UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 35

[Docket No. RM02-12-000; Order No. 2006]

Standardization of Small Generator Interconnection Agreements and Procedures

(Issued May 12, 2005)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Final Rule

SUMMARY: The Federal Energy Regulatory Commission (Commission) is amending its regulations under the Federal Power Act to require public utilities that own, control, or operate facilities for transmitting electric energy in interstate commerce to amend their open access transmission tariffs to include standard generator interconnection procedures and an agreement that the Commission is adopting in this order and to provide interconnection service to devices used for the production of electricity having a capacity of no more than 20 megawatts. A non-public utility that seeks voluntary compliance with the reciprocity condition of an open access transmission tariff may satisfy this condition by adopting these procedures and agreement.

EFFECTIVE DATE: This Final Rule will become effective [insert date that is 60 days after publication in the FEDERAL REGISTER.]

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FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
Nora Mead Brownell, Joseph T. Kelliher,
and Suedeen G. Kelly.

Standardization of Small Generator
Interconnection Agreements and Procedures Docket No. RM02-12-000

ORDER NO. 2006

FINAL RULE

(Issued May 12, 2005)

I. Introduction

1. This Final Rule requires all public utilities[1] to adopt standard rules for interconnecting new sources of electricity no larger than 20 megawatts (MW). It continues the process begun in Order No. 2003 of standardizing the terms and conditions of interconnection service for Interconnection Customers of all sizes.[2] It will reduce

[1] For purposes of this Final 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). 16 U.S.C. § 824(e) (2000). A non-public utility that seeks voluntary compliance with the reciprocity condition of an open access transmission tariff may satisfy that condition by adopting these procedures and agreement.

[2] Standardization of Generator Interconnection Agreements and Procedures, Order No. 2003, 68 FR 49845 (Aug. 19, 2003), FERC Stats. & Regs. ¶ 31,146 (2003) (Order No. 2003), order on reh'g, Order No. 2003-A, 69 FR 15932 (Mar. 26, 2004), FERC Stats. & Regs. ¶ 31,160 (2004) (Order No. 2003-A), order on reh'g, Order No. 2003-B, 70 FR 265 (Jan. 4, 2005), FERC Stats. & Regs. ¶ 31,171 (2005), reh'g pending (Order No. 2003-B). See also Notice Clarifying Compliance Procedures, 106 FERC ¶ 61,009 (2004). We refer to the large generator interconnection rulemaking as Order No. 2003 throughout this document. The Order No. 2003 Large Generator Interconnection

(Footnote continued on next page)

interconnection time and costs for Interconnection Customers and Transmission Providers,[3] preserve reliability, increase energy supply, lower wholesale prices for customers by increasing the number and types of new generation that will compete in the wholesale electricity market, facilitate development of non-polluting alternative energy sources, and help remedy undue discrimination, as sections 205 and 206 of the FPA require.[4] Public utilities must amend[5] their open access transmission tariffs (OATTs) to include a Small Generator Interconnection Procedures document (SGIP – Appendix E to

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Agreement and Large Generator Interconnection Procedures, as amended by Order Nos. 2003-A and 2003-B, are referred to in this Final Rule as the LGIA and the LGIP, respectively.

[3] Capitalized terms used in this Final Rule have the meanings specified in the Glossaries of Terms or the text of the Small Generator Interconnection Procedures (SGIP) or the Small Generator Interconnection Agreement (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.

We are omitting from the SGIP and SGIA glossaries terms that are defined through their use in the documents themselves or are in such common use in the industry that a definition is unnecessary. Many terms that were capitalized in the Small Generator Interconnection Notice of Proposed Rulemaking are therefore not capitalized in this Preamble, SGIP, and SGIA.

The documents put forward in the Small Generator Interconnection NOPR are called the "Proposed SGIP" and the "Proposed SGIA" in this Preamble. The documents that are being adopted in this Final Rule for inclusion in a Transmission Provider's OATT are called simply the SGIP and SGIA. Provisions of the SGIP are referred to as "sections" and provisions of the SGIA are referred to as "articles."

[4] 16 U.S.C. §§ 824d and 824e (2000).

[5] Compliance procedures are discussed in Part II.I, below.

this Preamble) and a Small Generator Interconnection Agreement (SGIA – Appendix F to this Preamble).

2. The SGIP contains the technical procedures the Interconnection Customer and Transmission Provider (the Parties) must follow once the Interconnection Customer requests interconnection of its Small Generating Facility. It provides three ways to evaluate the Interconnection Request. They are the default Study Process that could be used by any Small Generating Facility, and two procedures that use technical screens to evaluate proposed interconnections: (1) the Fast Track Process for a certified Small Generating Facility no larger than 2 MW[6] and (2) the 10 kW Inverter Process for a certified inverter-based Small Generating Facility no larger than 10 kW.[7] All three are designed to ensure that the proposed interconnection will not endanger the safety and reliability of the Transmission Provider's Transmission System.

3. The SGIA contains contractual provisions appropriate for the interconnection of a Small Generating Facility, including provisions for the payment for modifications made to the Transmission Provider's Transmission System to accommodate the interconnection. The SGIA is signed by the Parties after they have successfully completed the evaluation of a proposed interconnection under the SGIP Study Process or Fast Track Process. The SGIA does not apply to requests to interconnect submitted under the 10 kW Inverter Process, however, which uses a simplified all-in-one application form/procedures/terms and conditions document that is included in SGIP Attachment 5.

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[6] A Small Generating Facility equipment package is considered certified if it has been submitted, tested, and listed by a nationally recognized testing and certification laboratory. The Small Generator Interconnection NOPR used the term "precertified" to describe such a facility. We adopt in this Final Rule the term "certified" to be consistent with industry usage. To avoid further confusion, we also use "certified" when describing the Small Generator Interconnection NOPR. See the SGIP, especially Attachments 3 and 4.

[7] An inverter is a device that converts the direct current voltage and current of a DC generator to alternating voltage and current. For example, the output of a solar panel is direct current. The solar panel's output must be converted by an inverter to alternating current before it can be interconnected with a utility's alternating current electric system.

4. We conclude that general consistency between the Commission's interconnection procedures document and interconnection agreement adopted in this Final Rule and those of the states will be helpful to removing roadblocks to the interconnection of Small Generating Facilities. To a large extent, this Final Rule harmonizes state and federal practices by adopting many of the best practices interconnection rules recommended by the National Association of Regulatory Utility Commissioners (NARUC). By doing so, we hope to minimize the federal-state division and promote consistent, nationwide interconnection rules. We hope that states that do not currently have interconnection rules for small generators will look to the documents presented in this Final Rule and NARUC as guides for their own. In particular, the "Fast Track Process" and the "10 kW Inverter Process" should go a long way towards harmonizing state-federal interconnection practices.

5. Finally, the application of this Final Rule is the same as with Order No. 2003 for Large Generating Facilities. Specifically, this Final Rule applies only to interconnections with facilities that are already subject to the Transmission Provider's OATT at the time the Interconnection Request is made.

6. The SGIP and SGIA include separate definitions for "Transmission System" and "Distribution System" to account for the distinct engineering and cost allocation implications of an interconnection with a Distribution System. The SGIP and SGIA, like Order No. 2003, define "Transmission System" as "[t]he facilities owned, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service under the Tariff." Any interconnection with a Transmission System (under an OATT) by a Small Generating Facility is subject to this Final Rule.

7. The SGIP and the SGIA, like Order No. 2003, also use the term "Distribution System." "Distribution System" is defined as "[t]he 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." If a Small Generating Facility proposes to interconnect with a portion of the Distribution System subject to an OATT for the purpose of making wholesale sales, then this Final Rule would apply.[8]

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[8] See Detroit Edison v. FERC, 334 F.3d 48 (D.C. Cir. 2003) (Detroit Edison). There, the court explained that:

(Footnote continued on next page)

However, an interconnection to a portion of a Distribution System that is not already subject to an OATT would not be subject to this Final Rule.

8. "Distribution" is a vague term, usually used to refer to non-networked, often lower-voltage facilities, that carry power in one direction. Commission-jurisdictional facilities with these characteristics are referred to as "Distribution Systems subject to an OATT" throughout this Final Rule. This Final Rule's use of the term "Distribution System" has nothing to do with whether the facility is under this Commission's jurisdiction; some "distribution" facilities are under our jurisdiction and others are "local distribution facilities" subject to state jurisdiction.[9] This Final Rule does not violate the FPA section 201(b)(1) provision that the Commission does not have jurisdiction over local distribution facilities "except as specifically provided. . ."[10] This is because the Final Rule applies only to interconnections to facilities that are already subject to a jurisdictional OATT at the time the interconnection request is made and that will be used for purposes of jurisdictional wholesale sales. Because of the limited applicability of this Final Rule, and because the majority of small generators interconnect with facilities that are not subject to an OATT, this Final Rule will not apply to most small generator interconnections. Nonetheless, our hope is that states may find this rule helpful in formulating their own interconnection rules.

> When a local distribution facility is used to delivery [sic] energy to an unbundled retail customer, FERC lacks any statutory authority, and the state has jurisdiction over that transaction. By contrast, when a local distribution facility is used in a wholesale transaction, FERC has jurisdiction over that transaction pursuant to its wholesale jurisdiction under FPA § 201(b)(1). In sum, FERC has jurisdiction over all interstate transmission service and over all wholesale service, but FERC has no jurisdiction over unbundled retail distribution service – i.e., unbundled retail service over local distribution facilities.

Id. at 51 (citations omitted).

[9] See Detroit Edison, 334 F.3d at 51. ("For our purposes, the most important result of these jurisdictional determinations is that customers can take any FERC-jurisdictional service under a utility's open access tariff, which the utility is required to file with FERC. Customers must take non FERC-jurisdictional service, such as unbundled retail distribution, under a state tariff.")

[10] 16 U.S.C. § 824 (2000).

A. Background

9. This Final Rule responds to business and technology changes in the electric industry. Where the electric industry was once primarily the domain of vertically integrated utilities generating power at large centralized plants, advances in technology have created a burgeoning market for small power plants that may offer economic, reliability, or environmental benefits.

10. With these developments in mind, the Commission continues in this rulemaking to work to encourage fully competitive bulk power markets. The effort took its first significant step with Order No. 888,[11] which required public utilities to provide other entities comparable access to their Transmission Systems. The effort continued with Order No. 2000,[12] which began the process of developing Regional Transmission Organizations (RTOs). Most recently, the Commission established a standard Large Generator Interconnection Procedures document (LGIP) and a standard Large Generator Interconnection Agreement (LGIA) for generating facilities larger than 20 MW.[13]

11. The Commission, pursuant to its responsibility under sections 205 and 206 of the FPA to remedy undue discrimination, is requiring all public utilities that own, control, or operate facilities for transmitting electric energy in interstate commerce to append to their OATTs the SGIP and SGIA we are adopting in this Final Rule. These documents provide just and reasonable terms and conditions of interconnection service. They also strike a

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[11] Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities: Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, 61 FR 21540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036 (1996), order on reh'g, Order No. 888-A, 62 FR 12274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997), order on reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997), order on reh'g, Order No. 888-C , 82 FERC ¶ 61,046 (1998), aff'd in part sub nom. Transmission Access Policy Study Group v. FERC, 225 F.3d 667 (D.C. Cir. 2000), aff'd sub nom. New York v. FERC, 535 U.S. 1 (2002) (TAPS v. FERC).

[12] Regional Transmission Organizations, Order No. 2000, 65 FR 810 (Jan. 6, 2000), FERC Stats. & Regs. ¶ 31,089 (1999), order on reh'g, Order No. 2000-A, 65 FR 12088 (Mar. 8, 2000), FERC Stats. & Regs. ¶ 31,092 (2000), aff'd sub nom. Public Util. Dist. No. 1 v. FERC, 272 F.3d 607 (D.C. Cir. 2001).

[13] See Order No. 2003 passim.

reasonable balance between the competing goals of uniformity and flexibility while ensuring safety and reliability are protected.

B. Need for a Standard Generator Interconnection Procedures and Agreement

12. In fulfilling its responsibilities under sections 205 and 206 of the FPA, the Commission is required to remedy undue discrimination. The Commission must also ensure that the rates, contracts, and practices affecting jurisdictional transmission service do not reflect an undue preference or advantage for Transmission Providers and their affiliates and are just and reasonable. The Commission's regulatory authority under the FPA "clearly carries with it the responsibility to consider, in appropriate circumstances, the anticompetitive effects of regulated aspects of interstate utility operations. . . ."[14]

13. The record underlying Order No. 888 showed that public utilities owning or controlling jurisdictional transmission facilities had the incentive to engage in, and had engaged in, unduly discriminatory transmission practices.[15] The Commission in Order No. 888 thoroughly discussed the legislative history and case law involving sections 205 and 206, concluded that it has the authority and responsibility to remedy the undue discrimination it found by requiring open access, and decided to do so through a rulemaking on a generic, industry-wide basis.[16] The Supreme Court affirmed the Commission's decision to exercise this authority by requiring non-discriminatory (comparable) open access as a remedy for undue discrimination.[17] However, Order No. 888 did not specifically address interconnection service.[18]

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[14] Gulf States Utils. Co. v. FPC, 411 U.S. 747, 758-59 (1973); see City of Huntingburg v. FPC, 498 F.2d 778, 783-84 (D.C. Cir. 1974) (noting the Commission's duty to consider the potential anticompetitive effects of a proposed interconnection agreement).

[15] Order No. 888 at 31,679-84; Order No. 888-A at 30,209-10.

[16] Order No. 888 at 31,668-73, 31,676-79; Order No. 888-A at 30,201-12; TAPS v. FERC at 687-88.

[17] New York v. FERC, 535 U.S. 1 (2002).

[18] Order No. 888-A, FERC Stats. & Regs ¶ 31,048 at 30,230-31.

14. In Tennessee Power,[19] the Commission clarified that interconnection is a critical component of open access transmission service and thus is subject to the requirement that utilities offer comparable service under the OATT. The Commission encouraged, but did not require, each Transmission Provider to revise its OATT to include interconnection procedures, including a standard interconnection agreement and specific criteria, procedures, milestones, and timelines for evaluating applications for interconnection.[20]

15. As discussed in Order No. 2003, interconnection is a critical component of transmission service, and having a standard interconnection procedures and a standard agreement applicable to Small Generating Facilities will (1) limit opportunities for transmitting utilities to favor their own generation, (2) remove unfair impediments to market entry for small generators by reducing interconnection costs and time, and (3) encourage investment in generation and transmission infrastructure, where needed.[21] We expect the SGIP and SGIA adopted here will resolve most disputes, minimize opportunities for undue discrimination, foster increased development of economic Small Generating Facilities, and protect system reliability.

C. The Large and Small Generator Interconnection Rulemaking Proceedings

16. In the Advance Notice of Proposed Rulemaking (ANOPR) issued in Docket No. RM02-1-000, the Commission initiated a collaborative process where members of the public, electric industry participants, and federal and state agencies (collectively, stakeholders) were invited to draft proposed generator interconnection procedures and a generator interconnection agreement.[22] The stakeholders filed their consensus documents in January 2002. The Commission then issued a Notice of Proposed Rulemaking (Large

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[19] Tennessee Power Co. (Tennessee Power), 90 FERC ¶ 61,238 at 61,761 (2000), reh'g denied, 91 FERC ¶ 61,271 (2000).

[20] See, e.g., Commonwealth Edison Co., 91 FERC ¶ 61,083 (2000).

[21] Order No. 2003 at P 10.

[22] Standardizing Generator Interconnection Agreements and Procedures, Advance Notice of Proposed Rulemaking, 66 FR 55140 (Nov. 1, 2001), FERC Stats. & Regs. ¶ 35,540 (2002).

Generator Interconnection NOPR)[23] proposing standard interconnection procedures and a standard interconnection agreement that generally followed the consensus documents. The Large Generator Interconnection NOPR also proposed solutions to issues left unresolved in the consensus documents.

17. Although the Large Generator Interconnection NOPR provided special treatment for Small Generating Facilities, some commenters urged the Commission to initiate a separate proceeding to develop standard interconnection procedures and agreements that addressed the unique concerns of Small Generating Facilities.[24] They proposed one set of simplified interconnection rules for Small Generating Facilities no larger than 2 MW, and another for facilities larger than 2 MW but no larger than 20 MW. Persuaded that different procedures and agreements were indeed needed, the Commission severed Small Generating Facilities from the Large Generator Interconnection proceeding and issued a Small Generator Interconnection Advance Notice of Proposed Rulemaking (ANOPR) in August 2002.[25] The Small Generator Interconnection ANOPR proposed two SGIPs and two SGIAs (ANOPR SGIPs and SGIAs) using 2 MW as a breakpoint. It encouraged stakeholders to pursue consensus on the ANOPR SGIPs and SGIAs. To that end, the Commission convened a series of public meetings designed to enable them to discuss and reach as much consensus as possible.

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[23] Standardization of Generator Interconnection Agreements and Procedures, Notice of Proposed Rulemaking, 67 FR 22250 (May 2, 2002), FERC Stats. & Regs. ¶ 32,560 (2002).

[24] Those commenters included the Solar Energy Industries Association, the U.S. Fuel Cell Council, the American Solar Energy Society, the U.S. Combined Heat and Power Association, the International District Energy Association, and the American Wind Energy Association.

[25] Standardization of Small Generator Interconnection Agreements and Procedures, Advance Notice of Proposed Rulemaking, 67 FR 54749 (Aug. 26, 2002), FERC Stats. & Regs. ¶ 35,544 (2002).

18. The negotiating parties, who we refer to collectively as Joint Commenters, then filed SGIPs and SGIAs (Joint Commenters' SGIPs and SGIAs) with the Commission.[26] While Joint Commenters reached consensus on some issues, many remained unresolved. Joint Commenters' SGIPs included two procedures for evaluating whether a proposed Small Generating Facility could be interconnected safely and without degrading reliability. The first was a standard Study Process that used a scoping meeting and three technical studies to evaluate a proposed interconnection. The second was a streamlined procedure that used technical screens to identify those proposed interconnections that clearly would not jeopardize the safety and reliability of the Transmission Provider's electric system. Public comments on the Small Generator Interconnection ANOPR were filed shortly thereafter.

19. In July 2003, the Commission issued Order No. 2003, which established standard procedures and an interconnection agreement for the interconnection of large generators and explained the Commission's jurisdiction over interconnections. The Commission

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[26] This group refers to itself as the Coalition. However, in this Final Rule we shall refer to the group as "Joint Commenters" to distinguish it from the similarly named Small Generator Coalition. With the exception of these early references to Joint Commenters' comments submitted in response to the ANOPR, all references in the remainder of this Preamble to Joint Commenters are to its supplemental comments. Joint Commenters did not file initial comments in response to the Small Generator Interconnection NOPR, only supplemental comments. Joint Commenters is a diverse group of stakeholders that includes:

- over 25 small generator trade groups, promoters, and equipment manufacturers, who refer to themselves collectively as the "Small Generator Coalition,"
- state regulatory agencies represented by the National Association of Regulatory Utility Commissioners,
- American Public Power Association (which did not participate in the filing of Joint Commenters' supplemental comments), and
- Transmission Providers represented by Edison Electric Institute (EEI) and National Rural Electric Cooperative Association (NRECA)

A list of commenter acronyms may be found in Appendix A.

simultaneously issued the Small Generator Interconnection NOPR.[27] Certain provisions in the Large Generator Interconnection Final Rule as well as Joint Commenters' SGIPs/SGIAs influenced the Small Generator Interconnection NOPR.[28] The Commission asked commenters to address whether Small Generating Facilities should be treated differently from Large Generating Facilities under the LGIP and LGIA adopted in Order No. 2003.

20. Sixty-five entities submitted initial comments in response to the Small Generator Interconnection NOPR. The comments generally support the Commission's effort to remove barriers to the development of Small Generating Facilities. Following the issuance of the Small Generator Interconnection NOPR and the initial comment due date, NARUC in October 2003 updated its own interconnection procedures and agreement, referred to here as the NARUC Model. NARUC stated that the NARUC Model is based on the best practices of the state regulatory agencies that have interconnection procedures for small generators. NARUC encouraged state regulators to use the NARUC Model as a basis for developing their interconnection procedures and suggested that the Commission's documents reflect these "best practices." On July 7, 2004, the Commission staff added to the record in this proceeding the latest version of the NARUC Model.[29] A few commenters favor terminating this proceeding or, in the alternative, adopting the NARUC Model.

21. The Commission then issued a Notice of Request for Supplemental Comments, observing that the small generator industry had continued to evolve since the Commission first received comments in this proceeding.[30] In the notice, the Commission observed that

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[27] Standardization of Small Generator Interconnection Agreements and Procedures, Notice of Proposed Rulemaking, 60 FR 49974 (Aug. 19, 2003), FERC Stats. & Regs. ¶ 32,572 (2003) (Small Generator Interconnection NOPR).

[28] See, e.g., Proposed SGIA articles 4.1, 5.1.2, 5.1.2.1, 5.2, 6.1-6.9, 6.12-6.20, 7, and 8.

[29] NARUC members had participated in the ANOPR discussions fostered by the Commission; there was much similarity between the provisions of the NARUC Model and the Small Generator Interconnection NOPR.

[30] See Notice of Request for Supplemental Comments, 69 FR 51024 (Aug. 17, 2004). The Commission then granted two extensions of time at the request of Joint Commenters. See Notices issued on September 30, 2004 and November 30, 2004 in

(Footnote continued on next page)

several states had recently adopted new guidelines for small generator interconnections, and that the stakeholders who participated in the Commission's ANOPR process were continuing to work toward resolving various SGIP and SGIA issues. The Commission invited joint supplemental comments describing new consensus positions but discouraged resubmissions of prior positions.

22. Joint Commenters, which as noted above represents a diverse group of small generator interests, Transmission Providers, and state regulators who participated in the ANOPR process, was the only group to file a consensus position. Some Joint Commenters – Small Generator Coalition, NRECA, and NARUC – filed their own supplemental comments as well. Ten other entities (mostly state regulatory commissions[31]) submitted supplemental comments.[32]

23. In its supplemental comments, Joint Commenters endorsed a single SGIP and single SGIA for Small Generating Facilities no larger than 20 MW. Joint Commenters recommended several revised provisions in areas where they had not been able to reach consensus during the ANOPR process. These included dispute resolution, confidentiality, insurance, equipment certification, and technical screens, among others. Joint Commenters, which includes NARUC, also endorsed a greatly simplified all-in-one application form/procedures/terms and conditions document for the interconnection of certified inverter-based Small Generating Facilities no larger than 10 kW.

24. In Order No. 2003-A, the Commission determined that the LGIP and LGIA were designed around the needs of traditional synchronous technology generators and that generators relying on non-synchronous technologies, such as wind plants, may find that a specific requirement is inapplicable or that a different approach is needed.[33] Accordingly, the Commission added a blank Appendix G (Requirements of Generators Relying on Non-Synchronous Technologies) to the LGIA as a placeholder for requirements specific to non-synchronous technologies.[34] At a September 24, 2004 technical conference on the

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[31] CT DPUC, Minnesota PUC, and Massachusetts DTE submitted copies of their recently enacted small generator interconnection rules.

[32] The supplemental commenters are listed in Appendix A.

[33] Order No. 2003-A at P 407, n. 86.

[34] Id.

interconnection requirements of non-synchronous technologies, panelists were asked whether Appendix G type requirements should apply to Small Generating Facilities. They responded that special capabilities, such as low voltage ride-through, simply were not needed for any Small Generating Facility, whether wind powered or not. As a result, the Wind NOPR issued shortly thereafter applies only to the interconnection of wind powered generators 20 MW or larger.[35] In its supplemental comments, National Grid asks the Commission to implement standards for Small Generating Facilities that are similar to those proposed for Large Generating Facilities in the Wind NOPR. This Final Rule does not include such standards. The wind generating facilities that will interconnect under this Final Rule will be small and will have minimal impact on the Transmission Provider's electric system. The reliability requirements proposed for wind powered Large Generating Facilities are not needed for small wind generating facilities.

25. In crafting this Final Rule, we considered all of the comments received throughout the course of this proceeding, including the initial documents submitted by Joint Commenters in response to the ANOPR, the Small Generator Interconnection NOPR and the comments filed in response, the NARUC Model, and the supplemental comments. We considered all comments filed in response to the Small Generator Interconnection NOPR before April 29, 2005, and they are part of the record in this proceeding.[36]

II. DISCUSSION

26. Part A of this discussion (Descriptions of the SGIP and SGIA) describes in general terms the interconnection procedures document (SGIP) and interconnection agreement (SGIA) we are adopting in this Final Rule.

27. Part B (Overview of the Interconnection Process for Small Generating Facilities) describes the processes that the Interconnection Customer and the Transmission Provider must follow to interconnect the Small Generating Facility with the Transmission Provider's Transmission System.

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[35] Interconnection for Wind Energy and Other Alternative Technologies, Notice of Proposed Rulemaking, 70 FR 4791 (Jan. 31, 2005) (Wind NOPR).

[36] Comments addressing issues filed in other dockets (for instance, the Wind NOPR) are not part of this proceeding even if they were cross-filed in Docket No. RM02-12-000.

28. Part C (Issues Related to Both the SGIP and the SGIA) addresses issues that are common to the interconnection procedures and agreement documents.

29. Part D (Issues Related to the Interconnection Request) addresses issues related to the Interconnection Request (application form) that the Interconnection Customer submits to the Transmission Provider to request interconnection of its Small Generating Facility.

30. Part E (Issues Related to the SGIP) addresses issues related only to the interconnection procedures document.

31. Part F (Issues Related to the SGIA) addresses issues related only to the interconnection agreement.

32. Part G (The 10kW Inverter Process) describes the simplified all-in-one application form/procedures/terms and conditions document for the interconnection of certified inverter-based Small Generating Facilities no larger than 10 kW.

33. Part H (Other Significant Issues) addresses the pricing of Interconnection Facilities and Upgrades, jurisdictional issues, variations from the Final Rule, the availability of waivers for small entities, the effect of this Final Rule on the OATT reciprocity provisions, and others.

34. Finally, Part I (Compliance Issues) addresses issues pertaining to the requirement that a Transmission Provider file conforming amendments to its existing OATT, the treatment to be accorded to existing interconnection agreements (grandfathering), and how a Transmission Provider is to file executed and unexecuted interconnection agreements.

A. Descriptions of the SGIP and SGIA

35. In Order No. 2003, the Commission adopted two documents that are to be used for the interconnection of Large Generating Facilities – the Large Generator Interconnection Procedures document and the Large Generator Interconnection Agreement. The LGIP describes how the Interconnection Customer's Interconnection Request (i.e., application) is to be evaluated from an engineering perspective using a four-step process. These are the scoping meeting, the feasibility study, the system impact study, and the facilities study. The purpose of the evaluation is to determine the impact the proposed interconnection will have on the Transmission Provider's electric system and identify new equipment and modifications needed to accommodate the interconnection. The LGIA, which is signed after the proposed interconnection has been successfully evaluated using

the provisions contained in the LGIP, describes the legal relationships of the Parties, including who pays for equipment modifications to the Transmission Provider's electric system.

36. The SGIP and SGIA we adopt in this Final Rule serve the same purposes as the LGIP and LGIA. The SGIP includes the same four-step process for evaluating an Interconnection Request as does the LGIP, except that it is simplified in several aspects and includes timelines to accelerate the interconnection of Small Generating Facilities. In the SGIP, this procedure is termed the "Study Process." The SGIP also includes special procedures for evaluating two subgroups of Small Generating Facilities, (1) a "Fast Track Process" that uses technical screens to evaluate a certified Small Generating Facility no larger than 2 MW, and (2) a "10 kW Inverter Process" that uses the same technical screens to evaluate a certified inverter-based Small Generating Facility no larger than 10 kW. The SGIA serves the same purpose for the interconnection of a Small Generating Facility as the LGIA does for a Large Generating Facility. It describes the legal relationships of the Parties, including who will pay for equipment modifications to the Transmission Provider's electric system.

37. The Commission received many comments proposing modifications to the Proposed SGIP and Proposed SGIA, which helped greatly to shape this Final Rule. NARUC argued that the Commission should adopt portions of its Model to harmonize federal interconnection rules with those found in states with interconnection rules. Small Generator Coalition recommended that the Commission in this proceeding adopt the NARUC Model instead of the Proposed SGIP and Proposed SGIA. Some of the provisions proposed by Joint Commenters (which includes NARUC representation) in its supplemental comments also followed the NARUC Model. We are adopting in this Final Rule many of these consensus provisions as well as those proposed by NARUC because they are just and reasonable and serve the twin goals of removing barriers to the development of small generation while preserving the safety and reliability of the nation's electric system.

38. The SGIP, while relying heavily on NARUC's and Joint Commenters' proposals, is not a significant departure from the Proposed SGIP. Both use nearly identical interconnection study processes ("Study Process") to evaluate Interconnection Requests that do not qualify for special handling. Regarding special handling, both use technical screens to identify Small Generating Facilities no larger than 2 MW that can be interconnected with no adverse impact on safety or reliability. The SGIP we adopt in this Final Rule, however, includes two such special procedures, the Fast Track Process and the 10 kW Process. The choice of which one the Interconnection Customer may use depends on the size and technology of the Small Generating Facility. The SGIP also includes the

Interconnection Request (application form) that is to be used by all Interconnection Customers except those eligible to use the 10 kW Process, and feasibility study, system impact study, and facilities study agreements that are to be used in the Study Process.[37]

39. The SGIA is to be used for the interconnection of all Small Generating Facilities subject to this Final Rule, with the exception of certain very small inverter-based generators that use an all-in-one application form/procedures/terms and conditions document (the 10 kW Inverter Process document). The Proposed SGIA included several provisions that were similar to those contained in the LGIA that was issued concurrent with the Small Generator Interconnection NOPR. Some commenters complained that the Proposed SGIA was too long and complex for owners of Small Generating Facilities, who may be small businesses or operators of small farms, for example. We are streamlining and simplifying the SGIA in many ways to address these concerns. We are adopting Joint Commenters' proposals submitted in its supplemental comments where appropriate and have given consideration to the recommendations contained in the NARUC Model and those suggested by other commenters. In particular, the SGIA does away with the requirement that Interconnection Customers maintain multiple kinds of insurance, instead requiring only that they maintain a reasonable amount based on the specific characteristics of the interconnection. We also adopt a streamlined dispute resolution provision designed to resolve disputes as quickly and inexpensively as possible. We have also shortened the contract termination provisions and the various liability related provisions.

40. We adopt in the SGIA the same pricing policy for Network Upgrades to the Transmission Provider's Transmission System as in Order No. 2003. For a Small Generating Facility interconnecting with a non-independent entity such as a vertically integrated utility, the Interconnection Customer initially funds the cost of any required Network Upgrades (i.e., Upgrades to the Transmission System at or beyond the Point of Interconnection) and it is then subsequently reimbursed for this upfront payment by the Transmission Provider. However, we expect that, for most interconnections of Small Generating Facilities, there will be no Network Upgrades. We also allow more pricing flexibility for a Transmission System that is operated by an independent entity such as an RTO or Independent System Operator (ISO). The costs of Distribution Upgrades are directly assigned to the Interconnection Customer.

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[37] Note that the scope and payment provisions of the feasibility, system impact, and facilities studies are contained in the actual study agreements which are included as Attachments 6, 7, and 8 to the SGIP, not section 3 of the SGIP.

41. In conclusion, we encourage the standardization of interconnection practices across the nation, using as a starting point the SGIP and SGIA found in this Final Rule. We hope to foster seamless interconnection procedures for Interconnection Customers and Transmission Providers. Equipment manufacturers will have compatible technical specifications to meet. New generation will be located on the basis of what works best for the Interconnection Customer and the Transmission Provider, not jurisdictional differences in interconnection rules.

B. Overview of the Interconnection Process for Small Generating Facilities

42. Before submitting its Interconnection Request, the Interconnection Customer may informally discuss the proposed interconnection with the Transmission Provider.[38] The Interconnection Customer then submits an Interconnection Request to the Transmission Provider and the Transmission Provider assigns the Interconnection Customer's project a Queue Position based on the date and time the Interconnection Request is received by the Transmission Provider. The Interconnection Request must be accompanied by a deposit that goes toward the cost of the feasibility study, unless it is submitted under the Fast Track Process or the 10 kW Inverter Process, which have small processing fees.

43. As noted above, an Interconnection Request can be evaluated in one of three ways. The Study Process is the default method; it relies on the scoping meeting and standard feasibility, system impact, and facilities studies to evaluate the safety and reliability of the proposed interconnection. It is identical in concept to the evaluation procedure that is used for the interconnection of Large Generating Facilities. Two optional methods are available to Interconnection Customers whose Small Generating Facilities are certified and no larger than 2 MW. The 10 kW Inverter Process is available for owners of inverter-based Small Generating Facilities no larger than 10 kW and the Fast Track Process is available for owners of any kind of Small Generating Facility no larger than 2 MW.

44. The Study Process normally consists of a scoping meeting, a feasibility study, a system impact study, and a facilities study. At the scoping meeting, the Parties discuss the proposed interconnection and review any existing studies that could aid in the evaluation of the proposed interconnection. The feasibility study is a preliminary technical assessment of the proposed interconnection. The system impact study is a more detailed assessment of the effect the interconnection would have on the Transmission Provider's

[38] Flowcharts depicting interconnection procedures are presented in Appendices B (Study Process), C (Fast Track Process), and D (10 kW Inverter Process).

electric system and Affected Systems. The facilities study determines what modifications to the Transmission Provider's electric system are needed, including the detailed costs and scheduled completion dates for these modifications. These studies identify adverse system impacts[39] that need to be addressed before the Small Generating Facility may be interconnected and any equipment modifications required to accommodate the interconnection. The Interconnection Customer pays the Transmission Provider's actual cost of performing the studies. Once the Interconnection Customer agrees to fund any needed Upgrades, the Parties execute an SGIA that, among other things, formalizes responsibility for construction and payment for Interconnection Facilities and Upgrades.[40]

45. A Fast Track Process is available for certified Small Generating Facilities no larger than 2 MW. Under this process, in place of the scoping meeting and three interconnection studies, 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. If the proposed interconnection fails the screens, but the Transmission Provider determines that the Small Generating Facility may nevertheless be interconnected without affecting safety and reliability, the Transmission Provider also offers the Interconnection Customer an SGIA. However, if the Transmission Provider is concerned that the interconnection could degrade the safety and reliability of its electric system, the Parties may conduct a customer options meeting to discuss how to proceed. In that meeting, the Transmission Provider must offer to perform a supplemental review of the proposed interconnection, paid for by the Interconnection Customer, to identify Upgrades needed to accommodate the interconnection. Once the Interconnection Customer agrees to pay for any Upgrades called for in the supplemental review, the Parties execute an SGIA. If, after the supplemental review, the Transmission Provider still is unsure whether the proposed interconnection will degrade the safety and reliability of the its electric system, the Interconnection Request is evaluated using the Study Process described above; i.e., scoping meeting, feasibility, system impact, and facilities studies, followed by the execution of an SGIA.

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[39] 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.

[40] The Study Process is similar to the LGIP. However, we expect that the interconnection of a Small Generating Facility will take substantially less time and cost substantially less than a Large Generating Facility.

46. Finally, the 10 kW Inverter Process is available for the interconnection of certified inverter-based generators no larger than 10 kW. The all-in-one 10 kW Inverter Process document includes a simplified application form, interconnection procedures, and a brief set of terms and conditions (akin to an interconnection agreement). The 10 kW Inverter Process uses the same technical screens to evaluate the safety and reliability of the proposed interconnection as the Fast Track Process. Unless the Transmission Provider demonstrates that the Small Generating Facility cannot be interconnected safely and reliably based on the results of an analysis using the screens, the Transmission Provider approves the application. Once the Interconnection Customer certifies that equipment installation is complete and upon a satisfactory inspection by the Transmission Provider, the Transmission Provider authorizes the interconnection. To further simplify the interconnection process, what would normally be considered a separate interconnection agreement has been distilled into a terms and conditions document that the Interconnection Customer agrees to at time the Interconnection Request is submitted to the Transmission Provider. The all-in-one 10 kW Process document is included in Attachment 5 to the SGIP.

C. Issues Related to Both the SGIP and the SGIA

47. This discussion, and those that follow, addresses the evolution of the SGIP and SGIA from the Proposed SGIP and Proposed SGIA. As is the custom in most Commission rulemakings, we use the Small Generator Interconnection NOPR as our point of reference, discussing each issue in turn, describing the comments addressed to the topic, and closing with the Commission conclusion. There are differences between the Proposed SGIP and SGIA and the documents we adopt in this Final Rule that reflect the helpful comments filed in this rulemaking. For example, we have in some instances adopted terminology more compatible with that used in state interconnection documents. This should make for simpler, more easily understood documents for small generators that are compatible across jurisdictions for both Interconnection Customers and Transmission Providers. However, the SGIP and SGIA also need to be interpreted in the broader context of the entire collection of generator interconnection documents that will appear in a Transmission Provider's OATT, including the LGIP and LGIA. Thus, there are some instances where consistency among generator interconnection documents within a single tariff makes it necessary to adopt Large Generator Interconnection terminology or policy. The Commission asked for comments in the Small Generator Interconnection NOPR addressing this topic, and it is the first to be addressed in the discussion that follows.

48. Many of the issues in this rulemaking also arose in the Large Generator Interconnecting rulemaking and we will not address them again here at any great length. Where there is no compelling reason to depart from prior precedent, we affirm the Commission's prior decisions without detailed discussion. Therefore, this order focuses on those issues needing a small-generator-specific resolution.

