



ORDINANCE 2025-013

AN ORDINANCE AMENDING ESTABLISHED INTERCONNECTION STANDARDS AND CUSTOMER-OWNED RENEWABLE GENERATION ELECTRIC RATE TARIFFS FOR THE VILLAGE OF JACKSON CENTER, OHIO, SHELBY COUNTY, STATE OF OHIO AND DECLARING AN EMERGENCY.

WHEREAS, the Village of Jackson Center, Ohio owns and operates its own electric utility and desires to establish terms and conditions for providing electric service to Customers operating renewable Generation Facilities interconnected with the Village electric system in its Rules and Regulations for Electric Service to Customers of the Jackson Center Municipal Electric System ("Rules"); and

WHEREAS, the safety of utility workers and the general public require inspection and testing of equipment arranged for the production of electricity from distributed renewable Generation Facilities that are owned and operated by residential and non-residential customers of the Village electric utility and operate in parallel with the Village electric system; and

WHEREAS, the Village Council of the Village of Jackson Center, Ohio has determined that it is necessary to establish standards for the interconnection of such renewable Generation Facilities to the Utility's electric system; and

WHEREAS, the Village Council of the Village of Jackson Center, Ohio has determined that it is necessary to establish electric rate tariffs specific to customer-owned Generation Facilities that allow a Village customer operating a renewable Generation Facility to be credited for his or her excess generation; and

WHEREAS, the Village Council of the Village of Jackson Center, Ohio has determined that it is necessary to establish electric rate tariffs for customer-owned Generation Facilities that provide an appropriate credit based on the Village's avoided power supply cost; and

WHEREAS, the Village needs to amend the Net Billing Parallel Generation Rate Schedule to reflect the electric utility credit rate for solar and wind applicable to 2026 and to establish administrative policy to the Billing Rate Schedule.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE VILLAGE OF JACKSON CENTER, STATE OF OHIO:

SECTION 1.

That customers served by the Village of Jackson Center electric utility wishing to install, use and/or operate renewable energy sources in parallel with the Village electric system shall be required to complete and maintain an Interconnection Agreement with the Village electric utility in accordance with the Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities herein attached as Exhibit A.

SECTION 2.

That customers served by the Village electric utility operating a Cogeneration / Small Power Production (SPP) in accordance with the Public Utility Regulatory Policies Act of 1978 (PURPA) in parallel with the Village electric system shall be served in accordance with the *Cogeneration / SPP Service Schedule* herein attached to as part of Exhibit B.

SECTION 3.

That customers served by the Village electric utility operating an intermittent renewable Generation Facility (solar / wind) in parallel with the Village electric system shall be



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served in accordance with the *Net Billing Parallel Generation Service Schedule* herein attached as part of Exhibit B.

SECTION 4.

Any and all ordinances, resolutions, and parts of ordinances and resolutions in conflict herewith, are hereby repealed.

SECTION 5.

That Council hereby declares this to be an emergency measure immediately necessary for the preservation of the public peace, health, safety, and welfare; such an emergency arising out of the need to timely need to establish Interconnection Standards and Customer-Owned Renewable Generation Electric Rate Tariffs. Wherefore, this Ordinance shall take effect and be in full force from and after its adoption by Council and approved by the Mayor.

Adopted on this date:

December 8, 2025

Jesse Fark
Jesse Fark, Mayor

Attest:

Beverly A. Wren
Beverly A. Wren, Fiscal Officer

CERTIFICATE OF FISCAL OFFICER AS TO POSTING

I certify that the above Ordinance 2025-013 has been posted as required by law. Posted on the Village Website, and Social Media Page.

Date of Posting:

December 9, 2025

Signed:

Beverly A. Wren

Exhibit A

**Interconnection Standards for
Installation and Parallel Operation of Renewable Fueled
Customer-Owned Generation Facilities**

Village of Jackson Center, Ohio

October 1, 2023

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PART 1. OVERVIEW

1. PURPOSE:

The purpose of this document is to establish standards for eligible customers (“Customer”) to interconnect and operate Customer-owned Generation Facility in parallel with the Village of Jackson Center Electric Utility (“Utility”) Electric Distribution System.

2. DEFINITIONS:

- a. **AC** – Alternating Current
- b. **Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority, including the Ordinances of the Village of Jackson Center and Utility Policy Manual and electric rates schedules.
- c. **Village** – The Village of Jackson Center, Ohio.
- d. **Commercial Operation Date** – The date on which the Generation Facility is operating and is in compliance with the requirements of these Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities as determined by the Utility.
- e. **Customer** – an electric customer interconnected to the Electric Distribution System for the purpose of receiving retail electric service that also owns and operates an approved Generation Facility.
- f. **DC** – Direct Current
- g. **Electric Distribution System** – The Utility facilities and equipment used to provide electric service to customers, including the Customer.
- h. **Excess Generation** – Energy delivered to Utility at any instance when a Customer’s Generation Facility produces more energy than is consumed by the Customer at the same metering point.
- i. **Generation Facility** – For purposes of these Interconnection Standards, the Customer device for conversion of renewable energy to electricity that:
 - 1. Is fueled by solar or wind;
 - 2. Is owned by the Customer;
 - 3. Is located on the Customer’s premise;
 - 4. Serves only the Customer’s premises (serves no other customers);
 - 5. Is a Qualifying Facility as defined herein;
 - 6. Is interconnected with and operates in parallel phase and synchronization with the Electric Distribution System and is in compliance with these Interconnection Standards;

7. Contains a Utility-approved mechanism(s) that automatically disconnects the Generation Facility and interrupts the flow of electricity to the Electric Distribution System in the event that electric sales to the Customer is interrupted.
- j. **Generator Meter** – Revenue grade interval meter installed on the Customer-owned Generation Facility. A Generator Meter may or may not be required. Metering requirements to be determined after review of customer Generation Facility and completed Interconnection Application.
 - k. **Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Customer or any Affiliate thereof.
 - l. **Harmonic Distortion** – Distortion of the normal AC sine wave typically caused by non-linear loads or inverters.
 - m. **Interconnection Point** – The physical connection of a Generation Facility to the Utility Electric Distribution System.
 - n. **Interconnection Application** – The Customer request to interconnect a new Generation Facility, or to increase the capacity of, or make a material modification to the operating characteristics of an existing Generation Facility that is interconnected with the Electric Distribution System.
 - o. **Interconnection Standards** – Interconnection Standards shall mean all provisions, forms and related documents described in the collective parts of these Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities, or successor document.
 - p. **Metering Point** – The Utility-owned electric meter as shown on the one-line diagram accompanying the Customer's Interconnection Application.
 - q. **Party** – Individually the Utility and the Customer; collectively the "Parties."
 - r. **Prudent Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Prudent Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region by the electric utility industry.

- s. **Qualifying Facility** – For purposes of these Interconnection Standards, a Qualifying facility is defined as:
- i. A customer-owned facility that is either:
 - (a) A small power production facility with a net power production capacity of five (5) MW or less, whose primary energy source is renewable (hydro, wind or solar), biomass, waste, or geothermal resources. To be considered a qualifying small power production facility, a facility must meet all of the requirements of 18 C.F.R. §§ 292.203(a), 292.203(c) and 292.204 for size and fuel use; or
 - (b) A cogeneration facility with a net power production capacity of twenty (20) MW or less, that sequentially produces electricity and another form of useful thermal energy (such as heat or steam) in a way that is more efficient than the separate production of both forms of energy. To be considered a Qualifying Facility, a facility must meet all of the requirements of 18 C.F.R. §§ 292.203(b) and 292.205 for operation, efficiency and use of energy output.
 - ii. A Qualifying Facility with a maximum net power production capacity of greater than one megawatt (1 MW) must be certified as a Qualifying Facility at FERC pursuant to 18 C.F.R. 292.207.
- t. **Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the Interconnection Agreement, efforts that are timely and consistent with Prudent Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.
- u. **System Upgrades** – Additions, modifications, improvements, and upgrades to the Electric Distribution System or Customer service connection at or beyond the point of interconnection to facilitate interconnection of the Customer Generation Facility.
- v. **Utility** – Village of Jackson Center Electric Utility.
- w. **Voltage Flicker** – A variation of voltage sufficient in duration to allow visual observation of a change in electric light source intensity.

3. **ELIGIBILITY:**

- a. Must be an electric customer with a Customer-owned approved Generation Facility as defined herein that is interconnected behind the meter (connected to the customer side of the electric meter or meters) and single-phase or three-phase service at 60 Hertz at a nominal voltage of 120/240, 120/208 or 277/480 volts furnished through a single bidirectional electric meter or multiple meters capable of recording the flow of electricity in each direction. Specific metering shall be at Utility discretion.
- b. Customer's utility account(s) must be in good standing and in compliance with Utility electric rate schedules and Policy Manual.

- c. A Generation Facility that does not meet all the qualifications and technical requirements of these Interconnection Standards is not eligible to interconnect with the Electric Distribution System under this Interconnection Agreement.

4. INTERCONNECTION REQUEST:

The Customer shall request interconnection of a Generation Facility by completing and submitting to the Utility the attached document entitled “Interconnection Application”. The Utility may require additional information or clarification to evaluate the Customer Interconnection Request. Interconnection Applications will be reviewed by the Utility in the order in which they are received. If an Interconnection Application is viewed as incomplete, the Utility will provide notice to the Customer that the Application is not complete, provide a description of the information needed to complete the Application, and include a statement that processing of the Application cannot begin until the Application is complete.

5. PRE-APPLICATION REPORT:

An applicant may submit a formal request along with a non-refundable processing fee of \$250 for a pre-application report on a proposed project at a specific site. The Utility shall provide the pre-application data described in subsection (a) to the applicant within ten business days of receipt of the written request and payment of the \$250 processing fee.

If Customer submits a formal request for a pre-application report and submits payment for the \$250 processing fee, such payment would be credited to any Interconnection Application fees.

- a. Total AC generation capacity (kW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed site.
- b. Existing aggregate generation capacity (kWAC) interconnected to a substation/area bus, bank or circuit, which is the online amount of generation, likely to serve the proposed site.
- c. Aggregate queued generation capacity (kWAC) for substation a substation/area bus, bank or circuit, which is the amount of generation in the queue likely to serve the proposed site.
- d. Available generation capacity (kWAC) of substation/area bus or bank and circuit most likely to serve the proposed site, which is the total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity.
- e. Substation nominal distribution voltage.
- f. Nominal distribution circuit voltage at the proposed site.
- g. Approximate circuit distance between the proposed site and the substation.
- h. Relevant line section(s) peak load estimate, and minimum load data, when available.

- i. Number and rating of protective devices and number and type (standard, bidirectional) of voltage regulating devices between the proposed site and the substation/area. Identify whether substation has a load tap changer.
- j. Number of phases available at the site.
- k. Limiting conductor ratings from the proposed point of interconnection to the distribution substation.
- l. Based on the proposed point of interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

The pre-application report need only include pre-existing data. A pre-application report request does not obligate the Utility to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Utility cannot complete some of a pre-application report due to lack of available data, the Utility shall provide the applicant with a pre-application report that includes the data that is available.

