

149 FERC ¶ 61,100
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

California Independent System Operator Corporation Docket No. ER14-2586-000

ORDER ON TARIFF REVISIONS

(Issued November 3, 2014)

1. On August 4, 2014, pursuant to section 205 of the Federal Power Act (FPA)¹ and Order No. 792,² the California Independent System Operator (CAISO) submitted proposed tariff revisions to its Generator Interconnection and Deliverability Allocation Procedures (GIDAP) and Small Generator Interconnection Agreement (SGIA). The filing includes: tariff revisions intended to comply with the requirements of Order No. 792; tariff revisions that vary from the requirements of Order No. 792, but which CAISO describes as either consistent with or superior to the requirements of Order No. 792, or acceptable under the independent entity variation standard; and additional revisions to its GIDAP and SGIA, which are not required by Order No. 792.³ In this order we conditionally accept in part, and reject in part, the proposed tariff revisions, with the conditionally accepted tariff revisions to become effective November 4, 2014, as requested, subject to a further compliance filing to be submitted within 30 days of the date of this order, as discussed in the body of this order.

¹ 16 U.S.C. § 824d (2012).

² *Small Generator Interconnection Agreements and Procedures*, Order No. 792, 78 Fed. Reg. 73,240 (Dec. 5, 2013), 145 FERC ¶ 61,159 (2013), *clarified*, Order No. 792-A, 146 FERC ¶ 61,214 (2014) (Order No. 792 or Final Rule).

³ Also on August 4, 2014, in Docket No. ER14-2581-000, CAISO submitted additional *pro forma* tariff revisions intended to comply with Order No. 792, which will be addressed separately.

I. Background

2. In Order No. 2006,⁴ 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.

3. Order No. 792 amends the Commission's *pro forma* SGIP and *pro forma* SGIA⁵ 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;⁶ (2) revising the 2 MW threshold for participation in the Fast Track Process included in section 2 of the *pro forma* SGIP;⁷ (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;⁸ (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;⁹

⁴ *Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, FERC Stats. & Regs. ¶ 31,180, *order on reh'g*, Order No. 2006-A, FERC Stats. & Regs. ¶ 31,196 (2005), *order on clarification*, Order No. 2006-B, FERC Stats. & Regs. ¶ 31,221 (2006).

⁵ See 18 C.F.R. § 35.28(f) (2014).

⁶ Order No. 792, 145 FERC ¶ 61,159 at PP 37-40.

⁷ *Id.* PP 102-110.

⁸ *Id.* PP 117, 141-148, 156-161.

⁹ *Id.* PP 203-209.

(5) revising the *pro forma* SGIP and the *pro forma* SGIA to specifically include energy storage devices;¹⁰ and (6) clarifying certain sections of the *pro forma* SGIP and the *pro forma* SGIA.¹¹ 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.¹² Filings adopting the revised SGIP and SGIA without variation are to be filed under section 206 of the Federal Power Act (FPA).¹³ The Commission stated that it would consider variations from the Final Rule.¹⁴ In Order No. 792-A, the Commission clarified that a public utility transmission provider may submit a filing under FPA section 205¹⁵ 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.”¹⁶

II. CAISO’s Filing

5. CAISO’s interconnection procedures for new requests are contained in its GIDAP. As part of its GIDAP provisions and as relevant to the instant filing, CAISO has two processes to expedite interconnection requests for qualifying interconnection customers. The Independent Study Process is used to evaluate interconnection requests separately if

¹⁰ *Id.* PP 227-231.

¹¹ *Id.* PP 235-236, 260-261.

¹² *Id.* P 269.

¹³ Order No. 792-A, 146 FERC ¶ 61,214 at P 2.

¹⁴ Order No. 792, 145 FERC ¶ 61,159 at P 270.

¹⁵ 16 U.S.C. § 824d (2012).

¹⁶ Order No. 792-A, 146 FERC ¶ 61,214 at P 3. *See also* Order No. 792, 145 FERC ¶ 61,159 at PP 273-274.

they can demonstrate that their interconnection requests are electrically independent from other interconnection requests in the queue. The Fast Track Process permits qualifying small generators to interconnect to the CAISO-controlled grid more quickly through a more streamlined process.

6. As further discussed below, CAISO's filing here includes tariff revisions intended to comply with the directives of Order No. 792, tariff revisions that CAISO states meet the "consistent with or superior to" standard or the "independent entity variation" standard, and additional revisions to its GIDAP and SGIA.¹⁷ CAISO seeks an effective date for its filing of November 4, 2014.

III. Notice of Filing and Responsive Pleadings

7. Notice of CAISO's filing was published in the *Federal Register*, 79 Fed. Reg. 46,789 (2014), with interventions and protests due on or before August 25, 2014. Pacific Gas and Electric Company, Southern California Edison Company, Northern California Power Agency, the California Department of Water Resources State Water Project, E.ON Climate and Renewables North America, LLC, the Cities of Anaheim, Azusa, Banning, Colton, Pasadena and Riverside, California, and the NRG Companies all filed motions to intervene in the proceeding. No comments or protests were filed.

IV. Discussion

A. Procedural Matters

8. 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.

B. Substantive Matters

9. As further discussed below, we conditionally accept in part, and reject, in part CAISO's proposed tariff revisions with the conditionally accepted tariff revisions to become effective November 4, 2014, as requested, subject to a further compliance filing. We direct CAISO to submit a further compliance filing within 30 days of the date of this order.

¹⁷ CAISO Transmittal at 4.

1. Pre-Application Report

10. In Order No. 792, the Commission required each public utility transmission provider to provide interconnection customers the option to request a pre-application 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.¹⁸

11. 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; (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; and (4) available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed point of interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).¹⁹

12. 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.²⁰ 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.²¹

¹⁸ Order No. 792, 145 FERC ¶ 61,159 at P 37.