49. Finally, we note that the 10 kW Inverter Process for certified inverter-based Small Generating Facilities is an all-in-one application form/procedures/terms and conditions document that does not lend itself easily to the separate discussions of the Proposed SGIP/SGIA and the SGIP and SGIA discussions that follow. We will address it in the separate Part G discussion, below. We emphasize, however, that the intent of this Final Rule is that the 10 kW Inverter Process fits within the framework of the SGIP and SGIA, and it is for that reason that we encourage Interconnection Customers and Transmission Providers to use this Preamble, the SGIP, and the SGIA for assistance in interpreting the 10 kW Inverter Process should a dispute arise.

Consistency between the Large Generator and Small Generator Documents

50. In the Small Generator Interconnection NOPR, the Commission asked commenters to address the need for consistency between the provisions of the LGIP/LGIA and the SGIP/SGIA.

Comments

51. NARUC argued that the Small Generator Interconnection NOPR was too complicated for most small generator interconnections. Instead, the Commission should adopt portions of the NARUC Model or otherwise simplify the interconnection process. NARUC pointed out that many Small Generating Facilities (including most inverter-based generators) will interconnect with low voltage facilities, whether Commission-jurisdictional or state-jurisdictional. Thus, this Final Rule should be as consistent with state interconnection rules as possible to encourage national consistency and discourage forum-shopping. Joint Commenters also supports this outcome.

52. AEP supports consistency between the large and small generator documents. However, it notes that Joint Commenters developed consensus positions on many issues during the ANOPR process. Where such agreement was reached, AEP proposes that the Commission adopt that position.

53. Midwest ISO argues that the Commission should ensure consistency between the large and small generator documents, wherever possible, because all stakeholders will benefit from a consistent approach to the interconnection of generation facilities.

54. PJM, on the other hand, proposes that the Commission simply use the LGIA for all interconnections, arguing that having different rules for large and small generator interconnections would be overly burdensome. PJM also states that its own interconnection rules take this approach and are hailed as being very successful.

55. Baltimore G&E argues that the Commission should require the same terms for all generators, regardless of size, unless there is a specific reason not to do so. Therefore, it requests that the Commission provide a clear explanation wherever these Final Rule provisions differ from those in Order No. 2003. Southern Company agrees, arguing that Large and Small Generating Facilities should be treated similarly "because both can have . . . significant impacts upon the Transmission Provider's electric system."[41]

56. BPA argues that the procedures and technical requirements applicable to large generators "should not apply to the interconnection of small generators that have minimal impacts on a transmission grid."[42] However, where the Commission does use "substantially similar or consistent procedures, contract terms, and other requirements" for both Large and Small Generating Facilities, "the Commission should strive to provide consistency between its large and small generator rules."[43]

57. Nevada Power also supports the concept of having the provisions applicable to Small Generating Facilities similar to those in Order No. 2003. According to Nevada Power, "[t]hese commonalities will avoid the confusion of differing terminologies, facilitate consistent and fair implementation, and minimize the need for separate, parallel administrative processes to administer the agreements."[44] However, Nevada Power also argues that consistency should not compromise the goals of simplifying and expediting the interconnection of Small Generating Facilities. Instead, this Final Rule should be designed to "enable a common language and common administrative procedures to be

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[41] Southern Company at 19.

[42] BPA at 3.

[43] Id.

[44] Nevada Power at 4.

implemented and still maintain appropriate distinctions between the small generators and the large generators."[45] Nevada Power argues that the benefits of consistency are illustrated by Proposed SGIA article 5.1.2.1, which specifies the refund process for advances made by the Interconnection Customer for Network Upgrades. By having the same refund process for the amounts advanced for Network Upgrades in the SGIA and the LGIA, the Transmission Provider can set up one system, instead of two separate systems, to track and make any such refunds.

58. In their supplemental comments, NARUC and the other Joint Commenters proposed SGIP and SGIA provisions that balance the need for simplicity with the need of Transmission Providers to ensure the safety and reliability of the Transmission Provider's electric system. In addition, Joint Commenters also proposed a process for certified inverter-based Small Generating Facilities no larger than 10 kW that can also be used as a model for the states.

Commission Conclusion

59. Unless expressly changed in this Final Rule, the Commission's existing interconnection precedent and Order No. 2003 are relevant to this Final Rule and should be used as guidance for interpretation and implementation. We have tried to be consistent between the rules for Large and Small Generating Facilities, unless there is a specific reason to do otherwise, while considering NARUC's call for federal-state consistency and the recommendations of other commenters.

60. We note Joint Commenters' proposal of much simpler interconnection procedures and agreement for inverter-based generators no larger than 10 kW.[46] Taking these extremely small units out of the mix has allowed us to adopt standard rules for larger Small Generating Facilities. According to NARUC, the process of interconnecting with a state-jurisdictional facility should not be substantially different from the process for interconnecting with a Commission-jurisdictional facility. Standard interconnection procedures are especially important for Interconnection Customers and manufacturers of off-the-shelf generating equipment.

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[45] Nevada Power at 4-5.

[46] The 10 kW Inverter Process is largely based on the work of the Massachusetts DTE and its stakeholders group.

61. In general, we are including standard contractual provisions in the SGIA that are consistent with their counterparts in the LGIA. However, in many cases commenters stressed the need to simplify those provisions to avoid burdening Small Generating Facilities. Many commenters offered ways to shorten and simplify those provisions. Where possible, we accept those proposals. These streamlined provisions adequately protect the Parties while lowering the transaction costs of entering into an interconnection agreement. The SGIP closely tracks the revised NARUC Model but adopts the single screen that NARUC and the other Joint Commenters later proposed in supplemental comments. Last, we have ensured that provisions common to the SGIP and SGIA (such as dispute resolution and confidentiality) are consistent.

62. **Definitions of Terms Used in the SGIP and SGIA –** NARUC and others propose that the Commission use the defined terms in the NARUC Model instead of those found in the Small Generator Interconnection NOPR. We conclude that several of the terms defined in the Proposed SGIP and SGIA are either unnecessary or add complexity to the interconnection process. We are simplifying the SGIP and SGIA by deleting those definitions. Comments on specific terms are discussed below.

63. **Emergency Condition** – The Proposed SGIA defined Emergency Condition as a situation that, in the judgment of the Party making the claim, is imminently likely to (1) endanger life or property, (2) have an adverse impact on the safety or reliability of the Transmission Provider's or an affected third party's electric system (Affected System), or (3) have a material adverse effect on the safety or operation of the Interconnection Customer's facilities. If there is an Emergency Condition, the Transmission Provider may take necessary and appropriate actions to protect the safety and reliability of its electric system, including interrupting, suspending, or curtailing interconnection service. While system restoration and black start are considered Emergency Conditions, the Small Generating Facility is not obligated to have black start capability.

Comment

64. Bureau of Reclamation objects to the provision that the Small Generating Facility is not obligated by the SGIA to have black start capability. Black start capability is an issue best handled by the control area rather than the Transmission Provider and that mentioning black start here raises the question of by whom and when black start capability could be required of the Small Generating Facility. In addition, Bureau of Reclamation proposes that the definition of Emergency Condition also include a "threat or danger to the environment."

Commission Conclusion

65. We see no need to modify the definition of Emergency Condition. The SGIA does not interfere with the control area's ability to establish a voluntary restoration plan, including black start. The SGIA requires the Parties to adhere to all Applicable Laws and Regulations relating to pollution and protection of the environment or natural resources. Therefore, Bureau of Reclamations' proposed revision is not necessary.

66. **Network Upgrades** – Comments concerning the definition of Network Upgrades are addressed in Part II.H (Pricing/Cost Recovery for Interconnection Facilities and Upgrades).

67. **Use of Calendar Days v. Business Days** – The Proposed SGIP and Proposed SGIA used both calendar days and Business Days to establish deadlines for particular activities.

Comments

68. Ameren, EEI, and NYTO request that all references to calendar day be changed to "Business Day." Ameren and EEI state that doing so would make the SGIP and SGIA consistent. They also state that this is particularly important for the three and five day time limits, especially where the Transmission Provider may not have sufficient staff to respond within the required time. Ameren and NYTO argue that using both calendar days and Business Days is confusing. NYTO further notes that using Business Days rather than calendar days gives the Parties more time to meet deadlines. In addition, NYTO states that using calendar days does not account for normal business delays, including those caused by storm emergencies.

Commission Conclusion

69. We agree that references to the passage of time should be consistent. Accordingly, we are changing calendar days to Business Days throughout the SGIP and SGIA, with two exceptions. First, using calendar days is proper in the SGIA's billing and payment provisions because these activities are traditionally tied to calendar days. Second, SGIA article 7.6.1 Default provisions are stated in terms of calendar days to be consistent with the Commission's regulations that require at least 60 calendar days notice of a proposed cancellation or termination of a contract. Where we have replaced calendar days with Business Days, we have adjusted the number of days to reflect about the same passage of time. Arguments relating to the amount of time a Party has to complete an action are discussed below.

70. **Maximum Size of a Small Generating Facility –** In the Small Generator Interconnection NOPR, the maximum size of a Small Generating Facility is 20 MW. Where there is more than one unit generating power at a particular site, the Commission proposed to aggregate the total capacity of all generation units using the same Point of Interconnection. The Commission sought comments on a circumstance when the Interconnection Customer desires to increase the capacity of an existing generating facility. The Commission proposed that the total size of the facility would be determined by the sum of the existing and the incremental capacity. Thus, a 10 MW addition to an existing 15 MW facility would be treated as a 25 MW facility. The Commission also sought comments on how to evaluate an Interconnection Request that specifies a level of capacity below the maximum rating of the Small Generating Facility. Finally, the Commission invited comments on whether Small Generating Facilities with multiple Points of Interconnection should be treated separately for queuing and interconnection study purposes.

Comments

Revising the Maximum Size of a Small Generating Facility

71. Ameren, EEI, and NRECA ask the Commission to reduce the maximum size of a Small Generating Facility from 20 MW to 10 MW. They argue that the lower size limit would help ensure safety and reliability of the Transmission Provider's electric system. They also note that it would also be consistent with IEEE Standard 1547,[47] and argue that the 20 MW size limit is particularly challenging for Transmission Providers because of the types of analyses required to evaluate their interconnection and the restrictive time limits placed on performing them.

72. EEI similarly argues that many states have adopted 10 MW as the maximum size of a Small Generating Facility and that the Commission should follow suit. It argues that a 10 MW size limit is better suited to the Small Generating Facility configurations most likely to be proposed under the Final Rule. While reducing the size limit to 10 MW

[47] IEEE Standard 1547, approved in June 2003, is the Institute of Electrical and Electronics Engineers' standard for interconnecting distributed resources with electric power systems. The standard applies only to generating equipment no larger than 10 MW.

creates a gap between the Large and Small Generating Facility interconnection provisions, that gap can be easily remedied by making the LGIP and LGIA applicable to generating facilities larger than 10 MW.

73. NRECA notes in its initial comments that 10 MW is the upper limit for small generators in Texas, California, New York, and Ohio, and that no state currently has rules that apply to the interconnection of generators larger than 10 MW. According to NRECA, the Commission's statement in the Small Generator Interconnection NOPR that the 20 MW maximum size would "encourage the development of a greater number of small generators and promote the development of innovative small generation technologies" is not supported by engineering reality and industry practice. NRECA participated with Joint Commenters in developing consensus provisions for the SGIP and SGIA that were submitted in Joint Commenters' supplemental comments. Based on those provisions, and in particular the technical screens contained in the SGIP, NRECA states that, "while it still believes that 20 MW is too large a generator to be considered 'small,' …. [Joint Commenters'] SGIA and SGIP will work for all generators up to that size."[48]

74. Cummins argues that the 20 MW size limit would result in more widespread use of on-site Small Generating Facilities.

Commission Conclusion

75. We agree with commenters that generator size does matter when evaluating the effect of the Small Generating Facility on the Transmission Provider's electric system. However, we are keeping the 20 MW size limit for Small Generating Facilities because the interconnection studies and screens will identify any safety and reliability problems. In particular, the screens we adopt in the SGIP are supported by small generators, state regulators, and Transmission Provider representatives such as EEI and NRECA, as being appropriate to evaluate the safety and reliability of interconnections of Small Generating Facilities that are eligible for screening. We believe the higher threshold will remove barriers to the development of a greater number of Small Generating Facilities and promote the development of innovative small generation technologies.

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[48] NRECA Supplemental Comments at 5. NRECA also "believes that the screens adopted for review of generators up to 2 MW in capacity reasonably consider the impact that generators of those sizes will have on distribution systems." Id. The technical screens of which NRECA speaks are the same screens adopted in this Final Rule.

Increasing the Capacity of an Existing Small Generating Facility

76. The Small Generator Interconnection NOPR proposed to evaluate increases in capacity to existing Small Generating Facilities using the total capacity of the modified facility, and the Commission invited comments on whether the proposal was reasonable.

Comments

77. Several Transmission Providers[49] support the NOPR's proposal. They add that if, for example, the capacity of an existing 18 MW Small Generating Facility were to be increased by 5 MW, the resulting 23 MW facility should be evaluated under the LGIP. This would keep the Interconnection Customer from gaming the system by incrementally increasing the size of an existing Small Generating Facility so that the capacity addition does not exceed the 20 MW maximum, even though the ultimate capacity of the facility does. BPA and ISO New England state that processing the Interconnection Request for such an expansion on the basis of the total capacity would better protect the safety and reliability of the Transmission Provider's electric system. Tangibl, on the other hand, argues that evaluating the Interconnection Request based on the total increased capacity of the Small Generating Facility would discourage such increases and hinder the increased entry of generators into the energy markets.

Commission Conclusion

78. We are persuaded by BPA and ISO New England that when an existing Small Generating Facility is expanded, the Interconnection Request should be evaluated based on the total capacity of the facility as opposed to the incremental amount of the expansion. Similarly, an existing Large Generator seeking to increase its capacity by less than 20 MW would also have to follow the Large Generator rule, because the total capacity of the expanded facility would be more than 20 MW. Section 4.10.1 of the SGIP reflects this conclusion.

[49] E.g., BPA, ISO-New England, NRECA, NYTO, PG&E, and Western.

Evaluating the Generating Facility Based on Less Than Its Maximum Rated Capacity

79. In the Small Generator Interconnection NOPR, the Commission sought comments on whether the maximum capacity of the Small Generating Facility should be used to evaluate the Interconnection Request when the Interconnection Customer specified an output level below the facility's maximum capability. For example, the Commission asked whether an Interconnection Request for a generating facility with a maximum capacity of 22 MW but seeking an interconnection for only 20 MW (and agreeing to restrict delivery to the Transmission Provider's Transmission System to that level) should be evaluated under the SGIP or the LGIP.

Comments

80. Several Transmission Providers[50] argue that the Interconnection Request should be evaluated on the basis of the maximum capacity of the Small Generating Facility to ensure that safety and reliability are not jeopardized. They argue that the Commission should not allow a 22 MW generator to be treated as a 20 MW generator based on a promise by the Interconnection Customer that it will never generate more than 20 MW. This would result in an additional administrative burden on the Commission or market monitors. They also argue that evaluating the Small Generating Facility at less than its maximum rated capacity would not ensure that Interconnection Facilities and Upgrades are properly designed and installed.

81. BPA argues that evaluating a Small Generating Facility on the basis of maximum rated capacity would prevent gaming by an Interconnection Customer and would prevent it from submitting a request to interconnect its Small Generating Facility at a lower capacity when it really intend to operate the facility at a higher capacity. Further, evaluating a Small Generating Facility based on its maximum operational capacity would avoid the need to perform a reevaluation each time the Interconnection Customer seeks to operate at a higher output level.

82. Likewise, NYTO claims that even if a Small Generating Facility supplies local load and delivers only half of its output, it still contributes its full fault current to the electric system if there is an electrical fault. Also, stability analysis is based on the full physical

[50] E.g., AEP, Ameren, Avista, BPA, CA ISO, Central Maine, MidAmerican, MISO, NYTO, PG&E, SoCal Edison, and Western.

characteristics of the facility, such as maximum power capability and rotation inertia. It further argues that if the Commission adopts a value other than the maximum capability of the Small Generating Facility, the Interconnection Customer could "forum shop" between the Large and Small Generating Facility interconnection provisions to get the "best deal."

83. On the other hand, Allegheny states that if the Interconnection Customer is willing to accept the economic risks of its decision to limit the output of its generating facility, the Interconnection Request should be evaluated at the lower capacity.

84. American Forest, Cummins, Nevada Power, NRECA, and Tangibl also state that the Interconnection Request should be evaluated on the basis of requested capacity, not the maximum capability of the generator, if the Interconnection Customer commits to restrict the output. American Forest says that this is important for generators that consume most of their electrical output on-site in various manufacturing processes and export only a small fraction of their output. In its supplemental comments, Small Generator Coalition proposes a special set of tests that could be used to determine whether these kinds of configurations jeopardize safety and reliability.

Commission Conclusion

85. We are persuaded that the Interconnection Request should be evaluated based on the Small Generating Facility's maximum rated capacity. We agree with commenters that evaluating the proposed interconnection at less than the maximum rated capacity of the generating facility does not ensure that proper protective equipment is designed and installed and the safety and reliability of the Transmission Provider's electric system can be maintained.

86. Nevada Power and other commenters propose that the Interconnection Request be evaluated on the basis of requested capacity if the Interconnection Customer agrees to restrict the output of its facility. We agree with NYTO, however, that even if the Small Generating Facility delivers only a portion of its capability, it still contributes its full fault current to the Transmission Provider's electric system if there is an electrical fault. Therefore, the maximum capacity of the Small Generating Facility should be used to evaluate the Interconnection Request (See section 4.10.3 of the SGIP).

Evaluating Small Generating Facilities with Multiple Points of Interconnection

87. The Small Generator Interconnection NOPR invited comments on whether Small Generating Facilities with multiple Points of Interconnection (such as for a wind farm or an industrial cogeneration project serving multiple facilities) should be treated as separate projects or as a single project for queuing and interconnection study purposes.

Comments

88. BPA, CA ISO, ISO New England, and Tangibl argue that Small Generating Facilities with multiple Points of Interconnection should be treated as a single project for queuing and interconnection study purposes. BPA states that this promotes greater efficiency and accuracy because the effects of all the generators can be evaluated in one study. According to commenters, evaluating each Point of Interconnection as a discrete facility may not account for the aggregate effects when multiple generation resources are interconnected.

89. Tangibl recommends adopting PJM's approach of one Interconnection Request for each Point of Interconnection. Tangibl states that the Interconnection Customer should aggregate the capacity of the multiple wind or solar projects that lie in close proximity to one another. However, for geographically dispersed wind or solar projects, it recommends that the project developer be able to ask the Transmission Provider to treat each project individually for interconnection study purposes.

90. Central Maine, Idaho Power, and others argue that evaluating Interconnection Requests based upon a single Point of Interconnection may produce flawed results because it may identify Upgrades incorrectly.

91. NYTO recommends that the Transmission Provider have the option, subject to Good Utility Practice, to either treat such projects separately for queuing and interconnection study purposes, or as a single Point of Interconnection. This is because each proposed Point of Interconnection presents numerous technical, operational, and reliability issues.

Commission Conclusion

92. We adopt NYTO's proposal for the reasons cited by NYTO. The Transmission Provider's evaluation of a project with multiple Points of Interconnection should be performed, using Good Utility Practice, based on the project's unique engineering and geographic needs.

93. **Dispute Resolution (Proposed SGIA Article 8 and Proposed SGIP Section 2.11)**[51] – The Commission proposed adopting the same dispute resolution procedures contained in the LGIA and LGIP. This was a departure from Joint Commenters' proposal submitted in response to the ANOPR which obliged the Commission to supply technical experts to resolve disputes between the Parties.

Comments

94. Commenters were split as to which type of dispute resolution procedures should be adopted by the Commission. Small generator proponents generally support allowing either Party to require binding arbitration, while Transmission Providers generally oppose such provisions. However, all commenters stress the need for quick and cost-effective dispute resolution.

95. CT DPUC argues that the procedures in the Small Generator Interconnection NOPR are too cumbersome and that state commissions are best positioned to resolve disputes in a fair manner, especially disputes over dual use facilities.

96. NRECA and BPA support adopting the dispute resolution procedures in the LGIA. However, BPA opposes binding arbitration and asserts that the Parties should keep whatever appeal rights they have.

97. Small Generator Coalition argues that most Interconnection Customers that own Small Generating Facilities do not have the resources to enter into protracted dispute resolution procedures with the larger Transmission Provider. It argues that complex dispute resolution procedures may discourage Small Generating Facilities from seeking to

[51] In the remainder of this Preamble, "Proposed SGIA Article xxx" refers to a numbered article in the Small Generator Interconnection NOPR, not the SGIA adopted in this Final Rule. The same follows for references to the Proposed SGIP. This is because the numbering of the SGIP and SGIA does not follow the Proposed SGIP and SGIA.

interconnect with Commission-jurisdictional facilities. Small Generator Coalition questions why the Commission would propose retreating from the ANOPR consensus result. It fears that Transmission Providers will simply refuse to submit to arbitration, forcing an Interconnection Customer to engage in expensive and undefined litigation. This is particularly true for owners of Small Generating Facilities no larger than 2 MW.

98. AEP proposes that either Party be able to require binding arbitration. It states that this approach is consistent with the consensus reached during the ANOPR process. Cummins agrees, asserting that otherwise one Party can obstruct the process. It points out that Interconnection Customers often lack the financial resources to pursue their rights before the Commission or in court, and need access to low-cost, binding dispute resolution procedures.

99. American Forest proposes allowing the Parties to agree on other arbitration procedures if they want to further tailor the procedures to the needs of the specific Parties. It claims that this is the approach common in the industry.

100. Midwest ISO recommends that where an RTO has Commission-approved dispute resolution procedures, it be allowed to apply those procedures to interconnection disputes.

101. NARUC requests that the Commission adopt the dispute resolution provisions found in its Model. It argues that "[e]ach State already has in place a variety of avenues for dispute resolution oriented to protect the interests of the retail customer, ranging from a simple phone call to a State commission or consumer advocate 'consumer hotline' to a full-blown complaint proceeding conducted by the State Commission."[52] Specifically, the NARUC Model states that "[i]f a dispute arises at any time during these procedures [the Parties] may seek immediate resolution through complaint procedures available" through the state regulatory commission.[53] The Model (1) states that the Interconnection Customer's Queue Position is not to be affected by its decision to pursue dispute resolution, (2) allows either Party to require binding arbitration, (3) allows the Parties to request that the state regulatory agency appoint a "technical master" to conduct the dispute

[52] NARUC at 12-13.

[53] NARUC Model at F.

resolution process, and (4) states that "where possible, dispute resolution will be conducted in an informal, expeditious manner in order to reach resolution with minimal costs and delay. When appropriate and available, the dispute resolution may be conducted by phone or through Internet communications."[54]

102. Joint Commenters, in its supplemental comments, proposes that the Commission's Dispute Resolution Service (FERC DRS) assist Parties in resolving their disputes. Under Joint Commenters' proposal, one Party would give the other Party written notice that they have reached an impasse. As soon as two days afterwards, either Party may consult with FERC DRS for guidance on how best to resolve the dispute. FERC DRS may provide the Parties with a neutral venue to work out their dispute or may recommend alternative avenues of dispute resolution including, but not limited to, mediation, settlement judge talks, early neutral evaluation, or arbitration. The Parties could agree to make such outcomes binding, but would not be required to so agree, or even to participate in alternative dispute resolution procedures before FERC DRS.

Commission Conclusion

103. We are adopting a dispute resolution provision for both the SGIP and SGIA that closely resembles the consensus recommendation of Joint Commenters. As the widely disparate recommendations show, different types of interconnection disputes require different types of dispute resolution procedures. Small Generator Coalition and others emphasize the need to avoid expensive and time consuming arbitration provisions. According to these commenters, if a project is forced to go to arbitration, it will likely never be built. Instead, Joint Commenters reached consensus on a set of principles designed to encourage the Transmission Provider and the Interconnection Customer to use fast and low cost alternative dispute resolution procedures to work through their differences.

104. Because the nature of the disputes that may arise are so varied, this approach will allow FERC DRS to make specific recommendations to the Parties designed to resolve the dispute quickly and inexpensively. In some cases, FERC DRS may simply provide the Parties a neutral venue to discuss their differences. In other cases, FERC DRS may recommend that the Parties put their case before a settlement judge or technical master for either mediation or arbitration. The Parties are free to specify whether the outcome of this alternative dispute resolution is binding.

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[54] Id.

105. As recommended by Joint Commenters, we will not mandate that the Parties use the FERC DRS' resources. Alternative dispute resolution is, by its nature, a collaborative and voluntary process. However, both Parties must work in good faith to resolve their disputes. Additionally, the provision specifies that each Party is responsible for paying one-half of the cost of a neutral third-party employed to assist in settling the dispute.

106. We agree with CT DPUC, NARUC, and Joint Commenters (in its supplemental comments) that a state regulatory agency may often be the best place to quickly resolve a dispute. As mentioned above, the FERC DRS is well-equipped to recommend to Parties the best avenue for resolving a dispute. In many cases, that may be a state regulatory agency, if that body is willing to mediate or arbitrate the dispute.[55]

107. While we are allowing Parties to select a dispute resolution process, we count on FERC DRS to ensure that both Parties are treated fairly. Thus, we disagree with American Forest that the Parties should be able to deviate from the established dispute resolution procedures without Commission guidance or oversight. While flexibility is important, as many commenters have pointed out, the Parties are rarely on an equal footing. Thus, we will scrutinize the process to ensure that Interconnection Customers are treated fairly, especially by non-independent Transmission Providers.

108. In response to Midwest ISO's request to include ISO-specific dispute resolution rules, under the independent entity variation, it and other independent Transmission Providers may propose such a plan in their compliance filings.

109. **Confidentiality (Proposed SGIA Article 7 and Proposed SGIP Section 2.11)** – These provisions detailed the rights and responsibilities of each Party to keep any Confidential Information shared during the interconnection process.

[55] The Commission does not require states to serve a dispute resolution function; it lacks the statutory authority to do so. However, because commenters argue that state participation could be beneficial, we encourage states that have the expertise, resources, and interest to help resolve these disputes as they arise.

Comments

110. Avista and Idaho Power assert that the confidentiality provisions should give state regulators conducting an investigation the same access to confidential information as is provided to the Commission when it conducts an investigation. Avista also requests that the Commission address recent rulings by the Internal Revenue Service applicable to confidential transactions. Similarly, NARUC is concerned that the proposed confidentiality provisions might prevent state regulators from getting the information they need in the course of conducting an investigation. The NARUC Model SGIP includes a confidentiality provision that is similar to that proposed in the Small Generator Interconnection NOPR. The NARUC Model SGIA simply leaves a place holder to be filled in by the Parties.

111. Southern Company argues that Proposed SGIA article 7.1 should specify that information supplied "as part of this [interconnection] agreement" be confidential rather than information supplied "prior to execution of this agreement." It also says that Proposed SGIA article 7.12 allows a broader class of information to qualify for confidential treatment than does article 7.1, and proposes deleting article 7.12. Finally, article 7.4 should be revised to prohibit the Interconnection Customer from sharing Confidential Information with "potential purchasers or assignees of the Interconnection Customer."

112. In its supplemental comments, Joint Commenters propose the following provision in lieu of the proposal:

> Confidential Information is as defined in this Agreement but 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. 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. 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.

Commission Conclusion

113. We are adopting confidentiality provisions in both the SGIP and SGIA that closely resemble those proposed by Joint Commenters. While the provisions we adopt here are shorter than those in the LGIP and LGIA, they are similar in content.

114. To clarify the Commission's right to otherwise Confidential Information during an investigation, we include an SGIA provision similar to LGIA article 22.1.10.[56] This addition also clarifies that a Party is not prohibited from disclosing Confidential Information to a state regulatory body where the state regulatory body has the authority to request the information.

115. We deny Southern Company's request to remove proposed language allowing the Interconnection Customer to share Confidential Information with potential assignees and financers. The Interconnection Customer must be able to share such information to secure financing and remain competitive. However, we are modifying the provision to specify that any such person receiving Confidential Information agree to abide by the same confidentiality rules as the Parties.[57] We agree with Southern Company that confidentiality should apply to all information shared between the Parties; however, its proposal is obviated by the new language.

116. **Keeping the Small Generator Interconnection Rules Current** – The Small Generator Interconnection NOPR did not envision that the SGIP and SGIA would be periodically revised.

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[56] See Order No. 2003-A at P 486.

[57] Id. at P 490.

Comment

117. In its supplemental comments, Small Generator Coalition asks the Commission to adopt a mechanism to allow periodic revisiting of its interconnection rules as the industry evolves. It proposes that the Commission encourage or charter a stakeholder committee to meet periodically to consider and recommend consensus proposals for changes.

Commission Conclusion

118. We commend the persistence of the Joint Commenters who met on numerous occasions over the duration of this proceeding to aid the Commission in its decision-making. As one can see in the contents of this Final Rule, those negotiations have been very successful. We believe Small Generator Coalition's proposal has merit. We ask the Joint Commenters to take the lead in this process, and encourage interested entities to continue to work together on small generator interconnection issues. We are asking this informal group to meet 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. The Commission will provide appropriate resources to facilitate the process. To the extent that this group identifies needed changes, they may file a petition to amend the Commission's regulations. The Commission will review the petition and, if appropriate, notice that petition for public comment.

D. Issues Related to the Interconnection Request

119. The Interconnection Request is the application form that the Interconnection Customer uses to start the process of interconnecting its Small Generating Facility with the Transmission Provider's Transmission System. The issues discussed below either did not arise in the Large Generator Interconnection proceeding or we conclude that a different conclusion should apply to Small Generating Facilities.

120. **Processing Fees and Study Deposits –** The Proposed SGIP set out a fixed processing fee schedule for processing all Interconnection Requests. The amount of the fee was to be tied to the size of the Small Generating Facility. Small Generating Facilities no larger than 2 MW in size would be charged the greater of (1) $0.50/KVA rating, or $100 for single phase generators no larger than 25 kVA or (2) $500 for generators larger than 25 kVA. The fee for a Small Generating Facility larger than 2 MW but no larger than 10 MW would be $1,000, and the fee for one larger than 10 MW would be $2,000. In addition, if the Small Generating Facility was to be evaluated using the interconnection studies, the Interconnection Customer would pay a deposit prior to each study that would be applied to the Transmission Provider's actual costs of performing the study.

Comments

121. NARUC urges that the processing fee be cost-based so that there is no subsidization by either the Transmission Provider or the Interconnection Customer.

122. NRECA generally supports a fixed processing fee approach, but says that the proposed fees are unrelated to the actual cost of conducting the analysis under the screens. It asks the Commission to let each Transmission Provider file fees that are designed to recover the actual cost of conducting the analysis under the screens.

123. NYTO asks the Commission to clarify that the proposed fee covers administrative and engineering costs not covered by other fees. PacifiCorp states that it does not appear that the owner of a Small Generating Facility no larger than 2 MW would pay any fee other than the fee to conduct the analysis under the screens. It asks the Commission to require the owner of such a generator to pay the actual cost of interconnection, if any, beyond the processing fee.

124. Southern Company states that the proposed processing fee schedule conflicts with the deposit provisions of the proposed interconnection study agreements. It argues that a Small Generating Facility interconnecting at the transmission level should submit an interconnection feasibility study deposit rather than the application fee because it appears that the processing fee is a charge for conducting the analysis under the screens. Southern Company also states that evaluating an Interconnection Request for a non-certified Small Generating Facility requires time and effort, and the Interconnection Customer should pay twice the processing fee assessed to the owner of a certified Small Generating Facility.

Commission Conclusion

125. Under this Final Rule, the Interconnection Customer shall submit with its Interconnection Request a processing fee or feasibility study deposit, but not both, depending on how the Interconnection Request is to be evaluated. If it is to be evaluated using the Study Process, which usually includes a scoping meeting and feasibility, system impact, and facilities studies, the Interconnection Customer shall make a deposit towards the cost of the feasibility study at the time the Interconnection Request is submitted to the Transmission Provider. The amount of the deposit is the lesser of 50 percent of the good faith estimated feasibility study costs or $1,000. If the Interconnection Request is to be evaluated using the Fast Track Process, it is to be accompanied by a $500 processing fee. If the Interconnection Request is to be evaluated using the 10 kW Inverter Process, it is to be accompanied by a $100 processing fee.

126. The purpose of the $100 and $500 processing fees is to recover the Transmission Provider's costs of evaluating Interconnection Requests under the 10 kW Inverter Process and Fast Track Process, respectively. This approach to fees is simple, easy to administer, and gives many Interconnection Customers the cost certainty they need to move forward with their projects. However, because administratively fixed fees will sometimes either under- or over-recover a particular Transmission Provider's costs, we will allow the Transmission Provider to charge a cost-based fee for processing Interconnection Requests if it has first made an appropriate rate filing with appropriate detailed cost justification under FPA section 205.[58] If the Transmission Provider decides to revise its processing fee schedule through a rate filing, the revised fees would, of course, apply prospectively to all new Interconnection Requests under the Fast Track Process or the 10 kW Inverter Process. Otherwise, the processing fees in the SGIP will serve as a default.

127. Given our concerns about the need for many Interconnection Customers to know beforehand the costs they will incur for the evaluation of their Interconnection Request under the screens, we will disallow formula rates or true up provisions in any rate submission. The cost support for the filed fixed processing fee schedule (designed in a manner similar to the processing fees in the SGIP) shall reflect the Transmission Provider's costs for processing Interconnection Requests under the Fast Track and the 10 kW Inverter Processes, as it would for the embedded cost based pricing of any other jurisdictional service.

128. Southern Company's first comment highlights an unintended inconsistency in the NOPR. To clarify, the fixed processing fee schedule delineated above is only for submissions under the10 kW Inverter Process and the Fast Track Process which use the technical screens. A submission under the Study Process instead will include a deposit towards the Transmission Provider's cost of performing the feasibility study, not both a deposit and a processing fee. However, an Interconnection Customer whose proposed interconnection fails the Fast Track Process or the 10 kW Inverter Process and is then evaluated under the Study Process would pay both the fixed processing fee with the initial submission and then a feasibility study deposit before the Study Process begins.

[58] 16 U.S.C. § 824d (2000); see also 18 CFR § 35.12 (2004).

129. **Receipt Confirmation and Requests for Additional Data** – Proposed SGIP sections 3.2 and 4.2 govern the submission and receipt of the Interconnection Customer's Interconnection Request.

Comments

130. Central Maine argues that the Transmission Provider should be able to use alternative methods to mail, such as fax and overnight delivery services, to tell the Interconnection Customer that it has received the Interconnection Request. It also asks that the Commission increase the Transmission Provider's notification time period from ten to fifteen Business Days. Central Maine and EEI note that the Interconnection Customer does not have a deadline to supply missing information. They recommend that the Commission establish ten Business Days as the deadline and to state that failure to provide such information within that time will result in the Interconnection Request being deemed withdrawn.

Commission Conclusion

131. We agree that the Transmission Provider may use alternate methods of confirming receipt of the Interconnection Request. The notification requirement is needed because it provides a date certain for affirming that the Transmission Provider has received the Interconnection Request. We also decline to increase the time by which the Interconnection Customer must be told whether the Interconnection Request is complete. Ten Business Days is sufficient time for the Transmission Provider to make an initial assessment as to whether the requisite information has been provided; an in-depth evaluation of the project is not required during this period. However, we agree with Central Maine and EEI that the Proposed SGIP does not address when the Interconnection Customer must furnish the missing information. Accordingly, the SGIP provides that the Interconnection Customer has ten Business Days after receipt of the notice to submit the missing information or to provide an explanation as to why extension of time is needed to provide such information. If the Interconnection Customer does not provide the missing information or a request for an extension of time within the deadline, the Interconnection Request shall be deemed withdrawn.

132. **Interconnection Products and Service Options** – The Proposed Interconnection Request would have directed the Interconnection Customer to state whether it intends to participate as a "Network Resource," "Energy-Only Resource," "Non-Exporting Resource Participating in a Wholesale Market," or "Other."

Comments

133. Alabama PSC, EEI, Mississippi PSC, Southern Company, and others are concerned that the Interconnection Request could be construed to mean that a Small Generating Facility is eligible for the same Network Resource Interconnection Service that Order No. 2003 makes available to Large Generating Facilities. They argue that this service should not be provided to a Small Generating Facility. For example, Alabama PSC and Mississippi PSC argue that a Small Generating Facility does not meet the basic prerequisites to receive a "network" type of service. They state that Small Generating Facilities almost universally interconnect with either "distribution" or sub-transmission facilities that are not "networked" but are radial in nature. The costs to make such facilities networked to provide such a service would be prohibitive. Southern Company asks that the references to resource options be deleted. TAPS states that the Small Generator Interconnection NOPR correctly dispenses with Order No. 2003's Network Resource Interconnection Service, which TAPS claims is incompatible with Network Integration Transmission Service under the OATT.

134. Taking the opposite view, National Grid states that the Commission should establish two interconnection products for Small Generating Facilities, arguing that Energy Resource Interconnection Service and Network Resource Interconnection Service are just as important for a Small Generating Facility as they are for a Large Generating Facility. National Grid states that Network Resource Interconnection Service has important market implications for new resources, because only generating facilities that meet this interconnection standard should qualify for installed capacity credits. It argues that Small Generating Facilities should have the option of being studied as deliverable network resources so that they may be eligible for such credits. If the Commission does not mandate two separate interconnection products for Small Generating Facilities, National Grid requests that, at a minimum, the single interconnection product ensure deliverability of generating facility output, consistent with the Commission's ruling in New England with respect to large generator interconnections.[59]

135. NARUC asks the Commission to remove the category "non-exporting resource participating in a wholesale market" from the Interconnection Request. It notes that the Interconnection Request instructs the Interconnection Customer to declare its intention to sell electricity at wholesale in interstate commerce. However, the phrase "non-exporting

[59] New England Power Pool (New England), 109 FERC ¶ 61,155 at P 43-44 (2004).

resource participating in a wholesale market," which is used nowhere else in the Small Generator Interconnection NOPR, raises unnecessary questions and extends its reach far beyond its stated intention.

