

124 FERC ¶ 61,292  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
and Philip D. Moeller.

California Independent System Operator Corporation      Docket No. ER08-1317-000

ORDER CONDITIONALLY APPROVING TARIFF AMENDMENT

(Issued September 26, 2008)

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1. On July 28, 2008, the California Independent System Operator Corporation (CAISO) filed its Generation Interconnection Process Reform (GIPR) tariff amendment. The GIPR proposes amendments to both the CAISO’s currently effective tariff and its

Market Redesign and Technology Upgrade (MRTU) tariff.<sup>1</sup> The GIPR tariff revises the CAISO's generator interconnection process, including changes to its Large Generator Interconnection Procedures (LGIP) and Large Generator Interconnection Agreement (LGIA). The tariff revisions will improve the efficiency of the CAISO's interconnection process, clear the CAISO's interconnection backlog, and allow the interconnection process to be better integrated into the CAISO's transmission planning process. This order conditionally approves the CAISO's proposed tariff amendments.

## I. Background

2. The CAISO's current LGIP was adopted to comply with the Commission's directives in Order No. 2003<sup>2</sup> to facilitate the interconnection of new generation while preventing undue discrimination, preserving reliability and increasing competitive energy supply in wholesale electricity markets. According to the CAISO, the Order No. 2003 interconnection procedures have been successful in assuring nondiscriminatory, open transmission access for new generation resources.

3. The CAISO notes, however, that several factors, largely unanticipated at the time the Commission issued Order No. 2003, have imposed significant challenges to the efficiency of the current interconnection procedures. Specifically, the CAISO notes that changes in the regulatory environment, in fuel price projections, and in the development of larger markets for the sale of generator output have altered the anticipated number, location and type of generating units seeking interconnection.<sup>3</sup> The CAISO further states that as of the date on which it filed its tariff amendment initiating this docket, 361 interconnection requests totaling more than 105,000 MW were pending in its interconnection queue. Over 68,000 MW represent renewable resources. The pending interconnection requests exceed the historic peak demand of 50,270 MW for the CAISO Balancing Area Authority.<sup>4</sup> The CAISO indicates that the overall large number of

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<sup>1</sup> The MRTU tariff is not yet in effect.

<sup>2</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

<sup>3</sup> CAISO Transmittal Letter at 6, *See also*, Testimony of Stephen Rutty, Exhibit ISO – 1 at 3.

<sup>4</sup> Testimony of Stephen Rutty, Exhibit ISO – 1 at 3.

interconnection requests and high level of capacity in the CAISO's interconnection queue have overwhelmed available resources and resulted in unreasonable delays and uncertainty in the CAISO's interconnection study process.

4. Under the current LGIP, the generator interconnection process begins with a valid interconnection request being accepted, and then each interconnection request generally follows its own individual schedule through a series of steps and studies according to a time schedule prescribed in the LGIP. According to the CAISO, given the large number of interconnection requests and high level of capacity in the current interconnection queue, under this approach delays in processing interconnection requests are virtually inevitable, arising in large part from the data dependence inherent in a serial study approach in which the results of a later-queued project are dependent on the effects on the transmission grid of earlier-queued projects. When a project higher in the queue drops out, all projects with a lower queue position must generally be restudied, which takes time and frequently changes the scope and cost of transmission upgrades assigned to the restudied project. The CAISO has characterized the situation as being one where interconnection requests are coming in to the CAISO faster than the CAISO can process them, thus creating an infinite loop of re-studies. The CAISO states that this is the fundamental flaw that the GIPR is intended to address.<sup>5</sup>

5. The Commission held a technical conference on December 11, 2007 in which it sought information about queue issues and possible solutions applicable to both traditional and renewable generation.<sup>6</sup> On March 20, 2008, the Commission issued its order following up on the technical conference on interconnection queuing practices.<sup>7</sup> The March 20 Order expressed concern about delays in processing interconnection queues and noted that all transmission providers should be evaluating whether changes are needed to their queue management practices to ensure the expediency called for by Order No. 2003. The March 20 Order specifically noted that the queuing backlog within the CAISO has been creating additional challenges in meeting the state's renewable portfolio standard.<sup>8</sup>

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<sup>5</sup> *Id.* at 4 – 5.

<sup>6</sup> *Interconnection Queuing Practices*, Docket No. AD08-2-000, Nov. 2, 2007 Notice of Technical Conference.

<sup>7</sup> *Interconnection Queuing Practices*, 122 FERC ¶ 61,252 (2008) (March 20 Order).

<sup>8</sup> *March 20 Order*, 122 FERC ¶ 61,252 at P 5.

6. On May 15, 2008, in Docket No. ER08-960-000 the CAISO filed a Petition for Waiver of certain provisions related to its LGIP and Interconnection Study agreements. The CAISO indicated that the Petition for Waiver represented the first step in a two step process by which it intends to reform its LGIP to improve efficiency consistent with the directions provided in the March 20 Order. Specifically, the CAISO requested a waiver of time deadlines in its LGIP, as well as the permissible duration for a queue cluster window in order to create three categories of interconnection requests. The three categories would include a grandfathered serial study group that will continue to be processed under the existing LGIP, an initial GIPR cluster to be treated under the GIPR tariff, and a transition cluster subject generally to the GIPR but with recognition that those interconnection requests were initially filed under the existing LGIP tariff structure. The second step of the CAISO's interconnection queue reform is represented by the current filing. The Commission granted the CAISO's Petition for Waiver on July 14, 2008.<sup>9</sup>

### **The GIPR Tariff Amendment**

7. The CAISO's GIPR proposal has four major elements: (1) the GIPR adopts a clustering approach to processing interconnection requests within a queue cluster window, as opposed to the existing LGIP process of serial studies on each interconnection request as it is received; (2) the GIPR consolidates the interconnection studies associated with processing each interconnection request from the three studies required by the current LGIP into two studies, denominated the Phase I Interconnection Study and the Phase II Interconnection Study; (3) interconnection under the GIPR LGIP will only involve one study agreement, called the Large Generator Interconnection Study Process Agreement (LGISPA), as opposed to the three study agreements specified under the current LGIP; and (4) the GIPR proposal will significantly increase and accelerate the financial commitments required to participate in the interconnection process.

8. The CAISO states that the GIPR tariff amendment is intended to achieve the following objectives: (1) clear the existing backlog of generator interconnection requests; (2) balance generation developer flexibility with increased generation developer commitments; (3) provide interconnection customers with significant certainty regarding Network Upgrade costs; (4) provide interconnection customers with greater certainty in the timing of interconnection study outcomes; (5) reduce or eliminate the need for restudies following completion of interconnection studies; (6) better integrate the generation interconnection process with the CAISO's Transmission Planning Process;

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<sup>9</sup> *Cal. Indep. Sys. Operator Corp.*, 124 FERC ¶ 61,031 (2008) (July 14 Order).

and (7) allow the integration of state efforts to identify transmission needs for energy resource areas.<sup>10</sup>

## **II. Notice and Responsive Filings**

9. Notice of the Application was published in the *Federal Register*, 73 Fed. Reg. 46,621 (2008), with interventions or protests due on or before August 18, 2008. In response, the entities listed in Appendix A filed notices or motions to intervene, including protests or comments as noted. NRG Power Marketing LLC, Cabrillo Power I LLC, Cabrillo Power II LLC, El Segundo Power LLC, and Long Beach Generation LLC (collectively NRG) filed a motion to intervene out-of-time and protest. The City and County of San Francisco (San Francisco) filed a late-filed motion to intervene.

10. The CAISO filed a Motion for Leave to Answer and Answer to the comments and protests. The California Wind Energy Association, The Large-Scale Solar Association and The American Wind Energy Association (Wind and Solar Parties) filed Limited Reply Comments. The California Public Utilities Commission (CPUC) filed a Motion for Leave to File Answer and Answer in Reply to Comments. The Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (Six Cities) filed a Motion for Leave to Respond and Response to Late-Filed Comments by the CPUC.

## **III. Discussion**

### **A. Procedural Matters**

11. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

12. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2008), the Commission will grant the late-filed motions to intervene of NRG and San Francisco, given their interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

13. Rule 214(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 214 (a)(2) (2008), prohibits an answer to a protest or another answer unless otherwise ordered by the decisional authority. We will accept the CAISO's Answer, the Wind and

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<sup>10</sup> CAISO Transmittal Letter at 2.

Solar Parties' Limited Reply Comments, the CPUC's Answer and Six Cities' Response<sup>11</sup> because they provided information that assisted us in our decision-making process.

**B. Substantive Matters**

**1. Standard of Review**

**a. Proposal**

14. The CAISO points out that as an independent system operator, it is entitled to propose variations from Order No. 2003 under the "independent entity variation standard." Under that standard, a regional transmission organization (RTO) or independent system operator (ISO) must demonstrate that the variation is just and reasonable and not unduly discriminatory, and would accomplish the purposes of Order No. 2003.<sup>12</sup>

**b. Comments**

15. LS Power Associates, L.P. and Tenaska, Inc. (Joint Protesters) argue generally<sup>13</sup> that the CAISO's proposed GIPR Tariff amendment is unduly discriminatory because it puts unnecessary hurdles in the path of non-utility-affiliated generators and that the proposed variations cannot be justified under Order No. 2003's "independent entity variation" standard of review because they are unduly discriminatory, unduly preferential, and do not further the purposes of order No. 2003.

**c. Commission Determination**

16. We agree with the CAISO that under Order No. 2003, as an independent entity, it is entitled to flexibility as we consider its proposed variations. We will respond to arguments that the standard is not met for specific proposals under the headings for those proposals throughout this order.

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<sup>11</sup> Six Cities requested that we deny the proposals by the CPUC to "grant preferential treatment" to projects endorsed by the CPUC and to require mandatory upfront funding of transmission upgrades in certain situations. We note that this order rejects both of these proposals by the CPUC.

<sup>12</sup> CAISO Transmittal Letter at 12 – 13, *citing March 20 Order* at P 4.

<sup>13</sup> Joint Protesters at 2, 19 – 21.

## 2. Clustering

### a. The CAISO's Proposal

17. The CAISO's current LGIP provides for a serial study approach, under which each interconnection request is assigned a queue position upon receipt. It then proceeds through a series of three studies designed to assess its implications for the CAISO controlled transmission grid. These studies are a feasibility study, a system impacts study, and a facilities study. As a general matter, the studies are designed to assess the feasibility of the project and determine the costs of network upgrades associated with the proposed interconnection, as well as determine an allocation of those costs among potential interconnection requests. The final study is to determine the facilities costs associated with the interconnection. The costs and allocation of those costs is directly impacted by the status of other interconnection requests within the queue.<sup>14</sup>

18. In lieu of continuing the serial study approach, under the GIPR LGIP, the CAISO will generally use a clustering approach. The CAISO anticipates opening two queue cluster windows each year, during which it will accept interconnection requests. The CAISO would group together for study all interconnection requests received during each of the queue cluster windows. While each interconnection request will continue to be assigned a queue position, the CAISO states that queue position would no longer have any significance under the GIPR LGIP.<sup>15</sup>

19. The CAISO indicates that each queue cluster window will be four months in duration.<sup>16</sup> During 2009, the CAISO indicates that an additional queue cluster window will open on October 1 and close on January 31, 2010. Thereafter, during each calendar year, the first queue cluster window will open on April 1 and close on July 31 and the second queue cluster window will open on October 1 and close on January 31 of the subsequent calendar year.<sup>17</sup> Under Section 3.3 of the GIPR LGIP, the opening and

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<sup>14</sup> See Testimony of Stephen Ruddy, Exhibit ISO-1 at 4 – 5.

<sup>15</sup> CAISO Transmittal Letter at 15.

<sup>16</sup> The first GIPR queue cluster window opened on June 2, 2008 pursuant to the July 14 Order, and will continue until July 31, 2009. The CAISO describes this duration as a one-time anomaly related to the need to clear the existing backlog of interconnection requests by first processing the grandfathered serial study group and then the transition cluster, before processing interconnection requests associated with the first GIPR Queue Cluster. CAISO Transmittal Letter at 15.

<sup>17</sup> *Id.*

closing dates of queue cluster windows after January 31, 2010 shall be specified in the CAISO's Business Practice Manual.

20. The CAISO indicates that under its clustering approach, the close of the queue cluster window will trigger deadlines to ensure that interconnection requests are complete. Under the CAISO's GIPR LGIP, once an interconnection request is validated, the CAISO will furnish the interconnection customer an LGISPA. The LGISPA is proposed under the GIPR LGIP as a master replacement for the three separate study agreements that exist under the current LGIP.<sup>18</sup>

21. Within 60 days of the close of each queue cluster window, the CAISO will conduct a scoping meeting to discuss reasonable commercial operation dates and alternative interconnection options with each interconnection customer, which is consistent with practice under the current LGIP.<sup>19</sup> After the scoping meetings, the CAISO and applicable Participating Transmission Operator(s) (PTO(s)) develop base cases for studies. Each project within a particular queue cluster window will either be designated for individual study or assigned as part of a group study.<sup>20</sup>

**b. Comments and Protests**

22. The Cogeneration Association of California and the Energy Producers and Users Coalition (collectively CAC/EPUC) contends that interconnection of conventional generation may impose less incremental work to the CAISO than renewable energy projects because the renewable projects tend to be located in remote areas without existing transmission. As a result, CAC/EPUC proposes that new or incremental combined heat and energy generation projects of less than 100 MW located within the established transmission network should be studied as received, rather than being processed as part of a queue cluster window.

23. Southern California Edison (SCE) comments that the CAISO needs to clarify how queuing protocols are to be employed for the identification and allocation of costs of

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<sup>18</sup> CAISO Transmittal Letter at 21. Under the current LGIP, interconnection customers separately execute a Feasibility Study Agreement, a System Impact Study Agreement, and an Interconnection Facilities Study Agreement over the course of the interconnection process.

<sup>19</sup> CAISO Transmittal Letter at 21-22.

<sup>20</sup> CAISO Transmittal Letter at 22. Group studies will include interconnection customers deemed to affect one another electrically with respect to the analysis being performed.

Network Upgrades associated with small generators that might be electrically-related to large generators. Additionally, SCE comments that the lower financial commitments associated with interconnection under the SGIP (\$1,000 application deposit and site control) as opposed to the new deposit requirements under the GIPR (\$250,000 initial deposit and site exclusivity or a separate \$250,000 deposit) creates a potential for an increase in the numbers of applications under the SGIP.<sup>21</sup>

24. GWF Energy LLC (GWF) initially supports the CAISO's efforts to reform and improve its generator interconnection process. However, GWF advocates that the reforms should not adopt what it calls a "one size fits all" LGIP. Rather, GWF proposes that the GIPR LGIP be amended to provide a differing set of processes and deposits depending on specific characteristics of a particular interconnection request. GWF proposes that clustering not be used to study uprates proposed by existing generators, that the changes inherent in the GIPR LGIP not be applied to projects currently in the queue if it would negatively impact a developer's progress through the California Energy Commission (CEC) process, that any project waiving its Feasibility Study not be studied on a clustered basis, that clustering only be used for a project that is located proximate to other proposed projects, and that the proposed deposit structure be amended.<sup>22</sup>

25. LS Power Associates, L.P. and Tenaska, Inc. (Joint Protesters) propose to decouple the deliverability analysis from the interconnection process. Joint Protesters argue that the fundamental cause of the queue backlog is not queue entry but the requirement that a generator must be deemed deliverable in order to qualify as a network resource.<sup>23</sup> Joint Protesters argue that because of this coupling, any delays, suspensions, or withdrawals have an adverse impact on lower queued requests and may necessitate restudy, a major cause of the current queue backlog. Joint Protesters observe that in ERCOT and NYISO deliverability upgrades are part of overall system planning, and this has been very successful in encouraging new generation and incorporating it into the system.

26. Joint Protesters also argue that a separate queue should be developed for wind generation. Joint Protesters argue that one of the fundamental causes of the queue backlog is the difficulty in connecting wind generation to the grid due to its unique characteristics.<sup>24</sup> As such, Joint Protesters argue that wind generation must be dealt with

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<sup>21</sup> SCE at Section A.1.

<sup>22</sup> GWF at 4-6.

<sup>23</sup> Joint Protesters at 40.

<sup>24</sup> Joint Protesters at 37.

separately as a short term measure to alleviate the queue backlog. They also propose using an open season process to build transmission infrastructure necessary to interconnect wind and other remotely located generation.

27. Joint Protesters also propose that a technical conference be held to consider these and other proposals.

**c. The CAISO's Answer**

28. The CAISO's answer generally asserts that requests for expedited treatment for particular categories of interconnection requests would negate the effectiveness of the clustering approach and slow down the interconnection process. The CAISO expresses concerns that having to conduct a large number of accelerated studies would delay the commencement of studies on the other projects within a cluster, particularly if a project had a potentially significant effect on other projects within the same cluster. The CAISO notes that it would be necessary to complete the accelerated study before commencing study of the other projects in the queue cluster window.<sup>25</sup>

29. The CAISO further notes that GIPR Section 7.6 includes provision for accelerated studies for projects that are electrically independent and that have been identified as interconnecting to a point of available transmission and for whom the normal GIPR timelines would be inadequate.<sup>26</sup> The CAISO asserts that there is no clear means to distinguish projects deserving of special treatment, and therefore believes that the most appropriate outcome is to treat projects in an equal and nondiscriminatory manner.

30. The CAISO argues that the SGIP is beyond the scope of this proceeding.<sup>27</sup> The CAISO claims that the most problematic delays are the result of the large generator queue and suggests that if SCE perceives problems to be generated by the SGIP those issues should be brought to the CAISO in a separate stakeholder process.

31. The CAISO states that it disagrees with Joint Protesters' allegation that the queue backlog is a result of the requirement that a generator must be deemed deliverable in order to qualify as a network resource. The CAISO states on the contrary that queue

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<sup>25</sup> CAISO Answer at 13 – 14.

<sup>26</sup> *Id.* at 14. The CAISO further notes that the GIPR specifically provides that the CAISO may apply for a waiver to accelerate any project at any time to meet the schedule required by an order, ruling or regulation of the Governor of the State of California, the CPUC, or the CEC. *Id.* n.24. See GIPR LGIP section 7.6.

<sup>27</sup> CAISO Answer at 48.

delays have been caused by the large demand for new generation and the cascading restudies caused by frequent entry and exit from the queue by interconnection customers.<sup>28</sup> However, the CAISO notes that it will consider the alternatives suggested by Joint Protesters, or any other alternatives, if its experience with the GIPR indicates that these will enhance the interconnection process.

