

# PANORA MUNICIPAL ELECTRIC UTILITY

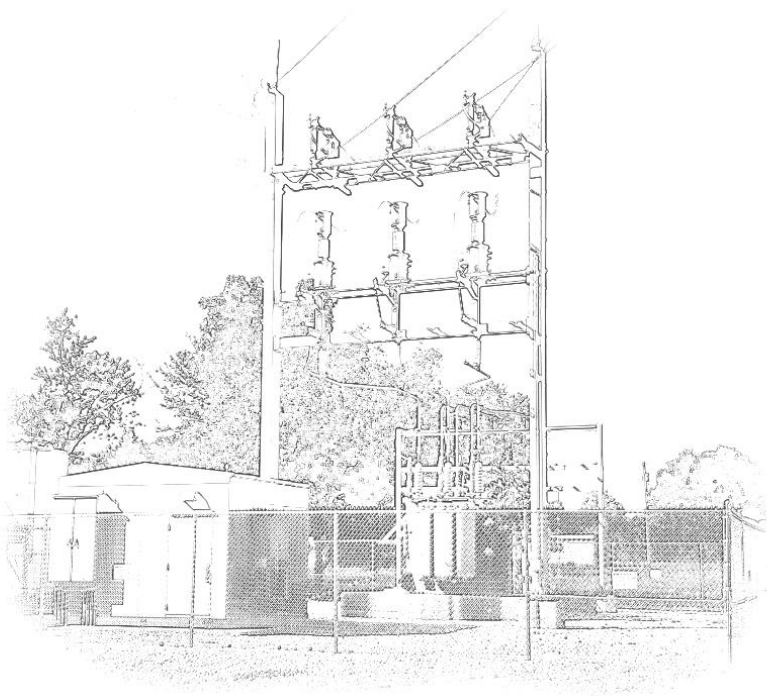
## Parallel Installation and Operation of Customer-Owned Distributed Generation Facilities

Adopted: 

October 11 2021

Version: 

Version 1.12



Applicant Name:

Application Number:

**PANORA MUNICIPAL ELECTRIC UTILITIES  
AGREEMENT FOR ELECTRIC SERVICE  
AND INTERCONNECTION OF A 10 kW or LESS,  
DISTRIBUTED GENERATION FACILITY**

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 202\_\_\_\_, by and between Panora Municipal Electric Utility, an Iowa municipal utility ("Utility") and \_\_\_\_\_, a \_\_\_\_\_ operating an alternative energy generation facility in Guthrie County, Iowa ("Customer");

WITNESSETH:

WHEREAS, Utility operates a municipal electric utility and provides electric utility service at retail to customers in its assigned service area; and,

WHEREAS, Utility obtains its electric power and energy through participation in the North Iowa Municipal Electric Cooperative Association (NIMECA); and,

WHEREAS, Customer is a customer of Utility and purchases electric power and energy from Utility; and,

WHEREAS, Customer owns and operates a 10 kW or less distributed generation facility, which is located in Utility's Service Territory, (said facility being hereafter referred to as the Distributed Generation Facility) and desires to purchase from Utility emergency and backup electric utility service and to sell to Utility and receive payments or credits for excess electric power and energy generated and delivered by its Distributed Generation Facility; and,

WHEREAS, Customer desires to interconnect with the electric distribution system of Utility in order to accomplish the foregoing; and,

WHEREAS, the Utility and Customer desire to set forth in this Agreement the terms and conditions pursuant to which the sale of electricity to Customer shall take place, the purchase of electricity from Customer shall take place, payments or credits will be provided to Customer, and interconnection of the Distributed Generation Facility with the facilities of Utility shall be made;

IT IS, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS HEREINAFTER SET FORTH, AGREED BY AND BETWEEN THE PARTIES AS FOLLOWS:

**A. Electric Service Provided to Customer**

1. Utility shall furnish, sell and deliver to Customer, and Customer shall purchase from Utility all of the electric power and energy which Customer may need at the location described in Exhibit "A," attached hereto and by this reference made a part hereof, subject to the remaining provisions of this Agreement.

2. Distribution Electrical service provided by Utility shall be delivered as Alternating Current at 2450/4160 GRDY volts primary and 240 volts Secondary at 60 Hz.