136. PacifiCorp states that none of these service categories is defined in the Proposed SGIP and that the significance of each designation is unknown. It argues that the different service options must be defined in the SGIP and that the additional information needed to permit a Transmission Provider to conduct studies must be provided. PacifiCorp asks the Commission to explain the significance of "Non-Exporting Resource Participating in a Wholesale Market" and "Other." It adds that there should be an opportunity for comment on the workability of these proposals and on what information a Transmission Provider may need to provide this kind of interconnection service.

137. SoCal Edison seeks clarification that, to interconnect a Small Generating Facility with a Distribution System, the Transmission Provider must study deliverability[60] on the system, even if no delivery service is sought on either the Transmission or Distribution System. In studying distribution-level interconnections, the Small Generating Facility is assumed to be running at maximum output and the power is flowing onto the directly attached distribution facility. SoCal Edison argues that there is no way to study an interconnection with the Distribution System without assuming power flows on that Distribution System.

138. SoCal Edison further argues that, unlike an energy resource on a Transmission System, the generator cannot for safety and reliability reasons opt to generate only when distribution "capacity" is available because the characteristics of a Distribution System (i.e., radial) differ from those of a Transmission System (i.e., network). Given how a Distribution System operates, the provision of distribution interconnection service in the absence of a wholesale distribution service request is a meaningless exercise, and there are considerable efficiencies in requesting and studying the two services at the same time. Also, SoCal Edison is concerned that some Interconnection Customers may not realize that a separate rate may be charged to use the Distribution System in addition to the Transmission System. It states that the Commission should clarify that both interconnection and wholesale delivery service may be required. Although SoCal Edison

[60] Deliverability refers to the ability of the electric system to accept the Small Generating Facility's output without regard to the ultimate point of delivery.

does not believe that the Commission needs to require that wholesale distribution service and distribution-level interconnection service be provided only on a bundled basis, it asks the Commission to permit "bundled" applications like those under SoCal Edison's Wholesale Distribution Access Tariff.

Commission Conclusion

139. We clarify that the resource options listed in the Small Generator Interconnection NOPR's Interconnection Request are not interconnection service options. Rather, they are merely the possible ways the Interconnection Customer may use its Small Generating Facility once delivery service begins. The purpose of this information is to give the Transmission Provider an early indication of how the Small Generating Facility is likely to operate. The one interconnection service that the Commission proposed to make available to the Small Generating Facility is similar to the Energy Resource Interconnection Service that is offered under the LGIA. Nevertheless, based on the comments, we are concerned that requesting service-related information in the Interconnection Request could lead to misunderstanding. Because the information is related to the delivery component of transmission service, not interconnection service, it is not needed in the SGIP's Interconnection Request form. Therefore, we are removing this information from the Interconnection Request. This should address the concerns of most commenters.

140. In response to National Grid, we note that the LGIA's more expansive Network Resource Interconnection Service is intended to give the Interconnection Customer broad access to the backbone of the Transmission Provider's Transmission System. In essence, it allows the generating facility to pre-qualify as a Network Resource for any Network Customer on the Transmission System and, as National Grid notes, may make it eligible for installed capacity credits. Because Network Resource Interconnection Service entails high technical standards, we expect that an Interconnection Customer, particularly one interconnecting at a lower voltage, would rarely find this service to be efficient or practical. Nevertheless, we do not want to preclude it from choosing this option. If it wishes to interconnect its Small Generating Facility using Network Resource Interconnection Service, it may do so. However, it must request interconnection under the LGIP and execute the LGIA.

141. In response to SoCal Edison's request for clarification, we note that the SGIP lets the Transmission Provider study the potential impacts of the proposed interconnection on the Distribution System. Also, we clarify that nothing in this Final Rule (which concerns interconnection service only) prevents the Transmission Provider from evaluating the Interconnection Request and requests for wholesale distribution service and transmission

delivery service simultaneously. However, the Transmission Provider may not require the Interconnection Customer to request wholesale distribution service or transmission delivery service as a condition for granting a request for interconnection service. We expect the Transmission Provider to explain to the Interconnection Customer what delivery services may be needed to meet its needs.

142. **Ministerial Changes to the Interconnection Request** – The Proposed Interconnection Request was crafted largely by Joint Commenters in response to the ANOPR. It is similar in many respects to the NARUC Model. Joint Commenters in its supplemental comments submitted ministerial changes to the Proposed Interconnection Request. Other commenters[61] also seek changes to the Interconnection Request, most reflecting misplaced or missing technical information. The Interconnection Request we adopt in this Final Rule largely tracks the NARUC Model version and also reflects many of the changes proposed by the commenters.

E. Issues Related to the SGIP

143. **Using Voltage Level to Determine Which Procedures Apply –** The Proposed SGIP divided Interconnection Requests into two groups for initial processing based on the voltage level of the interconnection. Interconnections to High-Voltage (at or above 69 kV) would be evaluated using the interconnection studies. Interconnection to Low-Voltage (below 69 kV) would be processed differently depending upon the size and the certification status of the Small Generating Facility as explained below. An Interconnection Request for a certified Small Generating Facility no larger than 2 MW interconnecting at Low-Voltage would be evaluated using super-expedited screening criteria; an Interconnection Request for a Small Generating Facility no larger than 10 MW interconnecting at Low-Voltage would be evaluated using expedited screening criteria; and an Interconnection Request for a Small Generating Facility larger than 10 MW but no larger than 20 MW interconnecting at Low-Voltage would be evaluated using the interconnection studies. If an Interconnection Request did not pass the super-expedited screening criteria or expedited screening criteria, it would be evaluated using interconnection studies.

[61] E.g., Bureau of Reclamation, Central Maine, Cummins, EEI, Joint Commenters, Northwestern Energy, NYTO, PacifiCorp, PG&E, and Small Generator Coalition.

Comments

144. Several commenters[62] object to using voltage level to distinguish which review process initially applies to an Interconnection Request. They argue that the distinction should be based on whether the Small Generating Facility is being interconnected with distribution or transmission facilities. The decision should be consistent with the physical facilities and operational realities of the electric system. They also contend that electric system configurations vary widely in terms of voltage levels and that the effect of an interconnection is not necessarily determined by voltage, but also by location and size of the Small Generating Facility. In addition, they state that this distinction was not a part of the ANOPR proposal and that using voltage to distinguish which set of procedures applies is confusing.

145. In its supplemental comments, Joint Commenters propose using whether the proposed interconnection is with a transmission line (i.e., interconnections with transmission lines may not be evaluated using the technical screens) to determine whether screens may be used to evaluate the proposed interconnection.

Commission Conclusion

146. For the reasons given above, we agree with commenters that interconnection voltage should not be used as a determinative factor for whether the Interconnection Request may be evaluated using the technical screens. Instead, we are adopting the technical screens proposed by Joint Commenters in its supplemental comments. The SGIP specifies that an Interconnection Request for a certified Small Generating Facility no larger than 2 MW shall be evaluated using the technical screens, either under the Fast Track Process or the 10 kW Inverter Process, whichever applies. Under the first provision of the screens, SGIP section 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.[63]

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[62] E.g., CA ISO, EEI, Idaho Power, PG&E, PSE&G, SoCal Edison, and Southern Company.

[63] As noted above, "transmission" is both an engineering term of art and a term used in the FPA. As used in the technical screens, "transmission" is used in the engineering sense, not in a jurisdictional sense. Likewise, references in other technical screens to "radial distribution circuits," "3-phase primary distribution lines," and other uses of the word distribution are used in an engineering sense, not in a jurisdictional sense. (Footnote continued on next page)

147. **Certification of the Small Generating Facility (Proposed SGIP Section 3.1)** – In the Small Generator Interconnection NOPR, the Commission proposed that Interconnection Requests for certified generators no larger than 2 MW would be reviewed using the super-expedited screening criteria that employed technical screens. The Commission also noted that Joint Commenters (in its response to the ANOPR) preferred that the Commission itself implement a single, uniform, nationwide process for the certification of Small Generating Facility equipment packages no larger than 2 MW.[64] The Commission proposed, however, that this function instead be performed by an industry-recognized testing organization. In addition, the Commission requested comments as to whether IEEE 1547 (Standard for Interconnecting Distributed Resources with Electric Power Systems), together with other technical industry documents, could be the basis for a national certification standard.

Comments

148. Commenters generally agree with the value of having a certification process for Small Generating Facilities. They believe that such a process can speed interconnection and eliminate the need to "reinvent the wheel" each time an interconnection is made. In general, commenters agree that IEEE 1547, in conjunction with other standards, could be the basis for a certification standard.

149. NYTO requests that the Commission adopt the process and registry proposal described in the November 12, 2002 Joint Commenters filing. That would have the Commission maintain a list of certified equipment and to centralize the registry function. It claims that this would provide certainty to the industry as to which equipment has been certified and would avoid the development of competing and potentially inconsistent lists of certified equipment, which could lead to disputes and slow down the interconnection process.

In no case do we intend that this Final Rule applies to non-Commission-jurisdictional facilities.

[64] A "certified" Small Generating Facility is one that has been certified by a nationally recognized laboratory before the Interconnection Request is submitted to the Transmission Provider. Such a facility is said to be "certified" for purposes of the interconnection process.

150. The NARUC Model certification provision relies on Nationally Recognized Testing Laboratories (NRTL) to test and certify the safety of electrical equipment used for the production of electricity. That provision, which was developed for use by state regulators, requires that the NRTL be used by the state regulatory authority or approved by the U.S. Department of Energy.

151. American Forest and others state that if the Commission chooses not to certify and maintain a registry of equipment, it should establish and oversee a stakeholder process for the development of certification criteria. Without the Commission's involvement, the process of establishing certification standards will languish.

152. Cummins and others, however, argue that a nationally recognized testing laboratory and agencies like the Department of Energy should oversee the certification process. They also note that a national testing laboratory, such as Underwriter Laboratories, typically not only tests and verifies the performance of prototype equipment, but also provides follow-up services to verify that production equipment is designed and manufactured to the same standards as the tested equipment.

153. Ameren and others complain that the NOPR does not explain what industry operational and safety standards are applicable. Likewise, the NOPR does not specify what is needed to qualify as a national testing laboratory. They claim that leaving these issues open could lead to unnecessary or improper testing. They recommend that the Commission (1) adopt a specific set of standards for operation and safety requirements that are continually updated to meet current safety and reliability requirements set forth by NERC or the regional reliability councils, and (2) maintain a list of qualified national testing laboratories.

154. Allegheny Energy argues that certification guarantees the safety and reliability of the equipment in a stand-alone mode only, but not safety and reliability when the equipment becomes part of an integrated system.

155. Joint Commenters, in its supplemental comments, proposes a consensus equipment certification provision that it states was developed under a stakeholder process convened by the U.S. Department of Energy's Office of Electric Transmission and Distribution. The participants in the process included Joint Commenter members representing small generator interests, state regulators, and Transmission Providers, as well as experts from the electrical equipment manufacturing industry and testing laboratories. Joint Commenters' proposed certification provision provides that Small Generating Facility equipment shall be considered certified if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the

appropriate codes and standards by any NRTL recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards, (2) it has been labeled and is publicly listed by such NRTL at the time the Interconnection Request is made, 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.

Commission Conclusion

156. We agree with Cummins that nationally recognized laboratories should oversee the certification process and maintain registries of certified equipment. A NRTL not only tests and verifies the performance of prototypes, but it provides follow-up services to verify that production equipment is designed and manufactured to the same standards as the tested equipment. In this Final Rule, we are adopting Joint Commenters' proposal. This certification provision was vetted by a diverse group of stakeholders and is fundamentally consistent with the Proposed SGIP as well as the provision contained in the NARUC Model. We are especially encouraged by the report from Joint Commenters that one well-known NRTL intends to begin the certification of equipment as soon as the summer of 2005. This should hasten the development of certified Small Generating Facilities no larger than 2 MW under the Fast Track and 10 kW Inverter Processes. The certification provision we adopt in this Final Rule is contained in Attachments 3 and 4 of the SGIP.

157. Finally, we acknowledge Allegheny Energy's concerns. Electric system safety and reliability issues are to be addressed when the proposed interconnection of the certified equipment is evaluated under the Fast Track Process or the 10 kW Inverter Process.

158. **Super-Expedited Procedures (Proposed SGIP Section 3) and Expedited Procedures (Proposed SGIP Section 4.3)[65] –** In the NOPR, proposed SGIP section 3 stated that if the proposed Small Generating Facility is certified, no larger than 2 MW, and the interconnection is with Low-Voltage facilities, the interconnection would be evaluated

[65] In the Small Generator Interconnection NOPR, the term Super-Expedited Procedure referred to the process that used the super-expedited screens and Expedited Procedure referred to the process that used the expedited screens. In this Final Rule, we are adopting only one set of screens, which are used in both the Fast Track Process and the 10 kW Inverter Process.

using super-expedited screens. Proposed SGIP section 4.3 stated that if the proposed Small Generating Facility is no larger than 10 MW and the interconnection is with Low-Voltage facilities, the interconnection would be evaluated using expedited screens. Proposed SGIP section 4.3 also provided that the expedited screens would be used to evaluate proposed interconnections that failed the super-expedited screens.

159. The NOPR proposed that if the Transmission Provider determines that the proposed interconnection fails the super-expedited screens and is not satisfied that the Small Generating Facility can be interconnected safely and reliably, the Interconnection Customer can pay for an additional review. The review would not exceed six hours and would determine whether minor modifications to the Transmission Provider's electric system (e.g., changing meters, fuses, relay settings) could enable the interconnection to be made safely and reliably. If the results of the review were positive and the Interconnection Customer agreed to pay for these minor modifications, the Transmission Provider would tender an executable SGIA to the Interconnection Customer.

Comments

160. Joint Commenters, Small Generator Coalition, and NARUC recommend that the Commission require the use of screens to evaluate Interconnection Requests. NARUC and Small Generator Coalition initially proposed using two sets of screens. However, Joint Commenters (which includes both NARUC and Small Generator Coalition) now recommends adopting a single set of screens that serves the same purpose as the two initially proposed.

161. Several commenters[66] asked that the screens be clarified, modified, or eliminated. EEI recommended that the screens be available only for interconnection with radial facilities.

162. Cinergy, EEI, Idaho Power, NYTO, and others maintain that even if the Small Generating Facility is certified and passes the screens, there is no assurance that safety and reliability or the quality of service is not degraded as a result of the interconnection. Cinergy and EEI argue the rule should require a showing that the interconnection does not degrade safety and reliability.

[66] E.g., Ameren, BPA, Bureau of Reclamation, Central Maine, Cinergy, EEI, Exelon, MISO, NRECA, NYPSC, NYTO, PG&E, PJM, and Southern Company.

163. BPA and Central Maine oppose limiting the additional review to six hours, arguing that each interconnection is unique.

164. PJM argues that the Final Rule should not allow screens to be used in lieu of the feasibility study. It claims that while screens allow a project to be expedited, they do not necessarily provide the type of information needed by the Interconnection Customer to determine whether the project is viable (e.g., information concerning the estimated cost of interconnection or the effects on other projects).

165. BPA claims that it is unreasonable to hold the Transmission Provider to stringent deadlines without establishing corresponding deadlines for the Interconnection Customer. MISO and BPA contend that the timelines do not give the Transmission Provider sufficient time to review the Interconnection Request. MISO proposes that the Transmission Provider be permitted to notify the Interconnection Customer if it is unable to meet the target date, along with the reasons for delay.

166. NRECA and others ask the Commission to reduce the maximum size of a facility that may be evaluated under the screens to as small as 3 kW. In its supplemental comments, Small Generator Coalition argues against imposing any size limits.

167. Southern Company argues that certain base case assumptions are necessary for an accurate representation of the electric system when an Interconnection Request is evaluated under screens. It would like the evaluation to include all pending higher-queued Interconnection Requests because only then could the effect of an Interconnection Request be truly determined.

Commission Conclusion

168. In SGIP section 2.2.1, we are adopting a single set of screens submitted by Joint Commenters in its supplemental comments, with minor editorial changes. These are the screens that would be applied in the Fast Track and the 10 kW Inverter Processes. We are adopting only one set of screens rather than the two in the NARUC Model and the Small Generator Interconnection NOPR. The individual screening criteria in this set are very similar to those in the NARUC Model and closely track both those contained in the Small Generator Interconnection NOPR and those proposed by Joint Commenters in the ANOPR process.

169. The NOPR did not contain a screen that would permit interconnection with a secondary network[67] and Joint Commenters were unable to agree on one. We are also not adopting any additional screen that would permit interconnection with a secondary network in this Final Rule.

170. We are deleting "and must comply with all requirements of approved industry standards for interconnection technical specifications and requirements" from one of Joint Commenters' proposed screens because this language is redundant; a Small Generating Facility that is being evaluated under the Fast Track Process or 10 kW Inverter Process must meet the codes, standards, and certification requirements of Attachments 3 and 4 of the SGIP.

171. Concerns raised by commenters that screens do not accurately reflect the true effect of the interconnection on safety and reliability are unfounded. We believe the thresholds used in the screens to be conservative and that there is negligible chance that a proposed interconnection could pass the screens and actually impact the safety and reliability of the Transmission Provider's electric system. These thresholds have been vetted by Transmission Providers, small generator developers, and representatives of state regulators alike.

172. We reject Small Generator Coalition's argument that there should be no size restrictions for Small Generating Facilities whose interconnections may be evaluated using the screens. We are retaining the proposed 2 MW threshold for certified generators as a critical eligibility criterion for using the screens. It helps ensure the safety and reliability of the Transmission Provider's electric system. Small Generator Coalition, together with a number of Transmission Providers and representatives of state regulatory agencies, vetted the threshold when submitting the package of screens through Joint Commenters' supplemental comments.

173. In response to objections to the NOPR's expedited screening procedures, the Final Rule SGIP does not include any screens for Small Generating Facilities larger than 2 MW. Accordingly, only a request to interconnect a certified Small Generating Facility no larger than 2 MW shall be evaluated using the screens. A request to interconnect a Small

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[67] A secondary network is a type of distribution system that is generally used in large metropolitan areas that are densely populated in order to provide high reliability of service to multiple customers. (Source: *Standard Handbook for Electrical Engineers*, 11th edition, Donald Fink, McGraw Hill Book Company)

Generating Facility larger than 2 MW or a Small Generating Facility of any size that is not certified shall be evaluated using the Study Process.

174. BPA and others oppose limiting the additional review to six hours. We are eliminating this restriction.[68] The SGIP includes a customer options meeting where the Transmission Provider may propose modifications to the proposed interconnection or the Small Generating Facility itself, or perform a supplemental review if the Interconnection Customer agrees to pay for it. This allows the Transmission Provider to determine the modifications needed to accommodate the interconnection without the need for detailed and more costly interconnection studies.

175. Southern Company and Joint Commenters (in its supplemental comments) argue that the Transmission Provider should be allowed to consider the effects of all pending higher-queued Interconnection Requests when evaluating the Interconnection Request under the screens. We agree.

176. **Queuing Priority (Proposed SGIP Section 4.4)** – In the NOPR, the Commission proposed that each Transmission Provider maintain a single queue per geographic area. A queue lists Interconnection Requests in the order in which they are received. The Queue Position determines the order of performing interconnection studies, if required, and the Interconnection Customer's cost responsibility for any Upgrades to the Transmission Provider's electric system. In Order No. 2003, the Commission decided that the Transmission Provider should maintain a single integrated queue per geographic region. However, RTOs and ISOs have flexibility to propose queues and queuing rules designed to meet their regional needs.[69] We are adopting the same provision here, for the same reasons. Accordingly, there is no need to separately address again the same comments raised in this proceeding on that issue.

Comments

177. Small Generator Coalition requests that the Commission establish separate queues for Large and Small Generating Facilities. Failing that, the Commission should clarify that the interconnection study periods identified in the SGIP are binding without regard to

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[68] In the Proposed SGIP, the Commission termed this "additional review." In the SGIP, we adopt the NARUC Model's term "supplemental review."

[69] Order No. 2003 at P 147.

the Queue Position of other generating facilities. Alternatively, Small Generating Facilities should be clustered for study purposes within a given time frame (e.g., 90 days). It states that requiring a single queue for all generating facilities undercuts whatever progress has been made in interconnecting Small Generator Facilities. Small Generator Coalition, Solar Turbines, and others state that, in light of their relatively simple interconnection requirements, use of off-the-shelf equipment, and minimal effects on the Transmission Provider's electric system, Small Generating Facilities should be able to be interconnected quickly. They complain that the interconnection can be delayed by higher-queued Large Generating Facilities that require longer, more frequent, and more expensive interconnection studies and restudies.

Commission Conclusion

178. We disagree with Small Generator Coalition that a single queue is unfavorable to Small Generating Facilities. Although Queue Position determines the order of the interconnection studies and the cost responsibility for the Network Upgrades necessary to accommodate the interconnection, it does not determine the order in which the interconnections are completed.

179. For many Transmission Providers, the requirement to maintain two queues could actually delay, rather than speed up, the interconnection process. Thus, we are requiring a Transmission Provider to use a single queue for all Generating Facilities, regardless of size. Also, the SGIP allows Small Generating Facilities to be interconnected without going through the Study Process if they pass the screens. However, under the independent entity variation available to RTOs and ISOs under this Final Rule, such entities may propose multiple queues in their compliance filings.[70]

180. Small Generator Coalition is correct that a non-clustering Transmission Provider must meet all deadlines established in the SGIP without regard to queue position or queue-related delays.

181. We reiterate that clustering is the Commission's preferred method for conducting interconnection studies, and should be seriously considered by all Transmission Providers.[71] Clustering of studies allows the Transmission Provider to study multiple

[70] See Order No. 2003 at P 185.

[71] Id. at P 155.

Interconnection Requests simultaneously, thereby maximizing the effectiveness of its staff. Clustering may also reduce interconnection study and Upgrade costs; for example, multiple Interconnection Customers can share the cost of Upgrades.

182. **Scoping Meeting (Proposed SGIP Section 4.5)** – Proposed SGIP section 4.5 would require the Parties to hold a scoping meeting within ten Business Days after the Interconnection Request is deemed complete by the Transmission Provider. The purpose of the meeting is to review the characteristics of the Transmission Provider's electric system, discuss the technical aspects of the proposed interconnection, and review existing studies and the results of the application of the technical screens, if applicable. If the Parties agree that a feasibility study is needed, the Transmission Provider would provide the Interconnection Customer with a feasibility study agreement.

Comments

183. Central Maine asks that the Transmission Owner also be included in the scoping meeting. Small Generator Coalition asks that the provision be revised to allow the Parties to conduct the scoping meeting by telephone.

Commission Conclusion

184. In the SGIP, Transmission Provider is defined to include both the Transmission Provider and Transmission Owner, when they are separate entities. Accordingly, the Transmission Owner may attend the scoping meeting. Also, there was nothing in the Proposed SGIP that mandates that the scoping meeting be held face-to-face. We encourage the Parties to conduct the interconnection process in the most expeditious manner possible and to take advantage of telephone, fax, and e-mail. Finally, as in Order No. 2003-A, we are requiring that any scoping meeting between the Transmission Provider and an affiliate be announced publicly and transcribed, with the transcripts made available upon request for a period of three years.[72] While the Transmission Provider may redact portions of the transcripts deemed to be commercially sensitive or containing Critical Energy Infrastructure Information, the Commission will decide which redacted portions are to be made public.

[72] Order No. 2003-A at P 101-107.

185. **Interconnection Studies (Proposed SGIP Sections 4.6, 4.7, and 4.8)** – Proposed SGIP sections 4.6, 4.7, and 4.8 and the associated study agreements described the feasibility, system impact, and facilities studies (collectively, interconnection studies) and the Interconnection Customer's cost responsibility for each study. For a Small Generating Facility larger than 2 MW but no larger than 10 MW interconnecting at Low-Voltage, the Proposed SGIP would first evaluate the proposed interconnection using expedited screens. However, if the Transmission Provider believed that the interconnection would undermine safety and reliability even though the proposed interconnection passed the screens, the Transmission Provider would pay for the feasibility study if that study subsequently identified no adverse system impact. The cost of the system impact and facilities studies, however, would always be paid by the Interconnection Customer.

Comments – Study Cost Obligations

186. Central Maine, Exelon, and PacifiCorp argue that the Interconnection Customer should always pay for interconnection studies, regardless of the conclusions reached. Small Generator Coalition maintains that the Transmission Provider should pay for the feasibility study only if it shows no adverse impact.

Commission Conclusion

187. The Interconnection Customer should pay for all of the interconnection studies, regardless of the conclusions reached, because it is unreasonable to shift this cost to other transmission customers that do not benefit from the studies, which is what would occur if the Transmission Provider were to pay for them. The Transmission Provider should, of course, use existing studies instead of performing additional analyses to reduce costs for the Interconnection Customer, whenever possible. The Interconnection Customer is not to be charged for such existing studies; however, it is responsible for costs associated with any new study and any modification to an existing study that is reasonably necessary to evaluate the proposed interconnection.

Comments – Study Requirements

188. PJM and Southern Company argue that a system impact study should always be performed to detect adverse impacts that may not have been detected in the feasibility study. Small Generator Coalition argues that in many situations only a feasibility study or a system impact study is needed, but not both; Parties should be able to agree to skip the feasibility study. PacifiCorp states that, for a small project, the feasibility study is not much different from the system impact study and recommends that the former be eliminated. SoCal Edison argues that the provisions of the SGIP dealing with

interconnection studies should refer to the distribution provider, if applicable, and the Transmission Provider. Bureau of Reclamation asks the Commission to clarify that the Transmission Provider should perform flicker and voltage drop studies.

Commission Conclusion

189. We agree that, on occasion, there may be some overlap between the feasibility study and the system impact study. For a small project, the distinction may not be enough to require that both studies be performed. In such cases, it may be reasonable to skip the feasibility study entirely. Therefore, as the Commission did for Large Generating Facilities in Order No. 2003-A, we are allowing the Parties to skip the feasibility study upon mutual agreement. As to SoCal Edison's comment, we do not see any need to include the term "distribution provider" when referring to SGIP provisions. Transmission Provider is already defined as "[t]he 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." As to Bureau of Reclamation's request for clarification, voltage drop, voltage limit violation, and grounding studies are indeed included in the study process.

Comments – Study Deadlines and Restudy

190. Southern Company, PG&E, and others contend that the proposed interconnection study deadlines are too short. NARUC proposes giving the Transmission Provider 30 Business Days to complete the feasibility study, 30 Business Days to complete the distribution system impact study, 45 Business Days to complete the transmission system impact study, 30 Business Days to complete the facilities study when no Upgrades are required, and 45 Business Days to complete the facilities study when Upgrades are required.

191. PacifiCorp states that a restudy provision should be included in the SGIP so that the Interconnection Request could be restudied if a higher-queued Interconnection Customer drops out. It argues that the LGIP included a restudy provision for each of the three studies.

Commission Conclusion

192. We are adopting the deadlines proposed by NARUC and incorporating them in the interconnection study agreements. They strike a good balance, allowing sufficient time to complete the studies while ensuring that Small Generating Facilities can be interconnected within a reasonable time. Also, as noted above, with the exception of payment provisions,

we are replacing "calendar days" with "Business Days" in the SGIP and SGIA. However, where appropriate, we are revising the number of days to correspond to the actual passage of time.

193. We disagree that a restudy provision is needed in the SGIP. The very purpose of the Small Generator Final Rule is to expedite interconnections of Small Generating Facilities by removing unnecessary delays. While a restudy provision in the LGIP context is meaningful because system conditions may change between completion of a particular study and the Parties' signing the LGIA, it is unlikely that any significant change in system conditions will occur that was not foreseen by the Transmission Provider at the time of study because the SGIP has a much shorter timeline.

Comments – Post-Operational Evaluation of the Interconnection

194. PacifiCorp argues that, after the Small Generating Facility is operational, an interconnection may cause problems that were unforeseen when the project was initially evaluated. For example, wind generators may need to fine tune their reactive power output. Also, because the certification and screening processes are new, the Transmission Provider should be permitted to perform post-interconnection reviews and adjustments, including additional Upgrades, if necessary, to be paid for by the Interconnection Customer.

Commission Conclusion

195. The purpose of the evaluation processes in the SGIP is to determine the effect the interconnection will have on the Transmission Provider's electric system. Such evaluations are also performed to ascertain the Interconnection Customer's cost responsibility for Interconnection Facilities and Upgrades. We reject PacifiCorp's proposal because accepting it would make determination of cost responsibility open-ended and create uncertainty for the Interconnection Customer. Should unforeseen problems arise, the Parties may make a filing with the Commission and request expedited consideration.

196. **Execution of the SGIA** – Although the Proposed SGIP required the Transmission Provider to deliver an executable SGIA to the Interconnection Customer within a time certain, the Interconnection Customer had no deadline to sign and return the document to the Transmission Provider.

Comment

197. In its supplemental comments, Joint Commenters propose that the Interconnection Customer have 30 Business Days to sign and return the SGIA.

Commission Conclusion

198. We adopt Joint Commenters' proposal. The Transmission Provider needs to know whether the proposed project will go forward. Giving the Interconnection Customer a deadline within which to act gives the Transmission Provider the certainty it needs for system planning purposes. The SGIP states that, 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 SGIA, or request that the Transmission Provider file an unexecuted SGIA with the Commission. If that is not done, the Interconnection Request shall be deemed withdrawn.

F. Issues Related to the SGIA

199. **Responsibilities of the Parties (Proposed SGIA Article 2.2)** – Article 2.2 of the Proposed SGIA set out each Party's responsibilities under the SGIA. It included the obligation of the Interconnection Customer to interconnect, operate, and construct its facilities in a safe manner and to follow Good Utility Practice. It would similarly require the Transmission Provider to operate its electric system in a safe and reliable manner.

Comments

200. BPA asserts that Proposed SGIA article 2.2 should require the Interconnection Customer to abide by national and regional reliability rules, such as those developed by NERC and the Western Electricity Coordinating Council, that are generally applicable to all generators in a control area or geographic region. Furthermore, according to BPA, the interconnection agreement should require the Interconnection Customer to abide by any technical requirements established by the Transmission Provider to govern the safe interconnection of generating facilities.

201. NARUC offers alternative language laying out the responsibilities of the Parties, consistent with its Model. Specifically, NARUC proposes replacing article 2.2 with the following:

> Each Party will, at its own cost and expense, operate, maintain, repair, and inspect, and shall be fully responsible for the facility or

> facilities which it now or hereafter may own or lease unless otherwise specified in Exhibit A. Maintenance of Interconnection Customer's Small Resource and interconnection facilities shall be performed in accordance with the applicable manufacturer's recommended maintenance schedule.
>
> The Parties agree to cause their facilities or systems to be constructed in accordance with specifications provided by the National Electrical Safety Code, the National Electric Code, and as approved by the American National Standards Institute, and interconnected in accordance with the Institute of Electrical and Electronics Engineers standards where applicable.
>
> Interconnection Provider and Interconnection Customer shall each be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the Point Of Common Coupling. The Interconnection Provider or the Interconnection Customer, as appropriate, shall provide interconnection facilities that adequately protect the Interconnection Provider's distribution system, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of the Interconnection Facilities shall be made part of this agreement as Exhibit C.

202. Avista states that "the Interconnection Customer should be required not only to construct its generating facility in accordance with operating requirements to be set forth in Appendix 4 to the Proposed SGIA, but also to maintain and operate its [Small Generating Facility] in accordance with such operating requirements."[73]

203. Nevada Power asserts that the IEEE 1547 standards referred to in Proposed SGIA article 2.2.4 were never designed to be applied to generating facilities larger than 10 MW and that in fact "there is no extant national standard that can be reasonably applied to govern the Interconnection Facilities for Generating Facilities greater than ten

[73] Avista at 14.

megawatts."[74] Instead, Nevada Power proposes that until a national standard is developed to address this 10-20 megawatt gap, the Commission modify article 2.2.4 to read:

> Interconnection Customer agrees to cause its facilities or systems to be constructed 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, Operating Requirements, and, where the Generating Facility will have a capacity greater than ten megawatts, the Transmission Provider's applicable Interconnection Facility standards in effect at the time of construction . . . .[75]

204. PacifiCorp notes that the Proposed SGIA assumes that the Interconnection Customer and the Transmission Provider are each responsible for the maintenance of equipment on its side of the point of change of ownership. But as a practical matter, more flexibility is needed because non-utility companies cannot usually maintain certain equipment, such as communications equipment, that is critical to the protection of the Transmission Provider's electric system. Moreover, the Transmission Provider often owns and maintains revenue meters on the customer's side of the point of change of ownership. Therefore, argues PacifiCorp, the SGIA should clarify that unless provided otherwise in an attachment, each Party is responsible for the equipment on its side of the point of change of ownership.

205. Small Generator Coalition requests that the Commission restrict the ability of the Transmission Provider to impose additional technical requirements on the Small Generating Facility. Otherwise, it fears that Interconnection Customers will be subjected to additional requirements under the guise of reliability rules that make it difficult to interconnect in a cost-effective manner. On the other hand, Southern Company contends that the standards for operating in parallel should be codified in the SGIA. This way, the Transmission Provider can then confirm that all the requirements are met before granting the authorization to operate.

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[74] Nevada Power at 15.

[75] Id. (Emphasis added to show the new language proposed by Nevada Power.)

206. In its supplemental comments, Joint Commenters recommends several changes to Proposed SGIA article 2.2. Specifically, Joint Commenters recommend clarifying that the Transmission Provider must coordinate with an Affected System operator to complete the interconnection, but need not negotiate on behalf of the Interconnection Customer. Joint Commenters also propose changing the last sentence of proposed article 2.2.4 to read:

> Interconnection Customer agrees to design, install, maintain, and operate, or cause the design, installation, maintenance, and operation of the Generating Facility and Interconnection Customer Interconnection Facility so as to reasonably minimize the likelihood of a disturbance, originating on such equipment affecting or impairing the system or equipment of Transmission Provider, or Affected Systems.[76]

Commission Conclusion

207. We are adopting a version of this provision that is based on the NARUC Model and Joint Commenters' proposals. Redrafting article 2.2 as requested by commenters clarifies the rights and responsibilities of the Parties and aids them in better understanding their roles in the interconnection process.

208. Several commenters also ask the Commission to clarify the right of the Transmission Provider to include supplemental "Interconnection Guidelines," either in the SGIA or as an attachment to it. As the Commission stated in Order No. 2003-A, the Transmission Provider may include supplemental interconnection requirements if (1) they are authorized by the applicable reliability council and (2) the Transmission Provider imposes such requirements on itself and all other Interconnection Customers, including its affiliates.[77] We see no reason to depart from this standard. The Commission has consistently held that an Interconnection Customer must adhere to established reliability practices within the control area with which it is interconnecting.[78] The same would be true for including supplemental guidelines for generators larger than 10 MW, as requested by Nevada Power.

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[76] Emphasis added to show the language proposed by the Joint Commenters.

[77] Order No. 2003-A at P 399.

[78] See, e.g., Order No. 2003-A at P 44, Order No. 2003 at P 823, and Order No. 888 at 31,770.

209. In response to Nevada Power's comments about the applicability of the IEEE 1547 standard to generating facilities no larger than 10 MW, we note that the SGIA states that this standard is required only "where applicable."

210. The SGIA also addresses PacifiCorp's concerns over using the point of change of ownership as the basis for establishing the Parties' respective roles and allows the Parties to specify their respective roles in SGIA Attachment 2.

211. **Metering (Proposed SGIA Article 2.4)** – Proposed SGIA article 2.4 would specify that the Interconnection Customer is responsible for the Transmission Provider's reasonable cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of any metering and data acquisition equipment. It also would require that the Interconnection Customer's metering equipment conform to applicable industry rules and operating requirements.

Comment

212. CA ISO argues that Proposed SGIA article 2.4 should require any Small Generating Facility larger than 1 MW to provide real-time telemetry to the Transmission Provider to better maintain reliability and meet regional requirements.

Commission Conclusion

213. We are not requiring Small Generating Facilities to provide real-time telemetry because doing so may hamper their development and we are not convinced that it is necessary in every instance. However, if regional reliability requirements dictate real-time telemetry for Small Generating Facilities, we expect the Interconnection Customer to meet such requirements.

214. **Equipment Testing and Inspection (Proposed SGIA Article 3.1) –** Proposed SGIA article 3.1 described the pre-operational testing and inspection requirements for the Small Generating Facility.

Comments

215. Central Maine argues that the Interconnection Customer should periodically test the Small Generating Facility and Interconnection Facilities after they achieve commercial operation and that the Transmission Provider should be allowed to witness such testing. The purpose of such testing is to ensure that the Interconnection Customer's equipment is

operating properly. Southern Company argues that the Interconnection Customer should pay the Transmission Provider's expenses for such pre-operational testing.

Commission Conclusion

216. We decline to expand the provisions of this article to require generically that every Interconnection Customer perform periodic testing of its Small Generating Facility, regardless of circumstances. To so do would be burdensome on the Interconnection Customer, costly, and potentially allow a self-interested Transmission Provider to impose multiple rounds of costly testing on competing generators. However, should the Transmission Provider believe in good faith that the Small Generating Facility or the Interconnection Facilities is affecting safety and reliability, the Transmission Provider may, upon advance written notice, require the Interconnection Customer to perform reasonable additional post-operational testing. The Transmission Provider may witness such testing. The Transmission Provider and the Interconnection Customer shall be responsible for their own staff, equipment, and other costs associated with the testing and inspection.

217. **Right of Access (Proposed SGIA Article 3.3)** – The Proposed SGIA would give the Transmission Provider access to land owned or controlled by the Interconnection Customer to construct Interconnection Facilities or for other specified purposes.

