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Steve Kolbeck, Vice Chair  
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## SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

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July 29, 2008

Ms. Patricia Van Gerpen  
SD Public Utilities Commission  
500 E. Capitol Ave  
Pierre, SD 57501

ELECTRONIC FILING ONLY

Re: EL06-018

Dear Ms. Van Gerpen:

Enclosed for filing in the above referenced docket please find the following documents:

- 1) Commission Staff report on interconnection policies
- 2) Commission Staff's recommended rules to reflect the interconnection workshop process
- 3) Commission Staff's recommended forms and contracts to accompany the proposed rules.
- 4) Certificate of Service

Thank you,

Kara Semmler

**IN THE MATTER OF THE CONSIDERATION OF THE NEW PURPA  
STANDARDS AS SET FORTH IN THE ENERGY POLICY ACT OF 2005**

**INTERCONNECTION POLICIES - COMMISSION STAFF REPORT**

To: Chairman Hanson, Vice-Chairman Kolbeck, and Commissioner Johnson  
From: Kara Semmler, Nathan Solem and Brian Rounds  
Date: July 29, 2008

**INTRODUCTION**

After a hearing and workshop process, the Commission adopted interconnection standards as part of the Energy Policy Act of 2005 in an Order signed July 26, 2007. The Commission “finds that the adoption of this standard will facilitate the development of distributed generation and will assist customers who are interested in developing and implementing distributed generation such as small wind projects.”, July 26, 2007 Commission Order, EL06-018. The method of adoption and implementation is, however, up to the Commission and not dictated by the Energy Policy Act of 2005.

In an effort to understand current utility practice and to assist consumers until a standard process is adopted, the Commission Ordered utilities file current interconnection procedures and technical requirements with the Commission for approval. All such filings were made. As a second step, the Commission Ordered Staff to work with the various utilities to develop model interconnection procedures. As part of the second step, Staff held four workshops, with the final workshop held on June 25, 2008. This report is made in connection with the July 26, 2007 Commission Order and will outline the process Staff undertook along with the results.

## RESULTS

<b>Major Issue</b>	<b>Compromise</b>	<b>Unresolved</b>
<b>Interconnection application fees</b>	<b>X</b>	
<b>Distributed generator insurance requirements</b>	<b>X</b>	
<b>Applicant and Company time limits and requirements</b>	<b>X</b>	
<b>Study cost allocation</b>		<b>X</b>
<b>Applicant deposit</b>	<b>X</b>	
<b>Reporting requirements</b>		<b>X</b>
<b>Generator tier level definitions</b>	<b>X</b>	
<b>Technical standards clarification</b>	<b>X</b>	
<b>Jurisdiction clarification</b>	<b>X</b>	
<b>Highly seasonal circuit issues</b>	<b>X</b>	
<b>Disconnect</b>	<b>X</b>	
<b>Isolation device</b>		<b>X</b>

As you can see from the table above, Commission Staff broke discussion down into a variety of main topics. Staff did not discuss specific rule drafting language, rather discussed interconnection on a more topical basis. The table above also illustrates discussion results. Staff's proposed rules concurrently filed with this report reflect areas of party compromise and reflect Staff's position in unresolved areas. Some issues, such as appropriate application fees, seemed relatively simple compared to more technical discussions such as whether a disconnect switch is necessary on small units. Regardless of the issues or complexity, however, Staff appreciates the participation from utilities, individual distributed generators and special interest groups. Clearly the interests of each group of participants varied. Generally, however, all participants were interested in developing the best process possible for South Dakota. As we progress through this process, Staff anticipates some shifting to the table above. Parties may try to progress

individual needs as the process continues. The table above is intended to illustrate the major results only in the workshop process.

The utility companies expressed the most concern with regards to both safety and cost. Staff, through the help of technical and engineering experts, identified areas of legitimate safety concerns and either modified language accordingly or incorporated precautionary language into the proposed rules. Staff agrees that of equal importance are the costs associated with interconnection. Staff understands the fears of some utilities and appreciates the companies' commitment to require the cost causer pay. Several companies worry this process will require a general spreading of costs across all rate payers. Most specifically, if the interconnection process is utilized by rate payers, it may require some dedication of utility staff time or possibly outsourcing experts to help with the work load.

Staff addressed the study cost allocation issue as follows. Nathan Solem, in an attempt to put utility arguments into context, did significant research regarding actual engineering labor cost. Mr. Solem further studied the high and low end of actual engineering labor costs. Ultimately Staff arrived at a conclusion, feels comfortable with the recommendation it makes in the Staff proposed rules and believes most utility concerns are related to the unknown. Some utilities are, for example, unsure of the number of staff necessary to work on these types of applications, unsure of how much time each application will take to analyze, or unsure how self-sufficient the applicants may be.

Both distributed generators and special interest groups played a large role in the workshops. They shared concerns such as: the creation of a transparent process,

accessibility of the Commission in times of conflict, and also shared some general policy concerns connected to the distributed generators relationship to the utility. Staff attempted to balance these types of concerns by first starting with sample interconnection rules that we believe were well balanced. It was easier then, to modify specific areas of concern to each party and further easy to modify as needed to make the rules “South Dakota friendly.”

## **WORKSHOP PROCESS**

### **General.**

Staff opted to start the process with Oregon’s rules as a Straw Man. Oregon incorporated IEEE 1547 and 1547.1 into its rules just as Ordered by this Commission. It was, therefore, a reasonable starting point. After advertising to generate interest, Staff scheduled its first workshop. The first workshop, with 40 in attendance, was held in person with a variety of guest speakers present to assist with the education and arbitration process. Staff did not lead the first workshop; rather, we sat as a neutral party and worked to understand the issues. Through such understanding Staff identified areas of concern and detailed the areas of necessary future discussion.

The areas of particular concern and/or misunderstanding were topics for specific discussion at future workshops, all led by Staff. In an effort to complete the workshop process as efficiently as possible, the remaining workshops were completed through the use of internet technology. Ideas were shared and discussion documented live while the workshops were held telephonically. The process worked well and by the final workshop Staff summarized areas of agreement, disagreement and possible compromise.

## **Workshop Agendas and Notes.**

Attached as Appendix A, are the agendas to each of the four workshops held by Staff. Notes reflecting the discussion at each workshop are available online at the following links:

- <http://www.puc.sd.gov/commission/Events/Workshop1Issues.pdf> (Workshop 1)
- <http://www.puc.sd.gov/commission/events/notes.pdf> (Workshop 2)
- <http://www.puc.sd.gov/commission/events/notes3.pdf> (Workshop 3)
- <http://www.puc.sd.gov/commission/events/notes3.pdf> (Workshop 4)

## **CONCLUSION**

As the final step in this docket, Staff has concurrently filed proposed rules with this report. Staff recommends the Commission use those rules, which reflect the workshop process and results, to open a rule making docket. All of the major topical areas as well as drafting details would be best addressed in the rule making venue.

# APPENDIX A

## ***South Dakota Interconnection Workshop 1***

*March 18-19, 2008*

*Kings Inn Hotel and Conference Center, Pierre, S.D.*

*This two-day workshop hosted by the South Dakota Public Utilities Commission is the first of several workshops designed to develop a statewide best practices model for connecting small generating facilities to the electric grid.*

### ***Workshop Materials***

- *Workshop 1 Issues*
- *Draft Agenda*
- *SD Straw Man*
- *Presentations*
  - *Introduction to Small Generation Interconnection: Technical Issues and Process Issues*
  - *IEEE 1547 Technical Standard Review*
  - *Utility-Interconnected Photovoltaic Systems: Evaluation the Rationale for the Utility-Accessible External Disconnect Switch*
  - *Technical Report*
- *Best Practice Issues: Process in other Great Plains States?*
- *South Dakota Public Utilities Commission Small Generator Interconnection Straw Man Rules Workshop #1: Overview and Participant Issues.*
- *Criteria Flowcharts*
- *Procedural Aspects*

### ***Workshop Content and Facilitators***

*IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems – Tom Basso and Mike Coddington, National Renewable Energy Laboratory*

*Interconnection Procedures – Wayne Shirley, The Regulatory Assistance Project*

*Interconnection Processes in the Midwestern States – Brad Klein, Environmental Law and Policy Center*

## ***South Dakota Interconnection Workshop 2***

*April 10, 2008, 9 a.m. – noon (CDT)*

*Interactive Web cast managed by PUC staff from Pierre, S.D.*

*This three-hour workshop hosted by the South Dakota Public Utilities Commission is the second of several workshops designed to develop a statewide best practices model for connecting small generating facilities to the electric grid.*

### ***Workshop Materials***

- *South Dakota Straw Man*
- *Submitted Re-writes*
- *Public Utilities Commission Staff Working Papers*
- *Workshop Notes*

## ***South Dakota Interconnection Workshop 3***

*Interactive Web cast/teleconference lead by PUC staff in Pierre, S.D.*

*May 1, 2008*

*9 a.m. – noon (CDT)*

*This three-hour workshop hosted by the South Dakota Public Utilities Commission is the third of several workshops designed to develop a statewide best practices model for connecting small generating facilities to the electric grid.*

### ***Workshop Materials***

- *Agenda*
  - *Generators over 10 MW*
  - *Tier definition – level of generation*
  - *Shift to elevated tier level*
  - *Clarifying and solidifying “Technical Standards”*
  - *Tier 2 – 15% criteria issue:*
    - Is the 15% criterion adequate?*
    - Highly seasonal circuit issue*
- *Temporary disconnection – notification issue*
- *Isolation device issues*
- *Discuss Submitted rewrites*

***South Dakota Interconnection Workshop 4, June 25, 2008, 9 a.m. – noon (CDT), Interactive Web cast.***

- *Review prior topics*
- *Contract language*

## **20:10:36 SMALL GENERATOR FACILITY INTERCONNECTION**

### **20:10:36:01 Scope and Applicability**

The rules in this chapter may be cited as the South Dakota Small Generation Interconnection Rules and govern the interconnection of small generator facilities with an electric nameplate capacity of 10 MW or less to the electric transmission and distribution system of a Electric Utility. These rules do not apply if the small generator facility is producing electricity for resale to a person other than the interconnecting Electric Utility.

These rules are also intended to be used as the basis for the interconnection process and technical framework for facilities greater than 10 MW that may be subject to South Dakota Public Utilities Commission interconnection jurisdiction. These rules apply to state jurisdiction Small Generator Facilities interconnecting with the electric distribution system.

### **20:10:36:02 Rules Waiver**

The parties subject to the rules in this chapter may mutually agree to waive all rules except 20:10:36:09. In the event agreement cannot be reached, and for good cause shown, either party may request the Commission waive any of the rules in this chapter.

### **20:10:36:03 Definitions**

- (1) "Adverse System Impact" means a negative effect caused by the proposed interconnection that may compromise the safety and reliability of an electric transmission and distribution system.
- (2) "Affected System" means an electric transmission and distribution system, not owned or operated by the interconnecting Electric Utility, which may experience an Adverse System Impact from the proposed interconnection.
- (3) "Applicant" means a person or entity who has submitted an application to interconnect a Small Generator Facility to a Electric Utility's electric transmission and distribution system.
- (4) "Application" means a request to interconnect a Small Generator Facility with a Electric Utility's electric transmission and distribution system. An Application must follow the Electric Utility's standard forms on file with the Commission.
- (5) "Area Network" means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE standard 1547 Section 4.1.4 (published July 2003).
- (6) "Certificate of completion" means a certificate signed by the Applicant and attesting that the Small Generator Facility is complete, meets the requirements contained in

these rules, and has been inspected, tested and certified as physically ready for operation. The Certificate of Completion shall follow the Electric Utility's standard form on file with the Commission.

- (7) "Electric Nameplate Capacity" means the net maximum electric output capability measured in watts, kilowatts or megawatts of a Small Generator Facility as designated by the facility's manufacturer.
- (8) "Electric Utility" has the same meaning set forth in SDCL 49-34A-1(7).
- (9) "Electrical Service Agreement" means the agreement between a Electric Utility and a customer providing for electricity and ancillary services according to provisions of a tariff.
- (10) "Electric Distribution System or "EDS" means the facilities and equipment used to transmit electricity to ultimate usage points.
- (11) "Fault Current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase.
- (12) "Field Tested Equipment" means Interconnection Equipment that is identical to equipment that:
  - (a) Was approved for another interconnection under a Tier 4 study review and;
  - (b) Has successfully completed a Witness Test within 36 months from the date of the submission of the current application.
- (13) "Good Utility Practice" means a practice, method, policy, or action engaged in or accepted by a significant portion of the electric industry in a region, which a reasonable utility official would expect, in light of the facts reasonably discernable at the time, to accomplish the desired result reliably, safely and expeditiously.
- (14) "IEEE 1547" means the Standard 1547 published in 2003 by the Institute of Electrical and Electronics Engineers (IEEE) entitled "Interconnecting Distributed Resources with Electric Power Systems."
- (15) "IEEE 1547.1" means the Standard 1547.1 published in 2005 by the Institute of Electrical and Electronics Engineers (IEEE) entitled "Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems."
- (16) "Interconnection Agreement" means an agreement between an applicant or interconnection customer and the interconnecting Electric Utility that governs the connection of the small generator facility to the Electric Utility's EDS, as well as the ongoing operation of the Small Generator Facility after it is connected to the system. An interconnection agreement shall follow the Electric Utility's standard form on file with the Commission.

