148 FERC ¶ 61,246
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
and Norman C. Bay.

Midcontinent Independent System Operator, Inc. — Docket No. ER14-2562-000

ORDER ON COMPLIANCE FILING

(Issued September 30, 2014)

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1. On August 1, 2014, Midcontinent Independent System Operator, Inc. (MISO) filed revisions to its Generator Interconnection Procedures (GIP) contained in Attachment X of MISO's Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff) to comply with the requirements of Order No. 792.[1] MISO also submitted additional revisions to its GIP that were not strictly required by Order No. 792. In this order, we accept in part and reject in part MISO's Tariff revisions, subject to further compliance, to become effective October 1, 2014, as discussed below.

I. Background

2. In Order No. 2006,[2] the Commission established *pro forma* Small Generator Interconnection Procedures (SGIP) and a *pro forma* Small Generator Interconnection Agreement (SGIA) for the interconnection of small generation resources no larger than 20 megawatts (MW). The *pro forma* SGIP describes how an interconnection customer's interconnection request (application) should be evaluated, and includes three alternative procedures for evaluating an interconnection request. These procedures include the Study Process, which can be used by any generating facility, and two procedures that use certain technical screens to quickly identify any safety or reliability issues associated with proposed interconnections: (1) the Fast Track Process for certified small generating facilities no larger than 2 MW; and (2) the 10 kilowatt (kW) Inverter Process for certified inverter-based small generating facilities no larger than 10 kW.

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[1] *Small Generator Interconnection Agreements and Procedures*, Order No. 792, 78 Fed. Reg. 73,240 (Dec. 5, 2013), 145 FERC ¶ 61,159 (2013) (Order No. 792 or the Final Rule), *clarified*, Order No. 792-A, 146 FERC ¶ 61,214 (2014) (Order No. 792-A).

[2] *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) (Order No. 2006).

3. Order No. 792 amends the Commission's *pro forma* SGIP and *pro forma* SGIA[3] adopted in Order No. 2006 as follows: (1) incorporating provisions in the *pro forma* SGIP that provide an interconnection customer with the option of requesting from the transmission provider a pre-application report providing existing information about system conditions at a possible point of interconnection;[4] (2) revising the 2 MW threshold for participation in the Fast Track Process included in section 2 of the *pro forma* SGIP;[5] (3) revising the *pro forma* SGIP customer options meeting and the supplemental review following failure of the Fast Track screens so that supplemental review is performed at the discretion of the interconnection customer and includes minimum load and other screens to determine if a small generating facility may be interconnected safely and reliably;[6] (4) revising the *pro forma* SGIP facilities study agreement to allow the interconnection customer the opportunity to provide written comments to the transmission provider on the upgrades required for interconnection;[7] (5) revising the *pro forma* SGIP and the *pro forma* SGIA to specifically include energy storage devices;[8] and (6) clarifying certain sections of the *pro forma* SGIP and the *pro forma* SGIA.[9] The reforms were adopted to ensure that interconnection time and costs for interconnection customers and transmission providers are just and reasonable and to help remedy undue discrimination, while continuing to ensure safety and reliability.

4. Order No. 792 requires each public utility transmission provider to submit a compliance filing within six months of the effective date of Order No. 792 to demonstrate that it meets the requirements of the Final Rule.[10] Filings adopting the revised SGIP and SGIA without variation are to be filed under section 206 of the Federal Power Act (FPA).[11] The Commission stated that it would consider variations from the Final Rule.[12]

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[3] *See* 18 C.F.R. § 35.28(f) (2014).

[4] Order No. 792, 145 FERC ¶ 61,159 at PP 37-40.

[5] *Id*. PP 102-110.

[6] *Id*. PP 117, 141-148,156-161.

[7] *Id*. PP 203-209.

[8] *Id*. PP 227-231.

[9] *Id*. PP 235-236, 260-261.

[10] *Id*. P 269.

[11] Order No. 792-A, 146 FERC ¶ 61,214 at P 2.

In Order No. 792-A, the Commission clarified that a public utility transmission provider may submit a filing under FPA section 205[13] demonstrating "that either a variation that has not been previously approved by the Commission, or a previously-approved variation from the [Order No. 2006] *pro forma* language that has been substantively affected by the reforms adopted in the Final Rule, meets one of the standards for variance provided for in the Final Rule, including independent entity variations, regional reliability variations, and variations that are 'consistent with or superior to' the Final Rule."[14]

5. The Commission permits regional transmission organizations (RTOs) and independent system operators (ISOs) to seek "independent entity variations" from the *pro forma* SGIP and SGIA. Such entities may be treated differently because an RTO or ISO has different operating characteristics depending on its size and location and is less likely to act in an unduly discriminatory manner than a transmission provider that is also a market participant. The RTO or ISO therefore has greater flexibility to customize its interconnection procedures and agreements to accommodate regional needs.[15]

II. Compliance Filing

6. In its August 1, 2014 compliance filing, MISO requests approval of its existing GIP contained in Attachment X of its Tariff as compliant with the requirements of Order No. 792 under the independent entity variation standard.[16] Additionally, MISO proposes to revise Attachment X of its Tariff to change its Fast Track participation threshold from 2 MW to 5 MW, rather than adopting the range of Fast Track eligibility thresholds set by

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[12] Order No. 792, 145 FERC ¶ 61,159 at P 270.

