

FINAL DRAFT

MODEL NET METERING AND INTERCONNECTION STANDARDS FOR RENEWABLE ENERGY SYSTEMS

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[NOTE: Incorporating standards from sources outside of the regulation itself, and future revisions of those standards, may face vagueness challenges in some jurisdictions. The highly technical nature of the IEEE standards cited in these model regulations, however, may be sufficient to overcome any vagueness problem. In general, a state's regulations should cite to the specific webpage containing the IEEE standards and not the organization's general website to avoid generality problems. If a state is concerned especially about this issue, it may choose to cite to a dated version of the IEEE and other standards and periodically update the regulation to include a citation to the latest versions.]

NET METERING AND INTERCONNECTION STANDARDS FOR RENEWABLE ENERGY SYSTEMS

1.0 Scope

(a) This subchapter sets forth net metering requirements that apply to electric power suppliers, basic generation service providers and electric distribution companies, as defined herein [and at State administrative code section defining terms], which have residential, commercial or industrial customers who generate less than two megawatts of electricity using renewable energy.

(b) This subchapter also sets forth requirements for the interconnection of customer-generator facilities, including those that generate renewable energy, with electric distribution systems, as those terms are defined below.

2.0 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

"Annualized period" means a period of 12 consecutive monthly billing periods. A customer-generator's first annualized period begins on the first day of the first full monthly billing period after which the customer-generator's facility is interconnected and is generating electricity.

"Applicant" means a person who has filed an application to interconnect a customer-generator facility to an electric distribution system.

"Area network" means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE standard 1547 Section 4.1.4 (2003). IEEE standard 1547 can be obtained through the IEEE website at www.ieee.org.

"Avoided cost of wholesale power" means the average locational marginal price of energy in the applicable utility's transmission zone. This cost can be obtained through the website maintained by [insert].

"Basic generation service" means electric generation service that is provided to any customer that has not chosen an electric power supplier, as defined herein, whether or not the customer has received offers for competitive supply options; including, but not limited to, any customer that cannot obtain such service from an electric power supplier for any reason, including non-payment for services. Basic generation service is not a competitive service and shall be fully regulated by the PUC. An EDC, as defined herein, may provide basic generation service.

"Company" means an electric company operating a distribution system, also known as an "Electric Distribution Company."

"Customer" means any entity interconnected to the Utility Company system for the purpose of receiving [or exporting] electric power from [or to] the Utility Company system.

"Customer-generator" means a residential, commercial or industrial customer that generates electricity, on the customer's side of the meter.

"Customer-generator facility" means the equipment used by a customer-generator to generate, manage, and monitor electricity. A customer-generator facility typically includes an electric generator and/or an equipment package, as defined herein. Also referred to as the "generating facility" or "generator."

"Distributed Generation" or "DG" means an electrical generating installation consisting of one or more on-site generating units.

"Electric Distribution Company" or "EDC" means an electric public utility that transmits or distributes electricity to end users within [insert State]. An EDC cannot be an electric power supplier, but may provide basic generation service. The term public utility shall include [DEFINITION FROM STATE PUBLIC UTILITY STATUTE OR REGULATIONS]

"Electric Distribution System" means that portion of an electric system which delivers electricity from transformation points on the transmission system to points of connection at a customer's premises.

"Electric generation service" means the provision of retail electric energy which is generated off site from the location at which the consumption of such electric energy and capacity is metered for retail billing purposes, including agreements and arrangements for the provision of electric generation service.

"Electric power supplier" means a person or entity that is duly licensed by the PUC to offer and to assume the contractual and legal responsibility to provide electric generation service to retail customers. This term includes load serving entities, marketers and brokers that offer or provide electric generation service to retail customers. An electric power supplier may provide basic generation service, as defined herein. However, the term excludes an electric public utility that provides electric generation service only for the purpose of providing basic generation service, as defined herein.

"Equipment package" means a group of components connecting an electric generator with an electric distribution system, and includes all interface equipment including switchgear, inverters, or other interface devices. An equipment package may include an integrated generator or electric source.

"Fault current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase. A fault current is several times larger in magnitude than the current that normally flows through a circuit.

"Force Majeure Event" for the purposes of these regulations means any event: (a) that is beyond the reasonable control of the affected Party; (b) that the affected Party is unable to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent they satisfy the preceding requirements – acts of war, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fires; strikes, work stoppages, or labor disputes; embargoes; and sabotage.

"Good Utility Practice" means any of the practices, methods and actions engaged in and/or accepted 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, but which is not inconsistent with these rules. 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. This term has the same definition as that given to the term in interconnection rules promulgated by the Federal Energy Regulatory Commission (FERC).

"IEEE standards" means the standards published by the Institute of Electrical and Electronic Engineers, available at www.ieee.org.

"Interconnection agreement" means an agreement between a customer-generator and an EDC, which governs the connection of the customer-generator facility to the electric distribution system, as well as the ongoing operation of the customer-generator facility after it is connected to the system. An interconnection agreement shall follow the standard form agreement developed by the PUC and posted on the PUC's website at [PUC'S WEBSITE].

"kW" means kilowatts, a unit of power representing 1,000 watts. A kW equals 1/1000 of a MW, as defined herein.

"MW" means megawatts, a unit of power representing 1,000,000 watts. A megawatt equals 1000 kW.

"Minor system modification" means activities such as changing the fuse in a fuse holder cut-out, changing the settings on a circuit recloser and other activities that typically entail less than four hours of work and equal to or less than \$1,000 in materials.

"Net metering" means a system of metering electricity in which the EDC or electric supplier/provider:

1. Credits a customer-generator at the full retail rate for each kilowatt-hour produced by a renewable energy system installed on the customer-generator's side of the electric revenue meter, up to the total amount of electricity used by that customer during an annualized period; and
2. Compensates the customer-generator at the end of the annualized period for any remaining credits, at a rate equal to the supplier/provider's avoided cost of wholesale power.

"Point of common coupling" means the point in the interconnection of a customer-generator facility with an electric distribution system at which the harmonic limits are applied and shall have the same meaning as in IEEE Standard 1547 (2003).

"PUC" means the state regulatory authority over electricity utilities or any successor agency."

"Renewable energy" means electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel cells powered by renewable fuels, geothermal electric technologies, wave or tidal action, and/or methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner. Specific types of renewable energy generation methods that qualify for use in meeting the requirements of this subchapter are listed in [STATE STATUTE OR RULE SECTION DEFINING RENEWABLE ENERGY]

"Solar electric generation" means creation of electricity using a system that employs solar radiation to produce energy that powers an electric generator. Solar electric generation includes technologies that utilize the photovoltaic effect.

"Spot network" means a type of electric distribution system that uses two or more inter-tied transformers to supply an electrical network circuit. A spot network is generally used to supply

power to a single customer or a small group of customers and has the same meaning as that given to the term in IEEE Standard 1547 (2003).

"Supplier/provider" means an electric power supplier of competitive electricity supply in a retail competition market.

3.0 Net metering general provisions

(a) All Electric Distribution Companies (EDC) and electric supplier/providers shall offer net metering to their residential, commercial and industrial customers that generate electricity, on the customer's side of the meter, using renewable energy sources, provided that the generating capacity of the customer-generator's facility does not exceed two megawatts, and does not exceed the customer's peak electric needs.

(b) The EDC shall develop a tariff providing for net metering. Each supplier/provider and EDC shall make net metering available to eligible customer-generators on a first come, first-served basis.

(c) When the amount of electricity delivered by the customer-generator plus any kilowatt hour credits held over from previous monthly billing periods exceed the electricity supplied by the supplier/provider and/or EDC, the supplier/provider and/or EDC shall credit the customer-generator for the excess kilowatt hours.

1. The customer-generator will be compensated, unless otherwise agreed upon between the customer-generator and the supplier/provider and/or EDC, at the end of the annualized period for any remaining credits at a rate equal to the supplier's avoided cost of wholesale power.
2. Upon agreement between the customer-generator and the supplier/provider and/or EDC, the customer-generator may roll over credits from a previous annualized period and be compensated at the end of any future annualized period for any remaining credits at a rate equal to the supplier's avoided cost of wholesale power.

(d) If a customer-generator switches electric suppliers or otherwise formally terminates net-metering, the electric power supplier or basic generation service provider with whom service is terminating shall treat the end of the service period as if it were the end of the annualized period and compensate customer-generator according to 3(c)(1).

(e) Each supplier/provider or EDC shall submit an annual net metering report to the PUC. The report shall be submitted by [insert date] of each year, and shall include the following information for the one-year period ending [insert date] of that year:

1. The total number of customer-generator facilities;
2. The total estimated rated generating capacity of its net metering customer-generators;
3. The total estimated net kilowatt-hours received from customer-generators; and
4. The total estimated amount of energy produced by the customer-generators, which shall be calculated using protocols approved by the PUC.

(f) A customer-generator that is eligible for net metering owns the renewable attributes of the electricity it generates on or after [insert date], unless there is a contract with an express provision that assigns ownership of the renewable attributes.

(g) A supplier/provider or EDC shall provide net metering at non-discriminatory rates that are identical, with respect to rate structure, retail rate components, and any monthly charges, to the

rates that a customer-generator would be charged if not a customer-generator. A supplier/provider or EDC may use a special load profile for the customer-generator, which incorporates the customer-generator's real time generation, provided the special load profile is approved by the PUC.

(h) A supplier/provider or EDC shall not charge a customer-generator any fee or charge; or require additional equipment, insurance or any other requirement, unless the fee, charge, or other requirement is specifically authorized under this subchapter, or the fee would apply to other customers that are not customer-generators.

(i) Nothing in this subchapter shall abrogate any person's obligation to comply with all applicable Federal or State laws and codes.

