



**Procedure for Customers to Interconnect Small Generation with the
Cleveland Public Power (CPP) Electrical System**

Application Process

1. Customer submits the Part I application and supporting documentation

A. The agreement consists of two parts:

- Part 1 is "Pre-installation"
- Part 2 is "Post-installation" for final inspection as detailed in Step 4.

B. Submit One-Line Diagram. The one-line diagram must include the following:

- Energy Source (PV array, wind turbine, etc.) Please indicate DC or AC rating.
- Inverter if applicable. Please indicate AC rating.
- Utility accessible, visible break disconnect, where required. Note: Molded case circuit breakers do not meet this requirement.
- Connection to Customer's electrical system.
- Connection to utility meter. General location of generation and associated electrical equipment.

C. Submit Site Plan

Please do not send overhead internet photos. The site plan must include:

- Overall property layout and street access including cardinal orientation and nearest cross street. (Indicate direction of the nearest cross street if impractical to show on drawing).
- Ground mounted installations must show clearances and details of surrounding structures especially how they cross CPP facilities.
- The existing CPP meter location. Note: Any proposed change to meter location or service must be identified and have prior approval by the CPP Meter and Line Departments.
- Utility accessible, visible break disconnect switch where required (adjacent to utility meter is preferred).
- General location of generation and associated electrical equipment.
- Service transformer size, if known.

Notes:

- 1) In the event the disconnect cannot be reasonably located next to the meter, the location of the National Electric Code (NEC) required signage, include adequate description of location and access.
- 2) Molded case circuit breakers do not meet this requirement.

D. Application Fee

- 10 kW and Under. (Fee is currently being waived.)
- Over 10 kW. (Fee is currently being waived.)

E. Submit completed documents.

- Submit documents as detailed in paragraphs A thru D preferably via email.
- Email: ataylor@cpp.org

Applications with large attachments that cannot be emailed and any required application fees should be sent to:

Cleveland Public Power
1300 Lakeside Ave.
Cleveland, Ohio 44114
Attn: Christopher M. Hirzel

2. Cleveland Public Power (CPP) Review of Application

CPP will review the documentation and the Customer will be notified if the Application is approved or if there are any deficiencies in the Application. Customers must correct any deficiencies before CPP will approve the facility for installation. The Part I Application will be signed by the Commissioner of CPP and returned to the applicant, signaling the completion of Part I. Once the signed Part I application is received the customer can begin installation.

3. Customer Installation

Following approval and signing of the application by CPP, the customer shall install the generation equipment in accordance with the approved application and then obtain the electrical inspection.

4. Following equipment installation, the customer submits final documents for signature

- Part 2 for “10 kW and Under” and for “Over 10 kW”
- Submit Uniform Construction Code (UCC) Certification in evidence of Electrical Inspection by authorized inspection agency (the City Electrical Inspector).
- Submit completed documents via same method as Step 1 above.
- Submit photographs of completed installation, including arrays and electric service.

5. Final Steps by Cleveland Public Power (CPP)

- Review and approve the as-built installation and final documentation.
- The Commissioner of CPP will sign the Part 2 Application.
- Determine the need for a witness test as provided for in the regulation and notify customer.
- Finalize documentation and authorize system operation.
- Schedule a final inspection by the CPP Survey Department and issue a work order to install a net meter to monitor net power.

Below please find two sections of the City of Cleveland Ordinance concerning Net Metering inserted below for the convenience of Cleveland Public Power (CPP) customers.

523.26 Net Metering Service

(a) *Applicability.* Net metering shall be available to residential and non-residential customers who:

- (1) purchase their requirements of electric service from the Division under the applicable rate schedule;
- (2) own and operate distributed generation as defined in Section 523.25 that uses advanced energy resources; and
- (3) are interconnected according to the terms of Section 523.25.

(b) *Definitions.* As used in this section:

- (1) "Advanced Energy Resources" means generation produced by fuel cells, waste-to energy generation, low-impact hydropower, wind power, biomass, solar power, landfill gas, solar photovoltaic, and solar thermal resources.
- (2) "Net energy" is the difference, positive or negative, between the amount of electricity supplied by the Division to the customer through the Division's electric distribution system and the amount of electricity generated by the customer's distributed generation which is fed back into the Division's electric distribution system.
- (3) "Net metering" is a method of measuring the difference, positive or negative, between the kilowatt hours of electricity supplied by the Division to the customer through the Division's electric distribution system and the kilowatt hours of electricity generated by the customer's distributed generation which is fed back into the Division's electric distribution system.