6. ELECTRIC DISTRIBUTION SYSTEM IMPACT ANALYSIS:

The purpose of the Distribution System Impact Analysis is to determine if the Generation Facility will have an adverse impact on the Electric Distribution System equipment. If the proposed Generation Facility meets all of the requirements in a. through o. below, it will not be necessary to prepare a Feasibility Analysis and the proposed Generation Facility maybe installed without further analysis. After receiving a properly completed Interconnection Application, the Utility will analyze the potential impact of the proposed Generation Facility on the Electric Distribution System and on other Utility customers. Such analyses will be based on Prudent Utility Practice to determine thermal effects, voltage ranges, power quality, system stability, etc., and will include the following:

- a. The Customer Generation Facility's proposed Interconnection Point is on a radial distribution circuit.
- b. The proposed Generation Facility complies with IEEE 1547 and UL 1741 or successor standards.
- c. The proposed Generation Facility's capacity in aggregation with other generation on the circuit shall not exceed 15 percent (15%) of the line section annual peak demand (kW) as most recently measured at the substation during the previous 12-month period.
- d. The proposed Generation Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10 percent (10%) to the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the proposed Interconnection Point.
- e. The proposed Generation Facility, in aggregation with other generation located on the distribution circuit, may not cause any distribution protective devices and equipment including substation breakers, fuse cutouts, and line reclosers, or other customer

equipment on the electric distribution system, to be exposed to fault currents exceeding 87.5 percent (87.5%) of the short circuit interrupting capability.

- f. No additional Generation Facilities shall be interconnected on a circuit that equals or exceeds 87.5 percent (87.5%) of its short circuit interrupting capability.
- g. When a proposed Generation Facility is single-phase and is to be interconnected on a center tap neutral on a 240-volt service, its addition shall not create an imbalance between the two sides of the 240-volt service of more than 20 percent of the nameplate rating of the service transformer.
- h. The proposed Generation Facility installation must be certified to pass an applicable non-islanding test, or use reverse power relays or other means to meet IEEE 1547 unintentional islanding requirements.
- i. On a three-phase, three-wire primary electric distribution line, a three- or single-phase generator shall be connected phase-to-phase.
- j. When the Generation Facility is to be connected to three-phase, four-wire primary distribution lines, a three- or single-phase generator shall be connected line-to-neutral and shall be effectively grounded.
- k. A review of the type of electrical service provided to the Customer, including line configuration, and the transformer connection, will be conducted to limit the potential for creating over voltages on the Electric Distribution System due to a loss of ground during the operation time of any anti-islanding function.
- l. When the proposed Generation Facility is to be interconnected on a single-phase shared secondary line, the aggregate generation capacity on the shared secondary line, including the proposed Generation Facility, shall not exceed sixty-five percent (65%) of the transformer nameplate rating.
- m. For interconnection of a proposed Generation Facility to the load side of spot or area network protectors, the proposed Generation Facility must utilize an inverter-based equipment package, and together with the aggregated other inverter-based generation, shall not exceed the lesser of five percent (5%) of a spot or area network's maximum load or fifty (50) kilowatts.
- n. Construction of facilities by the Utility on the Electric-Distribution System is not required to accommodate the customer-owned Generation Facility.
- o. The proposed Generation Facility, in aggregation with other generation located on the distribution circuit, may not cause reverse-power flow on Village's transmission system or 69 kV interconnection delivery point.

Feasibility Analysis

If the proposed Generation Facility fails to meet one or more of the above requirements, the Customer may request that the Utility complete an analysis to determine the feasibility

of interconnecting the proposed Generation Facility to the Electric Distribution System. The Feasibility Analysis shall include:

1. Initial identification of any circuit breaker short-circuit capability limits exceeded as a result of the interconnection.
2. Initial identification of any thermal overload or voltage limit violations resulting from the interconnection.
3. Initial review of grounding requirements and system protection.
4. A description and nonbinding estimated cost of facilities required to interconnect the Generation Facility to the Electric Distribution System in a safe and reliable manner.
5. Investigation of the existing metering at the Interconnection Point to determine its suitability for two-way metering.
6. Investigation into potential equipment or relay setting changes or modifications to the relaying on the Utility's electric system.
7. Review of submitted Interconnection Application for compliance with IEEE 1547.
8. Investigation of the potential for reverse-power flow from the Interconnection Point into the Utility's Electric Distribution System.

The actual cost of the Feasibility Analysis shall be paid by the Customer. The Utility will provide an estimated cost of the Feasibility Analysis to Customer and Customer shall advance 50% of such estimate to Utility if Customer wants Utility to prepare a Feasibility Analysis. When Feasibility Analysis cost exceeds 50% of the estimated cost, Utility shall bill Customer as such fees are incurred.

System Impact Study

If the Feasibility Analysis concludes that interconnection of the proposed Generation Facility would create an adverse system impact, a System Impact Study is required.

A System Impact Study shall evaluate the impact of the proposed Generation Facility interconnection on the safety and reliability of the Electric Distribution system. The study shall:

1. Identify and detail the system impacts that result if the proposed Generation Facility is interconnected without project or system modifications.
2. Consider the adverse system impacts or potential impacts identified in the Feasibility Analysis.
3. Consider all generating facilities that, on the date the System Impact Study is commenced, are directly interconnected with the Electric Distribution System.
4. Consider pending Interconnection Applications of Generation Facilities requesting interconnection to the Electric Distribution System.

The System Impact Study shall consider the following criteria:

1. A load flow study.
2. A short circuit analysis.
3. A stability analysis.
4. Voltage drop and flicker studies.
5. Protection and set point coordination studies.
6. Grounding reviews.

The Utility shall state the underlying assumptions of the Study and share the results of the analyses with the Customer, including the following:

1. Any potential impediments to providing the requested interconnection service.
2. Any required Electric Distribution System Upgrades and the estimated cost and time to engineer and construct said System Upgrades.

The actual cost of the System Impact Study shall be paid by the Customer. The Utility will provide an estimated cost of the System Impact Study to Customer and Customer shall advance 50% of such estimate to the Utility if Customer wants the Utility to prepare a System Impact Study. When System Impact Study cost exceeds 50% of the estimated cost, the Utility shall bill Customer as such fees are incurred.

7. SYSTEM UPGRADES:

The Utility shall not be obligated to make upgrades or improvements to its Electric Distribution System to accommodate the Customer's Generation Facility. Where System Upgrades are required prior to interconnection of the Generation Facility as identified in the System Impact Study, the Utility will provide the Customer with an estimated schedule and the Customer's cost for said System Upgrades.

8. INTERCONNECTION AGREEMENT:

After the Customer and the Utility have identified and mutually agreed on the project scope including the Generation Facility, System Upgrades and estimated costs (if any), the Customer and the Utility shall execute the attached document entitled "Interconnection Agreement." The Interconnection Agreement shall be between the Utility and the Customer and shall not include third parties. Prior to commencement of System Upgrades required to allow interconnection of the Customer-owned Generation Facility, Customer shall deposit with the Utility an amount equal to the estimated cost of said System Upgrades. See "Section 4. Interconnection Costs" of the Interconnection Agreement (Part 4) for additional information.

9. CODES AND PERMITS:

- a. The Customer shall be responsible for procuring all building, operating, environmental or other permits for the Generation Facility and for the necessary ancillary structures to be installed that are required by any Governmental Authority having jurisdiction.

- b. The Generation Facility and interconnecting equipment shall meet all requirements in “Part 2. Technical Requirements” of these Interconnection Standards.
- c. The construction and facilities shall meet all applicable building and electrical codes.

10. CERTIFICATE OF COMPLETION:

Upon completion of the Generation Facility and prior to the Commercial Operation Date of said Facility, the Customer shall complete and submit a signed copy of the attached document entitled “Certificate of Completion.”

11. NORMAL OPERATION:

The Customer may begin Commercial Operation of the Generation Facility upon receipt of written approval from the Utility.

PART 2. TECHNICAL REQUIREMENTS

1. CHARACTER OF SERVICE:

The electric service shall be 60 cycles per second (60 Hertz) alternating current (AC) at supply voltages and number of phases under the applicable rate schedule that would apply if the Customer did not have an interconnected Generation Facility.

2. CODE REQUIREMENTS:

The Generation Facility shall meet all requirements established by the National Electrical Code (NEC), National Electrical Safety Code (NESC), Institute of Electrical and Electronics Engineers (IEEE), Underwriters Laboratories (UL), and the Occupational Safety and Health Administration. Specific applicable codes are shown in Section 8 of this Part 2 below as “Standards for Interconnection, Safety and Operating Reliability.” It is acknowledged that IEEE standard 1547 “Standard for Interconnecting Distributed Resources with Electric Power Systems” is the basis for interconnection Technical Requirements.

3. GENERATION FACILITY CONTROL:

The control system of the Generation Facility shall comply with IEEE and UL specifications and standards for parallel operation with the Electric Distribution System and in particular as follows:

- a. Power output control system shall automatically disconnect from the Electric Distribution System upon loss of System voltage and shall not reconnect until System voltage has been restored.
- b. Power output control system shall automatically disconnect from the Electric Distribution System if system voltage fluctuates beyond plus or minus ten percent (10%) and phase angle beyond plus or minus (10%).
- c. Generation Facility shall be operated such that the voltage unbalance attributable to the Generation Facility does not exceed 2.5% at the Interconnection Point.
- d. Generation Facility shall be operated within a power factor range from 0.9 leading to 0.9 lagging. Operation outside this range is acceptable provided the reactive power of the Generation Facility is used to meet the reactive power needs of the electrical loads within the Customer’s facility. The Customer shall notify Utility if it is using Generation Facility for power factor correction.
- e. Power output control system shall automatically disconnect from the Electric Distribution System within 10 cycles if the generator fails to operate within the operating frequency range of 59.5 – 60.5 Hz.
- f. The Generation Facility equipment must be capable of interconnection with minimum voltage and current disturbances. Synchronous generator installations, as well as other types of installations, must meet the following: slip frequency less than 0.2 Hz, voltage deviation less than $\pm 10\%$, phase angle deviation less than ± 10 degrees, breaker closure

time compensation (not needed for automatic synchronizer that can control machine speed).

- g. Generation Facility equipment must have adequate fault interruption and withstand capacity and adequate continuous current and voltage rating to operate properly with the Utility Electric Distribution System. The tripping control of the circuit interrupting device shall be powered independently of the Utility AC source in order to permit operation upon loss of the Utility Electric Distribution System connection.
- h. Inverter output Harmonic Distortion shall meet IEEE and UL standards.
- i. The Generation Facility shall meet applicable IEEE and UL standards concerning impacts to the Electric Distribution System with regard to Harmonic Distortion, Voltage Flicker, power factor, direct current injection and electromagnetic interference.
- j. When connected to a single-phase transformer, the generator must be installed such that the aggregated gross output is balanced between the two phases of the single-phase voltage and the maximum aggregated Gross Ratings for all the generating facilities shall not exceed the transformer rating.
- k. When connected to a three-phase transformer, the applicant must balance the load demand and generation as nearly as practical between the two side of a three-wire single-phase service and between all phases of a three-phase service.

The difference in amperes between any two phases at the customer's peak load should not be greater than 10 percent or 50 amperes (at the service delivery voltage), whichever is greater; except that the difference between the load on the lighting phase of a four-wire delta service and the load on the power phase may be more than these limits. It will be the responsibility of the Customer to keep the load demand balanced within these limits.