¹⁹ See SGIP section 1.2.3 for the complete list of items in the pre-application report.

²⁰ 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.

²¹ *Id.* P 51; SGIP section 1.2.2.

13. 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.²²

a. **CAISO's Filing**

14. CAISO states that its proposed pre-application report tariff revisions meet the independent entity variation standard.²³ CAISO proposes to make one modification from the *pro forma* tariff provisions to the information it requires a prospective interconnection customer to submit to CAISO requesting a pre-application report. CAISO proposes to replace the *pro forma* requirement that an interconnection customer provide the meter number or pole number associated with the interconnection request with a requirement that the interconnection customer identify a single point of interconnection that is either an existing substation or a transmission line under CAISO operational control.²⁴

15. CAISO proposes several modifications from the *pro forma* tariff revisions to the information it will provide prospective interconnection customers. CAISO states that it has proposed these modifications with the intent of providing information relevant to the fact that the point of interconnection on the CAISO-controlled grid will be a substation or transmission line under CAISO operational control. CAISO states that it has consolidated three information categories²⁵ in the *pro forma* SGIP into a single information category that requires CAISO to describe the electrical configuration of the substation.²⁶ CAISO has also proposed to eliminate several information categories

²² *Id.* PP 45-46.

²³ CAISO Transmittal at 23.

²⁴ CAISO Transmittal at 23.

²⁵ See CAISO Transmittal at 25 and *pro forma* SGIP sections 1.2.3.4 (“Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection”); 1.2.3.5 (“Substation nominal distribution voltage and/or transmission nominal voltage if applicable”); and 1.2.3.9 (“Number and rating of protective devices and number and type [standard, bi-directional] of voltage regulating devices between the proposed Point of Interconnection and the substation/area”).

²⁶ See CAISO proposed section 1.3.2.1 (“Electrical configuration of the substation, including information of transmission lines terminating in the substation, transformers, buses and other devices, if the proposed Point of Interconnection is a substation.”).

since, according to CAISO they are not relevant in all cases to resources interconnecting with the CAISO-controlled grid.²⁷ CAISO also proposes to add language in GIDAP section 1.3.1 to specify that CAISO will coordinate with participating transmission owners to prepare the pre-application report and to explain what constitutes “readily available information” for the purpose of the pre-application report.²⁸ CAISO states that its proposed pre-application report will achieve the Commission’s objective in Order No. 792 of allowing a prospective interconnection customer to obtain information about a point of interconnection to assist that customer in making more informed siting decisions.²⁹

b. Commission Determination

16. The Commission conditionally accepts CAISO’s proposed pre-application report process revisions. We find that CAISO’s pre-application report will allow market participants access to readily available information that will assist the interconnection customer in making informed decisions for locating its small generating facility. We also find the information that CAISO proposes to include in its pre-application report is relevant to CAISO interconnection and meets the Commission’s independent entity variation standard for deviations from the *pro forma* revisions with the exception of CAISO’s treatment of section 1.2.3.4 of the *pro forma* SGIP. However, we note that section 1.2.3.4 of the SGIP requires the transmission provider to include in the pre-application report information on available capacity at the proposed point of interconnection. We find that it is not clear that CAISO’s proposed pre-application report provisions include this information; therefore we direct CAISO to submit a compliance filing within 30 days of the date of this order to revise its GIDAP pre-application report

²⁷ Specifically CAISO proposes to eliminate sections 1.2.3.6 (“Nominal distribution circuit voltage at the proposed Point of Interconnection”); 1.2.3.7 (“Approximate circuit distance between the proposed Point of Interconnection and the substation”); 1.2.3.8 (“Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 2.4.4.1.1 below and absolute minimum load, when available”); 1.2.3.10 (“Number of phases available at the Point of Interconnection. If single phase, distance from three phase circuit.”); 1.2.3.11 (“Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.”); and 1.2.3.12 (“Whether the Point of Interconnection is located on a spot network, grid network, or radial supply”).

²⁸ CAISO Transmittal at 25.

²⁹ CAISO Transmittal at 25-26.

provisions to clarify that this information will be included in the pre-application report if it is readily available.

2. Fast Track Threshold

17. 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.³⁰

Table 1: Fast Track Eligibility for Inverter-Based Systems

Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline ³¹ and ≤ 2.5 Electrical Circuit Miles from Substation ³²
< 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

³⁰ Order No. 792, 145 FERC ¶ 61,159 at PP 103-104.

³¹ 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.

³² 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.

18. The Commission maintained the Fast Track eligibility threshold for synchronous and induction machines at 2 MW.³³ Additionally, Fast Track eligibility is limited to those projects connecting to lines at 69 kV and below.³⁴

a. CAISO's Filing

19. CAISO notes that the GIDAP provides that an interconnection customer can request interconnection in the Fast Track Process if its facility is no larger than 5 MW and is requesting energy-only deliverability status.³⁵ With respect to resources that are reconfigured or repowered in a manner that increases gross generating capacity by no more than 5 MW, CAISO allows such a customer to establish a new interconnection under the Fast Track Process. CAISO states that its current Fast Track eligibility thresholds are consistent with or superior to the *pro forma* requirements under Order No. 792, as they allow a greater number of resources to potentially qualify for eligibility to use the Fast Track Process.³⁶

b. Commission Determination

20. We find CAISO's existing Fast Track Process eligibility threshold to be consistent with or superior to the directives of Order No. 792 since it allows a greater number of resources to be eligible for the Fast Track Process. Accordingly, we affirm CAISO's previously-accepted Fast Track Process eligibility threshold as compliant with Order No. 792.

3. Fast Track Customer Options Meeting and Supplemental Review

21. 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 Process screens.³⁷ In particular, the Commission required the

³³ Order No. 792, 145 FERC ¶ 61,159 at P 106.