[13] 16 U.S.C. § 824d (2012).

[14] Order No. 792-A, 146 FERC ¶ 61,214 at P 3. *See also* Order No. 792, 145 FERC ¶ 61,159 at PP 273-274.

[15] *Id*. P 274. *See also Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146, at PP 822-827, *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160 (2003), *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 552 U.S. 1230 (2008).

[16] MISO Compliance Filing at 1. MISO notes that this filing supersedes its earlier compliance filing made prior to the issuance of Order No. 792-A in Docket No. ER14-1247-000. *Id.* at 1 n.2.

the Commission in Order No. 792, as further described below.[17] MISO seeks an effective date for its compliance filing of October 1, 2014.

7. MISO states that it revised its GIP in 2008 to streamline its interconnection queueing practices, and at that time, the Commission accepted MISO's modifications to remove the SGIP entirely from its Tariff and replace it with a single GIP and Generator Interconnection Agreement (GIA) that covers all generator interconnection projects regardless of size.[18] MISO states that its GIP was also amended in 2009 to address physical constraints that were delaying the interconnection of new generation in many areas of MISO's footprint and streamline the processing of interconnection requests.[19] MISO states that it made further revisions to the GIP in 2012 to extend the idea of "first-ready, first-served" in the queueing process by removing timelines for interconnection customers during the queueing process.[20] MISO states that its existing GIP already addresses the major concerns that led the Commission to revise the *pro forma* SGIP and SGIA in Order No. 792, and provides in many instances the same or more information and opportunities for interconnection customers.[21] MISO states that its existing policies and procedures are consistent with the goals of Order No. 792, are not unduly discriminatory, and are just and reasonable, and should therefore be approved under the independent entity variation standard.[22]

III. Notice of Filing and Responsive Pleadings

8. Notice of the compliance filing was published in the *Federal Register*, 79 Fed. Reg. 46,429 (2014), with interventions and protests due on or before August 22, 2014.

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[17] *See infra* PP 24-28.

[18] MISO Compliance Filing at 1, 3 (referencing *Midwest Indep. Transmission Sys. Operator, Inc.*, 124 FERC ¶ 61,183 (2008), *order on reh'g*, 127 FERC ¶ 61,294, *order on compliance and requiring further compliance*, 127 FERC ¶ 61,295 (2009)).

[19] *Id.* at 3 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 129 FERC ¶ 61,301 (2009)).

[20] *Id.* at 4 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 138 FERC ¶ 61,233, at PP 29-30, *order on reh'g and compliance filing*, 139 FERC ¶ 61,253 (2012)).

[21] *Id.* at 8.

[22] *Id.* at 10.

9. Timely motions to intervene were submitted by American Transmission Company LLC, Consumers Energy Company, NRG Companies,[23] Wisconsin Electric Power Company, and E.ON Climate & Renewables North America LLC. A timely motion to intervene and protest was filed by the Interstate Renewable Energy Council, Inc. (IREC). MISO filed a motion for leave to answer and answer on September 8, 2014.

IV. Discussion

A. Procedural Matters

10. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2014), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

11. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2014), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept MISO's answer because it has provided information that assisted us in our decision-making process.

B. Substantive Matters

12. We find that certain aspects of MISO's Tariff language comply with the requirements adopted in Order No. 792. However, we find that other aspects of MISO's filing do not comply with the requirements of Order No. 792, and that MISO has not justified that its Tariff qualifies for acceptance under the independent entity variation standard. Accordingly, we accept in part and reject in part MISO's compliance filing, subject to further compliance, as discussed below. We direct MISO to submit a compliance filing within 60 days of the date of this order.[24]

1. Pre-Application Report

13. In Order No. 792, the Commission required each public utility transmission provider to provide interconnection customers the option to request a pre-application

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[23] For purposes of this filing, the NRG Companies are NRG Power Marketing LLC and GenOn Energy Management, LLC.

[24] In its compliance filing, MISO is directed to revise its GIP to incorporate the corrections to the *pro forma* SGIP identified in the September 19, 2014 errata notice issued in Docket No. RM13-2-000. *See Small Generator Interconnection Agreements and Procedures*, 148 FERC ¶ 61,215 (2014).

report that would contain readily available information about system conditions at a point of interconnection in order to help that customer select the best site for its small generating facility.[25]

14. To the extent readily available, the pre-application report must include, among other items: (1) total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed point of interconnection; (2) existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed point of interconnection; and (3) aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed point of interconnection.[26]

15. In order to resolve uncertainty about the precise location of the point of interconnection and expedite the pre-application report process, the Commission required interconnection customers requesting a pre-application report to submit a written request form that includes, among other items, project contact information, project location, and generator type and size.[27] Customers are required to submit a non-refundable fee along with the written request form to compensate the transmission provider for the cost of compiling the pre-application report. Transmission providers are required to provide the pre-application report within 20 business days of receiving the completed request form and payment of the fee.[28]

16. The Commission adopted a $300 fee as the default pre-application report fee in the *pro forma* SGIP. Order No. 792 allows transmission providers to propose a different fixed cost-based fee for preparing pre-application reports, supported by a cost justification, as part of their compliance filings.[29]

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[25] Order No. 792, 145 FERC ¶ 61,159 at P 37.