32. Finally, the CAISO argues that a technical conference is not needed. The CAISO notes that the GIPR proposal has gone through a Commission sponsored technical conference as well as a thorough stakeholder process. The CAISO argues that an additional technical conference would only delay needed interconnection reform.

**d. Commission Determination**

33. The CAISO's GIPR tariff amendment proposal is an attempt to comprehensively reform its LGIP to eliminate the interconnection queue backlog and provide an efficient mechanism with which to manage interconnection on an ongoing basis. This is consistent with the directives of the March 20 Order and was confirmed under the July 14 Order. Clustering is a major component of the CAISO's proposal and is specifically intended to eliminate re-studies that become essential under a serial study approach.<sup>29</sup> We share the CAISO's concerns that attempting to overlay the specific proposals presented by other parties has the potential to undermine the effectiveness of the GIPR reforms. Specifically, we are concerned that providing a separate queue for wind projects could potentially create a need for restudies, which the GIPR LGIP is designed to avoid. In the absence of evidence to the contrary, we accept the CAISO's representation that the majority of problems associated with the queue backlog have occurred as a result of the number of interconnection requests and the number of such requests dropping out of the queue, rather than as a result of the need to prove deliverability. Finally, we note that the GIPR includes provision for accelerated treatment for interconnection requests that meet certain predefined requirements. Under these circumstances we find the CAISO's clustering proposal under the GIPR tariff amendment to be just and reasonable, not unduly discriminatory, and to accomplish the purposes of Order No. 2003. We find that protesters have not demonstrated the CAISO's proposal to be unjust and unreasonable, or unduly discriminatory and therefore it is not necessary to make findings as to the justness and reasonableness of alternative proposals. Thus, we reject the proposed changes to the process, and we find that another technical conference would not be helpful in reforming the CAISO's interconnection procedures.

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<sup>28</sup> CAISO Answer at 48.

<sup>29</sup> Testimony of Stephen Rutty, Exhibit No. ISO-1 at 5-6.

34. We agree with the CAISO that proposed changes to its SGIP are beyond the scope of this proceeding.

### **3. Increased Interconnection Request Requirements**

#### **a. The CAISO's Proposal**

35. According to the CAISO, queue management issues under the current LGIP are exacerbated by what the CAISO calls very low monetary and data requirements imposed on a generation developer to initiate, remain in, or exit the process.<sup>30</sup> As a result, the CAISO states that maintaining queue position became a strategic advantage, which contributed to a high number of projects entering the CAISO queue even though the majority of those projects have little likelihood of ever becoming operational. The CAISO's GIPR tariff amendment increases both data requirements and financial commitments.

#### **i. Data Requirements**

36. The CAISO GIPR will require additional information before an interconnection request can be considered complete. In addition to all of the information required under the current LGIP, the CAISO's GIPR will require additional technical details. Specifically, the CAISO indicates that an interconnection customer will be required to identify the project's physical location by providing detailed maps and the project's proposed service interconnection point.<sup>31</sup> In addition, each interconnection customer will be required to submit all required technical data with its interconnection request. Under the GIPR, wind developers will no longer be allowed to submit their detailed electrical design specifications and other technical data requirements six months after submission of the interconnection request as permitted under the current LGIP and consistent with FERC Order No. 661-A.<sup>32</sup> The CAISO states that no stakeholder opposed this change to its LGIP.<sup>33</sup>

37. The CAISO GIPR will require that an interconnection customer propose a commercial operation date when the entire output of the proposed generating facility can

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<sup>30</sup> Testimony of Stephen Ruddy, Exhibit ISO-1 at 4.

<sup>31</sup> CAISO Transmittal Letter at 16.

<sup>32</sup> *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186, *order on reh'g*, Order No. 661-A, FERC Stats. & Regs. ¶ 31,198 (2005).

<sup>33</sup> CAISO Transmittal Letter at 16.

be in service. Interconnection customers will also be permitted to indicate any phasing of the commercial operation date of any generating units that comprise the generating facility. Additionally, interconnection customers will have the opportunity to adjust the proposed commercial operation date within five days of the scoping meeting, prior to the Phase II Interconnection Study, and at the meeting to discuss Phase I Interconnection Study results.<sup>34</sup> An interconnection customer will also be permitted to delay the commercial operation date of its project for up to three years for any reason without having the delay be deemed a material modification that causes a withdrawal of its interconnection request and forfeiture of its interconnection financial security.

## ii. Financial Commitments

38. The CAISO GIPR will raise the required deposit that each interconnection customer must post in advance to cover the cost of processing the interconnection studies from the currently required \$10,000<sup>35</sup> to \$250,000.<sup>36</sup> The CAISO indicates that this interconnection study deposit will cover the costs of processing the interconnection request and conducting both the Phase I and Phase II Interconnection Studies. The interconnection study deposit becomes non-refundable over time as follows: (1) \$100,000 of the interconnection study deposit becomes non-refundable 30 days after the scoping meeting; and (2) the full amount of the interconnection study deposit becomes non-refundable 30 days after the Phase I Interconnection Study results meeting, although if an interconnection customer executes an LGIA, it will be entitled to a refund of any amount of the deposit that was not needed to cover administrative and study costs of processing the interconnection request.<sup>37</sup> The CAISO states that increased deposits are designed to ensure that developers have an incentive only to introduce into the process

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<sup>34</sup> CAISO Transmittal letter at 17.

<sup>35</sup> See LGIP section 3.5.1, Initiating an Interconnection Request. \$10,000 is currently required to initiate an interconnection request and an additional \$10,000 if site control is not demonstrated. Such deposits may be applied toward any interconnection studies pursuant to the interconnection request. If the interconnection customer demonstrates site control within the interconnection request cure period, \$10,000 is refundable, otherwise all such deposits become non-refundable.

<sup>36</sup> See GIPR LGIP section 3.5.1, Initiating an Interconnection Request.

<sup>37</sup> See GIPR LGIP section 3.5.1.2, Use of Interconnection Study Deposit. See also CAISO Transmittal letter at 18-19. The CAISO also notes that an interconnection customer will be required to pay any excess administrative or study costs to the extent they exceed the amount of the interconnection study deposit. See GIPR LGIP section 3.5.1.3, Obligation for Study Costs.

projects with a reasonable chance of completion, while partial refundability along a structured schedule is designed to provide developers with an incentive to withdraw projects at the earliest date after a determination has been made that they are not viable.

39. In addition, the CAISO notes that the amounts are lower for small generators under 20 MW. If a small generator under 20 MW does not otherwise qualify for the SGIP, the required interconnection study deposit will only be \$100,000.<sup>38</sup> That small generator interconnection study deposit would become non-refundable in the same time-frame as required of larger generators, except that the amount becoming non-refundable 30 days after the scoping meeting is \$50,000.<sup>39</sup>

40. Under the current CAISO LGIP, upon initiating an interconnection request an interconnection customer must demonstrate site control<sup>40</sup> or is required to post a \$10,000 deposit. If the interconnection customer is unable to demonstrate site control at the time an LGIA is executed, the customer is required to post an additional \$250,000 which becomes nonrefundable and the deposit is applied to the cost of constructing needed transmission upgrades.

41. Under the proposed GIPR LGIP, upon initiating an interconnection request an interconnection customer is required to demonstrate site exclusivity<sup>41</sup> through the

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<sup>38</sup> See GIPR LGIP section 3.5.1.1, Initiating an Interconnection Request for Certain Small and Existing Generating Facilities.

<sup>39</sup> See GIPR LGIP section 3.5.1.2, Use of Interconnection Study Deposit.

<sup>40</sup> To show site control under the current LGIP, an interconnection customer must provide documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between interconnection customer and the entity having the right to sell, lease or grant the interconnection customer the right to possess or occupy a site for such purpose.

<sup>41</sup> To show site exclusivity under the GIPR LGIP, an interconnection customer must provide documentation reasonably demonstrating:

(1) Private Land:

- (a) Ownership of, a leasehold interest in, or a right to develop property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility; or

(continued)

commercial operation date of the new large generating facility or increase in capacity of the existing generating facility, or post a refundable site exclusivity deposit<sup>42</sup> of \$250,000. If the interconnection customer is unable to demonstrate site exclusivity, the site exclusivity deposit shall continue to be required after the interconnection customer has executed an LGIA or files an unexecuted LGIA under the GIPR LGIP.<sup>43</sup> The site exclusivity deposit, with interest, would be refunded to the interconnection customer at any time upon demonstration of site exclusivity or if the interconnection request is withdrawn by either the interconnection customer or the CAISO.

**b. Comments and Protests**

42. GWF argues that under the two-tiered deposit amount, the reduced deposits for smaller interconnections remain too high. GWF also argues that uprate projects of up to 50 MW should also qualify for the lower \$100,000 small generator assessment since a generation project would already have been implemented at the location. GWF argues that any other result could impose a disproportionate burden on developers with smaller capacity increases since projects of less than 50 MW are handled under local jurisdiction without requiring CEC approval.<sup>44</sup>

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(b) An option to purchase or acquire a leasehold interest in property upon which the Generating Facility will be located consisting of a minimum of 50% of the acreage reasonably necessary to accommodate the Generating Facility.

(2) Public Land:

For public land, including that controlled or managed by any federal, state or local agency, a final, non-appealable permit, license, or other right to use the property for the purpose of generating electric power and in acreage reasonably necessary to accommodate the Generating Facility, which exclusive right to use public land under the management of the federal Bureau of Land Management (BLM) shall be in a form specified by the BLM. *See* GIPR LGIP Appendix A Master Definitions Supplement

<sup>42</sup> LGIP section 3.5.1 and 3.5.1.4, Initiating an Interconnection Request and Use of site exclusivity Deposit, respectively.

<sup>43</sup> Section 11 of the GIPR LGIP

<sup>44</sup> GWF at 6.

43. Joint Protesters argue that the CAISO will not have performed the Phase I Interconnection Study within thirty days of the scoping meeting when \$100,000 of the Study Deposit becomes non-refundable. Joint Protesters add that the CAISO will not likely have performed the Phase II Interconnection Study within thirty days after presenting results of the Phase I Interconnection Study, when the full amount becomes non-refundable. Joint Protesters argue, therefore, that making the study deposit non-refundable provides a windfall to the CAISO, which would receive payment for costs not incurred.<sup>45</sup> Wind and Solar Parties state that the Commission should require that study deposits for withdrawn applications be applied to future applications by the same developer to interconnect the same project at the same site within two years, less verifiable out-of-pocket costs of the CAISO and affected PTO.

44. Cogentrix Energy, LLC (Cogentrix) argues that the more stringent financial commitments should be imposed on interconnection requests in the grandfathered serial study group and on those who have signed interconnection agreements. Cogentrix states that the failure to impose the more stringent financial requirements on these interconnection requests is unduly discriminatory. Cogentrix also argues that if these more stringent requirements are not imposed, projects that are not commercially viable will remain in the interconnection queue.

45. Joint Protesters and NRG argue that it is unreasonable to require merchant developers to prove site control so early in the process. They argue that site control is a lengthy and complicated process that can take several years and represents a significant portion of project costs. Joint Protesters argue that developers should not be required to make the substantial commitment in terms of time and money to secure the site before the interconnection study process has even begun and without any knowledge of what interconnection costs may be, or whether the various other preconditions for going forward will be satisfied, such as obtaining financing and required governmental permits.<sup>46</sup>

46. Joint Protesters request that the required \$250,000 site exclusivity deposit be rejected as bearing no relation to actual costs incurred. Joint Protesters argue that the CAISO has not made a showing that the proposed deposit for study costs is necessary to cover actual study costs, instead justifying the increase as a means of deterring speculative projects. Joint Protesters also argue that because \$100,000 of the \$250,000 proposed study deposit would become non-refundable thirty days after the scoping meeting, it would be counterproductive to achieving the stated purpose of encouraging

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<sup>45</sup> Joint Protesters at 29-31.

<sup>46</sup> Joint Protesters at 31-32.

new projects that cannot move forward to exit the queue. Wind and Solar Parties question the proposal to make the study deposit non-refundable more than thirty days after the Phase I Interconnection Study results meeting, arguing that the CAISO did not specify what it would do with the unused balance.

47. Horizon Wind Energy LLC (Horizon) argues that the different requirements under the proposed site exclusivity tariff language would cause an unnecessary burden to projects on public lands. Horizon notes that under the currently proposed tariff language, an interconnection customer must demonstrate a final non-appealable permit and 100 percent of the acreage reasonably necessary to accommodate the generating facility. Horizon proposes tariff language that would make the site exclusivity requirements for public land projects identical to private land projects. Wind and Solar Parties are essentially in agreement with Horizon in arguing that site exclusivity requirements for public land projects should be identical to those for private land.

48. Independent Energy Producers Association (IEP) contends that the “final, non-appealable” permit to establish site control on public lands does not exist. IEP further contends that if such a permit did exist it could not be acquired until very late in project development and at the expense of substantial cost and time. IEP notes that this provision would be onerous to any developer on BLM land, which would consist largely of renewable projects.

49. Iberdrola Renewables (Iberdrola) requests that the Commission clarify that the site exclusivity requirement does not restrict an interconnection customer’s ability to optimize available land. Specifically, Iberdrola seeks to clarify that an interconnection customer is not restricted to developing a generating facility only on lands which it has demonstrated site exclusivity, and the interconnection customer is not required to develop a specific percentage of its generating facility on the lands for which site exclusivity has been demonstrated. Iberdrola states that wind and solar generators require the flexibility to optimize their projects sites based on the latest meteorological data and consistent with the requirements of land use permits.

**c. The CAISO’s Answer**

50. The CAISO states that the up-front increased deposit requirement will serve to appropriately deter speculative projects from entering and remaining in the queue. The CAISO states that its current deposit requirements have not been effective in preventing speculative projects from entering the CAISO queue, and the exodus of such projects after studies have already commenced has resulted in numerous restudies and delays.

51. In response to GWF, the CAISO states that it carefully considered, in conjunction with stakeholders, the issue of what to assess small generators that do not qualify for interconnection under the CAISO’s small generator interconnection process and determined that \$100,000 represented a reasonable middle ground, which would deter

speculative interconnection requests while ensuring that viable small projects were not shut out of the process.

52. The CAISO states that the GIPR LGIP has not changed the timeframe under which site control (now site exclusivity) must be demonstrated. The CAISO further states that demonstration of site control/site exclusivity or the site exclusivity deposit is just one way in which projects will be required to reach a certain maturation point before entering the interconnection process. In response to the Joint Protesters' argument that the site exclusivity deposit bears no relation to actual costs, the CAISO states that it has only raised the monetary requirements of a provision that is already in the current LGIP, and adds that it is fully refundable if an interconnection customer withdraws or obtains site exclusivity.

53. The CAISO notes the Joint Protesters' concern that a developer should not be required to make substantial commitments in terms of time and money to secure a site before the interconnection study process has begun. The CAISO points out, however, that it illustrates an issue that the GIPR proposal seeks to cure with respect to the interconnection process. The CAISO states that entering the interconnection process should no longer be used as a sounding board for speculative projects. The CAISO contends the GIPR LGIP allows a prospective interconnection customer access to interconnection base case data so that developers can make preliminary assessments without the need to formally enter the interconnection process.

54. In its Answer, the CAISO states that the proposed definition of site exclusivity addresses concerns raised by the BLM regarding generators on federal land. The CAISO states that, during discussions with BLM, BLM acknowledged that it currently does not have a provision for exclusive right of use to a particular site on BLM land short of a final use permit. The CAISO states that BLM proposed that the CAISO simply require all interconnection customers proposing to locate their projects on BLM land provide the site exclusivity deposit. The CAISO states that rather than making the site exclusivity deposit an absolute requirement for all projects on BLM land, the CAISO chose to propose the GIPR definition of site exclusivity to preserve the option that BLM, in the future, may develop a mechanism for assigning projects exclusive rights on a particular BLM site. The CAISO states that developers are free to deal directly with BLM to establish some form of rights that might provide some advance assurance that the interconnection customer will be able to develop projects on a particular site on BLM land.

55. Regarding the Joint Protesters' argument on the improbability that the CAISO and PTOs would have substantial work completed on the studies within the thirty day deadlines, the CAISO states that its goal in establishing that deadline was to encourage developers to make a commitment to proceed before the in-depth studies are conducted.

The CAISO argues that this would increase the accuracy of the Phase I study and improve the quality of the binding cost estimates that flow from the Phase I study.

56. With regard to the distribution of foregone deposits, the CAISO states that the GIPR LGIP provides that such funds will be distributed to Scheduling Coordinators in proportion to their contribution to the grid management charges.<sup>47</sup> The CAISO adds that it opposes the Wind and Solar Parties' alternative proposal to credit a customer's future interconnections with the amount of the foregone deposit as this proposal would effectively negate the impact of the thirty-day deadline and remove the incentive to make commitment decisions soon after the Phase I Interconnection Study.

**d. The CPUC's Answer**

57. The CPUC argues that the increased study deposits can discipline investors while avoiding unnecessary risks for generators if generators that withdraw from the queue are allowed to retain credit for unused study deposits for future use under certain conditions.<sup>48</sup> The CPUC states that the conditions for the retention of a portion of the study deposit for credit would be: (1) the generator must file a re-application within one year; and (2) the re-application must involve substantively the same project.

**e. Commission Determination**

58. The CAISO has demonstrated that current procedures and requirements are inadequate to discourage speculative projects or multiple requests for the same project from overburdening the queue. The number of interconnection requests and amount of power represented by those interconnection requests that existed at the time of this filing provides ample evidence of the problem.<sup>49</sup> The Commission accepts the CAISO proposal to increase the amount of its study and site exclusivity deposit requirements as reformatory measures necessary for the CAISO to facilitate the interconnection of viable generation, and to reduce the opportunity for speculative projects to enter and remain in its queue. At the same time, we find that the CAISO has not raised its study and site exclusivity deposits so high as to preclude non-speculative projects from initiating requests to interconnect. We find the increased study and site exclusivity deposits just

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<sup>47</sup> See GIPR LGIP section 3.5.1.2, Use of Interconnection Study Deposit.

<sup>48</sup> CPUC Answer at 19.

