

**DEPARTMENT OF ENERGY****Federal Energy Regulatory Commission****18 CFR Part 35****[Docket No. RM13–2–000]****Small Generator Interconnection Agreements and Procedures****AGENCY:** Federal Energy Regulatory Commission, DOE.**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Federal Energy Regulatory Commission (Commission) is proposing to revise the *pro forma* Small Generator Interconnection Procedures (SGIP) and *pro forma* Small Generator Interconnection Agreement (SGIA) originally set forth in Order No. 2006. The *pro forma* SGIP and SGIA establish the terms and conditions under which public utilities must provide interconnection service to Small Generating Facilities of no more than 20 megawatts (MW). In this Notice of Proposed Rulemaking (NOPR), the Commission proposes to modify the *pro forma* SGIP to: (1) Incorporate provisions that would provide an Interconnection Customer with the option of requesting from the Transmission Provider a pre-application report providing existing information about system conditions at a possible Point of Interconnection; (2) revise the 2 MW threshold for participation in the

Fast Track Process included in section 2 of the *pro forma* SGIP; (3) revise the customer options meeting and the supplemental review following failure of the Fast Track screens so that the supplemental review is performed at the discretion of the Interconnection Customer and includes minimum load and other screens to determine if a Small Generating Facility may be interconnected safely and reliably; and (4) revise the *pro forma* SGIP Facilities Study Agreement to allow the Interconnection Customer the opportunity to provide written comments to the Transmission Provider on the upgrades required for interconnection. The Commission also proposes to clarify or correct certain sections of the *pro forma* SGIP and SGIA. The proposed reforms are intended to ensure that the time and cost to process small generator interconnect requests will be just and reasonable and not unduly discriminatory. To facilitate discussion of the proposed reforms, the Commission intends to hold a workshop at which stakeholders may discuss the proposals made in this NOPR. The workshop is to be held before the end of the comment period.

**DATES:** Comments are due June 3, 2013.**ADDRESSES:** Comments, identified by docket number, may be filed in the following ways:

- Electronic Filing through <http://www.ferc.gov>. Documents created

electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format.

- Mail/Hand Delivery: Those unable to file electronically may mail or hand-deliver comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE., Washington, DC 20426.

**Instructions:** For detailed instructions on submitting comments and additional information on the rulemaking process, see the Comment Procedures Section of this document.

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:**

**Notice of Proposed Rulemaking**  
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Appendix B: Proposed Flow Chart for Interconnecting a Certified Small Generating Facility Using the “Fast Track Process.”

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Appendix D: Proposed Revisions to the *Pro Forma* SGIA.

**Notice of Proposed Rulemaking**

January 17, 2013.

**I. Introduction**

1. The Commission is proposing to revise the *pro forma* Small Generator Interconnection Procedures (SGIP) and *pro forma* Small Generator

Interconnection Agreement (SGIA) originally set forth in Order No. 2006.<sup>1</sup> The *pro forma* SGIP and SGIA establish the terms and conditions under which public utilities<sup>2</sup> must provide interconnection service to Small Generating Facilities<sup>3</sup> of no more than 20 megawatts (MW).<sup>4</sup>

2. Market changes, including the growth of small generator interconnection requests and the growth in solar photovoltaic (PV) installations, driven in part by state renewable energy goals and policies, necessitate a reevaluation of the SGIP and SGIA to ensure that they continue to facilitate Commission-jurisdictional interconnections in a just and reasonable and not unduly discriminatory manner.<sup>5</sup> We note that the Commission has previously reviewed the Large Generator Interconnection Procedures (LGIP) after significant increases in large generator interconnection requests, mainly from wind generators, led to challenges in processing interconnection requests on a timely basis.<sup>6</sup> The Commission

proposes the reforms herein in the belief that failure to do so now could lead to unnecessary challenges for Small Generating Facilities in the future.<sup>7</sup>

3. Specifically, the Commission proposes to modify the *pro forma* SGIP to: (1) Incorporate provisions that would provide an Interconnection Customer with the option of requesting from the Transmission Provider a pre-application report providing existing information about system conditions at a possible Point of Interconnection; (2) revise the 2 MW threshold for participation in the Fast Track Process included in section 2 of the *pro forma* SGIP; (3) revise the customer options meeting and the supplemental review following failure of the Fast Track screens so that the supplemental review is performed at the discretion of the Interconnection Customer and includes minimum load and other screens to determine if a Small Generating Facility may be interconnected safely and reliably; and (4) revise the *pro forma* SGIP Facilities Study Agreement to allow the Interconnection Customer the opportunity to provide written comments on the upgrades required for interconnection. The Commission also proposes to clarify or correct certain sections of the *pro forma* SGIP and SGIA.

4. The proposals set forth in this Notice of Proposed Rulemaking (NPR) are intended to ensure that the time and cost to process small generator interconnection requests will be just and reasonable and not unduly discriminatory as sections 205 and 206 of the FPA require.<sup>8</sup> We expect the proposed reforms will reduce the time and cost to process small generator interconnection requests for Interconnection Customers and Transmission Providers, maintain reliability, increase energy supply, and remove barriers to the development of new energy sources. While the Commission proposes that all public

utilities will be required to amend<sup>9</sup> their Open Access Transmission Tariffs (OATT) to include a modified *pro forma* SGIP and SGIA,<sup>10</sup> these reforms will likely impact public utility Transmission Providers with a significant penetration of distributed resources and a larger number of small generator interconnection requests.

5. The Commission believes there is sufficient justification for proposing the reforms discussed below. In light of the technical nature of these reforms, the Commission is directing its staff to hold a workshop at which stakeholders may discuss possible refinements to the proposals made in this NPR before the end of the comment period.<sup>11</sup> The Commission encourages interested stakeholders to participate actively in the workshop to assist the Commission in developing any appropriate improvements to the proposed reforms to the SGIP and SGIA.

## II. Background

### A. Order No. 2006

6. In Order No. 2006, the Commission established a *pro forma* SGIP and SGIA for the interconnection of generation resources no larger than 20 MW. The *pro forma* SGIP describes how an Interconnection Customer's interconnection request (application) should be evaluated. The *pro forma* SGIP includes three alternative procedures for evaluating an interconnection request. They are the Study Process, which can be used by any generating facility with a capacity no larger than 20 MW, and two procedures that use ten technical screens to quickly identify safety or reliability issues associated with proposed interconnections: (1) The Fast Track Process for certified<sup>12</sup> Small Generating Facilities no larger than 2 MW; and (2) the 10 kW Inverter Process for certified inverter-based<sup>13</sup> Small

<sup>9</sup> Compliance procedures are discussed in Part VI below.

<sup>10</sup> See proposed revisions to the *pro forma* SGIP in Appendix C and proposed revisions to the *pro forma* SGIA in Appendix D.

<sup>11</sup> Notice of the date and time of the workshop will be published separately in the **Federal Register**.

<sup>12</sup> See Attachments 3 and 4 of the Order No. 2006, FERC Stats. & Regs. ¶ 31,180 *pro forma* SGIP, which specify the codes, standards, and certification requirements that Small Generating Facilities must meet.

<sup>13</sup> An inverter is a device that converts the direct current (DC) voltage and current of a DC generator to alternating voltage and current. For example, the output of a solar panel is DC. The solar panel's output must be converted by an inverter to alternating current (AC) before it can be interconnected with a utility's AC electric system.

<sup>1</sup> *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, FERC Stats. & Regs. ¶ 31,180, *order on reh'g*, Order No. 2006-A, FERC Stats. & Regs. ¶ 31,196 (2005), *order on clarification*, Order No. 2006-B, FERC Stats. & Regs. ¶ 31,221 (2006) (Order No. 2006).

<sup>2</sup> For purposes of this Proposed Rule, a public utility is a utility that owns, controls, or operates facilities used for transmitting electric energy in interstate commerce, as defined by the Federal Power Act (FPA). See 16 U.S.C. 824(e) (2006). A non-public utility that seeks voluntary compliance with the reciprocity condition of an Open Access Transmission Tariff (OATT) may satisfy that condition by filing an OATT, which includes the *pro forma* SGIP and the *pro forma* SGIA.

<sup>3</sup> Capitalized terms used in this NPR have the meanings specified in the Glossaries of Terms or the text of the SGIP or SGIA. Small Generating Facility means the device for which the Interconnection Customer has requested interconnection. The owner of the Small Generating Facility is the Interconnection Customer. The utility entity with which the Small Generating Facility is interconnecting is the Transmission Provider. A Small Generating Facility is a device used for the production of electricity having a capacity of no more than 20 MW. The interconnection process formally begins with the Interconnection Customer submitting an application for interconnection, called an Interconnection Request, to the Transmission Provider.

<sup>4</sup> The *pro forma* SGIP and SGIA are used by a public utility to interconnect a Small Generating Facility with the utility's transmission facilities or with its jurisdictional distribution facilities for the purpose of selling electric energy at wholesale in interstate commerce.

<sup>5</sup> Although not controlling as to interconnections subject to state jurisdiction, the Commission notes that one of the intended purposes for the small generator interconnection regulations set forth in Order No. 2006 was to serve as a guide for state interconnection procedures. See Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 4, 8.

<sup>6</sup> Docket No. AD08-2-000 explored methods to address then current queue management challenges in a manner consistent with *Standardization of*

*Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1230 (2008) (Order No. 2003).

<sup>7</sup> The Commission routinely evaluates the effectiveness of its regulations and policies in light of changing industry conditions to determine if changes in these regulations and policies are necessary. See, e.g., *Integration of Variable Energy Resources*, Order No. 764, 77 FR 41482 (July 13, 2012) FERC Stats. & Regs. ¶ 31,331 (2012).

<sup>8</sup> 16 U.S.C. 824a and 824b (2006).

Generating Facilities no larger than 10 kW.

7. The Study Process in section 3 of the *pro forma* SGIP is used to evaluate small generator interconnection requests that do not qualify for either the Fast Track Process or the 10 kW Inverter Process. The Study Process is similar to the process under the LGIP set forth in Order No. 2003. The Study Process normally consists of a scoping meeting, a feasibility study, a system impact study, and a facilities study. These studies identify any adverse system impacts<sup>14</sup> that must be addressed before the Small Generating Facility may be interconnected and any equipment modifications required to accommodate the interconnection. Once the Interconnection Customer agrees to fund any needed upgrades, an SGIA is executed that, among other things, formalizes responsibility for construction and payment for interconnection facilities and upgrades.<sup>15</sup>

8. Under the current Fast Track Process, in place of the scoping meeting and three interconnection studies performed under the Study Process, technical screens are used to quickly identify reliability or safety issues. If the proposed interconnection passes the screens, the Transmission Provider offers the Interconnection Customer an SGIA without further study. If the proposed interconnection fails the screens, but the Transmission Provider determines that the Small Generating Facility may be interconnected without affecting safety and reliability, the Transmission Provider provides the Interconnection Customer with an SGIA. However, if the Transmission Provider does not or cannot determine that the Small Generating Facility may be interconnected without affecting safety and reliability, the Transmission Provider offers the Interconnection Customer the opportunity to attend a customer options meeting to discuss how to proceed. In that meeting, the Transmission Provider must: (1) Offer to perform facility modifications or minor modifications to the Transmission Provider's system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the cost to make such modifications; (2) offer to perform a supplemental review if the Transmission Provider concludes that the supplemental review might

determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, paid for by the Interconnection Customer, and provide a non-binding good faith estimate of the cost of that review; or (3) obtain the Interconnection Customer's agreement to continue evaluating the interconnection request under the Study Process. If the Transmission Provider determines in the supplemental review that the Small Generating Facility can be interconnected safely and reliably and the Interconnection Customer agrees to pay for any upgrades called for in the supplemental review, the Transmission Provider and the Interconnection Customer execute an SGIA. If, after the supplemental review, the Transmission Provider still is unable to determine that the proposed interconnection would not degrade the safety and reliability of its electric system, the Interconnection Request is evaluated using the Study Process.

9. The 10 kW Inverter Process is available for the interconnection of certified inverter-based generators no larger than 10 kW. The 10 kW Inverter Process includes a simplified application form, interconnection procedures, and a brief set of terms and conditions (rather than a separate interconnection agreement). The 10 kW Inverter Process uses the same technical screens as the Fast Track Process. If the results of the analysis using the technical screens indicate that the generator can be interconnected safely and reliably, the interconnection application is approved. To simplify the 10 kW Inverter Process, the Interconnection Customer agrees to the terms and conditions of the interconnection at the time the interconnection request is made.<sup>16</sup>

10. The technical screens used in the current 10 kW Inverter Process and the current Fast Track Process are included in section 2.2.1 of the *pro forma* SGIP. The following is section 2.2.1.2 of the *pro forma* SGIP, which is referred to in this NOPR as the 15 Percent Screen:<sup>17</sup>

For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 [percent] of the line section annual peak load as most

recently measured at the substation. A line section is that portion of a Transmission Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

11. The Commission anticipated potential changes to its small generator interconnection regulations when it encouraged stakeholders to convene an informal meeting "biennially, beginning two years from the issuance of this order, to consider and recommend consensus proposals for changes in the Commission's rules for small generator interconnection."<sup>18</sup> The Commission is unaware of any such meetings taking place to date.

#### *B. Solar Energy Industries Association Petition*

12. On February 16, 2012, pursuant to sections 205 and 206 of the FPA and Rule 207 of the Commission's Rules of Practice and Procedure,<sup>19</sup> and noting that the Commission encouraged stakeholders to submit proposed revisions to the regulations set forth in Order No. 2006,<sup>20</sup> the Solar Energy Industries Association (SEIA) filed a Petition to Initiate Rulemaking (Petition) requesting that the Commission revise the *pro forma* SGIA and SGIP set forth in Order No. 2006. SEIA asserts that the *pro forma* SGIP and SGIA as applied to small solar generation are no longer just and reasonable, have become unduly discriminatory, and present unreasonable barriers to market entry.<sup>21</sup> SEIA notes that its Petition applies exclusively to solar electric generation due to its unique characteristics.<sup>22</sup>

13. SEIA requests that the Commission modify the SGIP in three ways. First, SEIA requests that the Commission maintain section 2.2.1.2 of the *pro forma* SGIP (the 15 Percent Screen), but amend the *pro forma* SGIP to include a well-defined supplemental review that Transmission Providers must offer to provide Interconnection Customers in the event that a Small Generating Facility fails the 15 Percent Screen.<sup>23</sup>

<sup>18</sup> Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 118.

<sup>19</sup> 18 CFR 385.207 (2012).

<sup>20</sup> SEIA Petition at 4 (citing Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 118).

<sup>21</sup> SEIA Petition at 12.

<sup>22</sup> *Id.* at 4 (explaining that solar generation occurs only during daylight hours when peak load typically occurs, and solar photovoltaic technology utilizes inverters with built-in functions that protect the safety and reliability of the electric system).

<sup>23</sup> On May 8, 2012, SEIA filed supplemental comments in Docket No. RM12-10-000, clarifying that it supports the supplemental review screens included in the revision to California Electric Rule 21, the California distribution level interconnection rules and regulations (Rule 21). These screens

<sup>14</sup> An adverse system impact means that technical or operational limits on conductors or equipment are exceeded under the interconnection, which may compromise the safety or reliability of the electric system.