[26] *See* SGIP section 1.2.3 for the complete list of items in the pre-application report.

[27] Order No. 792, 145 FERC ¶ 61,159 at P 56. *See* SGIP section 1.2.2 for the complete list of items in the pre-application report request form.

[28] Order No. 792, 145 FERC ¶ 61,159 at P 51; SGIP section 1.2.2.

[29] Order No. 792, 145 FERC ¶ 61,159 at PP 45-46.

a. Compliance Filing

17. MISO states that section 6.1 of its existing GIP contains provisions for a pre-queue consultation phase in which, prior to submission of an interconnection request, MISO makes a wide array of information and resources available to the prospective interconnection customer.[30] MISO states that its website contains online training programs and other informational material, and that MISO also periodically schedules information sessions in which prospective interconnection customers can participate to gain insight into topics such as milestones in the interconnection process and study timelines. MISO further states that it engages in *ad hoc* information sessions when requested by potential interconnection customers, and that it tailors each meeting to address the particular needs or challenges associated with each interconnection request.[31] MISO states that the information discussed at these meetings with the interconnection customer and potentially impacted transmission owners is not limited to specific topics, and includes any items of concern to a potential interconnection customer.[32] For example, MISO states that it would generally provide a copy of a recent contour map, which presents an estimate of the available transmission capacity in the MISO footprint and which details the area surrounding the interconnection customer's potential project site. The map also "provides indication of the time it would take to study and eventually connect the proposed project at the desired location."[33]

18. MISO argues that its pre-queue informational phase serves the same purpose as the Order No. 792 pre-application report and provides potential interconnection

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[30] MISO Compliance Filing at 4.

[31] *Id.* at 4-5; MISO FERC Electric Tariff, Attachment X (GIP), § 6.1 (34.0.0).

[32] MISO states that topics of discussion may include, but are not limited to: (1) facility loadings; (2) instability issues; (3) short circuit issues; (4) voltage issues including voltage and frequency ride-through capabilities for Generating Facilities; (5) power quality issues including voltage flicker, harmonics; (6) reliability issues as may be reasonably required to accomplish the purpose of the meeting; (7) estimated timing of interconnection request proceeding to the definitive planning phase; and (8) estimated in-service date for the request. In addition, topics of discussion may include information provided by the interconnection customer, such as but not limited to: (1) project location; (2) point of interconnection; (3) generator type; (4) size (alternating current kW); and (5) single or three phase generator configuration. MISO Compliance Filing at 5.

[33] *Id.*

customers with similar information before an interconnection request is submitted.[34] MISO states that the pre-queue phase ensures that there are discussions between MISO and a potential interconnection customer so that the interconnection customer is as prepared as possible when entering the queue. MISO asserts that the discussions with interconnection customers will answer the same questions that the Order No. 792 pre-application report seeks to answer, and are not limited to the information in the pre-application report. MISO states that, as with the pre-application report, MISO's meetings use readily available information data and are not binding.[35] MISO states that its pre-queue discussion phase is superior in some respects to the pre-application report because the information in the pre-queue phase is provided at no cost before an interconnection request is made, while the pre-application report must be provided within 20 business days of receiving a request for the report along with a fee of $300.[36] MISO argues that its pre-queue process achieves the same goals of transparency and data sharing as Order No. 792 in a more efficient and non-discriminatory manner, without the cost and expenditure of resources that the pre-application report would entail, and that it meets the independent entity variation standard.

b. <u>Protest</u>

19. IREC states that there are substantial compliance gaps in MISO's GIP. IREC states that the modifications necessary to achieve compliance would not adversely impact the progress MISO has made in improving its GIP since 2008, and that achieving compliance would avoid a lengthy reform process in the future.[37]

20. IREC supports MISO's existing pre-queue phase, but asserts that the pre-application report would enhance the existing process and provide a valuable alternative means for interconnection customers to obtain information without unreasonably burdening MISO.[38] IREC states that MISO's current pre-queue process lacks a timeframe and a written element, which the pre-application report would provide.[39] For instance,

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[34] *Id.* at 11.

[35] *Id.* at 12.

[36] *Id.*

[37] IREC Protest at 5.

[38] *Id.* at 6.

[39] *Id.* at 7.

IREC states that, at MISO's pre-queue meetings, it is possible that interconnection customers may not know what information they will need before filing an application. IREC asserts that the pre-application report solves this problem by providing a checklist of important information that may make the application phase more efficient. IREC asserts that interconnection customers could choose to pay for the cost of preparing the report without MISO having to eliminate their current options for pre-queue consultation, and it is reasonable for MISO to provide that alternative. IREC further argues that the pre-application report provides a benefit to utilities because the report would potentially result in fewer speculative applications filed and less wasted time for utilities and others in the queue.

c. MISO Answer

21. MISO reiterates that implementing a specific pre-application report is not necessary because MISO's existing customer information process exceeds the goals of Order No. 792.[40] For instance, while MISO states that it does not provide a specific timeline for the pre-queue phase in section 6.1 of its GIP, it makes reasonable efforts to respond to requests in 10 business days.[41] MISO also argues that imposing a second, parallel process to its existing no-cost pre-queue phase would be unnecessary and duplicative. For instance, MISO states that, due to its single unified GIP for both large and small generating facilities, the pre-application report would cause confusion that such reports either: (1) apply only to the minority of small generators, which would be discriminatory against large generator projects; or (2) apply to all generators, which would make the fee and timeframe required in Order No. 792 unreasonable.[42] MISO states that Order No. 792 did not contemplate an application process for large generators, and because many projects within MISO are large complex projects, applying a specific timeline uniformly to all projects under the GIP would disrupt MISO's established process while adding little to no value to its existing pre-queue process.[43]

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[40] MISO Answer at 2-3.