³⁴ *Id.* P 107.

³⁵ Energy-only deliverability status indicates that a customer is only responsible for the costs of reliability network upgrades, and not deliverability network upgrades. However, the resource is deemed to have a net qualifying capacity of zero and cannot serve as a resource adequacy resource. *See* CAISO Tariff, Appendix A (Master Definitions Supplement), "Energy-Only Deliverability Status."

³⁶ CAISO Transmittal at 26-7.

³⁷ Order No. 792, 145 FERC ¶ 61,159 at P 117.

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.

22. 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.³⁸

23. 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.

24. 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.³⁹

25. 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.

³⁸ *Id.*

³⁹ See IEEE Standard 519, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.

26. 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 interconnection customer may specify the order in which the transmission provider will complete the three supplemental screens in section 2.4.4.⁴⁰

a. CAISO's Filing

27. In addition to its proposed revisions in response to the Commission's directives in Order No. 792 regarding the Fast Track Process customer options meeting and the supplemental review, CAISO also proposes several additional revisions to its Fast Track Process. CAISO proposes to revise and incorporate into its initial Fast Track review process the applicable supplemental review process included in the *pro forma* SGIP. CAISO asserts that these revisions result in a more transparent process for interconnection customers while continuing to ensure safe and reliable interconnections. Further, CAISO argues that combining the initial and supplemental review processes benefits interconnection customers by ensuring that the Fast Track Process is completed in a timely manner and by providing interconnection customers with information earlier in the process regarding the financial viability of their projects. CAISO notes that such information is particularly important for interconnections to a high-voltage transmission network such as CAISO's because upgrades to high-voltage transmission systems are almost always significantly more expensive than those for interconnection to distribution systems. CAISO believes the proposed changes will enhance its ability to manage interconnection requests using the Fast Track Process and provide interconnection customers with a viable alternative to submitting to an interconnection study through the cluster study process.⁴¹

28. CAISO also proposes to eliminate the \$500 Fast Track processing fee and require a \$25,000 study deposit to cover processing costs as well as the costs of increased study work CAISO proposes as part of the revised initial Fast Track Process. CAISO states that if it completes its study work for less than the deposit, it will return the remainder to the interconnection customers. CAISO also proposes to extend the initial Fast Track review period from 15 business days to 30 calendar days to accommodate the increased study work CAISO proposes as part of the initial review process.⁴²

⁴⁰ Order No. 792, 145 FERC ¶ 61,159 at P 164.

⁴¹ CAISO Transmittal at 28-29.

⁴² *Id.* at 29-30.

29. CAISO also proposes several changes to its screens in the initial Fast Track review process. CAISO states that to date it has been very difficult for a project to pass all Fast Track screens and that some screens are not relevant for a project seeking to interconnect to a networked transmission system, such as CAISO. Accordingly, CAISO asserts that the proposed Fast Track revisions will enable Fast Track interconnection projects requesting interconnection to the networked transmission system to be processed more quickly and with a greater likelihood of proceeding to commercial operation.⁴³ Further, Attachment D to CAISO's Transmittal Letter includes a statement that the modifications to the Fast Track screens were developed to ensure that no network upgrades would be reasonably anticipated if a project passes all screens.⁴⁴

30. First, CAISO proposes to allow fast track interconnections only to existing substations with a vacant switch rack position. CAISO states that this provision is intended to expedite the study necessary by avoiding the need to undertake an assessment of what additional protective schemes the participating transmission owner must deploy to detect faults when an interconnection taps into a transmission line. In addition, CAISO states that the provision will promote reliability by providing CAISO with more control to mitigate the impact of a fault on a transmission line.⁴⁵ Second, CAISO proposes to modify its existing screen assessing whether a proposed generating facility would cause generation on a line section of a radial transmission circuit to exceed 15 percent of the line section annual peak load. CAISO proposes not to require this screen for generating facilities proposing to interconnect to a radial transmission circuit with no load and to modify the source of the peak load data to power flow cases from the latest completed queue cluster study if no telemetry on the circuit exists.⁴⁶ Third, CAISO proposes to eliminate the screen involving the interconnection of a proposed generating facility to the load side of spot network protectors and replace it with an assessment of whether the generating facility will cause a violation of the voltage standards in CAISO's planning standards. CAISO states that the existing screen is more suitable for distribution-level voltages and that it does not process interconnection requests at these voltages.⁴⁷

⁴³ *See id.* Attachment E at 3.

⁴⁴ *See id.* Attachment D at 45.

⁴⁵ *See* proposed GIDAP section 5.3.1.1 and CAISO Transmittal at 30.

⁴⁶ *See id.* section 5.3.1.2 and CAISO Transmittal at 30.

⁴⁷ *See id.* section 5.3.1.3 and CAISO Transmittal at 30-31.

31. Fourth, CAISO proposes to add a new screen to its initial Fast Track review to assess whether interconnecting a proposed generating facility in aggregate with other generating facilities on the same transmission circuit will cause power flows on any part of the CAISO-controlled grid to increase by five percent or more and will not exceed 80 percent of the same facility's normal rating. CAISO states that five percent was selected based on engineering judgment that five percent is a typical reflection of stressed conditions.⁴⁸ Fifth, CAISO proposes to revise its screen that assesses whether the interconnection of the generating facility in aggregate with other generating facilities will not contribute to more than 10 percent of the transmission circuit's maximum fault current by replacing 10 percent with five percent.⁴⁹ CAISO states that in its engineering judgment the 10 percent threshold infringes on typical operating margins on the CAISO-controlled grid and could lead to failure of relay operations and that the five percent threshold will help ensure safety and reliability in the absence of a detailed short circuit study.⁵⁰ Sixth, CAISO proposes to reduce the threshold by which a generating facility may exceed the short circuit interrupting capability from 87.5 percent to 80 percent⁵¹ to provide an additional safety margin to account for the effects of electrical resistance and reactance on protective devices and to ensure safety and reliability in the absence of a detailed short circuit study.⁵² Seventh, CAISO proposes not to allow Fast Track

⁴⁸ See *id.* section 5.3.1.4 and CAISO Transmittal at 31.

