as shown below.

Table 4: RNG Producer Per Therm Receipt Rate Using Large Interruptible Delivery Rate as Basis	
Large Interruptible Per Therm Delivery Rate	\$0.07048
Less CCRC	(\$0.02362)
Proposed RNG Producer Per Therm Receipt Rate	\$0.11062
Total Calculated RNG Producer Per Therm Receipt Rate	\$0.15748
Total Proposed RNG Producer Per Therm Receipt Rate	\$0.15000

Exhibit F: Contribution-In-Aid-of-Construction Example

Docket No. G-008/M-20-_____

April 23, 2020

Exhibit F: Contribution-In-Aid-of-Construction Example

Below, the Company sets forth the CIAC calculation for an RNG Producer interconnection. The Company calculates allowable investment by multiplying estimated annual gas margin by the applicable cost of service factor. (Tariff, Section VI, Page 5). Below the Company provides an example of how the CIAC would be calculated for a theoretical RNG project. The basic charge revenue is normally included in the estimated annual gas margin, but because \$6,500 of the basic charge revenue under the proposed rate structure will be used to offset the ongoing O&M costs required to serve this customer class, the Company has excluded this basic charge revenue from the gas margin component of the CIAC calculation.

1	RNG Production (Dths)	50,000
2	Conventional Gas Purchase (Dths)	10,000
3	Construction Costs (from Exhibit E)	\$ 857,400
4	Meter and Meter Fit costs ¹	\$ 70,000
5	Annual RNG Specific O&M Costs (From Exhibit E)	\$ 74,639
6	RNG Receipt Charge Revenue (\$1.50 x Line 1)	\$ 75,000
7	RNG Customer Charge (\$7,500 x 12)	\$ 90,000
8	Conventional Gas Sales Delivery Charge Revenue (\$0.4680 x Line 2) ²	\$ 4,680
9	Conventional Gas Sales Customer Charge (\$1,000 * 12) ³	\$ 12,000
10	Total Annual Revenue (Sum of Lines 6 through 9)	\$ 181,680
11	Net Annual Revenue (Line 10 - Line 5)	\$ 107,041
12	Allowable Investment ((Line 10 - \$6,500 * 12) / 0.1659) ⁴	\$ 624,955
13	CIAC Required ((Line 3 + Line 4 - Line 12) x 1.131)	\$ 342,066

¹ These costs were not listed in Exhibit E because they are not unique to RNG Interconnect Service.

² \$0.4680 is the current Large Volume Dual Fuel Transportation Service delivery charge less the Conservation Cost Recovery Charge.

³ \$1,000 is the current Large Volume Dual Fuel Transportation Service basic charge.

⁴ 0.1659 is the currently applicable cost of service factor for dual fuel customers.

Exhibit G: Proposed Tariff Changes

Docket No. G-008/M-20-_____

April 23, 2020

Exhibit G: Proposed Tariff Changes

The table below identifies all tariff changes that the Company is proposing to make, the purpose of the proposed change, and where the proposed tariff language can be found in this filing. Attachment 1 to this Exhibit shows proposed tariff language for several minor changes that the Company is proposing.

Tariff Change	Purpose	Place in Filing
Add Interconnect Feasibility Agreement	New agreement to be completed by CenterPoint Energy and RNG Interconnect Service customer before the Company completes an Interconnect Feasibility Study.	Exhibit A
Add Interconnection Agreement	New agreement to be completed by CenterPoint Energy and RNG Interconnect Service customer before Company constructs RNG Interconnect.	Exhibit B
Add RNG Quality Standards	Quality standards that RNG Interconnect Service customer must meet to deliver RNG onto CenterPoint Energy's system.	Exhibit C
Add RNG Interconnect Service Tariff	Add new tariff describing terms of RNG Interconnect Service.	Exhibit D
Modify Table of Contents in Section I, Page 3	Add proposed new tariff pages to table of contents.	Exhibit G
Modify Technical Terms and Abbreviations in Section IV, Page 1	Clarify that terms "applicant" and "customer" may include RNG Interconnect Service customers.	Exhibit G
Modify Table of Contents in Section V, Page ii	Add proposed new tariff pages to table of contents.	Exhibit G
Modify Credit Policy Rider Section V, Page 26	Make Credit Policy Rider applicable to RNG Interconnect customers.	Exhibit G

Exhibit G, Attachment 1: Other Proposed Tariff Changes

Docket No. G-008/M-20-_____

April 23, 2020

V. RATE SCHEDULES AND APPLICABLE PROVISIONS

CENTERPOINT ENERGY (CONTINUED)

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RNG Interconnect Service

<u>RNG Interconnect Service</u> _____	<u>30 - 30.a</u>
<u>RNG Quality Standards</u> _____	<u>31 - 31.d</u>

TECHNICAL TERMS AND ABBREVIATIONS

Applicant

A person, firm, association, partnership, corporation, and any agency or political subdivision of the federal, state, or local government requesting CenterPoint Energy to supply gas or interconnect service. A request for gas or interconnect service is distinguished from an inquiry as to the availability of or charges for such service.