4.0 Meters and metering

(a) A customer-generator facility used for net metering shall be equipped with metering equipment that can measure the flow of electricity in both directions at the same rate, typically through use of a single bi-directional meter.

(b) A customer-generator may choose to use an existing electric revenue meter if the following criteria are met:

1. The meter is capable of measuring the flow of electricity both into and out of the customer-generator's facility at the same rate; and
2. The meter is accurate to within plus or minus 5 percent when measuring electricity flowing from the customer-generator facility to the electric distribution system.

(c) If the customer-generator's existing electric revenue meter is not capable of measuring the bi-directional flow of electricity within the tolerances specified in (b), the EDC shall install a new revenue meter for the customer-generator, at the company's expense. Any subsequent revenue meter change necessitated by the customer-generator, whether because of a decision to stop net metering or for any other reason, shall be paid for by the customer-generator.

(d) The EDC shall not require more than one meter per customer-generator. Two meters may be used where one meter is not capable of working properly or meeting the requirements in (b), and the reconciliation with two meters is identical to if one bi-directional meter were used. The EDC shall be responsible for the installation of a second meter, at the company's expense.

(e) An additional meter may be installed under either of the following circumstances:

1. The EDC may install an additional meter at its own expense if the customer-generator consents; or
2. The customer-generator may request that the EDC install an additional meter at the customer-generator's expense. The cost for such a meter shall be limited to the actual cost of the meter and its installation.

5.0 General interconnection provisions

(a) There are four interconnection review paths for interconnection of customer sited generation in [State].

1. Level 1 – For certified inverter-based facilities with a power rating of 10 kW or less on radial or spot network systems under certain conditions.

2. Level 2 – For certified generating facilities that pass certain specified screens and have a power rating of 2 megawatts (MW) or less.
3. Level 3 - For certified generating facilities that; a) pass certain specified screens; b) do not export power beyond the Point of Interconnection; and c) have a power rating of 10 megawatts (MW) or less
4. Level 4 – For all generating facilities not qualifying for either the Level 1, Level 2, or Level 3, interconnection review processes that have a power rating of 10 MW or less.

(b) Each EDC shall designate an employee or office from which an applicant can obtain basic application forms and information through an informal process. On request, this employee or office shall provide all relevant forms, documents, and technical requirements for submittal of a complete application for interconnection review under this section, as well as specific information necessary to contact the EDC representatives assigned to review the application. Upon request, the EDC will meet with an applicant prior to submission of an application for expedited interconnection.

(c) An application for interconnection review shall be submitted on a standard form, available from the EDC and posted on the PUC's website at [WEBSITE ADDRESS]. The application form will require the following types of information:

1. Basic information regarding the applicant and the electricity supplier(s) involved;
2. Information regarding the type and specifications of the customer-generator facility;
3. Information regarding the contractor who will install the customer-generator facility;
4. Certifications and agreements regarding utility access to the customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, receipt of basic information; and
5. Other similar information that is necessary to determine compliance with this chapter.

6.0 Certification of customer-generator facilities

(a) In order to qualify as “certified” for any interconnection procedures, generators shall comply with the following codes and standards as applicable:

1. IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems or IEEE 929 for inverters less than 10kW in size (2003)
2. UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001), as amended and supplemented. UL standards can be obtained through the Underwriters Laboratories website at www.ul.com
3. When any listed version of these codes and standards is superseded by a revision approved by the standards-making organization, then the revision will be applied under Section (b).

(b) Certification of Equipment Packages: Interconnection equipment shall be considered certified for interconnected operation if it has been tested and listed by a nationally recognized testing and certification laboratory (NRTL) for continuous interactive operation with a utility grid and meets the definition for Certification under FERC Order 2006.

7.0 General screening criteria

(a) For interconnection of a proposed generator to a radial distribution circuit, the aggregated generation, including the proposed generator, on the circuit will not exceed 15% of the line section annual peak load as most recently measured at the substation. A line section is that

portion of a distribution system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. [Note: the aggregate generator load should exclude generators who cannot export power from a customer's site. This is consistent with the Texas interconnection rule—the basis for this screening element]

(b) The proposed generator, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

(c) The proposed generator, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or customer equipment on the system, to exceed 90 percent of the short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds 90 percent of the short circuit interrupting capability. [Note: FERC compromise is 87.5%]

(d) The proposed generator is interconnected to the EDS as shown in the table below:

Primary Distribution Line Configuration	Interconnection to Primary Distribution Line
Three-phase, three wire	If a 3-phase or single phase generator, interconnection must be phase-to-phase
Three-phase, four wire	If a 3 phase (effectively grounded) or single-phase generator, interconnection must be line-to-neutral

(e) If the proposed generator is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed generator, will not exceed 20 kiloVolt-Amps (kVA).

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

(g) The proposed generator, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the generator proposes to interconnect, will 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., 3 or 4 transmission voltage level busses from the point of common coupling).

(g) The proposed generator's Point of Common Coupling will not be on a transmission line.

(h) The generator cannot exceed the capacity of the customer's existing electrical service.

(i) No construction of facilities by the EDC on its own system shall be required to accommodate the generator.

[Note: The net combination of above screens means all generators passing screens will be on-site generators. Screens 6 and 7 apply to small residential sized generators at 120 or 240V.]

8.0 Special screening criteria for interconnection to distribution networks. The Screening Criteria under this subsection shall be in addition to the applicable Screens in subsection 7.0.

(a) For interconnection of a proposed generator to a spot network circuit where the generator or aggregate of total generation exceeds 5% of the spot network's maximum load, the generator must utilize a protective scheme that will ensure that its current flow will not affect the network protective devices including reverse power relays or a comparable function.

(b) For interconnection of a proposed generator that utilizes inverter based protective functions to an area network, the generator, in aggregate with other exporting generators interconnected on the load side of network protective devices, will not exceed the lesser of 10% of the minimum annual load on the network or 500 kW. For a solar photovoltaic customer-generator facility without batteries, the 10% minimum shall be determined as a function of the minimum load occurring during an off-peak daylight period

(c) For interconnection of generators to area networks that do not utilize inverter based protective functions or inverter based generators that do not meet the requirements of 8(b) above, the generator must utilize reverse power relays or other protection devices and/or methods that ensure no export of power from the customer's site including any inadvertent export (e.g. under fault conditions) that could adversely affect protective devices on the network circuit.

9.0 Level 1 applicable screening criteria

(a) Generator must be certified

(b) Must pass Screens 7(a), 7(e), 7(f), 7(h), 7(i).

(c) No interconnections to distribution networks under Level 1.

10.0 Level 2 applicable screening criteria

(a) Generator must be certified.

(b) Must pass Screens 7(a) through 7(i).

(c) For interconnections to distribution networks, must pass applicable screens under Section 8.0.

11.0 Level 3 applicable screening criteria

(a) Generator must be certified.

(b) Generator must use reverse power relays or otherwise ensure no export to the EDC.

(c) Must pass Screens 7(b) through 7(i).

(d) For interconnections to distribution spot networks, must pass screens under Section 8.0

(e) No interconnections to distribution area networks.

12.0 Procedure for all applications

(a) Screening review

1. Customer submits an Application filled out properly and completely, indicating which certified generator or equipment package the customer intends to use. EDC acknowledges to the customer receipt of the application within three (3) business days of receipt and notifies customer that the application is or is not complete.

2. If incomplete, EDC shall provide along with the notice that Application is incomplete, a written list detailing all information that must be provided to complete the Application. Customer will have ten (10) business days after receipt of the list to submit the listed information or to request an extension of time to provide such information. If the Customer does not provide the listed information or a request for an extension of time within the deadline, the Application will be deemed withdrawn.
3. For Levels 1, 2, 3 and 4, if Application passes all applicable screens, EDC shall sign an Interconnection Agreement and send to Applicant.
4. If an application for interconnection is denied, the EDC shall notify the applicant that the interconnection application has been denied, and shall provide an explanation of the reason(s) for the denial, including a list of additional information and/or modifications to the customer-generator's facility, which would be required in order to obtain an approval under the level of interconnection the customer-generator applied for.

(b) Post-approval.

1. Applicant constructs generator and obtains any necessary local code official approval
2. Applicant conducts commissioning test pursuant to IEEE 1547 and manufacturer requirements.
3. If commissioning is successful, Applicant begins operation of generator on date specified in the Interconnection Agreement or pursuant to these rules.

13.0 Specific procedures for Level 1

(a) Application: Customer-generator shall apply on standard application form for Level 1. Customer may pre-execute standard Interconnection Agreement for Level 1 and submit with Application.

(b) Time to process under screens: within ten (10) business days after the EDC notifies the applicant that the application is complete under 12.0 above, the EDC shall notify the applicant that: the customer-generator facility meets all of the applicable screening criteria (see 9.0 above), and the interconnection will be finally approved upon completion of the process set forth at 12(b)1-3 above; OR the customer-generator facility has failed to meet one or more of the applicable screening, and that the interconnection application is denied under Level 1 and that the customer may request the application be processed under Level 2, 3, or 4.

(c) Time to send Interconnection Agreement: If a customer-generator facility meets all of the applicable Level 1 screening criteria, the EDC shall, within three (3) business days after sending the notice of approval under (b) above, execute and send to the applicant a Level 1 interconnection agreement (unless the EDC does not require an interconnection agreement for Level 1 customer generators).

(d) An applicant that receives an interconnection agreement under (c) above shall execute the agreement and return it to the EDC at least five (5) business days prior to starting operation of the customer-generator facility (unless the EDC does not so require or the customer pre-executed the IA). The applicant shall indicate the anticipated start date for operation of the customer-generator facility. If the EDC requires an inspection of the customer-generator facility, the applicant shall provide at least five (5) business days notice to the EDC prior to the initiation of operations.