<sup>15</sup> Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 44.

<sup>16</sup> *Id.* P 46.

<sup>17</sup> The 15 Percent Screen was derived by using a "rule of thumb" that minimum load is approximately 30 percent of peak load. To assure minimum loads were not exceeded by generation on a given line section, a 50 percent safety margin was applied. See Nat'l Renewable Energy Lab, *Updating Interconnection Screens for PV System Integration 2* (Feb. 2012), <http://www.nrel.gov/docs/fy12osti/54063.pdf>.

14. Second, SEIA requests that the Commission eliminate the 2 MW threshold for participation in the Fast Track Process or, in the alternative, increase the threshold to 10 MW.<sup>24</sup>

15. Finally, SEIA encourages the Commission to modify the SGIP to provide, at the request and cost of the Interconnection Customer, an expedited, independent third-party expert technical review of proposed upgrades required for interconnection to evaluate whether there are simpler, less costly options to insure a safe and reliable interconnection. SEIA also encourages the Commission to clearly articulate that Transmission Providers are required to give such independent third-party reviews “substantial weight” or consideration.<sup>25</sup>

16. On February 28, 2012, the Commission issued a Notice of Petition for Rulemaking in Docket No. RM12–10–000, seeking public comment on SEIA’s Petition. The Commission received twenty-three timely comments, two protests, two out-of-time comments, and four answers and reply comments.<sup>26</sup>

17. On June 13, 2012, the Commission issued a Notice of Technical Conference in Docket No. RM12–10–000 and in Docket No. AD12–17–000. On July 17, 2012, the Commission convened a technical conference at its headquarters. The Commission received nine post-technical conference comments, including clarifying comments from SEIA.

### III. Need for Reform

18. The Commission preliminarily finds that the reforms proposed in this NOPR are needed to ensure that the rates, terms, and conditions of interconnection service for Small Generating Facilities are just and reasonable and not unduly discriminatory or preferential.

19. Since the issuance of Order No. 2006, many aspects of the energy industry have changed. For example, when Order No. 2006 was issued in 2005, only 79 MW of grid-connected PV were installed.<sup>27</sup> By 2011, grid-connected PV had reached

approximately 4,000 MW.<sup>28</sup> Similarly, installed wind generation with a capacity of 20 MW or less has increased in the contiguous United States from 1,185 MW in 2005 to 2,961 MW in 2012.<sup>29</sup>

20. Recent Commission filings have referenced higher volumes of small generator interconnection requests.<sup>30</sup> Additionally, state renewable portfolio standards are driving small generator interconnection requests and influencing state policies. As of November 2012, 29 states and the District of Columbia had renewable portfolio standards, with an additional eight states having renewable portfolio goals.<sup>31</sup> Some state renewable portfolio standards include increasing the percentage of renewable energy resources over time, which will lead to increasing penetrations of these energy resources. For example, the California renewable portfolio standard is 20 percent by December 31, 2013, 25 percent by December 31, 2016, and 33 percent by 2020.<sup>32</sup> Similarly, the Massachusetts renewable portfolio standard is 15 percent by 2020 and an additional 1 percent each year thereafter.<sup>33</sup>

21. Some states have also adopted goals and policies to promote growth in distributed generation. For example, Arizona, Colorado, and Illinois have implemented distributed generation “carve-outs” in which a percentage of the total state renewable portfolio standard must come from distributed generation.<sup>34</sup> At the July 17, 2012 technical conference, the increase in

distributed generation since the issuance of Order No. 2006 was noted.<sup>35</sup>

22. The growth in PV installations in particular has been cited by SEIA and IREC as evidence that there is a need to reform certain aspects of the SGIP,<sup>36</sup> while the California Utilities, NRECA and APPA state that this growth is evidence that Order No. 2006 has been and continues to be successful at facilitating interconnection of Small Generating Facilities.<sup>37</sup> These positions are not mutually exclusive. The success of Order No. 2006 in facilitating small generator interconnections could be a factor in penetration levels reaching 15 percent on certain line sections, which causes subsequent projects to fail the 15 Percent Screen. If this is the case, the 15 Percent Screen should be re-examined to determine if revisions to the screen can be made that will continue to allow projects to participate in the less costly and time-consuming Fast Track Process while maintaining the safety and reliability of the Transmission Provider’s system.

23. Moreover, the Commission intended the *pro forma* SGIP and SGIA to apply to interconnections made subject to a jurisdictional OATT for the purposes of jurisdictional wholesale sales while also serving as a model for state interconnection rules.<sup>38</sup> In its comments on the Petition, the NJBPU stated support for keeping the *pro forma* SGIP current with technological advances and newly developed solutions for interconnecting small generators.<sup>39</sup> The California PUC recommends that the Commission consider adopting a supplemental review, including a 100 percent of minimum load screen similar to the one in Rule 21, for projects that fail the initial 15 Percent Screen and consider increasing the 2 MW threshold for participation in the Fast Track Process.<sup>40</sup> Comments such as these indicate that the Commission’s actions to update its SGIP may assist states in their own efforts to reevaluate state interconnection rules.

24. The Commission acknowledges that the need for reform may not be uniform across the country and is proposing reforms that, in

<sup>24</sup> *Id.* at 8.

<sup>25</sup> SNL Financial, *Power Plant Summary* (2013).

<sup>26</sup> See, e.g., *Cal. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,223, at P 3 (2010) (stating that an increasing volume of small generator Interconnection Requests had created inefficiencies); *Pacific Gas & Elec. Co.*, 135 FERC ¶ 61,094, at P 4 (2011) (stating that increased small generator Interconnection Requests resulted in a backlog of 170 requests over three years); *PJM Interconnection, LLC*, 139 FERC ¶ 61,079, at P 12 (2012) (stating that smaller projects comprised 66 percent of recent queue volume).

<sup>27</sup> See Dep’t of Energy, *Summary Maps*, <http://www.dsireusa.org/summarymaps/index.cfm?ee=1&RE=1>.

<sup>28</sup> See Dep’t of Energy, *California Incentives/ Policies for Renewables & Efficiency: Renewables Portfolio Standard*, [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=CA25R&re=1&ee=1](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=CA25R&re=1&ee=1).

<sup>29</sup> See Dep’t of Energy, *Massachusetts Incentives/ Policies for Renewables & Efficiency: Renewables Portfolio Standard*, [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=MA05R&re=1&ee=1](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MA05R&re=1&ee=1).

<sup>30</sup> See Dep’t of Energy, *Summary Maps*, <http://www.dsireusa.org/summarymaps/index.cfm?ee=1&RE=1>.

<sup>31</sup> July 17, 2012 Technical Conference Transcript at 26, lines 22–24.

<sup>32</sup> SEIA Petition at 6; IREC March 27, 2012 Comments at 7–8.

<sup>33</sup> California Utilities Post-Technical Conference Comments at 3–4; NRECA and APPA March 27, 2012 Protest at 7.

<sup>34</sup> Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 8.

<sup>35</sup> NJBPU March 27, 2012 Comments at 2–3.

<sup>36</sup> California PUC April 9, 2012 Comments at 4, 9.

create thresholds for distributed generation penetration based on minimum load and establish criteria for power quality, voltage, safety and reliability.

<sup>24</sup> SEIA Petition at 16–17.

<sup>25</sup> *Id.* at 17–18.

<sup>26</sup> See Appendix A: List of Short Names of Commenters on the SEIA Petition (Docket No. RM12–10–000) and the Technical Conference (Docket No. AD12–17–000).

<sup>27</sup> See Nat’l Renewable Energy Lab, *Updating Small Generator Interconnection Procedures for New Market Conditions* 7 (Dec. 2012), <http://www.nrel.gov/docs/fy13osti/56790.pdf>.

implementation, should balance the interests of Small Generating Facilities and public utility Transmission Providers.

#### IV. Proposed Reforms

25. The Commission is proposing four reforms that are designed to address interconnection issues confronting Small Generating Facilities and public utility Transmission Providers and that will allow for the more efficient interconnection of small generation resources to the benefit of customers. The Commission also proposes to clarify or correct certain sections of the *pro forma* SGIP and SGIA. Together these proposals would reform certain aspects of the SGIP and SGIA that may present barriers to the interconnection of Small Generating Facilities and keep the cost of interconnecting these resources from becoming unjust, unreasonable or unduly discriminatory.

##### A. Pre-Application Report

26. The Commission proposes to provide the Interconnection Customer with the option of requesting a pre-application report from the Transmission Provider for a fee of \$300. The Commission believes the pre-application report will promote transparency and efficiency in the interconnection process. In most cases, a pre-application report would increase the amount of information available to Interconnection Customers regarding system conditions at a particular Point of Interconnection and help the Interconnection Customer make a more efficient decision on siting its generating facility. Currently, only limited information is available to the Interconnection Customer under section 1.2 of the *pro forma* SGIP (relevant system studies, interconnection studies and other materials useful to an understanding of an interconnection at a particular point on the system), often leading developers to submit multiple requests for interconnection for a single project to determine which Point of Interconnection is the most advantageous. A pre-application report would enable Interconnection

Customers to better evaluate possible Points of Interconnection before submitting a formal interconnection request, reducing the volume of interconnection requests and increasing the efficiency of the interconnection process for both the Transmission Provider and the Interconnection Customer.

27. The proposed revision includes new sections 1.2.2 through 1.2.4 of the SGIP and specifies the timeframes for providing the pre-application report, the \$300 payment requirement from the Interconnection Customer to the Transmission Provider for producing the pre-application report, and the information that the report should contain. The pre-application report, as proposed, would only include information already available to the Transmission Provider. The proposed fee is the same as the amount required for the Rule 21 pre-application report.

28. To request a pre-application report, the developer must provide sufficient information to clearly identify the proposed Point of Interconnection. After a request is received, a utility must provide the report within ten business days. The utility is only required to provide existing information; the utility is not required to obtain new information prior to preparing the pre-application report. To the extent information is available, the Transmission Provider is required to provide information regarding:

- a. Total capacity and available capacity of the facilities that serve the Point of Interconnection;
- b. Existing and queued generation at the facilities likely serving the Point of Interconnection;
- c. Voltage of the facilities that serve the Point of Interconnection;
- d. Circuit distance between the proposed Point of Interconnection and the substation likely to serve the Point of Interconnection (Substation);
- e. Number and rating of protective devices and number and type of voltage regulating devices between the proposed Point of Interconnection and the Substation;
- f. Number of phases available at the proposed Point of Interconnection;

g. Limiting conductor ratings from the proposed Point of Interconnection to the Substation;

- h. Peak and minimum load data; and
- i. Existing or known constraints associated with the Point of Interconnection.

29. Several commenters express support for this proposal as a way to improve the interconnection process by making it less costly and more transparent, timely, and predictable.<sup>41</sup> The California Utilities argue that this approach will provide more accurate information for Interconnection Customers and will be less costly than publishing minimum load data as originally proposed by SEIA.<sup>42</sup> IREC notes that in its experience, generation developers may submit multiple interconnection requests in an effort to find the most cost effective Point of Interconnection. IREC asserts that it is inefficient for utilities to process interconnection requests that are unlikely to result in interconnections and that this raises project development costs for generators.<sup>43</sup> IREC states that a pre-application report would allow developers to request specific system information about a proposed Point of Interconnection.<sup>44</sup>

##### B. Threshold for Participation in the Fast Track Process

30. The Commission proposes to revise the 2 MW threshold for participation in the Fast Track Process. The Commission proposes to base Fast Track eligibility on individual system and generator characteristics, up to a limit of 5 MW. These characteristics include interconnection voltage level, the circuit distance of the interconnection from the substation, and generator capacity as the basis for determining whether an Interconnection Customer is eligible to be evaluated under the Fast Track Process. This approach to base Fast Track eligibility on individual system and generator characteristics is similar to the proposal submitted by IREC,<sup>45</sup> as shown in the table below.

Line voltage	Fast track eligibility regardless of location	Fast track eligibility on ≥ 600 ampere line and ≤ 2.5 miles from substation
< 5 kilovolt (kV) .....	≤ 1 MW .....	≤ 2 MW
≥ 5 kV and < 15 kV .....	≤ 2 MW .....	≤ 3 MW

<sup>41</sup> California Utilities Post-Technical Conference Comments at 6–7; IREC Post-Technical Conference Comments at 4–8; and Clean Coalition Post-Technical Conference Comments at 9.

<sup>42</sup> California Utilities Post-Technical Conference Comments at 6–7.

<sup>43</sup> IREC Post-Technical Conference Comments at 5.

<sup>44</sup> *Id.* at 7 (referencing IREC's Proposed SGIP Redline at § 1.2.2).

<sup>45</sup> *Id.* at 9–10.

Line voltage	Fast track eligibility regardless of location	Fast track eligibility on ≥ 600 ampere line and ≤ 2.5 miles from substation
≥ 15 kV and < 30 kV .....	≤ 3 MW .....	≤ 4 MW
≥ 30 kV .....	≤ 4 MW .....	≤ 5 MW

31. The Commission has designed this proposal in recognition that, as IREC comments,<sup>46</sup> a fixed size limit for the Fast Track may be unduly conservative in some cases and not conservative enough in others due to variations in distribution line voltage. Commenters point to voltage at the Point of Interconnection as a possible determinant of Fast Track eligibility.<sup>47</sup> Other factors mentioned by commenters include the size of the generator and the location of the interconnection on the circuit.<sup>48</sup> Voltage and generator size were factors in the different Fast Track thresholds that were agreed upon in the Rule 21 settlement process.<sup>49</sup> Pacific Gas and Electric states that it has eliminated the 2 MW limit entirely within its systems, and instead utilizes soft cap guidelines specific to the voltage of the Point of Interconnection. Pacific Gas and Electric asserts that it chose the advisory caps because they represent rough estimates of the MW size that would violate the 15 Percent Screen on a fully loaded circuit if no other projects interconnect to that circuit.<sup>50</sup> San Diego Gas & Electric supports the varied Rule 21 Fast Track eligibility limits, which it claims “recognize the variability among electrical systems.”<sup>51</sup>

32. The Commission notes that CAISO has a 5 MW threshold for participation in its Fast Track Process.<sup>52</sup> In its proposal to increase its Fast Track

threshold from 2 MW to 5 MW, CAISO stated that, from an engineering standpoint, the increase is relatively small and would cause no greater impact on the safety and reliability of the CAISO-controlled transmission grid.<sup>53</sup> The Commission acknowledges, however, that there are a wide range of operating practices and electric system configurations. The Commission believes that in the instant proceeding, the proposed revision to the Fast Track threshold is appropriately based on individual system and generator characteristics that allow it to accommodate a variety of operating practices and electric system configurations while also maintaining safety and reliability. Thus, this proposal attempts to balance Interconnection Customers’ need for a faster, less costly interconnection process with Transmission Providers’ need to ensure the safety and reliability of their systems.

