



**JEFFERSON UTILITIES**

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Customer Guidelines for  
Distributed Generation Interconnection

## INTRODUCTION

The primary purpose of this guide is to outline the process for connecting a Distributed Generation (DG) facility. This information is provided in an effort to maintain safe and reliable service to generation facilities and customers.

This guide covers most types of DG facilities within the Member Utility service areas:

- Inverter based systems – predominately solar PV
- Synchronous or induction motor systems – wind generation, standard fossil-fuel based motor generators.
- Other types will be reviewed as encountered.

This guide is intended to be consistent with the requirements of the current versions of:

- PSC 119 – Rules for Interconnection Distributed Generation Facilities
- PSC 6027 – Standard Distributed Application Form (generation 20 kW or less)
- PSC 6028 – Distributed Generation Application Form (generation greater than 20 kW to 15 MW)
- PSC 6029 – Distributed Generation Interconnection Agreement (20 kW or less)
- PSC 6030 – Distributed Generation Interconnection Agreement (20 kW to 15 MW)
- *MEMBER UTILITY* Rate File Pgs-1, Parallel Generation (20 kW or less) – Net Energy Billing
- *MEMBER UTILITY* Rate File Pgs-2, Customer-Owned Generation Systems (greater than 20 kW)

### A. INTERCONNECTION CLASSIFICATIONS

1. **Parallel Generation (20 kW or less) – Net Energy Billing** (see Pgs-1) The “20 kW” rating shall be the ac rating of the generator or inverter. Customers that qualify for this rate are metered and billed under a net energy basis. The revenue meter records all energy delivered and all energy received from the facility during the billing period. If the facility is billed under an optional Time of Day rate tariff, then the revenue meter records all on/off peak energy delivered and all on/off peak energy received from the facility during the billing period. Some net energy meters may provide only the net value of energy rather than totals for energy flow in both directions.
2. **Customer Owned Generation Systems (greater than 20 kW) –** (see Pgs-2) Customers that qualify for this rate are metered and billed for all energy consumed at their retail rate and receive a credit for all energy delivered to the utility at an avoided cost rate. The revenue meter records all on/off peak energy delivered and all on/off peak energy received from the facility during the billing period.

### B. APPLICATION PROCESS FOR DISTRIBUTED GENERATION FACILITIES

1. **Application process for interconnecting DG facilities**
  - a. The applicants and the utility shall complete the following steps regarding interconnection applications. The utility shall respond to each request for DG interconnection by furnishing the following documents within **5 working days**:
    - PSC 119 DG interconnection rules,
    - PV Net Interconnection Diagram,

- Customer guidelines for DG interconnection, and:
- i. For Parallel Generation (20 kW or less) DG facilities
  - PSC 6027 application form
  - PSC 6029 interconnection agreement
  - Pgs-1 Rate File
- ii. For Customer-Owned Generation Systems (Greater than 20 kW) DG facilities
  - PSC 6028 application form
  - PSC 6030 interconnection agreement
  - Pgs-2 Rate File
- iii. The applicant shall complete and submit the appropriate application form to the utility. The utility **may** collect the following application review fees unless the utility chooses to waive them.

<b>Application Review</b>		
System Size	Time Limit*	Fee
Category 1 ( $\leq 20$ kW)	10 days	None
Category 2 ( $> 20$ kW and $\leq 200$ kW)	10 days	\$250
Category 3 ( $> 200$ kW and $\leq 1$ MW)	10 days	\$500
Category 4 ( $> 1$ MW and $\leq 15$ MW)	10 days	\$1000

*\*Time Limit is working days*

The application shall include the following:

- Completed PSC 6027 or PSC6028 application form
- Site plan that shows
  - Street address of DG facility
  - Adjoining street name
  - Electric service entrance
  - Electric meter
  - Interface equipment
  - Location of major equipment
  - Location of interconnect disconnect switch (if required)
- One-line wiring diagram shall include
  - Generator or inverter
  - Point where DG facility is electrically connected to the customer's electrical system
  - Point of common coupling
  - Lockable interconnection disconnect switch (outside, if required)
  - Method of grounding, including generator and transformer ground connections
  - Protection function and systems
- Proof of adequate liability insurance coverage or proof of financial responsibility by another means agreeable with utility.