(e) If an EDC does not notify a Level 1 applicant in writing or by e-mail whether the interconnection is approved or denied within twenty (20) business days after the receipt of an application, the interconnection shall be deemed approved. The twenty days shall begin on the date that the EDC sends the written or e-mail notice that the application is received.

(f) Fees: \$20

[Note: a number of state have no fee for Level 1 interconnection]

14.0 Specific procedures for Level 2

(a) Application: Customer-generator shall apply on standard application form for Level 2 and shall indicate the anticipated start date for operation of the customer-generator facility.

(b) Time to process under screens: within fifteen (15) business days (otherwise same as Level 1).

(c) Time to send Interconnection Agreement: If a customer-generator facility meets all of the applicable Level 1 screening criteria, the EDC shall, within three (3) business days after sending the notice of approval under (b) above, execute and send to the applicant a Level 2 interconnection agreement.

(d) An applicant that receives an interconnection agreement under (c) above shall execute the agreement and return it to the EDC within three (3) business days or ten (10) business days prior to starting operation of the customer-generator facility at the customer's option. If the EDC requires an inspection of the customer-generator facility, the applicant shall provide at least five (5) business days notice to the EDC prior to the initiation of operations.

(e) An EDC may require witnessing of the commissioning test and if required shall be noted in the Interconnection Agreement. The commissioning test shall be scheduled within the time frames in this section or on a date mutually agreeable to the parties.

(f) Fees: \$50 plus \$1/kW of generator capacity.

(g) Additional Review: Applicable where a customer-generator facility has failed to meet one or more of the Level 2 screens, but the initial review indicates that additional review may enable the EDC to determine that the customer-generator facility can be interconnected consistent with safety, reliability, and power quality. In such a case, the EDC shall offer to perform additional review to determine whether minor modifications to the electric distribution system (for example, changing meters, fuses, or relay settings) would enable the interconnection to be made consistent with safety, reliability and power quality. The EDC shall provide to the applicant a non-binding, good faith estimate of the costs of such additional review, and/or such minor modifications. The EDC shall undertake the additional review or modifications only after the applicant consents to pay for the review and/or modifications.

15.0 Specific procedures for Level 3

(a) Application: Customer-generator shall apply on standard application form for Level 3 and shall indicate the anticipated start date for operation of the customer-generator facility.

- (b) Time to process under screens: within twenty (20) business days (otherwise same as Level 2).
- (c) Time to send Interconnection Agreement: If a customer-generator facility meets all of the applicable Level 1 screening criteria, the EDC shall, within three (3) business days after sending the notice of approval under (b) above, execute and send to the applicant a Level 2 interconnection agreement.
- (d) An applicant that receives an interconnection agreement under (c) above shall execute the agreement and return it to the EDC within three (3) business days or twenty (20) business days prior to starting operation of the customer-generator facility at the customer's option. If the EDC requires an inspection of the customer-generator facility, the applicant shall provide at least five (5) business days notice to the EDC prior to the initiation of operations.
- (e) An EDC may require witnessing of the commissioning test and if required shall be noted in the Interconnection Agreement. The commissioning test shall be scheduled within the time frames in this section or on a date mutually agreeable to the parties.
- (f) Fees: \$100 plus \$1.50/kW of generator capacity.

16.0 Specific procedures for Level 4

[Note: Level 4 is the interconnection procedure to be used for all generators that fail the screens or are not certified. It is an in-depth engineering review of the interconnection addressing all aspects of generator performance and grid interaction. Since each application will be unique, the study parameters are unique and no set deadlines or fees for completion of the study can be included in this rule.]

[Additional note: the mention of transmission here assumes an RTO or other separate organization has jurisdiction over interconnections to transmission lines or those interconnections that affect transmission]

- (a) Application: Customer-generator submits standard Application form for Level 4 interconnection; or a customer's interconnection application is transferred from the Level 1, Level 2 or Level 3 procedures for failure to meet all of the requirements of those procedures.
- (b) The EDC acknowledges to the Interconnecting Customer receipt of the application or the transfer from the Simplified or Expedited interconnection procedures within three (3) business days.
- (c) The EDC evaluates the application for completeness and notifies the Customer within ten (10) days of receipt that the application is or is not complete and, if not, advises what is missing. Once complete, the EDC will assign a Queue Position based on the date of completed application.
- (d) The EDC will conduct an initial review that includes a scoping meeting/discussion with the Customer (if necessary) within ten (10) days of determination that an application is complete. At the scoping meeting, the EDC will provide pertinent information such as: the available fault current at the proposed location; the existing peak loading on the lines in the general vicinity of the proposed generator; and the configuration of the distribution lines at the proposed point of interconnection. By mutual agreement of the parties, the Feasibility Study, Impact Study or Facilities Study may be waived.

(e) At the Customer's request and within five (5) days of the scoping meeting, the EDC will provide a good faith estimate of the cost and time to undertake a Feasibility Study that provides a preliminary review of the potential impacts on the distribution system from the proposed interconnection. The Feasibility Study will preliminarily review short circuit currents including contribution from the proposed generator, as well as coordination of and potential overloading of distribution circuit protection devices. Provided there are no violations found in the Feasibility Study, the Impact Study (below) may be waived.

(f) Within ten (10) days of the completion of the Feasibility Study, the EDC shall provide an Impact Study Agreement, including a cost estimate for the Impact Study. Where the proposed interconnection may affect electric transmission or distribution systems other than that of the EDC where the interconnection is proposed, the EDC shall transfer the interconnection application to the relevant RTO or other transmission provider for processing under FERC interconnection rules.

(g) For generators that are Certified, no review of the generator's protection equipment is required. While an EDC may review a certified generator's protection scheme, it cannot charge for such review. Otherwise an EDC shall conduct a review of generator protective devices for adherence to IEEE 1547 standards.

(h) Each EDC will include in its compliance tariff a description of the various elements of an Impact Study it would typically undertake pursuant to this Section including:

1. Load Flow Study
2. Short-Circuit Study
3. Circuit Protection and Coordination Study
4. Impact on System Operation
5. Stability Study (and the conditions that would justify including this element in the Impact Study)
6. Voltage Collapse Study (and the conditions that would justify including this element in the Impact Study).

(i) Once the Interconnecting Customer executes the Impact Study Agreement and pays pursuant to the good faith estimate contained therewith, the EDC will conduct the interconnection Impact Study.

(j) If the EDC determines, in accordance with Good Utility Practice, that the EDC electric system modifications required to accommodate the proposed interconnection are not substantial, the Impact Study will identify the scope and cost of the modifications as defined in the study results and no Facilities Study shall be required.

(k) If the EDC determines, in accordance with Good Utility Practice, that the system modifications to the EDC electric system are substantial, the results of the Impact Study will produce an estimate for the modification costs (within $\pm 25\%$). The EDC modifications necessary to interconnect the customer's proposed generator and the detailed costs thereof will be identified in a Facilities Study to be completed by the EDC.

(l) A Facilities Study Agreement, with a good faith estimate of the cost of completing the Facilities Study, shall be submitted to the Customer for Customer's approval.

(m) Once the Interconnecting Customer executes the Facilities Study Agreement and pays pursuant to the terms thereof, the EDC will conduct the Facilities Study.

(n) Within five (5) days of completion of the Impact and/or Facilities Study, the EDC shall send the Customer an executable Interconnection Agreement including a quote for any required EDS system modifications.

(o) Within thirty (30) days of the receipt of an Interconnection Agreement above, the Customer shall execute and return the Interconnection Agreement.

(p) The Facilities Study shall indicate the milestones for completion of the Customer installation of its generator and the EDC completion of any EDS system modifications and the milestones from the Facilities Study (if any) shall be incorporated into the Interconnection Agreement.

(q) The EDC shall inspect the completed generator installation for compliance with requirements and attend any required commissioning tests pursuant to IEEE Standard 1547.

(r) Provided any required commissioning tests are satisfactory, the EDC shall notify the Customer in writing that operation of the generator is approved.

(s) Customer shall notify the EDC if there is any anticipated change in the proposed date of initial interconnected operations of the generator.

(t) Fees for Standard interconnection review shall include an application fee not to exceed \$100 plus \$2 per kW capacity, as well as charges for actual time spent on the interconnection study. Costs for EDC facilities necessary to accommodate the customer's generator interconnection will be the responsibility of the customer.

17.0 General provisions and requirements after interconnection approval

(a) Authorized hourly rate for engineering under Additional Review or Level 4 shall be \$100/hour.

(b) If a customer-generator's facility complies with all applicable standards above, the facility shall be presumed to comply with the technical requirements of this subchapter. In such a case, the electric distribution company shall not require a customer-generator to install additional controls (including but not limited to a utility accessible disconnect switch), perform or pay for additional tests, or purchase additional liability insurance in order to obtain approval to interconnect except as agreed to by the customer.

(c) Additional protection equipment not included with the certified generator or interconnection equipment package may be added at the EDC's discretion as long as the performance of the system is not negatively impacted in any way and the customer is not charged for any equipment in addition to that which is included in the certified equipment package

(d) Metering. As set forth in the tariff for sale or exchange of energy, capacity or other ancillary services.

(e) Interconnection agreements: separate agreements for Level 1, Level 2, Level 3, and Level 4.

(f) An EDC that charges any fee other than the application fees set forth above shall provide the customer-generator with a bill that includes a clear explanation of all charges. In addition, the electric distribution company shall provide to the customer-generator, prior to the start of the interconnection study, a good faith estimate of the number of hours that will be needed to complete the interconnection study, and an estimate of the total interconnection study fee.