Comment

218. NARUC urges the Commission to adopt the following right of access provision from its Model:

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

> Interconnection Provider shall have access to 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].

Commission Conclusion

219. We largely adopt NARUC's proposal. It uses the concepts found in the Small Generator Interconnection NOPR, but shortens and simplifies the provisions. However, we are adding that each Party is responsible for its own staff, equipment, and other costs in carrying out this provision.

220. **Term of Agreement (Proposed SGIA Article 4.2)** – Proposed SGIA article 4.2 would require that the interconnection agreement remain in effect for ten years, or longer by request, and that it can be automatically renewed for each successive one year period thereafter.

Comments

221. BPA argues that the interconnection agreement should remain in effect as long as the Small Generating Facility remains interconnected, subject to the termination provision of the SGIA or as agreed to by the Parties. The article unnecessarily requires the Parties to negotiate a follow-on agreement after ten years.

222. Central Maine requests that the SGIA terminate after a set number of years agreed to by the Parties. It states that the provision is unacceptable because it allows the Interconnection Customer to unilaterally select the term of the interconnection agreement.

Commission Conclusion

223. We deny BPA's and Central Maine's requests to revise the term of the interconnection agreement. These issues were addressed in Order No. 2003, and neither commenter raises any new arguments here.[79]

[79] Order No. 2003 at P 302-304.

224. **Termination (Proposed SGIA Article 4.3) and Default (Proposed SGIA Article 6.17) –** Proposed article 4.3.1 would grant the Interconnection Customer the right to terminate the SGIA at any time by giving 30 days written notice. Proposed article 4.3.2 would allow the Transmission Provider to terminate the interconnection agreement if a material change in law or regulations would either prevent performance of the interconnection agreement or impose on the Transmission Provider substantial additional costs that are not reimbursed by another entity. Proposed article 6.17 described when a Default takes place and the Parties' right to cure upon notice of a Default. Because these provisions are closely related, we discuss them together.

Comments

225. Several commenters ask the Commission to grant the Transmission Provider termination rights comparable to those given the Interconnection Customer.[80] PG&E and Southern Company request that the Transmission Provider have the right to terminate the interconnection agreement if the Small Generating Facility is either shut down or abandoned. Southern Company asks that the Transmission Provider be allowed to terminate the agreement if the Small Generating Facility either does not begin commercial operation or is inactive for three years. Absent changes to this provision, the only remedy available to the Transmission Provider is to file an application to terminate with the Commission.

226. Central Maine, Joint Commenters, and PacifiCorp ask that if the Interconnection Customer terminates the SGIA, neither the Transmission Provider nor its customers should have to pay the costs of termination, including the cost of site restoration. Central Maine says these costs should be paid by the Interconnection Customer if it defaults on the interconnection agreement. PacifiCorp requests that the SGIA require the Interconnection Customer to pay any outstanding costs under the SGIP or SGIA during the 30 day notice period, or else termination shall not become effective. Joint Commenters also propose including a provision specifying that a Party remains liable for expenses incurred under the SGIA even after it has terminated. Central Maine states that certain critical provisions, such as access, confidentiality, invoicing, limitation of liability, and indemnification, should survive any expiration or earlier termination of an agreement.

[80] See, e.g., BPA, Central Maine, PG&E, and Southern Company.

227. NARUC urges the Commission to adopt its Model interconnection agreement, which allows the Interconnection Customer to terminate the agreement for any reason, including default, provided 60 days' written notice is given. Alternatively, the Transmission Provider may terminate the agreement if the Small Generating Facility does not generate energy in parallel with the Transmission Provider's Transmission System by the later of two years from the date of the agreement or 12 months after interconnection is completed.

228. NARUC also requests clarification that the Transmission Provider may terminate the interconnection agreement for Default. Both NARUC and Joint Commenters propose adding a provision specifying that a Transmission Provider may terminate the SGIA if there is a material change in a rule or statute concerning interconnection and parallel operation of the Small Generating Facility that would impose additional costs on the Transmission Provider. Finally, the NARUC Model clarifies that termination does not relieve either Party of its obligations to the other Party.

229. Central Maine and NYTO ask the Commission to clarify the difference between "Default" and "Breach," as it did in the LGIA. Specifically, Central Maine states that a Breach, if uncured, becomes a Default and may result in termination.

Commission Conclusion

230. As Order No. 2003 stated, there is no reason to allow the Transmission Provider to terminate the interconnection agreement if the Interconnection Customer has met all its obligations.[81] As we have noted elsewhere in this Final Rule, the interests of a Transmission Provider may be adverse to those of the Interconnection Customer, and it has an incentive to discriminate against the Interconnection Customer. The Interconnection Customer's business decision not to operate its Small Generating Facility for an extended period of time should not result in the loss of its rights under the SGIA.

231. We adopt NARUC's proposal that a Party be given 60 calendar days in which to cure a Default once notified that it is in Default. If at the end of the 60 calendar days, the Default continues to exist, the non-defaulting Party may terminate the interconnection agreement. This is consistent with the Commission's regulations that require an entity to notify the Commission of the proposed cancellation or termination of a contract at least 60 calendar days before the cancellation or termination is proposed to take effect.

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[81] Order No. 2003 at P 313.

However, to allow for situations where 60 calendar days are not sufficient time to cure the default, the SGIA allows up to six months in which to cure the Default so long as the Party "continuously and diligently" works towards curing the Default.

232. Joint Commenters and Central Maine propose provisions that address the cost responsibility of the Parties if the SGIA is terminated. Both the Termination and Default provisions now clarify that the Parties' financial obligations and other responsibilities survive the termination of the SGIA. The SGIA also addresses PacifiCorp's concern that the Interconnection Customer would be able to terminate the interconnection agreement and escape financial responsibility for costs it has already incurred.

233. The Proposed SGIA included a provision allowing the Transmission Provider to terminate the SGIA should there be a regulatory change that would impose additional costs on the Transmission Provider. Consistent with the LGIA, we are not including such a provision in the SGIA Should a significant regulatory change take place, the Transmission Provider may request termination of the interconnection agreement under section 205 of the FPA.

234. Central Maine and NYTO are correct that the term "breach" does not appear in the SGIA. Upon discovering a Default, the non-defaulting Party gives notice of the Default to the defaulting Party. The defaulting Party then has time to cure the Default. If it does not do so, the SGIA may then be terminated. We are revising the SGIA accordingly.

235. **Emergency Conditions (Proposed SGIA Article 4.4.1)** – Proposed SGIA article 4.4.1 would give the Transmission Provider the right to immediately suspend interconnection service and temporarily disconnect the Small Generating Facility under Emergency Conditions.

Comment

236. SoCal Edison proposes adding the term "Distribution Provider's Distribution System" to each place where the definition of Emergency Condition says "Transmission Provider's Transmission System."[82]

[82]SoCal Edison does not give any rationale for its proposed change, only modified tariff sheets.

Commission Conclusion

237. The owner of the Commission-jurisdictional facility with which the Interconnection Customer interconnects is the "Transmission Provider" regardless of how the facility may be classified by the Transmission Provider. As defined by this Final Rule, "Transmission Provider" means "the public utility . . . 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" (emphasis added). The change suggested by SoCal Edison would be redundant.[83]

238. **Temporary Disconnection – Routine Maintenance, Construction, and Repair (Proposed SGIA Article 4.4.2) and Forced Outages (Proposed SGIA Article 4.4.3)** – Proposed SGIA article 4.4.2 would require that the Transmission Provider give five Business Days' notice before interrupting interconnection service, curtailing the output of the Small Generating Facility, or temporarily disconnecting the Small Generating Facility for routine maintenance, construction, and repairs. Proposed SGIA article 4.4.3 would give the Transmission Provider the right to suspend interconnection service to make repairs during forced outages. It would also require the Transmission Provider to give the Interconnection Customer written documentation to explain the circumstances of the disconnection if prior notice was not given. Both provisions would require the Transmission Provider to use its best efforts to coordinate disconnections, curtailments, and forced outages with the Interconnection Customer.

Comments

239. PG&E states that it has thousands of small solar projects interconnected with its "Distribution System" and requests that the five Business Day notice requirement be waived for distribution level generators because it would interfere with a Distribution System owner's ability to work on its facilities.

240. Empire District argues that it should not take five days to shut down a Small Generating Facility. If some minimum notice is required, it should apply only to Small Generating Facilities larger than 2 MW. Empire District also questions the need for an

[83] If the Small Generating Facility is interconnected with nonjurisdictional lines, then this Final Rule does not reach the issue of whether a jurisdictional Transmission Provider may disconnect the Small Generating Facility in an emergency. The Transmission Provider would have to deal with the non-jurisdictional utility.

"individual notice" to every generator and whether it is really necessary to notify the operators of small certified units under 100 kW in size. If individual notifications are required, the Interconnection Customer should have a method in place whereby "nearly instantaneous, two-way communication" (notification and verification of receipt of notice) can be made within 24 hours.

241. EEI, PacifiCorp, and Southern Company ask that the term "reasonable efforts" be used instead of "best efforts" in Proposed SGIA articles 4.4.2 and 4.4.3, noting that "reasonable efforts" was used in the ANOPR consensus document.

242. EEI and PacifiCorp ask the Commission to clarify that the Transmission Provider must provide written documentation to the Interconnection Customer only when the latter requests it.

Commission Conclusion

243. We are not convinced that a five Business Day notice is unduly burdensome to the Transmission Provider or that it should apply only to Small Generating Facilities larger than 2 MW. Even if PG&E has thousands of small solar projects interconnected with its Distribution System subject to an OATT, as it states, it is highly unlikely that it will ever have to provide notice to all of them simultaneously.

244. We agree that the term "reasonable efforts" should be used instead of "best efforts" in the SGIA. We are making this change throughout the SGIA.

245. Finally, we are persuaded that written documentation need be provided only upon request by the Interconnection Customer, and the SGIA reflects this change.

246. **Temporary Disconnection – Adverse Operating Effects (Proposed SGIA Article 4.4.4)** – Proposed SGIA article 4.4.4 said that after being notified that its Small Generating Facility may degrade the reliability of the Transmission Provider's electric system, the Interconnection Customer must be given reasonable time to make necessary corrections. If it does not make the corrections within that time, the Transmission Provider must provide a second notice to the Interconnection Customer stating that the Small Generating Facility may be disconnected in five Business Days.

Comments

247. Several commenters[84] contend that the five day notice period is unreasonable, restricts the Transmission Provider's ability to respond to reliability concerns, and could be misinterpreted to mean that an Interconnection Customer whose Small Generating Facility is causing adverse operating conditions has priority over other customers.

248. EEI recommends that the last sentence of Proposed SGIA article 4.4.4 be revised to read: "Transmission Provider shall provide Interconnection Customer notice of such disconnection within a reasonable time period, unless the provisions of article 4.4.1 [Emergency Conditions] apply."

249. National Grid states that some form of advance notice and the ability to cure is generally reasonable before disconnection; however, such steps cannot be mandated all the time. It proposes language giving the Transmission Provider the right to take unilateral action to avoid service disruptions to other customers or damage to facilities caused by the Small Generating Facility.

250. According to Small Generator Coalition, the Transmission Provider should notify the Interconnection Customer if, based on sound engineering judgment, it concludes that adverse operating conditions exist.

Commission Conclusion

251. This article applies only if the Transmission Provider determines that the Small Generating Facility may adversely affect its electric system and the Interconnection Customer has failed to take the necessary remedial action within the time specified by the Transmission Provider. We are not convinced that the notice period is too long, could endanger reliability or safety, or unnecessarily expose the Transmission Provider to liability claims when damage and disruption to its electric system is imminent. There could be legitimate reasons for the Interconnection Customer not to make the necessary corrections within the allotted time (e.g., replacement parts are on back order). SGIA article 3.4.1 provides that the Transmission Provider may declare an emergency and disconnect the Small Generating Facility if there is an imminent threat to its electric system, which provides the Interconnection Customer with ample incentive to promptly

[84] E.g., Ameren, EEI, National Grid, PacifiCorp, PG&E, and Southern Company.

resolve any adverse operating effects. Accordingly, we reject the request to eliminate the notification period from this article. However, we are revising this provision to specify that no notice is necessary in order to resolve an Emergency Condition.

252. We agree with Small Generator Coalition that the Transmission Provider should immediately notify the Interconnection Customer when operation of the Small Generating Facility may cause disruption or deterioration of service to other customers and that this finding must be based on and supported by sound engineering principles. We also stress that all documentation supporting the problem must be provided to the Interconnection Customer upon request.

253. **Temporary Disconnection – Modification of the Generating Facility (Proposed SGIA Article 4.4.5)** – Proposed SGIA article 4.4.5 would require the Interconnection Customer to secure written authorization from the Transmission Provider before making any material modification to the Small Generating Facility, or it can be disconnected.

Comment

254. EEI recommends that the phrase "material modification" be replaced with "modification." This revised language is used in LGIA article 5.19.2.

Commission Conclusion

255. We agree with EEI that the term "material modification" could be ambiguous. Accordingly, we are revising this article to provide that Transmission Provider written approval is required before the Interconnection Customer may modify its Small Generating Facility in such a way that could materially impact the safety or reliability of the Transmission Provider's electric system. We are also requiring that any modifications be done according to Good Utility Practice.

256. **Temporary Disconnection – Reconnection (Proposed SGIA Article 4.4.6)** – Proposed SGIA article 4.4.6 would require the Parties to cooperate with each other to restore the Small Generating Facility, the Interconnection Facilities, and the Transmission Provider's electric system to their normal operating state as soon as reasonably practicable following any temporary disconnection.

Comments

257. Southern Company contends that this article should state that restoration is required only when the events causing the temporary disconnection are over. Small Generator Coalition asks that the provision use "interruption and curtailment" instead of "reduction."

258. In its supplemental comments, Joint Commenters propose the following alternative language: "the Parties shall cooperate with each other to restore the Generating Facility, Interconnection Facilities, and Transmission Provider's Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection."

Commission Conclusion

259. We are adopting the proposed language submitted by Joint Commenters because it removes unnecessary jargon and simply requires that the Parties work to restore normal interconnection service as quickly as possible. This language addresses Southern Company's and Small Generator Coalition's concerns as well.

260. **Financial Security Arrangements (Proposed SGIA Article 5.2)** – Proposed SGIA article 5.2 provided that the Interconnection Customer provide financial security to the Transmission Provider for the construction of Interconnection Facilities or Upgrades through a guarantee, surety bond, letter of credit, or other form of credit that meets certain standards. The type of financial security arrangement and issuing entity would have to be reasonably acceptable to the Transmission Provider and have (1) terms and conditions that guarantee payment up to an agreed upon amount, (2) a reasonable date of expiration, (3) be issued at least 20 days before construction, and (4) be consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located.

Comments

261. PacifiCorp argues that this article does not refer to design costs. It asserts that this could lead to unnecessary confusion over whether design costs should be included with procurement, resulting in the burden of design costs falling on the Transmission Provider and its customers.

262. Southern Company offers proposed changes to provide protection for the Transmission Owner and the Transmission Provider. It asks the Commission to delete any references to surety bonds as an acceptable form of payment on the grounds that they are not specifically mentioned in the OATT and are not generally accepted as a form of

payment. It also requests that the SGIA state clearly that the terms of any letter of credit, guarantee or other security must be reasonably acceptable to the Transmission Provider.

263. In an effort to avoid fraudulent conveyance issues or problems with the enforcement of any guarantee through bankruptcy procedures, Southern Company proposes that the parent of the Interconnection Customer (if any) serve as the source of any guarantee, specifically excluding affiliates from proposing any guarantee. Additionally, any proposed guarantor should have a credit rating of BBB+ to protect against rapid credit downgrades.

264. Southern Company also argues that the dollar-for-dollar reduction of security as payments are made to the Transmission Provider is arbitrary and capricious and imposes risks under bankruptcy and fraudulent conveyance law upon the Transmission Provider. At a minimum, the Commission should not require that security be reduced until the expiration of any potential bankruptcy preference period. Southern Company also asks the Commission to clarify that credit support is not to be reduced by payments made to the Transmission Provider that are unrelated to the actions designated in this article. It also proposes the expansion of credit to cover all other obligations of the Interconnection Customer under the interconnection agreement.

265. Finally, NYTO proposes that the Interconnection Customer demonstrate its creditworthiness in its Interconnection Request.

Commission Conclusion

266. We agree with PacifiCorp that design costs are a part of the development process that should be covered and are including such a provision in the SGIA.

267. While Southern Company opposes using surety bonds as an acceptable form of payment, we are following in this Final Rule the same approach taken in the LGIA, which states that the Interconnection Customer has the right to select a form of security that is acceptable to the Transmission Provider and consistent with commercial practices.[85] Because SGIA article 6.3 grants the Transmission Provider the discretion to reject a form of security (if it is reasonable to do so), we reject Southern Company's proposal to eliminate the surety bond as an acceptable form of credit. Giving the Interconnection

[85] Order No. 2003 at P 597.

Customer a choice of security is not unreasonable.[86] Furthermore, granting the Transmission Provider absolute discretion on what forms of security to allow would provide too great an opportunity to erect hurdles to new small generation.[87]

268. For the same reasons, we reject Southern Company's proposals to (1) limit the source of any guarantee to a parent of the Interconnection Customer and (2) require any proposed guarantor to have a credit rating of BBB+. These are hurdles that could be exploited to discourage Small Generating Facilities. The SGIA grants the Transmission Provider the discretion to reject a form, source, or issuing entity of security only if doing so is reasonable. Giving the Transmission Provider absolute discretion on these choices would create too great an opportunity for exploitation.

269. We are requiring the reduction of the security amount on a dollar-for-dollar basis as payments are made because this protects the Interconnection Customer against providing too much security while ensuring that the Transmission Provider is sufficiently protected against its real cost exposure.[88] We recognize that reducing the security as the Interconnection Customer pays its bills may cause a small increase in risk to the Transmission Provider, but the chilling effect of requiring the Interconnection Customer to maintain the full security during the length of the interconnection process would seriously discourage new small generation.

270. We clarify that credit support is not to be reduced by payments made to the Transmission Provider that are unrelated to the actions listed in this article. In response to NYTO, we note that the Interconnection Customer is already required to give appropriate financial guarantees before the Transmission Provider begins construction. Thus, the Interconnection Customer need not demonstrate its creditworthiness when it submits its Interconnection Request.

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[86] See Florida Power & Light Company, 98 FERC ¶ 61, 226 at 61,893-94, reh'g granted in part on other grounds, 99 FERC ¶ 61,318 (2002); Florida Power & Light Company, 98 FERC ¶ 61,324 at 62,358-59 (noting that the Transmission Provider's practice of limiting interconnection customers to a letter of credit is unreasonable), reh'g rejected as moot, 100 FERC ¶ 61,094 (2002).

[87] Southwest Power Pool, Inc., 100 FERC ¶ 61,096 at P 12 (2002).

[88] See Order No. 2003 at P 264.

271. **Milestones (Proposed SGIA Article 5.3)** – Proposed SGIA article 5.3 stated that the Parties are to agree on milestones that each Party is responsible for meeting. These milestones are part of the interconnection agreement. Article 5.3 further specified that if either Party does not meet a milestone, it must compensate the other Party for its losses (i.e., pay liquidated damages).

Comments

272. Several commenters ask the Commission to remove references to liquidated damages from the SGIA. Others claim that the Commission lacks the legal authority to impose liquidated damages.

273. EEI seeks the elimination of this article entirely. The provision is vague and confusing because conflicting milestone requirements appear in other areas of the Proposed SGIA and Proposed SGIP. NYTO contends that Appendix 3 of the Proposed SGIA, which requires the Parties to list agreed upon milestones, is unnecessary.

274. Midwest ISO requests that the Commission adopt the same liquidated damages clause as in the LGIA. It states that this will make the large and small generator tariff provisions consistent.

275. PacifiCorp requests that Proposed SGIA articles 5.3.1 and 5.3.2 be deleted. It contends that the accomplishment of milestones should be subject to a "reasonable efforts" or "good faith efforts" standard rather than liquidated damages being applied. As a matter of policy, good faith efforts should not be penalized, since the Transmission Provider does not profit from interconnections.

276. In its supplemental comments, Joint Commenters suggest replacing this provision in its entirety. The proposed replacement requires the Parties to agree to extend milestone deadlines if the milestone was missed in "reasonable good faith." However, the Party affected by the failure to meet a milestone is not required to agree to an extension if:

> (1) it will suffer significant uncompensated economic or operational harm from the delay and believes that the delay is not or was not unavoidable, (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.

277. Joint Commenters also suggest making the provision bilateral and removing the monetary penalty for missing a milestone. Additionally, Joint Commenters would require the Party missing the milestone to fully explain to the other Party why the milestone was missed. Finally, Joint Commenters propose adding a statement that any dispute as to this provision should be resolved according to the dispute resolution portions of the SGIA.

Commission Conclusion

278. This Final Rule adopts many concepts proposed by Joint Commenters, including the notice provisions and the preference that the Parties agree to extend deadlines instead of declaring that the other Party has defaulted on the SGIA.

279. Regarding Joint Commenters' proposal to add a statement regarding dispute resolution, such a statement is not needed because the SGIA's dispute resolution provision applies to the entire document.

280. We reject PacifiCorp's proposal to delete SGIA milestone provisions. These provisions provide a single reference to the relevant milestones. They will assist the Parties and will minimize disagreements. Removing them would create uncertainty for the Parties.

281. Because we are not imposing in this Final Rule a financial penalty on the Transmission Provider for missing milestones, there is no need to discuss commenters' arguments on that issue.

282. **Billing and Payment (Proposed SGIA Article 5.4)** – Proposed SGIA article 5.4 would provide that billing and payment obligations are to be performed under the terms of the SGIA.

Comments

283. PacifiCorp requests that this article be revised to include billing and payment requirements for Distribution Upgrades or Network Upgrades. It also states that billing and payment for miscellaneous costs, such as restudy costs, should be addressed.

Commission Conclusion

284. We agree with PacifiCorp in part and are revising this article to clarify that billing and payment requirements are for Distribution Upgrades and Network Upgrades.

However, we see no need to identify specific miscellaneous costs because the obligations listed in SGIA article 6.1 are for services rendered, which already includes such costs.

285. **Billing Procedure for Interconnection Facilities Construction (Proposed SGIA Article 5.4.1) and Final Accounting (Proposed SGIA Article 5.4.2)** – Under Proposed SGIA article 5.4.1, the Transmission Provider would bill monthly for expenditures for the design, engineering and construction of, or for other charges related to, Interconnection Facilities. The Interconnection Customer would remit payment within 30 calendar days after receipt of the bill.

286. Proposed SGIA article 5.4.2 would require that the Transmission Provider submit a final accounting report to the Interconnection Customer within 45 calendar days after installing the Transmission Provider's Interconnection Facilities.

Comments

287. PacifiCorp suggests that Proposed SGIA article 5.4.1 also include procurement costs. Small Generator Coalition argues that alternative arrangements for payment of the bill should be allowed if the Parties agree. With respect to Proposed SGIA article 5.4.2, numerous commenters[89] argue that 45 calendar days is not enough time for the Transmission Provider to prepare a final accounting report. They offer an array of alternative deadlines ranging from 60 Business Days to 90 days after the Small Generating Facility begins commercial operation. BPA complains that there is not a similar deadline for any additional payments owed by the Interconnection Customer. It proposes that any unpaid bill must be paid within 30 days after the bill is submitted by the Transmission Provider.

Commission Conclusion

288. We agree with PacifiCorp that procurement costs should be included. We are also revising the provision to allow the Parties to make other reasonable payment arrangements should they agree to do so, as requested by Small Generator Coalition.

289. While we agree with commenters that the proposed deadline for submitting the final accounting report may be too short, tying it to commercial operation of the Small Generating Facility is unrealistic because that event may happen long after construction is

[89] E.g., BPA, Central Maine, NYTO, PGE, and Southern Company.

complete. A more realistic deadline, and one that provides sufficient time for the Transmission Provider to compile the expenditures and process the final accounting report, is three months from the date construction of the facilities is completed. We are so revising this provision.

290. BPA is correct that proposed SGIA article 5.4.2 did not include a deadline for the Interconnection Customer to pay its final accounting bill. We are including in the SGIA 30 calendar days for the Interconnection Customer to make payment to the Transmission Provider.

291. Finally, we are consolidating Proposed LGIA articles 5.2, 5.3, and 5.4 because they are so closely related. The new article is entitled "Billing, Payment, Milestones, and Financial Security."

292. **Assignment (Proposed SGIA Article 6.5)** – Proposed SGIA article 6.5 would allow the Parties to assign their rights under the interconnection agreement to others under certain circumstances.

Comments

293. Southern Company contends that the proposed assignment provision unreasonably allows one Party to freely assign its rights to an affiliate without consent from the other Party. It argues that this subjects the Transmission Provider to unnecessary risk from which it cannot protect itself by requiring that the assignee have a credit rating equivalent to that of the assignor; Transmission Providers typically rely on guarantees or letters of credit, which are personal to the obligor and would likely not cover the assignee. Bureau of Reclamation emphasizes that its policies allow assignment of an interconnection agreement only if both Parties agree to the assignment and the assignor agrees to remain bound by the original terms of the SGIA.

294. Southern Company also argues that it is unreasonable to make the Transmission Provider get the Interconnection Customer's agreement before it can assign the interconnection agreement as collateral, while at the same time allowing the Interconnection Customer to assign the interconnection agreement as collateral without the Transmission Provider's permission. Southern Company contends that such assignments could unfairly deprive the Transmission Provider of the right to require the assignee or purchaser in foreclosure to assume the obligations of the assignor and to fulfill performance. In addition, the Transmission Provider could lose the right to require collateral assignees to cure Defaults of the assignor, thereby allowing assignees or purchasers in foreclosure to gain greater rights under the interconnection agreement than

would have been permitted to the original Interconnection Customer. The requirement that notice of collateral assignment be provided by the secured party, trustee, or mortgagee is unworkable, as there would be no enforceable penalties for breach of this obligation. Not only do these parties lack contractual privity with the Transmission Provider, but they are also not typically subject to Commission jurisdiction.

295. Southern Company contends that this article should provide Transmission Providers and Transmission Owners indemnification rights for any losses, costs, and expenses they may incur in connection with assignments or foreclosures. In addition, Southern Company seeks clarification of the conditions under which the Transmission Provider must recognize foreclosure rights and assignments. The provision as written could expose the Transmission Provider to uncompensated risks, forcing its native load to bear the costs.

296. Small Generator Coalition requests that this article allow the Interconnection Customer to assign its rights and obligations under the interconnection agreement without consent of the Transmission Provider if the Interconnection Customer sells or transfers the Small Generating Facility and the real property on which it is located.

297. NARUC urges adoption of its Model interconnection agreement language, which allows assignment by the Interconnection Customer in two situations. First, assignment may be made to a corporation or other limited liability entity upon the consent of the Transmission Provider. Such consent is not to be withheld unless the Transmission Provider "can demonstrate that the corporate entity is not reasonably capable of performing the obligations of the assigning Interconnection Customer." Second, the Interconnection Customer may assign the interconnection agreement to a person who is either the "owner, lessee, or is otherwise responsible for the Small [Generating Facility]."

298. In its supplemental comments, Joint Commenters recommend two changes to the Proposed SGIA: (1) deleting the sentence requiring the assignee to notify the other Party before exercising its assignment rights and (2) requiring the assigning Party to give the other Party 15 days to object to an assignment.

Commission Conclusion

299. The assignment provision proposed by Joint Commenters is similar to the provision in the Small Generator NOPR. However, Joint Commenters propose two minor changes that we will adopt. First, Joint Commenters propose to remove a very technical sentence relating to financing from the provision that is not well suited to smaller projects. Second, Joint Commenters require that a Party seeking to assign the SGIA merely inform the other

Party of the pending assignment. Should the Party not object, the assignment may go forward. If the Party does object, then the remainder of the provision will apply. Making these changes to the assignment provision should reduce the administrative burden on the Parties without diminishing their substantive rights.

300. In Order No. 2003-A,[90] the Commission modified the assignment provision of the LGIA in order to address Southern Company's concerns relating to protecting native load customers. We make corresponding changes here, clarifying that (1) an Interconnection Customer assigning its rights under the SGIA is required to notify the Transmission Provider of the assignment and (2) an assignee is responsible for meeting the same insurance and financial security obligations as a normal Interconnection Customer upon exercising its right of assignment.[91] This is in addition to a sentence specifying that "an assignment under this provision shall not relieve a Party of its obligations . . . ." We also make various editorial changes that make the provision easier to read. Southern also requests that a Transmission Provider be allowed to assign the interconnection agreement as collateral. We reject that request for the same reasons discussed in Order No. 2003-A.[92]

301. **Insurance (Proposed SGIA Article 6.16)** – In the Small Generator Interconnection NOPR, the Commission asked whether insurance should be required for Small Generating Facility interconnections and if so, how much. While the Proposed SGIA itself contained insurance provisions, the Commission did not specify dollar amounts and requested proposals from commenters. The Commission also requested comments on three specific issues. First, should insurance coverage vary with the size of the facility? Should, for example, a 20 MW Small Generating Facility be subject to higher coverage amounts than a 10 MW facility, which itself would be subject to higher coverage amounts than a 5 MW facility? Second, should coverage types and amounts vary according to the type of generator so that, for example, solar or wind facilities would require different insurance coverage than gas-fired facilities? Third, should there be a size cutoff that would exempt certain facilities from some insurance requirements?

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[90] See Order No. 2003-A at P 470.

[91] See Id. P 471.

[92] See Id. P 475.

Comments

302. The NARUC Model, while not requiring insurance, proposes that state regulators recommend that every Interconnection Customer "protect itself with insurance or other suitable financial instrument sufficient to meet its construction, operating and liability responsibilities. . . ."[93]

303. NARUC argues that the Commission's proposal to require seven different types of insurance is excessive and makes federal interconnection rules incompatible with state rules. The very act of requiring insurance would drive up prices because insurance companies would then have a captive market that must have insurance. Workers' compensation and automobile insurance are already required by state law; accordingly, they should not be mandated by the federal government. NARUC also asserts that state regulators will have more flexibility to assure low insurance rates if this Final Rule does not require insurance. Finally, NARUC reports that while California requires insurance for most projects, the majority of other states (including New York, Texas, and Ohio) do not. Therefore, requiring insurance would be inconsistent with the practice in most states.

304. NYPSC reports that its own efforts to establish minimum insurance requirements were unsuccessful. While it recognizes the risk Small Generating Facilities pose to the Transmission Provider, mandatory insurance "created a substantial barrier to the proliferation of distributed generation units."[94] The biggest barrier to entry is not the cost of insurance (though that is a factor), but the fact that insurance is unavailable at any price in many situations. Insurance companies are not yet familiar with the risks posed by the interconnection of Small Generating Facilities and often will not insure them. NYPSC instead proposes allowing the market to determine insurance requirements. It reports that the market has at least partially responded to this need, creating insurance pools to spread the risk to multiple entities. It also notes that manufacturers sometimes bundle insurance coverage along with the equipment.

305. ISO New England recognizes that smaller generators generally pose less risk than larger ones, but argues that the level of risk should be evaluated on a case-by-case basis. This Final Rule should let an independent Transmission Provider waive the insurance requirement if it determines that the project poses little risk to its electric system. For many smaller facilities, the liability, indemnity, and insurance requirements typically

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[93] NARUC Model – Interconnection Agreement at article 7.

[94] NYPSC at 9.

required of larger facilities may cost too much. Likewise, MISO supports making the amount of insurance required a function of the risk of the particular interconnection. However, MISO also supports establishing minimum standard insurance requirements (although it does not offer specific amounts).

306. Some Transmission Providers[95] want the Commission to keep the proposed insurance limits. Central Maine and NYTO, among others, point out that most small projects would not have the financial resources to pay any judgment against them and argue that insurance is necessary to protect the interests of the Transmission Provider, and ultimately, its customers. EEI favors using the same insurance limits as the LGIA.

307. AEP also argues that there is no reason why standard insurance provisions should be different for a 1 MW facility than for a 20 MW facility. Likewise, Allegheny Energy, Central Maine, NYTO, and others argue that even a very small generating facility can damage the Transmission Provider's electric system.

308. Empire District, Nevada Power, NRECA, and PG&E assert that the amount of insurance required should vary with generator size. As NRECA puts it, "a residential consumer installing a 3 kW Small Generating Facility should not have to acquire $1 million in insurance . . . ."[96] Even so, NRECA states that it would oppose any attempt to create a minimum megawatt threshold below which insurance would not be required.

309. PG&E states that California has long required insurance for all projects larger than 10 kW and that this requirement has not noticeably dampened the market for on-site Small Generating Facilities.

310. While Nevada Power agrees that solar and wind projects present less risk than does a traditional gas-fired generator, it opposes insurance requirements that differ by fuel type. The market already recognizes these reduced risks by charging proportionately less for some types of insurance than others. NRECA also opposes distinguishing between different fuel types, arguing that this is only one of many factors that determine a project's risk.

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[95] E.g., AEP, Allegheny Energy, Avista, BPA, Central Maine, Cinergy, EEI, NRECA, NYTO, and Southern Company.

[96] NRECA at 34.

311. In contrast, Tangibl supports basing the required amount of insurance on the type of generator being interconnected. It argues that the risks posed by Small Generating Facilities are largely environmental, such as fuel spills. Tangibl also argues that Small Generating Facilities pose less risk than do large generators because the former need smaller amounts of fuel to be stored on site. This risk is even less for renewable sources such as wind or solar.

312. Nevada Power says that knowing how much insurance is going to be required at the outset of the project is important to its success.

313. While AEP supports including standard insurance terms in this Final Rule, the Parties should be able to negotiate additional terms if warranted by the physical characteristics of the project. NRECA argues for permitting the Transmission Provider to determine the necessary level of insurance on a case-by-case basis.

314. Cinergy also argues for increased flexibility. It would let the Transmission Provider reduce or eliminate the required insurance provisions on a case-by-case basis if it believes in good faith that the full amount of insurance is not required to safeguard its interests. Cinergy also argues that this Final Rule should provide a mechanism for dealing with insurance requirements that simply do not apply to a given generator, such as requiring workers' compensation insurance for a generator that does not have any on-site employees.

315. National Grid proposes that the Commission not set required levels of insurance, and instead leave it to the Transmission Provider and state law. It points out that several states have, or are in the process of developing, specific insurance requirements for Small Generating Facilities. The Commission should not second-guess the attempt of various states to encourage on-site Small Generating Facilities. Specifically, National Grid points to a proposal developed by a working group of the Massachusetts Public Utilities Commission that proposes varying levels of insurance depending on the capacity of the project.[97]

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[97] The proposal requires no insurance for projects smaller than 10 kW; $500,000 for projects between 10 kW and 100 kW ($500,000 aggregate); $1 million for projects between 100 kW and 1 MW ($1 million aggregate); $2 million for projects larger than 1 MW and no larger than 5 MW ($5 million aggregate); and $5 million for projects larger than 5 MW ($5 million aggregate). See National Grid Comments, Appendix A (citing Tariff to Accompany Proposed Uniform Standards for Interconnecting Distributed Generation in Massachusetts, Submitted by the Distributed Generation Interconnection

(Footnote continued on next page)

316. NYTO makes a similar request, arguing that the Transmission Provider should be allowed to fill in specific insurance amounts based on state law, established local practice or, absent those, its own business judgment.

317. Avista states that the Parties should be allowed to negotiate alternative mechanisms such as self-insurance. It argues that even a Transmission Provider facing financial difficulty can always raise rates to cover any potential liability. Southern Company also proposes revisions to clarify the meaning of this article.

318. NRECA, while it supports the Commission's insurance proposal, opposes making the provision bilateral. It argues that the Transmission Provider's operation of its electric system does not create any greater risk to the Interconnection Customer than to any other customer. The interconnection of the Small Generating Facility, on the other hand, increases the risks to the Transmission Provider. Furthermore, according to NRECA, most Transmission Providers are already required to either self-insure or otherwise carry insurance sufficient to cover any liability that may arise from operation of their electric systems, so requiring further insurance is duplicative.

319. Empire District supports requiring the Transmission Provider to be named as an additional insured for generators larger than 5 or 10 kW, while Avista opposes such a size-related requirement.

320. Avista notes that workers' compensation requirements vary significantly by state. It argues that the Commission should not attempt to federally preempt these long-standing practices. According to Avista and Nevada Power, the interconnection agreement should simply require compliance by each Party with the applicable state workers' compensation laws.

321. Cinergy states that while insurance may be a significant barrier to entry for some Interconnection Customers, the Commission should heed the insurance market's independent assessment of the risk of a particular project. Fundamental economic principles require Interconnection Customers to bear the costs of the risks they impose on third parties, and there is no sound basis for the Commission to shift that cost to the Transmission Provider and its customers. Nevada Power and NRECA make similar

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Collaborative to the Massachusetts Department of Telecommunications and Energy in Compliance with DTE Order No. 02-38-A (May 15, 2003)).

arguments. NRECA also argues that if Interconnection Customers do not have insurance, insurance companies will be forced to raise the cost of insurance for Transmission Providers, and that in turn will be paid by all users of the Transmission System.

322. Small Generator Coalition, like most commenters representing Small Generating Facilities, argues that purchasing insurance is a business decision and that the level and nature of the insurance should be established by each business according to its needs, not mandated by the federal government. It argues that requiring insurance would create a major barrier to small generator interconnections and would prevent utility customers (as opposed to commercial generation projects) from pursuing interconnection because the administrative and financial barriers to entry would simply be too great. It asserts that the insurance requirements for a small wind turbine should be less than for a nuclear power plant or other large generator. Small Generator Coalition is particularly vehement in its opposition to insurance requirements for projects under 2 MW in size. Overall, Small Generator Coalition supports NARUC's comments and asks the Commission to use the NARUC Model in lieu of the Proposed SGIA.

