

**ALGONA MUNICIPAL UTILITIES  
AGREEMENT FOR ELECTRIC SERVICE  
AND INTERCONNECTION OF A  
250 KW or LESS  
DISTRIBUTED GENERATION FACILITY**

THIS AGREEMENT, made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between Algona Municipal Utilities, an Iowa municipal utility ("Utility") and \_\_\_\_\_, operating an alternative energy generation facility in Kossuth 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 250 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 13,800 volts primary and available Secondary voltage at 60 Hz. The Utility will require the Customer to take service at a grounded Wye voltage.

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 and the 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, 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. Other than installations at residential facilities, the required liability insurance 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 96% (lagging) and unity at the interconnection. If the Utility anticipates an issue with the power factor due to the generator, an interconnection study may be required prior to installation.
  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 the Customer's 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. 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 with a maximum capacity for which this agreement is used, as stated at the top of page 1 of this agreement as follows:

- Metering capable of measuring and recording energy flows, on a kWh basis, from the Utility to the Distributed Generation Facility and from the Distributed Generation Facility to the Utility, with each directional energy flow recorded independently.

The Utility shall pay the cost of all metering. The Utility may require the Customer to pay a portion of any special metering required by the installation.

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.**

In the case of charges or credits not calculated on the basis of metered registration, the Customer shall be responsible for payment of any rate, charge, fee or other obligation applicable to the Customer's rate classification, as set forth in this Agreement, in the Utility's service rules, in the Utility's rate schedule, or in any other manner, as approved by the Utility and as may be amended from time to time.

In the case of charges or credits calculated on the basis of metered registration, the Utility shall, for each Measurement 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. If such metering consists of separate metering, the net meter registration shall be determined by netting the amount of energy delivered in each direction during the Measurement Period as registered on each of the separate meters respectively. For purposes of this Agreement, Avoided Costs, Billing Period, Net Consumption, Positive Net Consumption, Negative Net Consumption, and Measurement Period shall mean the same as defined in the Utility's Interconnection Standards.

For purposes of this Agreement, the term Measurement Period shall have the meaning defined below.

**Measurement Period.** For purposes of determining Net Consumption under this Agreement, the Measurement Period shall be Hourly. The Customer acknowledges and agrees that this means the Utility will measure the net amount of energy delivered in each direction on an Hourly basis and calculate either a charge or a credit for such deliveries on an Hourly basis, as provided below.

**Negative Net Consumption.** Whenever there is Negative Net Consumption during a Measurement Period, the Utility will credit the Customer Generator for the excess kilowatt-hours (kWh) delivered to the Utility, in accordance with the billing practices described in the Interconnection Standards and this Interconnection Agreement. All such credits shall be at the Utility's Avoided Costs rate in effect on the last day of the applicable Billing Period. The Utility may revise its Avoided Costs rate at any time and from time to time.

**Positive Net Consumption.** Whenever there is Positive Net Consumption during a Measurement Period, the Utility will charge the Customer Generator for the number of kilowatt-hours (kWh) supplied by the Utility to the Customer, in accordance with the billing practices described in the Interconnection Standards and this Interconnection Agreement. All such charges will be billed in accordance with the rate schedule applicable to the Customer's assigned rate classification, and all applicable riders in effect on the last day of the applicable billing cycle.

**Obligation for Other Charges.** Regardless of whether the Customer Generator is entitled to receive financial credit for excess electrical energy delivered to the Utility, each Customer Generator is still responsible for all other applicable charges during each Billing Period including, but not limited to customer charges, facilities charges, demand charges, environmental charges, transmission charges, any late payment charges, and any requirements for deposits or special charges or fees that may apply.

**Charges and Credits Applied Each Billing Period.** Each Billing Period, the Utility will provide the Customer with a billing statement that reflects the total amount of credits and charges for Net Consumption determined during each Measurement Period of that Billing Period, and all other applicable fees or charges for the Customer's rate classification. If the total amount of Customer charges exceeds the total amount of Customer credits during a Billing Period, the Customer shall pay the difference to the Utility. If the total amount of Customer credits exceeds the total amount of Customer charges, then the Utility will carry over such a credit from one Billing Period to the next. However, all credits accrued during the prior calendar year will be paid to the customer in the first Billing Period of the following calendar year.

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.



**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 Utility to Customer shall be addressed to:

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
E-MAIL: \_\_\_\_\_

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

Algona Municipal Utilities  
General Manager  
PO Box 10  
Algona, IA 50511  
515-295-3584  
515-295-3364  
amu@netamu.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 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 and incorporated herein by reference, 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. In the event of a conflict between a provision of the Interconnection Standards and a provision of this Agreement, this Agreement shall control.

*[Signatures on following page.]*

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

ALGONA MUNICIPAL UTILITIES

By \_\_\_\_\_  
John Bilsten, General Manager  
Date: \_\_\_\_\_

CUSTOMER

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Date: \_\_\_\_\_

## EXHIBIT "A"

### Net Generation Sample Bill Presentation

Rate	Services		Days	Readings		Meter Multiplier	Usage
	From	To		Previous	Present		
Residential Net Hourly Consumption	1/20/2023	2/20/2023	31	400	700	1	300
Residential Net Hourly Generation	1/20/2023	2/20/2023	31	0	850	1	850
Residential Distributed Generation	1/20/2023	2/20/2023	0	0	0	1	-550

Customer Service Charge			\$23.00
Net Generation Credit	-550 kWh @	0.0249	-\$13.70
Local Tax			\$0.09
<b>Electric Service Subtotal</b>			<b>\$9.39</b>

### Net Consumption Sample Bill Presentation

Rate	Services		Days	Readings		Meter Multiplier	Usage
	From	To		Previous	Present		
Residential Net Hourly Consumption	1/20/2023	2/20/2023	31	400	1000	1	600
Residential Net Hourly Generation	1/20/2023	2/20/2023	31	0	150	1	150
Residential Distributed Generation	1/20/2023	2/20/2023	0	0	0	1	450

Customer Service Charge			\$23.00
Energy Charge	450 kWh @	0.124	\$55.80
Power Cost Adj	450 kWh @	-0.002	-\$0.90
Local Tax			\$0.78
<b>Electric Service Subtotal</b>			<b>\$78.68</b>

*For illustration purposes only. Actual bill presentation may vary from above examples.*

EXHIBIT "B"

Describe location of Distributed Generation Facility