

Distributed Energy Resource (DER) Process Highlights

First and foremost, PPCS Cooperative Services (PPCS) will emphasize:

1. **Safety.** Taking all necessary precautions to ensure the safety of PPCS' 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 PPCS from a cost causation point of view.

Member / PPCS Responsibilities

- PPCS and the member must work together in connecting distributed generation to the grid.
- PPCS and member must follow any applicable federal or state laws or regulations.
- A written agreement between PPCS 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	PPCS & Member
Interconnection	Yes	PPCS
Interconnection Costs	Yes	Member
Inspection	Yes	PPCS & Member
Service, Maintenance	Yes	Member

NET Metering

PPCS allows NET metering for any DER 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 DER system, the DER 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 Energy Resource (DER) application including the following items:

a. Application Fees (due at submission):

- 20kW_{ac} or less: \$300
- 20kW_{ac} – 200kW_{ac}: \$300 + \$10/kW

b. Engineering Review Fee – Cost Based

c. Distribution System Study Fee – Cost Based

d. Commissioning Fees

- 20kW_{ac} or less: \$150
- 20kW_{ac} – 200kW_{ac}: \$250

e. Proof of insurance coverage

- a minimum \$300,000 liability insurance coverage is required (20kW_{ac} or less)
- a minimum \$1,000,000 liability insurance coverage is required (20kW_{ac} to 40kW_{ac})
- PPCS listed as a “certificate holder” on the policy (20kW_{ac} or less)
- PPCS listed as a “additional insured” on the policy (20kW_{ac} to 40kW_{ac})

f. A site plan drawing showing the following:

- DER unit
- inverter
- building & other structures
- main electrical meter
- DER production meter
- street address of the DG facility
- interconnection disconnect switch
 - a. located near main meter
- drawing scale or footages between key components

g. A schematic diagram of the total system.

h. A DER production meter socket is required to meter the total output (*generation*) of the DER equipment –

- PPCS 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’ grid*]

i. 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
- over-current protection
- loss of synchronism
- power factor

2. The following items are required at the time of the “DER 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 DER facility shall be affixed next to the switch.

b. Installation of an *equipment grounding conductor*, in addition to the ungrounded conductors, between the DER facility and PPCS’ distribution system.

c. Signed DER Wiring Compliance Certificate

- Due before commissioning test will be scheduled.

d. *Anti-islanding test*. Verification that the DER facility will automatically disconnect from PPCS’ distribution system in the event station power is lost thus protecting line workers and neighbors against an energized distribution system during restoration work.