Customer

The person, firm, association, partnership, corporation, or any agency of the federal, state, or local government being supplied with gas or interconnect service by CenterPoint Energy in whose name service is rendered as evidenced by an application, contract, or agreement for service. In the absence of an application, contract, or agreement for service, the customer shall be the person receiving or paying bills issued in his/her or its name, regardless of the identity of the actual user of the service.

Excess Flow Valve

Safety device designed to automatically stop or restrict the flow of gas if an underground pipe is broken or severed.

Gas Mains

Any pipe used or useable for the purpose of delivering and distributing gas to individual gas service lines or other gas mains.

Gas Main Extension

An extension of an existing gas main.

Gas Service Line

All pipe, valves, and fittings from and including the connection at the gas main up to the including the stopcock on the inlet side of the regulator or gas meter.

Gas Meter Set

All fittings, including regulator, meter and attachment bracket between the stopcock at the end of the gas service line and the connection to the customer's piping at the ~~outlet of the~~ meter.

Normal Gas Meter Location

On the outside of the building to be served and on the face or within five feet of the corner of the building in closest proximity to the gas main to which the gas service pipe is to be attached.

CenterPoint Energy

Rate Schedules and Applicable Provisions

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RNG INTERCONNECT SERVICE

<u>RNG Interconnect Service</u> _____	<u>30 - 30.a</u>
<u>RNG Quality Standards</u> _____	<u>31 – 31.d</u>

LARGE ~~COMMERCIAL / INDUSTRIAL~~ CUSTOMER CREDIT POLICY RIDER**Applicability**

Applicable to any Commercial, ~~or~~ Industrial, or RNG Interconnect customer who is reasonably expected to use or produce more than 1,200,000 Therms of natural gas in a twelve month period. The reasonable expectation of usage or production shall be calculated based on historical consumption or production on the property, any increased or decreased heating and/or processing load and the customer's declared usage needs or production quantities. Special conditions are listed below.

Method

1. Prior to providing gas service or RNG Interconnect service to new customers to whom the rider is applicable, or prior to continuing to provide ~~gas~~ service to existing customers to whom the rider is applicable, CenterPoint Energy may request a credit report from an independent credit bureau. If an independent credit bureau report is not available, or if such report does not provide sufficient financial information, CenterPoint Energy may ask the customer to provide their most recent financial information (e.g., income statement, balance sheet and cash flow statements).
2. In the case of existing customers, financial information may be requested on an annual basis for any customer expected to use or produce more than 1,200,000 therms per year, or whenever:
 - a. the customer is planning a plant/facility expansion resulting in increased gas use or production of more than 500,000 therms per year;
 - b. there is a merger or acquisition with another party;
 - c. the customer is delinquent in paying their gas bill;
 - d. CenterPoint Energy must upgrade its facilities to provide the customer with gas or receive gas; or
 - e. there is evidence of other tangible economic or operational issues that may impact the customer's financial stability.
3. If CenterPoint Energy determines that the customer's most recent financial information indicates objective reasons for concern that the customer may not be able to pay its bills, CenterPoint Energy may require the customer to provide a "credit enhancement."
 - a. The following are indications that a customer may not be able to pay its bills:
 - i. The customer has an unsatisfactory credit rating;
 - ii. The customer has an insufficient prior credit history upon which a credit rating may be based;
 - iii. The customer's audited financial reports indicate net losses from operations;
 - iv. The customer's audited financial reports indicate negative cash flow from operations;
 - v. The customer's audited financial reports indicate current liabilities that exceed their current assets;
 - vi. The customer's audited financial reports indicate deficit retained earnings;
 - vii. The customer has substantial unresolved claims against the company (i.e., lawsuits, guarantees of another's indebtedness, environmental issues);
 - viii. The customer's auditors' opinion discloses that there is doubt about the company's ability to continue as a going concern;
 - ix. The customer's have bond ratings below "investment grade;" or
 - x. The customer is uninsurable or under-insurable.

CERTIFICATE OF SERVICE

Erica Larson served the above Petition and Exhibits of CenterPoint Energy to all persons at the addresses indicated on the attached list by having the document delivered by electronic filing.

/s/ _____
Erica Larson
Regulatory Analyst
CenterPoint Energy

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
James J.	Bertrand	james.bertrand@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Brenda A.	Bjorklund	brenda.bjorklund@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Marie	Doyle	marie.doyle@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall P O Box 59038 Minneapolis, MN 554590038	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Edward	Garvey	garveyed@aol.com	Residence	32 Lawton St Saint Paul, MN 55102	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Robert	Harding	robert.harding@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 55101	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Amber	Lee	Amber.Lee@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
David	Moeller	dmoeller@allte.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Samantha	Norris	samanthanorris@alliantenergy.com	Interstate Power and Light Company	200 1st Street SE PO Box 351 Cedar Rapids, IA 524060351	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Elizabeth	Schmiesing	eschmiesing@winthrop.com	Winthrop & Weinstine, P.A.	225 South Sixth Street Suite 3500 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	7400 Lyndale Ave S Ste 190 Richfield, MN 55423	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peggy	Sorum	peggy.sorum@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
James M	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	200 S 6th St Ste 470 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_CenterPoint Energy Minnesota Gas_GEN_SL_CenterPoint Energy Minnesota Gas_General Service List 2019