

**UTILITIES DIVISION[199]**

**Adopted and Filed**

**Rule making related to cogeneration and small power production**

The Utilities Board hereby amends Chapter 15, “Cogeneration and Small Power Production,” Iowa Administrative Code.

*Legal Authority for Rule Making*

This rule making is adopted under the authority provided in Iowa Code section 17A.4 and chapter 476.

*State or Federal Law Implemented*

This rule making implements, in whole or in part, Iowa Code section 476.58.

*Purpose and Summary*

This rule making sets the standards for safe installation and operation of interconnections between distributed general facilities and electric distribution facilities.

*Public Comment and Changes to Rule Making*

Notice of Intended Action for this rule making was published in the Iowa Administrative Bulletin on January 3, 2018, as **ARC 3538C**.

The Iowa Association of Electric Cooperatives (IAEC); MidAmerican Energy Company (MidAmerican); the Office of Consumer Advocate (OCA), a division of the Iowa Department of Justice; and Interstate Power and Light Company (IPL) filed statements of position. While expressing general appreciation for the Board’s rule-making efforts, IAEC identified minor inconsistencies between proposed paragraph 15.10(1)“a” and Chapter 45 of the Board’s administrative rules, which the Board has corrected in this adopted rule making, and expressed confusion over the last paragraph of new 15.10(3)“b.” MidAmerican and OCA suggested a nonsubstantive change to subrule 15.10(5), which the Board has addressed in this rule making. IPL expressed support for the Board’s revision to the definition of “disconnection device,” which was corrected prior to publication of the Notice to mirror the definition in Chapter 45.

The Board issued an order adopting amendments on February 12, 2018. The order is available on the Board’s electronic filing system at [efs.iowa.gov](http://efs.iowa.gov) under Docket No. RMU-2016-0006. Nonsubstantive changes were made to update IEEE code citations and to provide consistency with Chapter 45.

*Adoption of Rule Making*

This rule making was adopted by the Utilities Board on February 12, 2018.

*Fiscal Impact*

After analysis and review of this rule making, no fiscal impact is anticipated.

*Jobs Impact*

After analysis and review of this rule making, no impact on jobs has been found.

*Waivers*

Chapter-specific waiver provisions are unnecessary as any person may apply for a waiver of any Board rule under rule 199—1.3(17A,474,476).

*Review by Administrative Rules Review Committee*

The Administrative Rules Review Committee, a bipartisan legislative committee which oversees rule making by executive branch agencies, may, on its own motion or on written request by any individual or group, review this rule making at its [regular monthly meeting](#) or at a special meeting. The Committee’s meetings are open to the public, and interested persons may be heard as provided in Iowa Code section 17A.8(6).

*Effective Date*

This rule making will become effective on April 18, 2018.

The following rule-making actions are adopted:

ITEM 1. Adopt the following **new** definitions of “Disconnection device,” “Distributed generation facility” and “Electric meter” in rule **199—15.1(476)**:

“*Disconnection device*” means a lockable visual disconnect or other disconnection device capable of isolating, disconnecting, and de-energizing the residual voltage in a distributed generation facility.

“*Distributed generation facility*” means a qualifying facility, an AEP facility, or an energy storage facility.

“*Electric meter*” means a device used by an electric utility that measures and registers the integral of an electrical quantity with respect to time.

ITEM 2. Amend rule 199—15.10(476) as follows:

**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 AEP~~ distributed generation 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 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~~ 519-2014; 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.

c. National Electrical Code, ANSI/NFPA ~~70-2011~~ 70-2014.

**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 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. A distributed generation facility placed in service after July 1, 2015, is required to have installed a disconnection device. The disconnection device shall be installed, owned, and maintained by the owner of the distributed generation facility and shall be easily visible and adjacent to an interconnection~~

customer's electric meter at the facility. Disconnection devices are considered easily visible and adjacent: for a home or business, up to ten feet away from the meter and within the line of sight of the meter, at a height of 30 inches to 72 inches above final grade; or for large areas with multiple buildings that require electric service, up to 30 feet away from the meter and within the line of sight of the meter, at a height of 30 inches to 72 inches above final grade. The disconnection device shall be labeled with a permanently attached sign with clearly visible letters that gives procedures/directions for disconnecting the distributed generation facility.