4. SYSTEM PROTECTION:

The owner of the Customer-owned Generation Facility is responsible for providing adequate protection to electric Utility facilities for conditions arising from the operation of generation under all Utility distribution system operating conditions. The owner is also responsible for providing adequate protection to their facility under any Utility distribution system operating condition whether or not their customer owned generator is in operation. Conditions may include but are not limited to:

- a. Loss of a single phase of supply.
- b. Distribution system faults,
- c. Equipment failures,
- d. Abnormal voltage or frequency,
- e. Lightning and switching surges,

- f. Excessive harmonic voltages (Limits as published in the latest issues of ANSI/IEEE 519),
- g. Excessive negative sequence voltages,
- h. Excess current distortion and/or voltage flicker,
- i. Separation from supply,
- j. Synchronizing generation,
- k. Re-synchronizing the Owner's generation after electric restoration of the supply.

5. FAULT CURRENT DISCONNECTION:

The Generation Facility shall be equipped with protective equipment designed to automatically disconnect from the Electric Distribution System during fault current conditions and remain disconnected until System voltage and frequency have stabilized.

Circuit Breaker – If a main circuit breaker (or circuit switcher) between the interconnection transformer and the Utility Electric Distribution System is required, the device must comply with the applicable current ANSI Standard from the C37 series of standards that specifies the requirements for circuit breakers, reclosers and interrupting switches.

Terminating Structure – When a new interconnection line is required, the Customer shall provide a suitable structure to terminate the interconnection line. The Customer is responsible for ensuring that terminating structure or substation structural material strengths are adequate for all requirements, incorporating appropriate safety factors. Utility will provide line tension information for maximum dead-end. The structure must be designed for the maximum line tension along with an adequate margin of safety.

Substation electrical clearances shall meet or exceed the requirements of the National Electrical Safety Code. Installation of disconnect switches, bus support insulators and other equipment shall comply with accepted industry practices.

Surge arresters shall be selected to coordinate with the BIL rating of major equipment components and shall comply with recommendations set forth in the applicable current ANSI Standard C62.2 that specifies the requirements for surge arresters and other surge protection devices.

6. RECLOSING COORDINATION:

The Generation Facility shall be coordinated with Electric Distribution System reclosing devices by disconnecting from the Electric Distribution System during de-energized Electric Distribution System operation. The Generation Facility shall remain disconnected until Electric Distribution System voltage and frequency have stabilized.

The Generation Facility shall be designed to prevent the Generation Facility from being connected to a de-energized Utility circuit. The customer should not reconnect a

Generation Facility to the Utility electric system after a trip from an Electric Distribution System protection device, until the Electric Distribution System is re-energized for a minimum of five minutes.

Voltage unbalance at the Interconnection Point caused by the Generation Facility equipment under any condition shall not exceed 2.5% (calculated by dividing the maximum deviation from average voltage by the average voltage, expressed as a percentage).

7. EXTERNAL GENERATION FACILITY AC DISCONNECT SWITCH:

The Customer shall install an external alternating current (AC) disconnect switch within six (6) feet of the Utility electric meter(s) that is visible and readily accessible to Utility representatives at all times. This switch shall be clearly labeled per N.E.C. requirements. The switch shall be capable of being locked in an open position and shall prevent the Generation Facility from supplying power to the Electric Distribution System while in the open position.

Main Disconnect Switch (Voltages exceeding 480 volts) – A gang operated disconnecting device must be located at the Interconnection Point for all three phase interconnections. In all cases the disconnecting device must be clearly labeled, readily accessible to the Utility personnel for use at all times and suitable for use by Utility as a protective tagging location. The disconnecting device shall have a visible open gap when in the open position and be capable of being locked in the open position.

The disconnecting device must have a ground grid designed in accordance with specifications to be provided by Utility. Operation of the device must be restricted to Utility personnel and properly trained operators designated by the Customer. The disconnecting device must comply with the applicable current ANSI Standard from the C37 series of standards that specifies the requirements for circuit breakers, reclosers and interrupting switches.

8. STANDARDS FOR INTERCONNECTION, SAFETY AND OPERATING RELIABILITY:

The interconnection of a Generation Facility and associated equipment to the Electric Distribution System shall meet the applicable provisions of the following publications or successor standards:

- a. ANSI/IEEE 1547-2003 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity). The following standards shall be used as guidance in applying IEEE 1574:
 1. IEEE Standard 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
 2. IEC/TR3 61000-3-7 Assessment of emission limits for fluctuating loads in MV and HV power systems
- b. UL 1741 Standard for Inverters, Converters and Controllers for Use in Independent Power Systems

- c. NFPA 70 (2017), National Electrical Code
- d. OSHA (29 CFR § 1910.269)
- e. IEEE Standard 929-2000, *IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems*
- f. IEEE Standard C37.90.1-1989 (R1994), *IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems*
- g. IEEE Standard C37.90.2 (1995), *IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers*
- h. IEEE Standard C37.108-1989 (R2002), *IEEE Guide for the Protection of Network Transformers*
- i. IEEE Standard C57.12.44-2000, *IEEE Standard Requirements for Secondary Network Protectors*
- j. IEEE Standard C62.41.2-2002, *IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits*
- k. IEEE Standard C62.45-1992 (R2002), *IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits*
- l. IEEE Standard 100-2000, *IEEE Standard Dictionary of Electrical and Electronic Terms*
- m. ANSI C84.1-1995 *Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)*
- n. NEMA MG 1-1998, *Motors and Generators*, Revision 3
- o. IEEE Standard 2030.2, *Guide for the Interoperability of Energy Storage Systems Integrated with the Electric Power Infrastructure (Including use of IEEE 2030.3 testing protocols to establish conformity)*.

9. TESTING / CERTIFICATION:

Test results shall be supplied by the manufacturer or independent testing lab that verify, to the satisfaction of the Utility, compliance with the following requirements contained in this document:

- a. Over/Under Voltage Trip Settings
- b. Over/Under Frequency Trip Settings
- c. Synchronization
- d. Harmonic Limits (tested at 25% of full load rating or at a level as close to the minimum level of rated output the unit is designed to operate as practical and at a level as close to 100% of full load rating as practical)
- e. DC Current Injection Limits (Inverters)
- f. Anti-islanding (Inverters)
- g. Prevent Connection or Reconnection to De-energized System

- h. For photovoltaic systems, a certification that the testing requirements of UL 1741 have been met may be used in place of the a. through g.

10. ACCESS AND INSPECTION BY UTILITY:

Customer shall provide the Utility reasonable opportunity to inspect the Generation Facility prior to its interconnection and Commercial Operation Date and to witness initial testing and commissioning of the Generation Facility. The Utility may witness any commissioning tests required by IEEE 1547/UL 1741.

Following initial testing and inspection of the Generation Facility and upon reasonable advance notice to Customer, the Utility shall have access at all reasonable times to the Generation Facility to perform on-site inspections to verify that the installation, maintenance and operation of the Generation Facility complies with the requirements of these Interconnection Standards. The Utility cost of such inspection(s) shall be at Utility expense; however, the Utility shall not be responsible for any cost Customer may incur as a result of such inspection(s). Upon written request, Customer shall inform the Utility of the next scheduled maintenance and allow the Utility to witness the maintenance program and any associated testing.

The Utility shall at all times have immediate access to the external Generator AC Disconnect Switch to isolate the Generation Facility from the Electric Distribution System.

11. GENERATION FACILITY OPERATION:

- a. Customer shall install, operate, and maintain, at Customer's sole cost and expense, the Generation Facility in accordance with the manufacturer's suggested practices for safe, efficient and reliable operation of the Generation Facility in parallel with the Electric Distribution System. Customer shall bear full responsibility for the installation, maintenance and safe operation of the Generation Facility. A periodic maintenance program is to be established in accordance with the requirements of IEEE 1547. Upon request from the Utility, Customer shall supply copies of periodic test reports or inspection logs.
- b. Customer Generation Facility's generated voltage shall follow, not attempt to oppose or regulate, changes in the prevailing voltage level of the Utility at the Interconnection Point. Any Generation Facilities installed on the downstream (load) side of the Utility's voltage regulators shall not degrade the voltage regulation provided to the downstream customers of the Utility to service voltages outside the limits of ANSI 84.1, Range A.
- c. Customer Generation Facility shall be grounded in accordance with applicable codes. The interconnection of the Generation Facility equipment with the Electric Distribution System shall be compatible with the neutral grounding method in use on the Electric Distribution System. For interconnections through a transformer to Utility Electric Distribution System primary feeders of multi-grounded, four-wire construction, or to tap lines of such systems, the maximum unfaulted phase (line-to-ground) voltages on the Utility Electric Distribution System primary feeder during single line-to-ground

fault conditions with the Utility Electric Distribution System source disconnected, shall not exceed those voltages which would occur during the fault with the Utility Electric Distribution System source connected and no Generation Facility equipment.

- d. Customer shall be responsible for protecting, at Customer's sole cost and expense, the Generation Facility from any condition or disturbance on the Electric Distribution System, including, but not limited to, abnormal voltage or frequency, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, excessive harmonic voltages, excessive negative sequence voltages, separation from supply, synchronizing generation and re-synchronizing the Customer's generation after electric restoration of the supply.
- e. Customer agrees that, without prior written permission from the Utility, no changes shall be made to the configuration of the Generation Facility as approved by the Utility, and no relay or other control or protection settings shall be set, reset, adjusted or tampered with, except to the extent necessary to verify that the Generation Facility complies with Utility-approved settings.
- f. Customer shall operate the Generation Facility in such a manner as not to cause undue voltage fluctuations, power quality issues, intermittent load characteristics or to otherwise interfere with the operation of the Electric Distribution System. At all times when the Generation Facility is operated in parallel with the Electric Distribution System, Customer shall operate said Generation Facility in such a manner that no disturbance will be produced thereby to the service rendered by the Utility to any of its other customers or to any electric system interconnected with the Electric Distribution System. Customer understands and agrees that the interconnection and operation of the Generation Facility pursuant to these Interconnection Standards is secondary to, and shall not reduce the safety, quality, or reliability of electric service provided by the Utility.
- g. Customer's control equipment for the Generation Facility shall immediately, completely, and automatically disconnect and isolate the Generation Facility from the Electric Distribution System in the event of a fault on the Electric Distribution System, a fault on Customer's electric system, or loss of a source or sources on the Electric Distribution System. The automatic disconnecting device included in such control equipment shall not be capable of reclosing until after service is restored on the Electric Distribution System. Additionally, if the fault is on Customer's electric system, such automatic disconnecting device shall not be reclosed until after the fault is isolated from the Customer's electric system.