<sup>49</sup> See CAISO Transmittal Letter at 6, explaining that as of the date of the letter the CAISO queue consisted of 361 interconnection requests totaling over 105,000 MW of power. The CAISO contrasted this number with historic peak demand of 50,270 MW for the CAISO balancing authority area.

and reasonable and not unduly discriminatory. Nevertheless, we will continue to monitor the CAISO's queue in order to ensure that the increased deposits do not become a barrier to entry. This order imposes comprehensive reporting requirements to support our monitoring of the CAISO queue. We also note that market participants retain the right to file complaints with the Commission should they deem it necessary.

59. We also find that because the CAISO would allow prospective interconnection customers access to Base Case Data to make preliminary determinations with regard to the feasibility and expense of a project, the need for much of a developer's speculation is substantially reduced. We find that increasing the data requirements associated with the submittal of an interconnection request is a reasonable adjunct to the reform process which, in combination with allowing interconnection customers access to Base Case Data will act to streamline the interconnection process. We find the increased data requirements to be just and reasonable and not unduly discriminatory. In addition, by increasing the required site exclusivity deposit, the GIPR LGIP is requiring an increased level of commitment from the interconnection customer at the outset of its request to interconnect. This is consistent with the Commission's queue reform initiative to streamline and expedite the interconnection process by reducing the number of speculative projects that initiate requests to interconnect.<sup>50</sup>

60. Protesters object that the increase in financial commitments is excessive, and, thus, unjust and unreasonable. However, deposit requirements like these serve a different purpose from simple rates meant to recover costs, and the question of whether they are excessive turns primarily on whether their purpose can be served with some lower level of deposit. The CAISO's experience with the former, lower deposit regime seems to demonstrate that higher deposits are necessary and that the proposed deposit of \$250,000 is just and reasonable. The CAISO asserts that the increased financial commitments are in part intended to deter speculative ventures that have saturated the queue,<sup>51</sup> and that the CPUC proposal would weaken the incentive for the interconnection customer to ensure that its project is viable at the time it enters the interconnection process. Accordingly, we find that the increased financial commitments proposed by the CAISO are just and reasonable measures, because they strike an appropriate balance that will reduce the number of speculative projects clogging the interconnection queue without being excessively high so as to prevent legitimate projects from pursuing interconnection requests.

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<sup>50</sup> See March 20 Order, 122 FERC ¶ 61,252 at P 16.

<sup>51</sup> CAISO Answer at 22.

61. The Commission will decline to impose the increased financial commitments on the groups identified by Cogentrix. In the July 14 Order we found that the CAISO's choice to target early stage interconnection requests for transition into the reformed interconnection procedures was reasonable since projects in the later stages of the interconnection process, as identified by the grandfathered serial study group criteria, would be most disrupted by being transitioned into the reformed interconnection procedures.<sup>52</sup>

62. We decline to adopt GWF's proposal to allow lower deposits for uprate projects between 20MW and 50MW. GWF's rationale for its proposal rests on its assertion that those projects are handled by local jurisdictions without requiring CEC approval. However, GWF does not provide evidence from which we can conclude that the differing approval process would change the potential impacts to the CAISO transmission system. The CAISO's proposed lower deposit amount is based on the size of the project, not the approval process associated with it. We find the distinction based on size of the unit to be just and reasonable and will not alter it on a piecemeal basis.

63. The Commission finds that the GIPR LGIP definition of site exclusivity is appropriate. Although the Commission recognizes the need for functionally equivalent requirements in most cases, the Commission acknowledges the fundamental differences between projects proposed on federal land versus those proposed on private land. Private ownership lends itself to quicker and easier resolution of site control issues than is the case with federal lands. An objective of the GIPR reform is to ensure that the queue is composed of projects that are likely to attain commercial operation. Since site control is a necessary component of attaining commercial operation, the increased requirements on public land where site control is more difficult to attain, are reasonable. Therefore, we conclude that the treatment afforded projects on federal lands is just and reasonable and not unduly discriminatory. The Commission also notes that the site exclusivity deposit is fully refundable if the interconnection customer demonstrates site exclusivity or withdraws its interconnection request.

64. Iberdrola requested clarification that an interconnection customer is not restricted to developing a generating facility only on lands for which it has demonstrated site exclusivity, and the interconnection customer is not required to develop a specific percentage of its generating facility on the lands for which site exclusivity has been demonstrated. The site exclusivity provisions provide two separate alternatives for developers. Interconnection customers are required to either demonstrate site exclusivity or provide a site exclusivity deposit.<sup>53</sup> Thus, it would appear that, at least during the

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<sup>52</sup> July 14 Order, 124 FERC ¶ 61,031 at P 77.

<sup>53</sup> See GIPR LGIP section 3.5.1.

development stages, Iberdrola's request for clarification is unnecessary as the GIPR LGIP does not restrict the area in which a developer may proceed. Under these circumstances, we find no need for clarification.

#### **4. Phase I Interconnection Studies**

##### **a. The CAISO's Proposal**

65. The current LGIP provides for three separate interconnection studies, denominated the interconnection feasibility study, the interconnection system impact study and the interconnection facilities study.<sup>54</sup> Under the GIPR, the CAISO states that these studies will be consolidated into two studies, denominated the Phase I Interconnection Study and the Phase II Interconnection Study.<sup>55</sup> According to the CAISO, these two studies will capture all of the functions of the existing studies.

66. As described above, under the current LGIP, interconnection customers undergo a formal interconnection feasibility study upon entering the queue as the first stage of the study process. This tariff-mandated study is a preliminary evaluation of the system impact and cost of interconnecting the generating facility to the CAISO controlled grid,<sup>56</sup> conducted by the participating transmission operators (PTOs), the CAISO, or a third party consultant for the interconnection customer.

67. The CAISO proposes to eliminate the formal interconnection feasibility study and compensate for its absence by increasing the amount of transmission information and technical data available to prospective project developers, so that the developers can conduct their own preliminary assessments.<sup>57</sup> In the proposed GIPR, the CAISO stated that it would provide base case data for developers to perform preliminary assessments in evaluating the feasibility of their generation projects. Pursuant to the proposed CAISO tariff, the base case data would include, but not be limited to, base power flow, short circuit and stability databases, underlying load, generation, and transmission facilities

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<sup>54</sup> See LGIP sections 6, 7 and 8, Interconnection Feasibility, System Impact and Facilities Studies, respectively.

<sup>55</sup> See GIPR LGIP section 6.2, Scope and Purpose of Phase I Interconnection Study, and section 7.1, Scope of Phase II Interconnection Study. See also CAISO Transmittal Letter at 13.

<sup>56</sup> "Interconnection Feasibility Study," Appendix A, CAISO Tariff.

<sup>57</sup> CAISO Transmittal Letter at 24.

assumptions, contingency lists, including remedial action schemes, per unit costs, and transmission diagrams used to perform Phase I and Phase II Interconnection Studies.<sup>58</sup>

68. The CAISO states that this additional information will provide market participants and project developers with the opportunity to evaluate their own projects or those submitted as a part of the solicitation process.

69. The Phase I Interconnection Study will be performed after the CAISO and the PTOs have completed the scoping meetings, grouped the projects, and assembled base cases. The CAISO indicates that it will use reasonable efforts to complete and publish the Phase I Interconnection Studies within 270 calendar days after the close of each queue cluster window, which coincides with a period of 180 days after the scoping meetings.<sup>59</sup> According to the CAISO, the Phase I Interconnection Study is intended to perform the following functions: (1) evaluate the impact of all interconnection requests received during the queue cluster window on the CAISO controlled grid; (2) preliminarily identify all network upgrades needed to address the impacts from those interconnection requests on the CAISO controlled grid; (3) preliminarily identify required interconnection facilities associated with each interconnection request; (4) assess the point of interconnection requested by each interconnection customer, as well as any potential alternatives; (5) establish the maximum cost responsibility for network upgrades assigned to each interconnection request; and, (6) provide a good faith estimate of the cost of interconnection facilities associated with each interconnection request.<sup>60</sup>

**b. Comments and Protests**

70. Pacific Gas & Electric Company (PG&E) is concerned about the preliminary studies being conducted by someone other than the CAISO/PTO, since it will be difficult for the procurement departments of load serving entities to evaluate the independence and credibility of the studies. PG&E believes that the Commission should accept the tariff change subject to the CAISO continuing to refine its processes to better align the solicitation process if experience dictates the need for greater coordination with request for offer processes of load serving entities.<sup>61</sup>

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<sup>58</sup> See CAISO S&R Tariff, Appendix A – Master Definition Supplement.

<sup>59</sup> CAISO Transmittal Letter at 22-23.

<sup>60</sup> *Id.* at 23.

<sup>61</sup> PG&E at 6.

71. PG&E also proposes a revised definition of Interconnection Base Case Data, so that the definition would include, in bold:

Data including, but not limited to, base power flow, short circuit and stability databases, underlying Load, Generation, and transmission facility assumption, Contingency lists, **and automated Contingency files**, including relevant Remedial Action Schemes, **Operating Procedures**, per unit costs, and transmission diagrams used to perform Phase I Interconnection Studies and Phase II Interconnection Studies.

PG&E states that this addition will help both developers and load serving entities.<sup>62</sup>

72. Macquarie Energy North America Trading, Inc. (MENAT) states that the Commission should clarify that an interconnection customer has the opportunity to change its deliverability status from full capacity deliverability status to energy only deliverability status after the preliminary cost estimate for network upgrades comes out in the Phase I Interconnection Study but before the finalization of costs in the Phase II Interconnection Study.<sup>63</sup> MENAT states that an estimate of the cost exposure for network upgrades is a critical factor in determining whether to move forward with a project.

73. Joint Protesters support the CAISO provision to provide interconnection customers with greater access to base case data, but believe some modifications are necessary to bring it in line with open access.<sup>64</sup> The first modification they propose is to adopt measures to ensure that developers can rely on the preliminary study results. They argue that the CAISO and the PTOs would likely not accept the results of such studies, and that the results would not be consistent with the results of studies performed by the CAISO or the PTOs. Joint Protesters argue that without the ability to rely on preliminary studies developers will not be willing to commit the significant financial resources necessary to begin the interconnection process. Joint Protesters also argue that the CAISO should either compile a list of preferred consultants or develop a certification process for such consultants. Alternatively, Joint Protesters propose that if PTOs and other load-serving entities require generators to be in the queue to participate in a request for offers process, that generators be allowed to leave the queue without penalty if they are not selected.

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<sup>62</sup> PG&E at 6.

<sup>63</sup> MENAT at 12.

<sup>64</sup> Joint Protesters at 44-45.

74. SCE supports the CAISO's proposal to eliminate restudies, however it believes there are circumstances where a "re-evaluation" is necessary.<sup>65</sup> For example, if a group of generators representing a significant portion of the studied group withdraws, the CAISO should retain the flexibility to revise transmission upgrade plans to prevent unnecessary costs and delays.

75. Wellhead comments that comparable base case data accessibility must be absolute for the new interconnection process to work. Wellhead argues that the proposed elimination of the feasibility study cannot be upheld if comparable base case data is not provided by CAISO. Wellhead states that comparable base case data is necessary to do the studies and obtain the same results as the CAISO.

**c. The CAISO's Answer**

76. The CAISO states that both PG&E and Joint Protesters appear to misunderstand the purpose of the preliminary assessment based on the interconnection base case data.<sup>66</sup> The CAISO states that the purpose of this informal analysis is to provide developers with a chance to assess what the costs of interconnecting at a certain point would be before entering the queue or paying a security deposit. The CAISO emphasizes that neither it nor the PTOs will rely on these preliminary assessments, but states that the assessments will give interconnection customers the opportunity to screen themselves from the interconnection process if they determine from modeling their generation that interconnecting at a certain point would be too costly.

77. The CAISO states that it disagrees with the Joint Protesters' request that projects not selected in the request for offers process be allowed to withdraw from the interconnection process without penalty. The CAISO states that this would be unmanageable since it does not control the utility sponsored request for offers process.<sup>67</sup>

78. The CAISO states that it agrees with PG&E on the addition of further information to the interconnection base case data, and will make that addition in a compliance filing.<sup>68</sup>

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<sup>65</sup> SCE at 5-6.

<sup>66</sup> CAISO Answer at 36.

<sup>67</sup> *Id.* at 37.

<sup>68</sup> *Id.* at 37.

79. In response to MENAT's request, the CAISO states that this is already an option in the *pro forma* LGISPA. The CAISO states that it would be willing to repeat this option for the sake of clarity in the tariff's LGIP language if the Commission orders it.<sup>69</sup>

80. The CAISO states that it included the flexibility to re-evaluate an interconnection plan of service resulting from the Phase II Interconnection Studies in the final version of the GIPR it provided to stakeholders.<sup>70</sup> The CAISO states in the course of the stakeholder process, it advised stakeholders that it would consider this matter in the transmission planning process pursuant to the coordination of the interconnection study and transmission planning processes provided in section 7.2 of the proposed GIPR. The CAISO states that it does not consider additional tariff language necessary.

**d. Wind and Solar Parties Reply Comments**

81. Wind and Solar Parties agree with MENAT's request for allowing a change in deliverability status. They also argue that the Commission should clarify that the CAISO has no authority to delay the commercial operation date of an interconnecting generator as a result of the unavailability of delivery network upgrades. Wind and Solar Parties state that a generator should be allowed to interconnect to the grid as a partial full capacity resource for the capacity that is deliverable without the upgrades and as an energy only resource for the remaining capacity.

**e. The CPUC's Answer**

82. The CPUC argues that generators initially requesting full capacity deliverability status should be allowed to discuss and request lesser deliverability at the results meeting following the Phase I Interconnection Study or shortly thereafter.<sup>71</sup> However, the CPUC states that the options below full deliverability should be limited to whatever level of reduced deliverability is offered by the CAISO pursuant to Phase I deliverability studies, including studies in which one or more transmission upgrade components required for full deliverability were removed. Specifically, they propose to modify GIPR LGIP section 6.7.2.1 to state:

“Modifications permitted under this section 6.7.2 shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project; (b) if initially selecting full deliverability, a decrease in requested MW of deliverability, limited

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<sup>69</sup> *Id.* at 33.

<sup>70</sup> *Id.* at 47.

<sup>71</sup> CPUC Answer at 30-31.

to the deliverability options offered to the customer based on Phase I deliverability studies; (c) modifying the technical parameters associated with the Large Generating Facility step-up transformer impedance characteristics; and (d) modifying the interconnection configuration.”

83. Additionally, the CPUC agrees with the recommendation by the Wind and Solar Parties that generation projects unable to achieve desired commercial operating dates only because deliverability network upgrades would not be completed in time should have the option to interconnect as energy-only resources in the interim. The CPUC states that the availability of such an “energy-only option” should be addressed by the addition of a new second paragraph in proposed LGIP Section 6.7.1, to read as follows:

“Where Delivery Network Upgrades determined to be needed by an Interconnection Customer will not be available in time to meet the Customer’s requested Commercial Operation Date that would be achievable but for these Deliverability Network Upgrades, then that Customer has the option of interconnecting on an interim energy-only basis until the required Deliverability Network Upgrades are completed, subject to the following conditions: (1) all Reliability Network Upgrades required for reliable and safe interconnection of that Customer must be completed prior to interconnection; (2) any resulting potential for congestion or reliability violations must be reliably managed using congestion management procedures or other applicable operating measures; (3) interim energy-only interconnection must not unreasonably impede completion of the overall network upgrade plan, including but not limited to any required transmission line tear-downs or construction/modification of substations; and (4) costs attributable only to providing interim energy-only interconnection, and not attributable to the overall reliability and network upgrade plans, will be borne by the Interconnection Customer(s) receiving interim energy-only interconnection.”

**f. Commission Determination**

84. The replacement of the interconnection feasibility study with self-screening by prospective interconnection customers using enhanced data is a reasonable approach for streamlining the interconnection process while still providing developers an opportunity to assess the feasibility and potential costs of interconnecting with the grid. The availability of such data should enable developers to consider many alternatives, and to do so quickly as they will not be dependent on the availability of CAISO resources to perform this initial analysis. Accordingly, we accept the CAISO’s proposal.

85. In the March 20 Order, the Commission stated that the “elimination of the feasibility study as a separate step could reduce processing time without harming

interconnection customers.”<sup>72</sup> There, we cautioned that the elimination of the feasibility study “creates a greater need to develop alternative mechanisms through which customers can gather the information necessary to more narrowly tailor their interconnection requests toward a final acceptable configuration.”<sup>73</sup> Here the CAISO has proposed to eliminate the feasibility study and replace its function by providing interconnection customers with additional interconnection base case data, as provided in Section 2.3 of the proposed GIPR LGIP.

86. We disagree that the elimination of the feasibility study will make it too difficult for merchant developers to make the necessary financial commitments to enter the interconnection process. The CAISO proposes to provide comprehensive information that should afford developers the opportunity to make a reasonable estimate of the potential feasibility and costs of interconnecting with the grid. We find that the CAISO’s proposal to make such information available should satisfy Wellhead’s concerns.

87. While parties raise concern that these preliminary assessments may provide less certainty to the developer than a CAISO-prepared study, we find that the overall certainty afforded to developers is far greater under the reformed interconnection procedures proposed by the CAISO. While greater financial commitments are required at the outset of these procedures, the interconnection customer will be certain of its costs shortly after the Phase I Interconnection Study and before financing any part of the actual network upgrades. Under the current LGIP, the lack of cost certainty and the cascading delays mean that interconnection customers are unsure of when they will interconnect with the grid or what the ultimate costs of interconnection will be, regardless of the initial feasibility study results.

88. In response to concerns by Joint Protesters and PG&E about the adequacy of the preliminary assessments, the Commission encourages as much cooperation as possible between the CAISO, PTOs, and interconnection customers to ensure that the preliminary assessments are being conducted accurately, but we will not order the CAISO to conduct a certification process for consultants, to develop a list of preferred consultants, or to conduct any formal monitoring of the preliminary studies. Formal monitoring requirements or the development of a list of preferred consultants would place an administrative burden on the CAISO, which would frustrate the CAISO’s intention to streamline the interconnection procedures. Meanwhile, a certification process would be time consuming and might unduly limit the number of consultants that could perform these preliminary assessments, leading to delays for the interconnection customer before

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<sup>72</sup> *March 20 Order* 122 FERC ¶ 61,252 at P 17.