323. Small Generator Coalition states that if the Commission does include insurance requirements in its Final Rule, it should exempt facilities no larger than 2 MW and require only $1 million in general liability insurance for projects 2 MW or larger.

324. In general, Transmission Providers support requiring an insurance regime with larger policy limits and a broad array of coverage. Interconnection Customers and NARUC generally support requiring smaller amounts of insurance or none at all. Southern Company proposes revisions to Proposed SGIA article 6.16.11 to clarify the conditions under which one Party must notify the other of accidents and injuries arising out of the interconnection agreement.

325. Central Maine proposes requiring the following policies: $1 million in employer's liability and workers' compensation insurance; $1 million in Commercial General Liability Insurance (with a $2 million aggregate combined limit); comprehensive automobile liability insurance of $1 million (with a $2 million aggregate combined limit); and an additional $1 million in excess public liability insurance (with a $5 million aggregate cap).

326. Nevada Power proposes requiring $1 million in general liability coverage from projects greater than or equal to 200 kW and $500,000 if the project is no larger than 200 kW. It also proposes requiring excess public liability insurance of $10 million if the facility is greater than or equal to 10 MW in size ($10 million aggregate); $5 million for

projects between 5 and 10 MW ($5 million aggregate); $2 million for projects between 200 kW and 5 MW ($2 million aggregate); and none for projects less than 200 kW.

327. Southern Company is in favor of requiring a flat level of coverage for all Small Generating Facilities, regardless of size, and proposes requiring $1 million workers' compensation insurance ($1 million aggregate); $2 million general liability insurance ($6 million aggregate); $2 million comprehensive automobile liability insurance; and $10 million excess public liability insurance ($10 million aggregate).

328. Tangibl proposes differing levels of insurance requirements based on both size and type of the generator. For solar or wind generators, Tangibl proposes requiring $2 million in insurance for facilities larger than 10 MW; non-solar or wind facilities larger than 10 MW would maintain $4 million. However, for facilities no larger than 10MW, Tangibl proposes $500,000 in workers' compensation insurance; $1 million Commercial General Liability Insurance ($2 million aggregate); $1 million comprehensive automobile insurance ($1 million aggregate); and $5 million excess public liability insurance ($5 million aggregate).

329. SoCal Edison urges the Commission to adopt the same insurance requirements that the California Public Utilities Commission (CPUC) requires, asserting that California's extensive experience with small generators should serve as a model for the Commission. Specifically, California's Rule 21 requires general liability coverage in the amount of $2 million for projects larger than 100 kW; $1 million for projects larger than 20 kW and no larger than 100 kW; and $500,000 for projects no larger than 20 kW. Rule 21 also creates a special reduced insurance requirement of $200,000 for facilities no larger than 10 kW associated with a retail customer. Rule 21 exempts some classes of solar and wind generators from its insurance requirements entirely, and provides for waiver of the insurance requirements for some small residential interconnections if insurance is not easily obtainable.

330. In its supplemental comments, Joint Commenters proposes requiring the Interconnection Customer to maintain insurance in an amount "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." It also specifies that the provision shall not require the Interconnection Customer to obtain additional insurance if the insurance it already has is sufficient. The Interconnection Customer is required to document its insurance coverage no later than ten days before the anticipated commercial operation date of the Small Generating Facility, and afterwards as requested by the Transmission Provider. The proposed provision also allows the Interconnection Customer to self insure

when appropriate and requires the Transmission Provider to maintain insurance "consistent with the Transmission Provider's commercial practice." While Joint Commenters were able to reach consensus on the insurance requirement for most Small Generating Facilities, they were not able to reach consensus on the issue of insurance requirements for inverter-based generators no larger than 10 kW.

Commission Conclusion

331. The wide range of insurance recommendations points out the difficulties in establishing a set dollar amount or type of insurance appropriate to every Small Generating Facility. Insurance can add significant costs to a Small Generating Facility and may affect the project's economic feasibility. Nevertheless, a mismanaged interconnection can harm the Transmission Provider's electric system and affect power customers, potentially subjecting the Parties to liability.

332. We adopt in its entirety Joint Commenters' proposal, which reflects appropriate compromises regarding this diversity of insurance needs. We are pleased that such a diverse group of stakeholders could reach consensus on this difficult issue.

333. The level of risk in interconnecting a 50 kW photovoltaic system with the Transmission Provider's Transmission System is very different from the risk involved in interconnecting a 10 MW generator. Mandating that the Interconnection Customer maintain a reasonable amount of insurance based on the specific characteristics of its interconnection avoids the one-size-misfits-all problem and addresses the differing needs of different Interconnection Customers and Transmission Providers.

334. Joint Commenters, however, could not reach consensus on any insurance provision for certified inverter-based generators no larger than 10 kW. Commenters have convinced us that the risk of interconnecting these small inverter-based generators is low and we therefore decline to impose a generic insurance requirement in this Final Rule.[98] Instead, we adopt the approach proposed by NARUC which is that each Party be required 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." Given that most generators of this size and type

[98] See, e.g., Cinergy, Empire District, ISO New England, NRECA, NYPSC, PG&E, and Small Generator Coalition. But see, e.g., AEP, Central Maine, EEI, NYTO, and Southern Company.

will be interconnecting with state-jurisdictional facilities, it makes sense to coordinate our approach with the approach recommended by NARUC. This will also avoid forum shopping. This is also similar to the approach adopted in Order No. 2003-A, which deferred to state insurance laws rather than imposing specific dollar amounts for these types of insurance.[99]

335. However, because any uninsured risk will fall squarely on the Transmission Provider's customers, who would effectively subsidize the costs of the interconnection, we reject proposals that we completely waive insurance requirement. Several commenters also advise the Commission to leave the issue of insurance to state regulators. While this makes sense for small inverter-based generators, for larger Small Generating Facilities, having insurance requirements vary by state would hamper our effort to promulgate national small generator interconnection standards.

336. Cinergy asks that the Transmission Provider be allowed to waive or reduce insurance requirements for a given project if it concludes that it poses little risk to its electric system. The provision proposed by Joint Commenters would allow this type of flexibility. If the Parties agree that the interconnection is safe, then they can agree that insurance is not necessary. However, Transmission Providers must waive or reduce the insurance requirements on a non-discriminatory basis that does not favor affiliated facilities.

337. We also clarify that an RTO or ISO may propose additional or different insurance requirements under the independent entity variation provision contained in this Final Rule.

338. **Reservation of Rights (Proposed SGIA Article 6.20)** – Some commenters pointed out that Proposed SGIA article 6.20 contained a typographical error, which we are correcting.

339. **Signatures and Parties to the SGIA (Proposed SGIA Article 9)** – Proposed SGIA article 9 required both the Transmission Provider and the Transmission Owner to sign the interconnection agreement. This is the same approach taken in Order No. 2003.[100] In an RTO or ISO where the Transmission Provider is not the Transmission Owner, the RTO's or ISO's compliance filing may propose a modified interconnection

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[99] See Order No. 2003-A at P 462.

[100] Order No. 2003 at P 909.

agreement that provides the Transmission Provider and Transmission Owner different rights and obligations.

Comments

340. ISO New England supports the approach taken in Order No. 2003, allowing Transmission Owners and Transmission Providers to propose a modified interconnection agreement when the Transmission Provider is an entity distinct from the Transmission Owner. It contends that this approach is necessary if the Commission wishes to establish a single interconnection agreement for a region encompassed by an RTO or ISO.

341. NYISO argues that the SGIA should assign certain basic responsibilities to either the Transmission Owner or Transmission Provider.

342. Midwest ISO asserts that it is the RTO's role as an independent entity "to ferret out unnecessary studies or inappropriate contingencies."[101] However, it argues that the "NOPR's failure to fully distinguish between a transmission provider and transmission owner belies the independence of the RTO,"[102] and both it and other commenters[103] request clarification of the respective roles of the RTO and the Transmission Owner.

343. National Grid argues that defining "Transmission Provider" to include both the Transmission Provider and the Transmission Owner confuses the issue and adds ambiguity into the interconnection process. The Commission should clearly define the role of each Party. National Grid also notes that the Small Generator Interconnection NOPR did not account for the role of stand-alone distribution companies.

344. Central Maine asks the Commission to clarify that the Transmission Owner (or distribution company, where applicable) must sign the interconnection agreement and to clarify whether the Transmission Provider needs to be a Party to the agreement. It asserts that the division of functions between the Transmission Owner and the Transmission Provider varies by region and depends on the role that the RTO or ISO plays in the region. A request for interconnection with a Distribution System may require that a distribution

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[101] Midwest ISO at 6.

[102] Id.

[103] E.g., NYTO and PG&E.

company be a Party to the interconnection agreement, in lieu of a Transmission Owner or Transmission Provider. Central Maine concludes that the standard interconnection agreement resulting from this proceeding must ultimately be a contract between the Interconnection Customer and the entity that owns the Transmission System (i.e., the Transmission Owner or the distribution company).

345. In RTO or ISO regions, if the Commission determines that the Transmission Provider must also sign the interconnection agreement, Central Maine asks the Commission to clarify that, under section 205 of the FPA, the Transmission Owner has the right to file the agreement, consistent with Atlantic City Electric Co., et al. v. FERC, 329 F.3d 856, 858-59 (D.C. Cir. 2003) (explaining that while an ISO may have certain FPA section 205 rights, the individual utility also has FPA section 205 rights). Central Maine also says that the Transmission Owner, not the Transmission Provider, has the right to file executed or unexecuted interconnection agreements.

346. In lieu of requiring the signatures of both the Transmission Owner and the Transmission Provider, EEI contends that the Commission should require the signature only of the Transmission Owner. Additionally, the Commission should encourage ISOs and RTOs with operational roles that cause this distinction to clearly delineate the rights and responsibilities in their operations agreements and protocols. The interconnection agreement can specifically refer to the OATT already approved by the Commission, thereby eliminating the need to have both a separate agreement between the Transmission Provider and the Interconnection Customer and a three-party agreement.

347. PG&E argues that RTOs and ISOs do not need to become Parties to interconnection agreements for distribution level projects because such entities only operate transmission systems. These entities have very little interest in the smallest projects interconnected with Distribution Systems and therefore, should not be the ones to receive Interconnection Requests or maintain the queue for distribution level interconnections. The Commission should designate the distribution provider to fulfill these roles.

348. NYTO asserts that since an independent RTO or ISO has no right to bind a Transmission Owner, the RTO or ISO should not sign the interconnection agreement.

Commission Conclusion

349. As in Order No. 2003, we are requiring three-party agreements in areas where the Transmission Provider and Transmission Operator are different entities.[104] In other regions of the country where the Transmission Provider and the Transmission Owner are the same entity, there is no need for a second signature block.[105]

350. Given that RTOs and ISOs have distinct characteristics and challenges, we have permitted each RTO or ISO to propose, on compliance, an interconnection procedures document and agreement tailored to its individual needs.[106] Such proposals should allocate to each entity the appropriate rights and obligations. As the Order No. 2003 compliance process demonstrated, the Transmission Provider and Transmission Owner are capable of dividing responsibility among themselves.

351. Finally, Central Maine asks the Commission to specify that, under section 205 of the FPA, the Transmission Owner, not the Transmission Provider, must file the interconnection agreement. This is an issue better resolved on a case-by-case basis through the compliance process. It would be premature to conclude that in all circumstances the Transmission Owner, and not the Transmission Provider, has the right to file the interconnection agreement.

352. **Liability** – In the Proposed SGIA, the Commission proposed including provisions in the SGIA governing the apportionment of liability between the Parties. These provisions (indemnity, consequential damages, and Force Majeure) were similar to the provisions in the LGIA. The Commission requested comments on whether Small Generating Facilities should be treated differently from Large Generating Facilities with respect to liability. We discuss our general approach to the liability provisions first, followed by a more detailed discussion of each provision.

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[104] Order No. 2003 at P 909.

[105] We note that whether a public utility characterizes itself as a "transmission" provider or a "distribution" provider does not matter, since the Transmission Provider is defined to be the "public utility . . . 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."

[106] Order No. 2003 at P 909.

General Approach

Comments

353. In general, Transmission Providers support liability provisions similar to those in the LGIA, arguing that interconnecting a Small Generating Facility raises as many safety and reliability issues as interconnecting a Large Generating Facility.[107]

354. Small Generator Coalition and NARUC generally argue that these provisions should be tailored specifically to Small Generating Facilities, arguing that the Proposed SGIA was simply too complicated for many Small Generating Facilities. They first argue that a Small Generating Facility poses less danger to the Transmission Provider's electric system than a Large Generating Facility. Second, they argue that imposing liability provisions similar to those in the LGIA on Small Generating Facilities would be a major financial barrier to entry and deter the development of new Small Generating Facilities. Third, they point out that the Transmission Provider has an incentive to include onerous liability provisions in the SGIA to deter competition.

355. ISO New England similarly argues that Small Generating Facilities do not present the same risks as do Large Generating Facilities. It asks the Commission to permit independent entities to determine, on a case-by-case basis, whether to waive or relax the liability provisions for individual generators.

356. Avista asks the Commission to follow Midwest Independent System Operator, Inc., et al., 100 FERC ¶ 61,144 (2002), which allows the Parties to propose customized liability limitations. It argues that the August 14, 2003 Northeast Blackout is evidence of the need for a comprehensive look at liability limitations. Avista argues that the interconnection agreement should have a savings clause to let an RTO conform the liability and dispute resolution provisions (and possibly others) to the standards and procedures being implemented by the RTO. Otherwise, the Commission's rule could unnecessarily grandfather inconsistent provisions.[108] For example, the Agreement Limiting Liability

[107] For instance, AEP, BPA, EEI, and Nevada Power argue that the LGIA and the SGIA should be consistent. Nevada Power argues that such provisions would not discourage well-run generators from interconnecting with the Transmission Provider.

[108] Avista at 18.

Among Western Interconnected Systems ("WIS Agreement")[109] should continue to be an option for generators and utilities. Avista argues that the SGIA should have a savings clause for the WIS Agreement.

Commission Conclusion

357. Many commenters, including NARUC and independent entities like ISO New England, agree that the Commission should modify the proposed liability provisions for Small Generating Facilities in this Final Rule. We agree that the provisions can generally be simplified without increasing the liability of any Party. The liability provisions adopted here use many of the proposals made by NARUC and other commenters. They address the Transmission Provider's need to protect its electric system while removing unreasonable barriers to entry for Interconnection Customers.

358. We agree with ISO New England that an independent Transmission Provider (via the independent entity variation standard) may propose on compliance to evaluate each Interconnection Request on a case-by-case basis and fashion liability requirements that are suitable to that particular entity.

359. We deny Avista's request for caps on the amount of liability the Transmission Provider may be subject to, or that we allow it to develop its own liability rules.[110] The liability rules discussed in the interconnection context are distinct from the liability rules in the rest of the OATT.[111] In the interconnection context, the indemnity provision is two-sided (or three-sided, in the case of an independent Transmission Provider). This means that the indemnity provisions found in the SGIA are very different than the indemnity

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[109] "The WIS Agreement . . . is a multi-lateral agreement among parties in the Pacific Northwest that operates to limit liability among the signatories." Id.

[110] In Puget Sound Energy, Inc., 107 FERC ¶ 61,287 (2004), the Commission denied a request by Puget Sound to include the WIS Agreement in its tariff because Puget Sound did not explain why such inclusion was "consistent with or superior to" the pro forma OATT. However, the Commission did not foreclose the possibility that a WIS Agreement member may be able to make such a showing in a future compliance filing.

[111] Order No. 2003 at P 636 ("Commenters have convinced us that interconnection presents a greater risk of liability than exists for the provision of transmission service and that, therefore, the OATT indemnity provision is not suitable in the interconnection context.")

provisions found in the OATT. Many of Avista's comments have more to do with the liability provisions found in the transmission portions of the OATT than they do with interconnection. While we agree that liability protection is important, this rulemaking is not the place to decide such an issue. We also deny Avista's request to insert a savings clause into the liability provision. Avista has not explained how the Transmission Provider's participation in the WIS Agreement would be affected by this Final Rule. If Avista wishes, it may seek to include such a provision on compliance under the "consistent with or superior to" standard.

Consequential Damages (Proposed SGIA Article 6.19)

360. Proposed SGIA article 6.19 used the LGIA consequential damages provision, which states that neither Party is liable to the other for special or consequential damages except as expressly provided for in the interconnection agreement.

Comments

361. Central Iowa Coop is concerned that the phrase "[o]ther than as expressly provided for in this agreement" could make the Parties subject to consequential damages when read in conjunction with the indemnification provision in Proposed SGIA article 6.13. It asks the Commission to clarify that the bar against consequential damages applies in all circumstances, except when the Parties have reached an express agreement to the contrary.

362. Central Maine asks the Commission to clarify that indemnity payments to a third party are not consequential damages.

363. NARUC proposes that the Commission adopt its Model language, which is less complicated than the proposed provision. Specifically, NARUC proposes replacing Proposed SGIA article 6.19 with a generic statement at the beginning of the liability article:

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

Commission Conclusion

364. We retain the provision as proposed. This is a contractual term and no commenter has convinced us that it is necessary to deviate from the approach taken in Order No. 2003.

365. Several commenters appear to have misunderstood the relationship between the indemnity and consequential damages provisions in the Proposed SGIA. The bar against consequential damages does not apply in the indemnity context. Instead, the indemnification of one Party by another is comprehensive, and the indemnifying Party is responsible for all of the indemnified Party's costs, regardless of whether those costs are compensatory or punitive. While the consequential damages provision adopted in this Final Rule prevents one Party from seeking consequential damages against another Party, the purpose of the indemnification provision is different; it protects the indemnified Party from liability to third parties (those who are not Parties to the interconnection agreement). Requiring the indemnifying Party to reimburse the indemnified Party for, say, only compensatory damages and not punitive damages would not make the indemnified Party whole. We are adding language to the beginning of the indemnity section to make this clear.

Indemnity (Proposed SGIA Article 6.13)

366. Indemnification is compensating another for a loss suffered due to a third party's act or default.[112] The Proposed SGIA contained indemnity provisions similar to those contained in the LGIA. The proposal would require the Transmission Provider and the Interconnection Customer to indemnify each other for any damages, losses, claims, and obligations by or to third parties arising from performance of the Transmission Provider's or Interconnection Customer's obligations under the interconnection agreement on behalf of the other contracting party. Indemnity protection would include the amount of the indemnified Party's loss, net of any insurance recovery, but would not apply where there is gross negligence or intentional wrongdoing. The proposed provision also set forth detailed procedures for pursuing an indemnity claim and allowed recovery of legal costs in some cases.

[112] Black's Law Dictionary 772 (7th ed. 1999).

Comments

367. AEP, BPA, Idaho Power, and Nevada Power generally agree that Small and Large Generating Facilities should be treated consistently with respect to indemnity protections.

368. Central Iowa Coop, Georgia Transmission, and NYTO request that the Commission replace the mutual indemnity provision with a one-way indemnity provision in favor of the Transmission Provider. They argue that the Transmission Provider receives no benefit from an interconnection, but does face additional safety, reliability, and power quality concerns as a result of it. To require the Transmission Provider to indemnify the Interconnection Customer unfairly shifts the costs and risks to the Transmission Provider's other customers.

369. Central Maine contends that Proposed SGIA article 6.13 should not exclude "insurance or other recovery" from amounts owed to an indemnified party. It argues that this is commercially unreasonable and undermines the very intent of the indemnity provision.

370. ISO New England argues that applying the liability provisions contained in the LGIA to Small Generating Facilities is unreasonable because the risks associated with interconnecting the latter are not comparable to those associated with interconnecting Large Generating Facilities. The Commission should permit independent entities such as RTOs and ISOs to determine, on a case-by-case basis, whether a waiver or relaxation of the indemnity provisions used for Large Generating Facilities should be permitted based on the actual risk the Small Generating Facility presents. Permitting this type of flexibility would minimize the cost of interconnection and ensure adequate protection for the Transmission Provider.

371. Southern Company argues that the proposed indemnity provision is not workable. The provision requires each Party to indemnify the other for damages arising out of such other Party's "performance of obligations under this Agreement on behalf of the indemnifying Party."[113] It argues that it is unclear whether the indemnity provision would ever apply because the Parties do not perform obligations on behalf of each other at all. It proposes that each Party indemnify the other from any liabilities or damages resulting from activities on the indemnifying Party's own side of the point of change of ownership. Additionally, each Party should indemnify the other for the indemnifying Party's failure to

[113] Southern Company at 34.

adhere to operating requirements and for breaches of the interconnection agreement. Southern Company also takes issue with the provision's limitation of expenses paid for the legal defense of an indemnified Party. If an indemnified Party has additional legal defenses, the proposed article requires the indemnifying Party to pay for only one attorney.[114] Southern Company requests that the Commission revise the provision to require the payment of the indemnified party's reasonable legal expenses.

372. In its Model interconnection agreement, NARUC proposes a different approach to indemnity. There, the Transmission Provider and the Interconnection Customer would assume liability and indemnify each other for claims and expenses resulting from their own negligence as it relates to the design, construction, and operation of their facilities. A Party indemnifies the other only for claims brought by claimants who could directly recover from the Party itself. Indemnity for both Parties includes monetary losses, reasonable legal fees for defending a third party action, damages related to the death/injury of a third party, damages to the Party's property or property of a third party, and damages for disruption of a third party's business. Neither the Transmission Provider nor the Interconnection Customer assumes liability for consequential, special, incidental, or punitive damages, and neither is responsible for disruption of the other's business or for the costs and expenses of pursuing legal action against the other.

Commission Conclusion

373. We are adopting a streamlined indemnity provision in this Final Rule.

374. Several commenters appear to have misunderstood the relation between the proposed indemnity provision and the bar against consequential damages provision (now called Limitation of Liability). We are therefore including in the SGIA an explanation that claims under the indemnity provision are exempt from the bar against consequential damages contained in the Limitation of Liability provision.

375. Many of the comments addressing indemnity are identical to those addressed in Order No. 2003 and do not argue that Small Generating Facilities should be treated differently from Large Generating Facilities. We will not repeat the discussion in those orders. For instance, the Commission addressed comments about the bilateral nature of the provision in Order No. 2003 at P 637, and comments on which side of the Point of Interconnection work is conducted in Order No. 2003 at P 638.

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[114] See Proposed SGIA article 6.13.

376. Because the purpose of indemnification is to pay another for actual losses, the exclusion of "insurance or other recovery" from amounts owed to an indemnified Party does not undermine the intent of this provision, as Central Maine argues. Forcing an indemnifying Party to pay damages already covered under an insurance policy would allow the indemnified Party to profit at the expense of the indemnifying Party. Excluding insurance and other recoverable amounts avoids overcompensating an indemnified Party.

377. In response to Southern Company's request that the provision cover an indemnifying Party's failure to meet operating requirements or its breach of the SGIA, we note that it covers damages from actions or inactions under the interconnection agreement. However, in response to Southern Company's comments, we are modifying the provision to add: "arising out of or resulting from the other Party's actions or failure to meet its obligations under this SGIA."

Force Majeure (Proposed SGIA Article 6.14)

378. Proposed SGIA article 6.14 provided that no Party is considered to be in default with respect to contractual obligations, other than payment of money due, if it is prevented from fulfilling such obligations by a Force Majeure event. The affected Party is to exercise due diligence to remove the disability and provide adequate notice to the other Party. These provisions are consistent with those in the LGIA. The Commission requested comments concerning whether a different approach should be taken for Small Generating Facilities.

Comments

379. AEP, BPA, Idaho Power, and Nevada Power generally agree that all generating facilities should be treated the same with respect to Force Majeure. AEP argues that because Force Majeure can happen for either type of interconnection, there is no reason that the contractual protection should differ according to generator size. Nevada Power contends that consistent treatment does not interfere with having a simplified and expedited interconnection process for Small Generating Facilities.

380. While NARUC's Model and the Proposed SGIA included similar Force Majeure clauses, NARUC recommends that the Commission remove the statement that economic hardship is not considered a Force Majeure Event. It also proposes that the Commission require that an affected Party use "reasonable efforts" instead of "due diligence" to resume

its performance as soon as possible. Additionally, NARUC proposes changing the definition of Force Majeure to include events that "the affected Party is unable to prevent or provide against by exercising reasonable diligence."[115]

Commission Conclusion

381. We agree with NARUC that some modification to the Proposed SGIA is needed and we are adopting a Force Majeure clause that melds the best aspects of NARUC's and the Commission's proposals. For instance, this Final Rule provision allows the Party asserting the Force Majeure Event to call or write to the other Party to make the required notification. Easy notification ensures that both Parties know of a Force Majeure Event as soon as possible.

382. We are not adopting all of NARUC's proposals, however. The NARUC Model would not allow a Party to invoke Force Majeure if it could have prevented the event through the exercise of "reasonable diligence." Our SGIA uses the terms "negligence" and "intentional wrongdoing," which are commonly accepted legal terms.

383. Finally, we are moving the definition of Force Majeure Event to the body of the SGIA from an appendix.

384. **Reactive Power –** The Proposed SGIA did not include a separate provision for reactive power; however, the LGIA does.

Comments

385. CA ISO and Southern Company ask the Commission to include a provision for reactive power in the interconnection agreement. CA ISO argues that this provision is essential for the reliability of the Western Interconnection because the entire region is afflicted by voltage instability. A Small Generating Facility interconnecting at the transmission level should meet the reactive power requirements of the CA ISO tariff and abide by reactive power dispatch instructions from the control area operator. Moreover, a Small Generating Facility interconnecting at the "distribution" level should meet reactive power requirements specified in the Wholesale Distribution Access Tariff and abide by any reactive power dispatch instructions from the Distribution System operator.

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[115] NARUC Model – Definitions.

386. Southern Company notes that the LGIA has a reactive power provision and argues that one should be included in the SGIA as well. Otherwise, a Small Generating Facility could become a burden on the Transmission Provider's electric system. The Transmission Provider should be provided real-time information on the status and output of each generator to ensure safe and reliable operation.

Commission Conclusion

387. We are requiring the Interconnection Customer's Small Generating Facility to maintain a power factor within the range of 0.95 leading to 0.95 lagging, unless the Transmission Provider establishes and the Commission approves different requirements that apply to all similarly situated generators. There is no reactive power requirement for wind powered Small Generating Facilities.

388. **Generator Balancing Requirements –** The Proposed SGIA did not include a separate generator balancing provision.

Comment

389. Southern Company argues that the SGIA should include provisions for generator balancing service, and presents several arguments in support of its position.

Commission Conclusion

390. In Order No. 2003-A, the Commission determined that generator balancing service is more closely related to delivery service than to interconnection service, and because delivery service requirements are addressed elsewhere in the OATT, the balancing service requirement need not appear in the interconnection agreement. On rehearing, the Commission in Order No. 2003-B did not add a generator balancing service provision to the LGIA, but it did permit the Transmission Provider to include a provision for generator balancing service in individual interconnection agreements. We reach the same conclusion here.[116] Any such provision should be tailored to the Parties' specific circumstances and is subject to Commission approval.

[116] Order No. 2003-B at P 72-75.

391. **Appendices to the SGIA –** The Proposed SGIA included five appendices (called attachments in the Final Rule SGIA) that set forth technical and operating information, including: (1) a description and statement of the costs of the Small Generating Facility, Interconnection Facilities, and metering equipment; (2) a one-line diagram depicting the Small Generating Facility, Interconnection Facilities, metering equipment and Upgrades; (3) project milestones; (4) additional operating requirements for the Transmission Provider's electric system and Affected Systems needed to support the Interconnection Customer's needs; and (5) the Transmission Provider's description of its Network Upgrades and Distribution Upgrades and a best estimate of their costs.

Comments

392. Central Maine and NYTO state that these appendices would require information that is not needed. They ask that the appendices include only: (1) Small Generating Facility description, (2) one-line diagram, (3) description of the Interconnection Facilities, (4) operation and maintenance (O&M) costs, and (5) operating procedures. They state that additional operating procedures may have to be developed with input from the Transmission Owner and the Interconnection Customer to ensure system integrity and reliability.

Commission Conclusion

393. We are not persuaded that any change in the appendices is warranted. With the exception of O&M costs, all the items that Central Maine and NYTO would have us include in the appendices are already there. We agree with Central Maine and NYTO that additional operating procedures with input from both the Transmission Provider and the Interconnection Customer may be needed, and we encourage such efforts. The treatment of O&M costs is discussed in more detail in Part II.H below (Responsibility for Operation and Maintenance Costs).

G. The 10 kW Inverter Process

394. In the Small Generator Interconnection NOPR, the Proposed SGIP included a default interconnection Study Process for Small Generating Facilities and a simplified procedure that used technical screens for certified Small Generating Facilities no larger than 2 MW. The Proposed SGIA, however, would be used for the interconnection of all Small Generating Facilities, up to and including 20 MW in size. The NOPR did not include a separate procedures document or interconnection agreement for very small generators, although some commenters urged, in comments submitted in response to the

ANOPR, that 0-50 kW facilities (especially facilities that use inverters to convert the direct current output of the generator to alternating current) need a separate and simpler process than other generators.

Comments

395. Some commenters argue that the Proposed SGIP and Proposed SGIA are too complicated for very small Interconnection Customers. Small Generator Coalition states that unless the Commission is willing to modify the NOPR in fundamental ways, many of its members believe that development of Small Generating Facilities would be better served if the NOPR were simply withdrawn. It claims that, under the Proposed SGIP and Proposed SGIA, the only method by which even a small photovoltaic system, say 10 kW, could interconnect with the Transmission Provider is to follow the same process that would apply to generators 1,000 times larger. It asks the Commission to "recognize the simplicity of the very smallest generators and [to] include an exception for small inverter-based systems." Plug Power, also representing small generator interests, states that a special process should be adopted for very small generators because their interconnection requirements are fundamentally different from those of larger facilities. Moreover, adopting simpler requirements would foster the growth of "plug and play" equipment.

396. NRECA, which represents a wide variety of cooperative utilities that interconnect with small generators, states that it has adopted special procedures for evaluating very small generators because they generally interconnect at low voltage and have different technical requirements from larger ones.

397. Some state regulatory authorities already have a simplified process for very small generators. NJ BPU points out that it has adopted simplified procedures for qualified very small inverter-based generators. NARUC, in its updated Model, supports a simplified Interconnection Request (application) for very small generators.

398. Joint Commenters submits in its supplemental comments a streamlined process for certified inverter-based generators no larger than 10 kW. This consists of a simplified Interconnection Request, simplified procedures, and a brief set of terms and conditions (that is essentially a highly simplified interconnection agreement) – all contained in a single document. This Joint Commenter proposal consists of the following steps: (1) the Interconnection Customer completes an abbreviated Interconnection Request and signs the terms and conditions when it submits its Interconnection Request to the Transmission Provider; (2) the Transmission Provider uses the Fast Track Process technical screens to evaluate the Interconnection Request; (3) if the proposed interconnection passes the technical screens, the Transmission Provider approves the application; (4) once the

Interconnection Customer's equipment has been installed, it sends a certificate of completion to the Transmission Provider; and (5) the Transmission Provider then inspects the equipment installation and, if satisfied that it is safe for operation, authorizes the interconnection.

Commission Conclusion

399. The comments demonstrate a near universal agreement of the need for special provisions for very small generators, a need that is being met at least in part by some state regulatory authorities. We agree with the commenters who state that the Proposed SGIP and Proposed SGIA are too complicated for very small generators, and we recognize the desire to accommodate their interconnection needs. However, a single document tailored for the needs of the smallest generators would be unsuitable for the interconnection of larger small generators; their technical evaluations and their legal rights and responsibilities must be set out in greater detail.

400. We conclude that a balanced response to the comments is to issue two sets of documents – an SGIP and SGIA that serve the needs of most small generators, and a simplified document that meets the needs of very small generators.

401. Joint Commenters' proposed process for the interconnection of very small generators, which enjoys broad support from a variety of stakeholder interests, is simple to implement while ensuring the safety and reliability of the Transmission Provider's electric system. Accordingly, we are adopting it in this Final Rule with minor modification under the name "10 kW Inverter Process." The simplified 10 kW Inverter Process consists of an Interconnection Request, simplified procedures, and a brief set of terms and conditions applicable to inverter-based 0-10 kW generators. It is included as Attachment 5 to the SGIP. This "all-in-one" document combines the attributes of both an interconnection procedures document and an interconnection agreement. We are including it in the SGIP because it is the SGIP that the Interconnection Customer will first encounter in the process of interconnecting its Small Generating Facility with the Transmission Provider. A flowchart showing the 10 kW Inverter Process may be found in Appendix D of this Final Rule.

402. The 10 kW Inverter Process is user friendly and a straightforward interconnection should be accomplished in short order. To accelerate the process, by signing the application at the time of submission, the Interconnection Customer executes what essentially is an interconnection agreement, in the form of standard terms and conditions with which it agrees. This eliminates the additional step of signing an interconnection agreement if the proposed interconnection passes the screens.

403. The 10 kW Inverter Process, by its very name, applies only to equipment that is interconnected with the Transmission Provider's electric system through an inverter. Inverter-based equipment has a very small likelihood of causing safety and reliability concerns on the Transmission Provider's electric system because it can quickly disconnect from the electric system when a disturbance occurs. Nonetheless, while the 10 kW Inverter Process should facilitate the interconnection of this class of Small Generating Facilities, the technical requirements for interconnection are just as rigid as those for all Small Generating Facilities up to 2 MW in size that elect to use the Fast Track Process. Specifically, they must be certified by a Nationally Recognized Testing Laboratory and the proposed interconnection must pass the technical screens. Consequently, interconnections will not be permitted if they jeopardize the safety and reliability of the Transmission Provider's electric system.

404. Although the Interconnection Customer signs an abbreviated set of terms and conditions when it submits its Interconnection Request under the 10 kW Inverter Process, it is a legal instrument nonetheless. Its provisions are consistent with the SGIA. Should a dispute arise, we encourage the Parties to use this rulemaking for assistance in interpreting the terms and conditions of the 10 kW Inverter Process. Moreover, because the intent of the terms and conditions in this document are the same as those of the SGIA, no separate discussion of them is necessary here again in this Final Rule.

405. The 10 kW Inverter Process is quick, inexpensive, and user friendly. Including it in this Final Rule removes barriers to the development and interconnection of this class of Small Generating Facilities, both at the federal and state jurisdiction levels. Its adoption should promote standardization of interconnection rules across the nation. We encourage states that do not have interconnection procedures for very small generators to consider using this as a model for their own rules.

H. Other Significant Issues

406. A number of issues, such as interconnection pricing policy, variations permitted for independent transmission entities, and legal issues such as liquidated damages, transcend individual provisions of the SGIP and SGIA. Accordingly, we address them below.

Pricing/Cost Recovery for Interconnection Facilities and Upgrades (Proposed SGIA Article 5.1)

407. In the Small Generator Interconnection NOPR, the Commission proposed to retain its then existing pricing policy for the interconnection of a Generating Facility with a Transmission System that is operated by a non-independent entity. That policy, as set forth in Order No. 2003, was to allocate the costs of the new or upgraded transmission facilities based on a locational test: whether they are at or beyond the Point of Interconnection. Facilities that are on the Small Generating Facility's side of the Point of Interconnection would be considered Interconnection Facilities, while those that are at or beyond the Point of Interconnection would be considered Network Upgrades. The Interconnection Customer would be directly assigned the costs of all Interconnection Facilities because they are sole use facilities. The Interconnection Customer would initially fund the Network Upgrades required for the interconnection unless the Transmission Provider chooses to pay for them itself. However, the Interconnection Customer would be entitled to a refund equal to the total amount paid to the Transmission Provider and the Affected System operator, if any, for Network Upgrades, including any tax-related payments. Order No. 2003 called for these refunds to be paid to the Interconnection Customer, with interest, as credits on a dollar-for-dollar basis for the non-usage sensitive portion[117] of transmission charges, as payments are made under the Transmission Provider's tariff and the Affected System's tariff for any transmission services taken by the Interconnection Customer on the respective systems, whether or not the Generating Facility is the source of the power being transmitted.[118] Order No. 2003 permitted the Interconnection Customer, Transmission Provider, and Affected System operator to adopt any alternative payment schedule that is mutually agreeable provided all amounts paid by the Interconnection Customer for Network Upgrades are refunded, with interest, within five years of the generating facility's commercial operation date.[119] The Interconnection Customer would be allowed to assign its refund rights to any person.

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[117] Non-usage sensitive transmission charges include all transmission charges except those for items that vary with the amount of power transmitted, such as congestion charges, line losses, and Ancillary Services.

[118] In Order No. 2003-A, this policy was revised to make credits available only for transmission service that has the generating facility as the source of the power transmitted.

[119] The five year refund period was subsequently changed to 20 years in Order No. 2003-B.

408. Because a Small Generating Facility may interconnect with a Transmission Provider's Distribution System subject to an OATT in order to make a sale of electricity at wholesale in interstate commerce, the Small Generator Interconnection NOPR also addressed cost recovery for Distribution Upgrades at or beyond the Point of Interconnection.[120] Consistent with Order No. 2003, the Commission proposed that the costs of Distribution Upgrades be directly assigned to the Interconnection Customer because Distribution Upgrades do not generally benefit all users.

409. The Commission sought comments on whether this approach should also apply to Small Generating Facilities. The Commission also invited commenters to recount their recent experiences with interconnecting small generators with the "Distribution System," in particular the process for determining whether Distribution Upgrades are necessary, and the cost assignment of those Upgrades.