#### C. Customer Options Meeting and Supplemental Review

33. The Commission proposes to revise the customer options meeting and the supplemental review for those Interconnection Customers whose projects fail any of the ten Fast Track screens, including the 15 Percent Screen.<sup>54</sup> As noted in the Background section above, if the proposed Small Generating Facility passes the initial review screens in section 2.2.1 of the *pro forma* SGIP, the Transmission Provider will offer the Interconnection Customer an SGIA without requiring any supplemental review. If the proposed Small Generating Facility fails any of the screens, but the Transmission Provider determines that the Small Generating Facility may be

interconnected without affecting safety and reliability, the Transmission Provider provides the Interconnection Customer with an SGIA. If the Transmission Provider cannot determine that the Small Generating Facility may be interconnected without affecting safety and reliability, the Transmission Provider must offer the Interconnection Customer the opportunity to attend a customer options meeting as set forth in section 2.3 of the *pro forma* SGIP to discuss how to proceed. The Commission proposes that, in that meeting, the Transmission Provider must: (1) Offer to perform facility modifications or minor modifications to the Transmission Provider’s system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the cost to make such modifications, and if the Interconnection Customer agrees to pay for those minor modifications, the Transmission Provider will provide the Interconnection Customer an SGIA within 5 business days of the customer options meeting; (2) offer to perform a supplemental review of the proposed interconnection, paid for by the Interconnection Customer in the amount of \$2,500;<sup>55</sup> or (3) obtain the Interconnection Customer’s agreement to continue evaluating the interconnection request under the Study Process.

34. In order to clarify the outcome of the customer options meeting, the Commission proposes to modify section 2.3.1 of the *pro forma* SGIP to require the Transmission Provider to provide an interconnection agreement to the Interconnection Customer within 5 business days of the customer options meeting if the Interconnection Customer agrees to pay for minor modifications on the Transmission Provider’s system. In addition, the Commission proposes to modify section 2.3.2 of the *pro forma* SGIP so that the supplemental review is performed at the discretion of the Interconnection Customer.

35. Further, the Commission proposes that the supplemental review consist of three additional screens: (1) The 100 percent of minimum load screen (using

<sup>46</sup> *Id.* at 9.

<sup>47</sup> See July 17, 2012 Technical Conference Transcript at 35, lines 8–11 (San Diego Gas & Electric stating that higher voltages may allow for higher penetrations of distributed generation); see also *id.* at 105, lines 14–16 (EEI commenting that a Fast Track threshold based on voltage would be more accurate than the current 2 MW threshold).

<sup>48</sup> See *id.* at 35, lines 1–4 (San Diego Gas & Electric asserting that size and location of the Small Generating Facility may impact the amount of generation that may be interconnected safely and reliably); *id.* at 59 lines 10–16 (same). See also *id.* at 38, lines 19–21 (IREC stating that locations within 2.5 miles of the relevant substation on 600 Ampere line allow for higher penetrations of distributed generation).

<sup>49</sup> See California PUC Motion to Lodge, Attachment B “Revised Rule 21 Tariff” at 26.

<sup>50</sup> Pacific Gas and Electric March 27, 2012 Comments at 4 (citing *Pacific Gas and Electric Company*, 135 FERC ¶ 61,094 (2011)).

<sup>51</sup> San Diego Gas & Electric March 27, 2012 Comments at 8–9.

<sup>52</sup> *Cal. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,223 (2010).

<sup>53</sup> *Id.* P 35.

<sup>54</sup> The current and proposed supplemental review is available to Interconnection Customers whose projects are being evaluated under the Fast Track Process. If a project is being evaluated under the 10 kW Inverter Process and it fails the screens in section 2.2.1 of the *pro forma* SGIP, it may then be evaluated under the Fast Track Process or the Study Process. If it is evaluated under the Fast Track Process, the supplemental review would be available to the project. (See Order No. 2006, FERC Stats. & Regs. ¶ 31,180 Appendix D, “Flow Chart for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW Using the “10 kW Inverter Process”).

<sup>55</sup> The proposed \$2,500 fee for the supplemental review is the same as the amount required for the Rule 21 supplemental review.

daytime minimum load for small solar generators (20 MW or less) and absolute minimum load for all other Small Generating Facilities) (Minimum Load Screen); (2) the power quality and voltage screen; and (3) the safety and reliability screen.<sup>56</sup> If the proposed interconnection fails any of the supplemental review screens, the Transmission Provider will notify the Interconnection Customer that a Study Process under section 3 of the *pro forma* SGIP is required.<sup>57</sup>

36. The Minimum Load Screen is designed to ensure that power flow from the circuit into the substation and its impact on equipment loading, operation, and protection systems is minimal. The Minimum Load Screen asks whether the aggregate generation facility capacity on a line section is less than 100 percent of the minimum load measured during the period relevant for the generator type for all line sections bounded by automatic sectionalizing devices upstream of the generation facility. If minimum load data are not readily available,<sup>58</sup> however, the screen

allows Transmission Providers the flexibility to calculate, estimate, or otherwise determine minimum load. The Commission proposes that, if this is not possible, the Transmission Provider must notify the Interconnection Customer of this in writing and include the reason(s) it is not possible.

37. The second screen, related to voltage and power quality, is designed to ensure that voltage regulation, fluctuation, and harmonic levels are kept within their limits in compliance with reliability standards, IEEE standards, and other applicable standards. The third screen, related to safety and reliability, ensures that a Small Generating Facility would not negatively impact safety and reliability. This screen is intended to provide Transmission Providers with the flexibility to identify some of the specific issues that may arise due to a Small Generating Facility's unique variations.

38. This proposed reform is intended to decrease interconnection costs in areas where the penetration of Small Generating Facilities is causing Interconnection Customers to fail the 15 Percent Screen. Moreover, the additional screens proposed to be included in the supplemental review are designed to protect the safety and reliability of the Transmission Provider's system while allowing those Small Generating Facilities that pass the proposed supplemental review to interconnect more efficiently and cost-effectively.

39. Some commenters argue that that 15 Percent Screen continues to be effective.<sup>59</sup> Others suggest revisions to the *pro forma* supplemental review in the event a project fails the Fast Track screens, similar to California Rule 21.<sup>60</sup> The Commission believes that the Rule 21 approach, after which our proposal is modeled, is a reasonable middle ground and proposes to leave the 15 Percent Screen in place while providing an alternative to the 15 Percent Screen as part of the supplemental review that enables penetration levels to exceed 15 percent on a case-by-case basis if the Transmission Provider determines that

doing so will not create safety or reliability problems.

40. While SoCal Edison argues that the existing *pro forma* SGIP supplemental review offers utilities the flexibility to reevaluate projects that fail the Fast Track screens, including accounting for the unique characteristics of solar generation,<sup>61</sup> we note that section 2.4 of the current *pro forma* SGIP does not define the parameters or the timeline and provides little guidance for conducting the supplemental review if a Small Generating Facility fails the Fast Track screens in section 2 of the SGIP. The Commission believes that this lack of definition and transparency could negatively impact the interconnection process. A well-defined supplemental review will provide greater transparency with regard to what transpires in the supplemental review, as well as mitigate confusion and delays in the interconnection timeline. It will also allow interconnection requests to be more expeditiously reviewed while maintaining safety, reliability, and power quality standards.

#### D. Review of Required Upgrades

41. The Commission proposes to revise the *pro forma* SGIP to give the Interconnection Customer an opportunity to review and comment on the upgrades required for interconnection proposed by the Transmission Provider, similar to the opportunity for review and comment afforded the Interconnection Customer under the LGIP.

42. The Commission believes that, because the Transmission Provider is responsible for the safety and reliability of its system, the Transmission Provider should make the final decision regarding required upgrades for interconnection. However, the Commission is concerned that the *pro forma* SGIP (including the *pro forma* Facilities Study Agreement) may result in unjust and unreasonable interconnection costs as a result of failing to provide an opportunity for the Interconnection Customer to review and comment on the required upgrades. Therefore, the Commission proposes to revise the *pro forma* SGIP to include provisions similar to those in sections 8.3 and 8.4 of the *pro forma* LGIP.

43. In the LGIP, the Interconnection Customer has the opportunity to provide written comments on the draft facilities study report, which includes the proposed upgrades required for interconnection. The Transmission Provider must include these comments

<sup>56</sup> These screens are similar to the California Rule 21 screens or tests. See California PUC Motion to Lodge, Attachment B "Revised Rule 21 Tariff," Section G.2 "Supplemental Review Screens" detailing the following screens:

(1) Penetration Test: "Where 12 months of line section minimum load data is available, can be calculated, can be estimated from existing data, or determined from a power flow model, is the aggregate Generating Facility capacity on the Line Section less than 100 [percent] of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility?" Note that the "type of generation will be taken into account when calculating, estimating or determining circuit or Line Section minimum load relevant for the application of this screen. Solar generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load."

(2) Power Quality and Voltage Tests: (a) "Can it be determined within the Supplemental Review that the voltage regulation on the line section can be maintained in compliance with Commission Rule 2 and/or Conservation Voltage Regulation voltage requirements under all system conditions?" (b) "Can it be determined within the Supplemental Review that the voltage fluctuation is within acceptable limits as defined by [Institute of Electrical and Electronics Engineers] IEEE 1453 or utility practice similar to IEEE 1453?" (c) "Can it be determined within the Supplemental Review that the harmonic levels meet IEEE 519 limits at the Point of Common Coupling (PCC)?"

(3) Safety and Reliability Tests: "Does the location of the proposed Generating Facility or the aggregate generation capacity on the Line Section create impacts to safety or reliability that cannot be adequately addressed without Detailed Study?"

<sup>57</sup> See *supra* P 7 for a description of the Study Process.

<sup>58</sup> Commenters express concern that minimum load data are not commonly tracked by utilities. See July 17, 2012 Technical Conference Transcript at 127, lines 16–19; EEI Post-Technical Conference Comments at 15; SEIA Post-Technical Conference Comments at 3.

<sup>59</sup> See SoCal Edison March 27, 2012 Comments at 6; EEI Post-Technical Conference Comments at 11–13.

<sup>60</sup> Clean Coalition Post-Technical Conference Comments at 3–4; IREC Post-Technical Conference Comments at 14; SEIA May 8, 2012 Comments at 1; California PUC April 9, 2012 Comments at 4; EEI Post-Technical Conference Comments at 11, fn. 10 ("Whereas the 100 percent minimum load threshold may be appropriate in the context of a supplemental review process such as the California Rule 21 proceeding.").

<sup>61</sup> SoCal Edison March 27, 2012 Comments at 5.



in the final report and may alter the study based on the comments. In addition, upon request of the Interconnection Customer, the Transmission Provider must provide the Interconnection Customer with “supporting documentation, workpapers, and databases or data” developed in the preparation of the facilities study. The LGIP also provides for a meeting between the Interconnection Customer and the Transmission Provider within ten business days of the Interconnection Customer receiving the draft facilities study report.

44. The Commission believes that incorporating these *pro forma* LGIP provisions into the *pro forma* SGIP will encourage a dialogue between the Transmission Provider and the Interconnection Customer about required interconnection upgrades and will provide Interconnection Customers (or a third party designated by the Interconnection Customer) with a meaningful opportunity to review and comment on interconnection upgrade requirements.

#### E. Other Revisions

45. The Commission proposes to clarify or correct certain sections of the *pro forma* SGIP and SGIA. First, in section 3.3.5 of the *pro forma* SGIA, we propose to replace the first word of the section (“This”) with “The.” Second, the Commission proposes to revise section 1.1.1 of the *pro forma* SGIP to require that if an Interconnection Customer wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it must do so under the LGIP and execute the Large Generator Interconnection Agreement. This requirement was included in Order No. 2003<sup>62</sup> but was not made clear in the *pro forma* SGIP. To facilitate this clarification, we propose to add the definitions of Network Resource and Network Resource Interconnection Service to Attachment 1, Glossary of Terms, of the *pro forma* SGIP.

46. The Commission also proposes to modify section 1.5.4 of the *pro forma* SGIA to address a reliability concern resulting from recently identified issues in Germany and the United States (U.S.). The German issue is related to over-frequency resulting from imbalances between generation and load.<sup>63</sup> The specific cause of over-

frequency in Germany is not yet an issue in the U.S., although over-frequency events have occurred in the U.S.<sup>64</sup> The North American Electric Reliability Corporation (NERC) has identified a related bulk electric system reliability concern as part of its Frequency Response Initiative<sup>65</sup> where residential and commercial scale PV systems could trip during under-frequency conditions. This could become a matter of concern at high penetrations of PV resources. While the German government has ordered the retrofit of thousands of PV systems at significant cost to address its frequency issue,<sup>66</sup> the Commission proposes to prevent such problems with frequency now to mitigate this risk. The proposed revisions to section 1.5.4 of the *pro forma* SGIA will require the Interconnection Customer to design, install, maintain, and operate its Small Generating Facility, in accordance with the latest version of the applicable standards,<sup>67</sup> to prevent automatic disconnection during an over- or under-frequency event and to ensure that rates remain just and reasonable.

#### V. Workshop

47. Commenters<sup>68</sup> suggest that the Commission convene a stakeholder working group or similar process as contemplated in Order No. 2006<sup>69</sup> to review and make recommendations on the proposals in the SEIA Petition and issues raised at the July 17, 2012 technical conference. In light of the technical nature of the reforms proposed above, the Commission agrees that the rulemaking process could benefit from stakeholder discussions of the NOPR proposals and other related issues. Therefore, during the comment period,

connected to the low-voltage network to shut down. Such a sudden drop in generation could seriously disrupt the system.

<sup>64</sup> See FERC & NERC, Arizona-Southern California Outages on September 8, 2011: Causes and Recommendations (2011), [http://www.nerc.com/files/AZOutage\\_Report\\_01MAY12.pdf](http://www.nerc.com/files/AZOutage_Report_01MAY12.pdf).

<sup>65</sup> NERC, Frequency Response Initiative Report: The Reliability Role of Frequency Response 52 (2012), [http://www.nerc.com/docs/standards/dt/FRI\\_Report\\_w-appendices\\_10-15-12.pdf](http://www.nerc.com/docs/standards/dt/FRI_Report_w-appendices_10-15-12.pdf).

<sup>66</sup> See VDE, Study on the 50.2 Hz Problem (2012), [http://www.vde.com/en/fnn/Documents/FNN\\_50-2-Hz\\_Presentation\\_2011-09\\_engl.pdf](http://www.vde.com/en/fnn/Documents/FNN_50-2-Hz_Presentation_2011-09_engl.pdf).

<sup>67</sup> See, e.g., IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems and Underwriters Laboratories Inc. Standard 1741 for Safety for Inverters, Converters, and Controllers for Use in Independent Power Systems.

<sup>68</sup> NRECA Post-Technical Conference Comments at 2; EEI Post-Technical Conference Comments at 1–2; and California Utilities Post-Technical Conference Comments at 7.

<sup>69</sup> Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 118.

the Commission will hold a workshop so that members of the public, electric industry participants, and federal and state agencies may discuss the proposals in this NOPR and possible refinements to these proposals before the end of the comment period.

