CHAPTER 314
REGULATIONS GOVERNING INTERCONNECTION OF SMALL ELECTRICAL GENERATORS

20VAC5-314-10. Applicability and scope; waiver.

A. These regulations are promulgated pursuant to § 56-578 of the Virginia Electric Utility Restructuring Act (§ 56-576 et seq. of the Code of Virginia). They establish standardized interconnection and operating requirements for the safe operation of electric generating facilities with a rated capacity of 20 megawatts (MW) or less connected to electric utility distribution (and in certain cases transmission) systems in Virginia. These regulations apply to utilities providing interconnections to retail electric customers, independently owned generators and any other parties operating, or intending to operate, a distributed generation facility in parallel with utility systems. These regulations do not apply to customer generators operating pursuant to the Virginia State Corporation Commission's Regulations Governing Net Energy Metering (20VAC5-315) or those that fall under the jurisdiction of the Federal Energy Regulatory Commission (FERC).

If the utility has turned over control of its transmission system to a Regional Transmission Entity (RTE), and if the small generator interconnection process identifies upgrades to the transmission system as necessary to interconnect the small generating facility, then the utility will coordinate with the RTE, and the procedures herein will be adjusted as necessary to satisfy the RTE's requirements with respect to such upgrades.

There are three review paths for the interconnection of generation in Virginia having an output of not more than 20 MW:

Level 1 - A request to interconnect a small generating facility (SGF) no larger than 500 kilowatts (kW) shall be evaluated under the Level 1 process.

Level 2 - A request to interconnect a certified SGF no larger than 2 MW and not qualifying for the Level 1 process shall be evaluated under the Level 2 process.

Level 3 - A request to interconnect an SGF no larger than 20 MW and not qualifying for the Level 1 process or Level 2 process, shall be evaluated under the Level 3 process.

The utility may limit the interconnection of an SGF to a distribution feeder to a capacity substantially less than 20 MW, depending upon the characteristics of that feeder and the potential for upgrading it, as well as the nature of the loads and other generation on the feeder relative to the proposed point of interconnection. If the SGF cannot be safely and reliably interconnected to the utility's distribution feeder, the utility shall work with the IC to interconnect the SGF to the utility's transmission system. In such cases, the interconnection of the SGF may be governed by the regulations promulgated by FERC rather than the regulation of the State Corporation Commission.

The utility shall designate an employee or office from which the interconnection customer (IC) may informally request information concerning the application process. The name, telephone number, and email address of such contact employee or office shall be made available on the utility's Internet website. Electric system information relevant to the location of the proposed SGF shall be provided to the IC upon request and may include interconnection studies and any other relevant materials, to the extent such provision does not violate confidentiality provisions of prior agreements or release critical infrastructure information. The utility shall comply with reasonable requests for such information unless the information is proprietary or confidential and cannot be provided pursuant to a confidentiality agreement.

The utility shall make reasonable efforts to meet all time frames provided in these regulations unless the utility and the IC agree to a different schedule. If the utility cannot meet a deadline provided herein, it shall notify the IC, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

Each utility shall have on file with the commission terms and conditions applicable to the interconnection of SGFs. Such terms and conditions shall, at a minimum, incorporate this chapter by reference, shall set forth terms and conditions applicable to SGFs for which no Small Generator Interconnection Agreement (SGIA) is executed, and shall not conflict with the provisions of this chapter. The terms and conditions applicable to SGFs for which no SGIA is executed shall be reasonably consistent with the terms and conditions of the SGIA.

B. The commission may waive any or all parts of the provisions of this chapter for good cause shown.

20VAC5-314-20. Definitions.

The following terms when used in this chapter shall have the following meaning unless the context clearly indicates otherwise:

"Affected system" means an electric utility system other than that of the utility that may be affected by the proposed interconnection.

"Affected system operator" means an entity that operates an affected system or, if the affected system is under the operational control of an independent system operator or a regional transmission entity, such independent entity.

"Applicable laws and regulations" means all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any government authority.

"Attachment facilities" means the facilities and equipment owned, operated, and maintained by the utility that are built new in order to physically connect the customer's interconnection facilities to the utility system. Attachment facilities shall not include distribution upgrades or previously existing distribution and transmission facilities.

"Business day" means Monday through Friday, excluding federal holidays.

"Certified" has the meaning ascribed to it in Schedule 2 of this chapter.

"Commission" means the Virginia State Corporation Commission.

"Competitive service provider" means any entity, other than the utility, supplying electric energy service to the interconnection customer.

"Customer's interconnection facilities" means all of the facilities and equipment owned, operated and maintained by the interconnection customer, between the small generating facility and the point of interconnection necessary to physically and electrically interconnect the small generating facility to the utility system.

"Default" means the failure of a breaching party to cure its breach under the small generator interconnection agreement.

"Distribution system" means the utility's facilities and equipment generally delivering electricity to ultimate customers from substations supplied by higher voltages (usually at transmission level). For purposes of these regulations, all portions of the utility's transmission system regulated by the commission for which interconnections are not within Federal Energy Regulatory Commission (FERC) jurisdiction are considered also to be subject to these interconnection regulations.

"Distribution upgrades" means the additions, modifications, and upgrades to the utility's distribution system at or beyond the point of interconnection necessary to abate problems on the utility's distribution system caused by the interconnection of the small generating facility. Distribution upgrades do not include customer's interconnection facilities or attachment facilities.

"Facilities study" has the meaning ascribed to it in 20VAC5-314-70 E.

"Feasibility study" has the meaning ascribed to it in 20VAC5-314-70 C.

"FERC" means the Federal Energy Regulatory Commission.

"Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

"Governmental authority" means any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision,

legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided that such term does not include the interconnection customer, the utility or a utility affiliate.

"Interconnection customer" or "IC" means any entity proposing to interconnect a new small generating facility with the utility system.

"Interconnection request" means the IC's request, in accordance with this chapter, to interconnect a new small generating facility, or to increase the capacity of, or make a material modification to the operating characteristics of, an existing small generating facility that is interconnected with the utility system.

"Interconnection studies" means the studies conducted by the utility, or a third party agreed to by the utility and the interconnection customer, in order to determine the interaction of the small generating facility with the utility system and the affected systems in order to specify any modifications to the small generating facility or the electric systems studied to ensure safe and reliable operation of the small generating facility in parallel with the utility system.

"Material modification" means a modification that has a material impact on the cost or timing of any interconnection request with a later queue priority date.

"Operating requirements" means any operating and technical requirements that may be applicable due to regional transmission entity, independent system operator, control area, or the utility's requirements, including those set forth in the Small Generator Interconnection Agreement.

"Party" or "parties" means the utility, interconnection customer, or both.

"Point of interconnection" means the point where the customer's interconnection facilities connect to the utility system.

"Regional Transmission Entity" or "RTE" means an entity having the management and control of a utility's transmission system as further set forth in § 56-579 of the Code of Virginia.

"Small generating facility" or "generator" or "SGF" means the interconnection customer's equipment for the production of electricity identified in the interconnection request.

"Small Generator Interconnection Agreement" or "SGIA" means the agreement between the utility and the interconnection customer as set forth in Schedule 6 of 20VAC5-314-170.

"Supplemental review" has the meaning ascribed to it in 20VAC5-314-60 I.

"System" or "utility system" means the distribution and transmission facilities owned, controlled, or operated by the utility that are used to deliver electricity.

"System impact study" has the meaning ascribed to in 20VAC5-314-70 D.

"Tariff" means the rates, terms and conditions filed by the utility with the commission for the purpose of providing commission-regulated electric service to retail customers.

"Transmission system" means the utility's facilities and equipment delivering electric energy to the distribution system, such facilities being operated at voltages above the utility's typical distribution system voltages.

"Utility" means the public utility company subject to regulation by the commission pursuant to Chapter 10 (§ 56-232 et seq.) of Title 56 of the Code of Virginia with regard to rates and/or service quality to which the interconnection customer proposes to interconnect a small generating facility.

20VAC5-314-30. Siting of distributed generation facilities.

Prior to installing a small generating facility, the interconnection customer must ensure compliance with local, state and federal laws and regulations, including all applicable easements and permits, and §§ 56-265.2 and 56-580 of the Code of Virginia, as applicable.

20VAC5-314-40. Level 1 interconnection process.

A. The Level 1 interconnection process is available to any interconnection customer proposing to interconnect a small generating facility with the utility system if the SGF is no larger than 500 kW.

B. The IC shall submit a complete Level 1 Interconnection Request Form (Schedule 1 in 20VAC5-314-170) to the utility with the required $100 processing fee attached. Alternatively, the utility may require use of a commission-approved Interconnection Request Form similar to Schedule 1, which shall be made available to customers on the utility's Internet website. The Interconnection Request Form shall be date- and time-stamped upon receipt by the utility. The date- and time-stamp shall be used as the qualifying date- and time-stamp for the purpose of any timetable in these procedures.

The IC shall be notified of receipt by the utility within three business days of receiving the interconnection request, which notification may be by United States mail, email address or fax number provided by the IC. As soon as practicable after receipt, but not later than 10 business days after the date of receipt, the utility shall notify the IC if there are any deficiencies in the IC's submittal. If there are deficiencies, such notice shall include a written list detailing all information that must be provided to complete the interconnection request.

The IC shall have 10 business days after receipt of the notice of incomplete information to submit the listed information or to request an extension of time to provide such information. If the IC does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request Form will be deemed withdrawn.

The utility shall provide a copy of the final completed date- and time-stamped Interconnection Request Form to the Commission's Division of Energy Regulation.