410. For a Transmission Provider that is an independent entity, such as an RTO or ISO, the Commission's policy, as adopted in Order No. 2003, is to allow more pricing flexibility, subject to Commission approval. Also in Order No. 2003, we permitted a Regional State Committee to establish criteria that an independent entity would use to determine which Network Upgrades should be subject to "participant funding." Order No. 2003 also permitted, for a period of transition to the start of RTO or ISO operations, not to exceed a year, participant funding to be used for Network Upgrades as soon as an independent entity has been approved by the Commission and the affected states. In the Small Generator Interconnection NOPR, the Commission proposed to adopt the same policies for Small Generating Facilities that interconnect with a Transmission System operated by an independent entity. The Commission sought comments on this approach.

411. In the Small Generator Interconnection NOPR, the Commission also proposed certain pricing provisions that are consistent with, but have no direct parallel with, the Order No. 2003 pricing provisions. The Proposed SGIA provided that costs associated with Interconnection Facilities could be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Transmission Provider. It also proposed that, if the Parties agree that the Small Generating Facility benefits the Transmission Provider's electric system, the

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[120] The costs of all Interconnection Facilities, whether owned by the Interconnection Customer or the Transmission Provider, are directly assigned to the Interconnection Customer.

Interconnection Customer's cost responsibility for the Transmission Provider's Interconnection Facilities or Upgrades would be reduced. The benefits would have to be measurable and verifiable. Where there are multiple Interconnection Requests and each requires Network Upgrades, Interconnection Customers would be assigned costs or benefits separately if effects can be attributed to different projects. Where such attribution is not possible, Interconnection Customers would share costs or benefits in proportion to their projected Small Generating Facility capacities.

Pricing Comments that the Commission Already Addressed in the Large Generator Interconnection Proceeding

Comments

412. Several commenters object to various features of the Commission's current interconnection pricing policy, presenting arguments that the Commission has addressed in Order No. 2003. For example, Alabama PSC and others argue that prohibiting the direct assignment of the cost of Network Upgrades means that native load customers subsidize the cost of Network Upgrades that benefit only the Interconnection Customer. They argue that this may also cause the Interconnection Customer to make inefficient siting decisions. Mississippi PSC objects to the requirement that the Transmission Provider pay interest on unused credits and that it make a lump sum payment to the Interconnection Customer for credits that remain unused after five years. Alabama PSC argues that transmission credits should be provided only for Network Upgrades that provide a system benefit and only when the Small Generating Facility is the source of power for the transaction.

413. NRECA argues that if a merchant generator has not committed to serve network and native load customers within the Transmission Provider's footprint on a long-term basis, the generator and the Transmission Provider's own generators are not comparable. It asserts that credits are appropriate only where the Small Generating Facility is committed to customers in the Transmission Provider's footprint.

414. Central Maine requests clarification that transmission credits should be required only when the Interconnection Customer is taking and paying for transmission service on the Transmission System on which the Network Upgrade was made for the output of its facility. Central Maine also requests clarification that cost responsibility for Network Upgrades required by an Affected System is consistent with cost responsibility for Network Upgrades required by the Transmission Owner with whom an Interconnection Customer is directly interconnecting; that is, that transmission credits are required only when the Interconnection Customer takes and pays for transmission service from the

Transmission Owner or Affected System for the output of its facility. It also asks that the contractual provisions concerning cost responsibility and payment obligations among Affected Systems and Interconnection Customers be in a separate agreement, not in the interconnection agreement.

415. Avista, Alabama PSC, and Mississippi PSC argue that allowing pricing flexibility to an independent Transmission Provider such as an RTO or ISO is unduly discriminatory. They state that this policy penalizes the retail customers of the non-independent Transmission Provider because it forces them to bear the cost of Network Upgrades that benefit only the Interconnection Customer. Idaho Power argues that having different pricing for an independent and a non-independent Transmission Provider is bad public policy, arbitrary and capricious, and discriminatory. TAPS states that the NOPR incorrectly proposes participant funding for Upgrades to a Transmission System operated by an independent entity.

Commission Conclusion

416. All of the comments summarized above relate to the Commission's general pricing policy, and each was discussed in Order No. 2003.[121] We adopt here the general conclusions adopted in those orders. However, those orders did not address the specific question of whether the Commission's general interconnection pricing policy is suitable for Small Generating Facilities. Several commenters raise this question, and we address their comments below.

Applicability of the Commission's Interconnection Pricing Policy to the Interconnection of Small Generating Facilities

Comments

417. Several commenters support the use of the Commission's current interconnection pricing policy. Western supports the Commission's proposal to have the Interconnection Customer initially fund interconnections and associated Transmission System improvements and states that this approach is consistent with the budgetary realities that

[121] See Order No. 2003 at P 675-750, Order No. 2003-A at P 562-697, and Order No. 2003-B at P 15-57.

Western faces. Georgia PSC agrees that Interconnection Facilities are sole use facilities and, accordingly, should be directly assigned to (paid for by) the Interconnection Customer.

418. Nevada Power states that interconnection pricing policies must be consistent for both Small and Large Generating Facilities to avoid the possibility of pricing manipulation. It opposes credits for facilities that do not increase transfer capability, but states that the requirement that the Interconnection Customer initially fund the Network Upgrade costs is an important safeguard to ensure that the Transmission Provider and other customers do not subsidize what would otherwise be an uneconomic project. SoCal Edison states that the Small Generator Interconnection NOPR correctly mirrors the Large Generator Final Rule with respect to the pricing policies for Network Upgrades and sole use Interconnection Facilities. BPA generally supports consistency between pricing for Small and Large Generating Facility interconnections, provided the Commission clearly articulates the physical boundary between Interconnection Facilities and Network Upgrades.

419. AEP and Midwest ISO agree that an independent Transmission Provider should be allowed interconnection pricing policy flexibility, subject to Commission approval. Midwest ISO states that few circumstances would warrant an approach for Small Generating Facilities that differs from the approach that an RTO would establish for a Large Generating Facility. A common approach makes good business sense, assures comparability and makes the interconnection process more effective. Also, BPA generally supports RTO pricing flexibility, provided it does not conflict with an RTO's obligations under its governing agreements.

420. Cummins, however, argues that the Commission should adopt different pricing rules for Small Generating Facilities because the Commission's current policy gives the Transmission Provider the discretion to place a huge cost burden on the Small Generating Facility. These costs may even exceed the installation and operating costs of a Small Generating Facility, completely destroying project economics. Cummins argues that this problem can be addressed only by specific performance standards (which Cummins does not describe) that only the Commission can establish. Also, if the Interconnection Customer is deemed to be the only beneficiary of the Upgrade or interconnection, the five year refund mechanism would be of no benefit, as the project would not go forward.

421. The Small Generator Interconnection NOPR asked for specific examples of situations where a Transmission Provider has seemingly applied excessive fees for Upgrades. Cummins describes two examples that highlight its concerns:

> A manufacturer installed a 300 kW synchronous generator and cogeneration system, and provided the interconnection equipment specified by the [Transmission Provider]. The system was approved by the [Transmission Provider] and went into successful operation. When the owner decided to expand the facility to include a second 300 kW generator, they were informed that the distribution system would need upgrades that would cost in excess of $140,000. On further investigation, it was learned that the upgrades included only "block closing" provisions on a recloser. This device is effectively a simple voltage sensing relay that would interconnect into the existing infrastructure at a substation. After intensive negotiations and investigations, the customer was able to get the cost reduced to under $50,000, and the project went forward. The $50,000 cost was still far more than the upgrade should have cost, but the customer was forced to pay it because the generator was key to the viability of the customer's business. This represented a 10% increase in the overall project.
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> In another case, a customer installed a 2 MW synchronous generator with equipment that allowed it to parallel with the utility for 1/10th of a second. The equipment included timer functions that prevented the machine from staying in parallel for more than 1 second, as required by local rules. The [Transmission Provider], unsatisfied with the "quality" or "performance" of the relay in the customer's device, forced the customer to install a new relay costing over $2,000 for the 1 second time function. This was an excessively expensive piece [of] equipment to perform a simple operation; however the Interconnection Customer needed the equipment to operate, and had to pay the price.

422. Small Generator Coalition argues that the Small Generator Interconnection NOPR's cost allocation provisions appear to guarantee pancaked wheeling charges on energy produced by Small Generating Facilities, contrary to the Commission's goal of eliminating such pancaking.[122]

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[122] By "pancaking," we presume that Small Generator Coalition is referring to the possibility that the Interconnection Customer may be required to pay for Distribution Upgrades and to make an up-front payment for Network Upgrades.

423. MidAmerican states that a Commission rule requiring a Transmission Provider to pay any interconnection-related costs could supersede state policy and also would affect the ability of states to set retail rates following well-established cost causation principles. MidAmerican argues that the rules should permit the Transmission Provider to directly assign all costs to the Interconnection Customer unless that violates state regulatory policy.

Commission Conclusion

424. We recognize that the Interconnection Facilities, Distribution Upgrades, and Network Upgrades required to interconnect a generator can be costly. Indeed, such costs can be a significant portion of the total project costs. Nevertheless, each Generating Facility, whether large or small, must bear its fair share of the cost of the facilities and Upgrades from which it benefits; otherwise, the facility simply does not make economic sense.

425. To this end, the Small Generator Interconnection NOPR proposed to apply to Small Generating Facility interconnections the same pricing policy that the Commission adopted for Large Generating Facilities in Order No. 2003. Among other things, this means that the Interconnection Customer must bear the cost of necessary Interconnection Facilities and Distribution Upgrades. Also, the Interconnection Customer must initially fund the cost of Network Upgrades, but is entitled to credits against its charges for transmission delivery service equal to the amount funded, plus interest. None of the arguments presented here convinces us that the policies adopted in Order No. 2003 should not also apply to Small Generating Facility interconnections. In particular, contrary to the assertions of Cummins and Small Generator Coalition, we do not view the policy as creating rate pancaking or an undue burden for the Small Generating Facility. Thus, we adopt the Order No. 2003 pricing policies for small generator interconnections in this Final Rule.

426. With regard to Cummins's concern that the Transmission Provider may be able to force the Small Generating Facility to bear unreasonable costs, we note that our principal purpose in adopting a standardized procedures document and agreement for generator interconnections, and making them part of the Transmission Provider's tariff, is to eliminate much of the opportunity for the Transmission Provider to act in this manner. Indeed, adoption of this Final Rule should greatly reduce the likelihood of the two negative experiences that Cummins describes, if indeed the cost were unreasonable.

427. In response to MidAmerican, this Final Rule applies only to generator interconnections that are under the jurisdiction of the Commission. It does not apply where we do not have jurisdiction. Although state regulators or other rate-making authorities may model their own policies after those adopted herein, or the similar NARUC Model, they are free to establish whatever rules for determining cost responsibility that they deem reasonable for interconnections under their jurisdiction.

428. The Commission modified and clarified its pricing policy for Large Generator Interconnections in Order Nos. 2003-A and 2003-B, which were issued after the Small Generator Interconnection NOPR in this proceeding. Upon review of the revisions to the Commission's pricing policy included in those orders, we conclude that they should apply to the interconnection of Small Generating Facilities as well. Therefore, we are revising the Proposed SGIA to reflect our current interconnection pricing policy as modified by Order Nos. 2003-A and 2003-B. (See articles 4 and 5 of the SGIA)

Implementation of the Interconnection Pricing Policy for Small Generating Facilities

Comments

429. Midwest ISO notes that Chart 1 of the Proposed SGIP shows a difference between the Point of Interconnection and the "point of common coupling"[123] and says that equipment Upgrades may sometimes be needed between these two points. Midwest ISO asks who is to be responsible for such Upgrades and whether transmission service credits will be provided to the Interconnection Customer if it finances the Upgrades.

430. Empire District agrees that Upgrades that are directly assigned, such as radial extensions to the generator, should not be paid for (or reimbursable to the Interconnection Customer) by the Transmission Provider. In addition, it states that interconnection costs should be treated in a manner similar to the crediting methods used by the Southwest Power Pool (which Empire District does not describe).

[123] The term "Point of Common Coupling" is not used in the SGIP and SGIA.

431. Many commenters support the Commission's proposal to directly assign the cost of Distribution Upgrades to the Interconnection Customer.[124] For example, AEP states that a Distribution Upgrade that is required to accommodate the proposed generator does not benefit all users; rather, its sole purpose is to accommodate one customer. AEP contends, therefore, that it is entirely reasonable for the Interconnection Customer to be responsible for the cost of the Distribution Upgrade. Cinergy states that such responsibility follows from the radial nature of the Distribution System and is consistent with the LGIA. Baltimore G&E states that the Commission must guarantee that distribution utilities receive full cost recovery from interconnecting Small Generating Facilities to avoid subsidization by retail customers.

432. Nevada Power agrees that the cost of Distribution Upgrades should be directly assigned to the Interconnection Customer, but is concerned that Proposed SGIA article 5.1.3 does not adequately protect the Transmission Provider from having to bear such costs. This article could be construed to say that wholesale transactions by the Interconnection Customer change the segment of the distribution facilities to which the Interconnection Customer connects into transmission facilities. Nevada Power argues that the Proposed SGIA definition of Transmission System illustrates this concern: "Transmission System shall mean the facilities owned, controlled or operated by the Transmission Provider or Transmission Owner that are used to provide transmission service under the Tariff." An inference can be drawn that what was previously a distribution facility is now a transmission facility because it provides transmission service, and is therefore subject to the crediting process. To address this concern, Nevada Power proposes specific changes to Proposed SGIA article 5.1.3.

433. SoCal Edison notes that in the Small Generator Interconnection NOPR, Distribution Upgrades and Network Upgrades are both defined as being at or beyond the Point of Interconnection. Distribution Upgrades are defined as upgrades to the Distribution System, while Network Upgrades are defined as upgrades to the Transmission System. However, "Transmission System" is defined to include any facility, be it transmission or distribution, that is subject to an OATT. Therefore, SoCal Edison contends that because "Transmission System" is defined to include portions of the Distribution System, the definition of Network Upgrades (in combination with other provisions of the SGIP and SGIA) is confusing. SoCal Edison argues that keeping the terms Transmission System and Distribution System distinct is crucial. For this reason,

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[124] See, e.g., AEP, Alabama PSC, Baltimore G&E, Central Maine, Cinergy, Consumers, MidAmerican, Mississippi PSC, Nevada Power, NRECA, and SoCal Edison.

the definition of Transmission System needs to exclude distribution facilities, which facilities already are included in the term Distribution System.

434. In a similar vein, PacifiCorp argues that the definition of Network Upgrades must be revised to prevent it from being applied to Upgrades to a Transmission Provider's Distribution System. The Proposed SGIA's definition of Network Upgrades could be read to include Upgrades to radial feeders or other facilities that are part of the Transmission Provider's Distribution System. In PacifiCorp's view, Network Upgrades should include only Upgrades to networked transmission or sub-transmission facilities. Any Upgrades to radial feeders or other facilities that make up the Transmission Provider's Distribution System should be paid for by the Interconnection Customer without credits.

435. PSE&G states that the definition of Network Upgrades should be modified as follows: "[Network Upgrades] shall mean the additions, modifications and upgrades…required (strike out "at or") beyond the point at which the Interconnection Customer interconnects to the Transmission Provider's or Transmission Owner's or distribution owner's (strike out "Transmission" and add "Distribution") System to accommodate the Generating Facility…"

436. NRECA states that the Commission has an important role in determining whether facilities are distribution or transmission. The Commission should apply the seven-factor test where there are disputes and should not in doing so give undue deference to state or public utility classifications of facilities. As shown by cases such as Arkansas Power & Light,[125] the Commission may conclude that a facility serves a transmission function even if it is lower voltage and serves a few end-use customers, if the predominant use of the facility is to provide wholesale transmission service.

437. In addition, NRECA seeks clarification of the NOPR's statement that "if a proposed interconnection passes either the super-expedited screening procedures or the expedited screening procedures, the Interconnection Customer would have no cost responsibility for Upgrades." NRECA contends that this contradicts article 5.1.3 of the Proposed SGIA (Distribution Upgrades), and thus is inconsistent with the Commission's proposal to require Distribution Upgrades to be directly assigned to the Interconnection Customer.

[125] Arkansas Power & Light Co. v. FPC, 368 F. 2d 376 (8th Cir. 1966) (Arkansas Power & Light).

Furthermore, the statement would shift costs from the Interconnection Customer to utilities and their other customers. Also, Cummins says that the proposal runs counter to, or may confuse the application of, screens that would expedite the interconnection process.

438. Small Generator Coalition states that although Proposed SGIA article 5.1.5 gives the Interconnection Customer an opportunity to demonstrate benefits to the Transmission Provider's electric system that would reduce the Interconnection Customer's costs, the NOPR's discussion of Distribution Upgrades at P 72 appears to rule out any cost reductions for Distribution Upgrades. In addition, Small Generator Coalition argues that ambiguous NOPR provisions may permit Transmission Owners to require the Interconnection Customer to pay for Network Upgrades with no compensation to the Interconnection Customer or consideration of network benefits. Because downstream resources can benefit system reliability, Small Generator Coalition argues that the Commission's rule should allocate Upgrade costs according to benefits to all portions of an affected Transmission System, including facilities operating at distribution voltages.

439. Alabama PSC and Mississippi PSC argue that distribution facilities should be directly assigned. However, because the Commission lacks jurisdiction over distribution facilities, cost responsibility for Distribution Upgrades is an issue for state regulators to address.

440. Midwest ISO notes that Proposed SGIA article 5.1.5 provides that if the Parties agree that the Small Generating Facility benefits the Transmission Provider's electric system, the Interconnection Customer's cost responsibility may be reduced accordingly. The Small Generator Interconnection NOPR says that, if multiple facilities are involved, pro rata allocation of the costs or benefits must be made. These provisions appear to conflict with the NOPR's proposal at P 71, which allows an RTO flexibility with respect to interconnection pricing.

Commission Conclusion

441. With reference to Chart 1 of the Proposed SGIP, Midwest ISO asks who is responsible for the cost of Upgrades between the point of common coupling and the Point of Interconnection. Chart 1 was in error. The Point of Interconnection is the point identified as the point of common coupling, which is the point in the diagram where the Interconnection Facilities connect to the Transmission Provider's Distribution System subject to an OATT. Thus, the Upgrades to which Midwest ISO refers are in fact Interconnection Facilities, and their cost is directly assigned to the Interconnection Customer.

442. In response to Empire District, we confirm that radial extensions to the Small Generating Facility are to be directly assigned to the Interconnection Customer if they are Interconnection Facilities; that is, if the radial line is a sole use facility located between the Small Generating Facility and the Point of Interconnection, its cost is directly assigned to the Interconnection Customer. Also, Empire District recommends that the Commission adopt a crediting policy that is similar to the methods set forth by the Southwest Power Pool. However, Empire District does not explain how its recommended methods differ from or are better than those proposed in the NOPR.

443. In order to eliminate the confusion expressed by Nevada Power, SoCal Edison and others about the distinction between Distribution Upgrades and Network Upgrades, we are adding the following sentence to the definition of Network Upgrades: "Network Upgrades do not include Distribution Upgrades."

444. NRECA seeks clarification of the Small Generator Interconnection NOPR's statement that "if a proposed interconnection passes either the super-expedited screening procedures or the expedited screening procedures, the Interconnection Customer would have no cost responsibility for Upgrades." The issue of who pays for an Upgrade in the case of a proposed interconnection passing all the screens is moot because one of the provisions of SGIP section 2.2.1 is a requirement to pass a screen that the interconnection must not require an Upgrade.

445. Small Generator Coalition is concerned that the Proposed SGIA may assign to the Interconnection Customer cost responsibility for Interconnection Facilities in a way that gives no recognition to the benefits that the Interconnection Facilities may bring to the Transmission Provider’s electric system. In response, we clarify that the Interconnection Customer is responsible for the cost of Interconnection Facilities except when such cost is shared with other entities that may benefit from the Interconnection Facilities by agreement of the Interconnection Customer, the other entities, and the Transmission Provider. This provision for cost sharing is included in SGIA article 4.1.1.

446. Small Generator Coalition also asks about sharing cost responsibility for Distribution Upgrades and initial funding responsibility for Network Upgrades. The Interconnection Customer is responsible for the upfront funding of Network Upgrades unless the Transmission Provider elects to provide the upfront funding itself. This payment option is included in SGIA article 5.2. However, we are not adopting the explicit

cost sharing provisions of Proposed SGIA article 5.1.5 relating to Distribution Upgrades because they are not consistent with Order No. 2003 which specified that all Distribution Upgrades shall be directly assigned to the Interconnection Customer.[126]

447. In response to Midwest ISO, we clarify that we are allowing flexibility for the pricing that an independent Transmission Provider may propose to adopt, subject to Commission approval, under the "independent entity" variation. Accordingly, an independent Transmission Provider may propose a pricing method that differs from what this Final Rule otherwise requires.

448. Alabama PSC and Mississippi PSC assert that cost responsibility for Distribution Upgrades is beyond the scope of the Commission's authority. As explained above, the Commission's assertion of jurisdiction here is no broader than in Order No. 888. This Final Rule applies to interconnections with a Transmission System or with a Distribution System subject to an OATT for the purpose of making wholesale sales. The Commission's authority over such interconnections with Distribution Systems, for the purposes of making a wholesale sale of electricity in interstate commerce, includes allocating the cost of all of the Transmission Provider’s Upgrades needed to effect the interconnection.. Otherwise, the Commission could not ensure that the costs incurred to provide a jurisdictional service are allocated appropriately. The pricing policy for Distribution Upgrades directly assigns costs to the Interconnection Customer so there is no impact on retail customers of the Distribution System.

Responsibility for Operation and Maintenance Costs

449. Proposed SGIA article 5.1.4 stated that the Interconnection Customer is responsible for the operating and maintenance costs associated with the Interconnection Facilities that it owns as well as those owned by the Transmission Provider. The Proposed SGIA did not assign responsibility for O&M costs associated with Network Upgrades or Distribution Upgrades.

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[126] See LGIA article 11.3 ("The Interconnection Customer shall be responsible for all costs related to Distribution Upgrades.")

Comments

450. Central Maine and NYTO ask the Commission to clarify that the Interconnection Customer is responsible for ongoing O&M costs associated with Network Upgrades when the Interconnection Customer does not take and pay for transmission service for the output of its Small Generating Facility.

451. Southern Company contends that Proposed SGIA article 5.1.4 contemplates that the Interconnection Customer is responsible for all reasonable expenses associated with operating and maintaining its own Interconnection Facilities and the Transmission Provider's Interconnection Facilities, but it is unclear whether all applicable O&M costs are covered. It notes that LGIA article 10.5 does not limit O&M cost recovery to the Transmission Provider's Interconnection Facilities, but explicitly provides that the Interconnection Customer is responsible for all reasonable O&M costs. Therefore, Southern Company proposes to revise article 5.1.4 to include Distribution Upgrades so as to ensure that all appropriate O&M costs are included.

452. Robert L. Carrey contends that the Interconnection Customer should pay only the O&M costs of the Interconnection Facilities built on its behalf. He argues that the Interconnection Customer should not have to pay for routine O&M costs where no Interconnection Customer and Transmission Provider share the same poles and rights-of-way.

Commission Conclusion

453. The Commission has long held that O&M costs associated with Network Upgrades cannot be directly assigned to the Interconnection Customer, because Network Upgrades are part of the integrated transmission system from which all transmission users benefit. [127]

[127] See, e.g., PJM Interconnection, L.L.C., 109 FERC ¶ 61,326 (2004) (holding that O&M costs associated with Network Upgrades may not be directly assigned to the Interconnection Customer). We note, however, that the Transmission Provider may propose to recover the cost of Network Upgrades from the Interconnection Customer through an incremental transmission rate. In that case, the Commission would entertain a proposal to include in the incremental rate O&M costs associated with the Network Upgrades. Order No. 2003-B at P 57.

Therefore, we deny the requests of Central Maine and NYTO that the Commission require the Interconnection Customer to pay O&M costs associated with Network Upgrades.[128]

454. While the SGIA authorizes the Transmission Provider to collect O&M costs associated with Interconnection Facilities, this Final Rule does not contain a rate recovery mechanism for collecting those costs, because such costs will vary from case to case. Therefore, if a Transmission Provider wishes, it may propose and justify its rate to recover such costs under section 205 of the FPA.[129] In response to Southern Company, a Transmission Provider may make a similar filing to recover from the Interconnection Customer an appropriate share of any Commission-jurisdictional component of the O&M costs of Distribution Upgrades. Absent Commission approval of such a rate schedule, the Transmission Provider may not collect Commission-jurisdictional O&M costs associated with Interconnection Facilities or Distribution Upgrades.

455. In response to Mr. Carrey, the Transmission Provider is free to propose to recover these expenses in any manner it sees fit; however, the Commission will approve the Transmission Provider's proposed rate if it is shown to be just and reasonable and not unduly discriminatory or preferential.

Responsibility for the Construction of Upgrades

456. Proposed SGIA article 5.1.2 stated that the Transmission Provider or Transmission Owner shall design, procure, construct, install, and own the Network Upgrades.

Comments

457. PacifiCorp states that the Parties should be permitted to agree that the Network Upgrades will be built by the Interconnection Customer on its land. This could facilitate a faster interconnection. In addition, Proposed SGIA article 3.3 should be revised to give the Transmission Provider the right to inspect, operate, or maintain Network Upgrades on the Interconnection Customer's land.

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[128] This issue was discussed at P 421-424 of Order No. 2003-A.

[129] 16 U.S.C. § 824d (2000); see also 18 CFR § 35.12 (2004).

458. AMP-Ohio states that, in the region where its members' Distribution Systems are located, the Transmission Provider would be an RTO. It notes that Proposed SGIA article 5.1.3 stated that the "Transmission Provider or Transmission [Owner] shall design, procure, construct, install, and own the distribution Upgrades…" AMP-Ohio is concerned that this article could be construed to allow the RTO to own and operate piecemeal sections of a member's electric system. The Commission should clarify that one entity cannot assert the right to own a portion of another's electric system.

Commission Conclusion

459. In response to PacifiCorp, neither Proposed SGIA article 5.1.2 nor article 5.1.3 precluded the Parties from agreeing that the Interconnection Customer may construct Network Upgrades or Distribution Upgrades on its own land. Nevertheless, we make this option explicit in SGIA articles 4.2 and 5.2. PacifiCorp's proposed revisions to Proposed SGIA article 3.3 are addressed above in our discussion of that article.

460. In response to AMP-Ohio, we clarify that this Final Rule does not authorize any entity, including the Transmission Provider, to own a portion of another entity's Transmission System without the permission of the Transmission Owner.

Miscellaneous Pricing Issues

Comments

461. PacifiCorp notes that Proposed SGIA article 5.1.2.1 would permit a refund to an Interconnection Customer whose Small Generating Facility does not achieve commercial operation, if another customer uses the Network Upgrades for which the first Interconnection Customer paid. PacifiCorp asks that this provision specify that a refund is available only if the second Interconnection Customer actually requires the Network Upgrades for its Small Generating Facility.

462. TAPS states that the NOPR does not make the Transmission Provider remove its own Interconnection Facilities from rate base.

Commission Conclusion

463. We agree with PacifiCorp that the first Interconnection Customer should not receive a refund of amounts it has advanced for Network Upgrades unless the later Interconnection Customer's Small Generating Facility actually would have required the construction of the Network Upgrades. However we believe that the SGIA, as written,

makes this clear. To make a change to this provision would imply that it means something different from the similar provision adopted in the LGIA, and that is not our intent, therefore we decline to accept PacifiCorp's proposed modification.

464. With regard to the issue that TAPS raises, the Commission addressed this matter in Order No. 2003. There the Commission required the Transmission Provider to remove from transmission rates the costs of Interconnection Facilities constructed by the Transmission Provider after March 15, 2000 to interconnect generating facilities owned by the Transmission Provider on the effective date of the Final Rule in the Large Generator Interconnection proceeding.[130] The Commission's conclusion about the need for the Transmission Provider to remove its own Interconnection Facilities from rate base was not intended to be limited to Large Generating Facilities. We clarify here that it applies to all of the Transmission Provider's Interconnection Facilities, regardless of the size of the associated generating facility.

Commission Jurisdiction under the Federal Power Act

465. Sections 205 and 206 of the FPA require the Commission to remedy undue discrimination by public utilities. In Order No. 888, the Commission found that public utilities owning or controlling jurisdictional transmission facilities had the incentive to engage in, and had engaged in, unduly discriminatory practices.[131] Because interconnection is an element of transmission service that must be provided under the OATT, the Commission in Order No. 2003 established generic interconnection terms and procedures under its authority to remedy undue discrimination under sections 205 and 206.[132] The Small Generator Interconnection NOPR proposed that its jurisdictional reach would be identical to Order No. 2003.

[130] See Order No. 2003 at P 744 and Order No. 2003-A at P 663.

[131] Order No. 888 at 31,679-84; Order No. 888-A at 30,209-10.

[132] Order No. 2003 at P 18-20.

Comments

466. NARUC, NRECA, several state regulatory commissions,[133] and others[134] argue that the Small Generator Interconnection NOPR unlawfully encroaches upon the jurisdiction of the states by proposing to regulate interconnections with "local distribution" facilities.

467. Many of the commenters opposing the Commission's exercise of jurisdiction over facilities used both for Commission-jurisdictional and for state-jurisdictional transactions ("dual-use" facilities) cite Detroit Edison.[135] They appear to have read Detroit Edison as forbidding the exercise of federal jurisdiction over any facilities used to any degree to distribute bundled power to end-users at retail, regardless of whether those facilities are also used for transactions that are under the Commission's jurisdiction.[136] Other commenters, including Small Generator Coalition and SoCal Edison,[137] assert that nothing in Detroit Edison prevents the Commission from asserting jurisdiction over all interconnections made to facilitate Commission-jurisdictional activities.

468. Interconnections with "distribution" facilities, argues Alabama PSC, should be exclusively state-jurisdictional. It argues that "the Courts have long recognized and enforced the State's primacy over the regulation of distribution facilities."[138] CPUC makes a similar argument, stating that:

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[133] E.g., Alabama PSC, CPUC, CT PUC, Florida PSC, Iowa Utilities Board, Mississippi PSC, North Carolina Commission, and NYPSC.

[134] E.g., Baltimore G&E, Central Maine, Consumers, EEI, Idaho Power, PacifiCorp, Progress Energy, and Southern Company.

[135] Shortly before comments were due in this docket, the D.C. Circuit issued Detroit Edison v. FERC, 334 F.3d 48 (D.C. Cir. 2003) (Detroit Edison). Since then, the Commission has issued both Order Nos. 2003-A (at P 705 et seq.) and 2003-B (at P 14), which discuss Detroit Edison at length.

[136] Alabama PSC at 4-5 (citing 16 U.S.C. § 824(b) (2003), which states that "[t]he Commission . . . shall not have jurisdiction . . . over facilities used in local distribution . . . .")

[137] Id. at 10 (emphasis in original).

[138] Id. at 5 (citing Southern Co. Services, Inc. v. FCC, 293 F.3d 1338, 1344 (11th Cir. 2002)).

> federal law was meant to supplement – and not to supplant – state regulation of those utilities. The FPA was enacted to fill in gaps not covered by state regulation, not as a mechanism for avoiding state regulation of public utilities. In enacting the FPA, Congress did not purport to exercise all of the authority it might have exercised under the Commerce Clause, because its intention was to preserve, not override, state regulatory jurisdiction.[[139]]

469. Alabama PSC, Mississippi PSC, and Southern Company also cite the preemption doctrine (that federal preemption of state law is not to be assumed unless Congress expresses a clear intent to do so) as another reason why the Commission is not permitted to exercise jurisdiction over "distribution" facilities. "To the contrary," Alabama PSC argues, "the FPA expressly provides that FERC does not have such jurisdiction."[140]

470. CT PUC asks the Commission to clarify that this Final Rule does not preempt state regulatory authority with respect to electric distribution company regulation, environmental protection (including Clean Air Act permitting), fire and building safety regulation, etc., as these may apply to Small Generating Facility interconnections with "distribution" facilities.

471. Idaho Power states that "[t]he 'dual use' theory leaves the "distribution" facility owner that is trying to design an efficient and reliable "distribution" system in the untenable position of having two masters attempting to control the same physical line for differing purposes."[141]

472. PacifiCorp cites forum shopping concerns and suggests that a Small Generating Facility interconnecting as a Qualifying Facility (QF) to a dual use facility could receive different treatment depending on whether it sells its output to the host utility under the Public Utility Regulatory Policies Act of 1978 (PURPA)[142] or to a customer other than the host utility. In the first instance, the interconnection would be state-jurisdictional; in the

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[139] CPUC at 8 (citing Conn. Light & Power Co. v. FPC, 324 U.S. 515, 529-30 (1945)).

[140] Alabama PSC at 6 (citing 16 U.S.C. § 824(b)).

[141] Idaho Power at 3.

[142] 16 U.S.C. § 824a-3 (2004).

second, Commission-jurisdictional. PacifiCorp asserts that this is a confusing outcome and could be avoided if the Commission disclaims jurisdiction over low voltage and dual use facilities.

473. Small Generator Coalition argues that not asserting jurisdiction over all interconnections made to facilitate Commission-jurisdictional activities means adopting a circuit-by-circuit approach to jurisdiction. This would be contrary to the Commission's approach taken in a variety of contexts, including assignment of system losses[143] and recovery of fixed costs[144] on a system-wide basis. Further, if the Commission allows a Transmission Provider to refuse interconnections with the low-voltage "distribution" portions of its system not already used for jurisdictional transactions, "small resource development would be inhibited if not eliminated."[145] Transmission Providers could "pick and choose among interconnection applicants based on any criteria they elected to employ."[146] Finally, Small Generator Coalition argues that the Commission adequately recognizes state jurisdiction by claiming jurisdiction over only interconnections with "distribution" facilities that are used for wholesale transactions.

474. NRECA argues that, as more and more distributed generators participate in the wholesale market, "many if not most distribution facilities will carry a few wholesale electrons."[147] Indeed, "many if not most distribution facilities will become subject to Commission jurisdiction. The jurisdictional divide between the Federal Government and the States that Congress clearly intended in the FPA will have collapsed."[148] Baltimore G&E asks the Commission to explain how it will avoid a "chicken and egg" situation where the jurisdictional status of a particular facility would change after the interconnection takes place.

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[143] Small Generator Coalition at 37 (citing Northern States Power Co. v. FERC, 30 F.3d 177 (D. C. Cir. 1994)).

[144] Id. (citing Fort Pierce Utilities Authority v. FERC, 730 F.2d 778, 782 (D.C. Cir. 1984)).

[145] Id. at 39.

[146] Id. at 39.

[147] NRECA at 41.

[148] Id.

475. Solar Turbines expresses concern that "[a] utility apparently need merely deny that a particular line is currently being used for any transmission of power in interstate commerce or for any sales for resale, and can then refuse to accept an application for interconnection to that specific facility"[149] and requests that the Commission clarify what the Interconnection Customer should do if it finds itself in such a situation.

476. MidAmerican asks whether this Final Rule would apply to a net metering arrangement that allows a Small Generating Facility to net only a portion of its output and resell the remainder to the host utility. It also asks what happens if it sells the non-net metered portion of its output to a third party.

477. Avista asks the Commission to address the effect of Detroit Edison on an interconnection for a purpose other than to "engage in sale for resale in interstate commerce or to transmit electricity in interstate commerce." Avista differentiates "load interconnections" from "generator interconnections," which are interconnections made to export power. It requests clarification that a load interconnection to a dual use facility is an exclusively state-jurisdictional interconnection "except if and to the extent there is an OATT on file by the owner of the facilities that makes available new Commission-jurisdictional service over those facilities."[150] Absent such a clarification, Avista argues that "uncontrolled deregulation of service at the distribution level may occur, since any new load can seek to characterize its service as 'wholesale' by inserting a 'sham utility' between the customer and the incumbent utility."[151] Avista states that FPA section 212(h) already prohibits "sham wholesale transactions"[152] and argues that "the Commission has determined that Section 212(h) only applies to transmission orders, not interconnection

[149] Solar Turbines at 4.

[150] Avista at 9.

[151] Id. at 9-10 (citing, e.g., Snake River Valley Elec. Ass'n v. PacifiCorp, 238 F.3d 1189 (9th Cir. 2001)).

[152] 16 U.S.C. § 824k(h) (2000).

requests."[153] Without such a clarification, Avista fears that load interconnections with dual use facilities could be used to force otherwise non-Commission-jurisdictional "distribution" facilities into Commission-jurisdictional status.

478. USCHPA and Solar Turbines ask the Commission to exert jurisdiction over all load interconnections. Additionally, many cogeneration projects, USCHPA asserts, make sporadic sales of power when the economics favor doing so. Such projects should not be denied the benefits of standardized interconnection rules simply because their sales into the wholesale energy marketplace are sporadic. Solar Turbines argues that the needs of Small Generating Facilities are different and that there are good reasons to depart from the large generator precedent in this rulemaking. Specifically, Small Generating Facilities are more likely to be near to load, while Large Generating Facilities are more likely to be far from their load.

479. Midwest ISO argues that all interconnections with "distribution" facilities within an RTO or ISO to sell power at wholesale should be processed under a single set of rules. This would include both state- and Commission-jurisdictional facilities. Midwest ISO remarks that regardless of "[w]hether the physical requirements of the interconnection come under the RTO's purview, the generating facility's operation will" come under the RTO's jurisdiction. Therefore, the RTO should be able to "evaluate the proposed interconnection with the generating facility's subsequent operation in mind."[154]

480. Finally, several comments address whether the use of a 69 kV cutoff in the SGIP affects the Commission's jurisdiction.

Commission Conclusion

481. The Commission's assertion of jurisdiction in this Final Rule is identical to the jurisdiction asserted in Order Nos. 2003 and 888 and upheld by the Supreme Court in New York v. FERC. Just as the Commission stated in Order No. 2003-A:

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[153] Avista at 9-10 (citing Laguna Irrigation District, 95 FERC ¶ 61,305 (2001), aff'd sub nom. Pacific Gas & Electric Co. v. FERC, 44 Fed. Appx. 170 (9th Cir. 2002) (unpublished opinion); City of Corona v. Southern California Edison Co., 101 FERC ¶ 61,240 at 62,025-026 (2002)).

