

Distributed Generation (DG) Process Highlights

First and foremost, Pierce Pepin will emphasize:

1. **Safety.** Taking all necessary precautions to ensure the safety of Pierce Pepin's employees and members.
2. **Reliability.** Performing necessary tasks to protect and maintain the reliability and integrity of the power distribution grid.
3. **Cost Fairness.** Operating with fairness to other members of Pierce Pepin from a cost causation point of view.

Member / Pierce Pepin Responsibilities

- Pierce Pepin and the member must work together in connecting distributed generation to the grid.
- Pierce Pepin and member must follow any applicable federal or state laws or regulations.
- A written agreement between Pierce Pepin and the member is required to facilitate a safe, reliable, and fair connection of the facility to the grid.

<i>Issue</i>	<i>Required</i>	<i>Responsibility</i>
Application	Yes	Member
Insurance	Yes	Member
Written Interconnection Agreement	Yes	Pierce Pepin & Member
Interconnection	Yes	Pierce Pepin
Interconnection Costs	Yes	Member
Inspection	Yes	Pierce Pepin & Member
Service, Maintenance	Yes	Member

NET Metering

Pierce Pepin allows NET metering for any DG system 40kW_{ac} or less name-plate rating. NET metering is when excess energy (energy generated above the Member's own usage) is credited back to the homeowner. The homeowner realizes the benefit of lowering their energy bill by some variable amount each month. Any excess energy produced in a month is credited that month at two-times our wholesale power supplier, Dairyland Power Cooperative's, avoided cost not to exceed \$0.0537/kWh. When a parallel off-peak meter is co-located at the premise but not configured into the DG system, the DG member may receive a kWh credit for excess-generation over their own usage against the off-peak meter at monthly or more granular intervals as PPCS so chooses.

List of Specific Requirements

1. Completed Distributed Generation (DG) application including the following items:

- a. Fees:
 - ☐ 20kW_{ac} or less: \$200 Engineering/application review fee due at submission
 - ☐ 20kW_{ac} – 40kW_{ac}: \$250 Engineering/application review fee and \$500 Distribution system impact study fee
- b. Proof of insurance coverage
 - ☐ a minimum \$500,000 liability insurance coverage is required (20kW_{ac} or less)
 - ☐ a minimum \$1,000,000 liability insurance coverage is required (20kW_{ac} to 40kW_{ac})
 - ☐ Pierce Pepin listed as a “certificate holder” on the policy (20kW_{ac} or less)
 - ☐ Pierce Pepin listed as a “additional insured” on the policy (20kW_{ac} to 40kW_{ac})
- c. A site plan drawing showing the following:
 - DG unit
 - inverter
 - building & other structures
 - main electrical meter
 - street address of the DG facility
 - interconnection disconnect switch
 - a. located near main meter
 - drawing scale or footages between key components
- d. A schematic diagram of the total system.
- e. A DG production meter socket is required to meter the total output (*generation*) of the DG equipment –
 - ☐ Pierce Pepin provides the production meter & currently, there is no charge and no monthly fee for this meter. *[inverter AC output must be wired into the top of the socket, & wires out of the bottom to electric panel/meter & PPCS’s grid]*
- f. Technical specifications of the power quality protective systems, unless the inverter is UL 1741 or IEEE 1547 compliant then a document on company letterhead is all that is required.
 - over/under voltage
 - over/under frequency
 - ground fault protection
 - over-current protection
 - over-current protection
 - loss of synchronism
 - power factor

2. The following items are required at the time of the “DG System Commissioning”:

- a. The interconnection disconnect switch shall be labeled “*Interconnection Disconnect Switch*” by means of a permanently attached sign with clearly visible and permanent letters. The procedure for disconnecting the DG facility shall be affixed next to the switch.
- b. Installation of an *equipment grounding conductor*, in addition to the ungrounded conductors, between the DG facility and Pierce Pepin’s distribution system.
- c. Signed DG Wiring Compliance Certificate
 - Due before commissioning test will be scheduled.
- d. *Anti-islanding test*. Verification that the DG facility will automatically disconnect from Pierce Pepin’s distribution system in the event station power is lost thus protecting line workers and neighbors against an energized distribution system during restoration work.