C. Within 15 business days after the date the IC submits a complete Interconnection Request Form and requisite fee, the utility shall evaluate the request and inform the IC what utility modifications are required to interconnect the SGF.

1. If the interconnection can be accomplished with minor modifications to the utility system, the IC and the utility may informally agree upon a plan to effectuate the required installations and modifications. The utility shall perform all installations and modifications of the utility system and the IC shall reimburse the utility for the cost of such installations and modifications. The IC shall perform all required modifications to its SGF.

2. Absent an agreement between the parties regarding modifications to the utility system, the interconnection request will be transferred to the Level 2 process or handled according to 20VAC5-314-100 (Disputes) at the IC's option.

D. An IC may begin operation of an SGF when any required modifications or additions as provided for in subsection C of this section are complete and when the following additional requirements are satisfied:

1. If required by the utility's tariff, the IC has installed a lockable, utility-accessible, load breaking manual disconnect switch;

2. A licensed electrician has certified, by signing the Interconnection Request Form, that any required manual disconnect switch has been installed properly and that the small generating facility has been installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code;

3. The vendor of the SGF has certified on the Interconnection Request Form that the SGF equipment is in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories in accordance with IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems;

4. In the case of a static inverter-connected SGF with an alternating current capacity in excess of 10 kilowatts, the IC has had the inverter settings inspected by the utility. The utility may not impose a charge for the inspection;

5. In the case of a nonstatic inverter-connected SGF, the IC has interconnected according to the utility's interconnection guidelines, and the utility has inspected all protective equipment settings. The utility may not impose a charge for such inspection.

6. The IC has paid, or has made arrangements satisfactory to the utility to pay the cost of the SGF metering pursuant to 20VAC5-314-80.

7. An SGF having an alternating current capacity greater than 25 kilowatts shall meet the following additional requirements before interconnection may occur:

a. Distribution facilities and customer impact limitations. An SGF shall not be permitted to interconnect to distribution facilities if the interconnection would reasonably lead to damage to any of the utility's facilities or would reasonably lead to voltage regulation or power quality problems at other customer revenue meters due to the incremental effect of the SGF on the performance of the system, unless the IC reimburses the utility for its cost to modify any facilities needed to accommodate the interconnection and such modifications are completed.

b. Secondary, service, and service entrance limitations. The capacity of the SGF shall be less than the capacity of the utility-owned secondary, service, and service entrance cable connected to the point of interconnection, unless the IC reimburses the utility for its cost to modify any facilities needed to accommodate the interconnection and such modifications are completed.

c. Transformer loading limitations. The SGF shall not have the ability to overload the utility's distribution transformer, or any distribution transformer winding, beyond manufacturer or nameplate ratings, unless the IC reimburses the utility for its cost to modify any facilities needed to accommodate the interconnection and such modifications are completed.

d. Integration with utility's grounding. The grounding scheme of the SGF shall comply with the IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, and shall be consistent with the grounding scheme used by the utility. If requested by an IC, the utility shall assist the IC in selecting a grounding scheme that coordinates with its distribution system.

e. Voltage Balance limitation. The SGF shall not create a voltage imbalance of more than 3.0% at any other customer's revenue meter if the utility distribution transformer, with the secondary connected to the point of interconnection, is a three-phase transformer, unless the IC reimburses the utility for its cost to modify any facilities needed to accommodate the interconnection and such modifications are completed.

E. Site control documentation must be submitted with the Interconnection Request Form. Any information appearing in public records may not be labeled Confidential. (Confidential information is discussed in 20VAC5-314-110.) Site control may be demonstrated through:

1. Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the SGF;

2. An option to purchase or acquire a leasehold site for such purpose;

3. An exclusive or other business relationship between the IC and the entity having the right to sell, lease, or grant the IC the right to possess or occupy a site for such purpose; or

4. An existing permanent service metered account with the utility at the site and in the name of the IC.

F. Except as otherwise provided herein, neither the utility nor the competitive service provider shall impose any charges upon an IC for any interconnection requirements specified by this chapter.

G. The IC shall immediately notify the utility of any changes in the ownership of, operational responsibility for, or contact information for the SGF.

H. The utility shall not be required to maintain an interconnection with an SGF if the SGF or associated equipment is found to be out of compliance with the codes, standards, and certifications applicable to the SGF.

I. Any IC that is not able to interconnect under the Level 1 interconnection process may apply for interconnection under the Level 2 process or Level 3 process.

20VAC5-314-50. Levels 2 and 3 interconnection request general requirements.

A. The interconnection customer shall submit a completed Levels 2 and 3 Interconnection Request Form (Schedule 4 of 20VAC5-314-170 to the utility, with the processing fee or deposit specified in the Interconnection Request Form. The Interconnection Request Form shall be date- and time-stamped upon receipt by the utility. The date- and time-stamp of a completed Interconnection Request Form shall be used as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The interconnection customer shall be notified of receipt by the utility within three business days of receiving the interconnection request, which notification may be by US mail, email address, or fax number provided by the IC.

The utility shall notify the interconnection customer within 10 business days of the receipt of the Interconnection Request Form as to whether the Interconnection Request Form is complete or incomplete. If the Interconnection Request Form is incomplete, the utility shall so notify the IC, including a written list detailing all information that must be provided to complete the Interconnection Request Form.

The interconnection customer shall have 10 business days after receipt of the notice of incomplete information to submit the listed information or to request an extension of time to provide such information. If the IC does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request Form will be deemed withdrawn.

The utility shall provide a copy of the final completed date- and time-stamped Interconnection Request Form to the commission's Division of Energy Regulation.

B. Any material modification to machine data or equipment configuration or to the interconnection site of the small generating facility as specified in the Interconnection Request Form but not agreed to in writing by the utility and the IC may be deemed a withdrawal of the Interconnection Request Form and may require submission of a new Interconnection Request Form, unless proper notification of each party by the other and a reasonable time to cure the problems created by the changes are undertaken.

C. Site control documentation must be submitted with the Interconnection Request Form. Any information appearing in public records may not be labeled Confidential. (Confidential information is discussed in 20VAC5-314-110.) Site control may be demonstrated through:

1. Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the small generating facility;

2. An option to purchase or acquire a leasehold site for such purpose;

3. An exclusivity or other business relationship between the interconnection customer and the entity having the right to sell, lease, or grant the IC the right to possess or occupy a site for such purpose;

4. An existing permanent service metered account with the utility at the site and in the name of the IC.

D. The utility shall place interconnection requests into a first-come, first-served queue that is based on the interconnection's distribution feeder and distribution substation. The queue position shall be based upon the date- and time-stamp of the completed Interconnection Request Form. The queue position of an interconnection request will be used to determine the cost responsibility for the necessary upgrades. At the utility's option, interconnection requests may be studied serially or in clusters for the purpose of the system impact study.

E. The utility shall not be required to maintain an interconnection with an SGF if the SGF or associated equipment is found to be out of compliance with the codes, standards and certification applicable to the SGF.

20VAC5-314-60. Level 2 interconnection process.

A. The Level 2 interconnection process is available to an interconnection customer proposing to interconnect a small generating facility with the utility system if the SGF is no larger than 2 MW and does not qualify for the Level 1 process, and meets the codes, standards, and certification requirements of Schedules 2 and 3 in 20VAC5-314-170.

B. Within 15 business days after the utility notifies the IC it has received a complete Interconnection Request Form, the utility shall perform an initial review using the screens set forth below (20VAC5-314-60 C or 20VAC5-314-60 D, as applicable) and shall notify the IC of the results, including copies of the analysis and data underlying the utility's determinations under the screens.

C. Screens for interconnections to radial circuits.

1. For interconnection of a small generating facility to a radial distribution circuit, the aggregated generation, including the proposed small generating facility, on the circuit shall not exceed 15% of the line section's annual peak load as most recently measured at the substation or calculated

for the line section. A line section is that portion of a distribution circuit connected to a customer that is bounded by automatic sectionalizing devices or the end of the circuit.

2. The SGF, in aggregation with other generation on the distribution circuit, shall not contribute more than 10% to the circuit's maximum fault current at the point on the distribution feeder's (primary) voltage level that is nearest the point of interconnection.

3. The SGF, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fused cutouts, and line reclosers), or interconnection customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection be permitted on a circuit where 87.5% of the short circuit interrupting capability is already exceeded.

4. For interconnections to the distribution primary voltage, use the table below, to determine the acceptable type of interconnection to a primary distribution circuit. This screen includes a review of the type of electrical service provided to the IC, including line configuration and the transformer connection, to limit the potential for creating over-voltages on the utility's distribution system due to a loss of ground during the operating time of any anti-islanding function.

| Primary Distribution Line Type | Type of Interconnection to Primary Distribution Line | Result/Criteria |
|---|---|---|
| Three-phase, three wire | Three-phase, or single phase, phase-to-phase | Pass screen |
| Three-phase, four wire | Effectively-grounded three phase, or single-phase, line-to-neutral | Pass screen |

5. If the small generating facility is to be interconnected to a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed SGF, shall not exceed 20 kW.

6. If the SGF is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

7. The SGF, in aggregate with generation interconnected to the transmission side of the substation transformer that feeds the distribution circuit where the SGF proposes to interconnect, shall 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., within three or four transmission busses from the point of interconnection).

8. No construction of facilities by the utility on its own system shall be required to accommodate the SGF.

D. Screens for interconnections involving networks.

1. For interconnection of a small generating facility to the load side of spot network protectors serving more than a single customer, the SGF must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5.0% of a spot network's maximum load or 300 kW. For spot networks serving a single customer, the SGF must use an inverter-based equipment package and either meet the requirements above, or use a protection scheme, or operate the generator so as not to exceed on-site load or otherwise prevent nuisance operation of the spot network protectors.