3. Customer shall not use the electric power and energy furnished pursuant to this Agreement as an auxiliary or supplement to any other source of electric power and energy, other than that generated by the Distributed Generation Facility located on its premises, and shall not resell electric power and energy purchased hereunder.

4. Customer shall pay Utility for service at the rates and upon the terms and conditions as set forth herein and in the Utility's applicable rate schedule, as adjusted from time to time pursuant to Section A.7 of this Agreement.

5. Interconnection and the initial billing period relating thereto shall commence after completion of certification by the State Electrical Inspector, inspection by Utility personnel (if required by Utility), installation of Utility-approved metering equipment by Utility personnel pursuant to Section C of this Agreement, and satisfaction of all other terms and conditions of this Agreement for interconnection.

6. Utility billing and collections for service delivered hereunder shall be handled in accordance with Utility billing practices as set forth in the Utility's Service Rules, as revised by the Utility from time to time (the "Service Rules"). In the event Customer fails to make payment of any bills when due for service delivered hereunder, the Utility may discontinue service to the Customer in accordance with the Utility's Service Rules. Discontinuance of service shall not relieve Customer of any of its obligations under this Agreement.

7. Utility may change the rates for service provided under this Agreement in the same manner in which it may modify its rates to its other electric customers. By this reference, such adjusted rates shall be a part hereof as if set forth in full.

8. The Utility shall use reasonable diligence to provide a constant and uninterrupted supply of electric power and energy. If the supply of electric power and energy shall fail or be interrupted, or become defective through act of God, governmental authority, action of the elements, public enemy, accident, strikes, labor disputes, required maintenance work, inability to secure right-of-way, or any other cause beyond the reasonable control of the Utility, the Utility shall not be liable therefore or for damages caused thereby.

## **B. Interconnection Requirements**

1. All facilities shall meet certain requirements to be eligible for interconnection pursuant to the terms and conditions of this section. Permission to interconnect with the Utility electric system is contingent upon the following conditions:
  - a. The Customer shall comply with all applicable acceptable standards for interconnection, safety, and operating reliability in order to be eligible for interconnection to the Utility's electric system. Acceptable standards include the most current versions of the following standards, as revised or replaced from time to time:
    - 1) General Requirements for Synchronous Machines, ANSI C50.10-1990. The standards set forth in ANSI C50.10 are modified as follows: Rule 8.1 "Maximum allowable deviation factor," is modified to read: "The deviation factor of the open-circuit terminal voltage wave and the current wave at all loads shall not exceed 0.1. Deviation factor shall be as defined in ANSI C42.100-1972."
    - 2) Requirements for Salient Pole Synchronous Generators and Condensers, ANSI C50.12-1982.
    - 3) Requirements for Cylindrical-Rotor Synchronous Generators, ANSI C50.13-1989.
    - 4) Requirements for Combustion Gas Turbine Driven Cylindrical-Rotor Synchronous Generators, ANSI C50.14-1977.
    - 5) Iowa Electrical Safety Code, as defined in Iowa Administrative Code 199-Chapter 25.
    - 6) National Electrical Code, ANSI/NFPA 70-2011.
    - 7) IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems-IEEE Standard 519-1992.
    - 8) Standard for Interconnecting Distributed Resources with Electric Power Systems, ANSI/IEEE Standard 1547-2003.
    - 9) IEC/TR3 61000-3-7 Assessment of Emission Limits for Fluctuating Loads in MV and HV Power Systems.

For those facilities which are of such design as to not be subject to the standards noted in "1," "2," "3," and "4," above, data on the manufacturer, type of device, and output current wave form (at full load) and output voltage wave form (at no load and at full load) shall be submitted to the Utility for review and approval prior to interconnection. The Customer shall furnish the Utility with sufficient data in order to verify that all conditions set forth above and in subsections 2, 3, 4, 5, 8, 10 and 15

below are met. Utility approval in writing is required before interconnection is permitted.