(g) Once an interconnection has been approved under this subchapter, the electric distribution company shall not require a customer-generator to test its facility except for the following:

1. For Levels 2 and 3, an annual test in which the customer-generator's facility is disconnected from the electric distribution company's equipment to ensure that the generator stops delivering power to the grid; and
2. Any manufacturer-recommended testing.

(h) An EDC shall have the right to inspect a customer-generator's facility both before and after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the customer-generator. If the electric distribution company discovers the customer-generator's facility is not in compliance with the requirements of IEEE 1547 and the non-compliance adversely affects the safety or reliability of the electric system, the electric distribution company may require disconnection of the customer-generator's facility until it complies with this subchapter.

18.0 Dispute resolution

(a) For disputes related to the technical application of these rules, the PUC may from time to time designate a technical master for the resolution of such disputes. If the PUC has so designated, the parties shall use the technical master to resolve disputes related to interconnection and such resolution shall be binding on the parties. Costs for dispute resolution by the technical master, if any, shall be as directed by the technical master subject to review by the PUC.

(b) The PUC may designate a Department of Energy national laboratory, college or university, or an approved FERC RTO with distribution system engineering expertise as the technical master. Should the FERC identify a national technical dispute resolution team, the PUC may designate said team as its technical master.

(c) Process and legal disputes. See PUC dispute resolution or complaint procedures.

Attachment 1

**Level 1 Application for Certified Inverter-Based Generating Facility
No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below. Additional information to evaluate the Application may be required.

Processing Fee: A fee of \$20 must accompany this Application [*if fee is required*].

Customer

Name:

Contact Person:

Address:

City:

State:

Zip:

Telephone (Day):

(Evening):

Fax:

E-Mail Address:

Contact (if different from Customer)

Name:

Address:

City:

State:

Zip:

Telephone (Day):

(Evening):

Fax:

E-Mail Address:

Owner of the facility (include % ownership by any electric utility):

Customer-Generator Facility Information

Location (if different from above):

Electric Service Company:

Account Number:

Small Generator 10 kW Inverter Process

Inverter Manufacturer: Model

Nameplate Rating: _____ (kW) _____ (kVA) _____ (AC Volts)

Single Phase _____ Three Phase _____

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: ___ Photovoltaic ___ Reciprocating Engine ___ Fuel Cell ___ Turbine
___ Other

Energy Source: ___ Solar ___ Wind ___ Hydro ___ Diesel ___ Natural Gas

Fuel Oil Other (describe) _____

Is the equipment UL1741 Listed? ___ Yes ___ No

If Yes, attach manufacturer's cut-sheet showing UL1741 listing

Estimated Installation Date: _____ Estimated In-Service Date: _____

The Level 1 Process is available only for inverter-based Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements.

List components of the Customer-Generator Facility equipment package that are currently certified:

Equipment Type

Certifying Entity

- 1.
- 2.
- 3.
- 4.
- 5.

Customer Signature _____

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Level 1 interconnection for a Generating Facility No Larger than 10kW *[and to return the Certificate of Completion when the Customer-Generator Facility has been installed.]*

[Note: A model Certificate of Completion can be found at Attachment 6. This certificate may be useful where the state has gotten agreement with local code officials to use this standard form. Where no such agreement has been obtained, local code officials may be unwilling to sign this form as it is not typically used for their approval and others have shown a reticence to sign an unknown form. In those cases, this certificate should be supplanted with evidence of local code official approval as is the current local practice.]

Signed: _____
Title: _____ Date: _____

Contingent Approval to Interconnect the Customer-Generator Facility
(For Company use only)

Interconnection of the Customer-Generator Facility is approved contingent upon the Terms and Conditions for Level 1 Generating Facility No Larger than 10kW *[and return of the Certificate of Completion.]*

Company Signature: _____
Title: _____ Date: _____
Application ID number: _____

Company waives inspection/witness test? Yes___No___

Attachment 2

Level 1 Standard Form Interconnection Agreement

[Note: This model is taken from the NARUC Model Interconnection Standards]

1.0 Construction of the Facility

The Customer may proceed to construct (including operational testing not to exceed two hours) the Generating Facility when the EDC approves the Application and executes this Interconnection Agreement.

2.0 Interconnection and Operation

The Customer may operate Generating Facility and interconnect with the Company's electric system once all of the following have occurred:

2.1 Upon completing construction, the Customer causes the Generating Facility to be inspected or otherwise approved by the appropriate local electrical wiring inspector with jurisdiction, and

2.2 *[The Customer returns the Certificate of Completion to the Company, and]*

2.3 The Company:

2.3.1 Witnesses the satisfactory Commissioning. All witnessing and inspections must be conducted by the Company, at its own expense, *[and returned the Certificate of Completion]*; OR

2.3.2 Does not schedule an inspection of the Customer-Generator Facility, in which case the witness test is deemed waived (unless the Parties agree otherwise); OR

2.3.3 Waives the right to inspect the Customer-Generator Facility.

2.4 The Company has the right to disconnect the Customer-Generator Facility in the event of improper installation.

3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Generating Facility as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 Access

The Company shall have access to the metering equipment of the Generating Facility at all times. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 Disconnection

5.1 The Company may temporarily disconnect the Generating Facility upon the following conditions:

5.1.1 For scheduled outages upon reasonable notice.

5.1.2 For unscheduled outages or emergency conditions.

5.1.3 If the Generating Facility does not operate in the manner consistent with these Terms and Conditions.

5.2 The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6.0 Indemnification

The Parties shall at all times indemnify, defend, and save 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 inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.0 Insurance *The Customer is not required to provide general liability insurance coverage as part of this Agreement, or any other Company requirement.*

[Note: Some states require a specified level of general liability insurance. E.g. \$300,000 for residential systems – no exclusion for small generator operations. Any other insurance requirements including EDC as co-insured or notification are extreme burdens on the 10kW generator class]

8.0 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, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

9.0 Termination

9.1 The agreement to operate in parallel may be terminated under the following conditions:

9.1.1 By the Customer: By providing written notice to the Company.

9.1.2 By the Company: If the Generating Facility fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

9.2 Permanent Disconnection: in the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Customer-Generator Facility.

9.3 Survival Rights: this Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

10.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Generating Facility to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

Attachment 3

Level 2, Level 3 and Level 4 Interconnection Application

(FOR USE WITH GENERATORS UP TO AND INCLUDING 10 MW)

A Customer-Generator applicant (“Applicant”) hereby makes application to _____ (“Company” or “EDC”) to install and operate a generating facility up to and including 10 MW interconnected with the _____ utility system. This application will be considered as an application for interconnection of generators under Expedited Interconnection Review provided the generator is not greater than 2 MW but shall serve as an Application for Standard Interconnection Review if greater than 2 MW or if Expedited Review does not qualify the generator for interconnection.

Written applications should be submitted by mail, e-mail or fax to the EDC, as follows:

EDC: _____
EDC’s Address: _____

Fax Number: _____
E-Mail Address: _____

EDC Contact Name: _____
EDC Contact Title: _____

An application is a Complete Application when it provides all applicable information required below. (Additional information to evaluate a request for interconnection may be required and will be so requested from the Interconnection Applicant by the EDC after the application is deemed complete).

Section 1. Applicant Information

Legal Name of Interconnecting Applicant (or, if an Individual, Individual’s Name)

Name: _____

Mailing _____ Address: _____

City: _____ State: _____ Zip Code: _____

Facility Location (if different from above):

Telephone (Daytime): Area Code _____ Number _____
(Evening): Area Code _____ Number _____

Fax Number: _____

E-Mail Address: _____

(Existing Account Number, if generator is to be interconnected on the customer side of an EDC revenue meter)

Type of Interconnect Service Applied for (choose one): _____ **Network Resource**
_____ **Energy Only** _____ **Load Response (no export)** _____ **Net metering**

Section 2. Generator Qualifications

Data apply only to the Customer-Generator Facility, not the Interconnection Facilities.

Energy Source: ___ Solar ___ Wind

___ Hydro (state Hydro Type, e.g. Run-of-River: _____)

___ Diesel ___ Natural Gas ___ Fuel Oil ___ Other (state type: _____)

Prime Mover: ___ Fuel Cell ___ Recip Engine ___ Gas Turb ___ Steam Turb ___ Microturbine
___ PV ___ Other

Type of Generator: ___ Synchronous ___ Induction ___ Inverter

Generator Nameplate Rating: _____ kW (Typical) Generator Nameplate kVAR: _____

Customer or Customer-Site Load: _____ kW (if none, so state)

Typical Reactive Load (if known): _____

Maximum Physical Export Capability Requested: _____ kW

List components of the Customer-Generator Facility equipment package that are currently certified:

	<u>Equipment Type</u>	<u>Certifying Entity</u>
1.		
2.		
3.		
4.		
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 (if used):

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.

Customer-Generator Facility Characteristic Data (for inverter-based machines)

Max design fault contribution current: _____ Instantaneous or RMS?

Harmonics Characteristics: _____

Start-up requirements: _____

Customer-Generator 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

Note: Please contact the EDC prior to submitting the Interconnection Request to determine if the specified information above is required.

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 3: Interconnection Facilities Information

Will a transformer be used between the generator and the point of common coupling? ___Yes ___No

Will the transformer be provided by the Customer? ___Yes ___No

Transformer Data (If Applicable, for 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 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:

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 4: General Information

Enclose copy of site electrical one-line diagram showing the configuration of all Customer-Generator Facility equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the Customer-Generator Facility is larger than 50 kW.

Is One-Line Diagram Enclosed? ___Yes ___No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Customer-Generator Facility (e.g., USGS topographic map or other diagram or documentation).