48. The workshop will be facilitated by Commission staff and will focus on the technical details of the NOPR proposals and other related issues. Some of the specific items that Commission staff anticipates addressing include:

a. Whether the characteristics proposed for Fast Track Process eligibility should be modified to protect system safety and reliability.

b. The specific content of the proposed supplemental review screens. For example,

i. Whether twelve months of minimum load data is appropriate for use in the Minimum Load Screen, or whether additional data, if available, should be required to be considered.

ii. The reasons that minimum load data are not available to Transmission Providers and what the Commission could do to encourage data availability where appropriate.

c. The content of the pre-application report.

d. Whether the fees proposed in the NOPR (\$300 for the pre-application report and \$2,500 for the supplemental review) are appropriate.

e. Whether storage devices could fall within the definition of Small Generating Facility included in Attachment 1 to the SGIP and Attachment 1 to the SGIA as devices that produce electricity.

We will schedule the workshop so that comments on this Proposed Rule may reflect any reactions to the workshop discussions.

49. Within April 2, 2013 the Commission will announce the workshop in a separate notice. Comments related to the workshop will be due at the same time as comments on this NOPR (see the Comment Procedures section below).

#### VI. Compliance Filings

50. To comply with the requirements of this Proposed Rule, the Commission proposes to require each public utility Transmission Provider to submit a compliance filing within six months of the effective date of the Final Rule in this proceeding revising its SGIP and SGIA or other document(s) subject to the Commission's jurisdiction as necessary to demonstrate that it meets

<sup>62</sup> Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 140.

<sup>63</sup> In Germany, large amounts of distributed PV installations are set to trip at frequency 50.2 Hz or higher. An over-frequency (50.2 Hz and higher) event can cause the PV generation equipment



the requirements set forth in this Proposed Rule.<sup>70</sup>

51. In some cases, public utility Transmission Providers may have provisions in their existing SGIPs and SGIA that the Commission has deemed to be consistent with or superior to the *pro forma* SGIP and SGIA. Where these provisions are being modified by the Final Rule, public utility Transmission Providers must either comply with the Final Rule or demonstrate that these previously-approved variations continue to be consistent with or superior to the *pro forma* SGIP and SGIA as modified by the Final Rule.

52. The Commission will assess whether each compliance filing satisfies the proposed requirements and principles stated above and issue additional orders as necessary to ensure that each public utility Transmission Provider meets the requirements of this Proposed Rule.

53. The Commission proposes that Transmission Providers that are not public utilities will have to adopt the requirements of this Proposed Rule as a condition of maintaining the status of their safe harbor tariff or otherwise satisfying the reciprocity requirement of Order No. 888.<sup>71</sup>

## VII. Procedural Matters

54. On October 8, 2012, the California PUC submitted a motion to lodge California PUC Decision (D.) 12–09–018, the revised Rule 21, and the Assigned Commissioner's Amended Scoping memo and Ruling Requesting Comments (Amended Scoping Memo).<sup>72</sup> In its motion, the California PUC states that its recently approved Rule 21 reforms are central to the issues raised in SEIA's Petition and should be lodged into the record of this proceeding.<sup>73</sup> No comments were filed in response to the motion.

55. We will grant the California PUC's motion to lodge California PUC Decision (D.) 12–09–018, revised Rule 21, and the Amended Scoping Memo into the record of this proceeding because the documents have provided information that assisted us in our decision-making process.

## VIII. Information Collection Statement

56. The following collections of information contained in this Proposed Rule are subject to review by the Office of Management and Budget (OMB) under section 3507(d) of the Paperwork Reduction Act of 1995.<sup>74</sup> OMB's regulations require approval of certain

information collection requirements imposed by agency rules.<sup>75</sup> Upon approval of a collection of information, OMB will assign an OMB control number and expiration date. Respondents subject to the filing requirements of this rule will not be penalized for failing to respond to these collections of information unless the collections of information display a valid OMB control number. The Commission solicits comments on the Commission's need for this information, whether the information will have practical utility, the accuracy of the burden estimates, ways to enhance the quality, utility, and clarity of the information to be collected or retained, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques.

57. Additionally, the Commission encourages comments regarding the time burden expected to be required to comply with the proposed rule.

*Burden Estimate:* The additional estimated public reporting burdens for the proposed reporting requirements in this rule are as follows:

Data collection	Number of respondents	Number of responses <sup>76</sup>	Hours per response	Total annual hours
FERC 516A	[1]	[2]	[3]	[1 × 2 × 3]
Conforming SGIP and SGIA changes to incorporate proposed revisions. First year only. (18 CFR 35.28(f) (2012)) .....	142 Transmission Providers .....	1	6	852
Pre-Application Report (18 CFR 35.28(f) (2012)) .....	800 Interconnection Customers <sup>77</sup> ...	1	0.5	400
Supplemental Review (18 CFR 35.28(f) (2012)) .....	142 Transmission Providers .....	5.63	2	1600
Review of Required Upgrades (18 CFR 35.28(f) (2012)).	500 Interconnection Customers .....	1	0.5	250
	142 Transmission Providers .....	3.52	20	10,000
	250 Interconnection Customers .....	1	1	250
	142 Transmission Providers .....	1.76	2	500
Totals:				
First Year .....	.....	.....	.....	13,852
Year Two and Ongoing .....	.....	.....	.....	13,000

The Commission seeks comment on the change in the existing burden that would result from the following three proposed revisions that are not included in the table above. First, the Commission believes that the proposed revision of the 2 MW threshold for participation in the Fast Track Process will result in a net decrease in the

public reporting burden because some Small Generating Facilities will be evaluated under the Fast Track Process rather than the Study Process. The Commission estimates that 100 Interconnection Customers annually may be able to participate in the Fast Track Process rather than the Study Process under the proposed rule.

Second, the Commission proposes to revise section 2.3.2 so that the Transmission Provider is no longer required to provide a good faith estimate of the cost of performing the supplemental review to the Interconnection Customer. The Commission believes that this may result in a reduction in burden for the

<sup>70</sup> See Appendix C and Appendix D for the proposed *pro forma* SGIP and SGIA provisions consistent with this Proposed Rule.

<sup>71</sup> *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission on Services by Public Utilities; Recovery of Stranded*

*Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,760–763 (1996).

<sup>72</sup> California PUC Motion to Lodge at 1.

<sup>73</sup> *Id.* at 1–3.

<sup>74</sup> 44 U.S.C. 3507(d) (2006).

<sup>75</sup> 5 CFR 1320.11 (2012).

<sup>76</sup> The number of responses represents the average number of responses per respondent.

<sup>77</sup> We assume each request for a pre-application report corresponds with one Interconnection Customer.

Transmission Provider. Third, the Commission proposes to revise section 1.1.1 of the *pro forma* SGIP to require that if an Interconnection Customer wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it must do so under the LGIP and execute the Large Generator Interconnection Agreement. While this addition to the *pro forma* SGIP should prevent Interconnection Customers from following the SGIP where not appropriate, thereby reducing the amount of work, the Commission is unsure if it will lead to any substantive burden reduction.

**Cost to Comply:** The Commission has projected the cost of compliance to be \$817,268 in the initial year and \$767,000 in subsequent years.

Total Annual Hours for Collection in initial year (13,852 hours) @ \$59/hour<sup>78</sup> = \$817,268.

Total Annual Hours for Collection in subsequent years (13,000 hours) @ \$59/hour = \$767,000.

**Title:** FERC-516A, Standardization of Small Generator Interconnection Agreements and Procedures.

**Action:** Revision of Currently Approved Collection of Information.

**OMB Control No.** 1902-0203.

**Respondents for this Rulemaking:** Businesses or other for profit and/or not-for-profit institutions.

**Frequency of Information:** As indicated in the table.

**Necessity of Information:** The Commission is proposing changes to the *pro forma* SGIP and SGIA in order to more efficiently and cost-effectively interconnect generators no larger than 20 MW (small generators) to Commission-jurisdictional transmission systems. The purpose of this Proposed Rule is to revise the *pro forma* SGIP and SGIA so small generators can be reliably and efficiently integrated into the electric grid and to ensure that Commission-jurisdictional services are provided at rates, terms and conditions that are just and reasonable and not unduly discriminatory. This Proposed Rule seeks to achieve this goal by amending the *pro forma* SGIP and SGIA to: (1) Incorporate provisions that would provide an Interconnection Customer with the option of requesting from the Transmission Provider a pre-application report providing existing information about system conditions at a possible Point of Interconnection; (2) revise the

2 MW threshold for participation in the Fast Track Process included in section 2 of the *pro forma* SGIP; (3) revise the customer options meeting and the supplemental review following failure of the Fast Track screens so that the supplemental review is performed at the discretion of the Interconnection Customer and includes minimum load and other screens to determine if a Small Generating Facility may be interconnected safely and reliably; and (4) revise the *pro forma* SGIP Facilities Study Agreement to allow the Interconnection Customer the opportunity to provide written comments to the Transmission Provider on the upgrades required for interconnection. The Commission also proposes to clarify or correct certain sections of the *pro forma* SGIP and SGIA.

**Internal Review:** The Commission has reviewed the proposed changes and has determined that the changes are necessary. These requirements conform to the Commission's need for efficient information collection, communication, and management within the energy industry. The Commission has assured itself, by means of internal review, that there is specific, objective support for the burden estimates associated with the information collection requirements.

58. Interested persons may obtain information on the reporting requirements by contacting the following: Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426 [Attention: Ellen Brown, Office of the Executive Director], email: [DataClearance@ferc.gov](mailto:DataClearance@ferc.gov), Phone: (202) 502-8663, fax: (202) 273-0873.

59. Comments on the collections of information and the associated burden estimates in the proposed rule should be sent to the Commission in this docket and may also be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503 [Attention: Desk Officer for the Federal Energy Regulatory Commission], at the following email address:

[oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov). Please reference OMB Control No. 1902-0203 and the docket number of this proposed rulemaking in your submission.

## IX. Environmental Analysis

60. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.<sup>79</sup> The Commission has

categorically excluded certain actions from these requirements as not having a significant effect on the human environment.<sup>80</sup> The actions proposed here fall within categorical exclusions in the Commission's regulations for rules that are clarifying, corrective, or procedural, for information gathering, analysis, and dissemination, and for sales, exchange, and transportation of natural gas that requires no construction of facilities.<sup>81</sup> Therefore, an environmental assessment is unnecessary and has not been prepared as part of this NOPR.

## X. Regulatory Flexibility Act

61. The Regulatory Flexibility Act of 1980 (RFA)<sup>82</sup> generally requires a description and analysis of proposed rules that will have significant economic impact on a substantial number of small entities. The RFA mandates consideration of regulatory alternatives that accomplish the stated objectives of a proposed rule and that minimize any significant economic impact on a substantial number of small entities. The Small Business Administration's Office of Size Standards develops the numerical definition of a small business.<sup>83</sup> The Small Business Administration has established a size standard for electric utilities, stating that a firm is small if, including its affiliates, it is primarily engaged in the transmission, generation and/or distribution of electric energy for sale and its total electric output for the preceding twelve months did not exceed four million megawatt hours (MWh).<sup>84</sup> The Commission estimates that the total number of Transmission Providers that, absent waiver, would have to modify their current SGIPs and SGIAs is 142. Of these, an estimated 11 Transmission Providers dispose of 4 million MWh or less per year. The Commission estimates that the average total cost for each of these entities is \$5,381.<sup>85</sup> The Commission does not consider this to be a significant economic impact. The estimated total number of Interconnection Customers that may be subject to the requirements of this proposed rule is 800.<sup>86</sup> Of these, all are

<sup>80</sup> 18 CFR 380.4 (2012).

<sup>81</sup> See 18 CFR 380.4(a)(2)(ii) (2012).

<sup>82</sup> 5 U.S.C. 601-612 (2006).

<sup>83</sup> 13 CFR 121.101 (2012).

<sup>84</sup> 13 CFR 121.201, Sector 22, Utilities & n.1.

<sup>85</sup> This number is derived by multiplying the hourly figure for Transmission Providers in the Burden Estimate table (12,952) by the cost per hour (\$59) divided by the number of Transmission Providers. 12,952 hrs \* \$59/hr/142 = \$5,381.

<sup>86</sup> We assume that 800 Commission-jurisdictional interconnection requests will be made annually. For the purposes of this proposed rule, each of these

<sup>78</sup> This figure is the average of the salary plus benefits for an attorney, consultant (engineer), engineer, and administrative staff. The wages are derived from the Bureau of Labor and Statistics at [http://bls.gov/oes/current/naics3\\_221000.htm](http://bls.gov/oes/current/naics3_221000.htm) and the benefits figure from <http://www.bls.gov/news.release/ecce.nr0.htm>.

<sup>79</sup> Regulations Implementing the National Environmental Policy Act of 1969, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987).

considered small. The Commission estimates that the total annual cost for each entity is \$1,984.<sup>87</sup> The Commission does not consider this to be a significant economic impact. Further, the Commission expects that Interconnection Customers that are able to participate in the Fast Track Process rather than the Study Process will benefit from the proposed revisions to the *pro forma* SGIP.

62. Based on the above, the Commission certifies that the new or revised requirements set forth in the proposed rule will not have a significant economic impact on a substantial number of small entities. Accordingly, no regulatory flexibility analysis is required.

## XI. Comment Procedures

63. The Commission invites interested persons to submit comments on the matters and issues proposed in this notice to be adopted, including any related matters or alternative proposals that commenters may wish to discuss. Comments are due June 3, 2013. Comments must refer to Docket No. RM13-2-000, and must include the commenter's name, the organization they represent, if applicable, and their address in their comments.

64. The Commission encourages comments to be filed electronically via the eFiling link on the Commission's web site at <http://www.ferc.gov>. The Commission accepts most standard word processing formats. Documents created electronically using word processing software should be filed in native applications or print-to-PDF format and not in a scanned format. Commenters filing electronically do not need to make a paper filing.

65. Commenters that are not able to file comments electronically must send an original of their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE., Washington, DC 20426.

66. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters

requests is assumed to be made by a separate Interconnection Customer.

<sup>87</sup> This number is derived by multiplying the hourly figure for Interconnection Customers in the Burden Estimate table (900) plus an additional 750 hours associated with reviewing the draft facilities study report by the cost per hour (\$59); plus the \$300 fee per pre-application report multiplied by 800 Interconnection Customers; plus the \$2,500 fee per supplemental review multiplied by 500 Interconnection Customers; all divided by the total number of Interconnection Customers (800).  $((1,650 \text{ hrs} * \$59/\text{hr}) + (\$300 * 800) + (\$2,500 * 500))/800 = \$1,984$ .

on this proposal are not required to serve copies of their comments on other commenters.

## XII. Document Availability

67. In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (<http://www.ferc.gov>) and in the Commission's Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street NE., Room 2A, Washington, DC 20426.

68. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

69. User assistance is available for eLibrary and the Commission's Web site during normal business hours from the Commission's Online Support at 202-502-6652 (toll free at 1-866-208-3676) or email at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. Email the Public Reference Room at [public.referenceroom@ferc.gov](mailto:public.referenceroom@ferc.gov).

## List of Subjects in 18 CFR Part 35

Electric power rates, Electric utilities, and Reporting and recordkeeping requirements.

By direction of the Commission. Chairman Wellinghoff is not participating. Commissioner Clark is recused.

**Nathaniel J. Davis, Sr.,**  
*Deputy Secretary.*

In consideration of the foregoing, the Commission proposes to revise Part 35, Chapter I, Title 18 of the Code of Federal Regulations as follows.