⁴⁹ Section 2.2.1.4 of the *pro forma* SGIP requires that the proposed small generating facility, in aggregate with other generation on the circuit, shall not contribute more than 10 percent to the circuit's maximum fault current.

⁵⁰ See proposed GIDAP section 5.3.1.5 and CAISO Transmittal at 31. See also CAISO Transmittal Attachment D at 42: "The proposed 5% threshold provides adequate margin to ensure existing relay settings and coordination are not adversely affected due to the proposed generation in this high level screening process. The [t]ypical margin is 120% which factors in the CT, relay and other modeling errors. The existing 10% limit infringes on the typical margins, and could lead to relay misoperations." CT is assumed to be current transformer.

⁵¹ Section 2.2.1.5 of the *pro forma* SGIP requires that the proposed small generating facility, in aggregate with other generation on the circuit, shall not cause the short circuit interrupting capability to exceed 87.5 percent.

⁵² See proposed GIDAP section 5.3.1.6 and CAISO Transmittal at 32. See also CAISO Transmittal Attachment D at 42: "The proposed 80 percent threshold provides additional margin to account for the X/R multiplier." X is assumed to be reactance and R is assumed to be resistance.

interconnection in areas where there are known transient stability, voltage, and thermal limitations, or other known reliability limitations (e.g., existing or new special protection systems) that apply to generating units in the same general electrical vicinity (e.g., within three or four transmission busses of the proposed point of interconnection). CAISO proposes that this screen would replace the existing CAISO screen that limits aggregate generation to 10 MW on circuits with known transient stability limitations.⁵³ CAISO states that the revised screen will enhance the safety and reliability of CAISO's transmission system in the absence of technical studies.⁵⁴

32. CAISO proposes that if a resource passes the Fast Track screens, it will complete a further assessment to identify any needed facilities to interconnect the resource within 60 days. The participating transmission owner will provide an interconnection agreement within 15 business days of completing the assessment.⁵⁵ CAISO proposes that if an interconnection customer fails the initial screens, CAISO and the participating transmission owners will provide the interconnection customer with copies of all data underlying their conclusion and offer to convene an options meeting within 10 business days.⁵⁶ In contrast, in the *pro forma* SGIP if a proposed small generating facility passes the initial Fast Track screens, the interconnection request is approved and the transmission provider provides an executable interconnection agreement within five business days.⁵⁷ If the proposed small generating facility does not pass the initial Fast Track 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 provides an executable interconnection agreement within five business days.⁵⁸ If the proposed small generating facility does not pass the initial Fast Track screens, and the transmission provider does not or cannot determine that the small generating facility may nevertheless be interconnected consistent with safety, reliability and power quality standards unless the interconnection customer is

⁵³ Section 2.2.1.9 of the *pro forma* SGIP requires that the proposed small generating facility, in aggregate with other generation on the circuit, shall not exceed 10 MW in an area where there are known transient stability limitations.

⁵⁴ See proposed GIDAP section 5.3.1.7 and CAISO Transmittal at 32.

⁵⁵ See *id.* section 5.3.2 and CAISO Transmittal at 32-33.

⁵⁶ See *id.* section 5.3.3 and CAISO Transmittal at 33.

⁵⁷ See *pro forma* SGIP section 2.2.2.

⁵⁸ See *id.* section 2.2.3.

willing to consider minor modifications or further study, the transmission provider must notify the interconnection customer of that determination within five business days after making such a determination and provide copies of all data and analyses underlying its conclusion and provide the interconnection customer with the opportunity to attend a customer options meeting within 10 business days.⁵⁹

33. CAISO also proposes certain changes to the customer options meeting. Specifically, CAISO proposes that, at the options meeting, interconnection customers be given the choice to: (1) modify its interconnection request in a way that may permit a generating customer to pass the Fast Track screens; (2) perform a supplemental review to identify interconnection facilities and reliability network upgrades needed to permit the interconnection to proceed; or (3) withdraw the interconnection request.⁶⁰

34. If the interconnection customer elects a supplemental review, CAISO proposes that it will provide a good faith, non-binding estimate of the cost to perform the review within 15 business days and that the interconnection customer would then have 15 business days to agree to a supplemental review and submit the required deposit. CAISO proposes that it would then have 10 business days to initiate a review to determine whether reliability network upgrades are needed to interconnect the customer's generating facility and that it would be bound to complete that review in 90 days. CAISO proposes that at the request of the interconnection customer, it will hold a meeting to discuss the results of the supplemental review and provides the interconnection customer with the opportunity to provide written comments on the review.⁶¹

35. Further, CAISO proposes to require interconnection customers electing the supplemental review to post and maintain financial security according to the provisions applicable to interconnection requests submitted under the Independent Study Process.⁶²

36. CAISO states that the changes it has proposed to its Fast Track Process will allow an interconnection customer that passes the initial Fast Track screens to execute an interconnection agreement within approximately 120 calendar days of submitting a

⁵⁹ See *id.* sections 2.2.4 and 2.3.

⁶⁰ See proposed GIDAP section 5.4 and CAISO Transmittal at 33-34.

⁶¹ See *id.* section 5.5 and CAISO Transmittal at 34.