Proposed location of protective interface equipment on property (include address if different from the Customer's address) _____

Enclose 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 5. Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct. I also agree to install a Warning Label provided by (EDC) on or near my service meter location. Generating systems must be compliant with IEEE, NEC, ANSI, and UL standards, where applicable. By signing below, the Applicant also certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Signature of Applicant: _____ Date: _____

Section 6. Information Required Prior to Physical Interconnection (Not required as part of the application, unless available at time of application.)

Installing Electrician: _____ Firm: _____

License No.: _____

Mailing _____ Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: Area Code: _____ Number: _____

Installation Date: _____

Interconnection Date: _____

Signed (Inspector – if required): _____

Date: _____

(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Attachment 4

Level 2 and Level 3 Interconnection Agreement for Interconnection and Parallel Operation Of Distributed Generation – (Generators Less than 2 MW Capacity or Non-Exporting Generators up to 10MW)

This Interconnection Agreement (“Agreement”) is made and entered into this _____ day of _____, 20____, by _____ (“Company” or “EDC”), and _____ (“Customer”) each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties.”

Customer Information:

Name: _____
Address: _____
Telephone: _____

Company Information:

Name: _____
Address: _____
Telephone: _____

DG Application No. _____

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

1. Scope and Purpose of Agreement:

1.1 This Agreement describes *only* the conditions under which the Company and the Customer agree that the distributed generating facility or facilities (“DG”) described in Exhibit A may be interconnected to and operated in parallel with the EDC’s system. Other services that the Customer may require from the Company will be covered under separate agreements. The technical terms used in this agreement are defined in the interconnection rules.

1.2 The following exhibits are specifically incorporated into and made a part of this Agreement:
Exhibit A: Summary and Description of Interconnection (Application for Interconnection)
Exhibit B: Allocation of Cost Responsibility for the Design, Installation, Operation, Maintenance and Ownership of the Interconnection Facilities, if any arise under Additional Review (only used for Additional Review under the Level 2 interconnection rules).

1.3 When used in this agreement, with initial capitalization, the terms specified shall have the meanings indicated. Terms used in this agreement with initial capitalization but not defined in this agreement shall have the meanings specified in Section 2 of the Renewable Energy Net Metering and Interconnection Standards.

2. Summary and Description of Customer’s Distributed Generation Equipment/Facility to be Included in Exhibit A:

A description of the Generating Facility as contained in the Customer’s Application for Interconnection, including a summary of its significant components and a diagram showing the general arrangement of Customer’s DG and loads that are interconnected with Company’s electric distribution system, is attached to and made a part of this Agreement as Exhibit A.

2.1 DG identification number: _____ (Assigned by the Company)

2.2 Company’s customer electric service account number: _____ (Assigned by Company)

2.4 Customer's name and address as it appears on the Customer's electric service bill from the Company: _____

2.5 Capacity of the DG is: _____ kW.

2.6 The expected annual energy production of the DG is _____ kWh.

2.7 For the purpose of identifying eligibility of the Customer's DG for consideration under the federal Public Utility Regulatory Practices Act of 1978 ("PURPA"), and amendments, the Customer hereby declares that the DG _ does/ _ does not meet the requirements for "Cogeneration" as such term is used under applicable federal or state rules or laws.

2.8 The DG's expected date of Initial Operation is _____.

The expected date of Initial Operation shall be within two years of the date of this Agreement.

3. Operating Requirements

Customer shall operate and maintain the generator in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Interconnection Tariff. The Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the EDC has reason to believe that the Customer's installation may be the source of problems on the EDC's Electric Distribution System ("EDS"), the EDC has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the generator is determined to be the source of the problems, the EDC may require disconnection as outlined in Service Agreement. The cost of this testing will be borne by the EDC unless the EDC demonstrates that the problem or problems are caused by the generator or if the test was performed at the request of the Customer.

4. No Adverse Effects; Non-interference

4.1 The Customer shall ensure that the operation of the generator complies with the operational requirements set forth in IEEE 1547 except as modified by any addenda to this Agreement.

4.2 The EDC shall notify the Customer if there is evidence that the operation of the generator could cause disruption or deterioration of service to other Customers served from the same EDC EDS or if operation of the generator could cause damage to the EDC's EDS. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Std 519, as well as voltage fluctuations caused by large step changes in loading at the Facility.

4.3 Each party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other party's equipment or facilities. Each party shall use reasonable efforts to provide the other party with advance notice of such conditions.

4.4 The EDC will operate the EDS in such a manner so as to not unreasonably interfere with the operation of the generator and generally within the operating guidelines of IEEE 1547. The Customer will protect itself from normal disturbances propagating through the EDC's EDS, and such normal disturbances shall not constitute unreasonable interference. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the EDC's EDS, and outages on the EDC's EDS. If the Customer demonstrates that the EDC's EDS is adversely affecting the operation of the generator and if the adverse effect is a result of an EDC deviation from IEEE 1547 or [State PUC] guidelines, the EDC shall take appropriate action to eliminate the adverse effect.

5. Safe Operations and Maintenance

Each party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in the Service Agreement. Each party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the Point of Common Coupling ("PCC"). The EDC and the Customer shall each provide equipment on its respective side of the PCC that adequately protects the EDC's EDS, personnel, and other persons from damage and injury.

6. Access (see Sections 8 and 17)

7. EDC and Customer Representatives

Each party shall provide and update as necessary the telephone number that can be used at all times to allow either party to report an emergency.

8. EDC Right to Access EDC-Owned Facilities and Equipment

If necessary for the purposes of the Service Agreement and in the manner it describes, the Customer shall allow the EDC access to the EDC's equipment and the EDC's facilities located on the Customer's premises. To the extent that the Customer does not own all or any part of the property on which the EDC is required to locate its equipment or facilities to serve the Customer, the Customer shall secure and provide in favor of the EDC the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require.

9. Right to Review Information

Except for Customer-Generators interconnected under the Simplified procedures, the EDC shall have the right to review and obtain copies of the Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Customer's generator or its interconnection with the EDC's EDS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of this section.

10. Prior Authorization

Except for generators using Simplified interconnection procedures, for the mutual protection of the Customer and the Company, the connections between the Company's service wires and the Customer's service entrance conductors shall not be energized without prior authorization of the Company, which authorization shall not be unreasonably withheld.

11. Warranty Is Neither Expressed Nor Implied

Neither by inspection, if any, or non-rejection, nor in any other way, does the Company give any warranty, express or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Customer or leased by the Customer from third parties, including without limitation the DG and any structures, equipment, wires, appliances or devices appurtenant thereto.

12. Liability Provisions

12.1 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 of any kind whatsoever.

12.2 Indemnification

(a) Notwithstanding Paragraph 12.1 of this Agreement, the Company shall assume all liability for and shall indemnify the Customer for any claims, losses, costs, and expenses of any kind or character to the extent that they result from the Company's negligence in connection with the design, construction, or operation of its facilities as described on Exhibit A; provided, however, that the Company shall have no obligation to indemnify the Customer for claims brought by claimants who cannot recover directly from the Company. Such indemnity shall include, but is not limited to, financial responsibility for:

(i) the Customer's monetary losses; (ii) reasonable costs and expenses of defending an action or claim made by a third person; (iii) damages related to the death or injury of a third person; (iv) damages to the property of the Customer; (v) damages to the property of a third person; (vi) damages for the disruption of the business of a third person. In no event shall the Company be liable for consequential, special, incidental or punitive damages, including, without limitation, loss of profits, loss of revenue, or loss of production. The Company does not assume liability for any costs for damages arising from the disruption of the business of the Customer or for the Customer's costs and expenses of prosecuting or defending an action or claim against the Company. This paragraph does not create a liability on the part of the Company to the Customer or a third person, but requires indemnification where such liability exists. The limitations of liability provided in this paragraph do not apply in cases of gross negligence or intentional wrongdoing.

(b) Notwithstanding Paragraph 12.1 of this Agreement, the Customer shall assume all liability for and shall indemnify the Company for any claims, losses, costs, and expenses of any kind or character to the extent that they result from the Customer's negligence in connection with the design, construction, or operation of its facilities as described on Exhibit A; provided, however, that the Customer shall have no obligation to indemnify the Company for claims brought by claimants who cannot recover directly from the Customer. Such indemnity shall include, but is not limited to, financial responsibility for:

(i) the Company's monetary losses; (ii) reasonable costs and expenses of defending an action or claim made by a third person; (iii) damages related to the death or injury of a third person; (iv) damages to the property of the Company; (v) damages to the property of a third person; (vi) damages for the disruption of the business of a third person. In no event shall the Customer be liable for consequential, special, incidental or punitive damages, including, without limitation, loss of profits, loss of revenue, or loss of production. The Customer does not assume liability for any costs for damages arising from the disruption of the business of the Company or for the Company's costs and expenses of prosecuting or defending an action or claim against the Customer. This paragraph does not create a liability on the part of the Customer to the Company or a third person, but requires indemnification where such liability exists. The limitations of liability provided in this paragraph do not apply in cases of gross negligence or intentional wrongdoing.

12.3 Force Majeure

If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party will 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 will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but 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.

13. Insurance

The Customer is not required to provide general liability insurance coverage as part of this Agreement, or any other Company requirement. At no time shall the Company require that the Customer negotiate any policy or renewal of any policy covering any liability through a particular insurance company, agent, solicitor, or broker.

[Note: some states use a specified level of general liability insurance here. E.g. \$2,000,000 general liability insurance without exclusion for small generator operation]

14. Effect

The inability of the Company to require the Customer to provide general liability insurance coverage for operation of the DG is not a waiver of any rights the Company may have to pursue remedies at law against the Customer to recover damages.

15. 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, such portion or provision shall be deemed separate and independent, and the remainder of this Agreement shall remain in full force and effect.