<sup>73</sup> *Id.* at P 17.

even entering the interconnection process. The CAISO stated that it would continue to “refine its processes to better align with solicitation processes should experience dictate the need for greater coordination.”<sup>74</sup> We find that this commitment by the CAISO is adequate to ensure that there will be enough cooperation to keep the preliminary assessments useful.

89. The Commission agrees with the CAISO that Joint Protesters’ proposed request for offers exemption is unworkable. Requests for offers occur at the discretion of individual utilities at periodic intervals and are not under the control of the CAISO. Therefore, the CAISO would not be able to prevent projects from using this exemption to bypass the financial commitments in the proposed GIPR LGIP. Additionally, given the cost certainty provisions of the proposed GIPR LGIP, PTOs would be forced to bear a significant share of the costs associated with speculative projects exiting the interconnection process.

90. The Commission orders that the CAISO make the two clarifying additions to the tariff that it has offered to make in a compliance filing within 60 days of the issuance of this order. The CAISO should include “Automated Contingency files” and “Operating Procedures” to provide a more complete definition of interconnection base case data, as suggested by PG&E. The CAISO should also modify its tariff to make clear that interconnection customers have the opportunity to change their deliverability status after the preliminary cost estimate for network upgrades comes out in the Phase I Interconnection Study but before the finalization of costs in the Phase II Interconnection Study, as suggested by MENAT.

91. Regarding the Wind and Solar Parties’ request for clarification, the CPUC recommends a GIPR LGIP modification to allow an interconnection customer to interconnect on an interim energy-only basis if delivery network upgrades have not been completed by the commercial operation date. In its answer the CAISO states that within the scope of the Phase II Interconnection Studies are assessments that would determine the necessary operating procedures to allow a generator to interconnect as an energy-only resource on an interim-only basis if delivery network upgrades have not been completed by the commercial operation date. We find that as a significant feature to an Interconnection Customer’s operating status, this provision should be more clearly reflected in the GIPR LGIP section 7 discussion of the Phase II Interconnection Study Process. Therefore, we direct the CAISO modify section 7 concerning the Phase II assessments and operating procedures to allow interim energy-only interconnection in its compliance filing to be made within 60 days of the issuance of this order.

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<sup>74</sup> CAISO Transmittal Letter at 24.

92. The CPUC requests modification to allow generators initially requesting full delivery to discuss and request a lesser level of deliverability at the results meeting following the Phase I Interconnection Study. The Commission finds that the Phase I Interconnection Study results meeting allows for modifications to decrease the electrical megawatt output of the proposed project.<sup>75</sup> However, it is not clear in the GIPR LGIP whether an interconnection customer is able to request a lesser deliverability level without decreasing the capacity of the project. In addition, the operational and reliability implications of lesser deliverability without a decrease in the project's capacity is also unclear. For example, it is possible that adding capacity classified as energy-only would necessitate additional reliability analyses and impede the queue process. For those reasons, we deny the CPUC's requested revision. However, we suggest that the CAISO have further discussions with the CPUC and interested stakeholders to assess whether further GIPR LGIP tariff revisions are needed that address the CPUC's request.

93. Section 7.2 of the proposed GIPR LGIP allows coordination between the Phase II Interconnection Study and the CAISO's transmission planning process. This coordination allows the CAISO to view the potential network upgrades in a broader context, and adjust the planned network upgrades accordingly. The Commission agrees with the CAISO that this process will give the CAISO the flexibility to also take into account any changes that have occurred over the course of the study process.

## **5. Deliverability Assessments**

### **a. The CAISO's Proposal**

94. Under the CAISO's GIPR proposal, the interconnection customer must specify its requested deliverability status, either "full capacity" or "energy-only". For generators selecting full capacity deliverability, the maximum output of each facility can be delivered under peak conditions. Deliverability assessment(s) will be performed to determine the need for delivery network upgrades. The costs for delivery network upgrades will be assigned based on the flow impact of each generating facility on the CAISO controlled grid. In addition, an analysis for reliability impacts will be done to determine the need for reliability network upgrades. The costs of the reliability network upgrades will be assigned pro-rata based on the maximum megawatt output of each facility studied.

95. For generators selecting the energy-only deliverability status, the facilities' output can only be delivered subject to system conditions. Similarly, a reliability analysis will be performed to determine the need, if any, for reliability network upgrades. The costs of

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<sup>75</sup> See GIPR LGIP section 6.7.2.1, under Modifications.

the reliability network upgrades will be assigned pro-rata based on the maximum megawatt output of each facility studied.

96. The CAISO proposes performing “on-peak deliverability assessments” for interconnection customers selecting full capacity deliverability status. The on-peak deliverability assessment will identify the network upgrades required to enable the generating facilities of each interconnection customer requesting full capacity deliverability status to deliver the full maximum megawatt capacity to the aggregate of load on the CAISO controlled grid under peak load and contingency conditions. The on-peak deliverability assessment under the GIPR LGIP is the same assessment that is performed under the current LGIP. Under the current LGIP, it is simply called a deliverability assessment.

97. In addition, the CAISO proposes performing “off-peak deliverability assessments” for a group study or individual projects that include one or more Location Constrained Resource Interconnection Generators (LCRIG), where the fuel source or source of energy substantially occurs during off-peak conditions for customers who select full capacity deliverability status. Delivery network upgrades will be identified through this assessment to ensure that the full maximum megawatt capacity is deliverable to the aggregate of load on the CAISO-controlled grid. At the CAISO’s discretion, an additional off-peak deliverability assessment may be performed to estimate the amount of deliverable generation capacity from the LCRIG studied individually or from the group study if the highest cost, or any other, delivery network upgrade component were removed from the preliminary network upgrade plan.

98. According to testimony included in the GIPR filing, wind generation constitutes a large portion of generation currently under development. Wind generation has a production profile that occurs during off-peak periods. The off-peak deliverability assessment is intended to supplement the on-peak deliverability assessment to ensure that generation with a substantial amount of production during off-peak periods will be deliverable during all periods of the year.

#### **b. Comments and Protests**

99. Wind and Solar Parties contend that the CAISO has neither adequately explained the purposes of the Off-Peak Deliverability Assessment nor identified the criteria or conditions that will apply to them. Wind and Solar Parties further contend that off-peak studies that model the generation of incumbents, including PTO-owned or affiliated generation, and new wind resources during off-peak periods without regard to proper generation commitment and dispatch will simply shift transmission upgrade costs to wind developers, resulting in unduly discriminatory transmission cost allocations between generating resources. Wind and Solar Parties argue that this has the potential to shift

transmission upgrade costs that should be borne by existing network customers to generators.

c. **The CAISO's Answer**

100. In its answer, the CAISO states that an off-peak deliverability assessment is triggered only after a sufficient number of location constrained resource interconnection facilities have sought full capacity deliverability status. The CAISO also notes, however that due to off-peak deliverability problems historically associated with wind generation that could prevent the CAISO from meeting state-mandated RPS requirements, the CAISO believes the off-peak deliverability assessment is a necessary augmentation to the on-peak deliverability assessment. The CAISO further notes that wind developers will be reimbursed over a five-year period for their investment in network upgrades, and can choose the energy-only option to avoid the off-peak deliverability assessment if total cost exposure for network upgrades is a continuing concern.

d. **The CPUC's Answer**

101. The CPUC states that LGIP tariff language should more clearly specify that On-Peak Deliverability refers to deliverability as defined and calculated for resource adequacy purposes, which may be significantly less than the generator's full capacity. Therefore, the CPUC states that the second paragraph of Section 6.3.2.1 should be revised to read as follows (revisions in bold):

The On-Peak Deliverability Assessment will identify the Network Upgrades that are required to enable the Large Generating Facility of each Interconnection Customer requesting full Capacity Deliverability Status to meet the requirements for deliverability. Deliverability requires that the Generating Facility Capacity, as set forth in the Interconnection Request, can be delivered to the aggregate of Load . . . assuming the aggregate output of existing Generating Facilities with Net Qualifying Capacity values and other Large Generating Facilities in the Interconnection Cycle seeking Full Capacity Deliverability Status identified within the On-Peak Deliverability Assessment based on the effect of transmission Constraints. **The Generating Facility's deliverability shall be used to determine that Generating Facility's Net Qualifying Capacity. If a generator has an intermittently available fuel supply and is to be studied at its maximum megawatts of output capability for purposes of a separate Off-Peak Deliverability Assessment, then for purposes of the On-Peak Deliverability Assessment, that generator may be assumed to operate at a level of output lower than its maximum electrical output, but no lower than the greater of its expected on-peak electrical output and its Net Qualifying Capacity.**

102. The CPUC disagrees with Wind and Solar Parties that Off-Peak Deliverability Assessments present the unacceptable risk of unjustifiably shifting responsibility for transmission upgrades to wind or other generators having greatest output in off-peak conditions.<sup>76</sup> The CPUC argues that deliverability studies can be necessary to determine the appropriate transmission upgrades for such generators, including tradeoffs for providing a reduced, lower cost transmission build-out in exchange for somewhat lesser deliverability.

103. The CPUC states that it may be insufficient to have off-peak deliverability assessments for generators only if they are located in Location Constrained Energy Resources areas. To address this issue, the CPUC proposes that proposed LGIP Section 6.3.2.2 be revised to read as follows:

“The CAISO, in coordination with the applicable Participating TO(s), shall perform an Off-Peak Deliverability Assessment for Interconnection Customers selecting Full Capacity Deliverability Status in their Interconnection Requests to determine Delivery Network Upgrades in addition to those identified in the On-Peak Deliverability Assessment, if any, for a Group Study or individual Phase I Interconnection Study that includes one or more Large Generating Facilities Location Constrained Resource Interconnection Generators whose (LCRIG), where the fuel source or source of energy has a fixed location and ~~for the LCRIG~~ substantially occurs during off-peak conditions.”

104. The CPUC also argues that proposed LGIP Section 6.3.2.2 should be revised to allow an additional off-peak deliverability assessment to be performed to estimate the amount of deliverable generation if multiple upgrade components were removed.<sup>77</sup> The CPUC argues that the current proposed language only allows for the removal of a single upgrade component. The CPUC states that this revision would allow for greater flexibility to address the efficient tradeoff between cost and deliverability for resources that can have their greatest output in off-peak conditions.

105. The CPUC also argues that off-peak deliverability assessments in which selected network upgrade components have been removed (so as to provide an alternative and potentially better cost-versus deliverability tradeoff) should not be at the CAISO's discretion, as the proposed GIPR LGIP allows.<sup>78</sup> Rather, the CPUC argues that such

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<sup>76</sup> CPUC Answer at 29.

<sup>77</sup> CPUC Answer at 29.

<sup>78</sup> CPUC Answer at 27.

studies should be mandatory for off-peak deliverability assessments, as they are for on-Peak deliverability assessments.

106. The CPUC also states that delivery network upgrades are designed to provide aggregate deliverability for a group of generators being studied (except in the case of individually studied generators), while the deliverability experienced by individual interconnecting generators when they actually operate will depend on actual system operating conditions. Therefore, the CPUC argues that it is not possible to say how much an individual generator will actually be allowed to deliver should part of the network upgrade plan for full deliverability not be built.

107. For this reason, the CPUC states that the second paragraph of Section 2.4.3 should be revised to read as follows:

“The Interconnection Studies will also identify Delivery Network Upgrades to allow the ~~full output of a Large Generating Facility selecting Full Capacity Deliverability Status~~, aggregate requested deliverable capacity of group of Large Generating Facilities studied together, or of an individually studied Large Generating Facility, to be delivered to the aggregate of system load and, as applicable, to estimate the maximum allowed expected aggregate deliverable output of the interconnecting Large Generating Facilities studied as a group, or a Large Generating Facility Studied individually, without one or more Delivery Network Upgrades in accordance with the On-Peak and Off-Peak Deliverability Assessment set forth in LGIP Section 6.3.2.”

**e. Commission Determination**

108. We agree with the CAISO, and as supported by the CPUC answer, that performing Off-Peak Deliverability Assessments is necessary and reasonable and find that the CAISO has sufficiently supported the proposal. Because of the proliferation of renewable generation technologies such as wind, and its associated off-peak production profile, we believe it is important to be able to utilize this energy without causing strains and congestion problems on the grid. Therefore, we deny the Wind and Solar parties protest.

109. We deny the CPUC’s request to include resource adequacy criteria into the proposed GIPR on-peak deliverability assessment. Determination of qualifying capacity for resource adequacy purposes is beyond the scope of this proceeding. Therefore, the second paragraph in Section 6.3.2.1 will remain as originally proposed by the CAISO.

110. We find unnecessary the CPUC’s request to revise the language in Section 6.3.2.2 to expand the Off-Peak Deliverability Assessment from LCRIGs to any large generating facility with a fixed fuel source location and off-peak production profile. In order to

qualify as an LCRIG, and, therefore, be included in the GIPR LGIP's provision for an Off-Peak Deliverability Assessment, a generator must (1) use a "primary fuel source that is in a fixed location and cannot practicably be transported from that location" and (2) be located in an Energy Resource Area.<sup>79</sup> The first criterion is similar to the criterion proposed by the CPUC to qualify for the Off-Peak Deliverability Assessment. For location constrained projects in areas where the CPUC decides that an Off-Peak Deliverability Assessment is needed, the second criterion can be easily met since the CPUC, along with the CEC, determines what areas will be designated as Energy Resource Areas.<sup>80</sup>

111. We also deny the CPUC's request to revise Section 6.3.2.2 to allow additional off-peak deliverability assessments to be performed to estimate the amount of deliverable generation if multiple upgrade components are removed and to make those additional assessments mandatory. The CAISO has proposed to perform additional assessments, at its discretion, if the highest cost or any other component were removed from the Preliminary Network Upgrade Plan. We find that this level of Off-Peak Assessment is adequate and appropriate, as it addresses the most important circumstances that are likely to benefit from study.

112. We deny the CPUC's requested revision to the second paragraph of Section 2.4.3 - "The Interconnection Studies." The potential impacts that adopting the proposed revision would impose on the CAISO's Interconnection Studies obligations are not clear. Based on the CPUC's answer we are unable to conclude that those additional study obligations would not be substantial. We find that the CPUC has not clearly justified the need for these proposed revisions. Therefore, we accept the language in Section 2.4.3 as originally proposed by the CAISO.

## **6. Cost Estimates**

### **a. The CAISO's Proposal**

113. The CAISO indicates that the Phase I Interconnection Study essentially combines the current Feasibility Study and Interconnection System Impact Study into a single study. The CAISO notes that the Phase I Interconnection Study will include the performance of on-peak and off-peak deliverability assessments, to identify delivery network upgrades associated with each project. Pursuant to the GIPR LGIP, the costs associated with interconnection-related facilities would be developed under the direction of the CAISO on a per unit basis and published annually by each PTO in advance of the

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<sup>79</sup> "Location Constrained Energy Resource Areas," Appendix A, CAISO Tariff.

<sup>80</sup> "Energy Resource Areas," Appendix A, CAISO Tariff.

April 1 queue cluster window.<sup>81</sup> These per unit costs would reflect the anticipated cost of procuring and installing such facilities during the current study cycle, may vary among PTOs and within a PTO service territory based on geographic and other cost input differences, and should include an annual adjustment for the following ten years to account for the anticipated timing of procurement to accommodate a potential range of Commercial Operation Dates of interconnection requests in the study cycle. The per unit costs would be used to develop the cost of reliability network upgrades, delivery network upgrades and PTO's interconnection facilities.

114. The CAISO states that under the GIPR, the estimated costs of reliability network upgrades for an interconnection request studied separately will be assigned entirely to that interconnection request, while reliability network upgrade costs associated with interconnection requests studied in a group will be assigned on a pro rata basis to the members of the group according to the maximum megawatt output of each new large generating facility or increase in the generating capacity of an existing generating facility.<sup>82</sup> The CAISO further indicates that the estimated costs of delivery network upgrades identified in the on-peak and off-peak deliverability assessments will be assigned to interconnection requests seeking full capacity deliverability status based on the flow of each such large generating facility as established by the deliverability assessment methodology.

115. The CAISO states that under the GIPR, Phase I estimates for each interconnection customer's cost responsibility for all network upgrades will serve as the maximum cost responsibility to be assigned to that interconnection customer associated with network upgrades. Under the current LGIP, the CAISO indicates that cost responsibility may change due to decisions made by other interconnection customers. Under the GIPR, this will no longer be the case. Even if the Phase I Interconnection Study estimates of costs for network upgrades increases, the additional costs will be borne by the PTO rather than the interconnection customer. The CAISO indicates that, in recognition of the fact that interconnection customers' financial commitments are increased under the GIPR, it is appropriate to place a cap on those financial commitments.<sup>83</sup>

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<sup>81</sup> See GIPR LGIP section 6.4, Use of Per Unit Costs to Estimate Network Upgrade Costs.

<sup>82</sup> CAISO Transmittal Letter at 24.

<sup>83</sup> CAISO Transmittal Letter at 25. The CAISO notes that the maximum cost responsibility is a cap. Due to an additional cost allocation to be conducted following the Phase II Interconnection Study's assessment of actual transmission facilities, the

**b. Comments and Protests**

116. Joint Protesters are concerned that if an increase in Phase I Interconnection Study estimates of costs for network upgrades were borne by the PTO rather than the interconnection customer, PTOs would inflate their estimates of maximum costs to ensure that actual costs were less than the estimated maximum. In addition, the Joint Protesters argue that it would give the CAISO and PTOs an incentive to use overly-conservative planning assumptions and to “gold-plate” the grid with unnecessary and excessive network upgrades in the Phase I Interconnection Study phase. Joint Protesters argue that interconnection customers would be required to maintain excessive security and the cost estimate provided would be well in excess of the median estimate of actual costs.

117. NRG raises concerns about the accuracy and timing of the network upgrade cost estimates. In order to ensure that cost estimates developed in the Phase I Interconnection Study are accurate and timely, NRG urges the Commission to impose financial penalties on PTOs that miss their study deadlines or over-estimate network upgrade costs by more than twenty percent.

118. Joint Protesters support the use of standardized per unit costs for network upgrades as a benchmark from which to measure the estimates of maximum costs. However, Joint Protesters state that the provision should be supplemented to require the CAISO and PTOs to explain and justify deviations from the benchmark costs. Joint Protesters request that the Commission require the CAISO to provide greater detail regarding the proposed stakeholder review process for the per-unit costs. In particular, stakeholders should have access to all of the underlying data and the right to contest the use of any estimates, cost data, or assumptions that they believe to be erroneous. Joint Protesters add that where the maximum estimate is substantially above the standardized per unit costs, e.g., by a margin of five percent or more, interconnection customers should be able to contest the estimate, either in a formal Commission proceeding or through the external arbitration procedures specified in the CAISO LGIP.