2. The Distributed Generation Facility shall be equipped by Customer with automatic disconnection upon loss of electric voltage supplied by the Utility.
3. The Customer shall furnish and install an overcurrent device on the Distributed Generation Facility to automatically disconnect the facility at all currents that exceed the full-load current rating of the facility.
4. In order to provide adequate safety to Utility's employees and the Utility's system, Customer shall furnish, install and maintain a manual disconnect switch between the Distributed Generation Facility and the Utility's system in order that the Distributed Generation Facility may be positively disconnected and isolated from Utility's system. The location of the switch shall be determined and approved by the Utility and shall be housed in an approved enclosure which shall be secured with a padlock or other locking device. Both the operator of the Distributed Generation Facility and the Utility shall have access to the switch at all times. If the Utility needs to isolate the Distributed Generation Facility, the Utility shall not be held liable for any damages resulting from the actions necessary to isolate the facility.
5. Customer facilities that produce a terminal voltage prior to the closure of the interconnection shall be equipped by the Customer with synchronism check devices to prevent closure of the interconnection under conditions other than a reasonable degree of synchronization between the voltages on each side of the interconnection switch.
6. The Distributed Generation Facility shall be subject to disconnection at any time without notice by the Utility in the event the Utility determines that the facility causes unacceptable safety, voltage, or frequency conditions, service interruption, or communications interference.
7. The Customer shall regularly inspect the Distributed Generation Facility to determine necessity for replacement and repair, maintain and service the Distributed Generation Facility for safe and reliable operation and maintain a record or log, available for inspection by the Utility at any time, showing when the facility is shut down for repairs or maintenance, the maintenance or repair completed, and when the facility is placed back in service. If requested by the Utility, the customer shall submit to the Utility a maintenance schedule, prior to October 1, of each year, for the following calendar year.
8. The Customer shall insure, indemnify and hold harmless the Utility and its officers, directors, employees, agents and representatives from and against all claims, causes

of action, liability, injuries, damages and costs of any kind, including but not limited to injury and damages to persons, property and the Utility's electric system, and attorney fees and costs, caused, directly or indirectly, by the Distributed Generation Facility and any related equipment, the Customer's operation of such facilities and equipment, or any failure of the Customer to maintain such facilities and equipment in satisfactory and safe operating condition. The Customer will arrange for and maintain liability insurance in the amount of \$1,000,000. The required liability insurance for non-residential customers of the Utility shall include contractual liability. The Utility may adjust the required amount of insurance from time to time in its discretion and shall provide Customer with sixty days written notice of any increase in the required amount of insurance. Failure to maintain required insurance and proof of financial responsibility shall be cause for disconnection. The Utility shall be named as an additional insured under the required insurance policy.

9. The Customer shall reimburse the Utility for all costs incurred by Utility for the connection, switching, metering, transmission, distribution, safety provisions and administrative costs directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with the Distributed Generation Facility (the "Interconnection Costs").
10. The Customer shall be responsible for the costs of installation and maintenance of power factor correction capacitors required to maintain the equivalent of an average power factor of 95% (lagging) or better at the interconnection.
11. The Customer's electric generating equipment shall be designed, operated and maintained in such a manner that it does not adversely affect the Utility's voltage wave form.
12. Utility reserves the right to require Customer to provide at its expense suitable apparatus for filtering to avoid interference with telephone, radio, television, or other electronic signal reception caused by electrical equipment and apparatus on Customer's premises. Failure of Customer to provide filtering when requested by the Utility shall be grounds for disconnection of the Distributed Generation Facility.
13. Customer shall comply with all applicable laws, rules and regulations governing the operation of its Distributed Generation Facility.
14. Operation of the Distributed Generation Facility must not cause any reduction in the quality of service provided to other customers of Utility or interfere with the operation of the Utility's system. Customer shall take such corrective action as may be necessary in order to eliminate such condition, and shall reimburse the Utility for any costs incurred by the Utility in correcting or eliminating such conditions.

