Municipal Utilities’ Obligation to Interconnect with Qualifying Facilities
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Introduction

This document provides an overview of the obligations of Iowa municipal electric utilities to interconnect with consumer owned small alternative energy generators, such as wind turbines and solar photovoltaic panels. It describes utility obligations under the Public Utility Regulatory Policies Act of 1978 (PURPA) and its amendments.

This document is not intended to be a definitive analysis of the subjects addressed. The factual circumstances of consumer owned generation vary widely. It is not intended that reliance be placed on the general statements of law contained in this document without confirming independent research by a lawyer licensed to practice in Iowa, undertaken in the context of specific facts. Your local city attorney or utility counsel is always the best source of legal advice in out-of-the-ordinary situations. He or she should be consulted whenever you are in doubt about the propriety of any utility action.

Obligation to Interconnect Under PURPA


Excerpts from CFR Title 18, Part 292 (PURPA)

1. What constitutes a Qualifying Facility (QF)? (Subpart B §292.303)
   a. Maximum Size of 80 MW capacity. Multiple generators are considered the same facility if located within one mile of each other
   b. Fuel Use: Primary fuel must be:
      - Biomass
      - Waste
      - Renewable resource
      - Geothermal
      - Any combination of the above
      - 75% or more of the total energy input must be from one of these sources
      - Any primary energy source, which, on the basis of its energy content, is 50% or more biomass is considered biomass
   c. The owner or developer self-certifies as a QF with Commission or request for Commission certification by filing FERC form 556 with the Commission. A small power production facility or cogeneration facility of less than 1MW is exempted from certification.
   d. There are additional requirements for cogeneration and hydroelectric facilities
2. General requirements of electric utilities with respect to Qualifying Facilities
   a. A utility must interconnect with a QF, purchase energy and capacity or wheel it to another entity with a higher avoided cost. The utility must also sell energy to the QF.
   b. Municipal electric utilities, regardless of size, are considered “electric utilities” under PURPA. That definition includes “any person, state agency, or federal agency that sells electric energy.” A state agency is defined as “a State, political subdivision thereof, and any agency or instrumentality of either.” Municipal utilities are not rate-regulated by the IUB, so they are considered non-regulated for purposes of the Act.

3. QF entitled to electric utility system cost data §292.302.
   a. Utilities with retail sales exceeding 500 million kWh in a calendar year have specific requirements to make avoided cost data available for public inspection.
   b. Utilities with retail sales less than 500 million kWh are required to provide comparable data to that required by larger utilities, but there are no prescriptions. If a non-rate regulated utility fails to make this data available, the QF may apply to FERC for an order requiring that the information be provided.

4. Rates for purchase from QFs (§292.304)
   a. Rates for energy purchased from QFs must be just and reasonable to the electric consumer of the electric utility and in the public interest; and shall not discriminate against qualifying cogeneration and small power production facilities. Rates for purchases from facilities smaller than 100 kW must be standardized.
   b. Nothing in this subpart requires any electric utility to pay more than the avoided costs for purchases.
   c. The rate the utility purchases energy and capacity can take into account the availability of energy and capacity during the utility’s peak period as well as other considerations.

5. Rates for sales to QF (§292.305)
   a. Rates for sales to the QF must be just and reasonable and in the public interest; and shall not discriminate against any qualifying facility in comparison to rates for sales to other customers served by the electric utility.

6. Interconnection costs (§292.306)
   a. Each qualifying facility shall be obligated to pay any interconnection costs which the non-regulated electric utility may assess against the qualifying facility on a nondiscriminatory basis with respect to other customers with similar load characteristics.

7. System Emergencies (§292.307)
   a. During any system emergency an electric utility may discontinue purchases from the QF if such purchases would contribute to such emergency. Also during a system
emergency, the utility may also discontinue sales to the QF, provided that such discontinuance is on a nondiscriminatory basis.

8. Standards for operating reliably (§292.308)
   a. A non-regulated electric utility may establish reasonable standards to ensure system safety and reliability of interconnected operations.

9. Termination of obligation to purchase from qualifying facilities (§292.309)
   a. After August 8, 2005 an electric utility does not have to interconnect with a QF if the QF has non-discriminatory access to various markets, however there is a rebuttable presumption that a QF with a capacity at or below 20 MW does not have nondiscriminatory access to the market.

Iowa Regulations

Iowa Administrative Code (IAC) 199 Chapter 15

Iowa Administrative Code (IAC) 199 Chapter 15 provides regulations regarding cogeneration and small power production. Much of this chapter does not apply the municipal utilities, but rule 199—15.10(476) does apply to municipal utilities. Rule 199-15.10(476) covers standards for interconnection, safety, and operating reliability and is shown below. For all of IAC 199 Chapter 15, see the online Iowa Code: https://www.legis.iowa.gov/IowaLaw/statutoryLaw.aspx.

199—15.10(476) Standards for interconnection, safety, and operating reliability. For purposes of this rule, “electric utility” or “utility” means both rate-regulated and non-rate-regulated electric utilities.