[41] *Id.* at 3. MISO states that no MISO stakeholder has raised concerns with this timeline or with the pre-queue process.

[42] *Id.* MISO also states that $300 would be insufficient to cover the costs of preparing a pre-application report.

[43] *Id.* at 3-4.

d. Commission Determination

22. We find that MISO's pre-queue informational phase does not meet the requirements of Order No. 792 and that MISO has not sufficiently demonstrated that its existing pre-queue process qualifies for approval under the independent entity variation standard. While MISO's pre-queue process does provide helpful information to a potential interconnection customer, it fails to memorialize such information through a pre-application report or to provide a concrete timeline for when such memorialized information will be provided, as contemplated in Order No. 792. The pre-application report provides a checklist of important information that may make the pre-application phase more efficient for both transmission providers and interconnection customers. Thus, we agree with IREC's assertion that implementation of the pre-application report would provide a valuable means for interconnection customers to obtain information without unreasonably burdening MISO.

23. In response to MISO's answer, we find that the pre-application report would only apply to small generators, as required under Order No. 792, and direct MISO to revise its Tariff accordingly. We also find that applying such procedures to small generators would not be unduly discriminatory against large generators, as argued by MISO, because the Commission established separate procedures for small generators in Order No. 2006, and confirmed in Order No. 792 that streamlined interconnection procedures are warranted for small generators.[44] We direct MISO to submit, in a compliance filing due within 60 days of the date of this order, Tariff revisions that implement the pre-application report language in section 1.2 of the *pro forma* SGIP as amended in Order No. 792, modified as appropriate to conform to the structure of MISO's GIP. MISO is also directed to either include the default $300 fee for the pre-application report or to propose and sufficiently justify a different pre-application report fee based on the demonstrated costs of producing such a report.

2. Fast Track Threshold

24. In Order No. 792, the Commission modified section 2.1 of the *pro forma* SGIP to adopt revised eligibility thresholds for participation in the Fast Track Process. The new criteria are based on individual system and generator characteristics. Specifically, the Fast Track eligibility threshold for inverter-based machines that are either certified or have been reviewed or tested by the transmission provider and are determined to be safe to operate will be based on Table 1 below.[45]

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[44] *See* Order No. 792, 145 FERC ¶ 61,159 at PP 21-27.

[45] *Id.* PP 103-104.

Table 1: Fast Track Eligibility for Inverter-Based Systems

Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline[46] and ≤ 2.5 Electrical Circuit Miles from Substation[47]
< 5 kilovolt (kV)	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 2 MW	≤ 3 MW
≥ 15 kV and < 30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

25. The Commission maintained the Fast Track eligibility threshold for synchronous and induction machines at 2 MW.[48] Additionally, Fast Track eligibility is limited to those projects connecting to lines at 69 kV and below.[49]

a. <u>Compliance Filing</u>

26. MISO states that section 14 of its current GIP already contains an expedited Fast Track Process, which is available to an interconnection customer proposing to interconnect its small generating facility with MISO's system if the facility is no larger than 2 MW and if the interconnection customer's proposed facility meets certain requirements.[50] As further described below,[51] MISO states that this process includes

[46] For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil. One circular mil (cmil) is the area of a circle with a diameter of one mil (one mil is one-thousandth of an inch). Conductor sizes are often given in thousands of circular mils (kcmil). One kcmil = 1,000 cmil.

[47] An interconnection customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.2 of the *pro forma* SGIP.

[48] Order No. 792, 145 FERC ¶ 61,159 at P 106.

[49] *Id.* P 107.

[50] MISO Compliance Filing at 6-7.

[51] *See infra* PP 35-36.

several screens, a customer options meeting when modifications or supplemental studies are necessary, and performance of a supplemental review by MISO at an interconnection customer's request.[52]

27. MISO notes that Order No. 792 replaced the 2 MW Fast Track participation threshold in the *pro forma* SGIP with a qualification scheme that is based upon the individual system and generator characteristics, with projects up to a limit of 5 MW being able to qualify under certain circumstances.[53] MISO states that it is not seeking an independent entity variation regarding the eligibility threshold, and proposes to increase the Fast Track eligibility threshold from 2 MW to 5 MW in compliance with the goals of Order No. 792.

b. Commission Determination

28. We find that MISO's proposal to revise its Fast Track eligibility threshold from 2 MW to 5 MW is consistent with the requirement in Order No. 792 that generator projects up to 5 MW should be eligible for participation in the Fast Track Process. Consistent with Commission precedent,[54] we accept this MISO Tariff revision.