⁶² See *id.* section 5.5.1.5 and CAISO Transmittal at 34-35.

complete interconnection request and study deposit.⁶³ For interconnection customers that fail the Fast Track screens and elect to proceed with a supplemental review, those interconnection customers may obtain an assessment establishing their cost of interconnection within approximately 180 days of submitting a complete interconnection request and study deposit.⁶⁴ CAISO argues that the proposed changes will enhance its ability to manage interconnection requests using the Fast Track Process and provide interconnection customers with a viable alternative to submitting to an interconnection study through the queue cluster process if their projects are 5 MW or smaller in size. CAISO proposes that the Commission accept these changes as in compliance with Order No. 792 under the independent entity variation standard.

b. Commission Determination

37. The Commission rejects CAISO's proposed Fast Track review, customer options meeting and supplemental review. While CAISO's proposed Fast Track Process incorporates certain aspects of the Commission's Order No. 792 reform, it is quite different from that envisioned under the *pro forma* tariff provisions and lacks adequate justification for the proposed deviations to the Fast Track Process. CAISO revises and subsumes the safety and reliability and voltage and power quality supplemental review screens under the initial review process, and proposes to revise some of the existing initial review screens in a manner that makes them more restrictive.

38. The Commission finds that CAISO has not adequately explained how its proposal to combine the initial Fast Track screens and revise and subsume the *pro forma* SGIP safety and reliability and voltage and power quality supplemental review screens is consistent with or superior to the requirements of Order No. 792, or justified under the independent entity variation standard. In Order No. 792, the Commission stated that the reforms therein "should ensure interconnection time and costs for Interconnection Customers and Transmission Providers are just and reasonable and help remedy undue discrimination, while continuing to ensure safety and reliability."⁶⁵ In the *pro forma* SGIP, interconnection customers elect to be evaluated under the Fast Track screens for a non-refundable processing fee of \$500. If the proposed interconnection fails the Fast Track screens, but the transmission provider determines that the small generating facility

⁶³ See, e.g., CAISO's proposed timeline if a resource passes the Fast Track screens at *supra* P 31.

⁶⁴ See, e.g., CAISO's proposed timeline if a resource does not pass the Fast Track screens at *supra* PP 31-33.

⁶⁵ Order No. 792, 145 FERC ¶ 61,159 at P 1.

may nevertheless be interconnected consistent with safety, reliability and power quality standards, the transmission provider provides an executable interconnection agreement within five business days.⁶⁶ If the proposed small generating facility does not pass the initial Fast Track screens, and the transmission provider does not or cannot determine 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 must offer to perform a supplemental review, which includes the minimum load screen, the safety and reliability screen, and the voltage and power quality screen.⁶⁷ The interconnection customer pays the actual cost of performing the supplemental review.⁶⁸ However, Order No. 792's balance between a swift, inexpensive interconnection process with the safe and reliable operation of the transmission provider's system appears to be lacking from CAISO's proposal, which is neither swift nor inexpensive and appears to be substantially less likely to result in interconnection of a fast track applicant. CAISO proposes, without adequate explanation, to modify this process so all Fast Track interconnection customers must pay for both the initial and supplemental review. Therefore, as part of the further compliance filing directed herein, CAISO must either adequately support its proposed combined review process, or submit revisions to its GIDAP with separate review processes consistent with Order No. 792 and address the other elements noted in the following discussion.

39. In addition, the Commission finds that it is unclear why CAISO proposes not to adopt the minimum load screen included in Order No. 792⁶⁹ from the supplemental review process while it proposes to retain the 15 percent annual peak load screen for radial transmission circuits in section 5.3.1.2 of its GIDAP. CAISO asserts that it proposes to exclude the minimum load screen because it does not apply to a networked transmission system like the CAISO-controlled grid.⁷⁰ However, we note that the 15 percent annual peak load screen for radial transmission circuits in section 5.3.1.2 of its

⁶⁶ *See pro forma* SGIP section 2.2.3.

⁶⁷ *See id.* sections 2.2.4 and 2.3.

⁶⁸ *See id.* section 2.4.4.

⁶⁹ *See id.* section 2.4.4.1.

⁷⁰ CAISO Transmittal at 33.

GIDAP approximates a 50 percent minimum load screen,⁷¹ so it is unclear why the minimum load screen included in Order No. 792 would not be applicable.

40. Further, we are concerned that CAISO's 15 percent annual peak load screen for radial transmission circuits does not account for the daytime-only impact of solar photovoltaic (PV) generation, as the minimum load screen in section 2.4.4.1 of Order No. 792 does, and may therefore unreasonably limit the amount of solar PV generation allowed to interconnect under the Fast Track Process. Therefore, we direct CAISO to either justify its elimination of the minimum load screen while retaining the 15 percent annual peak load screen for radial transmission circuits in its proposed initial review process, including an explanation of how it will account for the differing impact of solar generation on its system, or revise its GIDAP to include a minimum load screen consistent with Order No. 792. Any justification given for retaining the 15 percent annual peak load screen should address why, under the independent entity variation standard, the 15 percent of peak load is the proper screen in CAISO's tariff instead of the minimum load screen adopted in Order No. 792.

41. The Commission also finds that CAISO has not explained why its revisions to two of its Fast Track initial review screens to be more conservative are just and reasonable. CAISO proposes to revise section 5.3.1.5 of the GIDAP, the screen that assesses whether the interconnection of the generating facility in aggregate with other generating facilities will not contribute to more than 10 percent of the transmission circuit's maximum fault current, by replacing 10 percent with five percent. CAISO also proposes revised section 5.3.1.6 of its GIDAP to reduce the threshold by which a generating facility may exceed the short circuit interrupting capability from 87.5 percent to 80 percent. As discussed above,⁷² CAISO has explained that its proposed revisions to these screens improve reliability, but CAISO has not explained why its proposed revisions are just and reasonable. In particular, CAISO has not explained what special circumstances exist in CAISO that might lead to more conservative reliability margins being justified in CAISO, when the Commission found in Order Nos. 2006 and 792 that less stringent reliability margins strike an appropriate balance. Therefore, we direct CAISO to either justify its revisions to these screens as just and reasonable or revise these screens to be consistent with Order No. 792.