119. SCE states that it does not object per se to the use of per unit costs but does object to publishing and subjecting unit costs to stakeholder review. SCE contends that per unit costs contain confidential vendor information that for competitive reasons PTOs cannot disclose. SCE also argues that the unique and diverse geography of California, which includes high mountains, sparsely populated deserts, and densely populated urban and suburban areas would likely make such per unit costs necessarily generic, and they would

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interconnection customer may not be required to assume financing responsibility for the entire amount.

lose their value as estimating tools. SCE adds that a generator's use of the unit costs without the proper understanding of factors that the PTO must consider may lead to inaccurate conclusions of total project costs. SCE further argues that holding a stakeholder meeting to discuss the per unit costs would have little value as it would not likely change the costs developed by the PTOs given the required detailed engineering and technical knowledge and applicable standards for the development of costs related to each PTO's electric system.

120. SCE requests that the Commission remove the requirement that the PTOs publish per unit costs and allow the cost estimates to be developed during the Phase I Interconnection Study to take into consideration all of the factors needed to develop accurate costs estimates. In addition, SCE requests that the Commission remove the requirement for the PTOs to subject per unit costs to a stakeholder process and clarify that although non-confidential per unit costs may be published, the CAISO and PTOs retain flexibility in the preparation of the Phase I Study to develop cost estimates that will accurately forecast the cost for the interconnection facilities and network upgrades.

121. Wind and Solar Parties object to the GIPR proposal for its failure to reverse its LGIP participant funding provisions. Wind and Solar Parties argue that because of the interrelationship between transmission planning and interconnection under the GIPR proposal it is no longer appropriate to assign cost responsibility for network upgrades to a particular interconnection customer. They contend, therefore, that the CAISO participant funding provisions are no longer appropriate. The Wind and Solar Parties contend that the PTOs should instead be required to fund all network upgrades because PTOs have a number of ratemaking tools available to them at the Commission to ensure timely recovery of all just and reasonable costs incurred to meet their utility service obligations. Babcock and Brown state that they support Wind and Solar Parties' position on participant funding.

**c. The CAISO's Answer**

122. The CAISO states that it has proposed several checks to prevent PTOs from inflating project costs. The CAISO states that it believes interconnection customers are adequately protected by the transparency of per unit costs, the three-party (CAISO, PTO, and interconnection customer) collaborative process, and the cost cap on network upgrade liability. The CAISO states that it is an integral participant in the development of all cost estimates. The CAISO also states that under its process, the PTOs cannot unilaterally inflate any costs without the CAISO's scrutiny and the CAISO has no incentive to inflate costs, thereby undermining confidence in its participation and in the process as a whole. The CAISO also points to the PTOs use of published per unit costs that have gone through stakeholder review as another important control.

123. In response to the Joint Protesters' comment that deviations from benchmark costs should be justified, the CAISO explains that language stating that benchmark deviations would be justified was unintentionally omitted, but will be provided in a compliance filing.

124. Regarding the conflicting requests by Joint Protesters for additional stakeholder review and by SCE for no stakeholder review, the CAISO states that it proposed in the GIPR LGIP to provide that prior to adoption and publication of final per unit costs for use in the interconnection study cycle, the CAISO would publish on its website draft per unit costs, including non-confidential information regarding the bases, hold a stakeholder meeting to address the draft per unit costs, and permit stakeholders to provide comments on the draft per unit costs. The CAISO states that it believes this tariff language strikes the appropriate balance by assuring that the calculation of per unit costs will be thoroughly reviewed by stakeholders and transparent, and at the same time not overly burdensome to the PTOs. The CAISO adds that because the tariff language explicitly provides that only non-confidential information need be released, SCE has not shown why it would be harmed by this level of transparency.

125. Finally, in response to SCE's concern that per unit costs would be too generic to be useful, it is the CAISO's view that different sets of per unit costs may be developed to reflect different types of conditions applicable to proposed projects, including the general types of geographic areas listed by SCE. While imposing small additional effort on the PTOs, such an effort would minimize the concern that the per unit costs would be too generic to be useful. In addition, as the CAISO noted above, on compliance it will clarify that deviation from benchmark per unit costs will be permitted when appropriately justified, further providing the PTO with flexibility to account for special circumstances.

126. In response to the Wind and Solar Parties' argument that participant funding provisions should be modified, the CAISO responds that participant funding is a policy issue that is unrelated to queue management. The CAISO adds that the purpose of its filing is to reform its management of the generator interconnection queue. Since participant funding is not part of managing the queue, the issue is beyond the scope of the filing.

**d. The CPUC's Answer**

127. The CPUC states that it agrees with the CAISO's proposal to publish per unit costs subject to stakeholder review.<sup>84</sup> The CPUC states that there may be a tendency to "high ball" cost estimates since the generator's maximum financial responsibility is determined through these cost estimates. The CPUC argues that even where no confidential

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<sup>84</sup> CPUC Answer at 21.

information is revealed, stakeholders will have the opportunity to generically review costs and propose alternative costs.

128. However, the CPUC states that it is concerned that the proposed tariff language does not specify the timing for the publication of draft versus final per unit costs or the timing of the stakeholder meeting. The CPUC suggests that proposed LGIP Section 6.4, covering this issue, be revised to specify that draft per unit costs shall be published before the opening of the first queue cluster window in a calendar year, that the final per unit costs be adopted and published before the close of that same queue cluster window, and that the stakeholder meeting be held no earlier than one month after the draft per unit costs are published, and no later than one month before the final per unit costs are adopted.

e. **Commission Determination**

129. We accept the CAISO's proposed use of a per unit cost estimate for network upgrades including the additional language regarding providing justifications for benchmark deviations to be furnished by the CAISO in a compliance filing. We find that the per unit cost estimate will be useful to developers in determining the viability of their projects. We will require the CAISO, in its compliance filing to be made within 60 days of the issuance of this order, to add language as it suggested requiring that deviations from the benchmark costs must be justified. SCE states that it does not object per se to the use of per unit costs, but then goes on to object to publishing and subjecting unit costs to stakeholder review by arguing that per unit costs contain confidential vendor information, which the CAISO has stated, pursuant to GIPR LGIP section 6.4, would not be available for review in this process. We find this limitation to sufficiently protect SCE's concern with respect to confidential information.

130. SCE also states that due to the geographically diverse areas of California, developing effective per unit costs would likely make such costs necessarily too generic and they would lose their value as estimating tools. However, the CAISO has stated, pursuant to GIPR LGIP section 6.4 that different sets of per unit costs, including for the general types of geographic areas listed by SCE, may be developed as applicable to proposed projects. The CAISO has also stated that while imposing minor additional effort on the PTOs, it would minimize the concern that the per unit costs would be too generic to be useful. In addition, we will require the CAISO, in its compliance filing to be made within 60 days of the issuance of this order, to clarify that deviations from the benchmark per unit costs will be permitted when appropriate to account for special circumstances. We find that the issues raised by SCE are sufficiently addressed by the additional explanations provided by the CAISO along with the proposed tariff language in GIPR LGIP section 6.4. Therefore, we reject SCE's request to remove the provision.

131. Regarding Wind and Solar Parties' participant funding argument, we find that this issue is outside the scope of this proceeding, because, aside from the changed deposit

provisions discussed in the next section, CAISO has not proposed any change to its network upgrade funding and crediting provisions. Moreover, the CAISO tariff does not in fact require participant funding of network upgrades. Participant funding means requiring the interconnection customer to pay for network upgrades in exchange for some type of financial transmission right and, while such financial rights may ultimately yield some type of congestion revenue, the actual cost of the network upgrade is never credited back to the interconnection customer as it would be in the normal Order No. 2003 crediting scheme. The CAISO tariff permits the interconnection customer to choose between participant funding and the default crediting scheme,<sup>85</sup> which is not participant funding. Therefore, we reject the Wind and Solar Parties' request for a revision to the CAISO generator interconnection network upgrade funding and crediting provisions.

132. The Commission agrees with the CPUC that the per unit cost tariff provision should be modified to include a schedule for the release of draft and final per unit costs. The Commission will not require the CAISO to adopt the specific schedule proposed by the CPUC, but the CAISO should, in its compliance filing to be made within 60 days of the date of issuance of this order, revise the GIPR LGIP provision to include a reasonable schedule for the release and review of per unit costs.

## **7. Interconnection Financial Security**

### **a. The CAISO's Proposal**

133. Within 30 days following completion of the Phase I Interconnection Studies, the CAISO will meet with each interconnection customer to discuss the report and the interconnection customer's total cost responsibility for network upgrades and an estimate

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<sup>85</sup> See GIPR LGIP section 12.3.2, Repayment of Amounts Advanced for Network Upgrades and Refund of Interconnection Financial Security. This provision essentially states that upon the commercial operation date of the large generating facility, an interconnection customer is entitled to repayment for contribution to the cost of network upgrades identified in the Phase II Interconnection Study, but no greater than the cost estimate for these upgrades as identified in the Phase I Interconnection Study.

Amounts due to the interconnection customer would be paid by the applicable PTO(s) on a dollar-for-dollar basis, including interest, provided that the amount is paid within five years of the commercial operation date. In addition, instead of direct payments, the interconnection customer may elect to receive firm transmission rights in accordance with the CAISO Tariff associated with the network upgrades or portions thereof that were funded by the interconnection customer to the extent that such firm transmission rights or alternative rights are available under the CAISO Tariff at the time of the election.

of interconnection facilities costs. Under the current LGIP, an interconnection customer is not required to provide financing for network upgrades associated with its project until construction of those facilities begins as specified in its LGIA. In contrast, under the GIPR LGIP, an interconnection customer would be required to post interconnection financial security in the amount of 20 percent of its total cost responsibility for network upgrades and 20 percent of the total cost responsibility for the PTO's Interconnection Facilities on or before ninety days after publication of the final Phase I Interconnection Study Report.<sup>86</sup> The remaining 80 percent of the total cost responsibility for network upgrades and interconnection facilities must be posted within six months following the conclusion of the Phase II Interconnection Study.<sup>87</sup>

134. Withdrawal of an interconnection request or termination of an LGIA would result in the release to the interconnection customer of any interconnection financial security posted for the PTO's interconnection facilities, except with respect to any amounts necessary to pay for costs incurred or irrevocably committed by the applicable PTO on behalf of the interconnection customer for the PTO's interconnection facilities and for which the applicable PTO has not been reimbursed.<sup>88</sup>

135. The interconnection financial security becomes non-refundable over the course of a specified schedule. At the time of initial posting of the interconnection financial security, 20 percent of the amount assigned to network upgrade costs, 50 percent of the amount posted (or \$500,000 whichever is greater) becomes at risk of surrender regardless of the reason for withdrawal.<sup>89</sup> Sections 9.4.2.1 – 9.4.2.6 of the GIPR provide a schedule under which the refundable portion of interconnection financial security declines with the passage of time and the commencement of construction activities associated with the potential interconnection. All non-refundable portions of the interconnection financial security remitted to the CAISO in accordance with the GIPR LGIP would be administered in accordance with the simplified and reorganized CAISO Tariff pursuant to the enforcement protocol.<sup>90</sup> In addition, the refundability of interconnection financial

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<sup>86</sup> See GIPR LGIP section 9.2, Initial Posting of Interconnection Financial Security.

<sup>87</sup> See GIPR LGIP section 9.3, Second Posting of Interconnection Financial Security. See also CAISO Transmittal Letter at 26.

<sup>88</sup> See GIPR LGIP section 9.4, General Effect of Withdrawal of interconnection request or termination of the LGIA on Interconnection Financial Security.

<sup>89</sup> GIPR LGIP section 9.4.2, schedule for determining non-refundable portion of financial security. CAISO Transmittal Letter at 27.

<sup>90</sup> Specifically, after the end of each calendar year, the CAISO would distribute the  
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security is enhanced if the reason for a withdrawal is related to an interconnection customer's inability to secure a purchase power agreement, an interconnection customer's receiving a final denial of a necessary permit required to construct and operate the plant, the estimated cost of the PTO's interconnection facilities increases by 30 percent or \$300,000, whichever is greater, or there is a change in the interconnection customer's interconnection facilities based on a CAISO-mandated change in the point of interconnection.<sup>91</sup>

**b. Comments and Protests**

136. Joint Protesters and NRG argue that while the heightened security, deposit and other requirements included in the GIPR proposal may appear neutral on their face, they are in fact excessive, and unduly discriminate against independent power producers in favor of generators affiliated with vertically-integrated utilities. Joint Protesters further argue that lenders, purchasers and regulators frequently will not finance, enter into off-take agreements or provide required approvals in the absence of an interconnection agreement. Joint Protesters add that interconnection studies are the only means for generators to obtain reliable information regarding the costs of interconnection facilities and network upgrades. The cost magnitude of network upgrades and interconnection facilities, Joint Protesters argue, is a key input in both the decision of whether to move forward with a project and the ability to obtain financing and negotiate an off-take agreement. Joint Protesters claim that unlike utility-affiliated generators, an independent developer would first have to obtain financing for a project in order to post security equal to the full cost of the network upgrades.

137. Joint Protesters argue that an interconnection agreement is a precondition to entering into a power purchase agreement, which is a precondition to obtaining the financing necessary to post the required security during the interconnection process.

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non-refundable amounts together with interest earned to market participants that were not assessed a financial penalty pursuant to the enforcement protocols during the calendar year. Payment would be based on the total grid management charges amount assigned to all market participants, including for services that the scheduling coordinator provided on its own behalf. Each scheduling coordinator would be responsible for distributing payments to the eligible market participants it represented in proportion to the grid management charges collected for each eligible market participant. *See* CAISO S&R Tariff section 37, Enforcement Protocol; *see also* S&R Tariff sections 37.9, Administration of Sanctions, and 37.9.4, Disposition of Proceeds.

<sup>91</sup> *See* GIPR LGIP section 9.4.1, conditions for partial recovery of financial security; CAISO Transmittal Letter at 26-27.

Joint Protesters argue that if the interconnection customer is able to execute an interconnection agreement within the required ninety days, the interconnection customer would then have only ninety days to enter into an off-take agreement and then obtain financing for the project. Joint Protesters argue that in practice it frequently takes substantially longer than ninety days to find both a purchaser and a lender for the project. Joint Protesters argue that in contrast, utility-affiliated generators can more easily satisfy this requirement due to their superior access to both internal and external financing as well as a within-the-family off-taker.

138. NRG argues that interconnection customers need flexibility to account for the increased risk of forfeiture. NRG further argues that the proposed rules should provide more flexibility to allow customers to modify the design and operation of their facilities without losing their queue position, so long as the change does not adversely affect other interconnection customers in the cluster or the interconnection customer agrees to pay any additional upgrades necessary to indemnify other interconnection customers in the cluster. NRG also argues that the requirement that the forfeited security fund network upgrades that are not necessary or even constructed is unjust and unreasonable and a departure from the Commission's cost causation precedent.

139. NRG also argues that the forfeiture provisions do not take into account California's lengthy environmental and site permitting process. NRG states that the provisions would require posting millions in non-refundable dollars prior to receiving a construction permit. NRG argues that this could have a negative impact on project development in California.

140. Joint Protesters argue that the security forfeiture requirements are facially invalid because their purpose is punitive in nature and would serve as a deterrent to the entry of independent generation, rather than as a means to ensure that the CAISO's queue is cured of backlogs and that the CAISO recovers its actual costs. Joint Protesters argue that it would penalize generators that are forced to withdraw an interconnection request for legitimate reasons in the same manner that it would penalize those guilty of market manipulation. Joint Protesters add that the CAISO has not demonstrated that its proposed penalties are tailored to deter alleged abuses or weed out speculative projects, while not at the same time dampening legitimate generation development. Joint Protesters argue that distributing forfeited security in the manner described would result in an unjustifiable windfall to PTOs and other market participants. Joint Protesters argue that penalties should be narrowly designed to balance the need to deter conduct harmful to the system with the need to limit excessive and unnecessary costs. The Joint Protesters further argue that withdrawal of an interconnection request is not an offense that needs to be deterred and the CAISO has failed to objectively identify speculative projects or characteristics that would distinguish between abuses of the interconnection process that should be penalized and legitimate projects that should not.

141. Joint Protesters argue that several stakeholders suggested tradable congestion revenue rights in exchange for forfeited security, which the developer could either use for other projects or sell to third parties. Joint Protesters state that the CAISO rejected this proposal because the surrendered deposits and security would be distributed to scheduling coordinators and thus not go directly to finance transmission investment. Joint Protesters argue that the allocation scheme for security forfeiture provides a benefit to all other users of the CAISO transmission system by reducing the grid management charges they must pay. Consequently, an interconnection customer should receive some form of compensation for surrendered security that is used to subsidize other transmission customers' rates.<sup>92</sup>

142. Lastly, Joint Protesters argue that scheduling coordinators are not necessarily interconnection customers, and therefore do not deserve a reward for complying with Commission rules to which they are not subject. Joint Protesters add that Scheduling Coordinators include PTOs, who have strong financial incentives to delay the performance of studies or construction in order to encourage developers to withdraw and to receive the developers' share of the forfeited security. Joint Protesters argue that the CAISO would still penalize developers in allowing the return of up to only 50 percent of security posted, when forced withdrawal is due in many instances to uncontrollable circumstances rather than some illegitimate purpose to somehow game the CAISO's rules. Joint Protesters request that if the Commission accepts these provisions, the CAISO and PTOs be required to return security posted, and/or be penalized if they fail to timely complete studies or construction. In addition, the Joint Protesters request that where a generation project must be withdrawn from the queue, the CAISO should be directed to provide the developer with tradable congestion revenue rights in exchange for the forfeited security.

143. NRG suggests that any excess monies collected by the CAISO should be returned to the customer class that contributed to the excess – in this case, interconnection customers – i.e., it should be applied to transmission system planning that would benefit interconnection customers in a non-discriminatory manner.

144. Wind and Solar Parties state that the Commission should reject the CAISO's proposal to apply forfeited securities to the grid management charge as unsupported. They state that the CAISO has provided no clear rationale for distributing the forfeited securities in this way.