3. Fast Track Customer Options Meeting and Supplemental Review

29. In Order No. 792, the Commission adopted modifications in section 2.3 of the *pro forma* SGIP to the customer options meeting to be held following the failure of any of the Fast Track screens.[55] In particular, the Commission required the transmission provider to offer to perform a supplemental review of the proposed interconnection without condition, whereas prior to Order No. 792, the determination of whether to offer to perform the supplemental review was at the discretion of the transmission provider.

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[52] MISO Compliance Filing at 13.

[53] *Id.* at 12.

[54] *See Cal. Indep. Sys. Operator Corp*., 133 FERC ¶ 61,223, at PP 114-115 (2010) (accepting the 5 MW Fast Track eligibility threshold proposed by the California Independent System Operator).

[55] Order No. 792, 145 FERC ¶ 61,159 at P 117.

30. In Order No. 792, the Commission modified the supplemental review by including three screens: (1) the minimum load screen; (2) the voltage and power quality screen; and (3) the safety and reliability screen.[56]

31. The minimum load screen adopted in section 2.4.4.1 of the *pro forma* SGIP examines whether the aggregate generating capacity, including the proposed small generating facility capacity, is less than 100 percent of the minimum load within the line sections bounded by automatic sectionalizing devices upstream of the proposed small generating facility. The Commission found that, with respect to solar photovoltaic generation systems with no battery storage, the relevant minimum load value to be used in the minimum load screen is the daytime minimum load. For all other types of generation, the relevant minimum load value is the absolute minimum load. In the event that a transmission provider is unable to perform the minimum load screen because minimum load data are not available, or cannot be calculated, estimated, or determined, the Commission required the transmission provider to provide the reason(s) it is unable to perform the screen.

32. The voltage and power quality screen adopted in section 2.4.4.2 of the *pro forma* SGIP examines three things: (1) whether the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) whether voltage fluctuation is within acceptable limits; and (3) whether the harmonic levels meet Institute of Electrical and Electronics Engineers (IEEE) Standard 519 limits.[57]

33. The safety and reliability screen adopted in section 2.4.4.3 of the *pro forma* SGIP examines whether the proposed small generating facility and the aggregate generation capacity on the line section create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Commission required the transmission provider to give due consideration to a number of factors (such as whether operational flexibility is reduced by the proposed small generating facility) in determining potential impacts to safety and reliability in applying the safety and reliability screen.

34. The Commission revised, in sections 2.4.1 through 2.4.4 of the *pro forma* SGIP, the procedures for initiating, processing, and communicating the results of the supplemental review. Among other things, the Commission provided that the

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[56] *Id.*

[57] *See* IEEE Standard 519, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.

interconnection customer may specify the order in which the transmission provider will complete the three supplemental screens in section 2.4.4.[58]

a. Compliance Filing

35. MISO explains that its existing Fast Track Process is similar to the process required by Order No. 792 and serves the same goals being addressed by the Commission.[59] MISO states that, within 15 days of MISO notifying an interconnection customer that it has received a complete interconnection request for a small generating facility that qualifies for participation in the Fast Track Process, MISO performs an initial review to determine if the request passes all screens included in its GIP.[60] MISO states that, if the proposed interconnection passes the screens, or if it fails the screens but MISO determines that the facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, then MISO will approve the request and provide the interconnection customer with an executable GIA within five business days.

36. MISO states that if the proposed interconnection fails the initial screens, MISO will offer to meet with the interconnection customer at a customer options meeting, where MISO will review possible facility modifications or the screen analysis and related results to determine what further steps may be needed to safely and reliably interconnect the proposed facility.[61] Before or at the meeting, MISO states that it will: (1) offer to perform facility modifications or minor modifications to the MISO system; (2) offer to perform a supplemental review if MISO concludes that a review might determine that the small generating facility could continue to qualify for interconnection pursuant to the Fast Track Process; or (3) agree to continue evaluating the interconnection request pursuant to the normal Attachment X GIP. If supplemental review is chosen and the interconnection customer provides a deposit, MISO states that it will perform a review within 10 business days. If MISO is unable to determine that the facility can be interconnected safely and reliably, then the request will be evaluated under the Attachment X GIP study process.[62]

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[58] Order No. 792, 145 FERC ¶ 61,159 at P 164.

[59] MISO Compliance Filing at 13.

[60] *Id.* at 7. *See* MISO, FERC Electric Tariff, Attachment X (GIP), § 14.2.1 (34.0.0).

[61] MISO Compliance Filing at 7.

[62] *Id.* at 7-8.

37. MISO states that there are substantial differences between the MISO region, the MISO system, and other regions of the country that warrant acceptance of MISO's GIP under the independent entity variation standard.[63] MISO argues that many of the concerns that Order No. 792 is intended to address were driven by challenges facing more densely-populated areas receiving a large number of small generator interconnection requests, based on the proliferation of small solar markets, such as California and New Jersey. MISO argues that it qualifies for an independent entity variation because it is not experiencing a substantial number of interconnection requests for facilities 20 MW or less, which represents approximately 12 percent of total interconnection requests received since January 1, 2010.[64] In contrast, MISO avers that nearly two-thirds of the projects in the PJM Interconnection LLC interconnection queue are proposed to be 20 MW or less. MISO also asserts that states in the MISO footprint have not had difficulties meeting state renewable portfolio standards because there have not been delays in interconnecting renewable generation.[65]

38. MISO argues that adoption of the supplemental review screens[66] contained in Order No. 792 is not necessary to efficiently and effectively process its interconnection queue in a non-discriminatory manner.[67] MISO states that its existing pre-queue phase serves the same purpose as the supplemental review screens; that is, MISO provides interconnection customers with information similar to that required by the Commission in Order No. 792 before a customer options meeting is held and even before an interconnection request is submitted. Additionally, MISO states that if a proposed

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[63] *Id.* at 8.

