

Proposal to Revise Rules on Small Generator Interconnections

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It has been over seven years since the Federal Energy Regulatory Commission (“FERC” or the “Commission”),¹ issued its order concerning interconnection of small generators, known as Order No. 2006. FERC has now determined that it is time to revise the federal rules on small generator interconnections (applicable to projects no larger than 20 MW). FERC’s Notice of Proposed Rulemaking (“NOPR”) was issued in response to the significant growth of small generator interconnection requests, increased solar generation, state renewable energy policies, the California Rule 21 reform for small generator distribution level interconnections, and the petition in 2012 by the Solar Energy Industries Association (“SEIA”) asserting that the existing rules had become unjust and unreasonable.²

As discussed below, the NOPR proposes four reforms geared towards increasing efficiency of small generator interconnections and decreasing costs and barriers to interconnection. Interconnection Customers, Transmission Providers, investors, and other potentially affected parties will want to closely review the NOPR and how it may impact their rights and obligations within the scope of small generator interconnections. Within 60 days of publication of the NOPR in the federal register, FERC will issue notice of technical workshops on the NOPR. Comments on the NOPR are due at FERC 120 days after publication in the Federal Register.

Proposed Reforms

The four key revisions proposed on small generator interconnections include (1) providing a process for a pre-application report; (2) revising the 2 MW threshold for participation in the Fast Track Process; (3) revising the customer option meeting available if an Interconnection Customer fails the Fast Track Process screen and seeks supplemental review; and (4) providing a process for Interconnection Customers to comment on proposed interconnection upgrades. The proposed rules under the NOPR will apply to interconnection of small generators to FERC jurisdictional interconnection, transmission, and distribution facilities.

1. *Pre-Application Report:*³

This would provide Interconnection Customers with the option to request a pre-application report from the Transmission Provider with information on a potential point of interconnection. The pre-application report is intended to enable developers to evaluate multiple points of interconnection prior to making a formal Interconnection Request, thereby reducing the volume of requests and increasing efficiency. To the extent available, the Transmission Provider would be required to provide information on: (i) total capacity and available capacity of facilities

serving the potential point of interconnection; (ii) existing and queued generation at the point of interconnection; (iii) voltage of facilities serving the point of interconnection; (iv) circuit distance between the point of interconnection and the substation serving it; (v) the number and rating of protective devices and voltage regulating devices between the point of interconnection and substation; (vi) the number of phases available at the point of interconnection; (vii) limiting conductor ratings; (viii) peak and minimum load data; and (ix) known constraints at the point of interconnection. The NOPR proposes a \$300 fee for the pre-application report.

2. Revised Threshold for Participation in the Fast Track Process:⁴

The Commission would change the threshold for participation in the Fast Track Process from 2MW to 5 MW, on a scale that considers other factors. The Fast Track Process uses technical screens rather than the scoping meeting and interconnection studies under the Study Process to evaluate reliability and safety issues, and would now rely upon system and generator characteristics that evaluate the interconnection voltage level, circuit distance between the point of interconnection and the substation, and generator capacity (elements that should be stated in a pre-application report). This matrix of eligibility would appear by line voltage as follows up to the 5 MW cap:

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

FERC noted that consideration of characteristics such as voltage and generator size were accepted under the Rule 21 settlement process (under Rule 21 technical questions such as starting voltage drop, short circuit current contribution and short circuit interrupting capability, and line configuration are reviewed), reflecting FERC’s efforts to build on approaches agreed to by certain Transmission Providers and Interconnection Customers in the United States, including in California where the California ISO (“CAISO”) has a 5 MW cap.⁵

3. Revisions to the Options Meeting and Availability of Supplemental Review:⁶

The NOPR would revise the procedures applicable if an Interconnection Customer’s project fails the Fast Track eligibility screens, including the 15% screen.⁷ Under the *pro forma* Small Generator Interconnection Procedures (“SGIP”), a project passing the screens will be offered a Small Generator Interconnection Agreement (“SGIA”). If a project fails a screen, but the Transmission Provider determines that its interconnection will not affect safety or reliability, the project will be offered an SGIA. If a decision regarding safety and reliability cannot be made, the

Transmission Provider must offer the Interconnection Customer the opportunity to attend a customer options meeting.