15. The electrical characteristics of the Distributed Generation Facility shall conform with standards established by NEC Article 705, as revised or replaced from time to time.
16. The Utility may request that a Distributed Generation Facility make a "best effort" to provide energy to the Utility during a system emergency.
17. The Utility reserves the right to open and lock the disconnect switch, thereby isolating Customer's Distributed Generation Facility, without prior notice to Customer, for any of the following reasons:
  - a. System emergency and/or maintenance operations, which require such action.
  - b. The existence of potentially hazardous (to persons or property) conditions relating to the Distributed Generation Facility.
  - c. Interference with the quality of service provided to other customers, and/or the operation of the Utility's system, caused by or resulting from the operation of the Distributed Generation Facility.
  - d. All other reasons for disconnection set forth in this Agreement.
18. Customer shall permit the Utility's representatives to enter upon Customer's property at any reasonable time for the purpose of inspecting or testing Customer's equipment, facilities or apparatus and the accuracy of Utility's metering equipment, but such inspections shall not relieve Customer of the obligation to maintain Customer's facilities in satisfactory operating condition and to comply with all terms of this Agreement. The Utility may charge the direct expense of such inspecting or testing of Customer's equipment, facilities or apparatus to Customer, unless Customer can demonstrate the inspecting and testing was not necessary.
19. Battery storage systems, energy storage devices, hybrid generation-storage systems, plug-in electric vehicles and plug-in hybrid vehicles: Customer shall not store energy generated by the Distributed Generation Facility or energy delivered by the Utility, in either case for sale or delivery of such energy to the Utility. Customer shall not deliver any stored energy to the Utility, and Utility shall have no obligation to make payment or provide credit for any such energy delivered by Customer.
20. Modification of Distributed Generation Facility: The Customer must provide the Utility with written notice, and must receive written authorization from the Utility, before making any changes to the Distributed Generation Facility. If the Customer

makes such modifications without the Utility's prior written authorization, the Utility shall have the right to disconnect the Distributed Generation Facility.

**C. Metering.**

The Utility will install metering equipment at the point of service to the Distributed Generation Facility. Said metering shall include digital inflow/outflow meter(s) for the Distributed Generation Facility, such that the Utility's sale and delivery of energy to Customer, and Customer's sale and delivery of energy generated by the Distributed Generation Facility to the Utility, shall be separately metered.

The Utility shall pay the costs of metering the sale and delivery of energy to Customer, and Customer shall pay all costs of metering the sale and delivery of energy generated by the Distributed Generation Facility to the Utility.

The Utility shall have the right to install such additional metering equipment as it deems necessary for the collection of data for research purposes, which metering will be furnished and paid for by the Utility.

Meters shall be read by the Utility.

**D. Billing and Calculation of Credits to Customer for deliveries to Utility.**

The Customer shall be responsible for payment of any applicable customer charge or obligation set forth in this Agreement or the Utility's rate schedule or other applicable charges approved by the Utility that are not calculated on the basis of metered measurement, as set forth herein and on the Utility's rate schedule as revised by the Utility from time to time.

For charges collected on the basis of metered registration, the Utility shall, for each monthly billing period, determine the "net meter registration" of the Distributed Generation Facility by comparing the directional energy flow in each direction. The net meter registration shall be determined according to the metering provided under Section C of this Agreement. The net meter registration shall be determined by netting the amount of energy delivered in each direction during the billing period per the separate meter flows.

If the net meter registration shows the deliveries of energy in kWh from the Distributed Generation Facility to the Utility exceed the deliveries of energy in kWh from the Utility to the Customer for the applicable billing period, the Utility shall pay the Customer for the net amount of energy delivered by the Distributed Generation Facility. The Utility shall pay for such net amount of energy at the Utility's avoided costs rate in effect on the last day of the applicable billing cycle. The Utility may revise its avoided costs rate at any time and from time to time.



If the net meter registration shows the deliveries of energy in kWh from the Utility to the Customer exceed the deliveries of energy in kWh from the Distributed Generation Facility to the Utility for the applicable billing period, the Customer shall pay the Utility for the net amount of energy delivered by the Utility at the rate applicable to its type or class of electric service pursuant to the Utility's rate schedule in effect on the last day of the applicable billing cycle).

The Utility shall make no payments nor provide credits to Customer for capacity except in the case of an express written agreement for the purchase of capacity from Customer, signed by the parties following authorization by the Utility's governing body.

Any and all fees and charges relating to the interconnection of the Distributed Generation Facility, whether applicable prior to interconnection, at the time of interconnection or at any time in the future, which may be charged or assessed to the Utility by a regional transmission organization (RTO), the Federal Energy Regulatory Commission (FERC), any other regulatory body, or any other entity which has the legal or contractual authority to require payment of fees and charges relating to interconnection, shall be passed on to Customer by the Utility at cost by direct billing or by netting such fees and charges against any amount which may be payable to Customer by the Utility.