2. For interconnection of an SGF to the load side of area network protectors, the SGF must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 10% of an area network's minimum load, or 500 kW.

3. If the SGF is single-phase, the IC's load net of generation on each phase shall not create an imbalance between the phases of a polyphase service, or if applicable, between each leg of single-phase service.

4. For interconnection of an SGF to a distribution circuit in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., within three or four transmission busses from the point of interconnection), the SGF, in aggregate with generation interconnected to the transmission side of the substation transformer that feeds the distribution circuit, shall not exceed the following limits:

a. For a distribution circuit that supplies only secondary voltage networks, 30% of the distribution circuit's load.

b. For a distribution circuit not exclusively supplying secondary networks, 10 MW.

5. For interconnection of an SGF to the line side of network protectors:

a. For a distribution circuit that supplies only secondary networks, the interconnection fails the screen.

b. For a distribution circuit not exclusively supplying secondary networks, the interconnections shall be evaluated in accordance with 20VAC5-314-60 C.

6. No construction of facilities by the utility on its own system shall be required to accommodate the SGF.

7. To the extent any new IEEE standards conflict with this chapter, in particular IEEE 1547, the new standards shall apply. In addition, utility consent shall not be unreasonably withheld from an SGF interconnecting to a spot or area network provided the SGF utilizes a protection scheme that will prevent any power export from the IC's site including inadvertent export under fault conditions, and otherwise prevent nuisance operation of the network protectors.

E. If the interconnection passes the screens, the interconnection request shall be approved and the utility will provide the interconnection customer an executable interconnection agreement within five business days after the determination.

F. If the interconnection fails any screens, but the utility determines that the small generating facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the utility shall provide the IC an executable interconnection agreement within five business days after the determination.

G. If the interconnection fails any screens, but the utility does not or cannot determine from the initial review that the SGF may nevertheless be interconnected consistent with safety, reliability, and power quality standards, unless the IC is willing to consider minor modifications or further study, the utility shall provide the IC with the opportunity to attend a customer options meeting.

H. If the utility determines that the interconnection cannot be approved without minor modifications at minimal cost; a supplemental review or other studies or actions; or modifications or installations at significant cost to address safety, reliability, or power quality problems, the utility shall notify the IC and provide copies of the data and analyses underlying its conclusion within five business days after determination. Within 10 business days of the determination, the utility shall offer to convene a customer options meeting to review possible IC facility modifications, or the screen analysis and related results, to determine what further steps are needed to permit the SGF to be connected safely and reliably. At the time of notification of the utility's determination, or at the customer options meeting, the utility shall:

1. Offer to perform facility modifications or minor modifications to the utility system (e.g., changing meters, fuses, and relay settings) and provide an estimate of the cost to make such modifications to the utility system;

2. Offer to perform a supplemental review if the utility concludes that the supplemental review might determine that the SGF could continue to qualify for interconnection pursuant to the Level 2 process, and provide an estimate of the costs and time of such review; or

3. Offer to continue evaluating the interconnection request, but under the Level 3 interconnection process.

I. Supplemental review. If a supplemental review is offered to the interconnection customer and the IC agrees to the supplemental review, the utility shall, within 10 business days of the request, provide to the IC an appropriate supplemental review agreement. To maintain its position in the utility's interconnection queue, the IC must execute the supplemental review agreement and return it to the utility, along with a deposit for the estimated cost of the supplemental review, within 15 business days after receipt of the agreement. If the IC fails to return the executed supplemental review agreement along with the deposit within 15 business days after receipt, the interconnection request shall be deemed withdrawn and shall lose its place in the utility's interconnection queue.

The IC shall be responsible for the utility's actual costs of conducting the supplemental review. The IC shall pay any review costs that exceed the deposit within 30 business days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the utility will return such excess within 30 business days of the invoice without interest.

Within 10 business days following receipt of the supplemental review agreement and deposit, the utility will determine if the SGF can be interconnected safely and reliably.

1. If so, and if the supplemental review reveals that no modifications are required to the IC's interconnection facilities, or to the system, or to an affected system, the utility shall forward an executable SGIA to the interconnection customer within five business days after the determination.

2. If so, and modifications are required to the IC's interconnection facilities that allow the SGF to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the utility shall forward an executable SGIA to the IC within five business days after confirmation that the IC has agreed to make the necessary changes at the IC's cost.

3. If so, and minor modifications to the utility system are required to allow the SGF to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the utility shall, within 10 business days after the determination, forward an executable SGIA to the IC that requires the IC to pay the costs of such system modifications prior to interconnection.

4. If not, the interconnection request will be elevated to the Level 3 interconnection process.

Interconnection may occur when, as may be required under the applicable subdivisions 1, 2, or 3 of this subsection, the SGIA is fully executed and returned to the utility, the IC has made required payments to the utility, and required modifications are complete. If subdivision I 4 of this section is applicable, interconnection shall occur in accordance with the Level 3 interconnection process.

J. Small generating facilities of 500 kW or less. For an SGF of 500 kW or less, the requirements in this section shall be deemed satisfied when: (i) an Interconnection Request Form as required under 20VAC5-314-40 B is properly completed and all of the certifications and acknowledgements required in Sections 5, 6, and 7 of the Interconnection Request Form are affixed and (ii) the IC and the utility have exchanged appropriate written commitments to effect the necessary installations and modifications to the SGF and the utility system. The timing of such commitments shall follow the timing prescribed in this section.

20VAC5-314-70. Level 3 interconnection process.

A. The Level 3 interconnection process shall be used by an interconnection customer proposing to interconnect a small generating facility with the utility system if the SGF is no larger than 20 MW and does not pass or qualify for the Level 1 or Level 2 interconnection processes. As needed, a scoping meeting, feasibility study, system impact study, and facilities study shall

precede the preparation of a Small Generator Interconnection Agreement (Schedule 6 of 20VAC5-314-170). Any of the studies may be combined by mutual agreement of the parties.

B. Scoping meeting.

1. A scoping meeting will be held within 10 business days after the Interconnection Request Form is deemed complete, or as otherwise mutually agreed to by the parties. The utility and the IC shall bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.

2. The purpose of the scoping meeting is to discuss the interconnection request. The parties shall discuss the studies and the cost responsibilities for the studies.

3. The scoping meeting may be omitted by mutual agreement.

C. Feasibility study.

1. If the parties agree that a feasibility study should be performed, the utility shall provide the IC with a feasibility study agreement, including an outline of the scope of the feasibility study and an estimate of the cost to perform the study no later than five business days after the scoping meeting or five business days after the decision is made to not have a scoping meeting and otherwise pursuant to subsection D of this section.

If the parties agree to not perform a feasibility study, the utility shall provide the IC a system impact study agreement including an outline of the scope of the study and an estimate of the cost to perform the study no later than five business days after the scoping meeting, or five business days after the decision is made to not have a scoping meeting.

2. To maintain its position in the utility's interconnection queue, the IC must execute the feasibility study agreement and return it to the utility along with the deposit for the feasibility study within 15 business days after receipt of the agreement. If the IC fails to return the executed feasibility study agreement along with the deposit within 15 business days after receipt of the agreement, the interconnection request shall be deemed withdrawn and the interconnection request shall lose its place in the utility's interconnection queue.

3. A feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the SGF.

4. A deposit of no more than 50% of the estimated feasibility study costs or earnest money of $1,000 may be required from the interconnection customer.

a. Study costs shall be the utility's actual incremental costs and will be invoiced to the IC after the study is completed and delivered and will include a summary of professional time.

b. The IC shall pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the utility shall refund such excess within 30 calendar days of the invoice without interest.

5. The feasibility study shall be based on the technical information provided by the IC in the Interconnection Request Form, as may be modified as the result of the scoping meeting. The utility reserves the right to request additional technical information from the IC as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard small generator interconnection procedures. All modification made to the interconnection request shall be made in writing to the utility. If the interconnection customer modifies its interconnection request, the time to complete the feasibility study may be extended by agreement of the parties.

6. In performing the feasibility study, the utility shall rely, to the extent reasonably practicable, on recent studies. The IC shall not be charged for such existing studies; however, the IC shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.

7. The feasibility study report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the SGF:

a. Initial identification of any circuit breaker short circuit capability limits exceeded;

b. Initial identification of any thermal overload or voltage limit violations;

c. Initial review of grounding requirements and electric system protection; and

d. Description and estimated cost of facilities and estimated construction time required to interconnect the SGF and to address the identified short circuit and power flow issues.

8. The feasibility study shall model the impact of the SGF for all purposes identified in the Interconnection Request Form in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the IC later changes the purpose for which the SGF is being installed.

9. The feasibility study shall include the feasibility of all potential points of interconnection, as requested by the IC and at the IC's cost.

10. A feasibility study report shall be prepared and transmitted to the IC within 30 business days of the utility's receipt of the complete executed feasibility study agreement and required deposit.

11. If the feasibility study shows no potential for adverse system impacts, then within five business days the utility shall send the IC either an executable Small Generator Interconnection Agreement (Schedule 5, 20VAC5-314-170) or a facilities study agreement, including an outline of the scope of the study and an estimate of the cost to perform the study.

12. If the feasibility study shows potential for adverse system impacts, the review process shall proceed to the system impact study.

D. System impact study.

1. No later than five business days after the parties agree that a system impact study should be performed, the utility shall provide the IC a system impact study agreement including an outline of the scope of the system impact study and an estimate of the cost to perform the study.