[64] *Id.* at 9. MISO states that small solar generators have been more active in interconnecting facilities at the distribution level within MISO, while the majority of interconnection requests that MISO receives relate to large wind and fossil-fueled generation resources. *Id.* at 9, 14.

[65] *Id.* at 9 (citing Order No. 792, 145 FERC ¶ 61,159 at PP 2-27).

[66] The minimum load screen is used in assessing whether an interconnection customer that initially failed the Fast Track screens may still interconnect under the Fast Track Process. If the aggregate generating capacity on a line section, including the proposed small generating facility, is less than 100 percent of minimum load, there are two additional screens, the voltage and power quality screen and the safety and reliability screen, that the small generating facility must pass to be interconnected. *See* Order No. 792, 145 FERC ¶ 61,159 at P 142.

[67] MISO Compliance Filing at 14.

interconnection fails the Fast Track screens and MISO cannot determine that the facility may be interconnected consistent with safety, reliability, and power quality standards, then MISO will offer to hold a customer options meeting to provide three options to interconnection customers, including offering to perform a supplemental review if MISO concludes that a review might determine that the small generating facility could continue to qualify for interconnection pursuant to the Fast Track Process. MISO argues that, because its Fast Track Process is similar to the process required by Order No. 792 and serves the same goals being addressed by the Commission, MISO's existing GIP qualifies for approval under the independent entity variation standard.[68]

b. Protest

39. IREC refutes MISO's claim that the supplemental review process is not necessary in MISO due to the smaller number of interconnection requests received for small generating facilities.[69] IREC states that, although sections of the country are not yet experiencing the high volume of interconnection requests for facilities less than 5 MW that states like California and New Jersey are experiencing, the addition of the transparent supplemental review process to MISO's Tariff would help avoid future backlogs and other challenges in areas with growing markets, before those backlogs and challenges arise. IREC argues that MISO is the largest RTO in terms of geography and the second largest in terms of electric demand served, and will likely experience a rapid deployment of renewable energy resources, particularly photovoltaics, in the coming years.[70] IREC further notes that MISO's current Tariff language, in which MISO would offer to perform a supplemental review if it concludes that such review might determine that the small generating facility could continue to qualify for the Fast Track Process, is identical to the language that the Commission found insufficient in the original *pro forma* SGIP.[71] IREC states that this process provides no transparency for applicants. IREC argues that MISO has not demonstrated any compelling reason why its territory warrants special treatment under the independent entity variation standard, and notes that the supplemental review process contained in the *pro forma* SGIP could be easily inserted into MISO's Tariff without undermining MISO's existing GIP.[72]

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[68] *Id.* at 13.

[69] IREC Protest at 8.

[70] *Id.* at 8-9.

[71] *Id.* (citing Order No. 2006, FERC Stats. & Regs. ¶ 31,180, Appendix E § 2.3.2).

[72] *Id.* at 10.

c. MISO Answer

40. MISO argues that its existing process goes above and beyond the requirements of Order No. 792 because MISO already provides interconnection customers with information that is similar to that required by Order No. 792, and does so at a point in time long before a customer options meeting (i.e., before an interconnection request is submitted).[73] MISO states that implementation of revisions to its supplemental review process for small projects is unnecessary, as MISO has received only seven out of 241 interconnection requests for small projects since January 1, 2010. MISO states that it believes that small solar generators have been much more active within the MISO footprint at interconnecting to distribution lines, rather than MISO-controlled transmission lines.[74] MISO reiterates that its footprint differs from that of California and New Jersey where more densely populated areas face challenges from numerous small solar projects, and that MISO stakeholders do not appear to share these concerns, based on the fact that IREC filed the lone protest in response to MISO's proposal to maintain its current GIP methodology as an independent entity variation.[75] MISO argues that the Commission recognized in Order No. 792 that the supplemental review screens could be difficult to apply and might not fit all transmission providers' circumstances, and argues that the Commission clearly considered that other methods beyond the supplemental reviews can provide transparent and non-discriminatory access to interconnection.[76]

d. Commission Determination

41. As noted by IREC, MISO's current Tariff language, under which a supplemental review is performed by MISO upon request at the customer options meeting, is identical to the language in the original *pro forma* SGIP that the Commission found unjust, unreasonable, and unduly discriminatory. The Commission found that the more transparent supplemental review process adopted in Order No. 792 would ensure that interconnection remains just and reasonable and not unduly discriminatory, thereby protecting the safety and reliability of the transmission provider's system, while allowing

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[73] MISO Answer at 4.

[74] *Id.* at 4 n.7.

[75] *Id.* at 4-5.