16. Notices

Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the person specified below:

If to Customer:

Customer Name: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: () _____

FAX: () _____

If to Company:

Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____
Phone: () _____
FAX: () _____

16.1 Notices

A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 16.

16.2 Communications

The Parties may also designate operating representatives to conduct the daily communications which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other in accordance with Section 16.

17. Right of Access, Equipment Installation, Removal and Inspection

17.1 Upon reasonable notice, the Company may send a qualified person to the premises of the Customer at or immediately before the time the DG first produces energy to inspect the interconnection, and observe the DG's commissioning (including any required testing), startup, and operation for a period of up to no more than three (3) days after initial start-up of the unit. In addition, the customer shall notify the company at least seven (7) days prior to conducting any on-site Verification Testing of the DG.

17.2 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, Company shall have access to 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.

18. Disconnection of Unit

18.1 Customer retains the option to temporarily disconnect from Company's Company system at any time. Such temporary disconnection shall not be a termination of the Agreement unless Customer exercises its termination rights under Section 19.

18.2 Subject to PUC Order or Rule, for routine maintenance and repairs on Company's Company system, Company shall provide Customer with seven (7) days' notice of service interruption. The Company shall have the right to disconnect service to Customer without notice to eliminate conditions that constitute a potential hazard to Company personnel or the general public. The Company shall notify the Customer of the emergency as soon as circumstances permit.

18.3 The Company may disconnect the DG, after notice to the Customer has been provided and a reasonable time to correct, consistent with the conditions, has elapsed, if the DG adversely affects the quality of service of adjoining customers.

18.4 If, after the DG has been commissioned, the operations of the Company are adversely affecting the performance of the DG or the Customer's premises, the Company shall immediately take appropriate action to eliminate the adverse effect. If the Company determines that it needs to upgrade or reconfigure its system the Customer will not be responsible for the

cost of new or additional equipment on the Company's side of the Point Of Common Coupling between the Customer and the Company.

19. Effective Term and Termination Rights

This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. The agreement may be terminated for the following reasons: (a) Customer may terminate this Agreement at any time, by giving the Company sixty (60) days' written notice; (b) Company may terminate upon failure by the Customer to generate energy from the Facility in parallel with the Company's system by the later of two years from the date of this agreement or twelve (12) months after completion of the interconnection; (c) either party may terminate by giving the other party at least sixty (60) days prior written notice that the other Party is in default of any of the material terms and conditions of the Agreement, so long as the notice specifies the basis for termination and there is reasonable opportunity to cure the default; or (d) Company may terminate by giving Customer at least sixty (60) days notice in the event that there is a material change in an applicable rule or statute concerning interconnection and parallel operation of the DG, unless the Customer's installation is exempted from the change or the Customer complies with the change in a timely manner. Nothing in this provision shall limit the ability of the Company to disconnect the Customer without providing notice as specified herein if necessary to address a hazardous condition. Upon termination of this Agreement the DG will be disconnected from the Company's electric 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.

20. Governing Law/Regulatory Authority

This Agreement was executed in the State of [State] and must in all respects be governed by, interpreted, construed, and enforced in accordance with the laws thereof. This Agreement is subject to, and the parties' obligations hereunder include, maintaining and operating in full compliance with all valid, applicable federal, State, and local laws or ordinances, and all applicable rules, regulations, orders of, and tariffs approved by, duly constituted regulatory authorities having jurisdiction.

21. Assignments

21.1 Assignment to Corporate Party

At any time during the term, the Customer may assign this Agreement to a corporation or other entity with limited liability, provided that the Customer obtains the consent of the Company. Such consent will not be withheld unless the Company can demonstrate that the corporate entity is not reasonably capable of performing the obligations of the assigning Customer under this Agreement.

21.2 Assignment to Individuals

At any time during the term, a Customer may assign this Agreement to another person, other than a corporation or other entity with limited liability, provided that the assignee is the owner, lessee, or is otherwise responsible for the DG.

22. Confidentiality

In accordance with operative State laws, State regulatory rules or orders, each Party shall hold in confidence and shall not disclose confidential information to any person (except employees, officers, representatives and agents that agree to be bound by this provision), except as

required by law. Confidential information shall mean any confidential and/or proprietary information provided by one Party ("Disclosing Party") to the other Party ("Receiving Party") that is clearly marked or otherwise designated "Confidential." For purposes of procedures all design, operating specifications, and metering data provided by Small Resource shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such. Confidential information shall not include information that the Receiving Party can demonstrate:

- a. Is generally available to the public other than as a result of a disclosure by the Receiving Party;
- b. Was in the lawful possession of the Receiving Party on a non-confidential basis before receiving it from the Disclosing Party;
- c. Was supplied to the Receiving Party without restriction by a third party, who, to the knowledge of the Receiving Party, was under no obligation to the Disclosing Party to keep such information confidential;
- d. Was independently developed by the Receiving Party without reference to confidential information of the Disclosing Party; or
- e. Was disclosed with the prior written approval of the Disclosing Party. If a Party believes it is required by law to disclose confidential information, that Party shall provide the other Party with prompt notice of such requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of these procedures.

23. Dispute Resolution

Each Party agrees to attempt to resolve all disputes arising hereunder promptly, equitably and in a good faith manner, consistent with applicable PUC Rules.

24. Amendment and Notification

This Agreement can only be amended or modified by a writing signed by both Parties.

25. Entire Agreement

This Agreement constitutes the entire Agreement between the Parties and supersedes all prior agreements or understandings, whether verbal or written. It is expressly acknowledged that the Parties may have other agreements covering other services not expressly provided for herein, which agreements are unaffected by this Agreement.

26. Non-Waiver

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. 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 to waive the obligations, rights, or duties imposed on the Parties.

27. No Third Party Beneficiaries

This agreement is not intended to and does not create rights, remedies, 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 Parties, their successors in the interest and, where permitted, their assigns.

28. Signatures

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

[COMPANY NAME]

[CUSTOMER NAME]

BY: _____

BY: _____

TITLE: _____

TITLE: _____

DATE: _____

DATE: _____

Exhibit A: Summary and Description of Interconnection for Level 2/Level 3 Interconnection Agreement

[ATTACH CUSTOMER'S COMPLETED INTERCONNECTION APPLICATION HERE]

Exhibit B: Allocation of Cost Responsibility for the Design, Installation, Operation, Maintenance and Ownership of the Interconnection Facilities, if any arise under Additional Review. (Only used for Additional Review under the Level 2 Interconnection Rules.)

Attachment 5

Level 4 Interconnection Agreement for Interconnection of Generating Facilities With a Capacity Less Than or Equal to 10 MW

This Agreement is made and entered into this ___ day of _____ by and between _____, a _____ organized and existing under the laws of the State of _____, (“Customer,”) and _____, a _____, existing under the laws of the State of _____, (“Company” or “EDC”). Customer and the EDC each may be referred to as a “Party,” or collectively as the “Parties.”

Recitals:

Whereas, Customer is proposing to develop a Small Customer-Generator Facility, or generating capacity addition to an existing Small Customer-Generator Facility, consistent with the Interconnection Request completed by Customer on _____; and

Whereas, Customer desires to interconnect the Small Customer-Generator Facility with EDC’s Electric Distribution System (“EDS”).

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

1. Scope and Limitations of Agreement

- 1.1 This Agreement shall be used for all approved Level 4 Interconnection Requests according to the procedures set forth in the Renewable Energy Interconnection Procedures.
- 1.2 This Agreement governs the terms and conditions under which the Small Customer-Generator Facility will interconnect to, and operate in Parallel with, EDC’s EDS.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Customer’s power.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between EDC and the Customer. However, in the event that the provisions of this agreement are in conflict with the provisions of the EDC tariff, the EDC tariff shall control.

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, and Operating Requirements.
- 1.5.2 The Customer shall construct, interconnect, operate and maintain its Small Customer-Generator Facility, and construct, operate, and maintain its Interconnection Equipment in accordance with the applicable manufacturer’s recommended maintenance schedule, in accordance with this Agreement.
- 1.5.3 EDC shall construct, own, operate, and maintain its EDS and Interconnection Facilities in accordance with this Agreement.
- 1.5.4 The Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed the standards set in or by the National Electrical Code, the American National Standards Institute, IEEE,

Underwriters Laboratories, and any manufacturer Operating Requirements.

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 Exhibits to this Agreement and shall do so in a manner as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the other party.

1.5.6 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 Common Coupling ("PCC").

1.6 Parallel Operation Obligations

Once the Small Customer-Generator Facility has been authorized to commence parallel operation, the Customer shall abide by all written rules and procedures developed by the EDC which pertain to the parallel operation of the Small Customer-Generator Facility, copies of which are provided as Exhibit ___ to this Agreement.

1.7 Reactive Power

The Customer shall design its Small Customer-Generator Facility to maintain a composite power delivery at continuous rated power output at the PCC at a power factor within the range of 0.95 leading to 0.95 lagging.

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

2.1 Equipment Testing and Inspection

The Customer shall test and inspect its Small Customer-Generator Facility and Interconnection Facilities prior to interconnection, and in accordance with IEEE 1547 Standards.

2.2 Right of Access

At reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, Company shall have access to 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.

3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect perpetually, 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.