## PART 35—FILING OF RATE SCHEDULES

■ 1. The authority citation for Part 35 continues to read as follows:

**Authority:** 16 U.S.C. 791a–825r, 2601–2645; 31 U.S.C. 9701; 42 U.S.C. 7101–7352.

■ 2. Revise § 35.28(f) to read as follows:

### § 35.28 Non-discriminatory open access transmission tariff.

\* \* \* \* \*

(f) \* \* \*

(1) Every public utility that is required to have on file a non-discriminatory open access transmission tariff under this section must amend

such tariff by adding the standard interconnection procedures and agreement contained in Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (Final Rule on Generator Interconnection), as amended by the Commission in Order No. 661, FERC Stats. & Regs. ¶ 31,186 (Final Rule on Interconnection for Wind Energy), and the standard small generator interconnection procedures and agreement contained in Order No. 2006, FERC Stats. & Regs. ¶ 31,180 (Final Rule on Small Generator Interconnection), as amended by the Commission in Order No. \_\_\_\_, FERC Stats. & Regs. ¶ \_\_\_\_ (Final Rule on Small Generator Interconnection Agreements and Procedures), or such other interconnection procedures and agreements as may be approved by the Commission consistent with Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (Final Rule on Generator Interconnection), Order No. 2006, FERC Stats. & Regs. ¶ 31,180 (Final Rule on Small Generator Interconnection), and Order No. \_\_\_\_, FERC Stats. & Regs. ¶ \_\_\_\_ (Final Rule on Small Generator Interconnection Agreements and Procedures).

(i) The amendment to implement the Final Rule on Generator Interconnection required by the preceding subsection must be filed no later than January 20, 2004.

(ii) The amendment to implement the Final Rule on Small Generator Interconnection required by the preceding subsection must be filed no later than August 12, 2005.

(iii) The amendment to implement the Final Rule on Interconnection for Wind Energy required by the preceding subsection must be filed no later than December 30, 2005.

(iv) The amendment to implement the Final Rule on Small Generator Interconnection Procedures required by the preceding subsection must be filed no later than April 2, 2013.

(v) Any public utility that seeks a deviation from the standard interconnection procedures and agreement contained in Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (Final Rule on Generator Interconnection), as amended by the Commission in Order No. 661, FERC Stats. & Regs. ¶ 31,186 (Final Rule on Interconnection for Wind Energy), or the standard small generator interconnection procedures and agreement contained in Order No. 2006, FERC Stats. & Regs. ¶ 31,180 (Final Rule on Small Generator Interconnection), as amended by the Commission in Order No. \_\_\_\_, FERC Stats. & Regs. ¶ \_\_\_\_ (Final Rule on Small Generator Interconnection Agreements and Procedures), must demonstrate that the

deviation is consistent with the principles of either Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (Final Rule on Generator Interconnection) or Order No. 2006, FERC Stats. & Regs. ¶ 31,180

(Final Rule on Small Generator Interconnection).

\* \* \* \* \*

**Note:** Appendix A will not be published in the Code of Federal Regulations.

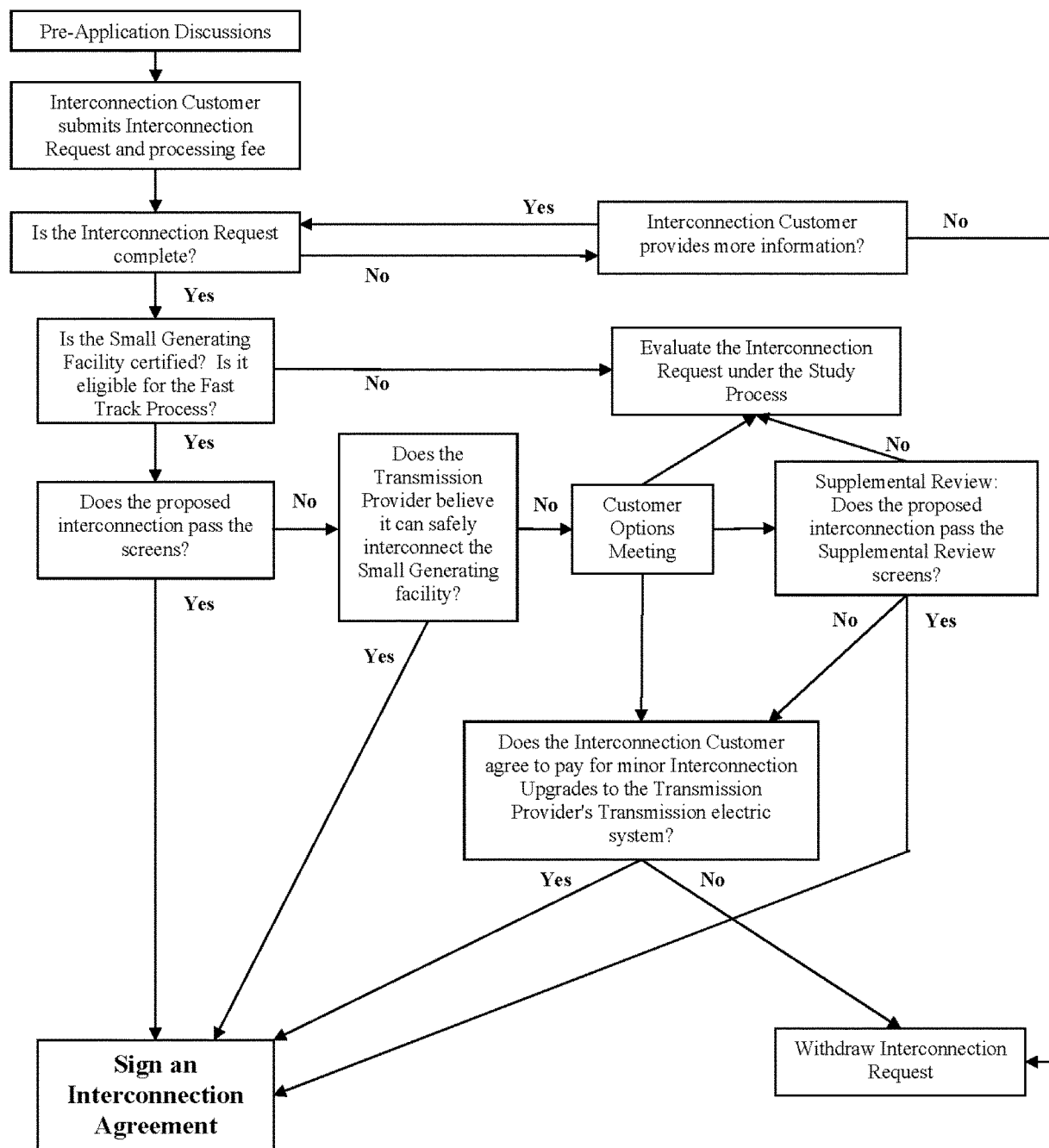
**Appendix A: List of Short Names of Commenters on the SEIA Petition (Docket No. RM12–10–000) and the Technical Conference (Docket No. AD12–17–000)**

Short name or acronym	Commenter
AEP .....	American Electric Power Service Corporation.
Amonix .....	Amonix.
Borrego .....	Borrego Solar Systems.
California ISO .....	California Independent System Operator Corporation.
California PUC .....	California Public Utilities Commission.
California Utilities .....	Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company.
Clean Coalition .....	Clean Coalition.
Detroit Edison .....	Detroit Edison Company.
Duke .....	Duke Energy Corporation.
EEL .....	Edison Electric Institute.
Environmental Defense Fund .....	Environmental Defense Fund.
enXco .....	enXco Development Corporation.
IREC .....	Interstate Renewable Energy Council.
NARUC .....	National Association of Regulatory Utility Commissioners.
NRECA and APPA .....	National Rural Electric Cooperative Association and American Public Power Association.
NV Energy .....	Nevada Power Company and Sierra Pacific Power Company.
NJBPU .....	New Jersey Board of Public Utilities.
NRG .....	NRG Companies.
Pacific Gas and Electric .....	Pacific Gas and Electric Company.
Pepco .....	Pepco Holdings Inc., Atlantic City Electric Company, Delmarva Power & Light Company, and Potomac Electric Power Company.
PJM .....	PJM Interconnection, LLC.
Public Interest Organizations .....	Center for Rural Affairs, Climate + Energy Project, Conservation Law Foundation, Energy Future Coalition, Environmental Law & Policy Center, Fresh Energy, National Audubon Society, Natural Resources Defense Council, Northwest Energy Coalition, Pace Energy and Climate Center, Southern Environmental Law Center, Sustainable FERC Project, Sierra Club, Union of Concerned Scientists, and the Wilderness Society.
Recurrent Energy .....	Recurrent Energy.
San Diego Gas & Electric .....	San Diego Gas & Electric Company.
SEIA .....	Solar Energy Industries Association.
SolarCity .....	SolarCity Corporation.
SoCal Edison .....	Southern California Edison Company.
SunEdison .....	SunEdison LLC.
SunPower .....	SunPower Corporation.
Suntech .....	Suntech America.
USCHPA .....	United States Clean Heat & Power Association.

**Note:** Appendix B will not be published in the Code of Federal Regulations.

## Appendix B

### Flow Chart for Interconnecting a Certified Small Generating Facility Using the "Fast Track Process"



**Note:** Appendix C will not be published in the Code of Federal Regulations.

**Appendix C to the Proposed Small Generator Interconnection Rule**

**SMALL GENERATOR  
INTERCONNECTION PROCEDURES (SGIP)**

**(For Generating Facilities No Larger Than 20 MW)**

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Attachment 1 – Glossary of Terms

Attachment 2 – Small Generator Interconnection Request

Attachment 3 – Certification Codes and Standards

Attachment 4 – Certification of Small Generator Equipment Packages

Attachment 5 – Application, Procedures, and Terms and Conditions for Interconnecting a



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Certified Inverter-Based Small Generating Facility No Larger than 10 kW ("10 kW Inverter Process")

Attachment 6 – Feasibility Study Agreement

Attachment 7 – System Impact Study Agreement

Attachment 8 – Facilities Study Agreement

## Section 1. Application

### 1.1 Applicability

- 1.1.1 A request to interconnect a certified Small Generating Facility (See Attachments 3 and 4 for description of certification criteria) ~~no larger than 2 MW to the Transmission Provider's Distribution System~~ shall be evaluated under the section 2 Fast Track Process if the eligibility requirements of section 2.1 are met. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kilowatts (kW) shall be evaluated under the Attachment 5 10 kW Inverter Process. A request to interconnect a Small Generating Facility ~~larger than 2 MW but no larger than 20 megawatts (MW) that does not meet the eligibility requirements of section 2.1, or or a Small Generating Facility that~~ does not pass the Fast Track Process or the 10 kW Inverter Process, shall be evaluated under the section 3 Study Process. If the Interconnection Customer wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it must do so under the Standard Large Generator Interconnection Procedures and execute the Standard Large Generator Interconnection Agreement.
- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of these procedures.
- 1.1.3 Neither these procedures nor the requirements included hereunder apply to Small Generating Facilities interconnected or approved for interconnection prior to 60 Business Days after the effective date of these procedures.
- 1.1.4 Prior to submitting its Interconnection Request (Attachment 2), the Interconnection Customer may ask the Transmission Provider's interconnection contact employee or office whether the proposed interconnection is subject to these procedures. The Transmission Provider shall respond within 15 Business Days.
- 1.1.5 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. The Federal Energy Regulatory Commission expects all Transmission Providers, market participants, and Interconnection Customers interconnected with electric systems to comply with the recommendations offered by the President's Critical Infrastructure

Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

- 1.1.6 References in these procedures to interconnection agreement are to the Small Generator Interconnection Agreement (SGIA).

## 1.2 Pre-Application

1.2.1 The Transmission Provider shall designate an employee or office from which information on the application process and on an Affected System can be obtained through informal requests from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Transmission Provider's Internet web site. Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Transmission Provider's Transmission System, to the extent such provision does not violate confidentiality provisions of prior agreements or critical infrastructure requirements. The Transmission Provider shall comply with reasonable requests for such information.

1.2.2 In addition to the information described in section 1.2.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request along with a non-refundable fee of \$300 for a pre-application report on a proposed project at a specific site. The written pre-application report request shall include a proposed Point of Interconnection, which shall be defined sufficiently to clearly identify the location of the proposed Point of Interconnection. The Transmission Provider shall provide the pre-application data described in section 1.2.3 to the Interconnection Customer within ten (10) Business Days of receipt of the written request and payment of the \$300 fee.

1.2.3 Subject to section 1.2.4, the pre-application report will include the following information:

1.2.3.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the

proposed Point of Interconnection.

- 1.2.3.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.
- 1.2.3.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.
- 1.2.3.4 Available capacity (in MW) of substation/area bus or bank and circuit mostly likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
- 1.2.3.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
- 1.2.3.6 Nominal distribution circuit voltage at the proposed Point of Interconnection.
- 1.2.3.7 Approximate circuit distance between the proposed Point of Interconnection and the substation.
- 1.2.3.8 Relevant line section(s) peak load estimate, and minimum load data, including daytime minimum load as described in section 2.3.1.1.1 below and absolute minimum load, when available.
- 1.2.3.9 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area. Identify whether the substation has a load tap changer.
- 1.2.3.10 Number of phases available at the proposed Point of Interconnection.

1.2.3.11 Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.

1.2.3.12 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

1.2.4 The pre-application report need only include existing data. A pre-application report request does not obligate the Transmission Provider to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Transmission Provider cannot complete all or some of a pre-application report due to lack of available data, the Transmission Provider shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on “available capacity” pursuant to section 1.2.3.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the Transmission Provider shall, in good faith, include data in the pre-application report that represents that best available information at the time of reporting.

### 1.3 Interconnection Request

The Interconnection Customer shall submit its Interconnection Request to the Transmission Provider, together with the processing fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and time-stamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and time-stamp for the purposes of any timetable in these procedures. The Interconnection Customer shall be notified of receipt by the Transmission Provider within three Business Days of receiving the Interconnection Request. The Transmission Provider shall notify the Interconnection Customer within ten Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is complete or incomplete. If the Interconnection Request is incomplete, the Transmission

Provider shall provide along with the notice that the Interconnection Request is incomplete, a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have ten Business Days after receipt of the notice to submit the listed information or to request an extension of time to provide such information. If the Interconnection Customer does not provide the listed information or a request for an extension of time within the deadline, the Interconnection Request will be deemed withdrawn. An Interconnection Request will be deemed complete upon submission of the listed information to the Transmission Provider.

1.4 Modification of the Interconnection Request

Any modification to machine data or equipment configuration or to the interconnection site of the Small Generating Facility not agreed to in writing by the Transmission Provider and the Interconnection Customer may be deemed a withdrawal of the Interconnection Request and may require submission of a new Interconnection Request, unless proper notification of each Party by the other and a reasonable time to cure the problems created by the changes are undertaken.

1.5 Site Control

Documentation of site control must be submitted with the Interconnection Request. Site control may be demonstrated through:

1.5.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Small Generating Facility;

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

1.5.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose.