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<sup>92</sup> Joint Protesters at 43

c. **The CAISO's Answer**

145. The CAISO states in its Answer that it does not agree with the assumption that all non-utility generators are by definition under-capitalized and therefore unduly disadvantaged as a class. CAISO acknowledges that the GIPR proposal would make it more difficult for underfunded projects to enter the interconnection process. The CAISO states that it does not believe that this attribute is unreasonable. The CAISO further states that it has been a stated policy goal of the CAISO throughout this process that the interconnection process must no longer be bogged down studying projects that are unlikely to reach commercial operation. The CAISO states that because some underfunded projects are nonutility projects does not support the conclusion that the GIPR proposal unlawfully discriminates against nonutility generation.

146. The CAISO disagrees that the proposed financial security requirements are too stringent. The CAISO states that the purpose of the enhanced security requirement is to continue to require that projects be prepared to reach commercial operation, and ensure that developers of new generation are fully capitalized. The CAISO further states that the staggered posting deadlines allow interconnection customers time to obtain financing and to assess the ongoing viability of their projects in light of the outcome of pending requests for offers or other licensing proceedings. In addition, the CAISO points out that it adopted the staggered posting deadlines to balance realistic participation in the interconnection process with the inherent uncertainties of project development. The CAISO adds that the GIPR LGIP provides several off-ramps under which a withdrawing interconnection customer may retain a substantial portion of its interconnection financial security.<sup>93</sup>

147. In response to the NRG proposal that withdrawing generators would not forfeit their security but would instead hold other generators harmless from the impacts of its withdrawal on restudies, the CAISO opposes this approach as almost impossible to administer, and ineffective in deterring late-stage withdrawals. In addition, the CAISO is concerned that the determination of whether all other affected parties are held harmless could be the source of substantial additional disputes and uncertainty for the finality of Interconnection Studies.

148. The CAISO states that the enforcement protocols provision of the CAISO Tariff is referenced for the proposed distribution of forfeited deposit and security because it is the only tariff mechanism through which scheduling coordinators can receive a credit against their grid management charges, not to equate the financial forfeitures to penalties or to

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<sup>93</sup> See GIPR LGIP §§ 9.4.1, 9.4.2 (Partial Recovery, Upon Withdrawal of, and Schedule for, Non-Refundable Portion of Network Upgrade Financial Security).

violation of some identifiable rule. Regarding the argument that sanctions in exchange for the security posted and/or forfeited for failure to timely complete studies or construction or in exchange for tradable congestion revenue rights is appropriate, the CAISO states that the surrendered security or deposits are not going directly to finance transmission investment. The CAISO further states that a proposal for this element was not incorporated in its filing. The CAISO adds that it declined to adopt the congestion revenue rights proposal because allowing congestion revenue rights could possibly allow for gaming opportunities and that it would remove the risk and incentive for a project to be well-vetted and viable. The CAISO states that the most appropriate allocation, accordingly, was to offset the CAISO's grid management charges.

**d. The CPUC's Answer**

149. The CPUC states that it may be difficult for developers of innovative renewable generation projects to pay up front for the network upgrades needed to interconnect to the grid. Therefore, the CPUC states that, in certain cases, the PTOs should be responsible for providing mandatory up front funding for transmission upgrades needed to interconnect major new, location constrained energy resource zones. Specifically, CPUC proposes that PTOs should be required to provide up-front funding for any major new transmission project serving location constrained generators: (1) that is identified and approved through a state mandated and/or managed process; and (2) that the CAISO approves as part of the transmission planning process.<sup>94</sup> The CPUC also states proposed LGIP Section 12.2.3 should be modified so that in situations where this mandatory funding would apply, the interconnection customer should not be required to finance the cost of advancing network upgrades whose original construction schedule would not meet the in-service date of the interconnection customer in question.<sup>95</sup>

150. The CPUC states that the Commission has already established a precedent for such up front funding to access location constrained energy resources in its approval of the CAISO's location constrained resource interconnection proposal, and notes that the CPUC has addressed the up-front funding hurdle by approving backstop cost recovery through retail rates for transmission resources needed to access renewable resources when the costs cannot be recovered through the Commission jurisdictional transmission access charge. Thus, the CPUC states that there should be no cost recovery risk for the PTOs as a result of this mandatory up front funding requirement. Moreover, the CPUC argues that the increased deposit amounts should mitigate the risk of PTOs being saddled with stranded transmission investment.

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<sup>94</sup> CPUC Answer at 14.

<sup>95</sup> CPUC Answer at 18.

e. **Commission Determination**

151. We find the enhanced financial security provisions to be reasonable. Increasing the financial commitments may make it more difficult for underfunded projects to enter the interconnection process. A portion of underfunded projects may not be utility-affiliated. This does not lead to the conclusion that the heightened requirements are unduly discriminatory. Irrespective of financial security provisions, it is not unreasonable to conclude that under-funded projects are less likely to be completed than fully-funded projects and, thus, are more likely to ultimately drop out of the queue and disrupt queue processing for others. Nonutility projects that are appropriately capitalized should benefit along with all other appropriately capitalized projects from the increased efficiencies of the GIPR process in having earlier assurances as to their cost responsibilities as well as greater certainty as to their commercial operation date.

152. The inability of a planned and financed generating facility to interconnect to the CAISO because of a clogged interconnection queue is the structural barrier to entry that the GIPR process seeks to remedy. However, the shift from serial studies to clustering by itself would not sufficiently address the problem of reducing the very high level of requests and capacity seeking interconnection and the uncertainties associated with project withdrawals and restudies. Therefore, the CAISO is proposing a number of other modifications to its current interconnection process that seek to address existing shortcomings by imposing greater financial commitments on generation developers.

153. Encouraging applicants to be appropriately developed and funded is a prudent measure to ensure that the generators that have a good chance of reaching commercial operation are studied at the appropriate time. Under the current LGIP, an interconnection customer is not required to provide financing for network upgrades associated with its project until construction of those facilities begin. According to the CAISO, low barriers to entry and priorities inherent in the serial study process, created the incentive for projects to enter the queue as early as possible, even if not fully planned or financed, resulting in study of projects that in many cases were not ready to interconnect.

154. The increased financial security requirements proposed by the CAISO represents a reasonable effort to change this regime to deter speculative projects that lack a reasonable chance of achieving commercial operation from entering the queue. As noted by the CAISO in the GIPR filing, the staggered financial posting requirement was proposed to balance realistic participation in the interconnection process with the inherent uncertainties of project development. The staggered security posting will allow interconnection customers time to obtain financing and to assess the ongoing viability of their projects in light of the outcome of pending requests for offers or other licensing proceedings.

155. We note that the increased financial commitment is not a one-sided obligation. It is in the best interest of the CAISO, PTOs, load serving entities, and the customers they serve to complete the interconnection studies in a timely manner in order to place generation in service to meet various state and regional requirements and standards such as the California resource adequacy requirements, renewable portfolio energy standards and North American Electric Reliability Corporation's mandatory reliability standards.

156. Also, in exchange for the posting of interconnection financial security, interconnection customers will have the benefit of knowing their total exposure to network upgrade costs well in advance of construction. Unlike the current LGIP where security requirements can rise and fall as estimates change, the GIPR LGIP eliminates that uncertainty. Moreover, the GIPR LGIP retains a primary safeguard of Order No. 2003; financial security requirements are reduced dollar-for-dollar when payments are made to the PTO for construction costs, to protect the interconnection customer from providing too much or unnecessary security. Finally, interconnection customers benefit from the GIPR LGIP's adoption of a cap on the costs of network upgrades.

157. In response to NRG's proposal that withdrawing generators not forfeit their security but would instead hold other generators harmless from the impacts of a withdrawal on restudies, the Commission agrees with the CAISO's assessment that this approach would be difficult to administer and would not act to discourage late-stage withdrawals. A determination, through additional studies to isolate the effects of the withdrawal, of precisely how other generators and interconnection customers would be held harmless would be extremely complicated, would expend resources that otherwise could be devoted to processing interconnection requests and could create substantial disputes and uncertainty.

158. The CAISO proposes to distribute forfeited amounts of security to Scheduling Coordinators and their market participants in proportion to their contribution to the grid management charge. NRG suggests that forfeited monies should be returned to the customer class that contributed to the excess. NRG further suggests applying monies collected to the CAISO's transmission system planning as a non-discriminatory benefit to interconnection customers. In contrast, Joint Protesters suggest tradable congestion revenue rights should be made available to interconnection customers in exchange for their forfeiture of security since as a customer class many would not be eligible to share in the distribution in a manner similar to market participants sharing sanctions distributed under the CAISO tariff's Enforcement Protocols.

159. As for the distribution of forfeited security, although we support the need for increased financial commitments to more efficiently manage the queue, the purpose was not to impose sanctions. We agree with Joint Protesters and parties arguing that the grid management charge may not be an ideal means of distribution considering that under the rules of conduct market participants who contribute to the grid management charge but

do not incur penalties may reduce penalty distributions. By contrast, the interconnection customer class does not pay grid management charges and would be excluded from the disbursement of funds collected as a result of security forfeitures that the interconnection customers incurred.

160. Retaining the funds within the interconnection customer class by distribution to transmission system planning as proposed by NRG would not necessarily benefit interconnection customers. We note that NRG did not propose how such a methodology would be designed and implemented. We also find that distribution of forfeited funds to actual transmission system planning could be perceived as constituting a windfall to the CAISO and PTOs, or, as the Joint Protesters claim, as a reason for the PTOs to overestimate the Phase I Interconnection Study network upgrade estimates. Therefore, while not an ideal solution, we find the CAISO's proposal to distribute forfeited security to scheduling coordinators and their market participants in proportion to their contributions to the grid management charge to be just and reasonable and not unduly discriminatory, and we approve the CAISO's proposal.

161. Lastly, the CPUC requests that PTOs be required to provide mandatory up-front funding in certain cases. The Commission finds that the CAISO's current network upgrade funding provisions are consistent with Order No. 2003, have previously been approved by the Commission as just and reasonable, and thus remain presumptively just and reasonable. The CPUC has not made an FPA section 206<sup>96</sup> showing that they are no longer just and reasonable. Accordingly, we reject the CPUC's proposed change.

## **8. Phase II Interconnection Studies and Network Upgrades**

### **a. The CAISO's Proposal**

162. The CAISO states the role of the Phase II Interconnection Study is to (1) update analyses performed in the Phase I Interconnection Study to account for withdrawal of interconnection requests, (2) finalize and assign financing responsibility for all network upgrades associated with interconnection requests, (3) identify and provide a +/- 20 percent cost estimate for both a customer's necessary interconnection facilities and a PTO's interconnection facilities, and (4) optimize in-service timing requirements to achieve commercial operation dates.<sup>97</sup> The CAISO specifically notes that the GIPR

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<sup>96</sup> 16 U.S.C. § 824e (2006)

<sup>97</sup> CAISO Transmittal Letter at 28.

LGIP has eliminated all provisions for optional interconnection studies and for re-studies that are set forth in the current LGIP.<sup>98</sup>

163. The CAISO specifically emphasizes that the Phase II Interconnection Study will be conducted in coordination with the CAISO's annual transmission planning process, and this coordination distinguishes the GIPR LGIP from its current LGIP. The CAISO describes the coordination as including at least the following aspects: (1) inclusion, as a mitigation plan alternative, of any conceptual transmission plan developed and not rejected by the current or former transmission planning process; (2) performance of sensitivities of the effect of transmission projects developed in its transmission planning process to achieve system reliability and economic efficiency in network upgrades as observed in the Phase I Interconnection Study; (3) consideration in the transmission planning process of future generation development potential in transmission upgrade design; and (4) consideration of phased development and option value of transmission projects.<sup>99</sup>

164. The CAISO indicates that the GIPR has revised the timelines and process for executing an LGIA. Under the GIPR, the CAISO and applicable PTO(s) will tender to an interconnection customer a draft LGIA (with appendices) within 15 business days after the CAISO provides the final Phase II Interconnection Study to the customer. If the interconnection customer fails to execute an LGIA within 90 days following completion of the Phase II Interconnection Study its interconnection request would be deemed withdrawn.<sup>100</sup>

165. Pursuant to the GIPR LGIP, responsibility for the final financing of network upgrades identified in the Phase II Interconnection Study shall be assigned to an interconnection customer up to but no greater than the estimated cost assignment of network upgrades identified in the Phase I Interconnection Study.<sup>101</sup> In addition, pursuant to the GIPR LGIP, interconnection financial security posted by an interconnection customer is provided in favor of the applicable PTO(s).<sup>102</sup> Also pursuant to the GIPR LGIP an interconnection customer may recover a portion of its financial

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<sup>98</sup> CAISO Transmittal letter at 30.

<sup>99</sup> CAISO Transmittal Letter at 29.

<sup>100</sup> CAISO Transmittal Letter at 30-31. GIPR LGIP section 11.

<sup>101</sup> See GIPR LGIP sections 7.3 and 7.4, Financing of Reliability and Delivery Network Upgrades, respectively.

<sup>102</sup> See GIPR LGIP section 9.1, Types of Interconnection Financial Security.

security upon withdrawal of its interconnection request if the PTO's interconnection facilities estimated costs increase by the greater of 30 percent or \$300,000 between the Phase I and Phase II Interconnection Studies.<sup>103</sup>

166. Pursuant to the GIPR LGIP, the interconnecting PTO would be required to finance any network upgrades necessary to support the interconnection of a generating facility when: (1) the network upgrades were included in the base case for a Phase II study and were associated with another interconnection customer that has executed an LGIA (or predecessor agreement), or unexecuted LGIA (or predecessor agreement) filed with the Commission, but the network upgrades will not be completed because the LGIA or predecessor agreement was subsequently terminated, or the interconnection request was otherwise withdrawn, or (2) the network upgrades were included in the base case for a Phase II study and were associated with another interconnection customer that has executed an LGIA (or predecessor agreement), or an unexecuted LGIA (or predecessor agreement) filed with the Commission, but the network upgrades will not be completed in time to support the interconnection customer's in-service date because construction has not commenced in accordance with the terms of such predecessor agreement, and (3) the CAISO and PTO determine that the network upgrades are needed to support the interconnection of the interconnection customer's generating facility.<sup>104</sup>

167. In contrast, the current LGIP stipulates that an interconnection customer with an LGIA, may, in order to maintain the in-service date, request that the PTO advance the completion of necessary network upgrades that were assumed in the interconnection studies for such interconnection customer. Upon such request, and provided the interconnection customer commits to pay the PTO any associated expediting costs as well as the cost of the network upgrades, the PTO will use reasonable efforts to advance the construction of such network upgrades.<sup>105</sup>

**b. SCE's Requests for Clarification**

168. SCE requests clarification that the updated financing estimate following the Phase II Study is for informational purposes only, and does not change the amount of financial security, required or permitted, to be drawn upon by the PTO from what was required by

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<sup>103</sup> See GIPR LGIP section 9.4.1 (c) [Conditions for Partial Recovery of Financial Security] Increase in the Cost of PTO's Interconnection Facilities.

<sup>104</sup> See GIPR LGIP section 12.2.2, Construction of Network Upgrades that are or were an Obligation of an Entity other than the Interconnection Customer.

<sup>105</sup> See LGIP section 12.2.2, Advance Construction of Network Upgrades that are an Obligation of an Entity other than the Interconnection Customer.

the results of the Phase I Interconnection Study. SCE also requests clarification that since the PTOs would be incurring the cost to construct the facilities, the financial security posted by the interconnection customer should be in the name of the specific PTO instead of the CAISO. SCE requests clarification that an interconnection customer would not be eligible for partial recovery of its financial security if the increase in the estimated costs of the PTO's interconnection facilities is a result of modifications made by the interconnection customer to the interconnection configuration.<sup>106</sup>

169. SCE also seeks clarification from the Commission that any obligation for the PTO to finance network upgrades under GIPR LGIP section 12.2.2 applies only to the network upgrades that need to be advanced, and not to the cost of any network upgrades necessary to support the interconnection of the interconnection customer's generating facility, as is reflected in GIPR LGIP section 12.2.2. SCE requests further clarification that the section 12.2.2 provisions are not triggered if the network upgrades that need to be advanced, cannot reasonably be advanced by the PTO from the date included in the predecessor LGIA(s). In addition, SCE requests clarification that the obligation triggered by section 12.2.2 does not apply when delays are caused by anything that is outside of the control of the PTO, such as regulatory licensing or other obstacles.

**c. The CAISO's Answer**

170. In response to SCE's request for clarification, the CAISO clarifies that the Phase II Interconnection Study does not change the amount of interconnection financial security to be drawn upon by the PTO as required by the results of the Phase I Interconnection Study. The CAISO also states that, consistent with current practice, SCE is correct that the security provisions in favor of the PTO should be in the name of the specific PTO, and the CAISO will include that change in its compliance filing. In addition, the CAISO agrees with SCE that if an increase by the greater of 30 percent or \$300,000 in the estimated costs of a PTO's interconnection facilities is a result of a modification made by the interconnection customer to the interconnection configuration, recovery of financial security upon the customer's withdrawal from the interconnection process would not be allowed. The CAISO agrees that these clarifications are warranted and will make the necessary tariff changes on compliance.

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<sup>106</sup> See GIPR LGIP section 6.7.2., Modifications, providing that at the Phase I Interconnection Study Results Meeting, an interconnection customer may identify changes to the planned interconnection that may improve the costs and benefits of the interconnection without altering the interconnection request's eligibility for participation in its Phase II Interconnection Study process, if changes are acceptable to the CAISO, PTO and interconnection customer.

171. The CAISO states that it expressly provided in the GIPR filing that under certain circumstances, any shortfall in the funding for network upgrades due to the withdrawal of an interconnection customer should be assumed by the PTO, if the CAISO and PTO determine that the network upgrade is still needed to accommodate other remaining interconnection requests. The CAISO states, more specifically, section 12.2.2 provides that the PTO will be required to assume financing responsibility when the network upgrades are needed, but (1) the facility is the responsibility of an interconnection customer with a pre-GIPR LGIA or predecessor agreement (i.e., no Interconnection Financial Security requirements) and the network upgrade is not, or will not be, under construction in a timely manner because the interconnection customer withdraws or has suspended its project and therefore has not commenced financing the needed network upgrade; or (2) an interconnection customer required to post interconnection financial security withdraws. In this latter regard, the CAISO states that the scope of the PTO's financing obligation is limited to the difference between the amount of the surrendered interconnection financial security and the cost of the network upgrade.