2. To maintain its position in the utility's interconnection queue, the IC must execute the system impact study agreement and return it to the utility along with the deposit for the system impact study within 15 business days after receipt of the agreement. If the IC fails to return the executed system impact study agreement along with the deposit within 15 business days after receipt of the agreement, the interconnection request shall be deemed withdrawn and the interconnection request shall lose its place in the utility's interconnection queue.

3. A deposit equal to the estimated cost of a system impact study may be required from the IC.

a. Study cost shall be the utility's actual incremental costs and will be invoiced to the IC after the study is completed and delivered and will include a summary of professional time.

b. The IC shall pay any study costs that exceed the deposit within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the utility shall refund the excess within 30 calendar days of the invoice without interest.

4. A system impact study shall identify and detail the electric system impacts that would result if the SGF were interconnected without project modifications or electric system modifications, focusing on the adverse electric system impacts identified in the feasibility study, or in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

5. A system impact study will be based upon the results of the feasibility study and the technical information provided by the interconnection customer in the interconnection request. The utility reserves the right to request additional technical information from the IC as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. If the IC modifies its designated point of interconnection, or interconnection request, or the technical information provided therein, the time to complete the system impact study may be extended.

6. A system impact study shall consist of a study of the potentially impacted transmission and distribution systems, a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, grounding reviews, distribution load flow study, analysis of equipment interrupting ratings, protection coordination study, and impacts on electric system operation, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of

time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities and modifications that would be required as a result of the interconnection along with estimates of cost responsibility and time to construct. If arranged with the utility prior to the utility preparing the system impact study agreement, the system impact study may, at the IC's cost, include one or more alternatives to the point of interconnection; however, such alternative points must be on the same distribution circuit as the point of interconnection the IC specified as the proposed point of interconnection.

7. Affected systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All affected systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the utility has 20 additional business days to complete a system impact study requiring review by affected systems.

8. If the utility uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required network upgrades, the system impact study shall consider all generating facilities (and with respect to clause iii below, any identified upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced are: (i) directly interconnected with the utility system; or (ii) interconnected with affected systems and may have an impact on the proposed interconnection; and (iii) have a pending higher queued interconnection request to interconnect with the utility system.

9. A system impact study, if required, shall be completed and the results transmitted to the IC within 45 business days after an agreement is signed by the parties, or in accordance with the utility's queuing procedures.

10. If the system impact study shows that facility modifications are needed to accommodate the SGF, then within five business days following transmittal of the system impact study report, the utility shall send the IC a facilities study agreement, including an outline of the scope of the study and an estimate of the cost to perform the study.

E. Facilities study.

1. The facilities study shall specify and estimate the cost of the equipment, engineering, procurement, and construction work needed to implement the conclusion of the feasibility and/or system impact study and to allow SGF to be interconnected and operate safely and reliably.

2. To maintain its position in the utility's interconnection queue, the IC must execute the facilities study agreement and return it to the utility along with a completed Facilities Study Information Form (Schedule 5, 20VAC5-314-170) and deposit for the facilities study within 30 business days after receipt of the agreement, unless an extension has been agreed to with the utility. Otherwise, the interconnection request shall be deemed withdrawn and the interconnection request shall lose its place in the utility's interconnection queue.

3. A deposit equal to the estimated cost of a facilities study may be required from the IC.

a. Study cost shall be the utility's actual incremental costs and will be invoiced to the IC after the study is completed and delivered and will include a summary of professional time.

b. The IC shall pay any study costs that exceed the deposit within 30 calendar days after receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the utility shall refund the excess within 30 calendar days of the invoice without interest.

4. Design for any required customer's interconnection facilities, attachment facilities, and/or upgrades shall be performed under the facilities study. The utility may contract with consultants to perform activities required under the facilities study. The IC and the utility may agree to allow the IC to separately arrange for the design of some of the customer's interconnection facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the utility, under the provisions of the facilities study. If the parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the utility shall make sufficient information available to the IC in accordance with confidentiality and critical infrastructure requirements, to permit the IC to obtain an independent design and cost estimate for any necessary facilities.

5. The facilities study shall identify (i) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (ii) the nature and estimated cost of the attachment facilities and distribution upgrades necessary to accomplish the interconnection, and (iii) an estimate of the time required to complete the construction and installation of such facilities.

6. The utility may propose to group facilities required for more than one IC in order to minimize facilities costs through economies of scale, but any IC may require the installation of facilities required for its own small generating facility if it pays the costs of those facilities.

7. In cases where system upgrades are required, the utility shall transmit the facilities study report within 45 business days after receipt of the complete facilities study agreement, Facilities Study Information Form, and the deposit. In cases where no system upgrades are necessary, and the required facilities are limited to customer's interconnection facilities and attachment facilities only, the utility shall transmit the facilities study report within 30 business days after receipt of the complete facilities study agreement, Facilities Study Information Form and the deposit.

F. Small Generator Interconnection Agreement.

1. Within five business days after transmittal of the final study (i.e. the facilities study, or if applicable, a combined study that satisfies all study requirements), the utility shall provide the interconnection customer an executable SGIA (Schedule 6, 20VAC5-314-170).

2. After receiving the SGIA from the utility, the IC shall have 30 business days or another mutually agreeable deadline, to sign and return the SGIA. If the IC does not return the SGIA within the deadline, the interconnection request shall be deemed withdrawn and the IC shall lose its place in the utility's queue. After the SGIA is signed by the parties, the interconnection of the SGF shall proceed under the provisions of the SGIA.

20VAC5-314-80. Interconnection metering.

Any metering, including telemetering, necessitated by the use of the small generating facility and any additional utility metering requested by the interconnection customer and agreed to by the utility shall be provided by the utility at the IC's expense in accordance with commission requirements or the utility's specifications. The IC shall be responsible for the utility's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and telemetering equipment.

20VAC5-314-90. Commissioning tests.

Commissioning tests of the interconnection customer's installed equipment shall be performed pursuant to applicable codes and standards, including IEEE 1547.1 2005 "IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems." The utility shall be given at least five business days written notice, or notice as otherwise mutually agreed to by the parties, of the tests and the utility shall be allowed to be present to witness the commissioning tests. The utility shall not be compensated by the IC for witnessing commissioning tests.

20VAC5-314-100. Disputes.

A. The parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this section.

B. In the event of a dispute, either party shall provide the other party with a written notice of dispute. The notice shall describe in detail the nature of the dispute. The parties shall make a good faith effort to resolve the dispute informally within 10 business days.

C. If the dispute has not been resolved within 10 business days after receipt of the notice, either party may seek resolution assistance from the commission's Division of Energy Regulation where the matter will be handled as an informal complaint.

Alternatively, the parties may, upon mutual agreement, seek resolution through the assistance of a dispute resolution service. The dispute resolution service will assist the parties in either resolving the dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the parties in resolving their dispute. Each party shall conduct all negotiations in good faith and shall be responsible for one-half of any costs paid to neutral third parties.

D. If the dispute remains unresolved either party may petition the commission to handle the dispute as a formal complaint or may exercise whatever rights and remedies it may have in equity or law.

20VAC5-314-110. Confidential information.

A. Confidential information shall mean any confidential and/or proprietary information provided by one party to the other party that is clearly marked or otherwise designated "Confidential." All design, operating specifications, and metering data provided by the IC shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

B. Confidential information does not include information previously in the public domain, required to be publicly submitted or divulged by governmental authorities (after notice to the other party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce an agreement between the parties. Each party receiving confidential information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the party providing that information, except to fulfill obligations under agreements between the parties, or to fulfill legal or regulatory requirements.

1. Each party shall employ at least the same standard of care to protect confidential information obtained from the other party as it employs to protect its own confidential information.

2. Each party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this section to prevent the release of confidential information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

C. Notwithstanding anything in this chapter to the contrary, if the commission, during the course of an investigation or otherwise, requests information from one of the parties that is otherwise required to be maintained in confidence, the party shall provide the requested information to the commission, within the time provided for in the request for information. In providing the information to the commission, the party may request that the information be treated as confidential and nonpublic by the commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other party prior to the release of the confidential information to the commission. A party shall notify the other party when it is notified by the commission that a request to release confidential information has been received by the commission, at which time either party may respond to the commission before such information would be made public.

20VAC5-314-120. Equal treatment.

The utility shall receive, process, and analyze all interconnection requests in a timely manner as set forth in this chapter. The utility shall use the same reasonable efforts in processing and analyzing interconnection requests from all Interconnection customers, whether the SGF is owned or operated by the utility, its subsidiaries or affiliates, or others.

20VAC5-314-130. Record retention.

The utility shall maintain, subject to audit, records for three years of (i) all interconnection requests received pursuant to this chapter, (ii) the times required to complete interconnection

request approvals and disapprovals, and (iii) justification for the actions taken on the interconnection requests.

20VAC5-314-140. Coordination with affected systems.

The utility shall coordinate the conduct of any studies required to determine the impact of the small generating facility on affected systems with affected system operators and, if possible, include those results (if available) in its applicable interconnection studies within the time frame specified in this chapter. The utility will include such affected system operators in all meetings held with the IC as required by this chapter. The IC shall cooperate with the utility in all matters related to the conduct of studies and the determination of modifications to affected systems. A utility that may be an affected system shall cooperate with the utility with which interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to affected systems. The utility owning or operating the system to which the IC desires to interconnect shall not be held responsible or liable for any delays in the interconnection process attributable to the lack of information or cooperation from the owners or operators of affected systems.

20VAC5-314-150. Capacity of the small generating facility.