15.10(1) Acceptable standards. The interconnection of qualifying facilities and AEP¹ facilities and associated interconnection equipment to an electric utility system shall meet the applicable provisions of the publications listed below:
   a. Standard for Interconnecting Distributed Resources with Electric Power Systems, ANSI/IEEE Standard 1547-2003. For guidance in applying IEEE Standard 1547, the utility may refer to:
      (1) IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems—IEEE Standard 519-1992; and
      (2) IEC/TR3 61000-3-7 Assessment of Emission Limits for Fluctuating Loads in MV and HV Power Systems.
   b. Iowa Electrical Safety Code, as defined in 199—Chapter 25.

15.10(2) Modifications required. Rescinded IAB 7/23/03, effective 8/27/03.

15.10(3) Interconnection facilities.
   a. The utility may require the distributed generation facility to have the capability to be isolated from the utility, either by means of a lockable, visible-break isolation device accessible by the utility, or by means of a lockable isolation device whose status is indicated and is accessible by the utility. If an

¹ An AEP facility as defined in 199-Chapter 15 means any of the following: (1) an electric production facility which derives 75 percent or more of its energy input from solar energy, wind, waste management, resource recovery, refuse-derived fuel, agricultural crops or residues, or wood burning; (2) a hydroelectric facility at a dam; (3) land, systems, buildings, or improvements that are located at the project site and are necessary or convenient to the construction, completion, or operation of the facility; or (4) transmission or distribution facilities necessary to conduct the energy produced by the facility to the purchasing utility.
isolation device is required by the utility, the device shall be installed, owned, and maintained by the owner of the distributed generation facility and located electrically between the distributed generation facility and the point of interconnection. A draw-out type of circuit breaker accessible to the utility with a provision for padlocking at the drawn-out position satisfies the requirement for an isolation device.

b. The interconnection shall include overcurrent devices on the facility to automatically disconnect the facility at all currents that exceed the full-load current rating of the facility.

c. Facilities with a design capacity of 100 kilowatts or less must be equipped with automatic disconnection upon loss of electric utility-supplied voltage.

d. Those facilities that produce a terminal voltage prior to the closure of the interconnection shall be provided with synchronism-check devices to prevent closure of the interconnection under conditions other than a reasonable degree of synchronization between the voltages on each side of the interconnection switch.

15.10(4) Access. If an isolation device is required by the utility, both the operator of the qualifying facility or AEP facility and the utility shall have access to the isolation device at all times. An interconnection customer may elect to provide the utility with access to an isolation device that is contained in a building or area that may be unoccupied and locked or not otherwise accessible to the utility by installing a lockbox provided by the utility that allows ready access to the isolation device. The lockbox shall be in a location determined by the utility to be accessible by the utility. The interconnection customer shall permit the utility to affix a placard in a location of the utility’s choosing that provides instructions to utility operating personnel for accessing the isolation device. If the utility needs to isolate the distributed generation facility, the utility shall not be held liable for any damages resulting from the actions necessary to isolate the generation facility.

15.10(5) Inspections. The operator of the qualifying facility or AEP facility shall adopt a program of inspection of the generator and its appurtenances and the interconnection facilities in order to determine necessity for replacement and repair. Representatives of the utility shall have access at all reasonable hours to the interconnection equipment specified in subrule 15.10(3) for inspection and testing.

15.10(6) Emergency disconnection. In the event that an electric utility or its customers experience problems of a type that could be caused by the presence of alternating currents or voltages with a frequency higher than 60 Hertz, the utility shall be permitted to open and lock the interconnection switch pending a complete investigation of the problem. Where the utility believes the condition creates a hazard to the public or to property, the disconnection may be made without prior notice. However, the utility shall notify the operator of the qualifying facility or AEP facility by written notice and, where possible, verbal notice as soon as practicable after the disconnections.

Iowa Administrative Code (IAC) 199 Chapter 45

IAC 199 Chapter 45, “Electric Interconnection of Distributed Generation Facilities” regulates how rate-regulated utilities in Iowa interconnect with customer owned distributed generation. Because Iowa’s municipal utilities are not rate regulated, they are not required to follow these regulations, but the regulations may be instructive. The regulations contain standard applications for interconnection, interconnection agreements, and procedures governing how rate-regulated utilities process interconnection requests. The interconnection request is divided into 4 levels, depending on the size of the generator and the characteristics of the interconnection. The code can be found at: https://www.legis.iowa.gov/IowaLaw/statutoryLaw.aspx.
Small Wind Innovation Zones

Iowa Code 476.48, outlines the ability of political subdivisions to establish “small wind innovation zones” to encourage and expedite the installation of customer owned small wind energy systems (nameplate capacity of 100 kW or less). A political subdivision desiring to establish a small wind innovation zone must adopt a model zoning ordinance governing the siting of small wind energy systems. Rate regulated utilities in a small wind innovation zone must provide a streamlined interconnection application process. Rate regulated utilities must use the interconnection application process outlined in Iowa Administrative Code 199 Chapter 45. Because municipal utilities are not rate-regulated, they are not required to use the expedited interconnection application review process outlined in IAC 199 Chapter 45. A listing of the small wind innovation zones in Iowa is provided on the Iowa Utilities Board website: http://www.state.ia.us/government/com/util/energy/small_wind_zones.html.