- (17) “Interconnection Customer” means a person or an entity with one or more Small Generator Facilities that is interconnected to an Electric Utility in accordance with these rules.
- (18) “Interconnection equipment” means a group of components or an integrated system provided by the interconnection customer to connect a Small Generator Facility to a Electric Utility’s EDS, including all interface equipment such as switchgear, protective devices, inverters, or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.
- (19) “Interconnection Facilities” means the facilities and equipment required by the Electric Utility to accommodate the interconnection of a Small Generator Facility to the Electric Utility’s EDS and used exclusively to interconnect a specific Small Generator Facility. Interconnection facilities do not include system upgrades that may benefit the Electric Utility, other customers (including other interconnection customers), or an owner of an affected system.
- (20) “Interconnection Facilities Study” means a study conducted by a Electric Utility or a third-party consultant retained by the Electric Utility or the Applicant that determines the additional Interconnection Facilities and System Upgrades required to interconnect the Small Generator Facility to the Electric Utility’s EDS, the cost of the facilities and upgrades, and the time required to complete the interconnection.
- (21) “Interconnection Facilities Study Agreement” means a contract between the Applicant and the interconnecting Electric Utility that provides a detailed scope and timeline for the Interconnection Facilities Study and a good faith, non-binding estimate of the costs to perform the study. An Interconnection Facilities Study Agreement will follow the Electric Utility’s standard form on file with the Commission.
- (22) “Interconnection Feasibility Study” means a preliminary evaluation of the system impact and cost of interconnecting the Small Generator Facility to the Electric Utility’s EDS.
- (23) “Interconnection Feasibility Study Agreement” means a contract between the applicant and the interconnecting Electric Utility that provides a scope, timeline and a good faith, non-binding estimate of the costs for the Electric Utility to conduct an Interconnection Feasibility Study for the Applicant. An Interconnection Feasibility Study Agreement will follow the Electric Utility’s standard form agreement on file with the Commission.
- (24) “Interconnection Service” means service to an electric customer under which an on site generating facility on a customer’s premises shall be connected to the local distribution facilities and is the same meaning set forth in 16 U.S.C. 2621(d)(15).
- (25) “Interconnection System Impact Study” means an engineering study performed by the, Electric Utility that evaluates the impact of the proposed interconnection on the

safety and reliability of the EDS. The study focuses on the Adverse System Impacts identified in the Interconnection Feasibility Study and other potential impacts including those identified in the Scoping Meeting.

- (26) “Interconnection System Impact Study Agreement” means a contract between the Applicant and the interconnecting Electric Utility that provides a statement of scope, timeline and a good faith, non-binding estimate of cost to conduct an Interconnection System Impact Study. An interconnection system impact study agreement will follow the standard form agreement on file with the Commission.
- (27) “Lab Tested Equipment” means the Interconnection Equipment which has been tested by the original equipment manufacturer in accordance IEEE 1547.1 and found to be in compliance with the appropriate codes and standards referenced therein and is labeled and listed by a Nationally Recognized Testing Laboratory (NRTL). For interconnection equipment to gain status as Lab Tested Equipment, its use must fall within the use or uses for which the interconnection equipment is labeled and listed by the NRTL; and the generator or other electric source being utilized must be compatible with the interconnection equipment and consistent with the testing and listing specified for the type of interconnection equipment.
- (28) “Line Section” means that portion of a Electric Utility’s EDS connected to an Interconnection Customer and bounded by automatic sectionalizing devices or the end of the distribution line.
- (29) “Minor Equipment Modification” means a change to the proposed Small Generator Facility, the output capacity of the facility, or the proposed interconnection equipment that:
  - (a) Does not affect the application of the screening criteria in Tiers 1, 2, or 3;
  - (b) In the Electric Utility’s reasonable opinion, does not have a material impact on safety or reliability of the Electric Utility’s EDS or an Affected System; and
  - (c) Does not include a change in the Electric Nameplate Capacity of an existing Small Generator Facility.
- (30) “Nationally Recognized Testing Laboratory” or “NRTL” means a qualified private organization that performs independent safety testing and product certification. Each NRTL must meet the requirements as set forth by OSHA for a NRTL program.
- (31) “Parallel Operation” or “Parallel” means a Small Generator Facility is connected electrically to a EDS and the potential exists for electricity to flow from the Small Generator Facility to the EDS or for the Small Generator Facility and the EDS to simultaneously feed the same load.
- (32) “Pending Completed Applications” means applications for interconnection of other Small Generator Facilities, or FERC wholesale generators that the Electric Utility

has deemed completed, but has not yet reviewed or approved pursuant to applicable procedures.

- (33) “Point of Interconnection” means the point where the Small Generator Facility is electrically connected to the Electric Utility’s EDS. This term has the same meaning as “point of common coupling” as defined in IEEE Standard 1547, section 3.1.13.
- (34) “Primary Line” is a term that describes a distribution line with an operating voltage greater than 480 volts.
- (35) “Queue Position” means the order of a completed Application, relative to all other pending completed Applications, that is established based upon the date and time of the, interconnecting Electric Utility’s receipt of the completed Applications including application fees.
- (36) “Scoping Meeting” means an initial meeting between representatives of the Applicant and the interconnection Electric Utility that is conducted for the purpose of discussing alternative interconnection options, to exchange information, including any EDS data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, or to determine the potentially feasible Points of Interconnection.
- (37) “Secondary Line” is a term used to describe a service line subsequent to the Electric Utility’s primary line that has an operating voltage of 408 volts or less.
- (38) “Small Generator Facility” means a facility for the production of electrical energy that has an electric nameplate capacity of 10 MW or less and can operate in parallel with a Electric Utility’s EDS.
- (39) “Spot Network” means a type of electric EDS that uses two or more inter-tied transformers protected by network protectors to supply an electrical network circuit. A spot network may be used to supply power to a single customer or a small group of customers.
- (40) “System Upgrades” means additions or modifications to the interconnecting Electric Utility’s EDS or to an Affected System that are required to accommodate the proposed interconnection. System upgrades do not include Interconnection Facilities.
- (41) “Transmission Line” is any line owned by the Electric Utility and controlled or operated by a Regional Transmission Organization and defined by using guidelines established by FERC and/or the state Commission, which are not part of the Electric Utilities’ Distribution System or any Generation System.
- (42) “Witness Test” means the on-site visual verification of the interconnection installation and commissioning as required in IEEE standard 1547 Sections 5.3 and 5.4. For interconnection equipment that does not meet the definition of Lab Tested Equipment, the Witness Test may, at the discretion of the Electric Utility, also include

a system design and production evaluation according to IEEE standard 1547 Sections 5.1 and 5.2 as applicable to the specific interconnection system technology employed.

- (43) “Written Notice” means a required notice sent by the Electric Utility or Applicant via electronic mail, if electronic mail addresses are provided. If any Party has not provided an electronic mail address, or has requested in writing to be notified by United States Mail, or a Party elects to provide Written Notice by United States mail, then written notices from the Party shall be sent via First Class United States mail. A Party will be deemed to have fulfilled its duty to respond under these rules on the day it sends the Written Notice via electronic mail or deposits such notice in First Class mail. Each Party will be responsible for informing other Parties of any change in its notification address.

#### **20:10:36:04 General Interconnection Provisions - Application**

A Party wishing to interconnect, make a capacity change or change the status of a proposed or operating facility, for example from FERC wholesale generator to a Small Generator Facility must submit an Application to the Electric Utility that owns and operates the EDS to which interconnection is sought. Each Electric Utility must review all Interconnection Requests duly submitted to the Electric Utility at their authorized mailing address.

#### **20:10:36:05 General Interconnection Provisions – Commissioning and Operation Notice**

The Applicant shall provide commissioning notice, or notice of intent to begin operations of a Small Generation Facility to the Electric Utility according to the schedule below:

- (1) A Tier 1 Application shall provide 10 business days notice
- (2) A Tier 2 Application shall provide 20 business days notice
- (3) A Tier 3 and Tier 4 Application shall provide 20 business days notice.

#### **20:10:36:06 Application Fees**

A non-refundable application processing fee is required for all Applications. The amount of the fee is dependent upon the review Tier requested in the application and is intended to cover reasonable costs for processing, minor study and evaluation of the application. Applications requiring detailed studies and engineering evaluations may incur costs that are not covered by the application fee. Before any costs above the application fee are assessed, the Applicant must authorize the Electric Utility to continue by assuming responsibility for the additional costs, or the application will be deemed withdrawn and the original application fee forfeited.

The application fees are as follows:

- (1) Tier 1: \$50 (Fifty Dollars)
- (2) Tier 2: \$50 (Fifty Dollars) plus \$1 (One Dollar) per KW of rated generation output up to a maximum of \$500 (Five Hundred Dollars)

- (3) Tier 3: \$100 (One Hundred Dollars) plus \$2 (Two Dollars) per KW of rated generation output up to a maximum of \$1,000 (One Thousand Dollars)
- (4) Tier 4: \$100 (One Hundred Dollars) plus \$2 (Two Dollars) per KW of rated generation output up to a maximum of \$1,000 (One Thousand Dollars)

Should an Applicant fail to receive approval at one review Tier and make a subsequent application for the same facility at a different Tier within the time frame for preserving the queue position, the original application fee and any other fees paid in conjunction with the original application will be applied to the fees for the updated application. By mutual agreement, the review process can move directly to the next tier without filing a separate formal application.

#### **20:10:36:07 Interconnection – General Requirements**

- (1) Term: Interconnection of a Small Generator Facility is deemed to be in effect for a period of up to 20 years at the Applicant's option, unless terminated earlier by the default or voluntary termination by the Interconnection Customer or by action of the Commission. Interconnection Agreements entered in to before the effective date of this Rule will remain in effect until the term of the agreement expires.
- (2) Renewal: The Electric Utility will not unreasonably refuse to grant an expedited review of a request to renew an Interconnection Agreement and may waive all or part of the application fee commiserate with less expenses incurred in renewing the application provided:
  - (a) The facility has not undergone anything other than Minor Equipment Modifications, as determined by the Electric Utility, since the expired agreement was approved, and;
  - (b) Conditions on the EDS are essentially the same as when the agreement was originally approved.
- (3) Aggregating Multiple Generators: If the Interconnection Request is for a Small Generator Facility that includes multiple Small Generator Facilities at a site for which the Applicant seeks a single Point of Interconnection, the Application must be evaluated for the purposes of the interconnection on the basis of the aggregate Electric Nameplate Capacity of the multiple Small Generator Facilities.
- (5) Point of Contact: The Electric Utility must designate a contact person from whom information on the Application process and about the Electric Utility's EDS may be obtained. Such information must include studies and other materials useful to an understanding of the feasibility of interconnecting a Small Generator Facility at a particular point on the Electric Utility's EDS, except to the extent providing such materials would violate security requirements, confidentiality obligations or be contrary to state or federal regulations. The Electric Utility must comply with reasonable requests for access to or copies of such studies, subject to any confidentiality agreements as may be required to protect the confidential or proprietary information interests of the Electric Utility or third parties.

- (7) **Modifications:** Once an Application received by the Electric Utility and a queue position assigned, any modification to the application, other than a Minor Equipment Modification, requires that a new Application be submitted and the original Queue Position be relinquished. If, after an Interconnection Agreement has been entered, the Interconnection Customer desired to modify the Small Generator Facility, other than a Minor Equipment Modification, a new Application must be submitted and approved before the proposed modifications can take place.
- (8) **Site Control:** Documentation of site control must be available and, if the Applicant is not currently a customer of the Electric Utility, provided with the Application. Site control may be demonstrated through ownership of, a leasehold interest in, or an option or other right to develop a site for the purpose of constructing the Small Generator Facility. Site control may be documented by a property tax bill, deed, a lease agreement or other legally binding contract.
- (9) **Right of Access:** The Electric Utility must have access to the Applicant's premises for any reasonable purpose in connection with the Interconnection Application any Interconnection Agreement or if necessary to meet the legal obligation to provide service to its customers. Access must be requested at reasonable hours and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition.
- (10) **Multiple Interconnections:** The Electric Utility may propose to interconnect more than one Small Generator Facility at a single Point of Interconnection in order to minimize costs, and must not unreasonably refuse a request to do so. However, an Applicant or an Interconnection Customer may elect to pay the entire cost of separate Interconnection Facilities.

#### **20:10:36:08 Isolation Device**

Small Generator Facilities qualifying for interconnection under Tier 2, Tier 3 or Tier 4 interconnection review procedures must be capable of being isolated from the Electric Utility. The meter base may serve as the required isolation device, provided it is readily accessible to the Electric Utility for those Small Generator Facilities qualifying for Tier 1 interconnection review procedures.

When isolation is required, Small Generation Facilities shall do so in one of the following ways:

- (1) For Small Generator Facilities interconnecting to a Primary Line, the isolation must be by means of a lockable, visible-break isolation device readily accessible by the Electric Utility.
- (2) For Small Generator Facilities interconnecting to a Secondary Line, the isolation must be by means of a lockable isolation device whose status is clearly indicated and is readily accessible by the Electric Utility.
- (3) All other interconnection isolation devices must be installed, owned, and maintained by the owner of the Small Generator Facility and be capable of interrupting the full

load of the Small Generator Facility and must be located between the Small Generator Facility and the Point of Interconnection.