Under the NOPR, a Transmission Provider would be required to provide an interconnection agreement for the project within five business days of the options meeting, if the Interconnection Customer agrees to pay for minor modifications on the transmission system. Further, the NOPR would modify the interconnection procedures so that supplemental review evaluating safety and reliability are performed at the discretion of the Interconnection Customer.

The Commission proposes to include three additional screens as part of the supplemental review (to cost \$2,500), similar to Rule 21 screens:⁸ (i) 100% minimum load screen (using daytime minimum load for solar facilities and absolute minimum load for all other generators) (the "Minimum Load Screen"), evaluating aggregate capacity on the line in comparison to 100% minimum load;⁹ (ii) the power quality and voltage screen;¹⁰ and (iii) the safety and reliability screen.¹¹ These screens have been proposed in an effort to decrease interconnection costs in regions where the level of small generating facilities is causing Interconnection Customers to fail the 15% screen, but leave in place the 15% screen as an initial threshold.

4. Opportunity to Comment On Proposed Upgrades:¹²

The NOPR would revise the SGIP to provide Interconnection Customers with the opportunity to meet and comment on interconnection upgrades proposed by the Transmission Provider in the draft facilities study, similar to the process under the large generator interconnection procedures ("LGIP"). The Commission notes its concern that the *pro forma* SGIP could result in unjust and unreasonable interconnection costs. Under the revised procedures, the Interconnection Customer may provide written comments on the draft facilities study report, which the Transmission Provider must include in the final report. The Transmission Provider must also provide the Interconnection Customer with the supporting documentation and workpapers underlying the facilities study.

Other changes proposed included: (a) clarification that as stated in Order No. 2006,¹³ if a small generator desires to interconnect through Network Resource Interconnection Service ("NRIS") it must interconnect under the LGIP; and (b) the requirement that Interconnection Customers design, install, maintain, and operate their generating facilities according to standards that prevent automatic disconnection during over- or under-frequency events, to address a concern that small generating facilities (particular solar projects) could endanger reliability during such events.¹⁴

Workshops

At the workshops, FERC will discuss technical aspects of the proposed revisions and review:¹⁵

- Whether the proposals on Fast Track eligibility need modification to preserve safety and reliability;
- The additional screens under the supplemental review process;
- The content to be included in the pre-application report;
- The fees proposed for the pre-application report and supplemental review; and
- Whether storage devices should be treated as small generating facilities.

Areas Of Potential Concern

The NOPR, through its incorporation of concepts from the California Rule 21 settlement process has attempted to propose revisions which already reflect compromise between Transmission Providers and Interconnection Customers. Nonetheless, there still are likely to be areas of dispute, including questions on the extent to which distribution interconnection reforms in California should be applied throughout the rest of the country. With regard to the four overarching reforms proposed, the following concerns might be voiced in comments:

1. *Pre-Application Report Process*

The pre-application report is intended to increase transparency in the interconnection process, by requiring public utility Transmission Providers to provide existing information on potential points of interconnection. As proposed, the report is geared towards enabling developers to more quickly evaluate potential points of interconnection by allowing them to avoid going all the way through the formal interconnection application and study process to evaluate a project's feasibility. With the level of information that the pre-application report should provide, based on the NOPR, it could reduce the need for submission of multiple interconnection requests to the same or multiple potential Transmission Providers, in order for the Interconnection Customer to obtain the information that the pre-application report is intended to provide. On the other hand, Transmission Providers might argue that the pre-application report process will overburden them, be costly, and prevent processing interconnection requests already queued.

One issue not yet discussed is how the information provided in the pre-application report could impact the overall construction of the bulk electric system, as Interconnection Customers may potentially avoid certain areas and gravitate towards others based on existing Transmission Provider infrastructure. The results of the pre-application report process could lead to increased competition for the points of interconnection perceived as more advantageous or less costly. Another related issue that might arise out of these reports, is that the Commission and the public might become more aware of weaknesses in the transmission system in pockets of regions.