[154] Midwest ISO at 6.

> There is no intent to expand the jurisdiction of the Commission in any way; if a facility is not already subject to Commission jurisdiction at the time interconnection is requested, the Final Rule will not apply. Thus, only facilities that already are subject to the Transmission Provider's OATT are covered by this rule. The Commission is not encroaching on the States' jurisdiction and is not improperly asserting jurisdiction over "local distribution" facilities.[[155]]

482. Many commenters seek clarification of issues (particularly related to the Detroit Edison case) that were discussed at length in Order Nos. 2003-A and 2003-B, which were issued after comments on the Small Generator Interconnection NOPR were due.[156] Since the jurisdiction asserted in this Final Rule is identical to that asserted in Order No. 2003, we adopt here our discussion from those orders rather than repeat the same information.

483. However, several commenters focused on how the jurisdictional issues raised by small generator interconnections may differ from those raised in the Large Generator Interconnection rulemaking. Additionally, some commenters raised issues in this proceeding that were not addressed in Order Nos. 2003-A or 2003-B. These issues we discuss in more detail below.

484. We disagree with Alabama PSC, Mississippi PSC, and Southern Company that the Commission is evading FPA section 201(b)(1) or preempting state law. In New York v. FERC, the U.S. Supreme Court approved the Commission's assertion of jurisdiction in Order No. 888.[157] The applicability of this Final Rule is identical to the applicability of Order No. 888.

485. CT PUC is correct that this Final Rule in no way alters the permitting and other environmental requirements applicable to Interconnection Customers. Nor does this Final Rule affect any other state police powers.

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[155] Order No. 2003-A at P 700.

[156] See Order No. 2003-A at P 698 et seq. and Order No. 2003-B at P 12 et seq.

[157] New York v. FERC, 535 U.S. 1 (2002).

486. NRECA asserts that while there are now relatively few Small Generating Facility interconnections that are Commission-jurisdictional, that number will increase as time passes. Small Generator Coalition complains that the number of lower voltage Commission-jurisdictional facilities is too small. Ultimately, however, the Commission's jurisdiction does not rest on how common dual use facilities may be or how many interconnections are Commission-jurisdictional.

487. Baltimore G&E asks if the jurisdictional status of a facility would change after an interconnection takes place. Whether a facility is subject to this rule depends on whether it is subject to an OATT at the time the Interconnection Request is filed. The use of a facility and thus its inclusion in an OATT can change over time. Nothing in this Final Rule (or Order No. 2003) alters the status of any facility.

488. Avista is correct that some interconnections are made simply to receive power from the electric system. These "load interconnections" are not subject to this Final Rule.

489. In response to USCHPA's concern over Interconnection Customers who may wish to make sporadic sales of power into the marketplace, we clarify that there is no requirement that an Interconnection Customer's participation in the wholesale marketplace be constant. An Interconnection Customer is free to request interconnection service and then wait until the economics are favorable before actually making a wholesale sale.

490. In response to Midwest ISO's desire to process all interconnections (whether to Commission-jurisdictional or non-Commission-jurisdictional facilities) under its tariff, we note that the Commission does not have the authority to order states to use Midwest ISO's tariff to process interconnections with state or other non-jurisdictional facilities. However, we encourage the states and others to use the Commission's interconnection rule or the NARUC Model as a starting point for developing their own interconnection rules.

491. Many commenters also address the legality of the Small Generator Interconnection NOPR's proposed use of 69 kV to determine whether portions of the SGIP would apply. Since the Commission has abandoned this distinction in this Final Rule, these arguments are moot.

Arguments that the Commission Should Delay or Abandon the Small Generator Interconnection Rulemaking

492. Several commenters argue that the Proposed SGIP and Proposed SGIA are too complicated for small entities and would create a barrier to entry. Some commenters argue that the Commission should delay issuing a Final Rule and allow the various states and other entities to develop their own model rules. Others disagree.[158]

493. This Final Rule includes several provisions to address these concerns. First, we are adopting a separate application/procedures/terms and conditions document for very small certified inverter-based Small Generating Facilities. This is a big step in facilitating quick interconnections at very little cost, as long as they can be made safely and without harming reliability. We are also simplifying many SGIA provisions at the request of commenters. This Final Rule borrows liberally from NARUC's Model interconnection rules, which are simpler than the Small Generator Interconnection NOPR.

494. We address below specific comments relating to our decision to proceed with this Final Rule. We have divided commenters' arguments into three sections: (1) arguments that the Commission should defer to the states to deal with small generator interconnections; (2) arguments that the Commission's NOPR is too complex; and (3) arguments that the Commission should adopt a policy statement or model rules instead of a Final Rule.

Arguments in Favor of Deferring to the States on Small Generator Interconnections

Comments

495. NARUC proposes that the Commission adopt its Model, arguing that it "would offer the greatest possibility of consistency between Federal and State interconnection policies"[159] It explains that "the NARUC Model was developed by melding the best

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[158] CT DPUC at 1 ("The CT DPUC generally supports the effort by the Commission to initiate standardization of interconnection agreements and procedures . . ."); see also Cummins at 1 ("We strongly support the Commission's continued work in this area.")

[159] NARUC at 18.

practices of existing State distributed generation interconnection programs."[160] NARUC argues in its supplemental comments that state programs are successful and that imposing an unnecessary layer of federal regulation will be disruptive to small generator developers and customers. Commission action can only create confusion and impede project development. Because states have better insight into local operating, planning, safety, reliability, and adequacy needs and conditions, they are in the best position to address the interconnection of small generators, regardless of what those generators may do with the output from their facilities or where they are interconnected. At bottom, NARUC urges the Commission to take no action on the Small Generator Interconnection NOPR. In the alternative, if the Commission implements small generator interconnection rules, it should grandfather existing state interconnection programs and the interconnections accomplished under such programs, and include a mechanism for granting deference to future state small generator interconnection programs.

496. CPUC states that California, New York, Ohio, and Texas all have interconnection procedures applicable to their state-regulated utility "distribution" systems.[161] Because one third of the country's population already lives in states with standard interconnection rules, there is no need for Commission action. It also contends that (1) existing California interconnection rules meet the needs of small generators seeking to connect to state-jurisdictional utility "distribution" systems, (2) California procedures already provide small generators with one-stop shopping, and (3) there is no "actual or legitimate need for FERC assistance to cover interconnections to state-jurisdictional facilities in states where distributed generation interconnection rules are already in place."[162]

497. Furthermore, CPUC argues, only state-specific interconnection rules can account for "regional practices." As an example, CPUC's rules allow it to exempt small Transmission Providers, but the Small Generator Interconnection NOPR lacks such needed flexibility.[163] In sum, CPUC questions the need for the Commission's proposal

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[160] Id. at 8.

[161] Virginia, Massachusetts, and other states also have small generator interconnection rules.

[162] CPUC at 16.

[163] Id. at 18.

and asserts that "there is no legitimate public policy basis for the assertion of FERC jurisdiction over small generators that would result if the FERC proposal were adopted."[164]

498. In contrast, Cummins argues that the Commission should assert jurisdiction over all interconnections, regardless of whether the interconnection is with a Commission-jurisdictional facility. Cummins argues that, although Small Generating Facilities often connect at the "distribution" level, their effects can be felt on the Transmission System. It explains that, because Small Generating Facilities can relieve congestion on crowded transmission facilities, the effect of even on-site Small Generating Facilities is felt beyond the Point of Interconnection. Thus, it is important that the Commission use all its jurisdictional authority to apply this rule as broadly as possible. And, where the Commission does not have jurisdiction, Cummins encourages state regulators to develop interconnection rules that are consistent with this Final Rule.

499. Plug Power claims that by not proposing standards applicable to interconnections with distribution facilities, the Commission's interconnection rules will not help small generators. Further, the rules proposed in the NOPR are inferior to those already in place in several states.

500. EEI urges the Commission to work with states to better define the state-federal role in small generator interconnections. According to EEI, this approach would provide both Interconnection Customers and Transmission Providers with clear guidance as to which rules apply to which interconnections. Finally, EEI states that, with certain modifications, the interconnection procedures document and agreement could be a model for use by both federal and state authorities to process small generator Interconnection Requests.

501. CT DPUC, while supporting the Commission's efforts, argues that this Final Rule should not lead to a loss of state jurisdiction.

Commission Conclusion

502. We agree with commenters that general consistency between the Commission's interconnection procedures document and agreement and those of the states will be helpful to removing roadblocks to the interconnection of small generators. To a large extent, this Final Rule harmonizes state and federal practices by adopting many of the provisions

[164] Id. at 15.

proposed by NARUC and Joint Commenters. This Final Rule adopts interconnection rules that are largely consistent with the "best practices" interconnection rules proposed by NARUC. By doing so, we hope to minimize the federal-state division and promote consistent, nationwide interconnection rules.[165] We hope that states that do not currently have interconnection rules for small generators will look to the documents presented in this Final Rule and the NARUC Model as guides for their own rules. To grandfather existing state interconnection programs and grant deference to future state small generator interconnection programs would not fulfill the Commission's statutory mandate to regulate jurisdictional activities, of which generator interconnection is one. However, as discussed elsewhere, the all-in-one document for certified inverter-based generators no larger than 10 kW should go a long way towards harmonizing state-federal interconnection practices for this class of generators.

503. Our hope is that states may find these interconnection rules helpful in formulating their own interconnection processes. In particular, we hope the Fast Track and 10 kW Inverter Processes will prove helpful as starting points from which to develop their own procedures and agreements.

504. The concerns of CPUC and several other commenters that the Commission is claiming jurisdiction over interconnections with non-Commission jurisdictional facilities are addressed elsewhere in more detail.

Arguments that the NOPR Is Too Complex

Comments

505. CPUC argues that the Proposed SGIA and Proposed SGIP are too complicated for small Interconnection Customers, especially the smallest, to use. Small Generator Coalition argues that unless the Commission is willing to modify the NOPR in fundamental ways, many of its members believe that development of Small Generating Facilities would be better served if the NOPR were simply withdrawn. According to Small Generator Coalition, the NOPR's framing of

> interconnection issues as a competition between maintaining system reliability and encouraging small resources is wholly inappropriate,

[165] A particular state's interconnection rules may also differ from the NARUC Model.

> and it gives disproportionate weight to the reliability 'concerns' of transmission/distribution owners with generating units of their own. That system reliability must not be compromised goes without saying, but the need for system reliability does not compete with the goal of encouraging small resource development via affordable and clear interconnection terms and conditions. The compatibility of small resources with the grid was proven long ago – there are literally thousands of such small resources in place and operating in the United States, safely interconnected with the grid (such as the solar array on the roof of the Commission's own office building).[166]

506. Small Generator Coalition says that on-site Small Generating Facilities actually enhance electric system reliability, and that complex technical provisions should therefore not be required.

507. Plug Power asserts that unless the Commission adopts a simpler SGIA, the Commission's rulemaking will not help to reach national interconnection standards.[167] Of particular concern to Plug Power are the Proposed SGIA's insurance requirements and what Plug Power terms its open-ended cost provisions.

508. CT DPUC urges the Commission to adopt rules that are not unnecessarily complicated to administer.

Commission Conclusion

509. We agree with commenters that the Small Generator Interconnection NOPR contained some provisions that were overly complicated for many Small Generating Facility interconnections. Wherever possible, we have simplified the SGIP and SGIA. And, for very small certified Small Generating Facilities, this Final Rule includes the highly simplified 10 kW Inverter Process.

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[166] Small Generator Coalition at 7-8.

[167] Plug Power at 3.

Arguments in Favor of a Non-Binding Model Rule

Comments

510. CPUC states that it would support Commission efforts to establish non-binding guidelines, or a model rule, for use by states that have not yet adopted their own standards.

511. NARUC comments that any standard interconnection procedures document and agreement issued by the Commission that disclaims jurisdiction over "local distribution" facilities has limited applicability. It also claims that states are better situated to handle small generator interconnections, and having two competing interconnection regimes for small generator interconnections would be confusing. NARUC therefore also urges the Commission to adopt a policy statement instead of a binding rule.

Commission Conclusion

512. We conclude that as much standardization as possible of the rates, terms, and conditions of jurisdictional interconnection service will help eliminate undue discrimination. A non-binding policy statement would not end this undue discrimination. Further, not regulating jurisdictional interconnections would leave a regulatory gap where neither the states nor the Commission held sway. A gap of this sort would make it more difficult for Interconnection Customers wanting to interconnect and would in fact, leave them worse off than the owners of Large Generating Facilities.

513. This Final Rule both fulfills the Commission's duty to remedy undue discrimination when covered by this rule and, when not covered by this rule, provides a model that state regulators may wish to use as a starting point for developing their own procedures and agreement. We hope that the SGIP and SGIA we adopt in this Final Rule are a step towards having a seamless interconnection process where interconnections with federal-jurisdictional facilities and state-jurisdictional facilities will be handled in a similar fashion. By doing so, we intend to avoid the very federal-state clashes NARUC anticipates.

Issues Relating to Qualifying Facilities

514. The NOPR did not address the issue of how QFs would be impacted by the small generator rulemaking.

Comments

515. EEI and PacifiCorp ask the Commission to clarify that a QF that is not selling at wholesale, other than to a host utility under PURPA, should seek interconnection service through state procedures, not through Commission procedures. PacifiCorp states that the PURPA regulatory scheme for QFs involves considerable deference to state regulation with regard to the interconnection of QFs to state-regulated utilities. The Iowa Utilities Board agrees and asserts that this Final Rule should say that states have authority to establish standards for the interconnection of QFs. To avoid confusion, PacifiCorp proposes that the SGIP state clearly that a Small Generating Facility with QF status or one seeking such status is not eligible for interconnection under the Commission's rule. PacifiCorp recommends amending the Interconnection Request so that the Interconnection Customer must certify that it does not intend to seek QF status. If it then seeks QF status, PacifiCorp proposes to require a review of the interconnection to determine whether it meets state interconnection standards for QFs. The Interconnection Customer would also pay any costs incurred by the Transmission Provider that a QF would have paid, if such costs would not be recovered by the Transmission Provider under the SGIP.

Commission Conclusion

516. The Commission has regulations that govern a QF's interconnection with most electric utilities in the United States,[168] including normally non-jurisdictional utilities.[169] When an electric utility is required to interconnect under section 292.303 of the Commission's regulations, that is, when it purchases the QF's total output, the state has authority over the interconnection and the allocation of interconnection costs.[170] But when an electric utility interconnecting with a QF does not purchase all of the QF's output

[168] 18 CFR §§ 292.303, 292.306 (2004).

[169] The absence of interstate commerce in Alaska, Hawaii, and portions of Texas and Maine, and Puerto Rico is not germane to the Commission's jurisdiction over QF matters under PURPA. See 16 U.S.C. § 2602 (2000).

[170] See Western Massachusetts Electric Co., 61 FERC ¶ 61,182 at 61,661-62 (1992), aff'd sub nom. Western Massachusetts Electric Co. v. FERC, 165 F.3d. 922, 926 (D.C. Cir. 1999).

and instead transmits the QF's power in interstate commerce, the Commission exercises jurisdiction over the rates, terms, and conditions affecting or related to such service, such as interconnections.[171]

517. The Commission thus exercises jurisdiction over a QF's interconnection if the QF's owner sells any of the QF's output to an entity other than the electric utility directly interconnected with the QF. This Final Rule applies when the owner of the QF seeks interconnection with a facility subject to the OATT to sell any of the output of the QF to a third party. This applies to a new QF that plans to sell any of its output to a third party and to an existing QF interconnected with an electric utility or on-site customer that decides in the future to sell any of its output to a third party. States continue to exercise authority over QF interconnections when the owner of the QF sells the output of the QF only to the interconnected utility or to on-site customers.

518. PacifiCorp's proposal that the Commission require the Interconnection Customer to certify that it does not intend to seek QF status is unnecessary. This Final Rule only applies when the interconnection is subject to the Commission's jurisdiction. Other rules apply if the generator seeks to interconnect as a QF. PacifiCorp has provided no convincing rationale why this proposed amendment is necessary for this rulemaking.

Taxes

519. The NOPR did not explicitly address the potential taxation of payments made by the Interconnection Customer to the Transmission Provider for Interconnection Facilities and Upgrades.

Comments

520. A few commenters urge the Commission to address taxes. They argue that the Commission should adopt an approach similar to that taken in the LGIA so that any taxes incurred by the Transmission Provider are not shifted to its customers.

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[171] Id. at 61,661-62. The Commission further clarified that "[t]he fact that the facilities used to support the jurisdictional service might also be used to provide various nonjurisdictional services, such as back-up and maintenance power for a QF, does not vest state regulatory authorities with authority to regulate matters subject to the Commission's exclusive jurisdiction." Id. at 61,662.

521. Because payments received for Upgrades by the Transmission Provider may be taxed, EEI and Ameren ask the Commission to clarify how the Transmission Provider will recover those tax payments. Further, EEI argues that additional financial security may be required because such facilities could be jurisdictional to either the Commission or state utility commissions. Additional financial security would ensure that the utility is not forced to recover such costs from its entire customer base. EEI proposes that the following sentence be added to Proposed SGIA article 5.2: "[The] Transmission Provider may request additional financial security to cover tax liabilities that it may incur as a result of a transaction being deemed by the Internal Revenue Service to have been a taxable event, for example, when an Interconnection Customer terminates a signed Interconnection Agreement."

522. Southern Company proposes a tax provision modeled after the ANOPR consensus documents. Under Proposed SGIA article 5.1.2.1, the refunds paid to the Interconnection Customer through transmission credits include "any tax gross-up or other tax-related payments" in connection with Network Upgrades required for interconnection. It argues that if the Interconnection Customer receives transmission credits for such payments, all other transmission customers will have to bear the tax liability created by the Interconnection Customer. Transmission credits should be provided to the Interconnection Customer for the cost of installing facilities only if those costs may facilitate transmission delivery service. Any tax gross-up paid by the Interconnection Customer would not facilitate transmission delivery service, but instead would be a tax liability created solely by the interconnection. Moreover, requiring the refund through credits of taxes paid, plus interest, would force the Transmission Provider to pay the full carrying cost of income taxes on the Interconnection Customer's assets with no means of recouping the expenditure.

Commission Conclusion

523. The commenters are correct that payments received for Upgrades by the Transmission Provider may be taxed under certain circumstances. If construction of Upgrades is necessary, any associated taxes are to be handled consistent with Commission precedent and applicable tax rules and regulations. In particular, the Parties should then look to the LGIA's tax framework.[172] We also reiterate that it is Commission policy that each Party must cooperate with the other Party to maintain the Transmission Provider's tax exempt status, where applicable.

[172] See, e.g., LGIA articles 5.17 and 5.18 and Order No. 2003-A at P 324 et seq.

OATT Reciprocity Requirements

524. The Small Generator Interconnection NOPR did not propose any changes to the existing reciprocity policy; accordingly, the Small Generator Interconnection NOPR did not discuss it.

Comments

525. NRECA states that it "applauds the Commission's decision to apply the reciprocity provision in the OATT and the reciprocity policy articulated in Order No. 888 [and] appreciates the sensitivity the Commission has demonstrated to the needs of non-jurisdictional service providers."[173] However, it remains concerned that non-public utilities may be discouraged from interconnecting new generation out of fear that such an interconnection will make them subject to the jurisdiction of the Commission. To avoid this, NRECA advocates the creation of a safe harbor for non-jurisdictional entities that want to interconnect new generation, yet maintain their non-jurisdictional status. NRECA points to several Commission natural gas decisions that it asserts provide precedent for creating a safe harbor of the type it proposes. NRECA also states that the Commission could achieve the same result by ordering an interconnection under section 211 of the FPA.

526. AMP-Ohio and LADWP ask the Commission to clarify that the reciprocity condition applies only to the public utility over whose system the non-public utility takes transmission service. They also ask the Commission to clarify that there is no reciprocity obligation on the part of a non-public utility that owns only distribution facilities, not transmission facilities. The effect of most small generators is felt at the distribution level, LADWP argues, and these interconnections are more likely to affect retail customers. SMUD makes a similar argument.

527. PacifiCorp requests that the Commission clarify that if a public utility is forced to offer interconnection service on its distribution lines to a non-public utility under the reciprocity condition, then the public utility must be offered similar rights to interconnect with the non-public utility. PacifiCorp argues that

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[173] NRECA at 57.

> [b]ecause many non-jurisdictional utilities own distribution systems that they do not consider 'transmission,' even when the corresponding system of a public utility is considered transmission by the Commission, the potential for discriminatory impact is real. At a minimum, the definition of a non-jurisdictional utility's 'transmission facilities' should be modified to include any distribution facility that would be considered 'transmission' if it were owned by a jurisdictional utility.[[174]]

528. SMUD asks if reciprocity applies when the Interconnection Customer seeks to connect at distribution voltage to the non-jurisdictional utility and proposes to engage in sales for resale. It also asks if reciprocity applies differently for non-jurisdictional utilities seeking bilateral agreements with public utilities than to non-jurisdictional utilities seeking approval of safe harbor tariffs.

529. NRECA asks the Commission to clarify that a non-jurisdictional utility is not required to offer interconnection service if doing so would jeopardize its tax-exempt status.

530. Finally, Bureau of Reclamation, BPA, and others assert that as federal agencies, they are not able to comply with all of the provisions of the Proposed SGIP and SGIA. For instance, BPA says its contracts must accommodate the Freedom of Information Act and that it could not comply with all aspects of the Commission's proposed confidentiality provisions. BPA and Bureau of Reclamation request clarification that they are not required to comply with these provisions.

Commission Conclusion

531. Most of the comments focus on whether interconnections with "distribution" systems are subject to the reciprocity condition. The answer is, to satisfy the reciprocity condition of Order No. 888, a non-public utility must offer to a public utility with an OATT service comparable to that offered to its own or affiliated Interconnection Customers.[175]

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[174] PacifiCorp at 2-3.

[175] Order No. 2003-A at P 775.

532. PacifiCorp is correct that what the facility is termed by its owner does not affect its jurisdictional status. The reciprocity condition would apply to any facility used to offer services that would be Commission-jurisdictional if the non-public utility were a public utility.

533. The reciprocity requirement in Order No. 888 permits a public utility to require, as a condition of providing open access service to a non-public utility that owns, controls, or operates transmission facilities, that the non-public utility provide reciprocal transmission service. In Order No. 2003-A, the Commission explained that the reciprocity provision applies to Interconnection Service in the same way.[176]

534. There are three ways a non-public utility may satisfy the reciprocity provision.[177] First, it may provide service under a Commission-approved "safe harbor" tariff – a tariff that the Commission has determined offers truly open access service. Second, it may provide service to a public utility under a bilateral agreement that satisfies its reciprocity obligation. Third, the non-public utility may ask the public utility to waive the reciprocity condition.

535. A non-public utility that has a "safe harbor" tariff that is modeled on the OATT must add to that tariff an interconnection procedures document and interconnection agreement that either are modeled on the OATT interconnection procedures document and agreement or are otherwise found to offer truly open access service if it wishes to continue to qualify for "safe harbor" treatment.[178] A non-public utility that owns, controls, or operates transmission, has not filed with the Commission a "safe harbor" tariff, and seeks transmission service from a public utility that invokes the reciprocity provision must either satisfy its reciprocity obligation under a bilateral agreement or ask the public utility to waive the OATT reciprocity condition.

536. This Final Rule does not modify the Commission's reciprocity policy as laid out in Order Nos. 888 and 2003.

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[176] See Order No. 2003-A at P 760 et seq.

[177] Id. at P 761.

[178] Id.

537. LADWP also states that there are relatively few Commission-jurisdictional Small Generating Facility interconnections and urges the Commission not to apply its reciprocity policy in the small generator context. The fact that there may be relatively few interconnections subject to this Final Rule does not justify abandoning long-standing reciprocity policy.

538. As the Commission determined in Order Nos. 888[179] and 2003-A,[180] reciprocal service is not required if providing such service would jeopardize the tax-exempt status or bond status of the non-public utility.

539. As to BPA and Bureau of Reclamation's comments, we reiterate that reciprocity does not require federal entities to provide services or sign contracts that they cannot legally enter into. If such entities choose to amend their safe harbor tariffs on compliance, they may propose modifications to the SGIP and SGIA that address their concerns.

540. Finally, we deny NRECA's proposed safe harbor provision. As it notes, section 211 of the FPA already allows a non-public utility to safeguard its non-jurisdictional status. We see no need to fix a system that does not appear to be broken.

Coordination with Affected Systems

541. An Affected System is an electric system other than the Transmission Provider that may be affected by the proposed interconnection. In the Small Generator Interconnection NOPR, the Commission proposed to treat coordination between the Transmission Provider, Interconnection Customer, and any Affected Systems the same way as in the LGIA. Order Nos. 2003 and 2003-A required the Transmission Provider to coordinate with an Affected System. The Commission requested comments on whether there are any issues specific to Small Generating Facilities that necessitate a different policy.

[179] Order No. 888 at 31,762, n.499.

[180] Order No. 2003-A at P 782.

Comments

542. While no commenters present any arguments on this issue specific to the small generator context, some discuss the Affected System provision in terms of Distribution Systems.

Commission Conclusion

543. We are adopting an Affected System provision comparable to the one in the LGIP and LGIA. Regarding the comments addressing the Affected System provision in terms of Distribution Systems subject to an OATT, we note that the definition of Affected System includes not only transmission facilities. The definition is more inclusive; it is "an electric system . . . that may be affected by the proposed interconnection." Thus, an Affected System may be any type of electric system.[181]

I. Compliance Issues

Amendments to the Transmission Provider's OATT

544. In this Final Rule, we are requiring all public utilities that own, control, or operate interstate transmission facilities to adopt the SGIP and SGIA, but are using a process different from the one used in Order No. 2003. On the effective date of Order No. 2003, the OATT of each Transmission Provider was deemed to have included the LGIP and LGIA.[182] On the effective date of this Final Rule, as in Order No. 2003,[183] the OATTs of all non-independent Transmission Providers are deemed revised to include the Final Rule SGIP and SGIA. But unlike the Order No. 2003 process, where the Commission directed Transmission Providers to make ministerial filings to include the LGIP and LGIA in their next filings with the Commission, here the Commission will require no formal amendment

[181] We note that, similar to when the Affected System is a non-jurisdictional entity, the Commission does not have to have jurisdiction over the Affected System in order for the interconnection to proceed. See Order No. 2003-A at P 114-115.

[182] Order No. 2003 at P 910.

[183] See Standardization of Generator Interconnection Agreements and Procedures, Notice Clarifying Compliance Procedures, 106 FERC ¶ 61,009 at P 2 (2004).

until compliance is due in the Commission's rulemaking on Electronic Tariff Filings.[184] This means that a non-independent Transmission Provider that wishes to adopt the SGIP and SGIA (without variations) into its OATT need not formally add the documents to its OATT until it submits a compliance filing in response to the Commission's pending Electronic Tariff Filings rulemaking. A non-independent Transmission Provider that decides to take this option nevertheless must apply the SGIP and SGIA to any request for small generator interconnection that it receives after the effective date of this Final Rule, but before it complies with the rulemaking on Electronic Tariff Filings. The compliance obligation is different for non-independent Transmission Providers that seek variations from the Final Rule documents, as discussed further below.

545. If an RTO or ISO wishes to adopt the SGIP and SGIA into its OATT, it may also await compliance with the Electronic Tariff Filings rulemaking before formally adding the documents to its OATT. But the RTO or ISO should notify the Commission by the effective date of this Final Rule that it will adopt the Final Rule documents and that requests for interconnection of Small Generating Facilities will be subject to the SGIP and SGIA in the interim period. An RTO or ISO that does not adopt the SGIP and SGIA will have additional time to submit its compliance filings to allow for the stakeholder process and other measures that must be taken before an RTO or ISO adopts tariff changes. Therefore, an RTO or ISO that seeks variations will have an additional 90 days to submit its compliance filing. As in the Order No. 2003 proceeding, until the Commission acts on the compliance filing of an RTO or ISO that seeks variations, the RTO's or ISO's existing Commission-approved interconnection procedures and agreement remain in effect.

Variations from the Final Rule

546. As in Order No. 2003, the Commission will consider two categories of variations from the Final Rule submitted by a non-independent Transmission Provider.[185] First, the Commission will consider "regional reliability variations" that track established reliability requirements (i.e., requirements approved by the applicable regional reliability council). Any request for a "regional reliability variation" must be supported by references to

[184] Electronic Tariff Filings, Notice of Proposed Rulemaking, 69 FR 43929 (July 23, 2004), FERC Stats. & Regs., Proposed Regulations, ¶ 32,575 (July 8, 2004)

[185] Order No. 2003 at P 824-25.

established reliability requirements,[186] and the text of the reliability requirements must be provided in support of the variation. If the variation is for any other reason, the non-independent Transmission Provider must demonstrate that the variation is "consistent with or superior to" the Final Rule provision. Blanket statements that a variation meets the standard or clarifies the Final Rule provision are not sufficient. Any request for application of this standard will be considered under FPA section 205 and must be supported by arguments explaining how each variation meets the standard.

547. Requests for regional reliability variations are due on the effective date of this Final Rule. Requests for "consistent with or superior to" variations may be submitted on or after the effective date of the Final Rule. We note that the "consistent with or superior to" standard is difficult to meet because the burden of showing that a variation is "consistent with or superior to" the relevant provision or provisions in the Final Rule document is significant.

548. Any request for a variation should be accompanied by a request to include the complete SGIP and SGIA into the Transmission Provider's OATT. The Commission will consider incomplete any request for a variation that does not also propose to append to the Transmission Provider's OATT the complete SGIP and SGIA. As explained above, an RTO or ISO will have 90 additional days (for a total of 150 days) to submit a compliance filing. That compliance filing must contain all proposed independent entity variations.

549. With respect to an RTO or ISO, at the time its compliance filing is made, as explained in Order No. 2003, the Commission will allow it to seek "independent entity variations" from the Final Rule pricing and non-pricing provisions.[187] The RTO or ISO should explain the basis for each variation.

550. Finally, for a non-independent Transmission Provider that belongs to an RTO or ISO, the RTO's or ISO's Commission-approved standards and procedures are to govern interconnection with its members' facilities that are under the operational control of the RTO or ISO. An interconnection with a Commission jurisdictional facility that is owned by a non-independent Transmission Provider but is not under the operational control of the RTO or ISO is to be conducted according to the non-independent Transmission

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[186] See also New York Independent System Operator, Inc., 108 FERC ¶ 61,159 at P 95 (2004), reh'g pending.

[187] Order No. 2003 at P 827.

Provider's procedures and agreement. A non-independent Transmission Provider, even if it belongs to an RTO or ISO, is not eligible for "independent entity variations" for procedures and agreements applicable to interconnection with facilities that remain within its operational control (and therefore, are subject to a tariff different from the RTO or ISO's OATT). To clarify, if a non-independent Transmission Provider belongs to an RTO or ISO, but keeps operational control of some jurisdictional facilities, and those facilities are not subject to the interconnection procedures under the OATT of the RTO or ISO, then the non-independent Transmission Provider must have a separate set of interconnection procedures and agreement applicable to these facilities. To address the confusion that may arise from having inconsistent interconnection procedures and agreements applicable within an RTO or ISO region, we allow a non-independent Transmission Provider that keeps control over some jurisdictional facilities to subject these facilities to an RTO- or ISO-controlled interconnection process. In such instance, the non-independent Transmission Provider must agree to transfer to the RTO or ISO control over the significant aspects of the interconnection process, including the performance of all interconnection studies and cost determinations applicable to Network Upgrades.[188]

Interconnection Requests Submitted Prior to the Effective Date of this Final Rule and Grandfathering of Existing Interconnection Agreements

551. The grandfathering of existing agreements was not specifically addressed in the Small Generator Interconnection NOPR; however, the Commission did request comments on whether generic Commission policies applicable to Large Generating Facilities (such as grandfathering) should be applied to Small Generating Facilities.

Comments

552. American Forest and National Grid seek clarification that small generators that are already interconnected are not subject to this rulemaking. To avoid unintended barriers to Small Generating Facilities, they urge the Commission to follow the Order No. 2003 approach for grandfathering. American Forest states that generators should not have to undergo this new interconnection process, particularly where the generating facilities that are already interconnected have not changed their physical operations.

[188] See Order No. 2003-B at P 80.

553. California Wind Energy requests that, as in Order No. 2003, contract conversion of pre-existing interconnection contracts with former QFs should not trigger an obligation under this Final Rule to file an Interconnection Request because a change in contract status alone does not affect a generator's demand on the electric system. It also seeks clarification that, when the QF's interconnection agreement provides for greater capacity than what is to be sold to the interconnecting utility under the PURPA power purchase contract, upon contract conversion, the former QF should not have to submit an Interconnection Request if the transmission requirements are consistent with those provided for in the prior agreement.

554. Finally, if the Commission adopts the approach used in Order No. 2003, California Wind Energy requests that the Commission clarify when a change in a QF's contract status triggers an obligation to file a new Interconnection Request. It notes that Order No. 2003 states that the owner of a QF formerly interconnected with a Transmission System has no obligation to file an Interconnection Request when its contract status changes if the output of its generator "will be substantially the same as before."[189] California Wind Energy asserts that the term "output" leaves ambiguous the effect of the Commission's criteria on projects that are to be repowered after contract conversion. It explains that when a QF repowers, it increases energy production while maintaining its maximum megawatt output. California Wind Energy seeks clarification that when a small generator increases energy production as a result of a post-PURPA contract repower, and there is no meaningful change in the generator's maximum output, there is no obligation to file a new Interconnection Request.

Commission Conclusion

555. As in Order No. 2003, the Commission is not requiring changes to interconnection agreements filed with the Commission before the effective date of this Final Rule. Interconnection agreements submitted for approval by the Commission before the effective date of this Final Rule are grandfathered and will not be rejected outright for failing to conform to the SGIA. Small Generating Facilities already interconnected that have not changed their physical operations in such a way as to require a new Interconnection Request are not subject to this rulemaking.

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[189] Order No. 2003 at P 815.

556. We also note that the Small Generator NOPR did not address what happens to Interconnection Customers whose Interconnection Requests are pending at the time this Final Rule goes into effect. LGIP section 5 addresses how such interconnections are to be processed, and we adopt a shortened version of that provision in the SGIP as well. The new section 1.7 clarifies that nothing in this Final Rule is intended to affect an Interconnection Customer's Queue Position assigned prior to the effective date of this rule. It also states that the Parties shall continue to process any executed interconnection study agreements (or study agreements that have been filed unexecuted with the Commission) once this Final Rule becomes effective. However, we will require that any new interconnection study agreement entered into after this Final Rule becomes effective follow the pro forma study agreements contained in the SGIP. Any accommodation needed to process such Interconnection Requests (i.e., should the pre- and post- Final Rule study processes be significantly different) should be filed with the Commission and will be evaluated on a case-by-case basis.

557. If an interconnection agreement has been executed prior to the effective date of this Final Rule, then no additional steps need to be taken. We agree with the commenters that an existing Interconnection Customer whose Small Generating Facility is already interconnected should not have to undergo a new interconnection process.

558. We also reiterate that a change in an Interconnection Customer's contract status does not, by itself, trigger an obligation to file an Interconnection Request. As the Commission noted in Order Nos. 2003 and 2003-A, a former QF interconnected with a Transmission System that sells electric energy at wholesale in interstate commerce need not submit an Interconnection Request if it represents that the output of the generating facility is substantially the same as before.[190] Under the Commission's regulations,[191] a QF must provide electric energy to its interconnecting utility much like the interconnecting utility's other network resources because the utility must purchase the QF's power to displace its own generation. When the owner of a QF that was formerly interconnected with a Transmission System seeks to sell energy at wholesale and represents that the output of its generator will be substantially the same after conversion, it would be unreasonable for a Transmission Provider to require the former QF to join the interconnection queue.

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[190] Order No. 2003 at P 815.

[191] 18 CFR § 292.303 (2004).

559. California Wind Energy also asks the Commission to clarify that a plant repowering at the time of contract conversion that does not increase plant capacity will not trigger an obligation to file an Interconnection Request. We clarify that a contract conversion that does not affect a generator's demands on the Transmission System does not trigger an obligation to file. When a QF's existing interconnection agreement provides for capacity greater than the capacity sold by the QF to the interconnecting utility under the PURPA power purchase contract, the QF's contract conversion will not trigger an obligation to file an Interconnection Request if its transmission requirements are consistent with the capacity provided for in the existing interconnection agreement.

Order No. 2001 and the Filing of Interconnection Agreements

560. Order No. 2001[192] revised how traditional public utilities and power marketers must satisfy their obligation, under section 205 of the FPA and Part 35 of the Commission's regulations, to file agreements with the Commission.[193] Public utilities that have standard forms of agreement in their OATTs, cost-based power sales tariffs, or tariffs for other generally applicable services no longer need to file conforming service agreements with the Commission. The filing requirement for conforming agreements (those that follow the standard form) is now satisfied by filing the standard form of

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[192] Revised Public Utility Filing Requirements, Order No. 2001, 67 FR 31043 (May 8, 2002), FERC Stats. & Regs. ¶ 31,127 (2002); reh'g denied, Order 2001-A, 100 FERC ¶ 61,074 (2002); reconsideration and clarification denied, Order No. 2001-B, 100 FERC ¶ 61,342 (2002); further order, Order No. 2001-C, 101 FERC ¶ 61,314 (2002).