Alternatively, the Applicant or Interconnection Customer may elect to provide the Electric Utility access to an isolation device that is contained in a building or area that may be unoccupied and locked or not otherwise readily accessible to the Electric Utility, by providing a lockbox capable of accepting a lock provided by the Electric Utility that will provide ready access to the isolation device. The Applicant or Interconnection Customer must affix a placard in a location acceptable to the Electric Utility that provides clear instructions to its operating personnel on how to gain access to the isolation device.

#### **20:10:36:09 Technical Standard**

The technical standard to be used in evaluating all Applications shall be IEEE 1547. Should a Electric Utility wish to utilize other standards in addition to IEEE standard 1547, it may do so only after seeking and being granted a waiver from the Commission to do so.

The Applicant must construct, own, operate, and maintain its Small Generator Facility and associated Interconnection Facilities in accordance with the provisions of IEEE Standard 1547, the safety standards required there in and with reasonable safety and reliability standards required by the Commission.

#### **20:10:36:10 Cost Responsibility**

- (1) **General Study Costs:** Whenever additional studies are required, the Applicant must pay the additional study costs above what is covered by the initial application fee. Study costs must be based on the scope of work determined and documented in the Feasibility, Facilities and System Impact study agreements based on the estimated hours needed to complete the evaluation using an engineering cost of \$100 per hour.
- (2) **Minor EDS Modifications:** Modifications to the existing EDS identified by the Electric Utility under a Tier 2 or Tier 3 review; such as changing meters, fuses, or relay settings; are deemed Minor EDS Modifications. It is at the Electric Utility's sole discretion to decide what constitutes a Minor EDS Modification. The Applicant must bare the costs of making such Minor EDS Modifications as may be necessary to gain approval from the Electric Utility.
- (3) **Interconnection Facilities:** The Electric Utility must identify under the review procedures of a Tier 2 review or under a Tier 4 Facilities Study, the Interconnection Facilities necessary to safely interconnect the Small Generator Facility with the Electric Utility. The Electric Utility must itemize the Interconnection Facilities for the Applicant including the cost of the facilities and the time required to build and install those facilities. The Interconnection Customer is responsible for the cost of the Interconnection Facilities.
- (4) **Interconnection Equipment:** The Interconnection Customer is responsible for all expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its Interconnection Equipment.

- (5) **System Upgrades:** The Electric Utility must design, procure, construct, install, and own any System Upgrades. The actual cost of the System Upgrades, including overheads, is directly assigned to the Applicant.
- (6) **Adverse System Impact:** The Electric Utility is responsible for identifying Adverse System Impacts on any Affected Systems and for determining what mitigation activities or upgrades may be required to accommodate a Small Generator Facility. The actual cost of any actions taken to address the Adverse System Impacts, including overheads, is the responsibility of the Applicant who may be entitled to financial compensation from other Electric Utility's, or other Interconnection Customers who, in the future, utilize the upgrades paid for by the Applicant, only to the extent as may be provided for by the Commission.
- (7) **Cost Study Deposit:** The Electric Utility may require a deposit of not more than 50% percent of the cost estimate for all studies. The deposit shall not, however, exceed \$1,000 for Small Generator Facilities proposing to interconnect 2MW or less. The deposit shall be paid in advance by the Applicant for studies necessary to complete an interconnection to the EDS.
- (8) **Interconnection Facilities Deposit:** The Electric Utility may require a deposit of no more than 25% of the estimated costs for Interconnection Facilities necessary to complete an interconnection to the EDS. The deposit shall not, however, exceed \$10,000 for Small Generator Facilities proposing to interconnect 2MW or less. The deposit shall be paid in advance by the Applicant for facilities necessary to complete an interconnection to the EDS.
- (9) **Billing and Payment:** Progress billing, final billing and payment schedules shall be agreed to by Parties prior to commencing work.

#### **20:10:36:11 Insurance**

At a minimum, in connection with the Interconnection Customer's performance of its duties and obligations under the Interconnection Agreement, the Interconnection Customer shall maintain, during the term of the Agreement general liability insurance at the following levels:

- (1) Tier 1: Proof of adequate homeowners, general liability or commercial liability sufficient to insure against all reasonably foreseeable direct liabilities given the size of the Small Generator Facility.
- (2) Tier 2: Proof of insurance up to a maximum of \$500,000 (Five Hundred Thousand Dollars) per Electric Utility request.
- (3) Tier 3 and 4: Proof of insurance up to a maximum of \$1,000,000 (One Million Dollars) per Electric Utility request

Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the

Interconnection Customer's ownership and/or operation of the Small Generator Facility under this agreement.

The general liability insurance required shall, by endorsement to the policy or policies, (a) include the Electric Utility as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that the Electric Utility shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to the Electric Utility prior to cancellation, termination, alteration, or material change of such insurance. If the Small Generator Facility is connected to an account receiving residential service from the Electric Utility and its total generating capacity is 20 KW or smaller, then the endorsements required above shall not apply.

The Interconnection Customer shall furnish the required insurance certificates and endorsements to the Electric Utility prior to the initial operation of the Small Generator Facility. Thereafter, the Electric Utility shall have the right to periodically inspect or obtain a copy of the original policy or policies of insurance

Evidence of the insurance required above shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by the Electric Utility. If the Interconnection Customer is self-insured with an established record of self-insurance, the Interconnection Customer may comply with the following requirements in lieu of those above:

- (1) Interconnection Customer shall provide to the Electric Utility, at least thirty (30) days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 1 - 5.
- (2) If Interconnection Customer ceases to self-insure to the level required hereunder, or if the Interconnection Customer is unable to provide continuing evidence of its ability to self-insure, the Interconnection Customer agrees to immediately obtain the coverage otherwise required by this Rule.

#### **20:10:36:12 Witness Test**

The Electric Utility has the option of conducting a Witness Test at a mutually agreeable time within 10 business days of the scheduled commissioning of the Small Generator Facility. If the Electric Utility does not conduct the Witness Test within 10 business days of the scheduled commissioning date, or within the time otherwise mutually agreed upon by the parties, or if the Electric Utility notifies the Applicant of its intent not to perform the test, the Witness Test is deemed waived.

**Witness Test Not Acceptable:** If the Witness Test is conducted and is not acceptable to the Electric Utility, the Applicant must be allowed a period of 30 calendar days to resolve any deficiencies. A request for extension may not be unreasonably denied by the Electric Utility. The Parties may mutually agree to extend the time period for resolving any deficiencies. If the

Applicant fails to resolve the deficiencies to the satisfaction of the Electric Utility within the agreed upon time period, the Application is deemed withdrawn.

#### **20:10:36:13 Tier 1 Interconnection**

The Electric Utility must use the Tier 1 review procedures for a Small Generator Facility Application that: is inverter-based; has an Electric Nameplate Capacity of 10 KW or less; is proposing Lab Tested Equipment only; and, the proposed Point of Interconnection is not to a Transmission Line.

An Electric Utility may not impose additional requirements to a Tier 1 interconnection Application.

#### **20:10:36:14 Tier 1 Interconnection Evaluation and Screening Criteria**

For interconnection of a proposed Small Generator Facility to a radial distribution circuit, the aggregated generation, which includes the proposed Small Generator Facility, FERC wholesale generators and FERC wholesale generators with a higher Queue Position, must not exceed 15 percent of the Line Section annual peak load as most recently measured at the sub-station or calculated for the Line Section.

For interconnection of a proposed Small Generator Facility to the load side of Spot Network protectors, the proposed Small Generator Facility and the aggregated other generation and applications with a higher Queue Position must not exceed the lesser of five percent of a Spot Network's maximum load or 50 KW.

If the proposed Small Generator Facility is to be interconnected on a single-phase shared secondary service line, the aggregate generation capacity on the shared secondary, which includes the proposed Small Generator Facility and applications with a higher Queue Position, must not exceed 20 KW.

If the proposed Small Generator Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition must not create a current imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.

The proposed interconnection must use existing Electric Utility facilities.

#### **20:10:36:15 Tier 1 Interconnection Review Procedure**

- (1) The Applicant must submit its Application and appropriate fees to the Electric Utility at its designated address. Application forms are on file with the Commission.
- (2) The Electric Utility must, within 3 Business Days of receipt of the Application provide written acknowledgement of receipt and the start date of the 10 completeness review and, then, within 10 business days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the application is incomplete, the Electric Utility must indicate missing information. In the event the

Applicant does not receive notification, the Applicant may contact the Electric Utility to determine the status of the Application. If the Electric Utility notified the Applicant that the Application is incomplete, the Applicant must provide the required information within 10 business days or the Application is deemed to be withdrawn.

- (3) If the Electric Utility does not have a record of receipt of the Application, the Applicant must provide the Electric Utility with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the Electric Utility, the Electric Utility must forgo the initial 10 business day response period and complete its review within 15 business days.
- (4) Once the Electric Utility deems the Application to be complete, it must assign the project a Queue Position. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant screening criteria. The Applicant must proceed under the timeframes of this section. The Electric Utility must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to FERC wholesale generator Interconnection Applications on the same radial line or Spot Network to which the Applicant is seeking interconnection.
- (5) If, in the process of evaluating a completed Application, the Electric Utility determines that supplemental or clarifying information is required, the Electric Utility must request the information from the Applicant. The time required for the receipt of the additional information may extend the time necessary to complete the evaluation, but only to the extent of the time required for the receipt of the additional information. The Electric Utility may not alter the Applicant's Queue Position.
- (6) The Public Utilities review of the application must be completed within 15 business days from the date the Application is deemed complete. The Electric Utility must notify the Applicant whether the Small Generator Facility meets the screening criteria.

#### **20:10:36:16 Tier 1 Application Completion**

The interconnection process shall be deemed complete when:

- (1) The Application has passed the Tier 1 screening criteria;
- (2) The Small Generator Facility installation is approved by the electric code inspector with jurisdiction over the interconnection;
- (3) The Witness Test, if conducted by the Electric Utility, is successful; and
- (4) The Parties execute a Certificate of Completion.

#### **20:10:36:17 Tier 1 Application Denial**

If the Small Generator Facility is not approved under a Tier 1 review, the Applicant may submit a new Application, including the difference in the application fee or deposit, for consideration under Tier 2, Tier 3 or Tier 4 procedures without losing its original Queue Position if the new Application is submitted within 15 business days of notice that the original Application was not approved. If requested, the Electric Utility must provide a written explanation of why the Application was not approved.

### **20:10:36:18 Tier 2 Interconnection**

The Electric Utility must use the Tier 2 review procedures for an Application where in the Small Generator Facility does not qualify for Tier 1 review and has an Electric Nameplate Capacity of 2 MW or less; proposes interconnection to either a radial distribution circuit, or a Spot Network distribution circuit limited to serving one premise; and the Interconnection Equipment is either Lab Tested Equipment or Field Tested Equipment.

Electric Utility may not impose additional requirements not specifically authorized

### **20:10:36:19 Tier 2 Interconnection Evaluation and Screening Criteria**

- (1) Interconnection to a Radial distribution circuit: aggregated generation, which includes the proposed Small Generator Facility and FERC wholesale generators and FERC wholesale generators with a higher Queue Position, on the circuit must not exceed 15 percent of the Line Section annual peak load as most recently measured at the substation or calculated for the Line Section.
- (2) Interconnection to the load side of Spot Network protectors: the aggregated other generation which includes the proposed Small Generator Facility and FERC wholesale generators and FERC wholesale generators with a higher Queue Position must not exceed the lesser of five percent of a Spot Network's maximum load or 50 KW.
- (3) General aggregate generation considerations:
  - (a) The Small Generator Facility, in aggregation with other generation on the distribution circuit, must not contribute more than ten percent to the distribution circuit's maximum Fault Current at the point on the primary voltage distribution line nearest the Point of Interconnection.
  - (b) The Small Generator Facility, in aggregate with other generation and existing FERC wholesale generators and FERC wholesale generators with a higher Queue Position, on the distribution circuit, must not cause any distribution protective devices and equipment (including, but not limited, to substation breakers, fuse cutouts, and line reclosers), or other Electric Utility equipment on the EDS to be exposed to Fault Currents exceeding 90 percent of the short circuit interrupting capability; and the Small Generator Facility's Point of Interconnection must not be located on a circuit that already exceeds 90 percent of the short circuit interrupting capability.

- (c) The Small Generator Facility, in aggregate with other generation and existing FERC wholesale generators and FERC wholesale generators with a higher Queue Position, interconnected to the distribution side of a substation transformer feeding the circuit where the Small Generator Facility proposes to interconnect, must not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four distribution busses from the point of interconnection).
  - (d) The Small Generator Facility, in aggregate with existing FERC wholesale generators and FERC wholesale generators with a higher Queue Position, and exiting transmission loads must not cause a transmission system circuit to exceed its design capacity on the transmission system circuit directly connected to the distribution circuit where the interconnection is proposed.
  - (e) If the Small Generator Facility is to be interconnected on single-phase shared service line on the EDS, the aggregate generation capacity on the shared secondary line, including the proposed Small Generator Facility, must not exceed 20 KW.
- (4) If the proposed Small Generator Facility interconnection is to a Primary Line on the distribution system, the interconnection must be done according to the screening criteria below depending on the type of electrical service provided by the Electric Utility.
- (a) If the Small Generator Facility is 3-phase or single-phase and is to be connected to a 3-phase 3 wire Primary Line, it must be connected phase-to-phase.
  - (b) If the Small Generator Facility is 3-phase or single-phase and is to be connected to a 3-phase 4-wire Primary Line, it must be connected line to neutral and effectively grounded.
- (5) If the proposed Small Generator Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition must not create a current imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.
- (6) The proposed Small Generator Facility's Point of Interconnection must not be on a Transmission Line
- (7) If the Electric Utility's distribution circuit utilizes high speed reclosing with less than 2 seconds of interruption then the proposed generator must not be a synchronous machine.