2. *Revised Fast Track Eligibility*

As noted above, the revised sliding scale of threshold eligibility for participation in the Fast Track process includes a cap of 5 MW. While higher than the current 2 MW level, some might consider it still too low. The SEIA Petition, for example, initially advocated a 10 MW limit.¹⁶ FERC notes that its 5 MW limit is the same as the revised limit included in CAISO's recent tariff revisions.¹⁷ In contrast to generation developers, Transmission Providers might be concerned that expanded Fast Track eligibility could risk reliability and safety.¹⁸

In addition, some commenters might question the value of the supplemental screens after the revised options meeting procedures, in light of the flexibility granted to Transmission Providers in completing them. For example, with regard to the Minimum Load Screen, a Transmission Provider is given flexibility to note it is impossible for it to either find or estimate minimum load data, and in that case, then it must state that in writing, along with the reasons why this information is unavailable. Transmission Providers might point out that such flexibility in completing the supplemental screens, is necessary as some analysis would require information that the Transmission Provider might not normally track. With regard to an inability to determine minimum load, the NOPR provides that "[c]ommenters express[ed] concern that minimum load

data are not commonly tracked by utilities.”¹⁹ Therefore, the flexibility provided may be important to resolving practical concerns.

3. *Comments on Proposed Upgrades*

The ability for Interconnection Customers to review upgrades that Transmission Providers propose as necessary to achieve the requested interconnection would be an important advancement towards placing small and large generators on more equal footing. It also could increase efficiency of the interconnection process by reducing the number of disputes, if Transmission Providers and Interconnection Customers truly listen to each other’s concerns during the comment and discussion process.

However, developers might believe that the proposed revisions allowing for written comments still provide insufficient protection. In particular, the NOPR states that Transmission Providers would still retain final authority over determining which upgrades are appropriate. Transmission Providers might feel that this final decision-making authority is critical, as they are ultimately responsible for the safety and reliability of the transmission system, as stated in the NOPR.²⁰

4. *Existing Tariffs*

Certain California public utility Transmission Providers, have already proposed revisions to their tariffs to incorporate the concepts in Rule 21 and those filings are pending before the Commission.²¹ Those tariffs would need to be further revised if the proposals in the NOPR are instituted. In addition, entities outside of California will be expected to comply with the final rulemaking. The Commission has stated that entities with tariffs deviating from the *pro forma* will need to demonstrate that variations are still consistent with or superior to the *pro forma*.

Non-public utility Transmission Providers should also note that the NOPR states that those non-public utilities that wish to maintain Order No. 888 Safe Harbor status for their tariffs or reciprocity will need to adopt the revised small generator interconnection requirements.

Compliance filings reflecting the reforms will be due within six months after the Commission’s Final Rule on the NOPR.²²

Conclusion

Developers and affected utilities will want to review the NOPR very closely, to determine what extent the proposed reforms adversely impact their interests and how they might provide a more cost efficient way to pursue interconnection concerns. Lenders and investors, though not directly impacted, will also want to understand how the rules will operate and impact timing as they evaluate financing proposed projects in the development queue. Filing of actual comments in the proceeding would enable interested parties to speak to any specific concerns or issues that they believe should be addressed more fully. It could also help developers ensure that pre-application reports contain the type of information that would be the most useful when evaluating potential projects and points of interconnection, while assisting Transmission Providers ensure that the revised requirements do not impair their ability to safeguard safety and reliability of the system. In addition, participation in the rulemaking affords an opportunity to propose an alternative proposal. It is important to note that the standard form SGIA reflects significant changes in contract terms to implement the proposed reforms. To the extent interested parties believe that different language is more appropriate, the comments would provide an opportunity to actually present desired contract language to be used in lieu of the new contract provisions proposed by FERC in the NOPR.



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

² *Small Generator Interconnection Agreements and Procedures, Notice of Proposed Rulemaking*, 142 FERC ¶ 61,049 (2013) (the "NOPR"). *See also*, *Solar Energy Industries Association Petition for Rulemaking to Update Small Generator Interconnection Rules and Procedures for Solar Electric Generation*, Docket No. RM12-10-000 (filed Feb. 16, 2012) ("SEIA Petition"); *and Motion to Lodge of the Public Utilities Commission of the State of California*, Docket No. RM12-10-000 (filed Oct. 8, 2012) ("CPUC Motion to Lodge") (including discussion of the revised Electric Rule 21 Tariff ("Rule 21") on distribution level interconnections); *and CPUC D.12-09-018, Decision Adopting Settlement Agreement Revising Distribution Level Interconnection Rules and Regulations – Electric Tariff Rule 21 and Granting Motions to Adopt the Utilities' Rule 21 Transition Plans*, (Sept. 13, 2012).