12. RIGHT TO DISCONNECT GENERATION FACILITY:

The Utility shall have the right and authority to disconnect and isolate the Generation Facility without notice at Utility's sole discretion if the Utility believes that any of the following has occurred or is occurring:

- a. Electric service to Customer's premises is discontinued for any reason;

- b. Adverse electrical effects (such as power quality problems) on the Electric Distribution System and/or the electrical equipment of other Utility customers attributed to the Generation Facility as determined by the Utility.
- c. Electric Distribution System emergencies or maintenance requirements
- d. Hazardous conditions existing on the Electric Distribution System as a result of the operation of the Generation Facility or protective equipment
- e. Failure of the Customer to maintain required insurance and to provide the Utility with proof of insurance within ten (10) days of request.
- f. Utility identification of uninspected or unapproved equipment or modifications to the Generation Facility after initial approval.
- g. Recurring abnormal operation, substandard operation or inadequate maintenance of the Generation Facility.
- h. Noncompliance with the obligations under the Interconnection Agreement. In non-emergency situations, the Utility shall give Customer notice of noncompliance including a description of the specific noncompliance condition and allow Customer a reasonable time to cure the noncompliance prior to disconnecting and isolating the Generation Facility.
- i. In the event that the Utility disconnects the Generation Facility for routine maintenance, the Utility shall make reasonable efforts to reconnect the Generation Facility as soon as practicable.
- j. The Customer retains the option to temporarily disconnect its Generation Facility from the Electric Distribution System at any time. Such temporary disconnection shall not constitute termination of the Interconnection Agreement unless the Customer exercises its termination rights under Section 16 of Part 2.

13. RATES AND OTHER CHARGES:

- a. Customer must participate in the applicable Utility Rate Tariff/Schedule or an agreed upon arrangement as a condition of interconnecting a Customer-owned Generation Facility.
- b. Customer must complete and submit to the Utility the Parallel Generation Facility Application For Service in Part 7. The Utility shall not approve a Customer-owned Generation Facility Interconnection Application that does not include a completed Generation Facility Application For Service.
- c. Terms and conditions of service are contained in the applicable Utility Rate Tariff/Schedule and Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facility.
- d. Customer must participate in the electric Utility's applicable Rate Tariff/Schedule or an agreed upon arrangement if the customer wishes to receive compensation for any Excess Generation delivered to the Utility.

- e. Any customer-owned Generation Facility that includes a Utility approved intermittent generator and a synchronous generator shall be served under Utility's Cogeneration / SPP Tariff.

14. INSURANCE:

Customer shall at its own expense obtain and continuously maintain bodily injury, property damage liability and general liability insurance, without any exclusion for liabilities related to the interconnection undertaken pursuant to the Interconnection Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable liabilities and risks related to the Generation Facility, the ownership and operation of such Generation Facility, and the interconnection itself. Such insurance must be obtained from an insurance provider authorized to do business in the State of Ohio. Customer shall provide proof of insurance to the Utility not later than ten (10) days prior to the commercial operation date of the Generation Facility. Utility shall not interconnect the Generation Facility absent submission by the Customer of proof of insurance in accordance with these Interconnection Standards. Thereafter Customer shall provide proof of insurance to the Utility within ten (10) days of such request by the Utility. Utility receipt of proof of insurance does not imply an endorsement of the terms and conditions of said coverage. Customer shall promptly notify the Utility whenever an accident or incident occurs resulting in injuries or damages that are included within the scope of coverage of such insurance, whether or not Customer intends to submit a claim under such policy.

15. LIMITATION OF LIABILITY AND INDEMNIFICATION:

a. Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees and court fees, relating to or arising from any act or omission in its performance of the Interconnection Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall the Utility or the Village of Jackson Center be liable for any indirect, special, consequential, or punitive damages.

b. Indemnity

Customer assumes all liability for, and shall indemnify, defend and hold the Utility and the Village of Jackson Center harmless from, any and all claims, losses, costs, and expenses of any kind or character, direct or indirect, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, labor costs, and all other obligations by or to third parties arising out of or resulting from the design, construction, operation or maintenance of the Generation Facility, or the Customer's actions or omissions in breach of its obligations under the Interconnection Agreement. Such indemnity shall include, but is not limited to, financial responsibility for: (a) Utility monetary losses; (b) reasonable costs and expenses of defending an action or claim made by a third party; (c) damages related to the death or injury of a third party; (d) damages to Utility property; (e) damages to the property of a third party; (f) damages for the disruption of the business of a third party. The limitations of liability provided in this paragraph do not apply in cases of gross negligence or intentional

wrongdoing. If the Utility or the Village of Jackson Center incurs any costs as to which the indemnity provided in this section b. applies, the Utility or Village of Jackson Center shall invoice the Customer for such costs in writing. Customer shall remit payment to the Utility or the Village of Jackson Center, as appropriate, within 45 calendar days of the date of such invoice.

16. EFFECTIVE TERM AND TERMINATION RIGHTS:

The Interconnection Agreement shall become effective when executed by both Parties and shall continue in effect until terminated in accordance with the provisions of this Section. The Interconnection Agreement may be terminated for the following reasons:

- a. Electric service to Customer's premises is discontinued for any reason. If electric service is disconnected for any reason or a change occurs in the account holder, a new Interconnection Application must be submitted to the electric Utility for consideration;
- b. Customer may terminate the Interconnection Agreement at any time by giving the Utility at least sixty (60) days' prior written notice stating Customer's intent to terminate the Agreement at the expiration of such notice period;
- c. the Utility may terminate the Interconnection Agreement at any time following Customer's failure to generate energy from the Generation Facility in parallel with the Electric Distribution System by the later of two (2) years from the date of execution of the Interconnection Agreement or twelve (12) months after completion of the interconnection;
- d. the Utility may terminate the Interconnection Agreement at any time by giving Customer at least sixty (60) days' prior written notice in the event the Customer generates and delivers to the Utility more energy than Customer consumes within a calendar year for two consecutive years or more.
- e. either Party may terminate the Interconnection Agreement at any time by giving the other Party at least sixty (60) days' prior written notice that the other Party is in default of any of the material terms and conditions of the Interconnection Agreement or these Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facility, so long as the notice specifies the basis for termination and there is reasonable opportunity for the Party in default to cure the default; or
- f. The Utility may terminate the Interconnection Agreement at any time by giving Customer at least sixty (60) days' prior written notice in the event that there is a change in an applicable rule or statute affecting the Agreement.

Upon termination of the Interconnection Agreement, Customer's Generation Facility shall be permanently disconnected from the Electric Distribution System.

Termination of the Interconnection Agreement shall not relieve either party of its liabilities and obligations, owed or continuing at the time of said termination.

17. TERMINATION OF ANY APPLICABLE PRIOR AGREEMENT:

From and after the date when service commences under the Interconnection Agreement, the Agreement shall supersede any oral and/or written agreement or understanding between the Utility and Customer concerning the interconnection service covered by the Agreement. Any such prior agreement or understanding shall be deemed to be terminated as of the date interconnection service commences under the Interconnection Agreement.

18. FORCE MAJEURE:

For purposes of the Interconnection Agreement, the term "Force Majeure" means any cause or event not reasonably within the control of the Party claiming Force Majeure, including, but not limited to, the following: acts of God, strikes, lockouts, or other industrial disturbances; acts of public enemies; orders or permits or the absence of the necessary orders or permits of any kind which have been properly applied for from the government of the United States, the State of Ohio, any political subdivision or municipal subdivision or any of their departments, agencies or officials, or any civil or military authority; unavailability of a fuel or resource used in connection with the generation of electricity; extraordinary delay in transportation; unforeseen soil conditions; equipment, material, supplies, labor or machinery shortages; epidemics; landslides; lightning; earthquakes; fires; hurricanes; tornadoes; storms; floods; washouts; drought; arrest; war; civil disturbances; explosions; breakage or accident to machinery, transmission lines, pipes or canals; partial or entire failure of utilities; breach of contract by any supplier, contractor, subcontractor, laborer or materialman; sabotage; injunction; blight; famine; blockade; or quarantine. A Force Majeure event does not include an act of negligence or intentional wrongdoing.

If either Party is rendered wholly or partially unable to perform its obligations under the Interconnection Agreement because of Force Majeure, both Parties shall be excused from whatever obligations under the Agreement are affected by the Force Majeure (other than the obligation to pay money) and shall not be liable or responsible for any delay in the performance of, or the inability to perform, any such obligations for so long as the Force Majeure continues. The Party suffering an occurrence of Force Majeure shall, as soon as is reasonably possible after such occurrence, give the other Party written notice describing the particulars of the occurrence and shall use reasonable efforts to remedy its inability to perform; provided, however, that the settlement of any strike, walkout, lockout or other labor dispute shall be entirely within the discretion of the Party involved in such labor dispute.

PART 3. INTERCONNECTION APPLICATION

Application No. _____

Customer-Owned Generation Facility

This Application for Interconnection of a Customer-Owned Generation Facility is considered complete when it provides all applicable and correct information required below. The Utility may require additional information or clarification to evaluate the Interconnection Application.

Processing Fee

- ☐ A non-refundable processing fee of \$250 must accompany this Application for Generation Facilities 25 kW_{AC} or Less.
- ☐ A non-refundable processing fee of \$250 plus \$1.00 per kW_{AC} of the applicant's nameplate rating for all kW above 25 kW.

Customer

Name: _____ Utility Account Number: _____

Address: _____ Utility Location Number: _____

Village: _____ State: _____ Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Is the Generation Facility owned by the Customer listed above? ☐ Yes ☐ No

Contact (if different from Customer)

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Description of Proposed Installation and Operation

Give a general description of the proposed installation, including how you plan to operate the Generation Facility.

Generator Facility Information

Location (if different from above): _____

Type of Generator: ☐ Inverter-Based ☐ Synchronous ☐ Induction ☐ Biomass
☐ Landfill Gas ☐ Hydropower

Energy Source: ☐ Solar ☐ Wind ☐ Battery/Storage ☐ Fossil Fuel _____

Total AC Nameplate Rating of Generator(s): (kW) _____ (kVA) _____

Total AC Nameplate Rating of Storage Capacity: (kW) _____ (kVA) _____

Generation Facility Total Capacity: (kW_{AC}) _____ (kVA_{AC}) _____

Generation Facility Output: (kWh-annual) _____

Inverter Data (If Applicable)

Manufacturer: _____ Model: _____ Quantity: _____

Rate Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____

Inverter Type (square wave, modified sine wave, pure sine wave): _____

Harmonic Distortion: Maximum Single Harmonic (%) _____

Maximum Total Harmonic (%) _____

Note: Attach all available calculations, test reports, and specification sheets

Synchronous Generator Data (If Applicable)

Model Number: _____ Total number of units on site: _____

Manufacturer: _____

Type: _____ Date of manufacture: _____

Serial Number (each): _____

Phases: Single _____ Three _____ R.P.M.: _____ Frequency (Hz): _____

Rated Output (for one unit): _____ Kilowatt _____ Kilovolt-Ampere _____

Rated Power Factor (%): _____ Rated Voltage (Volts) _____ Rated Amperes: _____

Synchronous Reactance (X'd): _____ % on _____ KVA base

Transient Reactance (X'd): _____ % on _____ KVA base

Subtransient Reactance (X'd): _____ % on _____ KVA base

Negative Sequence Reactance (Xs): _____ % on _____ KVA base

Zero Sequence Reactance (Xo): _____ % on _____ KVA base

Neutral Grounding Resistor (if applicable): _____

I₂²t of K (heating time constant): _____

Additional Information: _____

Induction Generator Data (If Applicable)

Rotor Resistance (Rr): _____ ohms Stator Resistance (Rs): _____ ohms

Rotor Reactance (Xr): _____ ohms Stator Reactance (Xs): _____ ohms

Magnetizing Reactance (Xm): _____ ohms Short Circuit Reactance (Xd''): _____ ohms

Design letter: _____ Frame Size: _____

Exciting Current: _____ Temp Rise (deg C°): _____

Reactive Power Required: _____ Vars (no load), Vars _____ (full load)

Additional Information: _____

Prime Mover No.1 (Solar, Wind, Natural Gas etc.)