- (1) The Applicant must submit its Application and appropriate fees to the Electric Utility at its designated address. Application forms are on file with the Commission. If available and not confidentially filed, the Applicant may request the Electric Utility provide it with previously approved interconnection applications to facilitate obtaining Field Tested status. The Electric Utility may charge a nominal processing fee but may not unreasonably refuse to provide such information if requested.
- (2) The Electric Utility must, within 3 Business Days of receipt of the Application, provide written acknowledgement of receipt and the start date of the 10 completeness review and, then, within 10 business days of receipt of the Application, inform the Applicant the Application is either complete or incomplete. If the application is incomplete, the Electric Utility must indicate missing information. In the event the Applicant does not receive notification, the Applicant may contact the Electric Utility to determine the status of the Application.
- (3) If the Electric Utility does not have a record of receipt of the Application, the Applicant must provide the Electric Utility with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the Electric Utility, the Electric Utility must forgo the initial 10 business day response period and complete its review within 20 business days of its receipt.
- (4) **Queuing Priority:** Once the Electric Utility deems the Application to be complete, it must assign the project a Queue Position. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant screening criteria. The Parties must proceed under the timeframes of this section to maintain queue position. The Electric Utility must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, FERC Interconnection Applications on the same radial line or Spot Network to which the Applicant is seeking to interconnect.
- (5) **Initial Review:** Within 20 business days after the Electric Utility notifies the Applicant that it has received a completed Interconnection Request, or within a time period mutually agreed to by Parties, the Electric Utility must:
  - (a) Evaluate the Application using the Tier 2 Evaluation and Screening Criteria and;
  - (a) Review any independent analysis that may be provided by the Applicant using the same criteria, and;
  - (b) Provide the Applicant the results of its review, including a comparison of these results and the independent analysis provided by the Applicant if applicable.
- (6) The Electric Utility must request supplemental or clarifying information if necessary in the process of evaluating the completed Application. The time required for the receipt of the additional information may extend the time necessary to complete the

review, but only to the extent of the time required for the receipt of the additional information. The Electric Utility may not alter the Applicant's Queue Position.

- (7) If the Small Generator Facility fails to meet one or more of the Tier 2 screening criteria, but, the, Electric Utility determines that the Small Generator Facility could be interconnected safely if minor modifications to the EDS (for example, changing meters, fuses, or relay settings) were made; it must offer the Applicant a non-binding, good faith estimate of the costs of such proposed minor modifications and proceed with the minor modifications if authorized by the Applicant.
- (10) The Application initially fails one or more of the Tier 2 screening criteria but the Electric Utility determines that the Small Generator Facility passes the screens and can be interconnected safely and reliably after making the modifications described in Subsection 0, and the Electric Utility has received authorization from the Applicant to implement the minor modifications.

#### **20:10:36:21 Tier 2 Application Completion**

The interconnection process shall be deemed complete when:

- (1) All Tier 2 screening criteria are satisfied and any minor EDS modifications, are implemented and;
- (2) The Small Generator Facility installation is approved by electric code inspector with jurisdiction over the interconnection and;
- (3) The Witness Test, if conducted by the Electric Utility, is successful and;
- (4) The Parties execute a Certificate of Completion.

#### **20:10:36:22 Tier 2 Application Denial**

If the Small Generator Facility is not approved, the Applicant may submit a new Application including the difference in the application fee or deposit, for consideration under Tier 3 or Tier 4 procedures without losing its original Queue Position provided the new Application is submitted within 15 business days of notice that the Application was not approved. If requested, the Electric Utility must provide a written explanation of why the Application was not approved.

#### **20:10:36:23 Tier 3 Interconnection**

The Electric Utility must use the Tier 3 interconnection review procedures for an Application that does not qualify for Tier 1 or Tier 2 review and meets all the requirements set forth below:

- (1) The Small Generator Facility has an Electric Nameplate Capacity rating of 10 MW or less; and

- (2) The proposed Point of Interconnection is not to a Transmission Line; and
- (3) The Small Generator Facility does not export power beyond the point of interconnection and utilizes low forward power relays or other protection functions that prevent power flow onto the EDS;

**20:10:36:24 Tier 3 Interconnection Screening Criteria**

- (1) A Tier 3 Small Generator Facility meeting all tier 3 evaluation and screening criteria must be further evaluated using Tier 2 Evaluation and Screening Criteria except that the 15 percent, Tier 2 screen shall not apply to Tier 3 Small Generator Facilities.
- (2) Tier 3 interconnections do not require an Interconnection Feasibility Study; however, the Electric Utility may choose to conduct such a study at its own expense, and it must complete the Interconnection Feasibility Study within 25 calendar days.
- (3) For a Small Generator Facility to interconnect to the load side of an Area Network distribution circuit, the following criteria must be met:
  - (a) The Electric Nameplate Capacity of the Small Generator Facility is 50 KW or less;
  - (b) The proposed Small Generator Facility utilizes a Lab Tested, inverter-based equipment package for interconnection;
  - (c) The Small Generator Facility utilizes low forward power relays or other protection functions that prevent power flow on to the Area Network;
  - (d) The aggregated other generation on the Area Network and FERC wholesale generators and FERC wholesale generators with a higher Queue Position,, does not exceed the lesser of 5 percent of an Area Network's maximum load or 50 KW; and
  - (e) The interconnection must use only existing Electric Utility facilities and the Applicant's proposed facilities.

**20:10:36:25 Tier 3 Interconnection Alternate Evaluation and Screening Criteria**

For a Small Generator Facility to interconnect to a distribution circuit that is not networked, the following criteria must be met:

- (1) The Small Generator Facility has an Electric Nameplate Capacity of 10 MW or less and;
- (2) The aggregated total of the Electric Nameplate Capacity of all of the generators on the circuit including existing FERC wholesale generators and FERC wholesale generators with a higher Queue Position, and the proposed Small Generator Facility, is 10 MW or less and;

- (3) The Small Generator Facility does not export power beyond the point of interconnection and employs reverse power relays or other protection functions that prevent power flow onto the EDS and;
- (4) The Small Generator Facility's proposed interconnection must be to a radial distribution circuit and;
- (5) The Small Generator Facility is not served by a shared transformer and;
- (6) The interconnection must use only existing Electric Utility facilities and the Applicant's proposed facilities and;
- (7) If the Electric Utility's distribution circuit utilizes high speed reclosing with less than 2 seconds of interruption the proposed generator must not be a synchronous machine.

**20:10:36:26 Tier 3 Interconnection Review Process**

- (1) The Applicant must submit the appropriate Application on file with the Commission and appropriate fees to the Electric Utility at its designated address.
- (2) The Electric Utility must, within 3 Business Days of receipt of the Application provide written acknowledgement of receipt and the start date of the 10 completeness review and, then, within 10 Business Days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the Application is incomplete, the Electric Utility must indicate the missing information. In the event the Applicant does not receive notification within 10 business days, the Applicant may contact the Electric Utility to determine the status of the Application.
- (3) If the Electric Utility does not have a record of receipt of the Application, the Applicant must provide the Electric Utility with an additional copy of the Application. If the Applicant can demonstrate that the original completed Application was delivered to the Electric Utility, the Electric Utility must forgo the initial 10 business day response period; and complete its review within 20 business days of its receipt.
- (4) **Queuing Priority:** Once the Electric Utility deems the Application to be complete, it must assign the project a Queue Position. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant screening criteria. The Applicant must proceed under the timeframes of this section. The Electric Utility must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, FERC Interconnection Applications on the same radial line or Area Network to which the Applicant is seeking to interconnect.
- (5) Within 20 business days after the Electric Utility notifies the Applicant that it has received a completed Interconnection Request or within a time period mutually agreed to by Parties, the Electric Utility must:

- (a) Evaluate the Application using the Tier 3 screening and;
- (b) Review any independent analysis that may be provided by the Applicant using the same criteria and;
- (c) Provide the Applicant the results of its review, including a comparison of these results and the independent analysis provided by the Applicant (if applicable).
  - (i) If in the process of evaluating the interconnection request, the Electric Utility determines that supplemental or clarifying information is required, the Electric Utility must request the information from the Applicant. The time required for the receipt of the additional information may extend the time necessary to complete the review, but only to the extent of the time required for the receipt of the additional information. The Electric Utility may not alter the Applicant's Queue Position.
  - (ii) If the Small Generator Facility fails to meet one or more of the Tier 3 screening criteria, but the Electric Utility determines that the Small Generator Facility could likely be interconnected safely if minor modifications to the EDS (for example, changing meters, fuses, or relay settings) were made, it must offer the Applicant a non-binding, good faith estimate of the costs of such proposed minor modifications and proceed with the minor modifications if authorized by the Applicant.

**20:10:36:27 Tier 3 Interconnection Approval**

The Electric Utility must approve the Application if the Electric Utility determines that the Application:

- (1) Passes the Tier 3 screening criteria; or
- (2) Fails one or more of the Tier 3 screening criteria, or does not meet every approval requirement, but the Electric Utility determines that the Small Generator Facility can be interconnected safely and reliably after making modifications and the Electric Utility has received authorization from the Applicant to implement the minor modifications.

**20:10:36:28 Tier 3 Interconnection Denial**

If the Small Generator Facility fails to pass the screening criteria or is not approved under a Tier 3 review; then the Electric Utility must provide, at the request of the Applicant, a written justification for denying the Application.

If the Small Generator Facility is not approved under a Tier 3 review, the Applicant may submit a new Application including the difference in the application fee or deposit, for consideration

under Tier 4 review procedures without losing its original Queue Position provided the new Application is submitted within 15 business days of notice that the Application was not approved. Any previous application fee or deposit must be applied toward the Tier 4 application fee.

#### **20:10:36:29 Tier 3 Interconnection Completion**

The application process shall be deemed complete when:

- (1) All Tier 3 screening criteria are satisfied and any minor modifications to the EDS that may have been identified are implemented;
- (2) The Small Generator Facility installation is approved by electric code inspector with jurisdiction over the interconnection;
- (3) There is a successful completion of the Witness Test, if required; and
- (4) The Parties execute a Certificate of Completion.

#### **20:10:36:30 Tier 4 Interconnection**

- (1) The Electric Utility must use the Tier 4 interconnection review procedures for an Application that does not qualify for Tier 1, Tier 2, or Tier 3 review and for which the Small Generator Facility has an Electric Nameplate Capacity that is 10 MW or less.
- (2) The Electric Utility must approve interconnection under the Tier 4 interconnection review procedures. The Electric Utility may not impose additional requirements.
- (3) Jurisdictional Small Generator Facilities rated over 10 MW shall start with the Tier 4 process and modify it as needed by mutual agreement. In addition the over 10 MW technical requirements shall start with the Technical Standards and are modified as needed by mutual agreement.

#### **20:10:36:31 Tier 4 Interconnection Review Procedure**

- (1) The Applicant must submit the appropriate Application on file with the Commission and the application fees to the Electric Utility at its designated address.
- (2) The Electric Utility must, within 3 business days of receipt of the Application provide written acknowledgement of receipt and the start date of the 10 completeness review and, then, within 10 business days of receipt of the Application, inform the Applicant that the Application is either complete or incomplete. If the application is incomplete, the Electric Utility must indicate the missing information.
- (3) If the Electric Utility does not have a record of receipt of the Application, the Applicant must provide the Electric Utility with an additional copy of the Application. If the Applicant can demonstrate that the original completed

Application was delivered to the Electric Utility, the Electric Utility must forgo the initial 10 business day response period and complete its review within 30 business days of its receipt.

- (4) **Queuing Priority:** Once the Electric Utility deems the Application to be complete, it must assign the project a Queue Position unless a queue position was already assigned under a previous lower-Tier Application that was not approved. The Queue Position of each Application is used to determine any potential Adverse System Impacts of the proposed Small Generator Facility based on the relevant data contained in the Application, the outcomes of the various studies and the Applicant's desired interconnection location.
- (5) If in the process of evaluating the completed Application, the Electric Utility determines supplemental or clarifying information is required, the Electric Utility must request the information. The time required for the receipt of the additional information may extend the time before the Scoping Meeting can be convened but only to the extent of the time required for the receipt of the additional information. The Electric Utility may not alter the Applicant's Queue Position. Supplemental or clarifying information can be provided in the Scoping Meeting.

