

City of Ponca City Guidelines for Distributed Generation Program (Behind the Meter Generation)

A. General

This Behind the Meter Policy sets forth the requirements and conditions for interconnected non-utility-owned electric generation where such generation may be connected for parallel operation with the City's electrical system. Generating systems will be permitted to interconnect to the City's electric distribution system at the service level voltage only after a determination by the City that such interconnection will not interfere with the operation of the distribution or transmission system and that such interconnection ensures the safety of City employees and customers.

B. Agreement with Oklahoma Municipal Power Authority

The City has established the Distributed Generation Program by entering into an amended power sales agreement with Oklahoma Municipal Power Authority (OMPA). This agreement allows the City to establish interconnection with customer-owned generators totaling one percent (1%) of the City's peak power usage.

C. Establishing Rates

- 1) The City will allow the interconnection of renewable energy generation facilities while being certain that all connected customers participate in the cost of maintaining the electrical system. The City has determined that a customer may offset their electrical usage with their own generation (as long as such interconnections do not exceed the maximum as allowed under contract with OMPA). As such, no record of consumption will be made for energy that does not come from the distribution system.
- 2) In order to preserve the fairness of cost distribution across the customer base, customers with renewable generation assets will be charged a higher customer charge such that they will contribute adequately to the maintenance of the system.
- 3) In order to prevent overcharging DG customers who generate very little of their consumption, the energy (kWh) rate for the first 1000 kWh will be lower than for standard customers. Thus, when a customer generates nothing during the billing period, they will not suffer a higher total charge than similar customers that do not have generation. The City will perform all metering (both delivered and received energy) with a single meter.
- 4) The City will compensate DG customers for energy that they generate in excess of their usage. The City has determined that "net metering" is not in the interest of the citizen owners. Net metering allows for the meter register to run both forward (energy delivered by the utility) and backward (energy received by the utility). This has the effect of compensating the customer for their over-generation at the rate that the City bills the customer for usage. Since the investment in equipment (transformers, poles, wire) and the maintenance of the system is the City's, such compensation is not reasonable. It is not fair to the citizen owners to pay DG customers for over-generation at the retail rate. Thus, the City will pay at a wholesale rate.

D. Agreement with Distributed Generation Customers

- 1) The City will attempt to assist customers to make knowledgeable decisions by providing relevant information about costs, anticipated cost recovery, and City requirements for interconnection.
- 2) The City will require an application, a building permit, and system documentation from the customer.

E. Interconnection Requirements

- 1) Customer has elected to operate, at its own expense, a Customer-owned, utility-interconnected generation facility. Systems shall be limited in size to not more than fifteen kilowatts (15 kW) aggregated at the service interconnection point. The generating system is intended to offset either part of all of the Customer's electrical requirements.
- 2) Customer's generation shall supply alternating current power, 60 Hertz, at a voltage and phase of the City's established secondary or primary distribution system.
- 3) If the Customer's generation system full output capacity is larger than ten percent (10%) of the substation, feeder, or distribution line tap minimum load at the point of interconnection, additional studies and equipment may be required to provide proper line protection and voltage regulation. The Customer is responsible for the cost of any studies and/or upgrades required to allow safe interconnection of the Customer-owned generation.
- 4) Customer-owned generation which produces frequencies that result in interference or generates distorted wave forms into the 60 Hertz City electric system which adversely affects the operation of City's electric system shall be corrected at the expense of the Customer.
- 5) Standard City retail rates for this installation shall apply, as defined in the City Electric Service Schedule, except as modified by this document or applicable state or federal law.
- 6) Any costs or expenses incurred by City due to modifications made to City's existing electrical system as a result of the interconnection of Customer's generating system shall be paid by the Customer.
- 7) Customer will be the owner of the renewable attributes of the electricity that is generated, to include any and all credits, certificates, benefits, environmental attributes, emission reductions, offsets, and allowances, however entitled, attributable to the generation of electricity from the customer-owned renewable generation and its displacement of conventional energy generation.
- 8) City may require customer to interrupt or reduce deliveries when necessary in order to construct, install, maintain, repair, replace, remove, investigate, or inspect any of its equipment or part of its system.
- 9) Customer shall comply with all the latest applicable National Electric Code (NEC) requirements [NEC Articles 690 and 705], NESC requirements, State of Oklahoma requirements, building codes, and shall obtain electrical permits for the equipment installation. Installation shall comply with local site permitting requirements.
- 10) The Meter and transformer or transformer pole serving the Customer-Generator shall be labeled to indicate potential electric current back feed.

Exhibit "A"

- 11) Customer shall provide space for metering equipment and meter base as per City's requirements.
- 12) Customer's over-current device at the service panel shall be marked to indicate the type of back feed power source.
- 13) Customer assumes full responsibility for all maintenance of generators, inverters, and associated equipment including protective equipment. Customer shall keep records of maintenance activities and provide such records to the City for inspection at all times.
- 14) Customer's generation control systems shall comply with NEC articles 690 and 705 and applicable and current Institute of Electrical and Electronics Engineers (IEEE) standards including Standard 1547 "Interconnection Distributed Resources with Electric Power Systems" for parallel operation with the City's electric system, In particular:
 - a. Power output control system shall automatically disconnect from the City's source upon loss of voltage and not reconnect until City's voltage has been restored for at least five (5) minutes continuously.
 - b. Power output control system shall automatically initiate a disconnect from the City's Power source within six (6) cycles (0.1 second) if Customer's voltage falls below 50% of nominal on any phase.
 - c. Power output control system shall automatically initiate a disconnect from the City's Power source within two (2) seconds if Customer's voltage falls below 88% of nominal or rises above 120% of nominal on any phase.
- 15) Customer shall provide a written description of how the protection devices will achieve compliance with the requirements of this policy as part of the License Application.
- 16) Customer shall furnish and install on customer's side of meter, a UL-approved safety disconnect switch which shall be capable of fully disconnecting the Customer's generating facility from the City's electric system. The disconnect switch shall be located adjacent to the City's meter(s) and shall be of the visible break type in a metal enclosure which can be secured in the "Off" position with a padlock. The disconnect switch shall be accessible to City personnel at all times.
- 17) Additional metering: For purposes of gathering research data, City may at its expense install and operate additional metering and data-gathering devices.

F. Specifications and System Diagram

- 1) Customer shall supply specifications for the proposed generation system.
- 2) Customer shall supply a system diagram for use of City in determining the safety and functionality of a grid-connected generator. This diagram will be kept on file at City offices.
- 3) Customer shall supply a certificate of completion from a qualified professional engineer or electrician that the generation system meets all the requirements of this Policy.