Liability Insurance	
System Size	Minimum Coverage*
Category 1 ( $\leq 20$ kW)	\$300,000
Category 2 ( $> 20$ kW and $\leq 200$ kW)	\$1,000,000
Category 3 ( $> 200$ kW and $\leq 1$ MW)	\$2,000,000
Category 4 ( $> 1$ MW and $\leq 15$ MW)	Negotiable

\*Utility shall be named as an additional insured party in the liability insurance policy for Category 2 - 4.

- iv. Within **10 working days** of receiving a new or revised application, the utility shall notify the applicant whether the application is complete.
- v. Within **10 working days** of determining that the application is complete, the utility shall complete its application review.

If the utility determines, based on application review, that an engineering review is needed, it shall notify the applicant and state the cost of the review. The engineering review cost estimate shall be valid for one year. If the application review shows that an engineering review is not needed, the applicant is notified and may proceed with installation of the DG facility.

**2. Engineering review/study process**

- a. Upon receiving from the applicant written notification to proceed and receipt of applicable payment from the applicant, the utility shall complete an engineering review and notify the applicant of the results within **10 - 40 working days** (see PSC 119.04, section 5).

Engineering Review		
System Size	Time Limit*	Fee
Category 1 ( $\leq 20$ kW)	10 days	None
Category 2 ( $> 20$ kW and $\leq 200$ kW)	15 days	$\leq \$500$
Category 3 ( $> 200$ kW and $\leq 1$ MW)	20 days	Cost based**
Category 4 ( $> 1$ MW and $\leq 15$ MW)	40 days	Cost based**

\*Time Limit is working days

\*\* Fee is utility staff time and/or professional services

- b. If the engineering review indicates that a distribution system study is necessary, the utility shall include, in writing, a cost estimate in its engineering review (see PSC 119.04, section 6). Upon receiving written notification to proceed and payment of the applicable fee, the utility shall conduct the distribution system study within **10 – 60 working days**.

Distribution System Study		
System Size	Time Limit*	Fee
Category 1 ( $\leq 20$ kW)	10 days	None
Category 2 ( $> 20$ kW and $\leq 200$ kW)	15 days	$\leq \$500$
Category 3 ( $> 200$ kW and $\leq 1$ MW)	20 days	Cost based**
Category 4 ( $> 1$ MW and $\leq 15$ MW)	60 days	Cost based**

\*Time Limit is working days

\*\* Fee is utility staff time and/or professional services

- c. Upon completion of the distribution study, the utility shall notify the applicant of findings along with any distribution system construction or modification costs to be paid by the applicant.
- d. If the applicant agrees, in writing, to pay for any required distribution system construction or modifications, the utility shall complete the distribution system upgrades and the applicant shall install the DG facility.

#### C. INTERCONNECTION PROCESS FOR DISTRIBUTED GENERATION FACILITIES

1. Upon completion of the DG facility, the applicant shall give the utility the opportunity to witness or verify the system testing, as required in PSC 119.3 or 119.31. Upon receiving notification that an installation is complete, the public utility has **10 working days** for Category 1 and 2 projects and **20 working days** for Category 3 and 4 projects to complete the following:
  - Witness commissioning tests
  - Perform an anti-islanding test or verify the protective equipment settings at its expense.
  - Waive its right, in writing, to witness or verify the commissioning tests.
2. The applicant shall provide the public utility with the results of any required tests.
3. The utility may review the results of the on-site tests and shall notify the applicant within **5 working days**, for a Category 1 or within **10 working days** for Category 2 to 4 projects, of its approval or disapproval of the interconnection.
4. If approved, the utility shall provide a written statement of final acceptance and cost reconciliation.
5. If the utility does not approve the interconnection, the applicant may take corrective action and request the public utility to reexamine its interconnection request.
6. Upon approval of the interconnection, standard interconnection agreement, PSC 6029 or PSC 6030, shall be signed by the applicant and the utility before parallel operation commences.

## Process Flow Chart for Interconnecting DG Facilities