#### **20:10:36:32 Tier 4 Interconnection - Scoping Meeting**

- (1) The Electric Utility must schedule a Scoping Meeting to notify the Applicant about other higher-queued Applications including, but not limited to, FERC Interconnection Application on the same radial line or Area Network to which the Applicant is seeking to interconnect.
- (2) The meeting shall be held within 10 business days after the Electric Utility has notified the Applicant that the Application is deemed complete. The purpose of the meeting is to review the Application including any existing studies relevant to the Application, (such as the results from the Tier 1, Tier 2 or Tier 3 screening criteria and studies or, if available, the Applicant's analysis of the proposed interconnection using the same criteria as the Electric Utility applies to the Application). Parties are expected to bring to the Scoping Meeting such personnel, including system engineers and other resources, as may be reasonably required to accomplish the purpose of the meeting. The Applicant shall maintain the assigned queue position regardless of the outcome of the Scoping Meeting so long as the additions or changes to the Application can be rectified within a 10 business day window, or a period mutually agreed upon by parties, from the date of notification. This meeting or any relevant time frames may be waived upon mutual agreement.
- (3) The Scoping Meeting should demonstrate or identify:
  - (a) The need for further studies and a mutually agreeable study timeline based on the Electric Utility resources and work load;

- (b) Possible changes or modifications to the Application to facilitate the interconnection or reduce costs; or
  - (c) No changes are necessary and the Electric Utility may proceed with the Application without further studies.
- (4) If the Parties agree at the Scoping Meeting that a Study must be performed, the Electric Utility shall provide the appropriate Study Agreement to the Applicant. The Agreement shall specify the study scope, a good faith, non-binding estimate of the cost to perform the study and any study deposit. The Applicant shall return an executed copy of the Study Agreement along with the required study deposit within 60 calendar days of receipt of the Agreement, or as mutually agreed by the Parties. Failure to return a signed contract shall be considered withdrawal of the Application.

#### **20:10:36:33 Tier 4 Interconnection - Feasibility Study**

Upon receipt of the appropriately executed Agreement and deposit, the Electric Utility shall commence the Interconnection Feasibility Study. The study shall be completed within the timeline agreed to between the parties at the Scoping Meeting. The study shall evaluate the effects of the proposed Small Generator Facility on the existing Electric Utility and look for possible Adverse System Impacts. Feasibility Study results may include:

- (a) Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- (b) Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
- (c) Initial review of grounding requirements and system protection; and
- (d) Description and estimated cost of Interconnection Facilities and System Upgrades required to interconnect the Small Generator Facility to the Electric Utility in a safe and reliable manner.

If the Applicant asks that the Interconnection Feasibility Study evaluate multiple potential points of interconnection, the Electric Utility will perform the additional evaluations at the Applicant's expense.

The Interconnection Facility Study report shall, at a minimum:

- (a) State the underlying assumptions of the study,
- (b) Show the results of the analyses, and
- (c) Identify any possible Adverse System Impacts or other potential impact.

If the Interconnection Feasibility Study identifies possible Adverse System Impacts caused by the Small Generator Facility, an Interconnection System Impact Study will be required.

The Electric Utility shall contact the Applicant to schedule an optional Interconnection Feasibility Study results meeting to review the Feasibility Study report and discuss the identified possible Adverse System Impacts along with any other potential impacts. The Parties may also mutually agree to adjust the study timeline determined at the Scoping Meeting based upon the Interconnection Feasibility Study results.

#### **20:10:36:34 Tier 4 Interconnection - Interconnection System Impact Study Agreement**

Within 15 business days of the Applicants receipt of the Feasibility Study results, the Electric Utility shall, if necessary, provide the Applicant with an Interconnection System Impact Study Agreement. The Agreement shall specify an outline of the study scope, a good faith, non-binding estimate of the cost to perform the study and any required study deposit. The Applicant shall return an executed copy of the Interconnection System Impact Study Agreement along with the required study deposit within 60 calendar days of receipt of the Agreement, or as mutually agreed to by the Parties, or the Application shall be deemed withdrawn. A Interconnection System Impact Study Agreement is on file with the Commission.

The Electric Utility shall commence the Interconnection System Impact Study upon receipt of an executed Interconnection System Impact Study Agreement and study deposit. The study shall be completed within timeline agreed to between the parties at the Scoping Meeting or Interconnection Feasibility Study results meeting. The study must evaluate the Adverse System Impacts identified in the Interconnection Feasibility Study, and study other potential impacts including, but not limited to, those identified in the Feasibility Study results meeting or Scoping Meeting.

The study shall consider all generating facilities that, on the date the Interconnection System Impact Study is commenced:

- (1) Are directly interconnected with the Electric Utility's system or;
- (2) Have a pending higher Queue Position to interconnect to the system; or;
- (3) Have a signed Interconnection Agreement.

The study shall at a minimum include:

- (1) A short circuit analysis,
- (2) A stability analysis,
- (3) A power flow analysis,
- (4) Voltage drop and flicker studies,
- (5) Protection and set point coordination studies, and

- (6) Grounding reviews.

The Interconnection System Impact Study report shall:

- (1) State the underlying assumptions of the study,
- (2) Show the results of the analyses, and
- (3) Identify any Interconnection Facilities and System Upgrades required to allow the proposed interconnection to occur, and
- (4) A good faith, non-binding estimate of the identified Interconnection Facilities and System Upgrades and an estimated delivery schedule.
- (5) If the Applicant sponsored a separate independent system impact study, the Electric Utility must also evaluate and address any alternative findings from that study at the Applicants expense.

If Interconnection Facilities or System Upgrades are found to be necessary in the System Impact Study, a Facilities Study will be required.

The Electric Utility shall contact the Applicant to schedule an optional Interconnection System Impact Study results meeting to review the Interconnection System Impact Study report and discuss the identified Interconnection Facilities and System Upgrades. The Parties may also mutually agree to adjust the study timeline determined at the Scoping Meeting based upon the Interconnection System Impact Study results.

#### **20:10:36:35 Tier 4 Interconnection - Interconnection Facilities Study Agreement**

Within 15 business days from the Applicant's receipt of the Interconnection Systems Impact Study results the Electric Utility shall provide the Applicant with an Interconnection Facilities Study Agreement if applicable. The Facilities Study agreement shall specifies the study scope, a good faith, non-binding estimate of the cost to perform the study and any required study deposit. The Applicant shall return an executed copy of the Interconnection Facilities Study Agreement along with the required study deposit within 60 calendar days of receipt of the Agreement, or as mutually agreed to by the Parties, or the Application shall be deemed withdrawn.. An Interconnection Facilities Study Agreement is on file with the Commission.

The Electric Utility must commence the Interconnection Facilities Study upon receipt of an executed Interconnection Facilities Study Agreement and study deposit. The study shall be completed within timeline agreed to between the parties at the Scoping Meeting, or Interconnection System Impact Study results meeting.

The Interconnection Facilities Study shall evaluate the cost of equipment, engineering, procurement and construction work (including overheads) needed to implement the

interconnection of the proposed Small Generator Facility as identified in the Scoping Meeting and any completed studies.

The Interconnection Facilities Study shall specify:

- (1) The electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment;
- (2) The nature and estimated cost of the Electric Utility's Interconnection Facilities;
- (3) The nature and estimated cost of System Upgrades; and
- (4) A detailed estimate of the time required to procure materials and equipment and complete the construction and installation of such facilities.

Parties may agree to permit the Applicant to separately arrange for a third party to design and estimate the construction costs for the required Interconnection Facilities. In such a case, the Electric Utility must review the design and cost estimates of the facilities, under the provisions of the Interconnection Facilities Study Agreement. If the Parties agree to separately arrange for design and construction estimates, and comply with any security and confidentiality requirements, the Electric Utility must make all relevant information and required specifications available to the Applicant at no cost in order to permit the Applicant to obtain an independent design and cost estimate for the facilities, to be built in accordance with such specifications.

#### **20:10:36:36 Tier 4 Interconnection - Approval**

Upon completion of the Interconnection Facilities Study and execution of an agreement between the Parties detailing progress billing, final billing, payment schedules and deposit, the Electric Utility shall approve the Application.

#### **20:10:36:37 Tier 4 Interconnection - Denial**

If the Application is denied, the Electric Utility must provide a written explanation explaining why the Application was denied.

#### **20:10:36:38 Tier 4 Interconnection - Completion**

The Interconnection is considered complete when:

- (1) All Interconnection Facilities and System Upgrades are completed and operational;
- (2) The Small Generator Facility installation is inspected and approved by the electric code inspector with jurisdiction over the interconnection;
- (3) There is a successful completion of the Witness Test, if conducted by the Electric Utility;
- (4) The Parties execute a Certificate of Completion; and.

- (5) The Parties execute an Interconnection Agreement.

**20:10:36:39 Recordkeeping Requirements**

The Electric Utility shall keep records relating to all Applications and Small Generator Facilities for a period of 3 (three) years. The Electric Utility shall provide all such records for Commission inspection upon request.

**20:10:36:40 Metering and Monitoring**

**Metering:** The Interconnection Customer is responsible for the cost of the purchase, installation, operation, maintenance, testing, repair, and replacement of any special metering and data acquisition equipment deemed necessary by the terms of the (separate) Power Purchase Agreement except that Tier 1 customers may use existing metering equipment unless the Electric Utility elects to install metering equipment at its expense. The Electric Utility must install, maintain and operate the metering equipment. Parties must be granted unrestricted access to such equipment as may be necessary for the purposes of conducting routine business.

**Monitoring:** Small Generator Facilities approved and interconnected to the Electric Utility under a Tier 1, Tier 2 or Tier 3 Interconnection Application, and under a Tier 4 Interconnection Application, up to an Electric Nameplate Capacity rating of 3 MW, except as noted herein, are not required to provide for remote monitoring of the electric output by the Electric Utility. Tier 4 Interconnection Applications with Electric Nameplate Capacities greater than 3 MW or Tier 3 Interconnection Applications where the aggregated generation on the circuit, including the Applicant's Small Generator Facility, would exceed 50 percent of the line section annual peak load may be required to provide remote monitoring at the Electric Utility's discretion. For Small Generator Facilities required to provide remote monitoring pursuant to provisions this subsection, the data acquisition and transmission to a point where it can be used by the Electric Utility's control system operations must meet the performance based standards. Any data acquisition and telemetry equipment required by this rule must be installed, operated and maintained at the Interconnection Customer's expense.

**20:10:36:41 Temporary Disconnection**

The Electric Utility or Interconnection Customer may temporarily disconnect the Small Generator Facility from its EDS at any time and for as long as reasonably necessary in the event one or more of the following conditions or events occurs:

- (1) Emergency Conditions
  - (a) The Electric Utility or the Interconnection Customer may immediately suspend interconnection service and temporarily disconnect the Small Generator Facility.
  - (b) The Electric Utility must notify the Interconnection Customer as soon as possible when it becomes aware of an emergency condition that may

reasonably be expected to affect the Small Generator Facility operation. The Interconnection Customer must notify the Electric Utility promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the Electric Utility's EDS.

- (c) To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- (2) **Routine Maintenance:** Parties must make reasonable efforts to provide 5 business days notice prior to interruption caused by routine maintenance or construction and repair to the Small Generator Facility or Electric Utility's EDS and must use reasonable efforts to coordinate such interruption.
  - (3) **Forced Outages of the EDS:** the Electric Utility must use reasonable efforts to provide the Interconnection Customer with prior notice of forced outages to effect immediate repairs to the EDS. If prior notice is not given, the Electric Utility must, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.
  - (4) **Adverse Operating Conditions:**
    - (a) If the Electric Utility determines that operation of the Small Generator Facility will likely cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generator Facility could cause damage to the Electric Utility's EDS then the Electric Utility may disconnect the Small Generator Facility under the procedures of this section.
    - (b) The Electric Utility must provide the Interconnection Customer supporting documentation used to reach the decision to disconnect upon request.
    - (c) The Interconnection Customer shall remedy the adverse operating effect as soon as possible. The Electric Utility may withhold interconnection services until the adverse effects are eliminated
  - (5) If the Interconnection Customer makes any change other than Minor Equipment Modifications without prior written authorization of the Electric Utility, the Electric Utility has the right to temporarily disconnect the Small Generator Facility.

#### **20:10:36:42 Termination and Default**

The Interconnection Customer may terminate the Interconnection at any time by giving the Electric Utility 20 business days' written notice.

The Commission may terminate the Interconnection

Upon termination of the Interconnection, any Small Generator Facility Interconnection Equipment must be disconnected from the Electric Utility's EDS at the Interconnection Customer's expense. The termination of the Interconnection does not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

Default: Failure of a Party or Parties to meet the obligations of these rules may constitute Default. Upon a default, the non-defaulting Party must give written notice of such default to the defaulting Party. The defaulting Party has 60 calendar days from receipt of the default notice within which to cure such default. If a default is not capable of being cured within 60 calendar days, the non-defaulting Party has the right to terminate the Interconnection Agreement by written notice.

### **20:10:36:43 Dispute Resolution**

Before filing a Complaint with the Commission, the Electric Utility, Applicant or Interconnection Customer must first provide the other Party and Commission Staff with a written Notice of Dispute (Notice). Such Notice may describe in detail the nature of the dispute and a proposed resolution. Commission Staff may assist the parties in informal resolution if so requested. In the event the parties are unable to resolve the dispute within 30 calendar days or such other period as the Parties may agree upon by mutual agreement, the complaining party may formally file a Complaint with the Commission according to ARSD 20:10:01:08.01.