3.3.1 The Customer may terminate this Agreement at any time by giving EDC twenty (20) business days written notice.

3.3.2 Either Party may terminate this Agreement after Default pursuant to Article 6.6.

3.3.3 Upon termination of this Agreement, the Small Customer-Generator Facility will be disconnected from EDC's EDS. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.4 This provisions of this Article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

The EDC may temporarily disconnect the Small Customer-Generator Facility from its Electric Distribution System for so long as reasonably necessary in the event one or more of the following conditions or events occurs:

3.4.1 **Emergency Conditions**—"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the EDC, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Electric Distribution System, EDC's Interconnection Facilities or (3) that, in the case of the 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 Customer-Generator Facility or the Interconnection Equipment . Under Emergency Conditions, EDC or the Customer may immediately suspend interconnection service and temporarily disconnect the Small Customer-Generator Facility. EDC shall notify the Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Customer's operation of the Small Customer-Generator Facility. The Customer shall notify EDC promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect EDC's Electric Distribution System. 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** - EDC may interrupt interconnection service or curtail the output of the Small Customer-Generator Facility and temporarily disconnect the Small Customer-Generator Facility from EDC's Electric Distribution System when necessary for routine maintenance, construction, and repairs on EDC's Electric Distribution System. EDC shall provide the Customer with five (5) business days notice prior to such interruption. EDC shall use reasonable efforts to coordinate such reduction or temporary disconnection with the Customer.
- 3.4.3 **Forced Outages** - During any forced outage, EDC may suspend interconnection service to effect immediate repairs on EDC's Electric Distribution System. EDC shall use reasonable efforts to provide the Customer with prior notice. If prior notice is not given, EDC shall, upon request, provide the Customer written documentation after the fact explaining the circumstances of the disconnection.
- 3.4.4 **Adverse Operating Effects** - EDC shall provide the Customer with a written notice of its intention to disconnect the Small Customer-Generator Facility if, based on Good Utility Practice, the EDC determines that operation of the Small Customer-Generator Facility will likely cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Customer-Generator Facility could cause damage to EDC's Electric Distribution System. Supporting documentation used to reach the decision to disconnect shall be provided to the Customer upon request. EDC may disconnect the Small Customer-Generator Facility if, after receipt of the notice, the Customer fails to remedy the adverse operating effect within a reasonable time which shall be at least five (5) business days from the date the Customer receives the EDC's written notice supporting the decision to disconnect, unless Emergency Conditions exist in which case the provisions of Article 3.4.1 apply.
- 3.4.5 **Modification of the Small Customer-Generator Facility** - The Customer must receive written authorization from EDC before making any change to the Small Customer-Generator Facility that may have a material impact on the safety or reliability of the Electric Distribution System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Customer makes such modification without EDC's prior written authorization, the latter shall have the right to temporarily disconnect the Small Customer-Generator Facility.
- 3.4.6 **Reconnection** - The Parties shall cooperate with each other to restore the Small Customer-Generator Facility, Interconnection Facilities, and EDC's Electric Distribution System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

- 4.1.1 The Customer shall pay for the cost of the Interconnection Facilities itemized in Exhibit ___ of this Agreement. If a Facilities Study was performed, EDC shall identify its Interconnection Facilities necessary to safely interconnect the Small Customer-Generator Facility with EDC's Electric Distribution System, the cost of those facilities, and the time required to build and install those facilities.

- 4.1.2 The Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its Interconnection Equipment, and (2) operating, maintaining, repairing, and replacing EDC's Interconnection Facilities as set forth in the Exhibits to this Agreement.

4.2 Distribution Upgrades

EDC shall design, procure, construct, install, and own any Distribution Upgrades. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Customer.

5. Billing, Payment, Milestones, and Financial Security

5.1 Billing and Payment Procedures and Final Accounting

- 5.1.1 EDC shall bill the Customer for the design, engineering, construction, and procurement costs of EDC provided Interconnection Facilities and Distribution Upgrades contemplated by this Agreement as set forth in Exhibit __, on a monthly basis, or as otherwise agreed by the Parties. The Customer shall pay each bill within thirty (30) calendar days of receipt, or as otherwise agreed to by the Parties.

- 5.1.2 Within ninety (90) calendar days of completing the construction and installation of EDC's Interconnection Facilities and Distribution Upgrades described in the Exhibits to this Agreement, EDC shall provide the Customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation and the budget estimate provided to the Customer and a written explanation for any significant variation. (2) the Customer's previous deposit and aggregate payments to EDC for such Interconnection Facilities and Distribution Upgrades. If the Customer's cost responsibility exceeds its previous deposit and aggregate payments, EDC shall invoice the Customer for the amount due and the Customer shall make payment to EDC within thirty (30) calendar days. If the Customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, EDC shall refund to the Customer an amount equal to the difference within thirty (30) calendar days of the final accounting report.

5.2 Customer Deposit

At least twenty (20) business days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the EDC's Interconnection Facilities and Distribution Upgrades, the Customer shall provide the EDC with a deposit equal to 50% of the cost estimated for its Interconnection Facilities prior to its beginning design of such facilities.

6. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

6.1 Assignment

This Agreement may be assigned by either Party upon fifteen (15) business days prior written notice, and with the opportunity to object by the other Party. When required, consent to assignment shall not be unreasonably withheld; provided that:

- 6.1.1 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;
- 6.1.2 The Customer shall have the right to assign this Agreement, without the consent of EDC, for collateral security purposes to aid in providing financing for the Small Customer-Generator Facility.
- 6.1.3 Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same obligations as the Customer.

6.2 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.

6.3 Indemnity

- 6.3.1 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 6.2.
- 6.3.2 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.
- 6.3.3 If an indemnified person is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such 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.
- 6.3.4 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.

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

6.4 Consequential Damages

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, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

6.5 Force Majeure

- 6.5.1 As used in this Article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, 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."
- 6.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance, and if the initial notification was verbal, it should be promptly followed up with a written notification. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be reasonably mitigated. The Affected Party will use reasonable efforts to resume its performance as soon as possible.

6.6 Default

- 6.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement, or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in Article 6.6.2, the defaulting Party shall have sixty (60) calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within sixty (60)

calendar days, the defaulting Party shall commence such cure within twenty (20) calendar days after notice and continuously and diligently complete such cure within six (6) months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

- 6.6.2 If a Default is not cured as provided for in this Article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate 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.

7. Insurance

The Customer is not required to provide general liability insurance coverage as part of this Agreement, or any other EDC requirement. It is, however, recommended that the Customer protect itself with liability insurance.

8. Dispute Resolution See provisions in Renewable Energy Interconnection Procedures

9. Miscellaneous

9.1 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 _____, 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.

9.2 Amendment

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

9.3 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.

9.4 Waiver

- 9.4.1 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.
- 9.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Customer shall not constitute a waiver of the Customer's legal rights to obtain an interconnection

from EDC. Any waiver of this Agreement shall, if requested, be provided in writing.

9.5 Entire Agreement

This Agreement, including all Exhibits, 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.

9.6 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.

9.7 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.

9.8 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, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

9.9 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Customer-Generator Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) 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 (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

9.10 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; provided, however, that 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.

9.10.1 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; provided, however, that in no event shall EDC be liable for the actions or inactions of the Customer or its subcontractors with respect to obligations of the Customer 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.

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

10. Notices

10.1 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 Customer:

Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ E-mail _____

If to EDC:

EDC: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ E-mail _____

10.2 Billing and Payment

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

Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

10.3 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.

Customer's
Operating representative: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-Mail _____

EDC's Operating Representative: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Exhibits (list them here):

[Note: there may be no exhibits or there may be exhibits on:

a) interconnection facilities (upgrades to the EDC's distribution system required for Level 4 generators or those approved under the "additional review" portion of Level 2) to be constructed by the EDC. The facilities exhibit would include any milestones for both the generator and the EDC as well as cost responsibility and apportionments if there is more than one generator interconnecting and sharing in the system upgrade costs;

b) operational requirements – this exhibit would generally require the generator to operate within the bounds of IEEE 1547 and associated standards;

c) Reimbursement of costs (some utilities may reimburse generators for distribution system upgrades that benefit future generators or customers);

d) operating restrictions (no operating restrictions apply to levels 1, 2, or 3 interconnections but there may be restrictions imposed on generators approved under Level 4);

e) copies of Feasibility, Impact, and Facilities Study agreements, see Model Rule Attachments 7(a)-7(c), below]

Attachment 6

Certificate of Completion [optional, see Note below]

Installation Information

Check if owner-installed

Customer: _____ Contact Person: _____

Mailing Address: _____

Location of Small Customer-Generator Facility (if different from above):

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Electrician:

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

License number: _____

Application ID number: _____

Electrical Inspection:

The system has been installed and inspected in compliance with the local Building/Electrical Code of _____

(Appropriate governmental authority)

Signed (Local Electrical Wiring Inspector, or attach signed electrical inspection):

(Note: Local procedures may differ on how to process approvals from local electric inspection officials)

Name (printed): _____ Date: _____

Electric Distribution Company (EDC) waives Witness Test? Yes No

EDC Signature: _____ Title: _____ Date: _____

Final Approval of Interconnection Agreement

The Certificate of Completion has been received and final approval to interconnect the Small Customer-Generator Facility is granted under the Renewable Energy Interconnection Procedures.

EDC Signature: _____ Title: _____ Date: _____

[Note: this certificate may be useful where the state has obtained agreement from local code officials to use this standard form. Where no such agreement has been obtained, local code officials may be unwilling to sign this form as it is not typically used for their approval and others have shown a reticence to sign an unknown form. In those cases, this certificate should be supplanted with evidence of local code official approval as is the current local practice.]

Attachment 7(a)

**Exhibit __ to Level 4 Interconnection Agreement:
Interconnection Feasibility Study Agreement**

This agreement is made and entered into this _____ day of _____ by and between _____, a _____ organized and existing under the laws of the State of _____, (“Customer,”) and _____, a _____ existing under the laws of the State of _____, (“Electric Distribution Company” or “EDC”). Customer and EDC each may be referred to as a “Party,” or collectively as the “Parties.”