1.6 Queue Position

The Transmission Provider shall assign a Queue Position based upon the date- and time-stamp of the Interconnection Request. The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Transmission Provider shall maintain a single queue per geographic region. At the Transmission Provider's option, Interconnection Requests may be studied serially or in clusters for the purpose of the system impact study.

- 1.7 Interconnection Requests Submitted Prior to the Effective Date of the SGIP  
Nothing in this SGIP affects an Interconnection Customer's Queue Position assigned before the effective date of this SGIP. The Parties agree to complete work on any interconnection study agreement executed prior the effective date of this SGIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this SGIP.

## Section 2. Fast Track Process

- 2.1 Applicability  
The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's ~~Transmission~~ Distribution System if the Small Generating Facility's capacity does not exceed the limits identified in the table below, which vary according to the voltage of the line at the proposed Point of Interconnection. Small Generating Facilities located within 2.5 miles of a substation and on a main distribution line with minimum 600-ampere capacity are eligible for the Fast Track Process under the higher thresholds. In addition to the size threshold, is no larger than 2 MW ~~and if the Interconnection Customer's proposed Small Generating Facility must~~ meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the Transmission Provider has to have reviewed the design or tested the proposed Small Generating Facility and ~~is~~ be satisfied that it is safe to operate.



<u>Line Voltage</u>	<u>Fast Track Eligibility Regardless of Location</u>	<u>Fast Track Eligibility on ≥ 600 Ampere Line and ≤ 2.5 Miles from Substation</u>
<u>&lt; 5 kilovolt (kV)</u>	<u>≤ 1 MW</u>	<u>≤ 2 MW</u>
<u>≥ 5 kV and &lt; 15 kV</u>	<u>≤ 2 MW</u>	<u>≤ 3 MW</u>
<u>≥ 15 kV and &lt; 30 kV</u>	<u>≤ 3 MW</u>	<u>≤ 4 MW</u>
<u>≥ 30 kV</u>	<u>≤ 4 MW</u>	<u>≤ 5 MW</u>

## 2.2 Initial Review

Within 15 Business Days after the Transmission Provider notifies the Interconnection Customer it has received a complete Interconnection Request, the Transmission Provider shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens.

### 2.2.1 Screens

- 2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Transmission Provider's Distribution System that is subject to the Tariff.
- 2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 % of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Transmission Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- 2.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 %

of a spot network's maximum load or 50 kW<sup>1</sup>.

2.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall 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 change of ownership.

2.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 % of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 % of the short circuit interrupting capability.

2.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Transmission Provider's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen

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<sup>1</sup> A spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11<sup>th</sup> edition, Donald Fink, McGraw Hill Book Company)

Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen
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2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

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

2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission busses from the point of interconnection).

2.2.1.10 No construction of facilities by the Transmission Provider on its own system shall be required to accommodate the Small Generating Facility.

2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer an executable interconnection agreement within five (5) Business Days after the determination.

2.2.3 If the proposed interconnection fails the screens, but the Transmission Provider determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five (5) Business

Days after the determination.

2.2.4 If the proposed interconnection fails the screens, ~~but~~and the Transmission Provider ~~does not or cannot~~ determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Transmission Provider shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

### 2.3 Customer Options Meeting

If the Transmission Provider determines the Interconnection Request cannot be approved without minor modifications at minimal cost; or a supplemental study or other additional studies or actions; or at significant cost to address safety, reliability, or power quality problems, within the five Business Day period after the determination, the Transmission Provider shall notify the Interconnection Customer and provide copies of all data and analyses underlying its conclusion. Within ten (10) Business Days of the Transmission Provider's determination, the Transmission Provider shall offer to convene a customer options meeting with the Transmission Provider to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Transmission Provider's determination, or at the customer options meeting, the Transmission Provider shall:

- 2.3.1 Offer to perform facility modifications or minor modifications to the Transmission Provider's electric system (e.g., changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Transmission Provider's electric system. If the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within five (5) Business Days of the Customer Options Meeting; or
- 2.3.2 Offer to perform a supplemental review in accordance with section 2.4 ~~if the Transmission Provider concludes that the supplemental review might determine that the Small Generating Facility could continue to qualify for interconnection pursuant to the Fast Track Process, and provide a non-binding good faith estimate of the costs of such review;~~ or

2.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the section 3 Study Process.

2.4 Supplemental Review

If the Interconnection Customer agrees to a supplemental review, the Interconnection Customer shall agree in writing within fifteen (15) Business Days of the offer, and submit ~~a deposit for the estimated costs~~ the nonrefundable supplemental review fee of \$2,500 to the Transmission Provider, or the Interconnection Request shall be deemed withdrawn. The Interconnection Customer shall be responsible for the Transmission Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Transmission Provider will return such excess within 20 Business Days of the invoice without interest.

2.4.1 Within twenty (20) Business Days following receipt of the ~~deposit for a supplemental review fee~~, the Transmission Provider ~~will determine if the Small Generating Facility can be interconnected safely and reliably~~ shall perform a supplemental review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens.

2.4.1.1 ~~If so, the Transmission Provider shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days~~ Where twelve (12) months of line section minimum load data is available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Transmission Provider shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 2.4.1.

- 2.4.1.1.1      The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 2.4.1.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.
- 2.4.1.1.2      When this screen is being applied to a Small Generating Facility that serves some onsite electrical load, only the net export in kW, if known, that may flow into the Transmission Provider's system will be considered as part of the aggregate generation.
- 2.4.1.1.3      Transmission Provider will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.
- 2.4.1.2      In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits at the Point of Interconnection.
- 2.4.1.3      The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Transmission Provider shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in

applying this screen.

2.4.1.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g. several large commercial customers).

2.4.1.3.2 Whether there is an even or uneven distribution of loading along the line section.

2.4.1.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e. less than 2.5 electrical line miles), and whether the line section from the substation to the Point of Interconnection is composed of large conductor cable (i.e. 600-ampere class cable).

2.4.1.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

2.4.1.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

2.4.1.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

2.4.2 If the proposed interconnection passes the supplemental screens in sections 2.4.1.1, 2.4.1.2, and 2.4.1.3 above, the Interconnection Request shall be



approved and the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within the timeframes established in this section 2.4.2. If the proposed interconnection requires no construction of facilities by the Transmission Provider on its own system, the interconnection agreement shall be provided within five (5) Business Days after the notification of the supplemental review results. If the proposed interconnection requires only interconnection facilities or minor modifications to the Transmission Provider's system, the interconnection agreement, along with a non-binding good faith estimate for the interconnection facilities and/or minor modifications, shall be provided to the Interconnection Customer within fifteen (15) Business Days after notification of the supplemental review results. If the proposed interconnection requires more than minor modifications to the Transmission Provider's system, the Transmission Provider shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request may continue to be evaluated under the section 3 Study Process.

~~2.4.1.2 — If so, and Interconnection Customer facility modifications are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the Transmission Provider shall forward an executable interconnection agreement to the Interconnection Customer within five Business Days after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's cost.~~

~~2.4.1.3 — If so, and minor modifications to the Transmission Provider's electric system are required to allow the Small Generating Facility to be interconnected consistent with safety, reliability, and power quality standards under the Fast Track Process, the Transmission Provider shall forward an executable interconnection agreement to the Interconnection Customer within ten Business Days that requires the Interconnection Customer to pay the costs of such system modifications prior to interconnection.~~

~~2.4.1.4 — If not, the Interconnection Request will continue to be~~

~~evaluated under the section 3 Study Process.~~

### Section 3. Study Process

#### 3.1 Applicability

The Study Process shall be used by an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission Provider's Transmission System or Distribution System if the Small Generating Facility (1) is ~~larger than 2 MW but no~~ larger than 20 MW and does not meet the eligibility requirements of section 2.1, (2) is not certified, or (3) is certified but did not pass the Fast Track Process or the 10 kW Inverter Process.

#### 3.2 Scoping Meeting

3.2.1 A scoping meeting will be held within ten Business Days after the Interconnection Request is deemed complete, or as otherwise mutually agreed to by the Parties. The Transmission Provider and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.

3.2.2 The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether the Transmission Provider should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an interconnection agreement. If the Parties agree that a feasibility study should be performed, the Transmission Provider shall provide the Interconnection Customer, as soon as possible, but not later than five Business Days after the scoping meeting, a feasibility study agreement (Attachment 6) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

3.2.3 The scoping meeting may be omitted by mutual agreement. In order to remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days. If the Parties agree not to perform a feasibility study, the Transmission Provider shall provide the Interconnection Customer, no later than five Business Days after the

scoping meeting, a system impact study agreement (Attachment 7) including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

### 3.3 Feasibility Study

- 3.3.1 The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Small Generating Facility.
- 3.3.2 A deposit of the lesser of 50 percent of the good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.
- 3.3.3 The scope of and cost responsibilities for the feasibility study are described in the attached feasibility study agreement (Attachment 6).
- 3.3.4 If the feasibility study shows no potential for adverse system impacts, the Transmission Provider shall send the Interconnection Customer a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If no additional facilities are required, the Transmission Provider shall send the Interconnection Customer an executable interconnection agreement within five Business Days.
- 3.3.5 If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(s).

### 3.4 System Impact Study

- 3.4.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed Small Generating Facility were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.
- 3.4.2 If no transmission system impact study is required, but potential electric power Distribution System adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system

impact study must be performed. The Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement within 15 Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.

- 3.4.3 In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within five Business Days following transmittal of the feasibility study report, the Transmission Provider shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, if such a study is required.
- 3.4.4 If a transmission system impact study is not required, but electric power Distribution System adverse system impacts are shown by the feasibility study to be possible and no distribution system impact study has been conducted, the Transmission Provider shall send the Interconnection Customer a distribution system impact study agreement.
- 3.4.5 If the feasibility study shows no potential for transmission system or Distribution System adverse system impacts, the Transmission Provider shall send the Interconnection Customer either a facilities study agreement (Attachment 8), including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or an executable interconnection agreement, as applicable.
- 3.4.6 In order to remain under consideration for interconnection, the Interconnection Customer must return executed system impact study agreements, if applicable, within 30 Business Days.
- 3.4.7 A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer.
- 3.4.8 The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement.
- 3.4.9 Where transmission systems and Distribution Systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") – whether investor-owned or not – the Interconnection Customer may apply

to the nearest Transmission Provider (Transmission Owner, Regional Transmission Operator, or Independent Transmission Provider) providing transmission service to the TDU to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

### 3.5 Facilities Study

- 3.5.1 Once the required system impact study(s) is completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within five Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. In the case where one or both impact studies are determined to be unnecessary, a notice of the fact shall be transmitted to the Interconnection Customer within the same timeframe.
- 3.5.2 In order to remain under consideration for interconnection, or, as appropriate, in the Transmission Provider's interconnection queue, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days.
- 3.5.3 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
- 3.5.4 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. The Transmission Provider may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Transmission Provider may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Transmission Provider, under the provisions of the facilities study agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Transmission Provider shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost

estimate for any necessary facilities.

- 3.5.5 A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
- 3.5.6 The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement.
- 3.5.7 Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, the Transmission Provider shall provide the Interconnection Customer an executable interconnection agreement within five Business Days.

#### **Section 4. Provisions that Apply to All Interconnection Requests**

##### **4.1 Reasonable Efforts**

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

##### **4.2 Disputes**

- 4.2.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 4.2.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 4.2.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 4.2.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early

neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.

4.2.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.

4.2.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of these procedures.

4.3 Interconnection Metering

Any metering necessitated by the use of the Small Generating Facility shall be installed at the Interconnection Customer's expense in accordance with Federal Energy Regulatory Commission, state, or local regulatory requirements or the Transmission Provider's specifications.

4.4 Commissioning

Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards. The Transmission Provider must be given at least five Business Days written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

4.5. Confidentiality

4.5.1 Confidential information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.

4.5.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public



without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements.

4.5.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

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

4.5.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to these procedures, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of the Confidential Information to FERC. The Party shall notify the other Party when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### 4.6 Comparability

The Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in this document. The Transmission Provider shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Small Generating Facility is owned or operated by the Transmission Provider, its subsidiaries or affiliates, or others.

#### 4.7 Record Retention

The Transmission Provider shall maintain for three years records, subject to audit, of all Interconnection Requests received under these procedures, the times required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on the Interconnection Requests.

#### 4.8 Interconnection Agreement

After receiving an interconnection agreement from the Transmission Provider, the Interconnection Customer shall have 30 Business Days or another mutually agreeable timeframe to sign and return the interconnection agreement and agree to pay for Interconnection Facilities and Upgrades, if any, or request that the Transmission Provider file an unexecuted interconnection agreement with the Federal Energy Regulatory Commission. If the Interconnection Customer does not sign the interconnection agreement, or ask that it be filed unexecuted by the Transmission Provider within 30 Business Days, the Interconnection Request shall be deemed withdrawn. After the interconnection agreement is signed by the Parties, the interconnection of the Small Generating Facility shall proceed under the provisions of the interconnection agreement.

#### 4.9 Coordination with Affected Systems

The Transmission Provider shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Transmission Provider will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. A Transmission Provider which may be an Affected System shall cooperate with the Transmission Provider with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### 4.10 Capacity of the Small Generating Facility

4.10.1 If the Interconnection Request is for an increase in capacity for an existing Small Generating Facility, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Small Generating Facility.

4.10.2 If the Interconnection Request is for a Small Generating Facility that

includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of the aggregate capacity of the multiple devices.

- 4.10.3 The Interconnection Request shall be evaluated using the maximum rated capacity of the Small Generating Facility.

## Attachment 1

## Glossary of Terms

**10 kW Inverter Process** – The procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the section 2 screens. The application process uses an all-in-one document that includes a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions. See SGIP Attachment 5.

**Affected System** – An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Distribution System** – The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Fast Track Process** – The procedure for evaluating an Interconnection Request for a certified Small Generating Facility ~~no larger than 2 MW~~ that meets the eligibility requirements of section 2.1 and includes the section 2 screens, customer options meeting, and optional supplemental review.

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

**Interconnection Customer** – Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission

System.

**Interconnection Facilities** – The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Request** – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

**Network Resource** – Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

**Network Resource Interconnection Service** – An Interconnection Service that allows the Interconnection Customer to integrate its Generating Facility with the Transmission Provider's System (1) in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers; or (2) in an RTO or ISO with market based congestion management, in the same manner as Network Resources. Network Resource Interconnection Service in and of itself does not convey transmission service.

**Network Upgrades** – Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection with the Small Generating Facility to the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

**Party or Parties** – The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Transmission Provider's Distribution System or Transmission System.

**Queue Position** – The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the Transmission Provider.

**Small Generating Facility** – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Study Process** – The procedure for evaluating an Interconnection Request that includes the section 3 scoping meeting, feasibility study, system impact study, and facilities study.

**Transmission Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

**Transmission Provider** – The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

**Transmission System** – The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

**Upgrades** – The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

## Attachment 2

**SMALL GENERATOR INTERCONNECTION REQUEST  
(Application Form)****Transmission Provider:** \_\_\_\_\_

Designated Contact Person: \_\_\_\_\_

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

Telephone Number: \_\_\_\_\_

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

E-Mail Address: \_\_\_\_\_

An Interconnection Request is considered complete when it provides all applicable and correct information required below. Per SGIP section 1.5, documentation of site control must be submitted with the Interconnection Request.