**Small Generator Facility**  
**Tier 1 Interconnection Request Application Form**  
(Applies to Lab Certified, Inverter-based Small Generator Facilities  
With a Name Plate capacity of 10 KW or less)

**Applicant Contact Information:**

Name \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**System Installer:**

Check if Owner Installed

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Small Generator Facility Information:**

Location (if different from above): \_\_\_\_\_

Electric Utility: \_\_\_\_\_

Account Number (existing Electric Utility customers): \_\_\_\_\_

Proposed Operation Mode      QF       Other

If QF, has Applicant completed FERC "Notice of Self Certification"? Yes       No

Prime Mover Type \_\_\_\_\_

# Tier 1 Interconnection Request Application Form

(continued)

Inverter Manufacturer: \_\_\_\_\_ Model \_\_\_\_\_

Inverter Electric Nameplate Capacity: \_\_\_(KW) \_\_\_ (kVA) \_\_\_

Inverter Electrical Connection: \_\_\_(AC Volts), Phase: Single  or Three  Phase

System Design Capacity: \_\_\_\_\_ (KW) \_\_\_\_\_ (kVA)

Prime Mover:        Photovoltaic  Reciprocating Engine  Fuel Cell

                         Turbine  Other \_\_\_\_\_

Energy Source:        Solar  Wind  Hydro  Diesel  Natural Gas

                         Fuel Oil  Other \_\_\_\_\_

Is the inverter lab certified? Yes  No

(If yes, attach manufacturer's cut sheet showing listing and label information from the appropriate listing authority, e.g. UL 1741 listing. If no, facility does not qualify for Tier 1 consideration. Refer to the PUC rules found in OAR 860, Division 082 for details)

Estimated Commissioning Date: \_\_\_\_\_

Estimated Commissioning Cost: \_\_\_\_\_

Applicant Signature:

I here-by attest that the information submitted on this application is accurate to the best of my knowledge and have included the application fee of \_\_\_\_\_ with my Tier 1 Interconnection Request:

\_\_\_\_\_ (Applicant Signature)

Title: \_\_ Date: \_\_\_\_\_

Application fee (\$50) included:

**Interconnection Request Acknowledgement:**

Receipt of the application and application fee is hereby acknowledged.

Approval for a Tier 1 Small Generator Facility interconnection is contingent upon the Applicant's Small Generator Facility passing the Tier 1 screens and completion of the review process set forth in \_\_\_\_\_ and is not granted by the Electric Utility's signature on this Application Form.

Electric Utility Representative Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed  
Name: \_\_\_\_\_ Title: \_\_\_\_\_

Indicate whether Electric Utility plans to perform Witness Test: Yes  No

**Note:** The Electric Utility shall retain a copy of this completed and signed form and return the original and any attachments to the Applicant.

**Application for Small Generator Facility Interconnection  
Tier 2, Tier 3 or Tier 4 Interconnection  
(For Small Generator Facilities with Electric Nameplate Capacities of 10 MW and  
less)**

**Applicant Contact Information :**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Address of Customer Facility Where Small Generator Facility will be  
Interconnected :**

(if different from above)

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

**System Installer/Consulting Engineer :**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

Facsimile Number: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

**Electric Service Information for Applicant's Facility Where Generator Will Be  
Interconnected :**

Capacity: \_\_\_\_\_(Amps) Voltage: \_\_\_\_\_(Volts)

Type of Service:  Single Phase  Three Phase

If 3 Phase Transformer, Indicate Type:  Wye  Delta

## Tier 2, Tier 3 or Tier 4 Interconnection Application

(cont.)

### **Requested Procedure Under Which to Evaluate Interconnection Request<sup>1</sup> :**

Please indicate below which review procedure applies to the interconnection request.

**Tier 2** - Certified interconnection equipment with an aggregate Electric Nameplate Capacity of 2 MW or less. Indicate type of certification below. The application fee amount is \_\_\_\_\_ (\$50 plus \$1 per KW of rated generation output – max \$500)

**Lab Tested** - tested to IEEE 1547.1 and other specified standards by a nationally recognized testing laboratory and is appropriately labeled.

**Field Tested** – an identical small generator facility has been approved by a South Dakota utility under a Tier 4 study review process within the prior 36 months of the date of this interconnection request.

**Tier 3** – A Small Generator Facility connected to the EDS that does not export power. The Electric Nameplate Capacity rating may be 50 KW or smaller, if connecting to area network or 10 MW or smaller, if connecting to a radial distribution feeder. The application fee amount is \_\_\_\_\_ (\$100 plus \$2 per KW of rated generation output – Max \$1,000)

**Tier 4** – Electric Nameplate Capacity rating is 10 MW or smaller and the Small Generator Facility does not qualify for a Tier 1, Tier 2 or Tier 3 review or has been reviewed but not approved under a Tier 1, Tier 2 or Tier 3 review. Application fee amount is \_\_\_\_\_ (\$100 plus \$2 per KW of rated generation output – Max \$1,000)

### **Field Tested Equipment:**

If the field tested equipment box is checked above, please include with the completed application the following information which will be required for review of Tier 2 field tested small generator facilities:

- A copy of the Certificate of Completion, signed by a South Dakota utility that has approved an identical small generator facility for parallel operation.
- A copy of all documentation submitted to the utility that approved the Small Generator Facility for parallel operation under a Tier 4 study process.
- A written statement by the Applicant indicating that the small generator facility being proposed is identical, except for Minor Equipment Modification, to the one previously approved by a South Dakota utility for parallel operation.
- If a Tier 2 Application, utilizing Field Tested equipment, is proposed the remainder of the application will not be required to be completed.

## Tier 2, Tier 3 or Tier 4 Interconnection Application

(cont.)

### Small Generator Facility Information:

List interconnection components/system(s) to be used in the Small Generation Facility that is lab certified (required for Lab Tested, Tier 2 Interconnection requests only).

Component/System	NRTL Providing Label & Listing
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

*Please provide copies of manufacturer brochures or technical specifications*

### Energy Production Equipment/Inverter Information:

Synchronous     Induction     Inverter     Other \_\_\_\_\_

Electric Nameplate Rating: \_\_\_\_\_ KW    \_\_\_\_\_ kVA

Rated Voltage: \_\_\_\_\_ Volts

Rated Current: \_\_\_\_\_ Amps

System Type Tested (Total System):  Yes     No; (attach product literature)

### For Synchronous Machines:

Manufacturer: \_\_\_\_\_

Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_

Submit copies of the Saturation Curve and the Vee Curve.

Salient     Non-Salient

Torque: \_\_\_\_\_ lb-ft    Rated RPM: \_\_\_\_\_

Field Amperes: \_\_\_\_\_ at rated generator voltage and current and \_\_\_\_\_ % PF over-excited

Type of Exciter: \_\_\_\_\_

Output Power of Exciter: \_\_\_\_\_

Type of Voltage Regulator: \_\_\_\_\_

Locked Rotor Current: \_\_\_\_\_ Amps

Synchronous Speed: \_\_\_\_\_ RPM

Winding Connection: \_\_\_\_\_

## Tier 2, Tier 3 or Tier 4 Interconnection Application

(cont.)

Min. Operating Freq./Time: \_\_\_\_\_

Generator Connection:  Delta  Wye  Wye Grounded

Direct-axis Synchronous Reactance: (Xd) \_\_\_\_\_ ohms

Direct-axis Transient Reactance: (X'd) \_\_\_\_\_ ohms

Direct-axis Sub-transient Reactance: (X''d) \_\_\_\_\_ ohms

### **For Induction Machines:**

Manufacturer: \_\_\_\_\_

Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_

Locked Rotor Current: \_\_\_\_\_ Amps

Rotor Resistance: (Rr) \_\_\_\_\_ ohms Exciting Current: \_\_\_\_\_ Amps

Rotor Reactance: (Xr) \_\_\_\_\_ ohms Reactive Power Required: \_\_\_\_\_

Magnetizing Reactance: (Xm) \_\_\_\_\_ ohms \_\_\_\_\_ VARs (No Load)

Stator Resistance: (Rs) \_\_\_\_\_ ohms \_\_\_\_\_ VARs (Full Load)

Stator Reactance: (Xs) \_\_\_\_\_ ohms

Short Circuit Reactance: (X''d) \_\_\_\_\_ ohms

Phases:  Single  Three-Phase

Frame Size: \_\_\_\_\_ Design Letter: \_\_\_\_\_ Temp. Rise: \_\_\_\_\_ °C.

### **Reverse Power Relay Information: (This section applies to Tier 3 Review Only)**

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Electric Nameplate Capacity rating: (kVA) \_\_\_\_\_

### **Additional Information For Inverter Based Facilities:**

#### **Inverter Information:**

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

Type:  Forced Commutated  Line Commutated

Electric Nameplate Capacity Rated Output: \_\_\_\_\_ Amps \_\_\_\_\_ Volts

\_\_\_\_\_ KW

Efficiency: \_\_\_\_\_ % Power Factor: \_\_\_\_\_ %

## Tier 2, Tier 3 or Tier 4 Interconnection Application

(cont.)

### DC Source / Prime Mover:

Solar     Wind     Hydro     Other \_\_\_\_\_

Electric Nameplate Capacity Rating: \_\_\_\_\_ KW          Rating: \_\_\_\_\_  
kVA

Rated Voltage: \_\_\_\_\_ Volts

Open Circuit Voltage (If applicable): \_\_\_\_\_ Volts

Rated Current: \_\_\_\_\_ Amps

Short Circuit Current (If applicable): \_\_\_\_\_ Amps

### Other Facility Information:

Is Facility a QF? Yes  No

If yes, has Applicant completed FERC "Notice of Self Certification"? Yes  No

One Line Diagram attached:  Yes  No

Plot Plan attached:  Yes  No

Installation Test Plan attached:  Yes  No

Estimated Commissioning Date (if known): \_\_\_\_\_

Applicant Signature:

I hereby certify that all of the information provided in this application request form is correct.

Applicant Signature: \_\_\_\_\_

Title: \_\_ Date: \_\_\_\_\_

An application fee is required before the application can be processed. Please verify that the appropriate fee is included with the application:

Application fee included

Amount \_\_\_\_\_

**Electric Utility Acknowledgement:**

I hereby acknowledge the receipt of a Interconnection Request and Application Fee,

Approval for a Tier 2, Tier 3 or Tier 4 Small Generator Facility interconnection is contingent upon the Applicant's Small Generator Facility passing the screens and completing the review process set forth in \_\_\_\_\_ and is not granted by the Electric Utility's signature on this Application Form.

Electric Utility Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed

Name: \_\_\_\_\_ Title: \_\_\_\_\_

**Note: The Electric Utility shall retain a copy of this completed and signed form and return the original and any attachments to the Applicant.**

**Small Generator Facility Interconnection  
Certificate of Completion Form<sup>1</sup>**

**Applicant Information**

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

E-Mail Address/ Fax number: \_\_\_\_\_

**Installer**

Check if

owner-installed

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (Daytime): \_\_\_\_\_ (Evening): \_\_\_\_\_

E-Mail Address/ Fax number: \_\_\_\_\_

**Final Electric Inspection and Applicant Signature**

The Small Generator Facility is complete and has been approved by the local electric inspector having jurisdiction. A signed copy of the electric inspector's form indicating final approval is attached. The Interconnection Customer acknowledges that the Small Generator Facility is not ready for operation until receipt of the final acceptance and approval by the Electric Utility as provided below.

Signed \_\_\_\_\_ Date \_\_\_\_\_

*(Signature of Applicant)*

**Printed Name:** \_\_\_\_\_

Check if copy of signed electric inspection form is attached

**Acceptance and Final Approval of interconnection installation**

The interconnection installation is approved and the Small Generator Facility is approved for operation under the terms and conditions of the PUC rules and a duly signed and executed Interconnection Agreement:

Electric Utility waives Witness Test? *(Initial)* Yes (\_\_\_\_) No (\_\_\_\_)

If not waived, date of successful Witness Test: \_\_\_\_\_ Passed: *(Initial)* (\_\_\_\_)

Electric Utility Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

<sup>1</sup> The interconnection shall not be deemed complete and ready for operation until the Applicant has complete this form, secured the necessary attachments and signatures and returned a copy to the Electric Utility at the Electric Utility's designated address.

## Interconnection Facilities Study Form Agreement

This agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ (corporation/limited liability company organized and existing under the laws of the State of \_\_\_\_\_, OR an individual) (“Applicant”) and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (Electric Utility). Applicant and Electric Utility each may be referred to as a “Party,” or collectively as the “Parties.”

### Recitals:

**Whereas**, Applicant is proposing to develop a Small Generating Facility or adding generating capacity to an existing Small Generating Facility consistent with the Application completed by the Applicant on \_\_\_\_\_; and

**Whereas**, The Applicant desires to interconnect the Small Generating Facility with the Electric Utility’s EDS;

**Whereas**, The Electric Utility has completed an Interconnection System Impact Study and provided the results of said study to the Applicant; and

**Whereas**, The Applicant has requested the Electric Utility to perform an Interconnection Facilities Study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the Interconnection System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Small Generating Facility to the Electric Utility’s EDS.

**Now, therefore**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. When used in this Agreement, with initial capitalization, the terms specified shall have the meanings given in PUC Rules.
2. Interconnection Customer and Electric Utility shall proceed with an Interconnection Facilities Study consistent with SD Public Utilities Commission Administrative Rules.
3. The Applicant will provide the data requested in Section 2 of this Form. The scope of the Interconnection Facilities Study shall be subject to this data.
4. An Interconnection Facilities Study report (1) shall provide a description, estimated cost of (consistent with Section 2), schedule for required facilities to interconnect the Small Generator Facility to the Electric Utility’s EDS and (2) shall address the short

circuit, instability, and power flow issues identified in the Interconnection System Impact Study.