42. We further find that CAISO's proposal to revise section 5.3.1.7 of its GIDAP not to allow Fast Track interconnection in areas where there are known transient stability, voltage, and thermal limitations, or other known reliability limitations (e.g., existing or

⁷¹ Order No. 792, 145 FERC ¶ 61,159 at P 143.

⁷² See *supra* at P 32.

new special protection systems) that apply to generating units in the same general electrical vicinity (e.g., within three or four transmission busses of the proposed point of interconnection) to be overly restrictive. CAISO proposes that this screen would replace the existing CAISO screen that limits aggregate generation to 10 MW on circuits with known transient stability limitations. In the original screen, only transient stability limitations were evaluated. CAISO has proposed a more conservative screen by adding voltage, thermal, and other known reliability limitations to the evaluation. We note that all transmission facilities have some voltage or thermal constraints, such that CAISO's proposed language could be interpreted to foreclose Fast Track altogether. Therefore, we direct CAISO to remove reference to voltage and thermal limitations, or to explain why adding voltage and thermal limitations to this screen is just and reasonable. Similarly, we find that CAISO's proposed phrase "or other known reliability limitations" is insufficiently specific, and therefore not just and reasonable. For instance, we note that voltage and thermal limits can be thought of as types of reliability limitations, but the mere presence of voltage and thermal limits is not ordinarily justification for excluding a facility from Fast Track. We therefore direct CAISO to file, on compliance, replacement language that sufficiently defines the conditions under which CAISO's tariff would not allow for Fast Track interconnection.

43. In addition, we find that CAISO has not justified its proposal to eliminate the \$500 Fast Track processing fee and require a \$25,000 study deposit to cover processing costs as well as the costs of increased study work CAISO proposes as part of the revised initial Fast Track Process. Therefore, we direct CAISO to either justify the \$25,000 deposit, or to submit revisions to its GIDAP requiring the deposit to be in an amount equal to a good faith estimate of the cost of conducting the review, similar to payment of the supplemental review costs in section 2.4.1 of the *pro forma* SGIP.

44. Further, we find that CAISO has not justified its proposed revisions in section 5.4.1 of the GIDAP requiring the interconnection customer to submit a new interconnection request for processing under either a queue cluster or the Independent Study Process after it has failed the screens in GIDAP section 5.3. We direct CAISO to either justify this revision or to submit revisions consistent with section 2.3.3 of the *pro forma* SGIP.

45. Finally, we find that CAISO's proposed revision to section 5.4(ii) of the GIDAP is not consistent with section 2.3.2 of the *pro forma* SGIP under Order No. 792 because it does not require the transmission provider to provide the interconnection customer with a non-binding good faith estimate of the cost of a supplemental review at the customer options meeting. We find that this estimate is essential information to the interconnection customer in determining whether to proceed with a supplemental review and therefore direct CAISO to submit in a further compliance filing revisions to include this language in section 5.4(ii).

4. Review of Required Upgrades

46. 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.⁷³ The Commission required the transmission provider to include the interconnection customer's written comments in the final facilities study report.⁷⁴ The Commission also revised the *pro forma* SGIP facilities study agreement to include a meeting between the transmission provider and the interconnection customer within 10 business days of the interconnection customer receiving the draft interconnection facilities study report to discuss the results of the interconnection facilities study.⁷⁵

47. 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.⁷⁶

48. 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.⁷⁷

a. CAISO's Filing

49. CAISO states that the current language of its GIDAP is consistent with or superior to the *pro forma* tariff language in Order No. 792. CAISO states that the GIDAP already provides an opportunity for the interconnection customer to submit written comments on both the Phase I and Phase II interconnection study reports and then take part in a results

⁷³ Order No. 792, 145 FERC ¶ 61,159 at P 203.

⁷⁴ See section 9.0 of the *pro forma* SGIP facilities study agreement.

⁷⁵ See section 10.0 of the *pro forma* SGIP facilities study agreement.

⁷⁶ Order No. 792, 145 FERC ¶ 61,159 at P 204.

⁷⁷ *Id.* P 207.

meeting to discuss the interconnection study results and associated cost responsibility. In addition, CAISO states that the existing GIDAP also provides the opportunity for CAISO to issue an addendum to the Phase I or Phase II interconnection study report within 15 business days following the results meeting in order to address the interconnection customer's comments. CAISO also proposes to extend the right of an interconnection customer to submit written comments on system impact and facilities studies performed as part of the Independent Study Process.⁷⁸

50. The Order No. 792 revisions allow the interconnection customer to provide written comments within 30 calendar days after receipt of the draft report, require the transmission provider to include the comments in the final report, and provide for a meeting between the transmission provider and the interconnection customer within 10 business days of the interconnection customer receiving the draft interconnection facilities study report to discuss the results of the interconnection facilities study. In contrast, CAISO's GIDAP section 6.7 provides for a meeting (the study results meeting) to review the Phase I interconnection study report within 30 calendar days of providing the report to the interconnection customer and allows the interconnection customer to provide written comments on the report up to three business days following the meeting. If the interconnection customer submits written comments within 10 business days of receipt of the report, but in no case less than three business days before the study results meeting, whichever is sooner, then the written comments will be addressed in the study results meeting. Further, CAISO's GIDAP section 6.7 does not provide for inclusion of the interconnection customer's written comments in the study report, although it does provide for a revised study report or an addendum to the report to be issued within 15 business days of the study results meeting based on the discussion at the results meeting and any comments received if CAISO determines that this is necessary. GIDAP section 8.7 includes similar provisions associated with the Phase II interconnection study.