172. The CAISO states that it considers this approach to be the only practical way to handle the potential impact of the withdrawal of an interconnection customer and maintain the integrity of the cost cap on the network upgrade cost responsibility for other interconnection customers. The CAISO further states that the PTO is the only practical source of funding in this situation. However, any adverse impact on the PTO will be mitigated in part by the ability of the PTO to recover the costs of the network upgrades through transmission rates. The CAISO states that if the concern is that the withdrawal of an interconnection customer might make the specified network upgrades unnecessary, section 12.2.2 expressly provides that the CAISO and PTO shall evaluate the continued need for the project and address this possibility through the transmission planning process.

**d. The CPUC's Answer**

173. The CPUC opposes SCE's request for clarification of Section 12.2.2. The CPUC states that PTOs should not be freed from its financial obligation if the delay is out of the control of SCE. The CPUC argues that most delays will be outside of the control of the PTOs.

174. The CPUC states that the purpose and consequences of the Phase II deliverability studies should be clarified in terms of their relationship to both Phase I deliverability studies and generators' final selection of their deliverability status.<sup>107</sup> Accordingly, the CPUC states that in proposed LGIP Section 7.1, it should be made clear that the Phase II Interconnection Study will re-do the deliverability assessment to

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<sup>107</sup> CPUC Answer at 32.

ascertain that customers will achieve the deliverability level requested at the end of the Phase I Interconnection Study and reflected in customers' financial security deposit responsibilities for delivery network upgrades, despite potential planning changes due to Phase II's greater level of detail and due to some generators dropping out between Phase I and Phase II.

**e. Commission Determination**

175. In response to SCE's request for clarification of the Phase I Interconnection Study financial estimate of network upgrade costs, we find that the GIPR LGIP provides that the Phase II Interconnection Study does not change the amount of interconnection financial security to be drawn upon by the PTO pursuant to Phase I Interconnection Study Results.<sup>108</sup> In response to SCE's request for clarification of the security provisions in favor of the PTO, the CAISO states that it agrees with SCE and will revise sections d, e, and f of GIPR LGIP 9.4.1 to provide that, consistent with current practice, security recovery provisions will be in favor of the specific PTO. In response to the SCE request for clarification that if an increase by the greater of 30 percent or \$300,000 in the estimated costs of a PTO's interconnection facilities is a result of a modification made by the interconnection customer to the interconnection configuration, the CAISO agrees with SCE that under that circumstance recovery of financial security upon the customer's withdrawal from the interconnection process would not be allowed. The CAISO has agreed to provide these clarifications in a compliance filing. We find that in each instance the requested clarification serves the purpose of conforming the tariff provisions with the CAISO's original intent, which we find to be just and reasonable. We direct the CAISO to include these revisions with modifications directed in this filing within 60 days of the issuance of this order.

176. SCE requested clarifications to GIPR LGIP section 12.2.2, construction of network upgrades that were the obligation of an entity other than the interconnection customer. We find that a fundamental change to current CAISO interconnection provisions exists in the cost allocation policy under the GIPR proposal. We find that pursuant to the GIPR LGIP, estimates of each interconnection customer's cost responsibility for network upgrades determined in the Phase I Interconnection Study will serve as the maximum cost responsibility for network upgrades assigned to each interconnection request.

177. In contrast to the approach under the current LGIP, where cost responsibility may change due to decisions made by other interconnection customers, under the GIPR LGIP generation developers would be assigned a maximum network upgrade cost that would

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<sup>108</sup> See GIPR LGIP sections 9.2 – 9.4, regarding the posting and withdrawal of interconnection financial security.

not increase even if other projects withdraw. Even if the Phase I Interconnection Study estimate of network upgrades increases as a result of the Phase II Interconnection Study outcomes, the interconnection customer will not bear that additional cost. Rather, under the GIPR proposal, the PTOs would assume the cost responsibility for all network upgrade costs that exceed the amount collected from interconnection customers as interconnection financial security.

178. Because the CAISO is increasing the required financial commitments and consequences throughout the interconnection process, the GIPR proposal establishes a cap on the interconnection customer's liability for network upgrades by which cost uncertainty resulting from restudies that exists under the current serial studies approach is eliminated.

179. Financial obligations based on the Phase I Interconnection Study outcomes must be met by interconnection customers in order to proceed with the Phase II Interconnection Study. Interconnection customers have the option to withdraw their projects prior to entering into the Phase II Interconnection Study and, therefore it is presumed that those that do post their interconnection financial security are more likely to complete the interconnection process. If interconnection customers withdraw prior to beginning the Phase II Interconnection Studies, there would be no need to perform any restudies to reallocate maximum responsibilities for network upgrade costs.

180. The CAISO clarifies that the PTO would be required to assume financing responsibility under certain circumstances, pursuant to the LGIP GIPR when the network upgrades are needed. The CAISO states that it considers this approach to be the only practical way to handle the potential impact of the withdrawal of an interconnection customer and maintain the integrity of the cost cap on the network upgrade cost responsibility for other interconnection customers. The CAISO states where the withdrawal of an interconnection customer might make the specified network upgrades unnecessary, the GIPR LGIP provides for the evaluation of the continued need for the project through the transmission planning process. We find these provisions are reasonable to establish cost certainty and to equitably share cost responsibilities among interconnection customers and the PTOs during the interconnection process.

181. CPUC requests clarification that the deliverability assessments will be redone during the Phase II Interconnection Study to assure that customers will achieve the deliverability level requested at the end of the Phase I Interconnection Study and that would be reflected in customer's financial security deposit responsibilities for delivery network upgrades. The Commission finds that the scope of the Phase II Interconnection Study contains provisions to identify network upgrades needed to interconnect generating facilities to the CAISO transmission grid. However, the Commission finds that the provision does not explicitly state that the interconnection customer will be provided the deliverability level requested at the end of the Phase I Interconnection Study and

reflected in customer's financial security deposit responsibilities for delivery network upgrades. Therefore, we direct the CAISO to make this clarification in its compliance filing.<sup>109</sup>

## **9. Study Timelines**

### **a. The CAISO's Proposal**

182. Following the close of each of the bi-annual queue cluster windows, the CAISO will notify interconnection customers that filed during that period as to the CAISO's determination of whether their interconnection request was valid. Thereafter, an LGISPA<sup>110</sup> will be tendered by the CAISO within 30 days, a scoping meeting will be held within a total of 60 days, followed by the requirement that the interconnection customer tender an executed large generator interconnection study process agreement within 30 days after the scoping meeting. Total time allotted to completion of the Phase I Interconnection Report is 270 days from the close of the queue cluster window. After the publishing of the Phase I Interconnection Report, a Phase I results meeting must be held within 30 days, and the interconnection customer must post its initial portion<sup>111</sup> of the interconnection financial security instruments within 90 days after the Phase I Interconnection Report is published.

183. The CAISO indicates that it will make reasonable efforts to publish the Phase II Interconnection Report within 330 calendar days from January 1 each year.<sup>112</sup> Following the publishing of the Phase II Interconnection Report, the negotiation of an LGIA must be completed within 90 calendar days.<sup>113</sup> The interconnection customer is required to

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<sup>109</sup> See GIPR LGIP section 7.1, Scope of Phase II Interconnection Study.

<sup>110</sup> The LGISPA is a master study agreement, replacing the three study agreements called for by the current LGIP.

<sup>111</sup> The initial portion of an interconnection customer's interconnection financial security consists of 20% of the estimated network upgrades and interconnection facilities.

<sup>112</sup> The GIPR contains provisions to allow accelerated treatment for certain projects that are independent of others, not part of a group study, or seek to interconnect to available transmission approved by the CAISO and appropriate state agencies. The provisions are in GIPR LGIP Section 7.6.

<sup>113</sup> If negotiations reach an impasse, the interconnection customer may request the filing of an unexecuted LGIA, or initiate a dispute resolution procedure (Section 11.2, GIPR LGIP).

post 100 percent of the interconnection financial security associated with network upgrades within 180 calendar days from the date of publishing the Phase II Interconnection Report. Additionally, the treatment of any potential refund of posted interconnection financial security varies depending on the date of withdrawal of an interconnection request.

**b. Protests and Comments**

184. Wind and Solar Parties state that the CAISO's proposed schedule is "too long and lacks meaningful commitments by the CAISO to complete interconnection studies within even the lengthy study period that the CAISO has granted itself."<sup>114</sup> The CAISO, they argue, has offered no sound planning reasons for affording itself so much time and allowing so many off-ramps to excuse completion of interconnection studies. Wind and Solar Parties argue that the Commission should require the CAISO to modify its study timeline such that the interconnection studies for the transition cluster and the initial GIPR cluster are complete in 2009 and 2010, respectively. They also argue that the Commission should require the CAISO to commit to firm study deadlines only excused by force majeure, and that the Commission should require targeted steps to speed the transition cluster process.

185. PG&E is concerned that the GIPR study timelines are too long.<sup>115</sup> They state that the Commission should condition acceptance of the study timelines on the CAISO filing a yearly report on the actual results of the GIPR, which, they argue, will afford all parties the opportunity to propose refinements to the study process.

186. MENAT argues that the CAISO's timelines for interconnection processing are wholly inadequate and should be shortened.<sup>116</sup> It states that the lengthy timelines stand as a significant impediment to the development of new generation, and conflict with the Commission's stated goal that standardized interconnection procedures would expedite the development of new generation. MENAT argues for a timeline of 120 days for both the Phase I and Phase II Interconnection Studies, since that is the time given for corresponding studies in the current LGIP.

187. Joint Protesters observe that CAISO's GIPR proposal places all the risk and obligations on generators, while imposing none on the CAISO and the PTOs to timely

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<sup>114</sup> Wind and Solar Parties at 24.

<sup>115</sup> PG&E at 4.

<sup>116</sup> MENAT at 6.

complete studies and construct facilities.<sup>117</sup> Joint Protesters assert that the Commission acknowledged in the March 20 Order that the keys to balancing the goals of Order No. 2003 are queue management and the obligation of transmission providers to meet specified deadlines.

188. The current GIPR proposal, Joint Protesters note, does not impose any obligations for the CAISO and the PTOs to complete studies or facilities construction on time; the proposal merely requires “Reasonable Efforts.” Joint Protesters also observe that even these soft deadlines have been extended or eliminated entirely in the current GIPR Proposal. Specifically, Joint Protesters claim that there is no study deadline at all for the Phase II Interconnection Study, as the proposed tariff language merely states that the CAISO will make “Reasonable Efforts” to complete it by January 1 of each calendar year without specifying the calendar year. Joint Protesters argue that the Commission should not allow the CAISO and the PTOs to further increase the existing asymmetry between the obligations of generation developers and those of the CAISO and PTOs.

189. Joint Protesters propose that the Commission impose binding obligations on the CAISO and PTOs to timely complete studies and facilities construction and impose financial consequences for failure to meet deadlines.<sup>118</sup> The specific measures they propose are: (1) eliminate “Reasonable Efforts” language, impose hard deadlines, and impose penalties for delays; (2) permit withdrawal and a return of security if delays in completing studies or facilities construction cause a significant delay in the interconnection customer’s operation date; and (3) provide congestion revenue rights in exchange for a forfeited security when a developer withdraws from the queue.

190. Optisolar also protests the timeline proposed in the filing with regard to the Phase II Interconnection Study.<sup>119</sup> Optisolar is concerned that its interconnection request will remain pending for over a year.

191. SCE requests that the Commission order the CAISO to increase the time the PTO has to tender an LGIA to an interconnection customer following the Phase II Interconnection Study.<sup>120</sup> The proposed GIPR gives PTOs 15 business days to do this, while SCE requests that it be extended to 30 days. SCE states that this will allow the

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<sup>117</sup> Joint Protesters at 32.

<sup>118</sup> Joint Protesters at 41.

<sup>119</sup> Optisolar at 9-10.

<sup>120</sup> SCE at 10.

PTOs and the CAISO sufficient time to produce accurate LGIAs to customers, and that the extra time is necessary since they will be processing multiple LGIAs at once.

**c. The CAISO's Answer**

192. The CAISO argues that while the timelines may be longer than the timelines under the old interconnection procedures, streamlining reforms have been put in place to ensure that the timelines are actually met.<sup>121</sup> The CAISO notes that the reformed interconnection procedures eliminate restudies, a major cause of delay, and provide for coordination with the CAISO's transmission planning process.

193. The CAISO also argues that the reformed interconnection procedures are preferable to the old procedures in that they provide a binding cost estimate to interconnection customers within 180 days of the beginning of the Phase I Interconnection Study.<sup>122</sup> The CAISO notes that this key piece of information needed by developers to make firm commitments is available far earlier in the process than before, and cannot be overlooked when discussing the reformed timelines.

194. Finally the CAISO argues that the "Reasonable Efforts" language with regard to deadlines is sufficient.<sup>123</sup> The CAISO notes that no party has alleged that the failure to timely process interconnection requests has been because of a lack of effort on the part of the CAISO, and no evidence to that effect has surfaced in the examination of the queue backlog problem. Therefore, the CAISO finds no reason to depart from the deadlines requiring reasonable efforts.

**d. Wind and Solar Parties Reply Comments**

195. Wind and Solar Parties agree with Joint Protesters that the CAISO must have meaningful incentives to complete studies on time, and argue that there should be penalties for missed deadlines.<sup>124</sup> Wind and Solar Parties argue that since interconnection customers are being asked to provide greater financial commitments earlier in the process, the CAISO and the PTOs should face consequences for poor service.

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<sup>121</sup> CAISO Answer at 10.

<sup>122</sup> CAISO Answer at 11.

<sup>123</sup> CAISO Answer at 11.

<sup>124</sup> Wind and Solar Parties at 9-10.

196. Wind and Solar Parties disagree with SCE's request to lengthen the time given to a PTO to tender an LGIA to the interconnection customer.<sup>125</sup> They argue that the request is unsupported and not desirable, since the study process is already very lengthy.

**e. Commission Determination**

197. The Commission finds that, while shorter timelines for the processing of interconnection requests would be desirable, the CAISO GIPR filing represents a substantial improvement over the current interconnection procedures because the streamlining reforms implemented by the CAISO make it far more likely that study timelines are actually met. As the CAISO notes, while the proposed timelines are technically longer than the current timelines as specified in the LGIP, delays resulting from multiple restudies and an unexpected amount of generation in the queue have rendered the length of the current LGIP timelines virtually meaningless. Here, the CAISO has proposed well reasoned solutions to address those problems, and, so long as the new timelines are followed, processing of interconnection requests should be timelier under the GIPR than under the current LGIP.

198. We specifically find that the tariff amendments under the GIPR are just and reasonable, not unduly discriminatory and will accomplish the purposes of Order No. 2003 by facilitating more timely and orderly processing of interconnection requests. Accordingly, the study timelines under the GIPR tariff amendment are justified under the independent entity variation standard.<sup>126</sup>

199. However, the Commission is concerned that, despite the reasonable efforts of the CAISO here, lengthy delays could continue under these reformed interconnection procedures. The Commission finds that the interconnection process should be closely monitored to ensure that these reforms are working as planned. Therefore the Commission directs the CAISO to make a compliance filing within 60 days of this order reflecting the following reporting requirements as part of the GIPR LGIP.

200. First, the Commission directs the CAISO to file quarterly reports with the Commission, to include the following: (1) the number of interconnection requests filed, accepted and rejected; (2) the number and type of studies conducted, i.e., accelerated,

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<sup>125</sup> Wind and Solar Parties at 7.

<sup>126</sup> See March 20 Order, 122 FERC ¶ 61,252 at P 13 (“Because RTOs and ISOs do not own generation and thus do not have an incentive to unduly discriminate, variations sought by an RTO or ISO are reviewed under the ‘independent entity variation standard.’ This standard allows independent Transmission Providers flexibility in designing their interconnection procedures to accommodate regional needs.”) (citation omitted).

separately studied, or cluster, along with the number and types (size of project, nameplate capacity of facility if different than size of interconnection project, point of interconnection) of interconnection customers in each cluster; (3) any missed study deadline(s) at each stage of the process; and (4) any withdrawals (along with the reason for the withdrawal) from the queue by interconnection customers. These reports are intended to give the Commission and other interested parties a regular status update on the progress of the proposed reforms.

201. In addition, the Commission directs the CAISO to file two comprehensive status updates. The first should be filed within 60 days of completion of the Phase II Study for the transition cluster. This study should include a full report on progress made and problems encountered with the change in interconnection procedures. The report must specifically focus on the aspects of the changes that will be carried into the regular processing of interconnection requests, such as the condensed study process and must track the effects of increased financial commitment requirements. The report should also provide a detailed description of any aspect of the interconnection process that continues to cause delays.

202. The second comprehensive report should be filed within 60 days of the completion of the Phase II Interconnection Study in which the initial GIPR cluster is studied. This report should be similar in content to the first, but should also report on whether certain aspects of the timeline could be shortened to further streamline the interconnection procedures.

203. This reporting requirement will make the interconnection procedures more transparent for interconnection customers. These reports will also allow the Commission to more easily address the viability of interconnection procedures in the future, particularly if delays continue to be significant and frequent. The comprehensive reporting requirements we are imposing in this order will allow the Commission to monitor whether any entity is causing further delays to the interconnection process by missing deadlines. We also note that market participants retain the right to file complaints with the Commission should they deem it necessary.

204. We will not order financial penalties to be assessed on the CAISO for late processing of study requests, nor will we remove the “Reasonable Efforts” language from the LGIP. It does not appear that the cause of delays in the interconnection process has been the result of ineffective study procedures by the CAISO. Rather, the delays have been the result of a combination of factors largely beyond the control of the CAISO. We noted in our March 20 Order that demand for new resources was putting stress on interconnection queues.<sup>127</sup> The CAISO argued convincingly in its comments following

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<sup>127</sup> March 20 Order, 122 FERC ¶ 61,252 at P 3.

the March technical conference that its queue backlog was due to a number of factors, including ease of entry and exit from the queue, which led to an enormous amount of studies as well as cascading restudies.<sup>128</sup> And, as the CAISO notes, no party has alleged that the delays were the result of lack of diligence on behalf of the CAISO.<sup>129</sup> Finally, in Order No. 2003 the Commission considered and expressly rejected requested damages as a means to ensure that transmission providers must meet study deadlines because such payments could make the study process uneconomical to administer.<sup>130</sup>

205. The Commission will also not direct the CAISO to provide congestion revenue rights in exchange for forfeited securities, as Joint Protesters request. As the CAISO has noted several times, ease of entry and exit from the queue has been a major factor in the delays under the current LGIP. This problem has led to a situation where the volume of generation on the queue far exceeds what can be integrated onto the CAISO grid in the foreseeable future.<sup>131</sup> Allowing developers who withdraw from the queue to obtain congestion revenue rights in exchange for their forfeited security will negate the incentive to ensure the project is viable before entering the queue, and, as the CAISO argues, may result in the gaming of the interconnection process to obtain congestion revenue rights.