5. The Electric Utility will may require a 50% study deposit.
6. In cases where no upgrades are required, the Interconnection Facilities Study shall be completed and the results will be transmitted to the Applicant within thirty Calendar Days after this agreement is signed by the Parties.
7. Cost allocation for studies shall be done according to SD Public Utilities Commission Administrative Rules.

In witness whereof, the Parties have caused this agreement to be duly executed by their duly authorized officers or agents on the day and year first above written:

[Insert name of the-Electric Utility]

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title \_\_\_\_\_

[Insert name of the Applicant]

Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Title \_\_\_\_\_

**Section 2 to the Interconnection Facilities Study Agreement**

**Data To Be Provided by Applicant With the Interconnection Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities.

For staged projects, please indicate future generation, distribution circuits, etc. On the one-line diagram, indicate the generation capacity attached at each metering location (Maximum load on CT/PT).

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT), Amps.

One set of metering is required for each generation connection to the new ring bus or existing Electric Utility station.

Number of generation connections: \_\_\_\_\_

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes \_\_\_\_\_ No \_\_\_\_\_.

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?

Yes \_\_\_\_\_ No \_\_\_\_\_ (Please indicate on the one-line diagram).

What type of control system or PLC will be located at the Generating Facility?

\_\_\_\_\_.

What protocol does the control system or PLC use? \_\_\_\_\_.

Please provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, distribution line, and property lines.

Physical dimensions of the proposed interconnection station: \_\_\_\_\_.

Bus length from generation to interconnection station: \_\_\_\_\_.

Line length from interconnection station to the Electric Utility's EDS: \_\_\_\_\_.

Tower number observed in the field. (Painted on tower leg)\*: \_\_\_\_\_.

Number of third party easements required for distribution lines\*: \_\_\_\_\_.\*

**To be completed in coordination with Electric Utility**

Is the Small Generating Facility located in Electric Utility's service area?

Facility Location: \_\_\_\_\_

Yes \_\_\_\_\_ No \_\_\_\_\_

If No, please provide name of local provider:

\_\_\_\_\_

Please provide the following proposed schedule dates:

Begin Construction Date: \_\_\_\_\_

Generator step-up transformers receive back feed power Date: \_\_\_\_\_

Generation Testing Date: \_\_\_\_\_

Commercial Operation Date: \_\_\_\_\_

## Interconnection Feasibility Study Form Agreement

This agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ (corporation/limited liability company organized and existing under the laws of the State of \_\_\_\_\_, OR an individual) ("Applicant") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (Electric Utility). Applicant and Electric Utility each may be referred to as a "Party," or collectively as the "Parties."

### Recitals:

**Whereas**, The Applicant is proposing to develop a Small Generating Facility or adding generating capacity to an existing Small Generating Facility consistent with the Application completed by Interconnection Customer on \_\_\_\_\_; and

**Whereas**, Applicant desires to interconnect the Small Generating Facility with Electric Utility's EDS; and

**Whereas**, Applicant has requested for the Electric Utility to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Small Generating Facility to Electric Utility's EDS;

**Now, therefore**, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. When used in this Agreement, with initial capitalization, the terms specified shall have the meanings given in PUC Rules.
2. Interconnection Customer elects and Electric Distribution Company shall cause to be performed an Interconnection Feasibility Study consistent with PUC Rules.
3. The scope of the Interconnection Feasibility Study shall be subject to the assumptions set in the rule and detailed in this agreement form.
4. The Interconnection Feasibility Study shall be based on the technical information provided by the Applicant in their Application, as may be modified as the result of the Scoping Meeting. The Electric Utility reserves the right to request additional technical information from Interconnection Customer as reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study. If, in the course of the Study, the Applicant finds it necessary to modify the Application, the time to complete the Interconnection Feasibility Study may be extended by mutual agreement of the Parties.
5. In performing the study, the Electric Utility will rely, to the extent reasonably practicable, on existing studies of recent vintage. The Applicant will not be charged for such existing studies.

6. The Interconnection Feasibility Study report shall provide the following information:

6.1 Preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection,

6.2 Preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection, and

6.3 Preliminary description and non-bonding estimated cost of facilities required to interconnect the Small Generating Facility to the Electric Utility's EDS and to address the identified short circuit and power flow issues.

7. The Interconnection Feasibility Study shall be completed and the results shall be transmitted to Interconnection Customer within thirty Calendar Days after this agreement is signed by the Parties.

In witness whereof, the Parties have caused this agreement to be duly executed by their duly authorized officers or agents on the day and year first above written:

[Insert name of Electric Utility]

Signed \_\_\_\_\_  
Name (Printed): \_\_\_\_\_ Title \_\_\_\_\_

[Insert name of Applicant]

Signed \_\_\_\_\_  
Name (Printed): \_\_\_\_\_ Title \_\_\_\_\_

**Section 2: Interconnection Feasibility Study Agreement**  
**Assumptions Used in Conducting the Interconnection Feasibility Study**

The Interconnection Feasibility Study will be based upon the information set forth in the Application and agreed upon in the Scoping Meeting held on \_\_\_\_\_:

1. Designation of Point of Interconnection and configuration to be studied.

\_\_\_\_\_

2. Designation of alternative Points of Interconnection and configuration.

\_\_\_\_\_

Note: 1 and 2 are to be completed by the Applicant. Any other assumptions (listed below) are to be provided by the Applicant or the Electric Utility.

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**Interconnection Equipment Specifications, Initial Settings and  
Operating Requirements \***

**Address of Facility**

Interconnection Customer: \_\_\_\_\_

Facility Operator (if different than above): \_\_\_\_\_

Facility Location/ Name: \_\_\_\_\_ Phone #: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Revision Date: \_\_\_\_\_

**Energy Production Equipment/Inverter Information**

Synchronous     Induction     Inverter     Other \_\_\_\_\_

Electric Nameplate Rating: \_\_\_\_\_ KW    \_\_\_\_\_ kVA

Rated Voltage: \_\_\_\_\_ Volts

Rated Current: \_\_\_\_\_ Amps

Phases:  Single     Three-Phase

System Type Tested (Total System):  Yes     No; attach product literature

**For Synchronous Machines**

Manufacturer: \_\_\_\_\_

Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_

Submit copies of the Saturation Curve and the Vee Curve     Salient     Non-Salient

Field Amperes: \_\_\_\_\_ at rated generator voltage and current and \_\_\_\_\_ % PF  
over-excited

Type of Exciter: \_\_\_\_\_

Output Power of Exciter: \_\_\_\_\_

Type of Voltage Regulator: \_\_\_\_\_

Locked Rotor Current: \_\_\_\_\_ Amps

Synchronous Speed: \_\_\_\_\_ RPM

Winding Connection: \_\_\_\_\_

Min. Operating Freq./Time: \_\_\_\_\_

Generator Connection:  Delta     Wye     Wye Grounded

Direct-axis Synchronous Reactance (Xd) \_\_\_\_\_ ohms  
Direct-axis Transient Reactance: (X'd) \_\_\_\_\_ ohms  
Direct-axis Sub-transient Reactance: (X''d) \_\_\_\_\_ ohms

**For Induction Machines**

Manufacturer: \_\_\_\_\_  
Model No.: \_\_\_\_\_ Version No.: \_\_\_\_\_  
Locked Rotor Current: \_\_\_\_\_ Amps  
Rotor Resistance: (Rr) \_\_\_\_\_ ohms Exciting Current: \_\_\_\_\_ Amps  
Rotor Reactance: (Xr) \_\_\_\_\_ ohms Reactive Power Required: \_\_\_\_\_  
Magnetizing Reactance: (Xm) \_\_\_\_\_ ohms \_\_\_\_\_ VARs (No Load)  
Stator Resistance: (Rs) \_\_\_\_\_ ohms \_\_\_\_\_ VARs (Full Load)  
Stator Reactance: (Xs) \_\_\_\_\_ ohms  
Short Circuit Reactance: (X''d) \_\_\_\_\_ ohms  
Electric Nameplate Capacity rating: (kVA) \_\_\_\_\_

**For Inverter Based Facilities**

Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_  
Type:  Forced Commutated  Line Commutated  
Electric Nameplate Capacity Rated Output: \_\_\_\_\_ Amps \_\_\_\_\_ Volts  
\_\_\_\_\_ KW  
Efficiency: \_\_\_\_\_ % Power Factor: \_\_\_\_\_ %  
Is Inverter Lab Tested?  Yes (attach product literature)  No

**DC Source / Prime Mover:**

Solar  Wind  Hydro  Other \_\_\_\_\_  
Electric Nameplate Capacity Rating: \_\_\_\_\_ KW Rating: \_\_\_\_\_ kVA  
Rated Voltage: \_\_\_\_\_ Volts  
Open Circuit Voltage (If applicable): \_\_\_\_\_ Volts  
Rated Current: \_\_\_\_\_ Amps  
Short Circuit Current (If applicable): \_\_\_\_\_ Amps

**Other Facility Information**

One Line Diagram attached:  Yes  No  
Plot Plan attached:  Yes  No  
Isolation Device Type/ Location: \_\_\_\_\_

Grounding Configuration: \_\_\_\_\_

Initial Commissioning Date: \_\_\_\_\_

**Switchgear/ Circuit Interruption Devices**

Switchgear type and control: (used to bring generator on line)

Circuit Breakers:  Closed-transition     Open –transition     Auto Transfer Switch

Nameplate: \_\_\_\_\_

**Metering**

Location: \_\_\_\_\_

Metering Issues: \_\_\_\_\_

Monitoring Provisions:     Yes     No

Monitoring Values: \_\_\_\_\_

Monitoring Issues: \_\_\_\_\_

**Initial Set points at Point of Interconnection**

Voltage: \_\_\_\_\_ kVAR: \_\_\_\_\_

Power factor: \_\_\_\_\_

Other: \_\_\_\_\_

Other: \_\_\_\_\_

**Trip Re-start Protocol**

Reclosing Practice: \_\_\_\_\_

Hold out time: \_\_\_\_\_

Ramp Rate: \_\_\_\_\_

Notification required:  Yes       No

**Operations and Maintenance Schedule**

Operating Hours: \_\_\_\_\_ Availability (%): \_\_\_\_\_

Seasonal Effect: \_\_\_\_\_

Routine and Annual Maintenance Schedule: \_\_\_\_\_

\* Initial operating set points and 'as built' equipment data is to be recorded on or about the time of the Witness Test. Parties may not deviate from initial settings and agreed upon operating parameters except as permitted by the Rule without written authorization of the Electric Utility. The Interconnection Customer will furnish updated information to the Electric Utility any time a special operating requirement initial set point or the Interconnection Equipment is materially changed.

**Interconnection Agreement for Small Generator Facility  
Tier 1, Tier 2, Tier 3 or Tier 4 Interconnection  
(Small Generator Facilities with Electric Nameplate Capacities of 10 MW or  
smaller)**

This agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ (corporation/limited liability company organized and existing under the laws of the State of \_\_\_\_\_, OR an individual) ("Applicant") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, (Electric Utility). Applicant and Electric Utility each may be referred to as a "Party," or collectively as the "Parties."

**Recitals:**

**Whereas**, the Applicant is proposing to develop a Small Generator Facility, or to add generating capacity to an existing Small Generator Facility, consistent with the Application completed on \_\_\_\_\_;

**Whereas**, the Applicant desires to interconnect the Small Generator Facility with Electric Utility's EDS.; and

**Whereas**, the Agreement shall be used for all approved Tier 1, Tier 2, Tier 3 and Tier 4 Applications according to the procedures set forth in South Dakota PUC Administrative Rules. Terms with initial capitalization, when used in this Agreement, shall have the meanings given in such Rules and, to the extent this Agreement conflicts with the Rule, the Rule shall take precedence.

**Now, therefore**, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

**Article 1.      Scope and Limitations of Agreement**

**1.1      Scope**

The Agreement establishes standard terms and conditions approved by the Commission under which the Small Generator Facility with a Name Plate Capacity of 10 MW or smaller will interconnect to, and operate in Parallel with, the Electric Utility's EDS. Additions, deletions or changes to the standard terms and conditions of an Interconnection Agreement will not be permitted unless they are mutually agreed to by the Parties or approved by the Commission if required by the Rule.

**1.2      Power Purchase**

The Agreement does not constitute an agreement to purchase or deliver the Applicant's power nor does it constitute an electric service agreement.

### **1.3 Other Agreements**

Nothing in the Interconnection Agreement is intended to affect any other agreement between the Electric Utility and the Applicant or another Interconnection Customer. However, in the event that the provisions of the Agreement are in conflict with the provisions of other Electric Utility tariffs, the Electric Utility tariff shall control.

### **1.4 Responsibilities of the Parties**

The Parties shall perform all obligations of the Agreement in accordance with all applicable laws and rules.

The Applicant will construct, own, operate and maintain its Small Generator Facility in accordance with the Agreement, IEEE Standard 1547 (2003 ed), the more currently adopted National Electric Code, state and federal law and all other applicable standards required by the South Dakota Public Utilities Commission.

Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the Point of Interconnection. Each Party shall provide Interconnection Facilities that adequately protect the other Parties' facilities, personnel, and other persons from damage and injury.

The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities is prescribed in the South Dakota Public Utilities Administrative Rules.

### **1.5 Parallel Operation and Maintenance Obligations**

Once the Small Generator Facility has been authorized to commence Parallel Operation by execution of the Interconnection Agreement, the Applicant will abide by all written provisions for operating and maintenance as required by the Electric Utility.

### **1.6 Power Quality**

The Applicant will design its Small Generator Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection that meets the requirements set forth in IEEE 1547. Any special operating requirements will be detailed in an attached form. Under no circumstances shall these additional requirements for voltage or reactive power support exceed the

normal operating capabilities of the Small Generator Facility.

**Article 2.      Inspection, Testing, Authorization, and Right of Access**

**2.1      Testing and Inspection**

Applicant will test and inspect its Small Generator Facility and Interconnection Facilities prior to interconnection in accordance with IEEE 1547 Standards as provided for in the Rule. The Interconnection will not be final until the Witness Test and Certificate of Completion provisions in the Rule have been satisfied. Operation of the Small Generator Facility requires an Interconnection Agreement; electricity sales require a Power Purchase Agreements.

To the extent that an Applicant decides to conduct interim testing of the Small Generator Facility prior to the Witness Test, it may request that the Electric Utility observe these tests and that these tests be deleted from the final Witness Test. If the Electric Utility sends qualified personnel to the Small Generator Facility to observe such interim testing, it will be doing so at its own expense.

**2.2      Right of Access:**

The Electric Utility will have access to the Applicant's premises for any reasonable purpose in connection with the Interconnection Application and any Interconnection Agreement that is entered in to pursuant to this Rule or if necessary to meet the legal obligation to provide service to its customers. Access will be requested at reasonable hours and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition.

**Article 3.      Effective Date, Term, Termination, and Disconnection**

**3.1      Effective Date**

The Agreement shall become effective upon execution by the Parties.

**3.2      Term of Agreement**

The Agreement will be effective on the Effective Date and will remain in effect for a period of twenty (20) years or a period mutually agreed to by Parties, unless terminated earlier by the default or voluntary termination by the Interconnection Customer or by action of the Commission.

**3.3      Termination**

The Applicant may terminate this Agreement at any time by giving the Electric Utility twenty (20) Business Days written notice. Either Party may terminate this

Agreement after default. The Commission may order termination of this Agreement. Upon termination of this Agreement, the Small Generator Facility will be disconnected from the Electric Utility's EDS at the Applicant's expense. The termination of this Agreement will not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination. The provisions of this Article shall survive termination or expiration of this Agreement.

### **3.4 Restoration of interconnection when disconnected:**

The Parties shall cooperate with each other to restore the Small Generator Facility, Interconnection Facilities, and Electric Utility's EDS to their normal operating state as soon as reasonably practicable following any disconnection pursuant to the rules.

## **Article 4. Cost Responsibility and Billing:**

The Applicant is responsible for the application fee and for such facilities, equipment, modifications and upgrades.

### **4.1 Minor EDS Modifications:**

Modifications to the existing EDS identified by the Electric Utility under a Tier 2 or Tier 3 review, such as changing meters, fuses or relay settings, are deemed Minor Modifications. It is the Electric Utility's sole discretion to decide what constitutes a Minor Modification. The Applicant will bare the costs of making such Minor Modifications as may be necessary to gain approval of an Application.

### **4.2 Interconnection Facilities:**

When necessary, the Electric Utility will identify the Interconnection Facilities necessary to safely interconnect the Small Generator Facility with the Electric Utility. The Electric Utility will itemize the Interconnection Facilities for the Applicant, including the cost of the facilities and the time required to build and install those facilities. The Applicant is responsible for the cost of the Interconnection Facilities.

### **4.3 Interconnection Equipment:**

The Applicant is responsible for all reasonable expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its Interconnection Equipment.

#### **4.4 System Upgrades:**

The Electric Utility will design, procure, construct, install, and own any System Upgrades. The actual cost of the System Upgrades, including overheads, will be directly assigned to the Applicant. An Interconnection Customer may be entitled to financial compensation from other Electric Utility Interconnection Customers who, in the future, benefit from the System Upgrades paid for by the Interconnection Customer. Such compensation will be governed by separate rules promulgated by the Commission or by terms of a tariff filed and approved by the Commission. , Such compensation will only be available to the extent provided for in the separate rules or tariff.

#### **4.5 Adverse System Impact:**

The Electric Utility is responsible for identifying Adverse System Impacts on any Affected Systems and for determining what mitigation activities or upgrades may be required to accommodate a Small Generator Facility. The actual cost of any actions taken to address the Adverse System Impacts, including overheads, shall be directly assigned to the Applicant. The Applicant may be entitled to financial compensation from other Public Utilities or other Interconnection Customers who, in the future, utilize the upgrades paid for by the Applicant, to the extent as allowed by the Commission.

#### **4.6 Billings:**

The Electric Utility may require a deposit of not more than 50% of the cost estimate, not to exceed \_\_\_\_\_, to be paid up front by the Applicant for studies necessary to complete an Application and to interconnect interconnection to the EDS. The Electric Utility may require a deposit of no more than 50% of the estimated costs, not to exceed \_\_\_\_\_ for Interconnection Facilities necessary to complete an Application and to interconnect interconnection to the EDS\ Progress billing, final billing and payment schedules must be agreed to by Parties prior to commencing work.

### **Article 5. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

#### **5.1 Assignment**

The Interconnection Agreement may be assigned by either Party upon fifteen (15) Business Days prior written notice. Except as provided in Articles 5.1.1 and 5.1.2, said assignment shall only be valid upon the prior written consent of the non-assigning Party, which consent shall not be unreasonably withheld.

5.1.1 Either Party may assign the Agreement without the consent of the other Party to any affiliate (which shall include a merger of the Party with

another entity), of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;

5.1.2 The Applicant shall have the right to assign the Agreement, without the consent of the Electric Utility, for collateral security purposes to aid in providing financing for the Small Generator Facility. For Small Generator systems that are integrated into a building facility, the sale of the building or property will result in an automatic transfer of this agreement to the new owner who shall be responsible for complying with the terms and conditions of this Agreement.

5.1.3 Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same obligations as the Applicant.

## **5.2 Limitation of Liability and Consequential Damages**

A Party is liable for any loss, cost claim, injury, or expense including reasonable attorney's fees related to or arising from any act or omission in its performance of the provisions of an Interconnection Agreement entered into pursuant to the Rules. Neither Party will seek redress from the other Party in an amount greater than the amount of direct damage actually incurred.

## **5.3 Indemnity**

5.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of the Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 5.2.

5.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

5.3.3 If an indemnified person is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such a claim, such indemnified person may at the expense

of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

5.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this Article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

5.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

#### **5.4 Consequential Damages**

Neither Party shall be liable to the other Party, under any provision of the Agreement, for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

#### **5.5 Force Majeure**

5.5.1 As used in this Agreement, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."

5.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance, and if the initial notification was verbal, it

should be promptly followed up with a written notification. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends the Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be reasonably mitigated. The Affected Party will use reasonable efforts to resume its performance as soon as possible. The Parties shall immediately report to the Commission should a Force Majeure Event prevent performance of an action required by Rule that the Rule does not permit the Parties to mutually waive.

## **5.6 Default**

5.6.1 No default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement, or the result of an act or omission of the other Party. Upon a default, the non-defaulting Party shall give written notice of such default to the defaulting Party. Except as provided in Article 5.6.2, the defaulting Party shall have sixty (60) Calendar Days from receipt of the default notice within which to cure such default; provided however, if such default is not capable of cure within 60 Calendar Days, the defaulting Party shall commence such cure within twenty (20) Calendar Days after notice and continuously and diligently complete such cure within six months from receipt of the default notice; and, if cured within such time, the default specified in such notice shall cease to exist.

5.6.2 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate the Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates the Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. Alternately, the non-defaulting Party shall have the right to seek dispute resolution with the Commission in lieu of default. The provisions of this Article will survive termination of the Agreement.

## **Article 6. Insurance**

A Party is liable for any loss, cost claim, injury, or expense including reasonable attorney's fees related to or arising from any act or omission in its performance of the provisions of this Rule or the Interconnection Agreement entered into pursuant to this Rule. Insurance is required according to Commission Rules.

**Article 7.     **Dispute Resolution****

Parties will adhere to the dispute resolution and complaint process in Commission Rules.

**Article 8.     **Miscellaneous****

**8.1     **Governing Law, Regulatory Authority, and Rules****

The validity, interpretation and enforcement of the Agreement and each of its provisions shall be governed by the laws of the State of South Dakota, without regard to its conflicts of law principles. The Agreement is subject to all applicable laws. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a governmental authority.

**8.2     **Amendment****

The Parties may mutually agree to amend the Agreement by a written instrument duly executed by both Parties in accordance with provisions of the Rule and applicable Commission Orders and provisions of the laws if the State of South Dakota.

**8.3     **No Third-Party Beneficiaries****

The Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

**8.4     **Waiver****

8.4.1   The failure of a Party to the Agreement to insist, on any occasion, upon strict performance of any provision of the Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

8.4.2   The Parties may agree to mutually waive a section of this Agreement so long as prior Commission approval of the waiver is not required by the Rule.

8.4.3   Any waiver at any time by either Party of its rights with respect to the Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of the Agreement. Any waiver of the Agreement shall, if requested, be provided in writing.

## **8.5 Entire Agreement**

The Interconnection Agreement, including any supplementary Form attachments that may be necessary, constitutes the entire Agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of the Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under the Agreement.

## **8.6 Multiple Counterparts**

The Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

## **8.7 No Partnership**

The Agreement will not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

## **8.8 Severability**

If any provision or portion of the Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority; (1) such portion or provision shall be deemed separate and independent; (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling; and (3) the remainder of the Agreement shall remain in full force and effect.

## **8.9 Subcontractors**

Nothing in the Agreement shall prevent a Party from utilizing the services of any subcontractor, or designating a third party agent as one responsible for a specific obligation or act required in the Agreement (collectively subcontractors), as it deems appropriate to perform its obligations under the Agreement; provided, however, that each Party will require its subcontractors to comply with all applicable terms and conditions of the Agreement in providing such services and each Party will remain primarily liable to the other Party for the performance of such subcontractor.

- 8.9.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under the Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made. Any applicable obligation imposed by the Agreement upon the hiring Party shall be equally binding upon, and will be construed as having application to, any subcontractor of such Party.
- 8.9.2 The obligations under this Article will not be limited in any way by any limitation of subcontractor's insurance.

**8.10 Reservation of Rights**

Either Party will have the right to make a unilateral filing with the Commission to modify the Interconnection Agreement. This reservation of rights provision will include but is not limited to modifications with respect to any rates terms and conditions, charges, classification of service, rule or regulation under tariff rates or any applicable State or Federal law or regulation. Each Party shall have the right to protest any such filing and to participate fully in any proceeding before the Commission in which such modifications may be considered.

**Article 9. Notices**

Unless otherwise provided in the Agreement, any written notice, demand, or request required or authorized in connection with the Agreement shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

**If to the Applicant:**

Applicant: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail \_\_\_\_\_

**If to Electric Utility:**

Electric Utility: \_\_\_\_\_

Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail \_\_\_\_\_

**9.1 Billing and Payment**

Billings and payments shall be sent to the addresses set out below: (complete if different than article 9.2 above)

**If to the Applicant**

Applicant: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**If to Electric Utility**

Electric Utility: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**9.2 Designated Operating Representative**

The Parties will designate operating representatives to conduct the communications which may be necessary or convenient for the administration of

the operations provisions of the Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities (complete if different than article 9.2 above)

**Applicant's**

**Operating representative:** \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-Mail \_\_\_\_\_

**Electric Utility's**

**Operating Representative:** \_\_\_\_\_

1.1 Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**9.3 Changes to the Notice Information**

Either Party may change this notice information by giving five Business Days written notice prior to the effective date of the change.

**Article 10. Signatures**

**IN WITNESS WHEREOF**, the Parties have caused the Agreement to be executed by their respective duly authorized representatives.

**For the Applicant:**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**For Electric Utility:**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## CERTIFICATE OF SERVICE

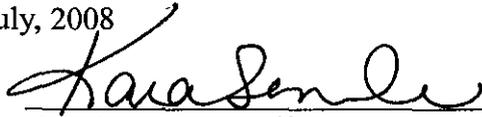
The undersigned hereby certified that on the 29<sup>th</sup> day of July, 2008, a copy of:

- 1) Commission Staff report on interconnection policies;
- 2) Commission Staff's recommended rules to reflect the interconnection workshop process; and,
- 3) Commission Staff's recommended forms and contracts to accompany the proposed rules

was served via electronic mail to the following:

Patricia Van Gerpen <a href="mailto:patty.vangerpen@state.sd.us">patty.vangerpen@state.sd.us</a>	Ed Anderson <a href="mailto:ed.anderson@sdrea.coop">ed.anderson@sdrea.coop</a>
David A Gerdes <a href="mailto:dag@magt.com">dag@magt.com</a>	Susan M Stewart <a href="mailto:smstewart@midamerican.com">smstewart@midamerican.com</a>
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