51. CAISO also proposes to include similar provisions for the Independent Study Process by revising GIDAP section 4.4.4 to allow for a study results meeting to be held to discuss the system impact and facilities study to be held within 20 business days of providing the study report to the interconnection customer and allows the interconnection customer to provide written comments on the report up to three business days following the meeting. If the interconnection customer submits written comments within 10 business days of receipt of the report, but in no case less than three business days before the study results meeting, whichever is sooner, then the written comments will be addressed in the study results meeting. However, unlike GIDAP sections 6.7 and 8.7, GIDAP section 4.4.4 does not provide for the report to be revised based on the discussion

⁷⁸ CAISO Transmittal at 35-36.

at the results meeting and any written comments received, nor does it provide for inclusion of the written comments in the report.

b. Commission Determination

52. While we find that CAISO has demonstrated that some GIDAP provisions are consistent with or superior to the *pro forma* language in Order No. 792, we also find that certain aspects of CAISO's existing GIDAP provisions allowing interconnection customers the opportunity to review and provide written comments on the facilities study reports⁷⁹ are not consistent with or superior to the Order No. 792 reforms. Therefore, we direct CAISO to submit a further compliance filing, as discussed below.

53. We accept CAISO's explanation and find that GIDAP sections 6.7 and 8.7 are consistent with or superior to the *pro forma* SGIP because they provide an opportunity for the interconnection customer, CAISO, and the applicable participating transmission owners to meet and discuss the interconnection study report, GIDAP sections 6.7 and 8.7 allow for the interconnection customer to provide written comments on the interconnection study report, and CAISO may provide for revisions to the study report based on interconnection customer written comments. However, GIDAP section 4.4.4 does not provide for inclusion of interconnection customer written comments in the study report under the Independent Study Process. Therefore, we direct CAISO to submit as part of the further compliance filing directed herein revisions to GIDAP section 4.4.4 requiring written comments to be included in the system impact and facilities study report for the Independent Study Process, consistent with the requirements of Order No. 792.

54. Order No. 792 also requires, upon request by the interconnection customer, the transmission provider to provide "supporting documentation, workpapers, and databases or data developed in the preparation of the Interconnection Facilities Study."⁸⁰ Similar language is included in CAISO's GIDAP sections 6.6 and 8.5 for the Phase I and Phase II interconnection study processes. However, the CAISO GIDAP does not include such language for the Independent Study Process system impact and facilities study. We find that sections 6.6 and 8.5 are consistent with or superior to the Order No. 792 requirement to provide supporting documentation for the Phase I and Phase II interconnection study processes, but because no such provision is included for the Independent Study Process system impact and facilities study, we direct CAISO to revise its GIDAP Independent Study Process in the further compliance filing directed herein to include such a provision.

⁷⁹ See GIDAP section 6.7, Phase I Interconnection Study Results Meeting, and GIDAP section 8.7, Results Meeting with the CAISO and Applicable PTO(s).

⁸⁰ Section 9.0 of the *pro forma* SGIP facilities study agreement.

5. Interconnection of Storage Devices

55. 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.⁸¹ Specifically, the Commission revised the definition of small generating facility to explicitly include storage devices.⁸²

56. 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.⁸³ 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.⁸⁴

57. 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

⁸¹ Order No. 792, 145 FERC ¶ 61,159 at P 227.

⁸² *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 and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.”

⁸³ *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.

⁸⁴ *Id.*

provider's system.⁸⁵ 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.⁸⁶

58. 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.⁸⁷ 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.⁸⁸

a. CAISO's Filing

59. CAISO proposes to incorporate the tariff revisions set forth in Order No. 792 into the definition of the term Generating Facility in appendix A of the CAISO tariff.⁸⁹ CAISO also proposes to amend the definition of a Generating Facility in appendices EE and FF, which contain the *pro forma* SGIA and LGIA subject to the GIDAP. Finally, CAISO proposes to incorporate (with minor variations to refer to CAISO instead of the transmission provider) the Commission's *pro forma* tariff revisions regarding the evaluation of a resource's maximum rated capacity to determine if the resource is a small generating facility into section 3.1 of the GIDAP. CAISO requests that the Commission accept these tariff revisions under the independent entity variation standard.

⁸⁵ *Id.* P 230.

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ CAISO Transmittal at 36.

b. Commission Determination

60. The Commission finds that CAISO has satisfied the requirements of Order No. 792 under the independent entity variation standard. The Commission accepts CAISO's revisions regarding electric storage devices.

6. Network Resource Interconnection Service

61. 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.⁹⁰ The Commission explained that this requirement was included in Order No. 2006⁹¹ 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.⁹²

62. 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.⁹³

a. CAISO's Filing

63. CAISO argues that the directive in Order No. 792 is based on a design paradigm different from its existing GIDAP.⁹⁴ CAISO notes that it has consolidated its small and large generator interconnection procedures under the GIDAP. CAISO notes that section 2.4.2 of the GIDAP already allows an interconnection customer to connect its generating facility to the CAISO-controlled grid and be eligible to deliver the resource's output using available capacity, and that this provision applies to both small and large generating facilities. CAISO requests that the Commission accept its existing tariff provisions as consistent with or superior to Order No. 792's directive.

⁹⁰ Order No. 792, 145 FERC ¶ 61,159 at PP 232, 235.

⁹¹ Order No. 2006, FERC Stats. & Regs. ¶ 31,180 at P 140.

⁹² Order No. 792, 145 FERC ¶ 61,159 at PP 232, 235.