Unit Number: _____ Type: _____

Manufacturer: _____

Serial Number: _____ Date of manufacturer: _____

H.P. Rates: _____ H.P. Max.: _____ Inertia Constant: _____ lb.-ft²

Energy Source (hydro, steam, wind, etc.) _____

Prime Mover No.2 (Solar, Wind, Natural Gas etc.)

Unit Number: _____ Type: _____

Manufacturer: _____

Serial Number: _____ Date of manufacturer: _____

H.P. Rates: _____ H.P. Max.: _____ Inertia Constant: _____ lb.-ft²

Energy Source (hydro, steam, wind, etc.) _____

Generator Facility Transformer(s) (Complete all applicable items)

TRANSFORMER (between generator and utility system)

Generator unit number: _____ Date of manufacturer: _____

Manufacturer: _____

Serial Number: _____

High Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded? _____

Low Voltage: _____ KV, Connection: delta wye, Neutral solidly grounded? _____

Transformer Impedance (Z): _____ % on _____ KVA base

Transformer Resistance (R): _____ % on _____ KVA base

Transformer Reactance (X): _____ % on _____ KVA base

Neutral Grounding Resistor (if applicable): _____

Power Circuit Breaker (If applicable)

Manufacturer: _____ Model: _____

Rated Voltage (kilovolts): _____ Rated ampacity (Amperes) _____

Interrupting rating (Amperes): _____ BIL Rating _____

Interrupting medium / insulating medium (ex. Vacuum, gas, oil) _____ / _____

Control Voltage (Closing): _____ (Volts) AC DC

Control Voltage (Tripping): _____ (Volts) AC DC Battery Charged Capacitor

Close energy: Spring Motor Hydraulic Pneumatic Other: _____

Trip energy: Spring Motor Hydraulic Pneumatic Other: _____

Brushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: _____

Multi Ratio? No Yes: (available taps) _____

Is the Generation Facility equipment IEEE 1547/UL 1741 Certified? ☐ Yes ☐ No

[Note: Requires a Yes for an application to be considered complete.]

If Yes, attach manufacturer's documentation and technical specification sheet showing IEEE 1547/UL 1741 certification

Have all necessary government permits and approvals been obtained for the project prior to this application?

☐ Yes ☐ No [Note: Requires a Yes for an application to be considered complete.]

Utility Accessible Exterior Generation Facility AC Disconnect Switch Provided (Required) ☐ Yes ☐ No

Location of Utility Accessible Exterior Generation Facility AC Disconnect Switch _____
_____ (e.g. two feet west of electric meter)

Estimated Installation Date: _____ Estimated Commercial Operation Date: _____

List components of the Generation Facility equipment package:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

Equipment Installation Contractor: Indicate by owner if applicable ☐

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person (If other than Above): _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor: (As Applicable) Indicate if not applicable ☐

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person (If other than Above): _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Mechanical Contractor: (As Applicable) Indicate if not applicable ☐

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person (If other than Above): _____

Consulting Engineer: (As Applicable) Indicate if not applicable ☐

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person (If other than Above): _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Provide a one line diagram of the Generation Facility. The one line diagram is a basic drawing of an electric circuit in which one or more conductors are represented by a single line and each electrical device and major component of the installation, from the Generation Facility to the Interconnection Point, are noted by symbols. See attached example.

For this application to be considered complete, adequate documentation and information must be submitted that will allow Utility to determine the impact of the Generation Facility on Utility's Electric Distribution System and to confirm compliance by Customer with the provisions set forth in the Interconnection Standards and other applicable requirements. Typically this should include the following:

1. Single-line diagram of the Customer's system showing all electrical equipment from the generator to the Interconnection Point with Utility's Electric Distribution System, including generators, transformers, switchgear, switches, breakers, fuses, voltage transformers, and current transformers.
2. Control drawings for relays and breakers.
3. Site Plans showing the physical location of major equipment.
4. Relevant ratings of equipment. Transformer information should include capacity ratings, voltage ratings, winding arrangements, and impedance.
5. If protective relays are used, settings applicable to the interconnection protection. If programmable relays are used, a description of how the relay is programmed to operate as applicable to interconnection protection.
6. For Certified equipment, documentation confirming that a nationally recognized testing and certification laboratory has listed the equipment.
7. A description of how the generator system will be operated including all modes of operation.

This application is subject to further consideration and study by Utility and the possible need for additional documentation and information from Customer.

Provide a site layout of the Generation Facility and nearby features. The site layout is a basic drawing showing the location of the Generation Facility, electric meter(s), AC and DC disconnect switches, existing electrical panels, disconnects, and utility transformers, conduit/conductor runs and lockout locations.

Copies of manufacturer's ownership, operating and maintenance manuals, specifications for all Generation Facility equipment (generators, transformers, inverters, circuit breakers, protective relays, etc.), test reports and any other applicable drawings or documents necessary for the proper design of the interconnection must be submitted with this Application.

Customer Signature

I hereby certify that, to the best of my knowledge, the information provided in this Interconnection Application is true. I agree to abide by the terms and conditions of the Utility's Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities and will return the Certificate of Completion to the Electric Utility when the Generation Facility has been installed and prior to commencing operation of said facility.

Signature: _____ Date: _____

-----Utility Use-----

Contingent Approval to Interconnect the Generation Facility

Interconnection of the Generation Facility is approved contingent upon Customer compliance with all of the terms and conditions of the Utility's Interconnection Standards and upon return of the Certificate of Completion prior to commencement of Commercial Operation of said Generation Facility.