[76] *Id.* at 5.

those small generating facilities that pass the supplemental review screens to interconnect more efficiently and cost effectively.[77]

42. We find that MISO's supplemental review process provides no transparent review criteria, and further find that MISO has not justified that its Tariff qualifies for acceptance under the independent entity variation standard. While MISO notes in its compliance filing that it has "not received, and does not expect to receive in the near future, a substantial number of Interconnection Requests for facilities less than 5 MW[,]"[78] the supplemental review Tariff language adopted in Order No. 792 provides a more consistent and transparent process that will allow MISO the flexibility to address the interconnection requests for the small generating facilities that it does receive, while maintaining the safety and reliability of its system. In addition, in the event that MISO begins to receive such interconnection requests in greater quantities, the revised supplemental review process will be in place to prevent unnecessary delays in processing these requests.

43. We reject MISO's proposed supplemental review Tariff language and direct MISO to submit a filing, within 60 days of the date of this order, implementing the supplemental review Tariff language in sections 2.3 and 2.4 of the *pro forma* SGIP as amended in Order No. 792, modified as appropriate to conform to the structure of MISO's GIP. This compliance requirement obligates MISO to adopt the minimum load screen, the voltage and power quality screen and the safety and reliability screen as part of its supplemental review process, as well as the procedures for initiating, processing, and communicating the results of the supplemental review process.

4. Review of Required Upgrades

44. In Order No. 792, the Commission revised the *pro forma* SGIP facilities study agreement to allow interconnection customers to provide written comments on the required upgrades identified in the facilities study so that interconnection customers would have a meaningful opportunity to review upgrades associated with their projects and engage in a meaningful dialogue with the transmission provider.[79] The Commission

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[77] Order No. 792, 145 FERC ¶ 61,159 at P 117.

[78] MISO Compliance Filing at 14.

[79] Order No. 792, 145 FERC ¶ 61,159 at P 203.

required the transmission provider to include the interconnection customer's written comments in the final facilities study report.[80]

45. In addition, the Commission found that interconnection customers are entitled to review the supporting documentation for the facilities study because the interconnection customer is funding the study. The Commission also found that transmission providers are entitled to collect all just and reasonable costs associated with producing the facilities study, including any reasonable documentation costs.[81]

46. The Commission noted that the transmission provider is not under an obligation to modify the facilities study after receiving the interconnection customer's comments and makes the final decision on upgrades required for interconnection because the transmission provider is ultimately responsible for the safety and reliability of its system.[82]

a. Compliance Filing

47. MISO states that sections 8.5 and 8.6 of its GIP already provide for interconnection customer review and comment in instances of potential upgrades associated with an interconnection request.[83] Accordingly, MISO submits that its GIP is consistent with or superior to these requirements.

b. Commission Determination

48. We find that MISO's existing GIP complies with the requirement under Order No. 792 that interconnection customers must be allowed to provide written comments on the required upgrades identified in the facilities study.

5. Interconnection of Storage Devices

49. In Order No. 792, the Commission revised the *pro forma* SGIP to explicitly account for the interconnection of storage devices in order to ensure that storage devices are interconnected in a just and reasonable and not unduly discriminatory manner.[84]

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[80] *See* section 9.0 of the *pro forma* SGIP facilities study agreement.

[81] Order No. 792, 145 FERC ¶ 61,159 at P 204.

[82] *Id.* P 207.

[83] MISO Compliance Filing at 15.

[84] Order No. 792, 145 FERC ¶ 61,159 at P 227.

Specifically, the Commission revised the definition of small generating facility to explicitly include storage devices.[85]

50. The Commission also revised section 4.10.3 of the *pro forma* SGIP to clarify that the term "capacity" of the small generating facility in the *pro forma* SGIP refers to the maximum capacity that a device is capable of injecting into the transmission provider's system for the purpose of determining whether a storage device may interconnect under the SGIP rather than the Large Generator Interconnection Procedures (LGIP) and/or whether it qualifies for the Fast Track Process.[86] However, the Commission clarified that when interconnecting a storage device, a transmission provider is not precluded from studying the effect on its system of the absorption of energy by the storage device and making determinations based on the outcome of these studies.[87]

51. The Commission further revised section 4.10.3 of the *pro forma* SGIP to require the transmission provider to measure the capacity of a small generating facility based on the capacity specified in the interconnection request, which may be less than the maximum capacity that a device is capable of injecting into the transmission provider's system. However, the transmission provider must agree, with such agreement not to be unreasonably withheld, that the manner in which the interconnection customer proposes to limit the maximum capacity that its facility is capable of injecting into the transmission provider's system will not adversely affect the safety and reliability of the transmission provider's system.[88] For example, the Commission stated that an interconnection customer with a combined resource (e.g., a variable energy resource combined with a storage device) might propose a control system, power relays, or both for the purpose of limiting its maximum injection amount into the transmission provider's system.

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[85] *Id.* P 228. The Commission revised the definition in Attachment 1 (Glossary of Terms) of the SGIP and Attachment 1 (Glossary of Terms) of the SGIA as follows: "The Interconnection Customer's device for the production <u>and/or storage for later injection</u> of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities."

[86] *Id.* P 229. For example, a storage device capable of injecting 500 kW into the grid and absorbing 500 kW from the grid would be evaluated at 500 kW for the purpose of determining if it is a small generating facility or whether it qualifies for the Fast Track Process.