Recitals:

Whereas, Customer is proposing to develop a Customer-Generator Facility or generating capacity addition to an existing Customer-Generator Facility consistent with the Interconnection Request completed by Customer on _____; and

Whereas, Customer desires to interconnect the Generating Facility with the EDC’s Transmission System; and

Whereas, Customer has requested EDC to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Generating Facility to the EDC’s Electric Distribution System;

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

1. When used in this agreement, with initial capitalization, the terms specified shall have the meanings indicated. Terms used in this agreement with initial capitalization but not defined in this agreement shall have the meanings specified in Section 2 of the Renewable Energy Interconnection Procedures.
2. Customer elects and EDC shall cause to be performed an Interconnection Feasibility Study consistent with Section 16(e) of the Renewable Energy Interconnection Procedures.
3. The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment 7(a)(1).
4. The Interconnection Feasibility Study shall be based on the technical information provided by Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. EDC reserves the right to request additional technical information from Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection Feasibility Study. If Customer modifies its Interconnection Request, the time to complete the Interconnection Feasibility Study may be extended by agreement of the Parties.
5. In performing the study, EDC shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Customer will not be charged for such existing studies; however, Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the

Interconnection Feasibility Study.

6. The Interconnection Feasibility Study report shall provide the following information:
 - 6.1. Preliminary identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection,
 - 6.2. Preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection, and
 - 6.3. Preliminary description and non-bonding estimated cost of facilities required to interconnect the Generating Facility to the EDC's Electric Distribution System and to address the identified short circuit and power flow issues.
7. EDC may require a study deposit of the lesser of 100 percent of estimated non-binding good faith study costs or \$1,000.
8. The Interconnection Feasibility Study shall be completed and the results shall be transmitted to Customer within thirty (30) calendar days after this agreement is signed by the Parties.
9. Study fees shall be based on actual costs and will be invoiced to Customer after the study is transmitted to Customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
10. Customer shall pay any actual study costs that exceed the deposit without interest within thirty (30) calendar days on receipt of the invoice. EDC shall refund any excess amount without interest within thirty (30) calendar days of the invoice.

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

[Insert name of EDC]

Signed _____
Name (Printed): _____ Title _____

[Insert name of Customer]

Signed _____
Name (Printed): _____ Title _____

**Addendum to Interconnection Feasibility Study Agreement:
Assumptions Used in Conducting the Interconnection Feasibility Study**

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

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

2. Designation of alternative Points of Interconnection and configuration. Note: 1 and 2 are to be completed by Customer.

Note: 1 and 2 are to be completed by the Customer. Other assumptions (listed below) are to be provided by Customer and EDC.

Attachment 7(b)

**Exhibit __ to Level 4 Interconnection Agreement:
Interconnection System Impact Study Agreement**

This agreement is made and entered into this _____ day of _____ by and between _____, a _____ organized and existing under the laws of the State of _____, (“Customer,”) and _____, a _____ existing under the laws of the State of _____, (“Electric Distribution Company” or “EDC”). Customer and EDC each may be referred to as a “Party,” or collectively as the “Parties.”

Recitals:

Whereas, Customer is proposing to develop a Customer-Generator Facility or generating capacity addition to an existing Customer-Generator Facility consistent with the Interconnection Request completed by Customer on _____ and;

Whereas, Customer desires to interconnect the Generating Facility with the EDC’s Electric Distribution System (“EDS”);

Whereas, EDC has completed an Interconnection Feasibility Study and provided the results of said study to Customer (This recital to be omitted if the Parties have agreed to forego the Interconnection Feasibility Study);

Whereas, Customer has requested EDC to perform an Interconnection System Impact Study to assess the impact of interconnecting the Generating Facility to the EDC’s EDS;

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

1. When used in this agreement, with initial capitalization, the terms specified shall have the meanings indicated. Terms used in this agreement with initial capitalization but not defined in this agreement shall have the meanings specified in Section 2 of the Renewable Energy Interconnection Procedures.
2. Customer elects and EDC shall cause to be performed an Interconnection System Impact Study consistent with Section 16(f) of the Renewable Energy Interconnection Procedures.
3. The scope of the Interconnection System Impact Study shall be subject to the assumptions set forth in Attachment 7(b)(1) to this agreement.
4. The Interconnection System Impact Study will be based upon the results of the Interconnection Feasibility Study and the technical information provided by Customer in the Interconnection Request. EDC reserves the right to request additional technical information from Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the Interconnection System Impact Study. If Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the Interconnection System Impact Study may be extended.
5. The Interconnection System Impact Study report shall provide the following information:

- 5.1. Identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection,
 - 5.2. Identification of any thermal overload or voltage limit violations resulting from the interconnection,
 - 5.3. Identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
 - 5.4. Description and non-binding, good faith estimated cost of facilities required to interconnect the Generating Facility to the EDC's EDS and to address the identified short circuit, instability, and power flow issues.
6. EDC may require a study deposit of the lesser of 50 percent of estimated non-binding good faith study costs or \$3,000.
 7. The distribution Interconnection System Impact Study, if required, shall be completed and the results transmitted to Customer within thirty (30) calendar days after this agreement is signed by the Parties. The distribution Interconnection System Impact Study, if required, shall be completed and the results transmitted to Customer within forty-five (45) calendar days after this agreement is signed by the Parties, or in accordance with the EDC's queuing procedures.
 8. Study fees shall be based on actual costs and will be invoiced to Customer after the study is transmitted to Customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
 9. Customer shall pay any actual study costs that exceed the deposit without interest within thirty (30) calendar days on receipt of the invoice. EDC shall refund any excess amount without interest within thirty (30) calendar days of the invoice.

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

[Insert name of EDC]

Signed _____
 Name (Printed): _____ Title _____

[Insert name of Customer]

Signed _____
 Name (Printed): _____ Title _____

**Addendum to Interconnection System Impact Study Agreement:
Assumptions Used in Conducting the Interconnection System Impact Study**

The Interconnection System Impact Study shall be based upon the results of the Interconnection Feasibility Study, subject to any modifications in accordance with Section 16(e) of the Renewable Energy Interconnection Standards, and the following assumptions:

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

2. Designation of alternative Points of Interconnection and configuration. Note: 1 and 2 are to be completed by Customer.

Note: 1 and 2 are to be completed by the Customer. Other assumptions (listed below) are to be provided by Customer and EDC.

Attachment 7(c)

Exhibit __ to Level 4 Interconnection Agreement: Interconnection Facilities Study Agreement

This agreement is made and entered into this _____ day of _____ by and between _____, a _____ organized and existing under the laws of the State of _____, (“Customer,”) and _____, a _____ existing under the laws of the State of _____, (“Electric Distribution Company” or “EDC”). Customer and EDC each may be referred to as a “Party,” or collectively as the “Parties.”

Recitals:

Whereas, Customer is proposing to develop a Customer-Generator Facility or generating capacity addition to an existing Customer-Generator Facility consistent with the Interconnection Request completed by Customer on _____; and

Whereas, Customer desires to interconnect the Generating Facility with the EDC’s Electric Distribution System (“EDS”);

Whereas, EDC has completed an Interconnection System Impact Study and provided the results of said study to Customer; and

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

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

1. When used in this agreement, with initial capitalization, the terms specified shall have the meanings indicated. Terms used in this agreement with initial capitalization but not defined in this agreement shall have the meanings specified in Section 2 of the Renewable Energy Interconnection Standards.
2. Customer elects and EDC shall cause an Interconnection Facilities Study consistent with Section 16(k) of the Renewable Energy Interconnection Standards.
3. The scope of the Interconnection Facilities Study shall be subject to data provided in Attachment 7(c)(1) to this agreement.
4. An Interconnection Facilities Study report (1) shall provide a description, estimated cost of (consistent with Attachment A), schedule for required facilities to interconnect the Generating Facility to the EDC’s EDS and (2) shall address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.
5. EDC may require a study deposit of the lesser of 50 percent of estimated non-binding good

faith study costs or \$10,000.

6. In cases where no Upgrades are required, the Interconnection Facilities Study shall be completed and the results shall be transmitted to Customer within thirty (30) calendar days after this agreement is signed by the Parties. In cases where Upgrades are required, the Interconnection Facilities Study shall be completed and the results shall be transmitted to Customer within forty-five (45) calendar days after this agreement is signed by the Parties.
7. Study fees shall be based on actual costs and will be invoiced to Customer after the study is transmitted to Customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
8. Customer shall pay any actual study costs that exceed the deposit without interest within thirty (30) calendar days on receipt of the invoice. EDC shall refund any excess amount without interest within thirty (30) calendar days of the invoice.

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

[Insert name of EDC]

Signed _____

Name (Printed): _____ Title _____

[Insert name of Customer]

Signed _____

Name (Printed): _____ Title _____

Attachment 7(c)(1)

Addendum to Interconnection Facilities Study Agreement:

Data To Be Provided by Customer With the Interconnection Facilities Study Agreement

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, distribution circuits, etc. On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT) .On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps. One set of metering is required for each generation connection to the new ring bus or existing EDC station.

Number of generation connections: _____

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

Yes _____ No _____.

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes _____ No _____(Please indicate on the one-line diagram).

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

What protocol does the control system or PLC use? _____

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

Physical dimensions of the proposed interconnection station: _____

Bus length from generation to interconnection station: _____

Line length from interconnection station to the EDC's EDS. _____

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

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

*To be completed in coordination with EDC.

Is the Generating Facility located in the EDC's service area?

Yes _____ No _____ If No, please provide name of local provider:

Please provide the following proposed schedule dates:

Begin Construction Date: _____

Generator step-up transformers receive back feed power Date: _____

Generation Testing Date: _____

Commercial Operation Date: _____