A. If the interconnection request is for an increase in capacity for an existing small generating facility, the interconnection request shall be evaluated on the basis of the new total capacity of the SGF.

B. If the interconnection request is for a SGF that includes multiple energy production devices at a site for which the interconnection customer seeks a single point of interconnection, the interconnection request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

C. The interconnection request shall be evaluated using the maximum rated capacity of the SGF.

20VAC5-314-160. Insurance.

A. For a small generating facility with a rated capacity not exceeding 10 kW, the IC, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than $100,000 for each occurrence.

For an SGF with a rated capacity exceeding 10 kW but not exceeding 500 kW, the IC, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than $300,000 for each occurrence.

For an SGF with a rated capacity exceeding 500 kW but not exceeding 2 MW, the IC, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than $2 million

for each occurrence. Insurance coverage for an SGF with a rated capacity exceeding 2 MW shall be determined on a case-by-case basis and shall reflect the size of the installation and the potential for system damage.

B. Certificates of insurance evidencing the requisite coverage and provision shall be furnished to the utility prior to the date of interconnection of the SGF. The utility shall be permitted to periodically obtain proof of current insurance coverage from the IC in order to verify continuing proper liability insurance coverage. The IC will not be allowed to commence or continue interconnected operations unless evidence is provided that required insurance coverage is in effect at all times.

20VAC5-314-170. Schedules for Chapter 314.

The following schedules shall be used in the administration of this chapter.

**Schedule 1**

**LEVEL 1 INTERCONNECTION REQUEST FORM FOR SMALL GENERATING FACILITY NOT EXCEEDING 500 kW**

PURSUANT TO 20VAC5-314-40 OF THE COMMISSION'S REGULATIONS GOVERNING INTERCONNECTION OF SMALL ELECTRICAL GENERATORS, APPLICANT HEREBY GIVES NOTICE OF INTENT TO OPERATE A GENERATING FACILITY.

**Section 1. Interconnection Customer Information**

Name:_____
Mailing Address:_____
City, State, Zip:_____
Street Address:_____
City, State, Zip:_____
Phone Number(s):_____
Fax Number:_____ Email:_____

Utility:_____
Utility Account Number:_____
Competitive Service Provider:_____
CSP Account Number:_____
Proposed Interconnection Date:_____

**Section 2. Processing Fee**

The nonrefundable processing fee payable to the utility is $100.

**Section 3. Small Generating Facility Information**

SGF owner:_____
SGF operator:_____
Business relationship to applicant:_____
Mailing address:_____
City, State, Zip:_____
SGF Address:_____
City, State, Zip:_____
Phone Number(s):_____
Fax Number:_____ Email:_____
Fuel Type:_____
Generator Manufacturer and Model:_____
Rated Capacity in kilowatts: AC:_____ DC:_____
Inverter Manufacturer and Model:_____
Battery Backup: Yes_____ No_____

**Facility schematic and equipment layout must be attached to this form.**

**Section 4. Information for Generators with an AC capacity in excess of 25 kW**

Is the proposed generator inverter based? Yes_____ No_____
Generator Type: Inverter Induction Synchronous
Frequency:_____ Hz; Number of phases: One___ Three___
Rated Capacity: DC _____ kW; AC apparent _____ kVA; AC real _____ kW;
Power factor _____%; AC voltage _____; AC amperage_____
Facility schematic and equipment layout must be attached to this form.

**Section 5. Vendor Certification**

The SGF equipment is listed by Underwriters Laboratories to be in compliance with UL1741.
Signed (Vendor):_____ Date:_____
Name (printed):_____
Company:_____
Phone Number:_____
Mailing Address:_____
City, State, Zip:_____

**Section 6. Electrician Certification**

The generator equipment has been installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code.
Signed (Licensed Electrician):_____ Date:_____
Name (printed):_____
License Number:_____ Phone Number:_____
Mailing Address:_____
City, State, Zip:_____

**Section 7. Applicant Signature**

I hereby certify that, to the best of my knowledge, all of the information provided in this Request Form is true and correct.
Signature of Applicant:_____
Date:_____

**Section 8. Utility Acknowledgement of Receipt**

Signed:_____
Title:_____
Utility:_____
Date:_____
Utility signature signifies only receipt of this form, in compliance with 20VAC5-314-40, the State Corporation Commission's Regulations Governing Interconnection of Small Electrical Generators.

**Schedule 2**

**Certification of Small Generator Equipment Packages**

Small generating facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (i) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Schedule 3, (ii) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (iii) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

The interconnection customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.

Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow up production testing by the NRTL.

If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an IC must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.

Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of interconnection shall be required to meet the requirements of this interconnection procedure.

An equipment package does not include equipment provided by the utility.

**Schedule 3**

**Certification Codes and Standards**

IEEE Std 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE Std 1547.1 testing protocols to establish conformity)

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems

NFPA 70 (2005), National Electrical Code

IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms

NEMA MG 1-1998, Motors and Small Resources, Revision 3

IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

NEMA MG 1-2003 (Rev 2004), Motors and Generators, Revision 1

**Schedule 4**

**LEVELS 2 AND 3 INTERCONNECTION REQUEST FORM SMALL GENERATING FACILITY LESS THAN 20 MW**

**Section 1. Interconnection Customer Information**

Name:_____
Contact person:_____
Mailing address:_____
City, State, Zip:_____
Utility and account number:_____
Energy Service Provider and account number:_____
Facility address:_____
Telephone (Day):_____ (Evening):_____
Fax:_____ E-Mail:_____
Alternative contact information
Contact Name:_____
Title:_____
Mailing Address:_____
City, State, Zip:_____
Telephone (Day):_____ (Evening):_____
Fax:_____ E-Mail:_____
Application is for: New Small Generating Facility_____ Capacity addition____
If capacity addition to existing facility, please describe:
_____
The Small Generating Facility will supply: Interconnection Customer __ others __
Point of Interconnection:_____
Interconnection Customer's requested in-service date:_____

**Section 2. Processing Fee or Deposit**

If the Interconnection Request is submitted as Level 2, the nonrefundable processing fee payable to the utility is $500.

If the Interconnection Request is submitted as Level 3, the Interconnection Customer shall submit to the Utility the deposit is $1,000, or 50% of the estimated cost of the Feasibility Study, whichever is less.

**Section 3. Small Generating Facility Information**

Data apply only to the small generating facility, not the interconnection facilities.
Energy Source:___ Solar___ Wind___ Hydro___ Hydro Type:_____
Diesel___ Natural Gas___ Fuel Oil___ Other (describe)_____
Prime Mover: Fuel Cell____ Recip Engine____ Gas Turb____ Steam Turb____
Microturbine____ PV____ Other (describe)_____
Type of Generator: Synchronous_____ Induction_____ Inverter_____
Generator Nameplate Rating:_____ kW ___ Generator Nameplate kVAR:_____

Interconnection customer or customer-site load:_____kW

Typical reactive load:_____

Maximum physical export capability requested:_____ kW

List components of the small generating facility equipment package that are currently certified:

| Equipment | Certifying Entity |
|---|---|
| 1._____ | 1._____ |
| 2._____ | 2._____ |
| 3._____ | 3._____ |
| 4._____ | 4._____ |
| 5._____ | 5._____ |

Is the prime mover compatible with the certified protective relay package?
Yes____No____

Generator (or solar collector)
Manufacturer, model name & number:_____
Version Number:_____

Nameplate Output Power Rating in kW: (Summer)_____ (Winter)_____
Nameplate Output Power Rating in kVA: (Summer)_____ (Winter)_____

Individual Generator Power Factor
Rated Power Factor: Leading:_____ Lagging:_____

Total number of generators in wind farm to be interconnected pursuant to this Interconnection Request: Elevation:_____ Single phase___ Three phase___

Inverter manufacturer, model name & number:_____

List of adjustable set points for the protective equipment or software:_____

Note: A completed power systems load flow data sheet must be supplied with the Interconnection Request.

Small Generating Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current:_____ Instantaneous___ or RMS_____
Harmonics characteristics:_____
Start-up requirements:_____

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency:_____
Neutral Grounding Resistor (If Applicable):_____
Synchronous Generators:

Direct Axis Synchronous Reactance, $X_d$:_____ P.U.
Direct Axis Transient Reactance, $X'_d$:_____ P.U.
Direct Axis Subtransient Reactance, $X''_d$:_____ P.U.
Negative Sequence Reactance, $X_2$:_____ P.U.
Zero Sequence Reactance, $X_0$:_____ P.U.
KVA Base:_____
Field Volts:_____
Field Amperes:_____

Induction Generators:
Motoring Power (kW):_____
$I^2t$ or K (Heating Time Constant):_____
Rotor Resistance, $R_r$:_____
Stator Resistance, $R_s$:_____
Stator Reactance, $X_s$:_____
Rotor Reactance, $X_r$:_____
Magnetizing Reactance, $X_m$:_____
Short Circuit Reactance, $X_d'''$:_____
Exciting Current:_____
Temperature Rise:_____
Frame Size:_____
Design Letter:_____
Reactive Power Required In Vars (No Load):_____
Reactive Power Required In Vars (Full Load):_____
Total Rotating Inertia, H:_____ Per Unit on kVA base

Excitation and Governor System Data for Synchronous Generators Only:

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Section 4. Customer's Interconnection Facilities Information**

Will a transformer be used between the generator and the point of interconnection ? Yes ____No ____
Will the transformer be provided by the interconnection customer? Yes ____No ____

Transformer Data (If applicable, for interconnection customer-owned transformer):
Is the transformer: single phase_____ three phase____ Size: kVA_____
Transformer Impedance:_____% on _____kVA base