**Preamble and Instructions**

An Interconnection Customer who requests a Federal Energy Regulatory Commission jurisdictional interconnection must submit this Interconnection Request by hand delivery, mail, e-mail, or fax to the Transmission Provider.

**Processing Fee or Deposit:**

If the Interconnection Request is submitted under the Fast Track Process, the non-refundable processing fee is \$500.

If the Interconnection Request is submitted under the Study Process, whether a new submission or an Interconnection Request that did not pass the Fast Track Process, the Interconnection Customer shall submit to the Transmission Provider a deposit not to exceed \$1,000 towards the cost of the feasibility study.

**Interconnection Customer Information**

Legal Name of the Interconnection Customer (or, if an individual, individual's name)

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

Contact Person: \_\_\_\_\_

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

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

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

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

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

Alternative Contact Information (if different from the Interconnection Customer)

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

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

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

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

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

Application is for: \_\_\_\_\_ New Small Generating Facility  
\_\_\_\_\_ Capacity addition to Existing Small Generating Facility

If capacity addition to existing facility, please describe: \_\_\_\_\_

Will the Small Generating Facility be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Others? Yes \_\_\_ No \_\_\_

For installations at locations with existing electric service to which the proposed Small Generating Facility will interconnect, provide:

\_\_\_\_\_  
(Local Electric Service Provider\*)

\_\_\_\_\_  
(Existing Account Number\*)

[\*To be provided by the Interconnection Customer if the local electric service provider is different from the Transmission Provider]

Small Generator Interconnection Request - 2 -



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

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

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

\_\_\_\_\_

Telephone (Day): \_\_\_\_\_ Telephone (Evening): \_\_\_\_\_

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

Requested Point of Interconnection: \_\_\_\_\_

Interconnection Customer's Requested In-Service Date: \_\_\_\_\_

**Small Generating Facility Information**

Data apply only to the Small Generating Facility, not the Interconnection Facilities.

Energy Source: ☐ Solar ☐ Wind ☐ Hydro ☐ 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: \_\_\_\_\_

Interconnection 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 Small Generating Facility equipment package that are currently certified:

Equipment Type	Certifying Entity
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.

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

Max design fault contribution current: \_\_\_\_\_ Instantaneous \_\_\_ or RMS? \_\_\_

Harmonics Characteristics: \_\_\_\_\_

Start-up requirements: \_\_\_\_\_

Small Generating Facility Characteristic Data (for rotating machines)

RPM Frequency: \_\_\_\_\_

(\*) Neutral Grounding Resistor (If Applicable): \_\_\_\_\_

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U.

Negative Sequence Reactance,  $X_2$ : \_\_\_\_\_ P.U.

Zero Sequence Reactance,  $X_0$ : \_\_\_\_\_ P.U.

Small Generator Interconnection Request - 4 -

KVA Base: \_\_\_\_\_  
 Field Volts: \_\_\_\_\_  
 Field Amperes: \_\_\_\_\_

### Induction Generators:

Motoring Power (kW): \_\_\_\_\_  
 $I_2^2t$  or K (Heating Time Constant): \_\_\_\_\_  
 Rotor Resistance, Rr: \_\_\_\_\_  
 Stator Resistance, Rs: \_\_\_\_\_  
 Stator Reactance, Xs: \_\_\_\_\_  
 Rotor Reactance, Xr: \_\_\_\_\_  
 Magnetizing Reactance, Xm: \_\_\_\_\_  
 Short Circuit Reactance, Xd": \_\_\_\_\_  
 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 Transmission Provider 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.

### 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 Interconnection Customer? \_\_\_ Yes \_\_\_ No

### Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer: \_\_\_ single phase \_\_\_ three phase? Size: \_\_\_\_\_ kVA  
 Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ kVA Base

If Three Phase:

Transformer Primary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
 Transformer Secondary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded  
 Transformer Tertiary: \_\_\_\_\_ Volts \_\_\_\_\_ Delta \_\_\_\_\_ Wye \_\_\_\_\_ Wye Grounded

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
Load Rating (Amps): \_\_\_\_\_ Interrupting Rating (Amps): \_\_\_\_\_ Trip Speed (Cycles): \_\_\_\_\_Interconnection Protective Relays (If Applicable):If Microprocessor-Controlled:

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: \_\_\_\_

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all Small Generating 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 Small Generating 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 Small Generating 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 Interconnection 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

**Applicant Signature**

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

For Interconnection Customer: \_\_\_\_\_ Date: \_\_\_\_\_

**Attachment 3****Certification Codes and Standards**

IEEE1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity)

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

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

NFPA 70 (2002), National Electrical Code

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

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

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

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

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

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

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

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

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

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

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

**Attachment 4****Certification of Small Generator Equipment Packages**

1.0 Small Generating Facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in SGIP Attachment 3, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its Web site and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

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

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

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

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

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

7.0 Any equipment package approved and listed in a state by that state's regulatory body for interconnected operation in that state prior to the effective date of these small generator interconnection procedures shall be considered certified under these procedures for use in that state.

**ATTACHMENT 5**

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**Application, Procedures, and Terms and Conditions for Interconnecting  
a Certified Inverter-Based Small Generating Facility No  
Larger than 10 kW ("10 kW Inverter Process")**

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- 1.0 The Interconnection Customer ("Customer") completes the Interconnection Request ("Application") and submits it to the Transmission Provider ("Company").
- 2.0 The Company acknowledges to the Customer receipt of the Application within three Business Days of receipt.
- 3.0 The Company evaluates the Application for completeness and notifies the Customer within ten Business Days of receipt that the Application is or is not complete and, if not, advises what material is missing.
- 4.0 The Company verifies that the Small Generating Facility can be interconnected safely and reliably using the screens contained in the Fast Track Process in the Small Generator Interconnection Procedures (SGIP). The Company has 15 Business Days to complete this process. Unless the Company determines and demonstrates that the Small Generating Facility cannot be interconnected safely and reliably, the Company approves the Application and returns it to the Customer. Note to Customer: Please check with the Company before submitting the Application if disconnection equipment is required.
- 5.0 After installation, the Customer returns the Certificate of Completion to the Company. Prior to parallel operation, the Company may inspect the Small Generating Facility for compliance with standards which may include a witness test, and may schedule appropriate metering replacement, if necessary.
- 6.0 The Company notifies the Customer in writing that interconnection of the Small Generating Facility is authorized. If the witness test is not satisfactory, the Company has the right to disconnect the Small Generating Facility. The Customer has no right to operate in parallel until a witness test has been performed, or previously waived on the Application. The Company is obligated to complete this witness test within ten Business Days of the receipt of the Certificate of Completion. If the Company does not inspect within ten Business Days or by

mutual agreement of the Parties, the witness test is deemed waived.

- 7.0 Contact Information – The Customer must provide the contact information for the legal applicant (i.e., the Interconnection Customer). If another entity is responsible for interfacing with the Company, that contact information must be provided on the Application.
- 8.0 Ownership Information – Enter the legal names of the owner(s) of the Small Generating Facility. Include the percentage ownership (if any) by any utility or public utility holding company, or by any entity owned by either.
- 9.0 UL1741 Listed – This standard ("Inverters, Converters, and Controllers for Use in Independent Power Systems") addresses the electrical interconnection design of various forms of generating equipment. Many manufacturers submit their equipment to a Nationally Recognized Testing Laboratory (NRTL) that verifies compliance with UL1741. This "listing" is then marked on the equipment and supporting documentation.



## **Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10kW**

This Application is considered complete when it provides all applicable and correct information required below. Per SGIP section 1.5, documentation of site control must be submitted with the Interconnection Request. Additional information to evaluate the Application may be required.

### Processing Fee

A non-refundable processing fee of \$100 must accompany this Application.

### Interconnection Customer

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

Contact Person: \_\_\_\_\_

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

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

### Contact (if different from Interconnection Customer)

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

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

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

### Small Generating Facility Information

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

Electric Service Company: \_\_\_\_\_

Account Number: \_\_\_\_\_

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 10 kW Inverter Process is available only for inverter-based Small Generating Facilities no larger than 10 kW that meet the codes, standards, and certification requirements of Attachments 3 and 4 of the Small Generator Interconnection Procedures (SGIP), or the Transmission Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

List components of the Small Generating Facility equipment package that are currently certified:

Equipment Type

Certifying Entity

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Interconnection 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 Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return the Certificate of Completion when the Small Generating Facility has been installed.

Signed: \_\_\_\_\_

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

Contingent Approval to Interconnect the Small Generating Facility(For Company use only)

Interconnection of the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW and return of the Certificate of Completion.

Small Generator 10 kW Inverter Process

- 4 -

Company Signature: \_\_\_\_\_

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

Application ID number: \_\_\_\_\_

Company waives inspection/witness test? Yes \_\_\_ No \_\_\_

**Small Generating Facility Certificate of Completion**

Is the Small Generating Facility owner-installed? Yes \_\_\_\_\_ No \_\_\_\_\_

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

Contact Person: \_\_\_\_\_

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

Location of the Small Generating Facility (if different from above):

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

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

Electrician:

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

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

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

Telephone (Day): \_\_\_\_\_ (Evening): \_\_\_\_\_

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

License number: \_\_\_\_\_

Date Approval to Install Facility granted by the Company: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Inspection:

The Small Generating Facility has been installed and inspected in compliance with the local  
building/electrical code of \_\_\_\_\_

Signed (Local electrical wiring inspector, or attach signed electrical inspection):

\_\_\_\_\_

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

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

As a condition of interconnection, you are required to send/fax a copy of this form along with a copy of the signed electrical permit to (insert Company information below):

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

Company: \_\_\_\_\_

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

City, State ZIP: \_\_\_\_\_

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

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Approval to Energize the Small Generating Facility (For Company use only)

Energizing the Small Generating Facility is approved contingent upon the Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW

Company Signature: \_\_\_\_\_

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

## **Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10kW**

### **1.0 Construction of the Facility**

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Small Generating Facility when the Transmission Provider (the "Company") approves the Interconnection Request (the "Application") and returns it to the Customer.

### **2.0 Interconnection and Operation**

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

2.1 Upon completing construction, the Customer will cause the Small Generating Facility to be inspected or otherwise certified 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 has either:

2.3.1 Completed its inspection of the Small Generating Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written statement that the Small Generating Facility has passed inspection or shall notify the Customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place; or

2.3.2 If the Company does not schedule an inspection of the Small Generating Facility within ten business days after receiving the Certificate of Completion, the witness test is deemed waived (unless the Parties agree otherwise); or

2.3.3 The Company waives the right to inspect the Small Generating Facility.

2.4 The Company has the right to disconnect the Small Generating Facility in the event of improper installation or failure to return the Certificate of Completion.

2.5 Revenue quality metering equipment must be installed and tested in accordance with applicable ANSI standards.

### **3.0 Safe Operations and Maintenance**

The Customer shall be fully responsible to operate, maintain, and repair the Small 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 disconnect switch (if the disconnect switch is required) and metering equipment of the Small 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**

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

5.1 For scheduled outages upon reasonable notice.

5.2 For unscheduled outages or emergency conditions.

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

5.4 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 Parties agree to follow all applicable insurance requirements imposed by the state in which the Point of Interconnection is located. All insurance policies must be maintained with insurers authorized to do business in that state.

**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**

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

**9.1 By the Customer**

By providing written notice to the Company.

**9.2 By the Company**

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

**9.3 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 Small Generating Facility.

**9.4 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 Small 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 6

**Feasibility Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System; and

**WHEREAS**, Interconnection Customer has requested the Transmission Provider to perform a feasibility study to assess the feasibility of interconnecting the proposed Small Generating Facility with the Transmission Provider's Transmission System, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Transmission Provider shall cause to be performed an interconnection feasibility study consistent the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.

- 3.0 The scope of the feasibility study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The feasibility study shall be based on the technical information provided by the Interconnection Customer in the Interconnection Request, as may be modified as the result of the scoping meeting. The Transmission Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the feasibility study and as designated in accordance with the standard Small Generator Interconnection Procedures. If the Interconnection Customer modifies its Interconnection Request, the time to complete the feasibility study may be extended by agreement of the Parties.
- 5.0 In performing the study, the Transmission Provider shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.
- 6.0 The feasibility study report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the Small Generating Facility as proposed:
  - 6.1 Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
  - 6.2 Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
  - 6.3 Initial review of grounding requirements and electric system protection; and
  - 6.4 Description and non-binding estimated cost of facilities required to interconnect the proposed Small Generating Facility and to address the identified short circuit and power flow issues.
- 7.0 The feasibility study shall model the impact of the Small Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection

Customer later changes the purpose for which the Small Generating Facility is being installed.

- 8.0 The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0 A deposit of the lesser of 50 percent of good faith estimated feasibility study costs or earnest money of \$1,000 may be required from the Interconnection Customer.
- 10.0 Once the feasibility study is completed, a feasibility study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the feasibility study must be completed and the feasibility study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a feasibility study.
- 11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.
- 13.0 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 \_\_\_\_\_ (where the Point of Interconnection is located), 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.
- 14.0 Amendment  
The Parties may amend this Agreement by a written instrument duly executed by both Parties.
- 15.0 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.

16.0 Waiver

16.1 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.

16.2 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 Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 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.

18.0 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.

19.0 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.

20.0 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.

20.1 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 the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection 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.

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

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**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 Transmission Provider]**

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**[Insert name of Interconnection  
Customer]**

---

  
Signed \_\_\_\_\_

---

  
Signed \_\_\_\_\_

Name (Printed):

Name (Printed):

---

---

Title \_\_\_\_\_

Title \_\_\_\_\_

Attachment A to Feasibility Study  
Agreement

### **Assumptions Used in Conducting the Feasibility Study**

The 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.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Transmission Provider.

## System Impact Study Agreement

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System;

**WHEREAS**, the Transmission Provider has completed a feasibility study and provided the results of said study to the Interconnection Customer (This recital to be omitted if the Parties have agreed to forego the feasibility study.); and

**WHEREAS**, the Interconnection Customer has requested the Transmission Provider to perform a system impact study(s) to assess the impact of interconnecting the Small Generating Facility with the Transmission Provider's Transmission System, and of any Affected Systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Transmission Provider shall cause to



be performed a system impact study(s) consistent with the standard Small Generator Interconnection Procedures in accordance with the Open Access Transmission Tariff.

- 3.0 The scope of a system impact study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 A system impact study will be based upon the results of the feasibility study and the technical information provided by Interconnection Customer in the Interconnection Request. The Transmission Provider reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. If the Interconnection Customer modifies its designated Point of Interconnection, Interconnection Request, or the technical information provided therein is modified, the time to complete the system impact study may be extended.
- 5.0 A system impact study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Request and non-binding good faith estimates of cost responsibility and time to construct.
- 6.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems, and the Transmission Provider has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.