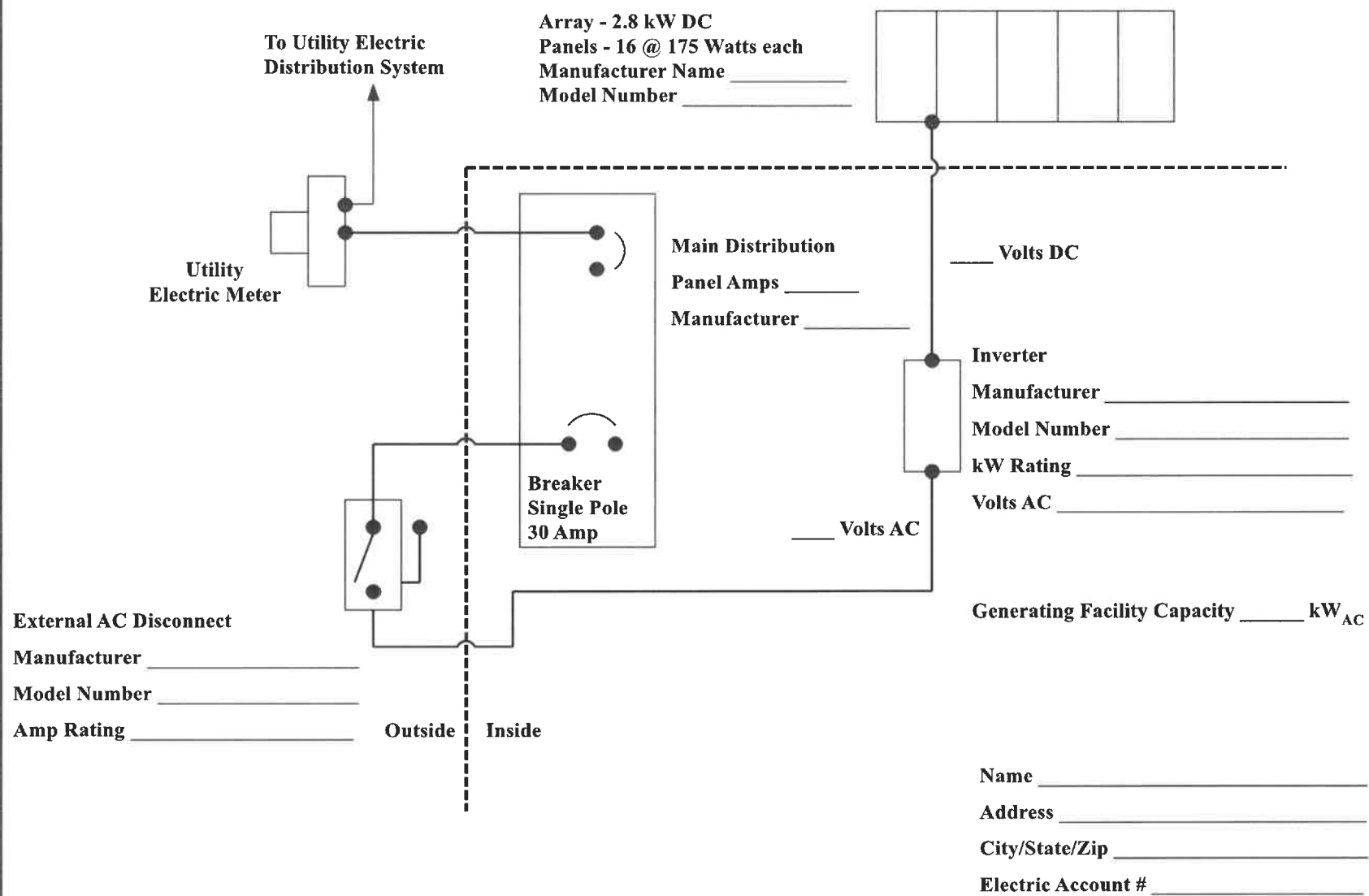
Utility Signature: _____

Title: _____ Date: _____

Application Number: _____

Utility waives inspection/witness test? ☐Yes ☐No Initial _____

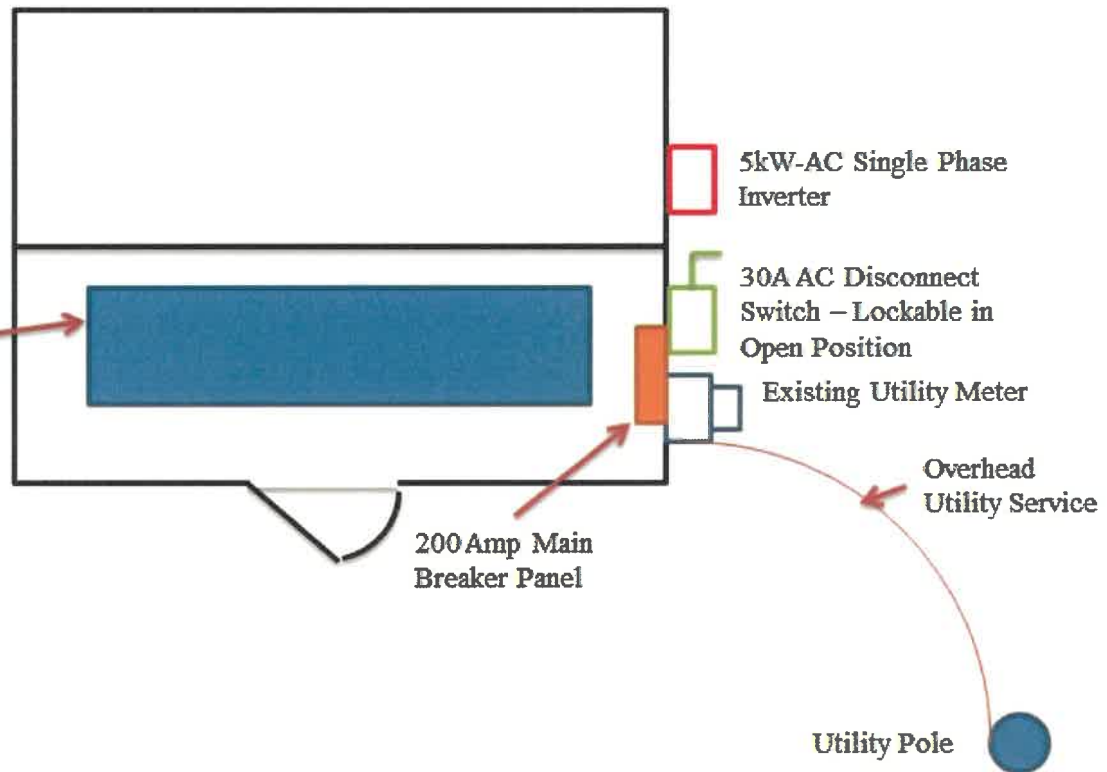
One Line Diagram Example



Sample Site Layout

John Doe
111 E. Main St.
City, State Zip Code

5.5 kW-DC Roof
Mounted Solar Array



E. Main St.

PART 4. INTERCONNECTION AGREEMENT

Application No. _____

Village of Jackson Center Electric Utility Customer-Owned Generation Facility

This Agreement, (“**Agreement**”) is entered into by and between the Village of Jackson Center Electric Utility (“**Utility**”) and _____, (“**Customer**”). The Customer electric account subject to this Agreement is Account Number _____. Customer and Utility are referenced in this Agreement collectively as “**Parties**” and individually as “**Party**.”

Recitals

WHEREAS, the Village owns and operates an Electric Distribution System serving the Village of Jackson Center, Ohio, and surrounding area;

WHEREAS, Customer owns or desires to install, own and operate a Utility-approved Generation Facility, interconnected with and operating in parallel with the Utility Electric Distribution System at the following location;

Address: _____

Generator Size and Type: _____; and

WHEREAS, the name plate rating of the Generation Facility does not exceed 20 megawatts (MW) if a cogeneration facility nor 5 MW if the Generation Facility is a Small Power Production facility as defined herein; and

WHEREAS, Customer desires to receive service under Utility’s applicable Net Billing Parallel Generation Service or Cogeneration / SPP service tariff.

Agreement

NOW, THEREFORE, in consideration of the covenants and promises herein, the Parties mutually agree as follows:

1. SCOPE OF AGREEMENT:

This Agreement governs the terms and conditions under which the Generation Facility will interconnect with and operate in parallel with the Electric Distribution System. It is understood and agreed that this Agreement applies only to the operation of the Generation Facilities described above and on the Customer’s Interconnection Application.

2. DEFINITIONS:

The definitions used in this Interconnection Agreement are those found in Part 1, Section 2 of the Utility Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities (Interconnection Standards).

3. PARALLEL OPERATION:

The Utility agrees to allow Customer to interconnect and operate the Generation Facility in parallel with Utility's Electric Distribution System in accordance with its Interconnection Standards. Customer shall not interconnect or commence parallel operation of the Generation Facility until written Approval to Energize the Generation Facility under Part 6 of these Interconnection Standards has been provided by the Utility. Electric Utility shall have the right to have representatives present during initial testing of the Generation Facility and its protective apparatus.

4. INTERCONNECTION COSTS:

Prior to commencement of System Upgrades that are required to allow interconnection of the Customer-owned Generation Facility, Customer shall deposit with the Utility an amount equal to the estimated cost of said System Upgrades. If the actual costs of said System Upgrades are less than the amount deposited by the Customer, the Utility shall refund the difference to the Customer within 60 days of completing said System Upgrades. If the actual costs of said System Upgrades exceed the amount deposited by the Customer, the Utility shall bill the Customer for the difference. Customer agrees to pay the invoiced amount within 30 days of the invoice date. The utility will supply, own, and maintain all necessary meters and associated equipment utilized for billing. In addition, and for the purposes of monitoring customer generation and load, the utility may install at its expense, load research metering. The customer shall supply, at no expense to the utility, a suitable location for meters and associated equipment used for billing and for load research. All costs related to installation of said meter or meters shall be borne by the Customer.

5. INTERRUPTION OR REDUCTION OF DELIVERIES:

The Utility may require the Customer to interrupt or reduce energy deliveries when the Utility determines, in its sole discretion, that curtailment, interruption or reduction is necessary because of maintenance, safety, emergency, Force Majeure or compliance with Prudent Utility Practice. No compensation or credit will be provided to the Customer by the Utility for such interruptions or reductions in energy deliveries.

6. ADVERSE OPERATING EFFECTS:

Customer shall bear full responsibility for the installation, maintenance and safe operation of the Generation Facility. The interconnection of the Generation Facility shall not reduce the reliability and quality of Utility Electric Distribution System service. Customer shall be responsible for protecting, at Customer's sole cost and expense, the Generation Facilities from any condition or disturbance on Utility's electric system, including, but not limited to,

power quality issues such as Harmonic Distortion, Voltage Flicker and frequency deviations. The Utility shall notify the Customer as soon as practicable if, based on Prudent Utility Practice, operation of the Generation Facility causes disruption in or deterioration of service to other Utility electric customers or if operating the Generation Facility could damage the Electric Distribution System. If, after notice, the Customer fails to timely remedy the adverse operating effect, the Utility may disconnect the Generation Facility with no further notice.

7. COMPLIANCE WITH INTERCONNECTION STANDARDS REQUIREMENTS:

Customer has read the Utility Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities, as adopted by the Utility, and agrees to comply with all requirements included therein, including, but not limited to, all insurance and indemnity provisions identified in Sections 14 and 15 of Part 2 therein. Customer shall deliver a certificate of insurance verifying the required coverage to Utility at least fifteen (15) days prior to any interconnection of the Generation Facility with Utility's electric system, and thereafter as requested by the Utility. Customer agrees that, without the prior written permission from Utility, no changes shall be made to the configuration of the Generation Facility, as that configuration is described in the approved Interconnection Application, and no relay or other control or protection settings specified by the Utility shall be set, reset, adjusted or tampered with, except to the extent necessary to verify that the Generation Facility complies with Utility approved settings.

8. ACCESS TO PREMISES:

The Utility shall have access to the Customer premises or property and to the Generation Facility's external AC generator disconnect switch as permitted in its policies, Utility Policy Manual and Interconnection Standards.

9. GOVERNING LAW:

This Agreement shall be interpreted and governed under the Public Utility Regulatory Policy Act, the laws of the State of Ohio, the Ordinances of the Village of Jackson Center, Village Utility Policy Manual and applicable Utility Electric Rate Schedules. The parties hereby submit to the jurisdiction of the Courts of Shelby County, Ohio for purposes of all legal proceedings may arise under this Agreement. The parties hereto irrevocably waive, to the fullest extent permitted by applicable law, any objection which either may have or hereafter have to the personal jurisdiction of such court or the laying of the venue of any such proceeding brought in such a court and any claim that any such proceeding brought in such a court has been brought in an inconvenient forum. EACH OF THE PARTIES HERETO HEREBY KNOWINGLY, VOLUNTARILY, AND INTENTIONALLY WAIVES ANY RIGHTS IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH, THIS AGREEMENT, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN), OF THE PARTIES.

10. DOCUMENTS INCORPORATED BY REFERENCE:

This Agreement incorporates all other provisions and related documents of these Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities as the same may be amended from time to time. The Utility maintains its retail sales obligation, and any backup or supplemental power needed by the Customer will be sold pursuant to the Utility's applicable tariff provisions. This agreement incorporates by reference, and Customer agrees to be bound by, all other definitions, terms, tariff provisions and related requirements of the Interconnection Standards for Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities as the same may be amended from time to time.

11. NOTICES:

All written notices shall be directed as follows:

Customer:

Name: _____

Address: _____

Village/State/Zip: _____

Utility:

Name: _____

Title: _____

Village/State/Zip: _____

12. TERM OF AGREEMENT:

This Agreement shall be in effect when executed by the Customer and Utility and shall remain in effect thereafter month to month unless terminated in accordance with the provisions of Section 16 of "Part 2 Technical Requirements".

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the last date set forth below.

Customer:

Signature

Print Name

Date

Jackson Center Electric Utility:

Signature

Print Name and Title

Date

PART 5. CERTIFICATE OF COMPLETION

Application No. _____

Customer-Owned Generation Facility

Is the Generation Facility installed, tested and ready for operation? Yes _____ No _____

Customer: _____ Utility Account Number: _____

Address: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

Location of the Generation Facility (if different from above): _____

Has the Generation Facility been installed in accordance with all applicable building codes, permits and ordinances? _____

If the Generation Facility is one megawatt (1 MW) or larger, has the facility been certified as a Qualifying Facility pursuant to 18 C.F.R. 292.207?

☐ Yes ☐ No

Electrician/Service Company:

Name: _____

Address: _____

City/State/Zip: _____

Telephone (Day): _____ (Evening): _____

Fax: _____ E-Mail Address: _____

License number: _____

Date electric Utility approved Interconnection Application: _____

Application Number: _____

Inspection:

The Generation Facility has been installed and inspected in compliance with all applicable electrical codes.

A copy of the signed electrical inspection form is attached. ☐ Yes ☐ No

(If inspection form is not attached)

Signature of Inspector:

Date

Printed name of Inspector

Insurance:

The Generation Facility is covered with an insurance policy as described in the Technical Requirements, 14 and 15. A copy of proof of insurance is attached. ☐Yes ☐No

PART 6. APPROVAL TO ENERGIZE GENERATION FACILITY

Application No. _____

Customer-Owned Generation Facility

The Village, having entered into an Interconnection Agreement for the Generation Facility described in the Application noted by number above and having received a Certificate of Completion with proper documentation of the electrical inspection hereby authorizes the Generation Facility to be energized:

Electric Utility Signature: _____

Title: _____ Date: _____

PART 7. PARALLEL GENERATION FACILITY APPLICATION FOR SERVICE

Application No. _____

Village of Jackson Center

Customer Name: _____

Service Address: _____

Village: _____ State: _____ Zip: _____

Utility Account Number: _____

Contact Person: _____

Telephone Number: _____

Address: _____

City: _____ State: _____ Zip: _____

E-Mail Address: _____

This application is for electric service under the applicable Village of Jackson Center Electric Utility ("Utility") Cogeneration / SPP service tariff or Net Billing Parallel Generation Service tariff for the above customer ("Customer"). The Customer electric generator is a Generation Facility as defined in Utility Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities (Interconnection Standards).