³ *Id.*, at PP 3, 26-29. The Commission notes that the \$300 fee is the same amount applicable for a Rule 21 pre-application report.

⁴ NOPR, at PP 3, 30-32.

⁵ The Commission noted that Pacific Gas and Electric Company ("PG&E") eliminated the 2 MW cap entirely and uses soft cap guidelines that represent estimates of the MW size that would violate the 15% screen reflected in Section 2.2.1 of the current *pro forma* SGIP, and that San Diego Gas and Electric Company has stated it supports the Rule 21 system of evaluation for Fast Track eligibility. *See* NOPR, at P 31-32.

⁶ NOPR, at PP 3, 33-40. *See also* CPUC Motion to Lodge, at p. 2.

⁷ *See pro forma* SGIP, at Section 2.2.1.2; *and* NOPR at P 10, quoting Section 2.2.1.2 and the 15% Screen as:

"For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15 [percent] of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Transmission Provider's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line."

⁸ *See* CPUC Motion to Lodge, at Attachment B, Section G.2; *see also* NOPR, at n. 56. The same \$2,500 fee also applies to Rule 21 supplemental review.

⁹ NOPR, at P 36; *and id.*, at Appendix C, revised SGIP, at Section 2.4.1.1. FERC states that "[t]he Minimum Load Screen asks whether the aggregate generation facility capacity on a line section is less than 100 percent of the minimum load measured during the period relevant for the generator type for all line sections bounded by automatic sectionalizing devices upstream of the generation facility" although the screen also allows Transmission Providers the flexibility to estimate minimum load if the data is not readily available. If neither the minimum load data nor an estimate is available, the Transmission Provider must inform the Interconnection Customer of that in writing and provide the reasons that obtaining such information is not possible.

¹⁰ *Id.*, at P 37; *and id.*, at Appendix C, revised SGIP, at Section 2.4.1.2 (evaluating whether voltage regulation, fluctuation, and harmonic levels fall within acceptable limits).

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- ¹¹ *Id.* at P 37; *and id.* at Appendix C, revised SGIP, at Section 2.4.1.3. This screen examines potential safety or reliability impacts and includes evaluation of distribution of loading, whether a line section has significant minimum loading levels dominated by a few customers, proximity to a substation and whether the line is composed of large conductor cable, whether the proposed project incorporates a time delay function, whether operational flexibility would be reduced by the project; and whether the proposed project uses equipment or systems certified to address technical issues such as islanding or voltage quality.
- ¹² NOPR, at PP 3, 41-44; *and* Appendix C, revised SGIP, at Attachment 8 (Facilities Study Agreement), at Section 9.0.
- ¹³ Order No. 2006, at P 140 (providing "If [an Interconnection Customer] 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.") (note that the NOPR references Order No. 2003, however, this is erroneous).
- ¹⁴ NOPR, at PP 45-46.
- ¹⁵ NOPR, at PP 47-49.
- ¹⁶ SEIA Petition, at p. 17.
- ¹⁷ *Cal. Indep. Sysm. Operator Corp.*, 133 FERC ¶ 61,223 (2010).
- ¹⁸ Joint Protest of National Rural Electric Cooperative Association and America Public Power Association, Docket No. RM12-10-000, at p. 7-10 (Mar. 27, 2012).
- ¹⁹ NOPR, at fn. 58.
- ²⁰ NOPR, at P 42.
- ²¹ *See e.g. Southern California Edison Company submits tariff filing per 35.13(a)(2)(iii): Modifications to WDAT Generator Interconnection Procedures*, Docket No. ER13-352-000 (filed Dec. 7, 2012); *and Pacific Gas and Electric Company submits tariff filing per 35.13(a)(2)(iii): Amendment to WD Tariff: Generator Interconnection Procedures*, Docket No. ER13-494-000 (Dec. 3, 2012).
- ²² NOPR, at PP 50-53.