⁹³ *Id.* P 236. *See also id.* PP 273, 274

⁹⁴ CAISO Transmittal at 37.

b. Commission Determination

64. The Commission finds that CAISO's existing GIDAP language is consistent with or superior to Order No. 792 because it allows all generating facilities to connect to the CAISO-controlled grid and be eligible to deliver the resource's output using available capacity of the CAISO-controlled grid.

7. Revisions to Enhance Independent Study Process

65. CAISO proposes revising the eligibility criteria to participate in the Independent Study Process. In addition to establishing that a cluster study would not meet an achievable commercial operation date, an interconnection customer must currently demonstrate that it meets two of three criteria demonstrating the achievement of permitting, procurement, and financing milestones to qualify for the Independent Study Process. CAISO proposes to modify the eligibility criteria such that an interconnection customer must meet all three milestone criteria as well as two additional new criteria. CAISO states that its two new proposed criteria are: (1) the proposed point of interconnection must be either an existing facility on the CAISO-controlled grid or a facility that is under construction and will be completed by the requested commercial operation date; and (2) any reliability network upgrades necessary for interconnection must be in service or scheduled to be in service by the proposed commercial operation date.⁹⁵

66. CAISO also proposes revisions to the GIDAP regarding the determination of electrical independence and the timing of that determination. CAISO proposes to modify the GIDAP to state that an interconnection request will qualify for the Independent Study Process without having to demonstrate independence if, at the time of the request, there are no other active interconnection requests in the same study area. CAISO states that this will streamline requests that are self-evidently electrically independent.⁹⁶ CAISO also proposes to speed determinations of electrical independence by using study results for active interconnection requests in the same study area as the interconnection request being studied. CAISO also proposes to change the timetable for informing a customer if it has satisfied the electrical independence requirements from within 15 business days to within 30 calendar days after receiving the information necessary to determine whether the customer has satisfied the requirement.

⁹⁵ CAISO Transmittal at 11-12

⁹⁶ *Id.* at 12.

67. CAISO also proposes a revision to the flow impact test, which assesses the impact on the nearest transmission facility impacted by network upgrades needed by planned interconnected generating facilities under the Independent Study Process. First, CAISO proposes to specify that it will only study the transmission facilities impacted by reliability network upgrades, because testing for the impact of deliverability network upgrades is redundant with the separate deliverability assessment required for any interconnection needing full capacity deliverability.⁹⁷

68. CAISO proposes several revisions to the provisions relating to behind the meter expansions evaluated under the Independent Study Process. First, CAISO proposes to clarify that the existing size limit of an incremental behind the meter increase includes any prior behind the meter expansions. Second, CAISO proposes to replace its requirement that a behind the meter expansion be placed behind a separate breaker with a requirement that the behind the meter expansion install an automatic tripping scheme that allows CAISO to ensure that the expansion does not exceed the capacity studied by the interconnection request. Finally, CAISO proposes to clarify that behind the meter expansions to generators with full capacity deliverability status may be metered together such that the combined facility has partial deliverability status.

69. CAISO also proposes additional revisions to tests to determine electric independence for behind the meter expansion requests. It proposes to modify its short circuit test to replace its current fixed 100 ampere short circuit threshold with a proportional threshold.⁹⁸ It also proposes tests for transient stability and reactive support. CAISO states the generating facility will pass these tests to the extent the generating facility has requested interconnection in an area where transient stability issues are not present and reactive support issues are not identified.

⁹⁷ See *Cal. Indep. Sys. Operator Corp.*, 144 FERC ¶ 61,189 (2013) (accepting CAISO's tariff revisions adopting a deliverability assessment).

⁹⁸ CAISO states that, pursuant to the revisions, the generating facility will pass the short circuit test if: (1) the combined short circuit contribution from all the active interconnection requests in the Independent Study Process in the same study area is less than five percent of the available capacity of the circuit breaker upgrade identified in the flow impact test described in GIDAP section 4.2.1.1(i); and (2) total fault duty on each circuit breaker upgrade identified for the current queue cluster and active Independent Study Process interconnection requests in the same study area is less than 80 percent of the nameplate capacity of the respective circuit breaker upgrade. See CAISO Transmittal at 18-19 and GIDAP section 4.2.2.2.

70. For the Independent Study Process, CAISO proposes to combine the system impact study and facilities study currently present in the GIDAP, and to change several provisions and timelines to account for the combining of these studies. CAISO states that it has found that for the Independent Study Process, it is more efficient to hold these studies together. CAISO also proposes clarifying revisions regarding requests for deliverability status and asynchronous generating facilities.

71. Finally, CAISO proposes miscellaneous changes to a number of GIDAP provisions to correct typographical errors, incorrect use of defined terms, and inaccurate cross-references. CAISO argues that these changes are made to make the GIDAP provisions more clear.⁹⁹

Commission Determination

72. CAISO's revisions to its Independent Study Process will enhance CAISO's interconnection procedures and allow it to better and more efficiently manage its interconnection queue. These revisions may be more restrictive to interconnection applicants seeking to interconnect under the Independent Study Process, but may help focus the process on those applicants who qualify. In addition, CAISO's revisions will provide additional clarity to the process of applying and receiving approval to participate in an Independent Study Process. We therefore find CAISO's revisions to meet the independent entity variation standard and accept CAISO's revisions to its Independent Study Process.

73. Finally, we find that CAISO's proposed miscellaneous changes to its GIDAP help clarify the GIDAP provisions and we accept those miscellaneous tariff revisions under the independent entity variation standard.

The Commission orders:

(A) CAISO's proposed tariff revisions are hereby conditionally accepted in part, and rejected in part with the conditionally accepted tariff revisions to become effective November 4, 2014, as requested, subject to a further compliance filing, as discussed in the body of this order.

⁹⁹ CAISO Transmittal at 37.

(B) CAISO is hereby directed to submit a further compliance filing, within 30 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.