- 8.0 If the Transmission Provider uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –
- 8.1 Are directly interconnected with the Transmission Provider's electric system; or
- 8.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
- 8.3 Have a pending higher queued Interconnection Request to interconnect with the Transmission Provider's electric system.
- 9.0 A distribution system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 30 Business Days after this Agreement is signed by the Parties. A transmission system impact study, if required, shall be completed and the results transmitted to the Interconnection Customer within 45 Business Days after this Agreement is signed by the Parties, or in accordance with the Transmission Provider's queuing procedures.
- 10.0 A deposit of the equivalent of the good faith estimated cost of a distribution system impact study and the one half the good faith estimated cost of a transmission system impact study may be required from the Interconnection Customer.
- 11.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.
- 12.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.
- 13.0 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 \_\_\_\_\_

(where the Point of Interconnection is located), 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.

14.0 Amendment

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

15.0 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.

16.0 Waiver

16.1 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.

16.2 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 Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

17.0 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.

18.0 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.

19.0 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.

20.0 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.

20.1 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 the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection 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.

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

21.0 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to

make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications

**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 Transmission Provider]**

**[Insert name of Interconnection  
Customer]**

\_\_\_\_\_

\_\_\_\_\_

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name (Printed):

Name (Printed):

\_\_\_\_\_

\_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

---

**Attachment A to System Impact Study  
Agreement****Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the results of the feasibility study, subject to any modifications in accordance with the standard Small Generator Interconnection Procedures, and the following assumptions:

- 1) Designation of Point of Interconnection and configuration to be studied.
  
- 2) Designation of alternative Points of Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Transmission Provider.

## Attachment 8

**Facilities Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and \_\_\_\_\_, a \_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_, ("Transmission Provider"). Interconnection Customer and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Small Generating Facility or generating capacity addition to an existing Small Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Small Generating Facility with the Transmission Provider's Transmission System;

**WHEREAS**, the Transmission Provider has completed a system impact study and provided the results of said study to the Interconnection Customer; and

**WHEREAS**, the Interconnection Customer has requested the Transmission Provider to perform a facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to implement the conclusions of the system impact study in accordance with Good Utility Practice to physically and electrically connect the Small Generating Facility with the Transmission Provider's Transmission System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Small Generator Interconnection Procedures.
- 2.0 The Interconnection Customer elects and the Transmission Provider shall cause a

- facilities study consistent with the standard Small Generator Interconnection Procedures to be performed in accordance with the Open Access Transmission Tariff.
- 3.0 The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 4.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify (1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, (2) the nature and estimated cost of the Transmission Provider's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and (3) an estimate of the time required to complete the construction and installation of such facilities.
- 5.0 The Transmission Provider may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Small Generating Facility if it is willing to pay the costs of those facilities.
- 6.0 A deposit of the good faith estimated facilities study costs may be required from the Interconnection Customer.
- 7.0 In cases where Upgrades are required, the facilities study must be completed within 45 Business Days of the receipt of this Agreement. In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within 30 Business Days.
- 8.0 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the draft facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.
- 9.0 Interconnection Customer may, within thirty (30) calendar days after receipt of the draft report, provide written comments to Transmission Provider, which Transmission Provider shall include in the final report. Transmission Provider shall issue the final Interconnection Facilities Study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly



upon receiving Interconnection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer if Interconnection Customer's comments require Transmission Provider to perform additional analyses or make other significant modifications prior to the issuance of the final Interconnection Facilities Report. Upon request, Transmission Provider shall provide Interconnection Customer supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 4.5 of the standard Small Generator Interconnection Procedures.

10.0 Within ten (10) Business Days of providing a draft Interconnection Facilities Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection Facilities Study.

911.0 Any study fees shall be based on the Transmission Provider's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time.

~~1012.0~~The Interconnection Customer must pay any study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Transmission Provider shall refund such excess within 30 calendar days of the invoice without interest.

~~1113.0~~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 \_\_\_\_\_ (where the Point of Interconnection is located), 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.

~~1214.0~~Amendment

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

~~1315.0~~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.

4416.0Waiver

4416.1 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.

4416.2 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 Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

4517.0Multiple 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.

4618.0No 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.

4719.0Severability

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.

4820.0Subcontractors

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.

~~1820.1~~ 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 the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection 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.

~~1820.2~~ The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

~~1921.0~~ Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications

**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 Transmission Provider]**

**[Insert name of Interconnection Customer]**

\_\_\_\_\_

\_\_\_\_\_

Signed \_\_\_\_\_

Signed \_\_\_\_\_

Name (Printed):

Name (Printed):

\_\_\_\_\_

\_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

**Attachment A to Facilities Study  
Agreement****Data to Be Provided by the Interconnection Customer  
with the Facilities Study Agreement**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission 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 Transmission Provider 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 Small 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, transmission line, and property lines.

Physical dimensions of the proposed interconnection station:

\_\_\_\_\_

\_\_\_\_\_

Bus length from generation to interconnection station:

\_\_\_\_\_

\_\_\_\_\_

Line length from interconnection station to Transmission Provider's Transmission System.

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

Number of third party easements required for transmission lines\*:

\_\_\_\_\_

\_\_\_\_\_

\* To be completed in coordination with Transmission Provider.

Is the Small Generating Facility located in Transmission Provider'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: _____

**Note:** Appendix D will not be published in the Code of Federal

**Appendix D to the Proposed Small  
Generator Interconnection Rule**

**SMALL GENERATOR  
INTERCONNECTION AGREEMENT (SGIA)**

**(For Generating Facilities No Larger Than 20 MW)**



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Attachment 1 – Glossary of Terms

Attachment 2 – Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment

Attachment 3 – One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades

Attachment 4 – Milestones

Attachment 5 – Additional Operating Requirements for the Transmission Provider's Transmission System and Affected Systems Needed to Support the Interconnection Customer's Needs

Attachment 6 – Transmission Provider's Description of its Upgrades and Best Estimate of Upgrade Costs

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by

\_\_\_\_\_  
("Transmission Provider"), and

\_\_\_\_\_  
("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

### Transmission Provider Information

Transmission Provider: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

### Interconnection Customer Information

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Interconnection Customer Application No: \_\_\_\_\_

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

### Article 1. Scope and Limitations of Agreement

- 1.1 This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.
- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Transmission Provider's Transmission System.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under

separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Transmission Provider.

- 1.4 Nothing in this Agreement is intended to affect any other agreement between the Transmission Provider and the Interconnection Customer.

1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule and, in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Transmission Provider shall construct, operate, and maintain its Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of (1) a disturbance of its Small Generating Facility adversely affecting or impairing the system or equipment of the Transmission Provider and any Affected Systems, and (2) a disturbance of the system or equipment of the Transmission Provider or any Affected System causing off-normal frequency deviations and resulting in a common mode disconnection of its Small Generating Facility.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of

their respective lines and appurtenances on their respective sides of the point of change of ownership. The Transmission Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Transmission Provider's Transmission System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

1.5.6 The Transmission Provider shall coordinate with all Affected Systems to support the interconnection.

1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Transmission Provider's Transmission System and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

1.7 Metering

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

1.8 Reactive Power

1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all similarly situated generators in the control area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

1.8.2 The Transmission Provider is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs

from the Small Generating Facility when the Transmission Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1. In addition, if the Transmission Provider pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.8.3 Payments shall be in accordance with the Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of the Commission's prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

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

### **2.1 Equipment Testing and Inspection**

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Transmission Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day. The Transmission Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Transmission Provider a written test report when such testing and inspection is completed.

2.1.2 The Transmission Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by

the Transmission Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

## 2.2 Authorization Required Prior to Parallel Operation

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

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Transmission Provider's Transmission System without prior written authorization of the Transmission Provider. The Transmission Provider will provide such authorization once the Transmission Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 2.3 Right of Access

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

2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Transmission Provider shall have access to the Interconnection Customer's premises for any



reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

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

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

#### **3.1 Effective Date**

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Transmission Provider shall promptly file this Agreement with the FERC upon execution, if required.

#### **3.2 Term of Agreement**

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

#### **3.3 Termination**

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Transmission Provider 20 Business Days written notice.

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

- 3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Transmission Provider's Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this SGIA or such non-terminating Party otherwise is responsible for these costs under this SGIA.

3.3.4 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5 These provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

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

3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (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 Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, the Transmission Provider's Interconnection Facilities or the Transmission Systems of others to which the Transmission System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Transmission Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Transmission Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Transmission Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Transmission Provider's Transmission System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Transmission Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the

Small Generating Facility from the Transmission Provider's Transmission System when necessary for routine maintenance, construction, and repairs on the Transmission Provider's Transmission System. The Transmission Provider shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Transmission Provider shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Transmission Provider may suspend interconnection service to effect immediate repairs on the Transmission Provider's Transmission System. The Transmission Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Transmission Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Transmission Provider shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Transmission Provider's Transmission System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Transmission Provider may disconnect the Small Generating Facility. The Transmission Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5 Modification of the Small Generating Facility

The Interconnection Customer must receive written authorization from the Transmission Provider before making any change to the Small Generating Facility that may have a material impact on the safety or reliability of the Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Transmission Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

#### 3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Transmission Provider's Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

### **Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

#### 4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Transmission Provider shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Transmission Provider.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Transmission Provider's Interconnection Facilities.

#### 4.2 Distribution Upgrades

The Transmission Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

### **Article 5. Cost Responsibility for Network Upgrades**

#### 5.1 Applicability

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

## 5.2 Network Upgrades

The Transmission Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Transmission Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Transmission Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

### 5.2.1 Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Transmission Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Transmission Provider's Tariff and Affected System's Tariff for transmission services with respect to the Small Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 Notwithstanding the foregoing, the Interconnection Customer, the Transmission Provider, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as the Transmission Provider and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Transmission Provider or any applicable Affected System operators will continue to provide payments

to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

- 5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Transmission Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

5.3 Special Provisions for Affected Systems

Unless the Transmission Provider provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

5.4 Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

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

6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Transmission Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Transmission Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Transmission Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Transmission Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Transmission Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Transmission Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Transmission Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted

notwithstanding the circumstances explained by the Party proposing the amendment.

### 6.3 Financial Security Arrangements

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

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Transmission Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insurer reasonably acceptable to the Transmission Provider and must specify a reasonable expiration date.

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

### 7.1 Assignment

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

- 7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Transmission Provider of any such assignment;



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

7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

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

7.3 Indemnity

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

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

7.3.3 If an indemnified 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.

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

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

#### 7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, 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.

#### 7.5 Force Majeure

7.5.1 As used in this article, a Force Majeure Event shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing."

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or

via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

## 7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this 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 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the 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.

## **Article 8. Insurance**

8.1 The Interconnection Customer shall, at its own expense, maintain in force general

liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Transmission Provider, except that the Interconnection Customer shall show proof of insurance to the Transmission Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.

- 8.2 The Transmission Provider agrees to maintain general liability insurance or self-insurance consistent with the Transmission Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Transmission Provider's liabilities undertaken pursuant to this Agreement.
- 8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

## **Article 9. Confidentiality**

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.
- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to

the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.

- 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.
- 9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

## **Article 10. Disputes**

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for

assistance in resolving the dispute.

- 10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.
- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- 10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

## **Article 11. Taxes**

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC policy and Internal Revenue Service requirements.
- 11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Transmission Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

## **Article 12. Miscellaneous**

- 12.1 Governing Law, Regulatory Authority, and Rules  
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of \_\_\_\_\_ (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 12.2 Amendment  
The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

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

12.4 Waiver

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

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed 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 Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Transmission Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

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

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking

for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (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.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all Transmission Providers, market participants, and Interconnection Customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility 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.

12.11 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.



12.11.1 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 the Transmission Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection 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.

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

#### 12.12 Reservation of Rights

The Transmission Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

### **Article 13. Notices**

#### 13.1 General

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

below:

If to the Interconnection Customer:

Interconnection Customer:

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

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

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

Zip: \_\_\_\_\_

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

If to the Transmission Provider:

Transmission Provider:

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

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

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

Zip: \_\_\_\_\_

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

### 13.2 Billing and Payment

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

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

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

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

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

Zip: \_\_\_\_\_

Transmission Provider:

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

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

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

Zip: \_\_\_\_\_

### 13.3 Alternative Forms of Notice

Small Generator Interconnection Agreement (SGIA)

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

If to the Interconnection Customer:

Interconnection Customer:

\_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

If to the Transmission Provider:

Transmission Provider:

\_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

13.4 Designated Operating Representative

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

Interconnection Customer's Operating Representative:

Interconnection Customer:  
\_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_

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

Transmission Provider's Operating Representative:

Transmission Provider:

\_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

### 13.5 Changes to the Notice Information

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

## **Article 14. Signatures**

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

For the Transmission Provider

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

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

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

For the Interconnection Customer

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

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

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

**Attachment 1****Glossary of Terms**

**Affected System**—An electric system other than the Transmission Provider's Transmission System that may be affected by the proposed interconnection.

**Applicable Laws and Regulations**—All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Business Day**—Monday through Friday, excluding Federal Holidays.

**Default**—The failure of a breaching Party to cure its breach under the Small Generator Interconnection Agreement.

**Distribution System**—The Transmission Provider's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades**—The additions, modifications, and upgrades to the Transmission Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the transmission service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

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

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

**Interconnection Customer**—Any entity, including the Transmission Provider, the Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Transmission Provider's Transmission System.

**Interconnection Facilities**—The Transmission Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Transmission Provider's Transmission System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Request**—The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Transmission Provider's Transmission System.

**Material Modification**—A modification that has a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

**Network Upgrades**—Additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Small Generating Facility interconnects with the Transmission Provider's Transmission System to accommodate the interconnection of the Small Generating Facility with the Transmission Provider's Transmission System. Network Upgrades do not include Distribution Upgrades.

**Operating Requirements**—Any operating and technical requirements that may be applicable due to Regional Transmission Organization, Independent System Operator, control area, or the Transmission Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

**Party or Parties**—The Transmission Provider, Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection**—The point where the Interconnection Facilities connect with the Transmission Provider's Transmission System.

**Reasonable Efforts**—With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility**—The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Tariff**—The Transmission Provider or Affected System's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission Owner**—The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

**Transmission Provider**—The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff. The term Transmission Provider should be read to include the Transmission Owner when the Transmission Owner is separate from the Transmission Provider.

**Transmission System**—The facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff.

**Upgrades**—The required additions and modifications to the Transmission Provider's Transmission System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Attachment 2****Description and Costs of the Small Generating Facility, Interconnection Facilities, and Metering Equipment**

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Transmission Provider, or the Transmission Owner. The Transmission Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

**Attachment 3****One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades****Attachment 4**

## Milestones

In-Service Date: \_\_\_\_\_

Critical milestones and responsibility as agreed to by the Parties:

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

Agreed to by:

For the Transmission Provider \_\_\_\_\_ Date \_\_\_\_\_

For the Transmission Owner (If Applicable) \_\_\_\_\_  
Date \_\_\_\_\_

For the Interconnection Customer \_\_\_\_\_ Date \_\_\_\_\_

### Attachment 5

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

The Transmission Provider shall also provide requirements that must be met by the

Interconnection Customer prior to initiating parallel operation with the Transmission Provider's Transmission System.

### Attachment 6

**Transmission Provider's Description of its Upgrades and Best Estimate of Upgrade Costs**

The Transmission Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and

maintenance expenses associated with such  
Upgrades. The Transmission Provider shall

functionalize Upgrade costs and annual

expenses as either transmission or  
distribution related.

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