The Generation Facility qualifies for the Cogeneration / SPP tariff and/or Net Billing Parallel Generation Service tariff as it meets the definitions and requirements of said Interconnection Standards and, if larger than one megawatt (1 MW) is certified as a Qualifying Facility pursuant to 18 C.F.R. 292.207. Total rated output of the Generation Facility is _____ kW_{AC}. The customer elects to operate the Generation Facility under the following tariff/schedule or other agreed upon parallel generation agreement:

Net Billing Parallel Generation Service ☐

Cogeneration / SPP Service ☐

Other ☐ Agreement No. _____

Customer acknowledges that he/she has read the tariff or agreement and agrees to all terms and conditions contained therein, including without limitation those specified in the Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities. Specifically, the Customer understands and agrees that an electric meter or meters capable of registering the flow of electricity in each direction must be in service at the facility. Customer

acknowledges that he/she understands and agrees the Generation Facility applicable tariff language and rates are subject to change. Customer further acknowledges there shall be no “grandfathering” pertaining to tariff rates of customers operating existing Utility approved customer-owned Generation Facilities unless approved by Utility.

Requested By:

Customer Name

Authorized Signature

Date

Approved By:

Name

Utility Signature

Date

Rejected:

Name

Utility Signature

Reason for Rejection

Date

Exhibit B

Cogeneration / SPP Schedule

Availability

Under the Public Utility Regulatory Policy Act ("PURPA") found at 16 U.S.C. §16 U.S.C. §824a-3(a) and the rules of the Federal Energy Regulatory Commission ("FERC"), a Qualifying Facility includes:

(1) A small power production (SPP) facility whose primary energy source is renewable (hydro, wind or solar), biomass, waste, or geothermal resources. In order to be considered a qualifying SPP facility, a facility must meet all of the requirements of 18 C.F.R. §§ [292.203\(a\)](#), [292.203\(c\)](#) and [292.204](#) for size and fuel use.

and

(2) A cogeneration facility that sequentially produces electricity and another form of useful thermal energy (such as heat or steam) in a way that is more efficient than the separate production of both forms of energy. In order to be considered a qualifying cogeneration facility, a facility must meet all of the requirements of 18 C.F.R. §§ [292.203\(b\)](#) and [292.205](#) for operation, efficiency and use of energy output.

This Schedule provides the terms and conditions for electricity transactions between The Village of Jackson Center Electric Utility (Utility) and Qualifying Facilities (QF) as provided by PURPA. PURPA means the Public Utility Regulatory Policies Act of 1978, as amended by the Energy Policy Act of 2005, at 16 U.S.C.S Section 824a-3.

This Schedule is available to Customers who obtain any part of their usual or regular electric requirements from self-generation operating on a regular basis and who require Supplementary and Back-up or Maintenance Power from the Utility.

Supplementary, Back-up or Maintenance Power will be delivered to the Customer at any point on the Utility's electric system. Customers must provide written notice at least six (6) months prior to the date upon which they wish to begin electric service on this Schedule. In cases where less than a six (6) month notice is given, the Utility may not be able to obtain and install necessary equipment and shall, during that time, be under no obligation to allow Customers to receive service under this rate. However, if the Utility is able to install such equipment during the six-month period, the Customer shall be permitted to receive service under this Schedule subsequent to the time of that installation. Customers receiving service under this Schedule will be required to enter into a Cogeneration/SPP Electric Service Agreement and Interconnection Agreement.

Rates and Charges for Electric Service
Rates Effective []

Applicability

Applicable to any Customer that is registered with FERC as a QF or has made the requisite filings before the FERC to obtain QF status. QF is not permitted under this Schedule to make partial sales of the QF output to third parties. A QF shall be responsible for providing any electricity self-generated and delivered to the Utility.

This Schedule is for alternating current, single or three-phase electric service supplied at the Utility's available voltage through a metering installation at a single point of delivery for Supplementary, Back-up and Maintenance Power service.

This tariff is not applicable to temporary, shared or resale service. Service under this schedule will be furnished only on a 12-month non-seasonal basis in accordance with the following stipulations and also in accordance with Utility's Policy Manual or subsequent revisions thereof.

Sales To a Customer-Owned Qualifying Facility

Sales to a Qualifying Facility shall be consistent with the listed rates and charges. Applicable rate class and charges shall be established by the Utility as if there were no Customer-owned generation. The listed rates and charges are not in addition to any other applicable rate tariff charges and rates. The Utility is under no obligation to sell energy during a System Emergency as defined by Federal Energy Regulatory Commission (FERC).

Rates for Service

	G.S. Non-Demand Metered			G.S. Demand Metered		L.P.	Ind.
	<u>Res.</u>	<u>1PH</u>	<u>3PH</u>	<u>1PH</u>	<u>3PH</u>		
Customer Charge (\$/Mo.)	30.00	36.00	50.00	36.00	50.00	175.00	300.00
Distribution Charge (\$/kVA-mo.)	3.96	1.37	1.37	1.35	1.35	1.83	2.17
Greater of:							
Service Transformer (kVA) or							
Distribution Demand (kVA)							
Power Supply Charges:							
Backup Capacity (\$/kVA-mo.)	2.04	0.82	0.82	2.09	2.09	2.58	3.98
Supplementary / Maintenance Energy (\$/kWh)	0.03828	0.03828	0.03828	0.03828	0.03828	0.03828	0.03790
	Effective Date						
Supplementary / Maintenance Power	<u>6/1/2023</u>	<u>3/1/2024</u>	<u>3/1/2025</u>	<u>3/1/2026</u>			
All Rate Classes (\$/kW-mo.)	2.80	2.59	4.36	5.58			

Minimum Bill

The minimum charge under this schedule shall not be less than the monthly Customer Charge plus Distribution Charge plus Backup Capacity charge and any applicable charges for Customer's metered demand and energy consumptions for the billing period in accordance with this Schedule's provisions.

Supplementary Energy

Supplementary Energy whether during scheduled maintenance periods or not shall be the Measured Energy supplied by the Utility for the applicable billing period.

Supplementary Power

Supplementary Power shall be the highest monthly metered demand for the most recent Summer Consumption Period (June – September). Monthly metered demand shall be measured in kilowatts by a 15-min. integrating demand meter. Supplementary Power (kW) shall be applied to the Supplementary Power rate (\$/kW-mo.) for the subsequent 12-month Billing Period (September – August) following most recent Summer Period.

Distribution Demand

The monthly Distribution Charge shall be charged on the greater of the Customer's total allocated service transformer capacity (kVA) or monthly Distribution Demand. The Customer's allocated service transformer capacity (kVA) is determined by the electric Utility. Customer's allocated service transformer capacity shall include all service transformers located behind the Utility's delivery point. Service transformer capacity shall include all service transformers transforming voltage from 7,200 volt or higher to 600 volt or less regardless of transformer ownership.

The Distribution Demand shall be the highest monthly demand in kilo-volt amperes measured by a 15-minute integrating demand meter occurring in the most recent 12-month period.

If welding machines or other apparatus where the use of electricity is intermittent or subject to violent fluctuations constitute a part of the entire load, then the measurements shall be increased by the connected load in welding machines or other such apparatus, and the sum taken as the Distribution Demand. The utility further reserves the right to require the customer to provide at his own expense suitable apparatus to reasonably limit such intermittence of fluctuations where, "in the utility's judgment", such apparatus is necessary to present undue interference with the service of the utility.

If the 15-minute load is less than 50% of the maximum momentary demand in kilo-volt amperes, then the Distribution Demand shall be taken at 50% of such maximum momentary demand; provided further, that the Distribution Demand shall be less than 80% of the product of the actual voltage multiplied by the maximum amperes in any phase multiplied by 1.73.

Power Cost Adjustments

The Rates and Charges set forth in this Schedule are subject to the adjustments set forth in Utility's Power Cost Adjustment Rider.

Ohio Excise Tax Rider

The rates and charges hereunder are subject to Ohio Excise Tax (kilowatt-hour tax). In the event of an increase in rates of existing taxes of this character or new taxes, licenses or fees based upon generation, transmission, distribution, purchase and/or sale of electric energy shall be imposed upon or required to be paid by the Village, the rates hereunder may be increased by a surcharge equal to the amount of the cost per kilowatt-hour per consumer.

Purchases From a Customer-Owned Qualifying Facility

Cogeneration / SPP Facilities of 100 kW or Less

The credit rate for the energy (kWh) delivered to the Utility shall be at the following rates:

Solar Facilities (\$/kWh)

Summer: 0.05643

Non-Summer: 0.04220

Wind Facilities (\$/kWh)

Summer: 0.04635

Non-Summer: 0.04210

Baseload Facilities (Biomass, Waste, Cogen, Geothermal) (\$/kWh)

Summer: 0.04516

Non-Summer: 0.04434

Seasonal Periods

The summer period shall be the billing periods of June through September and the non-summer period shall be all other months.

Cogeneration / SPP Facilities Greater Than 100 kW

Energy credits or payments to QF shall be based on the Locational Marginal Price in PJM's day-ahead energy market at PJM's pricing node that is closest to the QF point of injection, or at a relevant trading hub or zone.

All energy (kWh) supplied to the Utility by Customer-owned generating facilities shall be metered separately from the Utility's service supplied to the Customer. The Utility will provide a monthly monetary billing credit for all Customer energy supplied to the Utility for the applicable period.

Rates and Charges for Electric Service
Rates Effective []

The Customer monetary credit for Excess Generation as defined in the Utility Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities (Interconnection Standards), for the applicable billing period will be netted against Customer charges for electric service supplied during the coincident billing period. In the event the Customer credit results in a Customer bill less than zero for the billing period the Customer bill shall be zero and the remaining credit balance (\$) shall be credited to the next billing period. Any remaining credit shall be carried forward month to month. Customer shall not receive credit for any remaining accumulated credit balance (\$), if any, for Excess Generation at the end of a 12-month period, starting January 1 and ending December 31. In the event Customer discontinues taking service from the electric Utility the monetary credit balance, if any, will be lost if not used by Customer.

Utility shall credit Customer at the credit rate for the quantity (kWh) delivered to the Utility approved Interconnection Point within each billing period. No credit will be applied to Customer until an Interconnection Agreement has been approved by Utility.

The Utility is not obligated to make credits to Customer for energy delivered to Utility should Customer fail to meet the requirements of the Interconnection Standards, Interconnection Agreement, become delinquent for payments due to the Village or Utility or to not be in good standing with the Utility or Village codes and ordinances.

Scheduled Maintenance

Customers shall six (6) months prior to the Customer's initial receipt of service under this Schedule, submit to the Utility, in writing, Customer's proposed maintenance schedule for each month of an eighteen (18) month period beginning with the date of the Customer's initial receipt of service under this Schedule. Customer shall, prior to September 1 of each subsequent year, submit to the Utility, in writing, Customer's proposed maintenance schedule for each month of an eighteen (18) month period beginning with January 1 of the following year. Said proposed schedules will not be deemed accepted by the Utility until Customer receives written acceptance from the Utility. The Utility will endeavor to provide said written notification of acceptance, or modification of Customer's proposed schedule, within 60 days of receipt of Customer's proposed maintenance schedule. Maintenance shall be scheduled for a maximum of 30 days per year. These 30 days may be taken in either one continuous period, or two continuous 15-day periods.

Metering

Customers shall be metered with interval metering equipment to register the flow in both directions on an interval basis. Such metering equipment shall be installed such that both power and energy provided by the Utility can be measured during time intervals of not more than fifteen (15) minutes.