**E. Notice.**

Any notice, demand, or request required or authorized by this Agreement to be given by one party to another party shall be in writing. Such notice shall be sent by facsimile, electronic messaging (confirmed by telephone), courier, personally delivered or mailed, postage prepaid, to the representative of the other party designated in this Section E. Any such notice, demand, or request shall be deemed to be given (a) when received by facsimile or electronic messaging, (b) when actually received if delivered by courier or personal delivery, (c) three (3) days after deposit in the United States mail, if sent by first class mail, or (d) when received at the address of the receiving party, if mailed by prepaid certified mail or by prepaid overnight delivery via the United States Postal Service, Federal Express, Airborne or United Parcel Service.

Notices and other communications by Customer to Utility shall be addressed to:

Panora Municipal Utility  
Doug Long  
PO Box 98 Panora, Ia. 50216  
Phone (641) 755-2164  
Fax (641) 757-3846  
doug@cityofpanora.com

**F. Miscellaneous.**

1. This Agreement shall be subject to all applicable federal, state, and local laws and regulations, including but not limited to those relating to allocation of power.

2. This Agreement shall become effective on the date and year first above written. This Agreement shall be terminated six (6) months after such date if the Distributed Generation Facility has not been placed in service and thus has not generated any energy. Provided the Distributed Generation Facility is in service and has generated energy as stated in the previous sentence, this Agreement shall remain in effect for a term of five (5) years from and after the commencement of the initial billing period. This agreement shall thereafter continue for successive terms of one (1) year each, unless terminated by either party giving the other not less than three (3) months' written notice of its desire to terminate this Agreement.

3. Neither party may assign any right or obligation under this Agreement, in whole or in part, without the other party's prior express written consent. Subject to the foregoing, this Agreement shall be binding upon the parties, and upon their respective successors and assigns.

4. Notwithstanding anything herein to the contrary, in the event of a material breach of this Agreement by Customer the Distributed Generation Facility shall be subject to disconnection, and the Utility may terminate this Agreement with thirty (30) days' written notice to Customer if Customer fails to cure such breach within said thirty (30) day period. Such notice may be given by mail, e-mail or facsimile and shall be considered received by Customer on the date such notice is mailed, e-mailed or faxed by the Utility.

5. This Agreement shall terminate if Customer moves from the residence or business address associated with this Agreement. Any new resident or occupant at such address who seeks to interconnect the Distributed Generation Facility must submit an application and enter into a new agreement with the Utility. Notwithstanding the foregoing, this Agreement may be transferred and assigned to a new resident or occupant only with the Utility's prior written approval, which approval may be granted or denied in the utility's discretion.

6. Termination of this Agreement shall not relieve Customer of any of its obligations for amounts due under this Agreement and its indemnification obligations under this Agreement.

7. Together with the Utility's Service Rules, Interconnection Standards, and rate schedule, each as revised by the Utility from time to time, this Agreement constitutes a complete understanding of the parties with respect to the subject matter herein and supersedes and replaces all prior understandings, promises, representations, and agreements, written or oral, relating thereto. The parties may amend this agreement only by written amendment signed by the parties and authorized by the Utility's governing body.

8. The failure of either of the parties to enforce any right or provision under this Agreement shall not constitute a waiver of such right or provision unless acknowledged and agreed to by such party in writing. No waiver shall be implied from a failure of either party to exercise a right or remedy. In addition, no waiver of a party's right or remedy will affect the other provisions of this Agreement.

9. The terms of this Agreement are separable so that if any term or provision is invalid or unenforceable, that term will be interpreted or modified to make it valid or enforceable, or that term

will be deleted if incapable of being interpreted or modified to make it valid or enforceable, and the rest of this Agreement will remain in full force and effect.

*[Signatures on following page.]*

Panora Municipal Utility

**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement on the day and year first above written.

PANORA MUNICIPAL ELECTRIC UTILITY

By \_\_\_\_\_

CUSTOMER

By \_\_\_\_\_

Panora Municipal Utility

EXHIBIT "A"

Describe location of Distributed Generation Facility

Panora Municipal Utility