[87] *Id.*

[88] *Id.* P 230.

52. Finally, the Commission revised section 4.10.3 of the *pro forma* SGIP to allow the transmission provider to consider an output higher than the limited output, if appropriate, when evaluating system protection impacts. The Commission stated that in the Study Process, the transmission provider has the discretion to study the combined resource using the maximum capacity the small generating facility is capable of injecting into the transmission provider's system and require proper protective equipment to be designed and installed so that the safety and reliability of the transmission provider's system is maintained.[89] Similarly, the Commission stated that in the Fast Track Process, the transmission provider may apply the Fast Track screens or the supplemental review screens using the maximum capacity the small generating facility is capable of injecting into the transmission provider's system in a manner that ensures that safety and reliability of its system is maintained.

a. <u>Compliance Filing</u>

53. MISO states that, under its current Tariff, market participants that wish to interconnect a stored energy resource to the MISO system are expected to follow the same interconnection process as other resources seeking to interconnect to the MISO system.[90] MISO explains that when it transitioned to a single GIP process, it revised the definition of small generating facility.[91] MISO requests that the Commission find that MISO's existing GIP complies with Order No. 792 under the independent entity variation standard and not require the definition of small generating facility to specifically reference energy storage devices.

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[89] *Id.*

[90] MISO Compliance Filing at 16.

[91] *Id.* In section 1 of MISO's GIP, a small generating facility is defined as "a Generating Facility that has an aggregate net Generating Facility Capacity of no more than 2 MW and meets the requirements of section 14 [Fast Track Process] and Appendix 3 [Certification Codes and Standards and Certification of Small Generator Equipment Packages]."

b. Protest

54. IREC argues that, in the MISO Tariff, the definition for generating facility explicitly references facilities used "for the *production* of electricity identified in the interconnection request."[92] IREC states that this language is identical to the definition for small generating facility in the original SGIP as specified in the Glossary of Terms in Order No. 2006.[93] IREC states that the MISO Tariff does not appear to reference energy storage at any other point. IREC argues that the use of energy storage in combination with other devices was not considered at the time Order No. 2006 was issued because energy storage was not as prevalent in the distributed resource market. However, IREC states that the market has changed since Order No. 2006 was issued, and that there is value in clarifying that storage is eligible for MISO's GIP process. IREC states that there is no justification for an independent entity variation.

c. MISO Answer

55. MISO states that it is willing to amend the definition of generating facility to include the text directed by the Commission for a "small generating facility."[94] MISO proposes to add the following underlined text to MISO's definition of generating facility in the GIP in Attachment X of its Tariff if so directed by the Commission:

> Generating Facility shall mean the Interconnection Customer's device(s) for the production <u>and/or storage for later injection</u> of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

d. Commission Determination

56. We accept MISO's commitment in its answer to revise the Tariff's definition of generating facility in accordance with the Commission's directive in Order No. 792. However, we find that MISO's compliance filing is not consistent with the Commission's directive in Order No. 792 that transmission providers should evaluate the interconnection of storage devices by assuming that the capacity of the storage device is equal to the maximum capacity that the particular device is capable of injecting into the

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[92] IREC Protest at 11 (citing MISO, FERC Electric Tariff, Attachment X (GIP), § 1 (34.0.0)).

[93] *Id.* (citing Order No. 2006, FERC Stats. & Regs. ¶ 31,180, Attachment 1 at 2).

[94] MISO Answer at 5.

transmission provider's system. We direct MISO, in a compliance filing due within 60 days of the date of this order, to submit its suggested Tariff change and to implement the Tariff language in section 4.10.3 of the *pro forma* SGIP as amended in Order No. 792, modified as appropriate to conform to the structure of MISO's GIP.

6. Network Resource Interconnection Service

57. In Order No. 792, the Commission revised section 1.1.1 of the *pro forma* SGIP to require interconnection customers wishing to interconnect a small generating facility using Network Resource Interconnection Service to do so under the LGIP and to execute the large generator interconnection agreement.[95] The Commission explained that this requirement was included in Order No. 2006[96] but was not made clear in the *pro forma* SGIP. To facilitate this clarification, the Commission also required the addition of the definitions of Network Resource and Network Resource Interconnection Service to Attachment 1, Glossary of Terms, of the *pro forma* SGIP.[97]

58. The Commission stated in Order No. 792 that it did not intend to require revisions to interconnection procedures that have previously been found to be consistent with or superior to the *pro forma* SGIP and *pro forma* SGIA with regard to this Order No. 2006 requirement or permissible under the independent entity variation standard.[98]

59. Section 1 of MISO's existing GIP includes the definitions of Network Resource and Network Resource Interconnection Service. We accept this section of MISO's GIP as compliant with the directives of Order No. 792.

The Commission orders:

(A) MISO's compliance filing is hereby accepted in part and rejected in part, effective October 1, 2014, subject to a further compliance filing, as discussed in the body of this order.

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[95] Order No. 792, 145 FERC ¶ 61,159 at PP 232, 235.

[96] Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 140.

[97] Order No. 792, 145 FERC ¶ 61,159 at PP 232, 235.

[98] *Id.* PP 236, 273-274.

(B) MISO is hereby directed to submit a further compliance filing, within 60 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.