(c) *Billing and charges.* The customer shall pay for the net energy used in accordance with the following rules:

- (1) For electricity supplied by the Division to the customer in excess of the electricity generated by the customer during any billing period, the customer shall pay the rates and charges under the applicable rate schedule.

(2) The customer shall receive a credit in kilowatt hours for electricity generated by the customer in excess of the kilowatt hours of electricity supplied by the Division during any billing period. Such credit shall be carried over and applied to offset the customer's consumption during subsequent months until termination of customer's service.

(3) If a customer terminates service, any remaining credit balance in favor of the customer shall be zeroed out with no liability to the Division.

Participating customers shall be subject to all other charges, rates, terms and conditions of the applicable rate schedule except as expressly altered by this rate schedule.

(d) *Metering.* Net energy shall be measured using a single meter which shall be installed, owned, and maintained by the Division and shall be capable of registering the flow of electricity in two directions. The Division may offer advanced metering, which shall be supplied at the customer's cost and shall be installed, owned, and maintained by the Division.

(e) *Application.* Customers requesting service under this schedule must submit a written application for interconnection pursuant to Section 523.25.
(Ord. No. 1662-09. Passed 12-7-09, eff. 12-9-09)

523.25 Interconnection Service for Distributed Generation

(a) *Applicability.* Interconnection shall be available to residential and non-residential customers who purchase their requirements of electric service from the Division under the applicable rate schedule and own and operate distributed generation located on the customer's premises. The total rated capacity of such generators shall not exceed 1,000 kW per customer premises.

(b) *Definitions.*

(1) "Distributed generation" is electrical generation located on the customer's premises that:

A. is primarily intended to offset part or all of the customer's own electrical requirements on the premises;

B. is interconnected with the Division's electric system in compliance with the terms of division (c) of this section; and

C. operates in parallel with the Division's distribution system.

(c) *Interconnection.* No customer shall connect distributed generation to the Division's distribution system except upon the Division's approval of a written application in a form prescribed by the Division. The customer shall be responsible for the permitting, design, installation, operation, and maintenance of the distributed generation; the costs of any necessary modification of the Division's facilities; and payment of the Division's cost to review the application and perform any necessary studies. The distributed generation shall comply with all applicable safety, power quality, and interconnection requirements established by the National Electric Code ("NEC"), the Institute of Electrical and Electronics Engineers ("IEEE"), Underwriters Laboratories ("UL"), and any applicable local and state agencies.

The Division shall have the right to approve the type of generation installed by the customer based on considerations of health, safety, regulatory compliance by the Division, and the reliability of the Division's distribution system.

The Division may limit interconnected distributed generation to 15% of the peak load of the line or line segment, or such other limit as the Division deems appropriate for reliability purposes.

(d) *Standby power charge.* Distributed generation installations of any kind totaling 10 kilowatts or less at a single premise shall not be subject to standby power charges. There shall be no standby power charge for wind or solar distributed generation of any size. All other distributed generation installations totaling more than 10 kilowatts at a single premise shall be subject to the standby rate contained in Section 523.12 multiplied by the rated capacity of the distributed generation.

(e) *Liability.* The City shall not be liable directly or indirectly for permitting or allowing the connection of customer's distributed generation to the Division's distribution system or for the acts or omissions of the customer generator that cause property damage, loss, injury, or death to any person.

(Ord. No. 1662-09. Passed 12-7-09, eff. 12-9-09)

Note: Former section 523.25 was repealed by Ord. No. 910-98, passed 2-14-00, eff. 2-22-00.

Questions

- The preferred method of contact for questions regarding the status of applications is an email to ataylor@cpp.org.
- If you are experiencing difficulty with the email system, you may leave a message with Austin Taylor at (216) 664- 3922 ext. 139, or Chris Hirzel at (216) 664-3922 ext. 115.
- General metering and billing questions should be directed to Customer Service at (216) 664-3922.
- Technical and policy questions regarding interconnection issues should be directed to ataylor@cpp.org.

Additional Resources

- National Renewable Energy Laboratory: www.nrel.gov
- Energy Efficiency & Renewable Energy Network: www.eeren.doe.gov
- Northeast Sustainable Energy Association: www.nesea.org
- Solar Energy Industries Association: www.sela.org
- PVWATTS calculates electrical energy: http://gisatnrel.nrel.gov/PVWATTS_View/Viewer/Index.html
- Renewable Energy Center: <http://francis.edu/renewable-energy-center/>