[193] Order No. 2001 pointed out that Part 35 of the Commission's regulations does not make a distinction between an interconnection agreement and other agreements for service that must be filed under the Commission's regulations. Order No. 2001, therefore, said that if an interconnection agreement conforms to a Commission-approved standard form of interconnection agreement, the utility does not have to file it, but must report it in the Electric Quarterly Reports. It also stated that the requirement to file contract data and transaction data begins with the first Electric Quarterly Report filed after service begins under an agreement, and continues until the Electric Quarterly Report filed after it expires or by order of the Commission. However, an interconnection agreement that does not precisely match the Transmission Provider's approved interconnection agreement or that is unexecuted must be filed with the Commission. The Transmission Provider must clearly show where the agreement does not conform to its standard interconnection agreement, preferably through red-lining and strike-out.

agreement and an Electronic Quarterly Report. Order No. 2001 also lifted the requirement that Parties to an expiring conforming agreement file a notice of cancellation or a cancellation tariff sheet with the Commission. The public utility may simply remove the agreement from its Electric Quarterly Report in the quarter after it terminates.

561. Non-conforming agreements, which are agreements for transmission, cost-based power sales or other generally applicable services that do not conform to a standard form of agreement in a public utility's tariff, must continue to be filed with the Commission for approval before going into effect. This category includes unexecuted agreements and agreements that do not precisely match the standard form of agreement.

562. Order No. 2003 explained that, under Order No. 2001, if an interconnection agreement conforms to a Commission-approved standard form of interconnection agreement, the Transmission Provider does not have to file it with the Commission, but must report it in its Electric Quarterly Reports. The same filing rules will apply to non-conforming SGIAs as for non-conforming LGIAs. However, an interconnection agreement that does not precisely match the Transmission Provider's Commission-approved standard interconnection agreements or that is unexecuted must be filed in its entirety. The Transmission Provider shall clearly show where the filed agreement does not conform to its standard interconnection agreement through red-lining and strike-out and justify the basis for the nonconformance.

III. Information Collection Statement

563. The Office of Management and Budget (OMB) regulations require that OMB approve certain reporting and record keeping (collections of information) imposed by an agency.[194] The information collection requirements in this Final Rule are identified under the Commission data collection, FERC-516A "Standardization of Small Generator Interconnection Agreements and Procedures." Under section 3507(d) of the Paperwork Reduction Act of 1995,[195] the proposed reporting requirements in the subject rulemaking will be submitted to OMB for review. Interested persons may obtain information on the reporting requirements by contacting the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426 (Attention: Michael Miller, Office of the Executive Director, 202-502-8415) or from the Office of Management and Budget (Attention: Desk Officer for the Federal Energy Regulatory Commission, fax: 202-395-7285, e-mail:mailto: oira_submission@omb.eop.gov).

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[194] 5 CFR § 1320.11 (2004).

[195] 44 U.S.C. § 3507(d) (2000).

564. The "public protection" provision of the Paperwork Reduction Act[196] requires each agency to display a currently valid OMB control number and inform respondents that a response is not required unless the information collection displays a valid OMB control number on each information collection. This provision has two legal effects: (1) it creates a legal responsibility for the agency; and (2) it provides an affirmative legal defense for respondents if the information collection is imposed on respondents by the Commission through regulation or administrative means in order to satisfy a legal authority or responsibility of the Commission. If the Commission should fail to display an OMB control number, then it is the Commission not the respondent who is in violation of the law. "Display" is defined as publishing the OMB control number in regulations, guidelines or other issuances in the Federal Register (for example, in the preamble or regulatory text for the final rule containing the information collection).[197] Therefore, the Commission may not conduct or sponsor, and a person is not required to respond to a collection of information unless the information collection displays a valid OMB control number.

565. **Public Reporting Burden**: The Commission did not receive specific comments concerning its burden estimates and uses the same estimates here in the Final Rule. Comments on the substantive issues raised in the NOPR are addressed elsewhere in the Final Rule.

[196] 44 U.S.C. § 3512; 5 CFR § 1320.5(b); 5 CFR § 1320.6(a).

[197] See 1 CFR § 21.35 and 5 CFR § 1320.3(f)(3).

Data Collection	No. of Respondents	No. of Responses	Hours Per Response	Total Annual Hours
FERC-516A				
SGIPs & SGIAs	238	1	25	5,950
Recordkeeping	238	1	2	476
Totals				6,426

Total Annual Hours for Collection: 5,950 (reporting) [238 respondents x 1 x 25 hours] + 476 hours (recordkeeping) [238 hours x 1 filing x 2 hours to retain interconnection documents] = 6,426.[198]

566. **Information Collection Costs**: The Commission sought comments about the time needed to comply with these requirements. No comments were received. Staffing requirements to review and modify existing SGIPs and SGIAs = $309,400 [238 respondents x $1,300 (25 hours @ $52 hourly rate)]. To be added to this cost are the annualized costs for operations and management (238 respondents x $34 [2 hours @ $17 hourly rate for recordkeeping] or $8,092)). Total costs of $317,492 for preparing filings for modification of the OATT and for recordkeeping of interconnection documents. There will be a one-time start up cost to comply with these requirements for the procedures and agreements and then an additional cost to maintain them.[199]

Titles: FERC-516A "Standardization of Small Generator Interconnection Agreements and Procedures

[198] Adjustments made to reflect an increase in the number of respondents from the estimates in the Small Generator Interconnection NOPR.

[199] Adjusted figures to reflect an increase in the number of respondents.

Action: Revision of Currently Approved Collection of Information

OMB Control Nos: 1902-0203.

Respondents: Business or other for profit.

Frequency of Responses: One occasion.

Necessity of Information: The Final Rule revises the reporting requirements contained in 18 CFR Part 35. The Commission promulgates a standardized SGIP and SGIA that public utilities must adopt. As noted in the Final Rule, adopting these procedures and agreement will (1) reduce interconnection costs and time for the owners of Small Generating Facilities and Transmission Providers alike; (2) limit opportunities for Transmission Providers to favor their own generation; (3) facilitate market entry for generation competitors; and (4) encourage needed investment in generator and transmission infrastructure.

567. Interconnection plays a growing, crucial role in bringing generation into the market to meet the needs of electricity customers. However, requests for interconnection frequently result in complex technical disputes about interconnection feasibility, cost and cost responsibility. The Commission expects that a standardized SGIP and SGIA will reduce interconnection costs and time for Interconnection Customers and Transmission Providers, resolve most interconnection disputes, minimize opportunities for undue discrimination, foster increased development of economic generation, and improve system reliability.

568. For information on the requirements, submitting comments on the collection of information and the associated burden estimates including suggestions for reducing this burden, please send your comments to the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426 (Attention: Michael Miller, Office of the Executive Director, 202-502-8415) or send comments to the Office of Management and Budget (Attention: Desk Officer for the Federal Energy Regulatory Commission, fax: 202-395-7285, e-mail oira_submission@omb.eop.gov).

IV. Environmental Impact Statement

569. Commission regulations require that an environmental assessment or an environmental impact statement be prepared for any Commission action that may have a significant adverse effect on the human environment.[200] No environmental consideration is necessary for the promulgation of a rule that is clarifying, corrective, or procedural or does not substantially change the effect of legislation or regulations being amended,[201] and also for information gathering, analysis, and dissemination.[202] The Final Rule updates Part 35 of the Commission's regulations and does not substantially change the effect of the underlying legislation or the regulations being revised or eliminated. In addition, the Final Rule involves information gathering, analysis, and dissemination. Therefore, this Final Rule falls within categorical exemptions provided in the Commission's regulations. Consequently, neither an environmental impact statement nor an environmental assessment is required.

570. While some Small Generating Facilities, such as reciprocating engines, may produce more pollution, others, such as photovoltaics and fuel cells, produce significantly less air, water and noise pollution than do new central station technologies. Others, such as micro-turbines, provide opportunities to reduce emissions by improving the efficiency with which energy is consumed, through improved heat rates and combined heat and power applications. Small Generating Facilities may eliminate the need to run older, more polluting generating units and reduce power line losses. As one of the goals of this rule is to allow interconnection of Small Generating Facilities that can provide environmental and economic benefits, this rule will benefit customers by providing alternative generation sources.

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[200] Regulations Implementing National Environmental Policy Act, Order No. 486, 52 FR 47897 (Dec. 17, 1987), FERC Stats. & Regs. ¶ 30,783 (1987).

[201] 18 CFR § 380.4(a)(2)(ii) (2004).

[202] 18 CFR § 380.4(a)(5) (2004).

V. Regulatory Flexibility Act

571. The Regulatory Flexibility Act (RFA)[203] requires that a rulemaking contain either a description and analysis of the effect that the proposed rule will have on small entities or a certification that the rule will not have a significant economic impact on a substantial number of small entities. However, the RFA does not define "significant" or "substantial" instead leaving it up to any agency to determine the impacts of its regulations on small entities. In the NOPR, the Commission stated that the proposed regulations would impose requirements only on interstate Transmission Providers, which are not small businesses. The Commission certified that the proposed regulations would not have a significant adverse impact on a substantial number of small entities. In making its certification, the Commission determined that the rule applies only to public utilities that own, control, or operate facilities for transmitting electric energy in interstate commerce and not to electric utilities per se. Small entities that believe this rule will have a significant impact on them may apply to the Commission for waivers.

Comments

572. NRECA questions this certification. NRECA argues that to lessen the impact of this rule on small entities, the Commission should: "(1) Provide a durable blanket waiver of the NOPR requirements to all currently FPA-jurisdictional utilities, that qualify as 'small' public utilities under the Small Business Administration (SBA) utility size standards, and (2) provide a safe harbor for all 'small' non-jurisdictional providers that want to work with consumers to interconnect generation, but want to maintain their non-jurisdictional status."

Commission Conclusion

573. We are applying the same standards to any entity seeking a waiver of the requirements of this Final Rule. Because the possible scenarios under which small entities may seek waivers are diverse, they are not susceptible to resolution on a generic basis, and we are requiring applications and fact-specific determinations in each instance. The Commission does not have jurisdiction over non-public utilities' rate, terms and conditions of transmission service under sections 205 and 206 of the FPA, and Order No. 888 does not require that non-public utilities file open access transmission tariffs. In addition, under the waiver provisions of Order No. 888, small non-public utilities may seek waiver

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203 5 U.S.C. § 601-612 (2000).

from the reciprocity provision. This waiver policy follows the SBA definition of a small utility.[204] The SBA defines a small electric utility as one that disposes of 4 MWh or less of electric energy in a given year.[205]

574. We disagree with NRECA that this Final Rule will have a significant economic effect on a substantial number of small entities. Of the 931 electric cooperatives in the 47 states across the country, 686 receive financial assistance from the U.S. Department of Agriculture and therefore are not subject to the Commission's jurisdiction.[206] Of the 67 members of NRECA who have generation and transmission facilities, only 34 electric cooperatives are subject to the Commission's jurisdiction. They are only a small subset of the entities considered when determining a significant impact on a substantial number of small entities. Within the subset of 34 entities, only a few own, control, or operate interstate transmission facilities.

575. As NRECA noted in its comments, the Commission has an important role in determining whether facilities are distribution or transmission, and as the Commission noted elsewhere in this Final Rule, the only facilities that are already subject to a Transmission's Provider's OATT are covered by this rule and apply only to a small percentage of small generator interconnections. The Commission recognizes that most small generators will interconnect with facilities that are not subject to the OATT.

576. However, in drafting this rule the Commission has followed the provisions of both the RFA and the Paperwork Reduction Act to consider the potential impact of regulations on small business and other small entities. Specifically, the RFA directs agencies to consider four regulatory alternatives to be considered in a rulemaking to lessen the impact on small entities: tiering or establishment of different compliance or reporting requirements for small entities, classification, consolidation, clarification or simplification of compliance and reporting requirements, performance rather than design standards, and exemptions. The Commission has adopted both tiering, and classification and simplification when developing technical accelerated procedures to apply to interconnections that will have no adverse effect on the Transmission Provider's electric

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[204] See 5 U.S.C. § 601(3) and § 601(6) and 15 U.S.C. § 632(a).

[205] See 13 CFR § 121.601.

[206] Source: Rural Utilities Service, U.S. Department of Agriculture, http://www.usdagov.rus/electric/borrowers/index.htm. April, 2005.

system. By the use of tiering, the Commission is creating three ways to evaluate Interconnection Requests that can be applied to size and operating conditions of a small generating facility. As noted earlier, all Small Generating Facilities are subject to the Study Process, but in order to expedite the process and reduce the requirements on facilities smaller than 2 MW, technical screens were developed for certified Small Generating Facilities no larger than 2 MW (Fast Track) and certified inverter-based Small Generating Facilities no larger than 10 kW (10 kW Inverter Process). The latter process was further simplified as it does not use an SGIA, instead using an all-in-one document that includes the application form, interconnection procedures, and terms and conditions. In addition, many provisions of the SGIA are based on the NARUC Model which in turn is based on the experience of several states for implementing interconnections.

577. A core issue has been whether standards could be developed that will allow for a cost effective interconnection solution without jeopardizing the safety and reliability of the Transmission System. One study showed that the typical cost of interconnection ranges from $50/kW – $200/kW depending on the size of the generating facility, application and utility requirements.[207] By simplifying both the interconnection procedures document and interconnection agreement, the costs of small generating facilities should be reduced, equipment manufacturers will be able to operate from a single set of technical specifications, and seamless procedures will be in place that do not jeopardize the safety and reliability of the Transmission System.

VI. Document Availability

578. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to obtain this document from the Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern Time) at 888 First Street, N.E., Room 2A, Washington, D.C. The full text of this document is also available electronically from the Commission's eLibrary system (formerly called FERRIS) in PDF and Microsoft Word format for viewing, printing, and downloading. eLibrary may be accessed through the Commission's Home Page (http://www.ferc.gov). To access this document in eLibrary, type "RM02-1-" in the docket number field and specify a date range that includes this document's issuance date.

[207] Source: Arthur D. Little, Distribution Generation: System Interfaces, Arthur D. Little, Inc., Cambridge, Massachusetts, 1999.

579. User assistance is available for eLibrary and the Commission's website during normal business hours from our Help Line at 202-502-8222 or the Public Reference Room at 202-502-8371 Press 0, TTY 202-502-8659. E-Mail the Public Reference Room at public.referenceroom@ferc.gov.

VII. Effective Date And Congressional Notification

580. This Final Rule will take effect on [insert date that is 60 days after date of publication in the FEDERAL REGISTER]. The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of the Office of Management and Budget, that this rule is not a "major rule" within the meaning of section 251 of the Small Business Regulatory Enforcement Fairness Act of 1996.[208] The Commission will submit the Final Rule to both houses of Congress and the General Accounting Office.[209]

List of Subjects in 18 CFR Part 35

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

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

In consideration of the foregoing, the Commission revises 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:

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[208] 5 U.S.C. § 804(2) (2000).

[209] 5 U.S.C. § 801(a)(1)(A) (2000).

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

2. In § 35.28, the heading of paragraph (f) is revised, the first sentences of currently existing paragraphs (f)(1), (f)(1)(i), (f)(1)(ii), (f)(2), (f)(3) and (f)(3)(i) are revised, a new paragraph (f)(1)(ii) is added, currently existing paragraph (f)(1)(ii) is renumbered to account for new paragraph (f)(1)(ii), and paragraphs (f)(4), (f)(4)(i), and (f)(4)(ii) are added, all to read as follows:

§ 35.28 Non-discriminatory open access transmission tariff.

* * * * *

(f) Standard generator interconnection procedures and agreements.

(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) and the standard small generator interconnection procedures and agreement contained in Order No. 2006, FERC Stats. & Regs. ¶ _____ (Final Rule on Small Generator Interconnection), 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) and Order No. 2006, FERC Stats. & Regs. ¶ _____ (Final Rule on Small Generator Interconnection).

(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 [insert date 60 days after publication in the FEDERAL REGISTER].

(iii) 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) or the standard small generator interconnection procedures and agreement contained in Order No. 2006, FERC Stats. & Regs. ¶ _____ (Final Rule on Small Generator Interconnection), 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. ¶ _____ (Final Rule on Small Generator Interconnection).

(2) The non-public utility procedures for tariff reciprocity compliance described in paragraph (e) of this section are applicable to the standard interconnection procedures and agreements.

(3) A public utility subject to the requirements of this paragraph pertaining to the Final Rule on Generator Interconnection may file a request for waiver of all or part of the requirements of this paragraph, for good cause shown. An application for waiver must be filed either:

(i) No later than January 20, 2004, or

(ii) No later than 60 days prior to the time the public utility would otherwise have to comply with the requirements of this paragraph.

(4) A public utility subject to the requirements of this paragraph pertaining to the Final Rule on Small Generator Interconnection may file a request for waiver of all or part of the requirements of this paragraph, for good cause shown. An application for waiver must be filed either:

(i) No later than [insert date 60 days after publication in the FEDERAL REGISTER], or

(ii) No later than 60 days prior to the time the public utility would otherwise have to comply with the requirements of this paragraph.

The following Appendices will not be published in the Code of Federal Regulations.

Appendix A

Commenter Acronyms[1]

AEP – American Electric Power System
Alabama PSC – Alabama Public Service Commission
Allegheny Energy – Allegheny Energy Supply Company, LLC and Allegheny Power
Ameren – Ameren Services Company
American Forest – American Forest & Paper Association and the Process Gas Consumers Group
AMP-Ohio – American Municipal Power – Ohio, Inc.
Avista – Avista Corp. and Puget Sound Energy, Inc.
Baltimore G&E – Baltimore Gas and Electric Company
BPA – Bonneville Power Administration, U.S. Department of Energy
Bureau of Reclamation – Bureau of Reclamation, U.S. Department of Interior
CA ISO – California ISO
California Wind Energy – California Wind Energy Association
Capstone – Capstone Turbine Corp.
Central Iowa Coop – Central Iowa Power Cooperative and Corn Belt Power Cooperative
Central Maine – Central Maine Power Company, New York State Electric & Gas Corporation, and Rochester Gas & Electric Corporation
Cinergy – Cinergy Services, Inc.
Consumers – Consumers Energy Company
CPUC – California Public Utilities Commission
CT DPUC – Connecticut Department of Public Utility Control
Cummins – Cummins, Inc.
EEI – Edison Electric Institute
Empire District – Empire District Electric Co.
Encorp – Encorp, Inc.
Exelon – Exelon Generation Company, LLC, Commonwealth Edison Company, PECO Energy Company, and Sithe Energies, Inc.
FERC DRS – Dispute Resolution Service, Federal Energy Regulatory Commission
Florida PSC – Florida Public Service Commission
Garwin McNeilus – Mr. Garwin McNeilus

[1] This list includes commenters who filed in response to the request for comments in the Notice of Proposed Rulemaking, the August 12, 2004 Request for Supplemental Comments, or both. Commenters who responded to the Request for Supplemental Comments are also listed separately at the end of this appendix.

Georgia PSC – Georgia Public Service Commission
Georgia Transmission – Georgia Transmission Corporation
Idaho Power – Idaho Power Company
Iowa Utilities Board – Iowa Utilities Board
ISO New England – ISO New England
Joint Commenters – National Association of Regulatory Utility Commissioners, Small Generator Coalition (members listed below), American Public Power Association (who did not participate in the filing of supplemental comments), National Rural Electric Cooperative Association, and Edison Electric Institute
LADWP – Los Angeles Department of Water and Power
Massachusetts DTE – Massachusetts Department of Telecommunications and Energy
MidAmerican – MidAmerican Energy Company
Midwest ISO – Midwest Independent Transmission System Operator, Inc.
Minnesota PUC – Minnesota Public Utilities Commission and the Minnesota Department of Commerce
Mississippi PSC – Mississippi Public Service Commission
NARUC – National Association of Regulatory Utility Commissioners
National Grid – National Grid USA
NEMA – National Electrical Manufacturers Association
NEPOOL Participants – New England Power Pool Participants Committee
Nevada Power – Nevada Power Company and Sierra Pacific Power Company
NJ BPU – New Jersey Board of Public Utilities
North Carolina Commission – North Carolina Utilities Commission and the Public Staff of the North Carolina Utilities Commission
NorthWestern Energy – NorthWestern Energy
NRECA – National Rural Electric Cooperative Association
NYISO – New York Independent System Operator, Inc.
NYPSC – New York State Public Service Commission
NYTO – Central Hudson Gas and Electric Corp., Consolidated Edison Company of New York, Inc., Long Island Power Authority, New York Power Authority, New York State Electric and Gas Corp., Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corp.
Ohio PUC – Public Utilities Commission of Ohio
PacifiCorp – PacifiCorp
PG&E – Pacific Gas and Electric Company
PJM – PJM Interconnection, L.L.C.
Plug Power – Plug Power, Inc.
Progress Energy – Progress Energy, Inc., Carolina Power and Light Co., and Florida Power Corp.
PSE&G – Public Service Electric and Gas Company
Robert L. Carey – Mr. Robert L. Carey

RW Beck – R.W. Beck, Inc.
Small Generator Coalition – American Council for an Energy Efficient Economy; American Solar Energy Society; American Wind Energy Association; BP Solar; Citizens Action Coalition of Indiana; Coffman Electrical Equipment; Cummins Power Generation; Elliott Energy Systems; Encorp; Environmental Law & Policy Center; Kyocera Solar, Inc.; MAN Turbomachinery, Inc.; Natural Resources Defense Council; Northeast-Midwest Institute; Northwest Energy Coalition; Pace Energy Program; Pennsylvania Energy Project; Plug Power, Inc.; Power Equipment Associates; PowerLight Corporation; RWE SCHOTT Solar, Inc.; Shepherd Advisors; Solar Energy Industries Association; Spire Solar, Inc.; U.S. Combined Heat and Power Association; and University of Oregon Solar Radiation Monitoring Laboratory.
SMUD – Sacramento Municipal Utility District
SoCal Edison – Southern California Edison Company
Solar Turbines – Solar Turbines, Inc.
Southern Company – Southern Company Services, Inc.
SW TDU Group – Southwest Transmission Dependent Utility Group (Aguila Irrigation District, Ak-Chin Electric Utility Authority, Buckeye Water Conservation and Drainage District, Central Arizona Water Conservation District, Electrical District No. 3, Electrical District No. 4, Electrical District No. 5, Electrical District No. 6, Electrical District No. 7, Electrical District No. 8, Harquahala Valley Power District, Maricopa County Municipal Water District No. 1, McMullen Valley Water Conservation and Drainage District, City of Needles, Roosevelt Irrigation District, City of Safford, Tonopah Irrigation District, Wellton-Mohawk Irrigation and Drainage District)
Tangibl – Tangibl, LLC
TAPS – Transmission Access Policy Study Group
TDU Systems – Transmission Dependent Utility Systems (Alabama Electric Cooperative, Inc.; Arkansas Electric Cooperative Corporation; Golden Spread Electric Cooperative; Kansas Electric Power Cooperative, Inc.; Old Dominion Electric Cooperative; and Seminole Electric Cooperative, Inc.)
USCHPA – U.S. Combined Heat and Power Association
Western – Western Area Power Administration

Commenters Who Filed in Response to the Commission's Request for Supplemental Comments

CT DPUC – Connecticut Department of Public Utility Control
FERC DRS – Dispute Resolution Service, Federal Energy Regulatory Commission
Joint Commenters – National Association of Regulatory Utility Commissioners, Small

Generator Coalition (members listed above), National Rural Electric Cooperative Association, and Edison Electric Institute (American Public Power Association did not participate in the filing of supplemental comments)

Massachusetts DTE – Massachusetts Department of Telecommunications and Energy

Minnesota PUC – Minnesota Public Utilities Commission and the Minnesota Department of Commerce

National Grid – National Grid USA

NJ BPU – New Jersey Board of Public Utilities

North Carolina Commission – North Carolina Utilities Commission and the Public Staff of the North Carolina Utilities Commission

NRECA – National Rural Electric Cooperative Association

Ohio PUC – Public Utilities Commission of Ohio

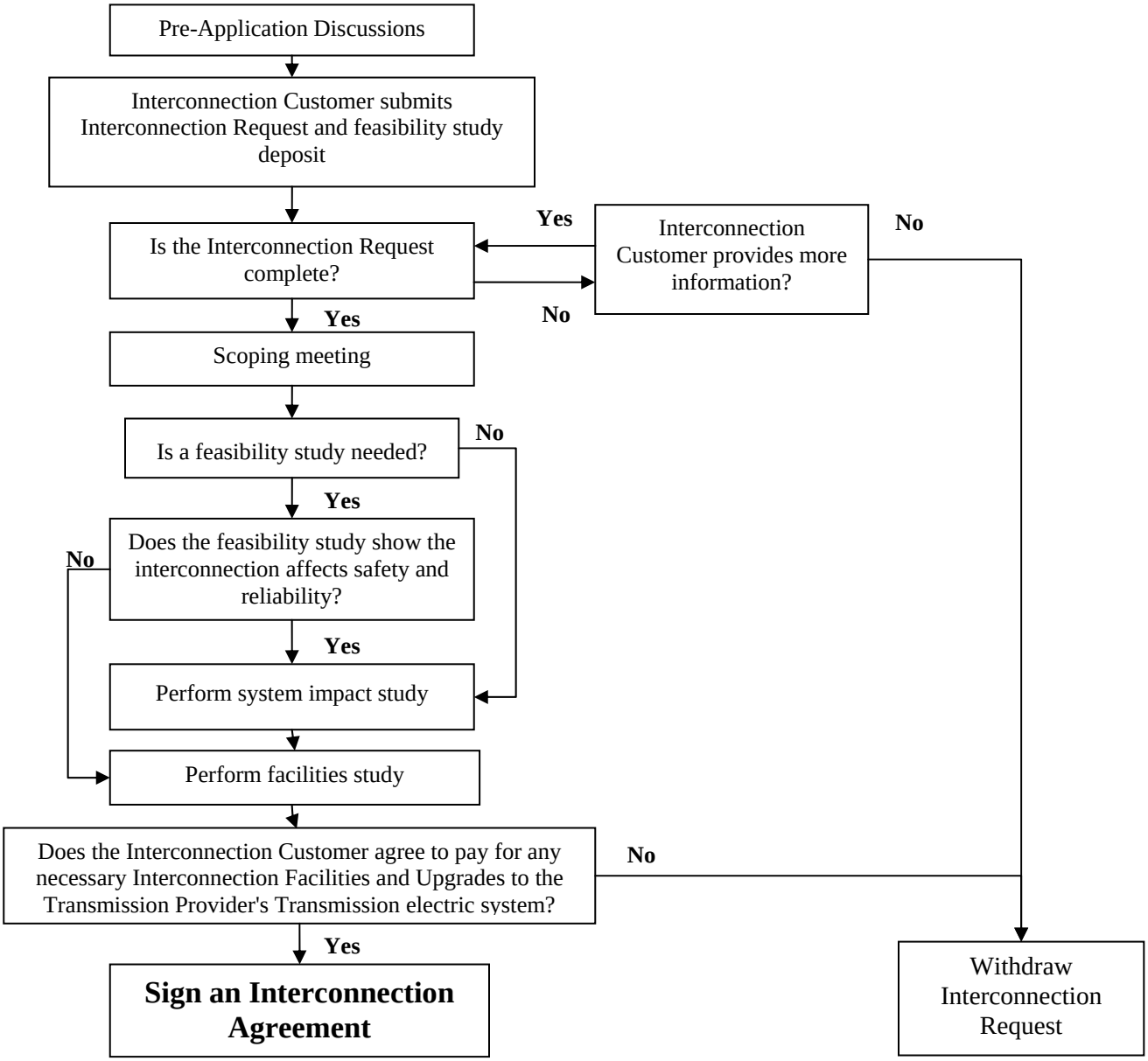
PJM – PJM Interconnection, L.L.C.

Small Generator Coalition (members listed above)

USCHPA – U.S. Combined Heat and Power Association

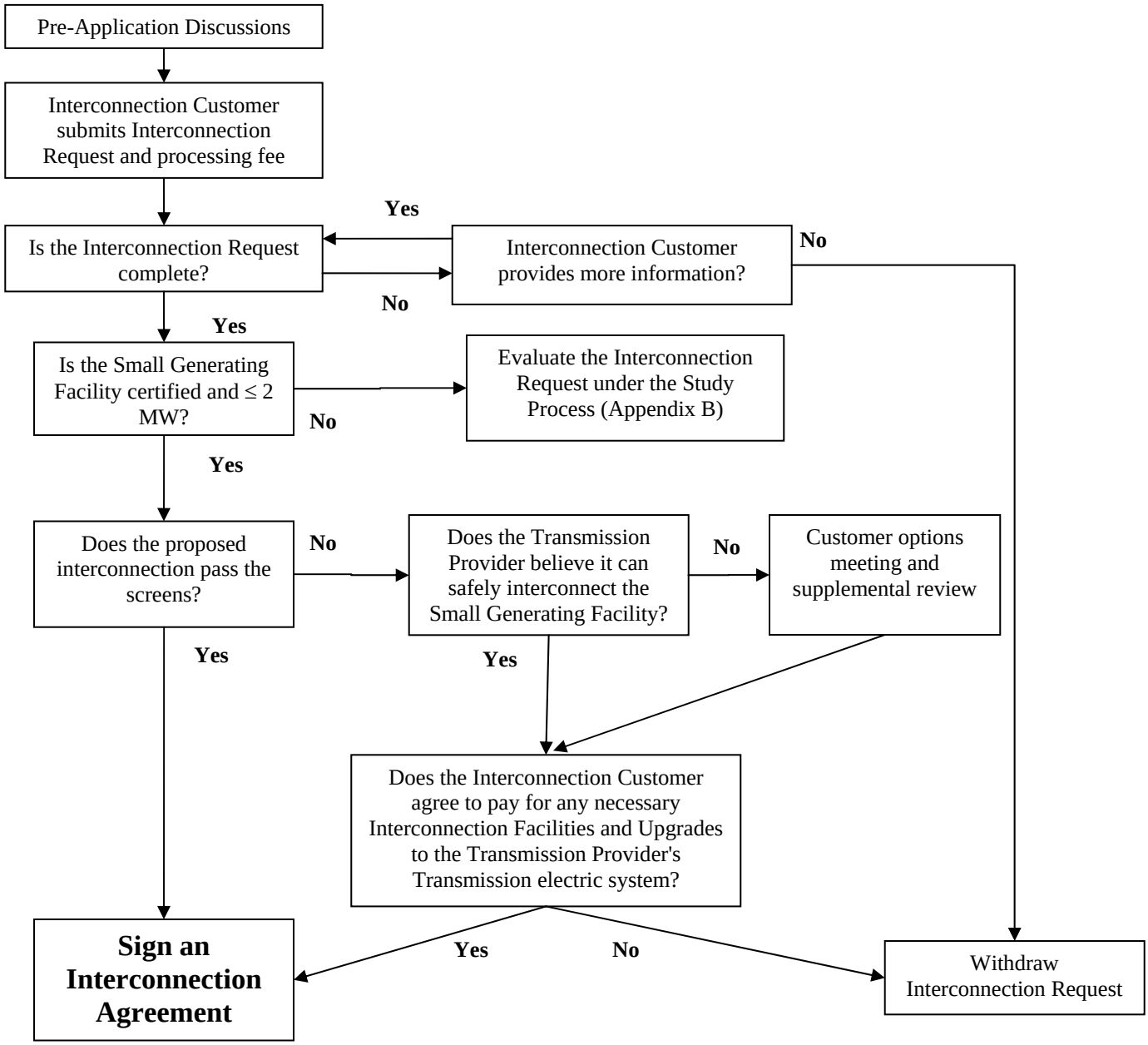
Appendix B

Flow Chart for Interconnecting a Small Generating Facility Using the "Study Process"



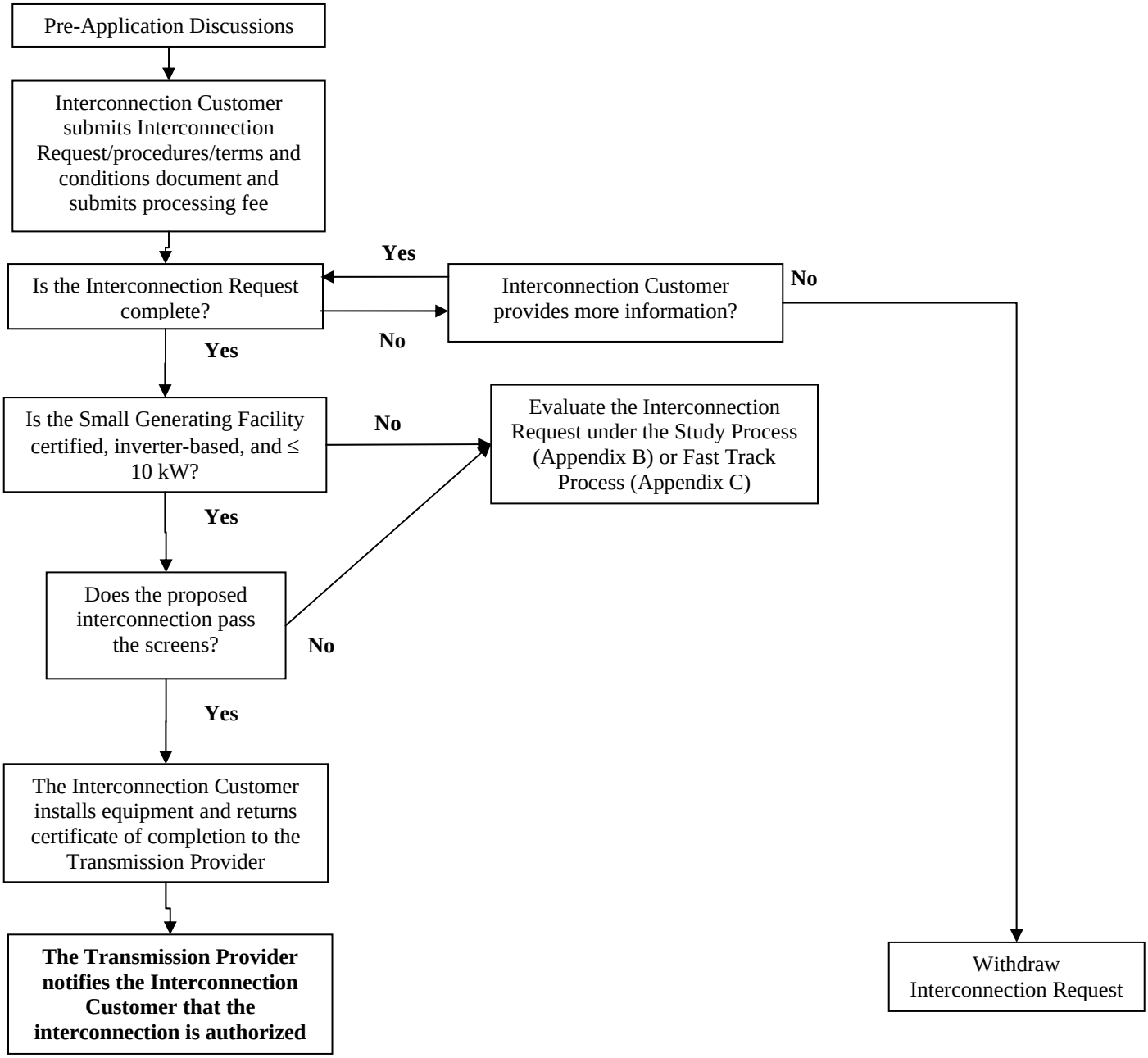
Appendix C

Flow Chart for Interconnecting a Certified Small Generating Facility No Larger than 2 MW Using the "Fast Track Process"



Appendix D

Flow Chart for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW Using the "10 kW Inverter Process"



Appendix E to the Small Generator Interconnection Final Rule

SMALL GENERATOR INTERCONNECTION PROCEDURES (SGIP)

(For Generating Facilities No Larger Than 20 MW)

TABLE OF CONTENTS

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 shall be evaluated under the section 2 Fast Track Process. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 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 MW 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.

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

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.

1.3 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:

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

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

1.8.3 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 System if the Small Generating Facility is no larger than 2 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Attachments 3 and 4 of these procedures, or the Transmission Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

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[1].

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 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

[1] 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, 11th edition, Donald Fink, McGraw Hill Book Company)

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
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

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 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 Business Days after the determination.

2.2.4 If the proposed interconnection fails the screens, but 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 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; or

2.3.2 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, 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 15 Business Days of the offer, and submit a deposit for the estimated costs. 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 ten Business Days following receipt of the deposit for a supplemental review, the Transmission Provider will determine if the Small Generating Facility can be interconnected safely and reliably.

2.4.1.1 If so, the Transmission Provider shall forward an executable an interconnection agreement to the Interconnection Customer within five Business Days.

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 if the Small Generating Facility (1) is larger than 2 MW but no larger than 20 MW, (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.

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 this Agreement.

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 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.

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 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.

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 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.

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, 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 includes the section 2 screens, customer options meeting, and optional supplemental review.

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 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 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.

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]

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

Induction Generators:

Motoring Power (kW): _____
I_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 website 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

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

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. 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.

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: _____

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 each agree to maintain commercially reasonable amounts of insurance.

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-bonding 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.

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
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.

Attachment 7

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.

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 facilities study report shall be prepared and transmitted to the Interconnection Customer. Barring unusual circumstances, the facilities study must be completed and the facilities study report transmitted within 30 Business Days of the Interconnection Customer's agreement to conduct a facilities study.

9.0 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.

10.0 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.

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:_____

Appendix F to the Small Generator Interconnection Final Rule

SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)

(For Generating Facilities No Larger Than 20 MW)

TABLE OF CONTENTS

Page No.

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. 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, 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 a disturbance adversely affecting or impairing the system or equipment of the Transmission Provider or Affected Systems.

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

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

3.4 Temporary Disconnection

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 other Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The 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 Affected System operator may adopt any alternative payment schedule that is mutually agreeable so long as the Transmission Provider and Affected System operator 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 Affected System operator 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 Affected System operator 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 insured 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;

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.

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 currier 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

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.