(1) If an interconnection customer with distributed generation facilities installed prior to July 1, 2015, adds generation capacity to its existing system that does not require upgrades to the electric meter or electrical service, a disconnection device is not required, unless required by the electric utility's tariff. The customer must notify the electric utility before the generation capacity is added to the existing system.

(2) If an interconnection customer with distributed generation facilities installed prior to July 1, 2015, upgrades or changes its electric service, the new or modified electric service must meet all current utility electric service rule requirements.

b. For all distributed generation installations, the customer shall be required to provide and place a permanent placard no more than ten feet away from the electric meter. The placard must be visible from the electric meter. The placard must clearly identify the presence and location of the disconnection device for the distributed generation facilities on the property. The placard must be made of material that is suitable for the environment and must be designed to last for the duration of the anticipated operating life of the distributed generation facility. If no disconnection device is present, the placard shall state "no disconnection device".

If the distributed generation facility is not installed near the electric meter, an additional placard must be placed at the electric meter to provide specific information regarding the distributed generation facility and the disconnection device.

~~b. c.~~ 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.

~~e. d.~~ Facilities Distributed generation facilities with a design capacity of 100 kilowatts or less must be equipped with automatic disconnection upon loss of electric utility-supplied voltage.

~~d. e.~~ 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~~ If a disconnection device is required, the operator of the distributed generation facility, the utility, and emergency personnel shall have access to the disconnection device at all times. For distributed generation facilities installed prior to July 1, 2015, an interconnection customer may elect to provide the utility with access to ~~an isolation~~ a disconnection 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~~ disconnection device. The lockbox shall be in a location determined by the utility, in consultation with the customer, 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~~ disconnection 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 and testing. The operator of the ~~qualifying facility or AEP~~ distributed generation facility shall adopt a program of inspection and testing of the generator and its appurtenances and the interconnection facilities in order to determine necessity for replacement and repair. Such a program shall include all periodic tests and maintenance prescribed by the manufacturer. If the periodic testing of interconnection-related protective functions is not specified by the manufacturer, periodic testing shall occur at least once every five years. All interconnection-related protective functions

shall be periodically tested, and a system that depends upon a battery for trip power shall be checked and logged. The operator shall maintain test reports and shall make them available upon request by the electric utility. 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 with reasonable prior notice to the applicant.

**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 distributed generation facility by written notice and, where possible, verbal notice as soon as practicable after the disconnections.

**15.10(7) *Notification.*** When the distributed generation facility is placed in service, owners of interconnected distributed generation facilities are required to notify local fire departments via U.S. mail of the location of distributed generation facilities and the associated disconnection device(s). The owner is required to provide any information related to the distributed generation facility as reasonably required by that local fire department including but not limited to:

a. A site map showing property address; service point from utility company; distributed generation facility and disconnect location(s); location of rapid shutdown and battery disconnect(s), if applicable; property owner's or owner's representative's emergency contact information; utility company's emergency telephone number; and size of the distributed generation facility.

b. Information to access the disconnection device.

c. A statement from the owner verifying that the distributed generation facility was installed in accordance with the current state-adopted National Electrical Code.

**15.10(8) *Disconnections.*** If an interconnection customer fails to comply with the foregoing requirements of this rule, the electric utility may require disconnection of the applicant's distributed generation facility until the facility complies with this rule. The disconnection process shall be specified in individual electric utility tariffs or in the interconnection agreement. If separate disconnection of only the distributed generation facility is not feasible or safe, the customer's electric service may be disconnected as provided in 199—Chapter 20.

**15.10(9) *Reconnections.*** If a customer's distributed generation facility or electric service is disconnected due to noncompliance with this rule, the customer shall be responsible for payment of any costs associated with reconnection once the facility is in compliance with the rules.

[Filed 2/12/18, effective 4/18/18]

[Published 3/14/18]

EDITOR'S NOTE: For replacement pages for IAC, see IAC Supplement 3/14/18.