Rates and Charges for Electric Service
Rates Effective []

The cost of such metering equipment and any necessary programming or reprogramming of an existing meter shall be at the expense of the Customer. Utility shall maintain ownership of metering equipment. Utility may at the Utility's discretion require metering to be installed at the Customer's generator.

Definitions

1. Back-up Capacity: The specified Demand in kVA of Back-up Capacity that the Customer contracts with the Utility to supply and which the Utility agrees to have available for delivery to the Customer in excess of which the Utility is under no obligation to supply. The Back-up Capacity shall be the greater of the total service transformer capacity used to serve Customer's electric needs at the point of delivery or total output capacity of the Customer's generation facilities.
2. Billing Period: The period of approximately thirty (30) days intervening between regular successive meter reading dates. There shall be twelve (12) billing periods per year. Meters are ordinarily read at monthly intervals, but may be read more or less frequently at the Utility's Option. Bills for utilities consumed and other charges will be mailed on the last business day of the month by first class US Mail. Bills will be due on the 15th of the month. If not paid by the due date, a ten percent (10%) penalty will be added. Service will be discontinued on the first day of the following month if not paid in full. A reconnect charge per the Village Rate Schedule will be assessed at that point.
3. Demand: The rate in kilowatts at which electric energy is generated, transferred or used. Demand (Power) measurements are calculated based on the integrated usage over consecutive fifteen (15) minute periods of time. Demand or Power determinants may be based on any one such fifteen-minute period.
4. Locational Marginal Price: The hourly integrated market clearing price for energy at the location where the energy is delivered or received.
5. Maintenance Power: Electric power made available by the Utility to a Customer during the scheduled maintenance periods established in accordance with the provisions of this schedule.
6. Measured Demand: The fifteen (15) minute Demands (Power) in kilowatts as shown by or computed from the readings of the Power (Demand) meter located at the Utility's point of delivery during the Billing Period.
7. Measured Energy: The electric energy in kilowatt-hours as shown by or computed from the readings of the kilowatt-hour meter located at the Utility's point of delivery.

Rates and Charges for Electric Service
Rates Effective []

8. Supplementary Energy: The kWh of Supplementary Energy supplied by the Utility to the Customer. The kWh of Supplementary Energy shall be the measured energy (kWh) use over the applicable Billing Period.

Terms and Conditions

Assignment: Customer may assign its Electric Service Agreement to another Customer upon advance written notice to Utility and Utility shall approve said assignment unless it has reasonable causes to withhold its approval. When such reasonable cause exists, Utility shall notify Customer in writing of its reasons for refusing to approve the proposed assignment.

Contract Period: One year or longer.

Disconnection: Utility has the right and authority to disconnect and isolate the QF without notice at Utility's sole discretion in accordance with Interconnection Standards and Agreement. Utility is not responsible or liable to Customer for losses and/or damages as a result of disconnection.

Distribution and Transmission Plant: The Utility shall be under no obligation to install distribution or transmission plant in excess of that necessary to meet the Back-up Capacity. In the event that the capacity of the local facilities is or will be limited, the Utility may at its sole discretion install load limiting devices in cases where the Customer's Load exceeds the Customer's Back-up Capacity (kVA). Customer shall reimburse the Utility at full replacement cost for any damage to Utility equipment which results from Measured Demands in excess of the Back-up Capacity regardless of whether the Utility has or has not installed load control devices.

Electric Service Regulations: Service under this Schedule will be in accordance with the terms of the Cogeneration/SPP Electric Service Agreement and any other preexisting electric service agreement(s) between the Customer and the Utility. The Utility Policy Manual as adopted by the Village, including future applicable amendments, will be considered as forming a part of and incorporated in said Agreement.

Force Majeure: The Utility shall not be subject to any liability or damages for inability to provide service, and the Customer shall not be subject to any liability or damage for such inability to receive service, to the extent that such inability shall be due to causes beyond the control of the party seeking to invoke this provision, including, but not limited to, the following: (a) the operation and effect of any rules, regulations and orders promulgated by any Commission, municipality, or governmental agency of the United States, or subdivision thereof; (b) restraining order, injunction, or similar decree of any court; (c) war; (d) flood; (e) earthquake; (f) act of God; (g) sabotage; (h) national public health emergency; or (i) strikes or boycotts. Should any of the foregoing occur, the Back-up Capacity charge shall be applied to only such Back-up Capacity as the Utility is able to

Rates and Charges for Electric Service
Rates Effective []

supply. The Customer will have no liability for full service until such time as the Customer is able to resume such service, except for any term minimum guarantees designed to cover special facilities extension costs, if any. The party claiming Force Majeure under this provision shall make every reasonable attempt to remedy the cause thereof as diligently and expeditiously as possible.

Power Factor: Customer shall operate its QF in order to maintain its power factor in accordance with Village's Interconnection Standards and applicable IEEE standards. If Customer's generator is able to do so, Customer shall operate its QF in such a manner to serve its reactive load requirements.

Other Terms and Conditions

All QFs must operate their interconnected facilities pursuant to the operating requirements of PJM and in accordance with the Utility's specifications for interconnection and parallel operation and Utility Policy Manual.

All QFs interconnecting at the distribution level must comply with Utility's Policy Manual and interconnection and parallel operation specifications and enter into a standard interconnection agreement with the Utility.

All QFs interconnected at the transmission level must comply with PJM's policies and procedures for interconnection, including interconnection procedures for small generators.

All QFs shall be limited so as to not put the Utility in conflict with Utility's transmission interconnection agreement or cause reverse power flow at any Utility transmission delivery points.

During any System Emergency, Utility may discontinue purchases from QF if such purchases would contribute to the emergency and may discontinue sales to QF if continuing to do so would contribute to the emergency.

All QFs shall be responsible and held liable for any PJM capacity or any transmission related penalties as a result of a PJM Emergency event applicable to the QF operations.

The Utility may elect to execute a negotiated contract with the QF. The terms of the contract may take into account, among other factors, a utility's system costs, contract duration, QF availability during daily or system peaks, whether the utility avoids costs from the daily or system peaks, and costs or savings from line losses. Any such contract shall be subject to approval by the Village of Jackson Center council.

Net Billing Parallel Generation Service

Availability

This schedule is available to Customers with a qualifying Customer-owned Generation Facility as defined in the Utility's Interconnection Standards for Installation and Parallel Operation of Renewable Fueled Customer-Owned Generation Facilities (Interconnection Standards), subject to the established rules and regulations of the Utility and have installed renewable generation fueled from an intermittent fuel source, such as solar or wind, designed to operate in parallel with the Utility's electric system. Customers served under this schedule must also take service under the applicable standard service schedule.

This schedule is available on a first-come, first-serve basis. Service under this schedule will be furnished only on a 12-month non-seasonal basis in accordance with the following stipulations and in accordance with Utility's General Rules and Regulations or subsequent revisions thereof.

This schedule is not applicable to any Customer-owned generating facilities that includes a combination of intermittent electric generating facilities and synchronous generators designed to operate parallel with the electric utility.

Conditions of Service

1. A qualifying Customer is one whose generation facility complies with all the following requirements:
 - a. is fueled by solar, wind or Utility approved intermittent renewable energy source;
 - b. is located on the Customer's premise(s);
 - c. is designed and installed to operate in parallel with the Utility's electric system without adversely affecting the operation of equipment and service of the Utility and its Customers and without presenting safety hazards to Utility and Customer personnel;
 - d. is intended primarily to offset part of the Customer electricity needs; and
 - e. is designed to operate at 1,000 kW_{AC} or less.
2. The Customer's electric generating equipment shall be installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electric Code (N.E.C.) and requirements of the local authority having jurisdiction. All equipment and installations shall comply with all applicable safety and performance standards established by the N.E.C., the Institute of Electrical and Electronic Engineers and Underwriters Laboratories, as well as any additional control and testing requirements adopted by the Utility or local authority having jurisdiction.

3. Utility has an approved Interconnection Agreement with the Customer.
4. This schedule is limited to the lesser of; (1) a total aggregate participation of 1,500 kW (2) 20% of the Utility's previous year peak demand (kW) (3) the total aggregate when including the total Utility approved Customer-owned behind-the-meter generation and Utility's own generation installed behind its wholesale meter may cause reverse-power flow at the Utility's wholesale interconnection point(s).

Metering

Electricity measured under this Schedule shall be measured by suitable metering equipment approved by the Utility. The cost of such metering equipment shall be at the expense of the Customer. Utility shall maintain ownership of metering equipment. Customer may install their own meter in addition to the Utility metering equipment at Customer's expense.

Electric Service to Customer

Customer energy use and demand use, when applicable, shall be consistent with the applicable retail rate tariff established by the Utility and in use by the Customer as if there were no Customer-owned generation facility. Measured demand specified in the applicable rate schedule shall be based on the peak demand measured during each billing period as supplied by the Utility only.

If a Customer-owned Generation Facility has a total rated generating capacity of more than 25 kW or 25 kVA, the electric service shall be demand metered and the electric service shall be provided under the Utility's applicable rate schedule.

Customer Excess Generation

All energy (kWh) supplied to the Utility by Customer-owned Generation Facility shall be metered separately from the Utility's service supplied to the Customer. The Utility will provide a monthly monetary billing credit for all Customer energy supplied to the Utility for the applicable period. The credit shall not apply to the monthly Power Cost Adjustment calculation nor to the Ohio excise tax.

The Customer monetary credit for Excess Generation, as defined in the Utility's Interconnection Standards, for the applicable billing period will be netted against Customer charges for electric service supplied during the coincident billing period. In the event the Customer credit results in a Customer bill less than zero for the billing period the Customer bill shall be zero and the remaining

Rates and Charges for Electric Service
Rates Effective []

credit balance (\$) shall be credited to the next billing period. Any remaining credit shall be carried forward month to month. Customer shall not receive credit for any remaining accumulated credit balance (\$), if any, for Excess Generation at the end of a 12-month period, starting January 1 and ending December 31. In the event Customer discontinues taking service from the electric Utility the monetary credit balance, if any, will be lost if not used by Customer.

Utility shall credit Customer at the credit rate listed for the quantity (kWh) delivered to the Utility as measured by the Utility meter within each billing period. No credit will be applied to Customer until an Interconnection Agreement has been approved by Utility and Utility issues an Approval to Energize Generation Facility.

The Utility is not obligated to make credits to Customer for energy delivered to Utility should Customer fail to meet the requirements of the Interconnection Standards, Interconnection Agreement, become delinquent for payments due to the Village or Utility or to not be in good standing with the Utility or Village codes and ordinances.

Credit of Excess Generation from an approved Customer-Owned Generation Facility shall be at the Utility's avoided power supply cost rate as determined by the Utility. The credit rate is to be reviewed from time to time, but no less than annually and adjusted administratively as deemed necessary by the Utility. The avoided power supply cost is based on estimated avoided PJM Capacity and AES transmission demand charges and energy related costs.

In addition to the credit rate for Excess Generation, the Customer Excess Generation (kWh) to be charged the Distribution Charge under the applicable non-demand metered retail rate schedule under which the Customer would otherwise be served, absent the Customer-owned Generation Facility.