If Three Phase:
Transformer Primary:_____ Volts _____ Delta _____ Wye _____ Wye Grounded
Transformer Secondary:___ Volts _____ Delta _____ Wye _____ Wye Grounded
Transformer Tertiary:_____ Volts _____ Delta _____ Wye _____ Wye Grounded

Transformer Fuse Data (If applicable, for interconnection customer-owned fuse):
(Attach copy of fuse manufacturer's minimum melt and total clearing time-current curves)
Manufacturer:_____ Type:_____ Size:_____ Speed:_____

Interconnecting Circuit Breaker (if applicable):
Manufacturer:_____ Type:_____
Load Rating (Amps):___ Interrupting Rating (Amps):___ Trip Speed (Cycles):___
Interconnection Protective Relays (If Applicable):

If microprocessor-controlled:

Manufacturer:_____ Type:_____

Model No. _____ Firmware ID:_____ Instruction Book No. _____

List of functions and adjustable setpoints for the protective equipment or software:

| Setpoint Function | Minimum | Maximum |
|---|---|---|
| 1._____ | _____ | _____ |
| 2._____ | _____ | _____ |
| 3._____ | _____ | _____ |
| 4._____ | _____ | _____ |
| 5._____ | _____ | _____ |
| 6._____ | _____ | _____ |

If Discrete Components:
(Enclose copy of any proposed time-overcurrent coordination curves)

Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____
Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____

Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____
Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____
Manufacturer:_____ Type:_____ Style/Catalog No.:_____ Proposed Setting:_____

Current Transformer Data (If applicable):
(Enclose copy of manufacturer's excitation and ratio correction curves)
Manufacturer:_____
Type:_____ Accuracy Class:_____ Proposed Ratio Connection:_____
Manufacturer:_____
Type:_____ Accuracy Class:_____ Proposed Ratio Connection:_____

Potential Transformer Data (If applicable):
Manufacturer:_____
Type:_____ Accuracy Class:_____ Proposed Ratio Connection:_____
Manufacturer:_____
Type:_____ Accuracy Class:_____ Proposed Ratio Connection:_____

**Section 5. General Information**

Enclose a copy of the site electrical one-line diagram showing the configuration of the small generating facility equipment, current and potential circuits, and protection and control schemes.

Enclose a copy of any site documentation that indicates the precise physical location of the proposed SGF (e.g., United States Geological Survey () topographic map or other diagram or documentation).

Describe the proposed location of the protective interface equipment on the property:_____

Enclose a copy of any site documentation that describes and details the operation of the protection and control schemes. Is available documentation enclosed? Yes____ No____

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are schematic drawings enclosed? Yes____ No____

**Section 6. Interconnection Customer Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Request is true and correct.

Signature:_____ Date:_____

**Section 7. Utility Acknowledgement of Receipt**

Signed:_____
Title:_____
Utility:_____
Date:_____

Utility signature signifies only receipt of this form, in compliance with 20VAC5-314-50 of the State Corporation Commission's Regulations Governing Interconnection of Small Electrical Generators.

**Schedule 5**

**LEVELS 2 AND 3 FACILITIES STUDY INFORMATION FORM FOR SMALL GENERATING FACILITIES LESS THAN 20 MW**

1. Provide a location plan and simplified one-line diagram of the plant and station facilities. For staged projects, indicate future generation, future transmission circuits, and other major future facilities. On the one-line diagram, show (i) each generator, its electric connection configuration, and its generation capacity, (ii) the location and capacity of auxiliary power, and (iii) minimum load on CT/PT.

2. One set of metering is required for each generation connection to the new ring bus or existing utility station. Indicate the number of generation connections requiring a metering set:_____

3. Indicate whether an alternate source of auxiliary power will be available during CT/PT maintenance. Yes_____ No_____

4. Indicate whether a transfer bus on the generation side of the metering will require that each meter set be designed for the total plant generation. Indicate such on the one-line diagram.

5. State the type of control system or Programmable Logic Controller (PLC) that will be located at the small generating facility.

_____
_____

6. State the protocol used by the control system or PLC.
_____

7. Describe the operation sequence and timing of the protection scheme during disconnection and reconnection to the utility by the SGF.

8. Provide a 7.5-minute quadrangle map of the site. Indicate the plant, station, transmission line, and property lines.

9. State the physical dimensions of the proposed interconnection station.

_____
_____

10. State the bus length from generation to interconnection station.

_____
_____

11. Provide a diagram or description of the point of interconnection desired by the IC that is to be the point of interconnection in the system impact study report.

12. State the line length from interconnection station to utility system.

_____
_____

13. State the pole or tower number observed in the field affixed to the pole or tower leg.
_____

14. State the number of third party easements required for distribution or transmission lines.

_____
_____

15. Provide the following proposed schedule dates:

a. Date IC to begin construction:_____

b. Date generator step-up transformers to receive back feed power:_____

c. Date IC will test SGF:_____

d. Date IC will place SGF into commercial operation:_____

**Schedule 6**

**SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)**

This Small Generator Interconnection Agreement ("Agreement") is made and entered into this _____ day of _____, 20__, by _____ (" Utility"), and _____ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

**Utility Information**

Utility:_____
Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____

**Interconnection Customer Information**

Interconnection Customer:_____
Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____
Interconnection Customer Application No:_____

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

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

1.1 This Agreement shall be used for all Interconnection Requests for generators in excess of 500 kW submitted pursuant to the Commission's Regulations Governing Interconnection of Small Electrical Generators, Chapter 314 of the Virginia Administrative Code.

1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's ("IC") Small Generating Facility ("SGF") will interconnect with, and operate in parallel with, the utility system.

1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services, including station service or backup power, that the IC may require will be covered under separate agreements, possibly with other parties. The IC will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable utility and provider of transmission service.

1.4 Nothing in this Agreement is intended to affect any other agreement between the utility and the IC.

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all applicable laws and regulations, operating requirements, and Good Utility Practice.

1.5.2 The IC shall construct, interconnect, operate and maintain its SGF and construct, operate, and maintain its Customer's Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The utility shall construct, operate, and maintain its distribution and transmission system and attachment facilities in accordance with this Agreement, and with Good Utility Practice.

1.5.4 The IC agrees to construct its facilities in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and operating requirements in effect at the time of construction and other applicable national and state codes and standards. The IC agrees to design, install, maintain, and operate its SGF so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the utility or affected systems and to otherwise maintain and operate its SGF in accordance with the specifications and certifications under which the SGF was initially installed and interconnected.

1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. 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 change of ownership. The utility and the IC, as appropriate, shall provide Attachment Facilities and Customer's Interconnection Facilities that adequately protect the utility's personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Attachment Facilities and Customer's Interconnection Facilities shall be delineated in the Attachments to this Agreement. The design, installation, operation, and maintenance of such facilities shall be the responsibility of the owner except as otherwise provided for in this Agreement.

1.5.6 The utility shall coordinate with all affected systems to support the interconnection.

1.6 Parallel operation obligations

Once the SGF has been authorized to commence parallel operation, the IC shall abide by all rules and procedures pertaining to the parallel operation of the SGF including, but not limited to the rules and procedures concerning the operation of generation set forth in the tariff.

1.7 Metering

The IC shall be responsible for the utility's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The IC's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and operating requirements.

1.8 Reactive power

1.8.1 The IC shall design its SGF to maintain a composite power delivery at continuous rated power output at the point of interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the utility has established different requirements that apply to all similarly

situated generators in the control area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

1.8.2 The utility is required to pay the Interconnection Customer for reactive power that the IC provides or absorbs from the SGF when the utility requests the IC to operate its SGF outside the range specified in article 1.8.1. In addition, if the utility pays its own or affiliated generators for reactive power service within the specified range, it must similarly pay the IC.

1.8.3 Payments shall be in accordance with the IC's applicable rate schedule as may be in effect and accepted by the appropriate government authority. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the IC may expeditiously file such rate schedule with the appropriate government authority, and the utility agrees to support any request for waiver of any prior notice requirement of such authority in order to permit compensation to the IC from the time service commenced.

1.9 Capitalized terms used herein shall have the meanings specified in the definitions in Attachment 1 to Schedule 6 or in the body of this Agreement.

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

2.1 Equipment testing and inspection

2.1.1 The Interconnection Customer shall test and inspect its small generating facility and interconnection facilities prior to interconnection. The IC shall notify the utility of such activities no fewer than five business days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a business day. The utility may, at its own expense, send qualified personnel to the SGF site to inspect the interconnection and observe the testing. The IC shall provide the utility a written test report when such testing and inspection is completed.

2.1.2 The utility shall provide the IC written acknowledgment that it has received the IC's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the utility of the safety, durability, suitability, or reliability of the SGF or any associated control, protective, and safety devices owned or controlled by the IC or the quality of power produced by the SGF.

2.2 Authorization required prior to parallel operation

2.2.1 The utility shall use reasonable efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the utility shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The utility shall make reasonable efforts to cooperate with the IC in meeting requirements necessary for the IC to commence parallel operations by the in-service date.

2.2.2 The IC shall not operate its SGF in parallel with the utility's system without prior written authorization of the utility. The utility will provide such authorization once the utility receives notification that the IC has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of access

2.3.1 Upon reasonable notice, the utility may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the SGF first produces energy to inspect the interconnection, and observe the commissioning of the SGF (including any required testing), startup, and operation for a period of up to three business days after initial start-up of the unit. In addition, the IC shall notify the utility at least five business days prior to conducting any on-site verification testing of the SGF.

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the utility shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3 Each Party shall be responsible for its own costs associated with this article.

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

3.1 Effective date

This Agreement shall become effective upon execution by the Parties. The utility shall promptly file this Agreement with the Commission's Division of Energy Regulation upon execution.

3.2 Term of Agreement

This Agreement shall remain in effect for a period of 10 years from the effective date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all applicable laws and regulations applicable to such termination, including the filing with the Commission's Division of Energy Regulation of a notice of termination of this Agreement.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the utility 20 business days written notice.

3.3.2 Either Party may terminate this Agreement after default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the utility system. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.4 Temporary disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (i) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (ii) that, in the case of the utility, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the utility system, the Attachment Facilities or the electrical facilities of others to which the utility system is directly connected; or (iii) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Customer's Interconnection Facilities. Under emergency conditions, the utility may immediately suspend interconnection service and temporarily disconnect the SGF. The utility shall notify the IC promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the IC's operation of the SGF. The IC shall notify the utility promptly when it becomes aware of an emergency condition that may reasonably be expected to affect the utility system or other affected systems. 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.

3.4.2 Routine maintenance, construction, and repair

The utility may interrupt interconnection service or curtail the output of the SGF and temporarily disconnect the SGF from the utility's system when necessary for routine maintenance, construction, and repairs on the utility system. The utility shall provide the IC with at least five business days notice prior to such interruption unless circumstances require shorter notice. The utility shall use reasonable efforts to coordinate such reduction or temporary disconnection with the IC.

3.4.3 Forced outages

During any forced outage, the utility may suspend interconnection service to effect immediate repairs on the utility system. The utility shall use reasonable efforts to provide the IC with prior notice. If prior notice is not given, the utility shall, upon request, provide the IC written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse operating effects

The utility shall notify the IC as soon as practicable if, based on Good Utility Practice, operation of the SGF may cause disruption or deterioration of service to other customers served from the utility system or affected systems, or if operating the SGF could cause damage to the utility system or affected systems. Supporting documentation used to reach the decision to disconnect shall be provided to the IC upon request. If, after notice, the IC fails to remedy the adverse operating effect within a reasonable time, the utility may disconnect the SGF. The utility shall provide the IC with a five business day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the utility before making changes to the SGF or mode of operations that may have a material impact on the safety or reliability of the utility system or affected system. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the IC makes such modifications without the utility's prior written authorization, the latter shall have the right to temporarily disconnect the SGF.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the SGF, interconnection facilities, and the utility system to their normal operating state as soon as reasonably practicable following a temporary disconnection.

**Article 4. Cost Responsibility for Customer's Interconnection Facilities, Attachment Facilities, and Distribution Upgrades**

4.1 Customer's Interconnection Facilities

The IC shall be responsible for the costs associated with owning, operating, maintaining, repairing, and replacing the Customer's Interconnection Facilities.

4.2 Attachment Facilities

The IC shall pay for one-time and ongoing costs of installing, owning, operating, maintaining and replacing the attachment facilities itemized in Attachment 2 of this Agreement. The utility shall provide an estimated costfor the purchase and construction of the attachment facilities and provide a detailed itemization of such costs. Costs associated with attachment facilities may be shared with other entities that may benefit from such facilities by agreement of the IC, such other entities, and the utility.

4.3 Distribution upgrades

The utility shall design, procure, construct, install, and own the distribution upgrades described in Attachment 6 of this Agreement. The actual cost of the distribution upgrades shall be directly

assigned to the IC. If the utility and the IC agree, the IC may construct distribution upgrades that are located on land owned by the IC.

**Article 5. Transmission System**

5.1 Transmission system upgrades

5.1.1 No portion of section 5.1 of this article 5 shall apply unless the interconnection of the Small Generating Facility requires transmission system upgrades.

5.1.2 The utility shall design, procure, construct, install, and own the transmission system upgrades described in Attachment 6 of this Agreement. If the utility and the Interconnection Customer agree, the IC may construct transmission system upgrades that are located on land owned by the IC. The costs of the transmission system upgrades shall be borne by the IC.

5.1.3 Notwithstanding any other provision of section 5.1 of article 5, in the event and to the extent an RTE has rules, tariffs, agreements, or procedures properly applying to transmission system upgrades, the provisions of section 5.2 of article 5 shall apply to such upgrades.

5.2 Regional Transmission Entities

Notwithstanding any other provision of this Agreement, if the utility's transmission system is under the control of an RTE and the RTE has rules, tariffs, agreements or procedures properly governing operation of the SGF, transmission of the output of the SGF, sale of the output of the SGF, system upgrades required for interconnection of the SGF, or other aspects of the interconnection and operation of the SGF, the IC and the utility shall comply with the applicable of such agreements, rules, tariffs, or procedures.

5.3 Rights under other agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the IC shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with system upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the SGF.

**Article 6. Billing, Payment, Milestones, and Financial Security**

6.1 Billing and payment procedures and final accounting

6.1.1 The utility shall bill the IC for the design, engineering, construction, and procurement costs of attachment facilities and upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The IC shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within 120 calendar days of completing the construction and installation of the attachment facilities and/or distribution upgrades described in the Attachments to this Agreement, the utility shall provide the IC with a final accounting report of any difference between (i) the IC's cost responsibility for the actual cost of such facilities or upgrades, and (ii) the IC's previous aggregate payments to the utility for such facilities or upgrades. If the IC's cost responsibility exceeds its previous aggregate payments, the utility shall invoice the IC for the amount due and the IC shall make payment to the utility within 30 calendar days. If the IC's previous aggregate payments exceed its cost responsibility under this Agreement, the utility shall refund to the IC an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and such milestone shall be listed in Attachment 4 of this Agreement. A Party's milestones obligations under this provision may be modified by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure event, it shall immediately (i) notify the other Party of the reason(s) for not meeting the milestone, and (ii) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (iii) request appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not withhold agreement to such an amendment unless it will suffer uncompensated economic or operational harm from the delay, attainment of the same milestone has previously been delayed, or it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial security arrangements

At least 20 business days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the attachment facilities and distribution upgrades, the Interconnection Customer shall provide the utility, at the IC's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the utility and is consistent with the Uniform Commercial Code of the jurisdiction where the point of interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for designing, procuring, installing, and constructing the applicable portion of the attachment facilities and distribution upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the utility under this Agreement during its term. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the utility, and contain terms and conditions that guarantee payment of any amount that may be due from the IC, up to an agreed-to maximum amount.

6.3.2 The letter of credit or surety bond must be issued by a financial institution or insured reasonably acceptable to the utility and must specify a reasonable expiration date.

**Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default**

7.1 Assignment

This Agreement may be assigned by either Party upon 15 business days prior written notice and opportunity to object by the other Party; provided that:

7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate 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;

7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the utility, for collateral security purposes to aid in providing financing for the SGF, provided that the IC will promptly notify the utility of any such assignment.

7.1.3 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 financial, credit, and insurance obligations as the IC. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 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.

7.3.3 If an indemnified Party 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 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.

7.3.4 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.

7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or small generator 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.

7.4 Consequential damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this 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 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.

7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure event means "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, 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."

7.5.2 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, either in writing or via the telephone, 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. 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 mitigated by the use of reasonable efforts. The Affected Party will use reasonable efforts to resume its performance as soon as possible.

7.6 Default

7.6.1 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 Small Generator Interconnection Agreement or the result of an act or omission of the other Party. Upon a default, the Nondefaulting Party shall give written notice of such default to the Defaulting Party. Except as provided in article 7.6.2, the Defaulting Party shall have 60 calendar days from receipt of the default notice within which to cure the default; however, if the default is not capable of cure within 60 calendar days, the Defaulting Party shall commence the cure within 20 calendar days after notice and continuously and diligently complete the 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.

7.6.2 If a default is not cured as provided in this article, or if a default is not capable of being cured within the period provided for herein, the Nondefaulting Party shall have the right to terminate this 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 this 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. The provisions of this article will survive termination of this Agreement.

**Article 8. Insurance**

8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be in accordance with 20VAC5-314-160 of the Commission's Regulations Governing the Interconnection of Small Electrical Generators. The IC shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Insurance shall be obtained from an insurance provider authorized to do business in the State of Virginia. Certification that such insurance is in effect shall be provided upon request of the utility, except that the IC shall show proof of insurance to the utility no later than 10 business days prior to the anticipated commercial operation date of the SGF. An IC of sufficient creditworthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

8.2 The utility agrees to maintain general liability insurance or self insurance consistent with the utility's commercial practice. Such insurance or self-insurance shall not exclude coverage for the utility's liabilities undertaken pursuant to this Agreement.

8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

**Article 9. Confidentiality**

9.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering

data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

9.2 Confidential information does not include information previously in the public domain, required to be publicly submitted or divulged by governmental authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving confidential information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect confidential information obtained from the other Party as it employs to protect its own confidential information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of confidential information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this Agreement to the contrary, if the Virginia State Corporation Commission ("Commission"), during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence, the Party shall provide the requested information to the Commission, within the time provided for in the request for information. In providing the information to the Commission, the Party may request that the information be treated as confidential and nonpublic by the Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the confidential information to the Commission. A Party shall notify the other Party when it is notified by the Commission that a request to release confidential information has been received by the Commission, at which time either Party may respond to the Commission before such information would be made public.

**Article 10. Disputes**

10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.

10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute. The Parties shall make a good faith effort to resolve the dispute informally within 10 business days.

10.3 If the dispute has not been resolved within 10 business days after receipt of the Notice, either Party may seek resolution assistance from the Commission's Division of Energy Regulation where the matter will be handled as an informal complaint.

Alternatively, either Party may, upon mutual agreement, seek resolution through the assistance of a dispute resolution service. The dispute resolution service will assist the Parties in either resolving the dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. Each Party shall conduct all negotiations in good faith and shall be responsible for one-half of any costs paid to neutral third parties.

10.4 If the dispute remains unresolved either Party may petition the Commission to handle the dispute as a formal complaint or may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

**Article 11. Taxes**

11.1 The Parties agree to follow all applicable tax laws and regulations

11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the utility's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

**Article 12. Miscellaneous**

12.1 Governing law, regulatory authority, and rules

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

12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

12.3 No third-party beneficiaries

This 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.

12.4 Waiver

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

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed to be a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the IC's legal rights to obtain an interconnection from the utility. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, 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 this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple counterparts

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

12.7 No partnership

This Agreement shall 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.

12.8 Severability

If any provision or portion of this 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, (i) such portion or provision shall be deemed separate and independent, (ii) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (iii) the remainder of this Agreement shall remain in full force and effect.

12.9 Environmental releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility, the customer's interconnection facilities, or attachment facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of

the occurrence, and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.10 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; however, each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.10.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this 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; however, in no event shall the utility be liable for the actions or inactions of the IC or its subcontractors with respect to obligations of the IC under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.10.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.11 Reservation of rights

The utility shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation.

**Article 13. Notices**

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") 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 Interconnection Customer:
Interconnection Customer:_____
Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____
If to the Utility:
Utility:_____
Attention:_____

Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____

13.2 Billing and payment

Billings and payments shall be sent to the addresses set out below:

If to the Interconnection Customer:
Interconnection Customer:_____
Attention:_____
Address:_____
City, State, Zip:_____
If to the Utility:
Utility:_____
Attention:_____
Address:_____
City, State, Zip:_____

13.3 Alternative forms of notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and email addresses set out below:

If to the Interconnection Customer:
Interconnection Customer:_____
Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____
If to the Utility:
Utility:_____
Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____

13.4 Designated operating representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:
Interconnection Customer:_____

Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____
Utility's Operating Representative:
Utility:_____
Attention:_____
Address:_____
City, State, Zip:_____
Phone:_____ Fax:_____

13.5 Changes to the notice information

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

**Article 14. Signatures**

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

For the Utility
Name:_____
Title:_____
Date:_____
For the Interconnection Customer
Name:_____
Title:_____
Date:_____

**Attachment 1 to**

**Schedule 6**

**Glossary of Terms**

"Affected system" means an electric utility system other than that of the utility that may be affected by the proposed interconnection.

"Affected system operator" means an entity that operates an affected system or, if the affected system is under the operational control of an independent system operator or a Regional Transmission Entity, such independent entity.

"Applicable laws and regulations" means all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any governmental authority.

"Attachment facilities" means the facilities and equipment owned, operated, and maintained by the utility that are built new in order to physically connect the customer's interconnection facilities to the utility system. Attachment facilities shall not include distribution upgrades or previously existing distribution and transmission facilities.

"Business day" means Monday through Friday, excluding federal holidays.

"Certified" has the meaning ascribed to it in Schedule 2 of Chapter 314 (20VAC5-314) of the Virginia Administrative Code.

"Commission" means the Virginia State Corporation Commission.

"Competitive service provider" means any entity, other than the utility, supplying electric energy service to the Interconnection Customer.

"Customer's interconnection facilities" means all the facilities and equipment owned, operated and maintained by the Interconnection Customer, between the Small Generating Facility and the point of interconnection necessary to physically and electrically interconnect the Small Generating Facility to the utility system.

"Default" means the failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

"Distribution system" means the utility's facilities and equipment generally delivering electricity to ultimate customers from substations supplied by higher voltages (usually at transmission level). For purposes of this Agreement, all portions of the utility's transmission system regulated by the Commission for which interconnections are not within Federal Energy Regulatory Commission jurisdiction are considered also to be subject to Commission regulations.

"Distribution upgrades" means the additions, modifications, and upgrades to the utility's distribution system at or beyond the point of interconnection necessary to abate problems on the utility's distribution system caused by the interconnection of the Small Generating Facility. Distribution upgrades do not include customer's interconnection facilities or attachment facilities.

"Facilities study" has the meaning ascribed to it in the commission's regulations governing the interconnection of small generating facilities at 20VAC5-314-70 E.

"Feasibility study" has the meaning ascribed to it in the commission's regulations governing the interconnection of small generating facilities at 20VAC5-314-70 C.

"FERC" means the Federal Energy Regulatory Commission.

"Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired

result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

"Governmental authority" means any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided that such term does not include the Interconnection Customer, the utility, or a utility affiliate.

"Interconnection Customer" or "IC" means any entity proposing to interconnect a new Small Generating Facility with the utility system.

"Interconnection request" means the IC's request, in accordance with Chapter 314 (20VAC5-314) of the Virginia Administrative Code, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a material modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the utility system.

"Interconnection studies" means the studies conducted by the utility, or a third party agreed to by the utility and the Interconnection Customer, in order to determine the interaction of the Small Generating Facility with the utility system and the affected systems in order to specify any modifications to the Small Generating Facility or the electric systems studied to ensure safe and reliable operation of the Small Generating Facility in parallel with the utility system.

"Material modification" means a modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

"Operating requirements" means any operating and technical requirements that may be applicable due to regional transmission entity, independent system operator, control area, or the utility's requirements, including those set forth in the Small Generator Interconnection Agreement.

"Party" or "Parties" means the utility, the Interconnection Customer or both.

"Point of interconnection" means the point where the customer's interconnection facilities connect to the utility system.

"Regional Transmission Entity" or "RTE" shall refer to an entity having the management and control of a utility's transmission system as further set forth in § 56-579 of the Code of Virginia.

"Small Generating Facility" or "generator" or "SGF" means the Interconnection Customer's equipment for the production of electricity identified in the Interconnection Request.

"Small Generator Interconnection Agreement" or "SGIA" means the agreement between the utility and the Interconnection Customer as set forth in Schedule 6 of Chapter 314 (20VAC5-314) of the Virginia Administrative Code.

"Supplemental review" has the meaning ascribed to it in the Commission's regulations governing the interconnection of small generating facilities at 20VAC5-314-70 I.

"System" or "utility system" means the distribution and transmission facilities owned, controlled, or operated by the utility that are used to deliver electricity.

"System impact study" has the meaning ascribed to it in the Commission's regulations governing the interconnection of small generating facilities at 20VAC5-314-70 D.

"Tariff" means the rates, terms and conditions filed by the utility with the Commission for the purpose of providing Commission-regulated electric service to retail customers.

"Transmission system" means the utility's facilities and equipment delivering electric energy to the distribution system, such facilities usually being operated at voltages above the utility's typical distribution system voltages.

"Utility" means the public utility company subject to regulation by the Commission pursuant to Chapter 10 (§ 56-232 et seq.) of Title 56 of the Code of Virginia with regard to rates and/or service quality to which the Interconnection Customer proposes to interconnect a Small Generating Facility.

**Attachment 2 to**

**Schedule 6**

**Description and Costs of the Small Generating Facility, Customer's Interconnection Facilities, Attachment Facilities and Metering Equipment**

The following shall be provided in this exhibit:

1. An itemization of the major equipment components owned by the Interconnection Customer and the utility, including components of the Small Generating Facility, the customer's interconnection facilities, attachment facilities, and metering equipment. Such itemization shall identify the owner of each item listed.

2. The utility's estimated itemized cost of its attachment facilities and its metering equipment.

3. The utility's estimated cost of its annual operation and maintenance expenses associated with attachment facilities and metering equipment to be charged to the Interconnection Customer.

**Attachment 3 to**

**Schedule 6**

**One-line Diagram Depicting the Small Generating Facility, Customer's Interconnection Facilities, Attachment Facilities, Metering Equipment, and Distribution Upgrades**

(Diagram and description to be provided by Interconnection Customer unless the utility elects to prepare this schedule. If this schedule is prepared by the utility, the IC shall provide a one-line diagram of the SGF and IC's interconnection facilities for the utility to use as a data source for preparing this schedule.)

**Attachment 4 to**

**Schedule 6**

**Milestones**

In-Service Date:_____

Critical milestones and responsibility as agreed to by the Parties:

| **Milestone/Date** | **Responsible Party** |
|---|---|
| (1)_____ | _____ |
| (2)_____ | _____ |
| (3)_____ | _____ |
| (4)_____ | _____ |
| (5)_____ | _____ |
| (6)_____ | _____ |
| (7)_____ | _____ |
| (8)_____ | _____ |
| (9)_____ | _____ |
| (10)_____ | _____ |

Agreed to by:
For the Utility_____ Date_____
For the Transmission Owner (If Applicable)_____ Date_____
For the Interconnection Customer_____ Date_____

**Attachment 5 to**

**Schedule 6**

**Additional Operating Requirements for the Utility System and Affected Systems Needed to Support the Interconnection Customer's Needs**

The utility shall provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the utility system.

**Attachment 6 to**

**Schedule 6**

**Utility's Description of its Distribution and Transmission Upgrades and Estimate of Upgrade Costs**

The utility shall provide the following in this attachment:

1. An itemized list of the upgrades required to be constructed by the utility prior to interconnection of the Small Generating Facility, with transmission and distribution related upgrades shown separately.

2. An estimate of the cost of each item listed pursuant to item 1.

3. An estimate of annual operation and maintenance expenses associated with such upgrades that are to be charged to the Interconnection Customer, shown separately for transmission and distribution related items.