206. The Commission agrees with SCE that there may be a significant administrative burden in processing LGIAs for all of the interconnection customers in a cluster group at once. Therefore, we grant the additional time to tender those LGIAs. The Commission disagrees with Wind and Solar Parties that accepting this proposal will lengthen the study process since, as SCE states, this will not change the requirement to complete an LGIA within 90 days following the issuance of the Phase II Interconnection Study report. The Commission accepts SCE's proposal to extend the deadline from 15 business days after the issuance of the Phase II Interconnection Study Report to 30 calendar days after the issuance of the Phase II Interconnection Study Report, under which an LGIA will be tendered to an interconnection customer. We direct the CAISO to make a compliance filing within 60 days of this order reflecting this change.

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<sup>128</sup> CAISO Post-Technical Conference Comments in AD08-2-000 at 6.

<sup>129</sup> CAISO Answer at 11.

<sup>130</sup> Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 898–899 (2003).

<sup>131</sup> CAISO Post-Technical Conference Comments in AD08-2-000 at 6.

## 10. Accelerated Project Refinement and Facilities Studies

### a. The CAISO's Proposal

207. The GIPR tariff amendment provides for an accelerated interconnection process for certain projects under pre-defined circumstances. The CAISO states the goal of the accelerated interconnection process is to allow interconnection requests that are independent of others and not part of a group study, or those that seek to interconnect to available transmission approved by the CAISO and state agencies, to proceed through the interconnection process in a manner that ensures the project will achieve its desired commercial operation date.<sup>132</sup>

208. The GIPR provides that the Phase II Interconnection Study shall be completed within 150 days following the posting of the initial interconnection financial security for interconnection requests meeting the necessary criteria. The criteria are as follows: (1) the interconnection request was not grouped with any other interconnection request during the Phase I Interconnection Study, and (2) the interconnection customer is able to demonstrate that the general timeline for Phase II Interconnection Studies is not sufficient to accommodate the commercial operation date of the large generating facility.<sup>133</sup>

209. The CAISO states that the accelerated interconnection process will be made available to interconnection requests in the transition cluster, as well as those submitting an interconnection request within a queue cluster window.<sup>134</sup>

### b. Protests and Comments

210. Several parties propose changes to the accelerated study process in section 7.6 the tariff. Wind and Solar parties argue that generators that eliminate, alleviate, or defer the need for transmission upgrades should be added as an alternative class that qualifies for the accelerated study process.<sup>135</sup> Wellhead also argues that the CAISO should have the flexibility to accelerate certain projects critical to system reliability without having to make a filing with the Commission.<sup>136</sup> PG&E and SunPower Corporation (SunPower)

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<sup>132</sup> CAISO Transmittal Letter at 29.

<sup>133</sup> GIPR Section 7.6.

<sup>134</sup> CAISO Transmittal Letter at 30.

<sup>135</sup> Wind and Solar Parties at 30.

<sup>136</sup> Wellhead at 4.

argue that if an interconnection request has an underlying project with an approved or pending power purchase agreement, it should qualify for the accelerated study process.<sup>137</sup> PG&E states that such a change is necessary to meet California's renewable portfolio standard targets. GWF argues that uprates to existing generation should be expedited, and that projects that are not proximate to other generation should not be subject to the clustering approach.<sup>138</sup> CAC/EPUC propose that the CAISO proposal be modified to provide that new or incremental combined heat and power projects of less than 100 MW located within the established transmission network be studied as received, rather than holding these requests to be completed with the remainder of the queue.<sup>139</sup>

**c. The CAISO's Answer**

211. The CAISO states that, other than the criteria it included in the proposed interconnection procedures, there is no clear answer as to which projects should be accelerated and which should not. The CAISO cautions that if it is required to process large numbers of interconnection requests under an accelerated process, then the interconnection process could be slowed down by the unmanageable number of accelerated projects. The CAISO states that it appreciates that there may be circumstances other than the ones outlined in the tariff when accelerated treatment is warranted, which is why the CAISO states that it included the accelerated study process provision in Section 7.6 of the proposed GIPR LGIP.

**d. The CPUC's Answer**

212. In the CPUC's answer, it states that Section 7.6 of the proposed GIPR LGIP requires modification to "clarify the underlying intent of the CAISO's reform process."<sup>140</sup> The CPUC states that, under the proposed tariff language, projects needed to meet state renewable portfolio standard requirements may be eligible for accelerated processing, but the proposed language is vague and allows for such accelerated processing only when the CAISO requests waiver of its tariff language from the Commission.

213. The CPUC disagrees with the CAISO that there is no clear answer concerning which categories of projects are deserving of acceleration and which are not. The CPUC states that one category of projects unquestionably deserves exemption: projects with

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<sup>137</sup> SunPower at 4-5; PG&E at 5.

<sup>138</sup> GWF at 4-5.

<sup>139</sup> CAC/EPUC at 5.

<sup>140</sup> CPUC Answer at 4.

purchase power agreements approved by the CPUC. The CPUC argues that when the CPUC approves the purchase power agreement for a project, specific state action to implement state policy has taken place, and the project is sufficiently viable. Therefore, the CPUC proposes that the CAISO be allowed to accelerate projects with an approved purchase power agreement from the CPUC without seeking formal approval from the Commission.

**e. Commission Determination**

214. The Commission finds that the eligibility criteria for the accelerated study process is appropriately limited, so as to not overburden the CAISO and impede requests that truly merit expedited processing. The Commission further finds that the GIPR LGIP section 7.6 provision for accelerated study is sufficiently transparent and accounts for projects that are electrically remote or that due to unique circumstances, such as those required by an order, ruling, etc., should be accelerated.

215. In addition, when the CAISO needs to accelerate projects to comply with a California executive, legislative, or regulatory order, there is already a provision in Section 7.6 of the proposed GIPR LGIP that allows the CAISO to apply to the Commission for a waiver to accelerate these projects. We find that this provision is sufficient to fill any gaps in the proposed accelerated process criteria. Therefore, we agree with the CAISO that it should not be required to enumerate any more categories of interconnection projects to be accommodated under an accelerated process. Broad exemptions to the interconnection process should only be employed when the reasons for exemptions are clear and the scope is limited. Otherwise, as the CAISO states, the exceptions could “swallow the rule” and burden these reformed procedures with an unmanageable number of requests for study outside of the cluster groups.<sup>141</sup>

**11. The Transition Cluster**

**a. The CAISO’s Proposal**

216. Under the waiver approved by the July 14 Order, the CAISO has established the transition cluster, consisting of all interconnection requests that were pending prior to June 2, 2008 that were not included in the grandfathered serial study group. The transition cluster will be processed under the GIPR, but the CAISO has stated that certain transitional provisions will apply solely to the transition cluster in order to clear the queue backlog.<sup>142</sup>

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<sup>141</sup> CAISO Answer at 14.

<sup>142</sup> July 14 Order, 124 FERC ¶ 61,031 at P 5 n.7.

217. The CAISO states that within 60 days from the effective date of the GIPR, any interconnection request within the transition cluster must submit an additional study deposit equal to the difference between its already deposited sums and the study deposit required under the GIPR (\$250,000 generally, or \$100,000 for smaller projects). If an interconnection customer fails to make such additional deposit, the interconnection request would be deemed withdrawn.<sup>143</sup> Additionally, the CAISO states that interconnection customers in the transition cluster would be required to submit a statement of requested deliverability status, a preferred point of interconnection and voltage level, all other technical data required under the GIPR, as well as a demonstration of site exclusivity or posting of a \$250,000 site exclusivity deposit. The CAISO states that these requirements will place an interconnection request in the transition cluster on an equal footing with new interconnection requests under the GIPR, including a reduced burden on smaller projects in recognition of the transition.<sup>144</sup>

218. The CAISO states that the primary distinction between the general GIPR provisions and the transition cluster is the treatment of study costs. Specifically, the refundability of study cost deposits is more limited for interconnection requests in the transition cluster than is the case under the general GIPR. Study cost deposits for interconnection requests in the transition cluster are nonrefundable from the moment of submission, except that funds remaining after accounting for costs may be refunded if the transition cluster interconnection customer submits an executed or unexecuted LGIA. The CAISO states that the purpose of these provisions is to compel developers to make a quick decision about whether to stay in the transition cluster and to equalize the treatment of all interconnection requests in the transition cluster.<sup>145</sup>

219. In recognition that the transition cluster represents a transition, the CAISO proposes that transition cluster interconnection customers will have 120 days to post their initial interconnection financial security, rather than the 90 days after publication of the Phase I Interconnection Study provided by the GIPR to interconnection customers within a queue cluster window. Additionally, the CAISO states that commencing in 2009, as part of its transmission planning process, it will perform additional technical analyses designed to ensure that interconnection customers using renewable resources and in the transition cluster, will be able to meet the earliest practicable commercial operation dates.<sup>146</sup>

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<sup>143</sup> CAISO Transmittal Letter at 32.

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

<sup>146</sup> CAISO Transmittal Letter at 33.

**b. Comments**

220. Some parties continue to be dissatisfied with the makeup of the transition cluster. Optisolar states that, while it continues to support the CAISO's efforts to reform its LGIP, modifications to implement the transition cluster are unjust and unreasonable and unduly discriminatory to interconnection requests in the transition cluster that are being studied after interconnection requests in the grandfathered serial study group even though they may be seeking interconnection at the same location.<sup>147</sup> Optisolar's proposed solution is to reformulate the grandfathered serial study group to provide that any higher-queued project that is seeking interconnection at the same location as a lower-queued grandfathered serial study group project, should also be accorded serial study group treatment.<sup>148</sup> The argument is the same as Optisolar makes in its request for rehearing of the July 14 Order in Docket No. ER08-960-001.

221. Similarly, PG&E, in its comments in this docket reiterates its request that the Commission find that the grandfathered serial study group is not limited to projects that had power purchase agreements approved or pending approval as of May 1, 2008.<sup>149</sup> This request was also initially brought by PG&E in its request for rehearing in Docket No. ER08-960-001. In the alternative, PG&E suggests that the CAISO be required to include a provision under the GIPR that would guarantee availability of the accelerated study process to all projects that have an executed purchase power agreement or certificate application approved or pending approval by the CPUC or other local regulatory authority.<sup>150</sup> SunPower supports PG&E's position on this issue.<sup>151</sup>

222. Joint Protesters contend that the CAISO's transition provisions are unjust and unreasonable, and unduly discriminatory and unduly preferential. The general basis of the claim revolves around assertions that the GIPR interconnection process discriminates against independent generators, coupled with the assertion that the additional deposits required by transition cluster interconnection requests are unjust and unreasonable, and

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<sup>147</sup> Optisolar at 2-3. Optisolar concedes in its background discussion that this represents the same issue raised in its Request for Rehearing in Docket No. ER08-960.

<sup>148</sup> Optisolar at 8.

<sup>149</sup> PG&E at 3.

<sup>150</sup> PG&E at 5.

<sup>151</sup> SunPower at 5-6.

unduly discriminatory and preferential, based on the fact that the CAISO faces no financial penalties for failing to comply with the existing tariff.<sup>152</sup>

**c. The CAISO's Answer**

223. The CAISO asserts that concerns regarding the composition of the grandfathered serial study group are beyond the scope of the GIPR proceeding.<sup>153</sup> The CAISO notes that the justness and reasonableness of the criteria for inclusion in the grandfathered serial study group was squarely before the Commission in connection with the Waiver petition and decided by the July 14 Order, which is currently before the Commission on rehearing in Docket No. ER08-960.

224. The CAISO also opposes expanding the opportunity for accelerated study treatment on a blanket basis to include broad categories of interconnection requests as requested by PG&E and SunPower.<sup>154</sup> The CAISO asserts that making the accelerated study option available to interconnection requests that are electrically related to others, or otherwise expanding the accelerated study option on a blanket basis would tend to negate the queue management efficiency gains that are the major benefit from implementing the GIPR.

225. The CAISO notes in its answer that the Joint Protesters do not provide any reasoning to support the claim that the transition cluster provisions are unduly discriminatory and unduly preferential.<sup>155</sup> The CAISO asserts that in order to clear the queue of transition cluster interconnection requests as promptly as possible, it is necessary to ensure that projects remaining in the transition cluster are only those that are likely to reach commercial operation.<sup>156</sup>

**d. Commission Determination**

226. The Commission declines to reconsider here the July 14 Order. Optisolar and PG&E have both submitted requests for rehearing in Docket No. ER08-960-001

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<sup>152</sup> Joint Protesters at 34-35.

<sup>153</sup> CAISO Answer at 18-19.

<sup>154</sup> CAISO Answer at 13-15.

<sup>155</sup> CAISO Answer at 17.

<sup>156</sup> CAISO Answer at 17; *see also* Testimony of Stephen Rutty, Exhibit ISO-1 at 20.

regarding this issue. We are issuing an order contemporaneously with this order that addresses Optisolar and PG&E's arguments. We decline to adopt PG&E's proposed requirement that any project with a power purchase agreement approved or pending approval be ensured participation in the accelerated study process under the GIPR. The accelerated study process as proposed by the CAISO has well-defined criteria. PG&E has not convinced us that the CAISO's proposal is unjust and unreasonable, or unduly discriminatory. Accordingly, we will not require the CAISO to include PG&E's proposed language in its tariff.

227. The Joint Protesters' discrimination claims have two dimensions. The claim that the transition provisions discriminate against independent generators is not supported by any proffered evidence and, as discussed above, we decline to make such a finding. To the contrary, we find that the increased deposits and financial security provisions will act to encourage viable projects to remain in the interconnection process. The deposit and financial commitment provisions are not so onerous as to act as barriers to interconnection. The July 14 Order recognized that transition cluster interconnection requests would be generally subject to the provisions of the GIPR, and that processing transition cluster interconnection requests under the GIPR would maximize the benefit of queue management reform.<sup>157</sup>

228. The difficulties in managing the CAISO's generation queue have been recognized for some time. The reforms embodied in the GIPR tariff amendment are largely an outgrowth of the CAISO's recognition of the need for reform and the policy discussion in our March 20 Order. We approved the criteria upon which the transition cluster was created in our July 14 Order. The Commission now finds that the provisions for processing the transition cluster, as described above are just and reasonable, not unduly discriminatory and accomplish the purposes of Order No. 2003 by facilitating timely and orderly processing of interconnection requests. Accordingly, we find the CAISO's GIPR tariff amendment, as applied to the transition cluster to be justified under the independent entity variation standard.

## **12. Transition Cluster Study Timelines**

### **a. The CAISO's Proposal**

229. The CAISO proposes a specific timeline for completing the interconnection studies associated with projects in the transition cluster. The CAISO proposes to start the Phase I Interconnection Study no later than December 1, 2008 or 60 calendar days after the effective date of the GIPR, whichever is later. The CAISO states that it will provide results of the Phase I Interconnection Study to each interconnection customer within 240

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<sup>157</sup> July 14 Order, 124 FERC ¶ 61,031, at P 34-35 (2008).

calendar days following commencement. Thereafter, the CAISO states that the Phase II Interconnection Study will commence no more than 120 calendar days following publication of the report from the Phase I Interconnection Study, and provide results of the Phase II Interconnection Study within 330 calendar days of the effective date of the GIPR.<sup>158</sup>

**b. Protests and Comments**

230. Wind and Solar Parties state that the CAISO's timelines for processing the transition cluster are too long.<sup>159</sup> They argue that the Commission should require the CAISO to modify its study timeline such that the interconnection studies for the transition cluster is completed in time for the 2009 transmission planning process. They argue that this could be achieved by taking several steps including: beginning the study process promptly instead of waiting 60 days after the Commission accepts the GIPR LGIP; begin developing the transition cluster base case in parallel with processing interconnection requests; start the Phase I process as soon as base cases are developed; complete the Phase I process as Phase I Interconnection Studies are completed, rather than waiting for the entire transition cluster; and expand the timeline for the transmission planning process into May 2010.

231. MENAT argues that the timelines for the transition cluster should be expedited such that the Phase II Study for the transition cluster is completed by August 1, 2009.<sup>160</sup> MENAT states the entities in the transition cluster are unfairly disadvantaged compared to those in the grandfathered serial study group, since the entities in the transition cluster will have their interconnection requests delayed by years, and that the Commission should expedite the timelines to alleviate this burden.

**c. The CAISO's Answer**

232. In its answer, the CAISO states that the timeline for the transition cluster are just and reasonable, and, in any event offers the earliest possible action.<sup>161</sup> The CAISO states that, as a legal matter, it cannot begin the processing of the transition cluster until the Commission accepts the tariff change. Also, the CAISO states that it chose the earliest possible date given that it had to process the grandfathered serial study group. Finally,

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<sup>158</sup> CAISO Transmittal letter at 33.

<sup>159</sup> Wind and Solar Parties at 24.

<sup>160</sup> MENAT at 10.

<sup>161</sup> CAISO Answer at 15.

the CAISO states it chose to allow the 60-day window primarily for interconnection customers, who must now meet new requirements to enter the transition cluster.

**d. Commission Determination**

233. The Commission agrees with the CAISO that the timelines for the transition cluster are just and reasonable. While earlier timelines may be desirable, the CAISO is faced with the task of clearing the large interconnection queue backlog before commencing the initial GIPR cluster. The amount of active interconnection requests in the queue at the time of the filing of the GIPR amendment totaled more than 105,000 megawatts,<sup>162</sup> and even with the additional financial requirements, it is likely the CAISO will still have to process an inordinately large number of interconnection requests over the next few years. Finally, we note that the CAISO's proposal extends the time period to 60 days for transition cluster interconnection customers to meet the increased study deposit requirements under the GIPR LGIP.

**13. Miscellaneous Tariff Changes and Miscellaneous Issues**

**a. The CAISO's Proposal**

234. The CAISO has proposed to revise the current Simplified and Reorganized Tariff definition of "Reliability Network Upgrades"<sup>163</sup> to clarify the nature of those upgrades and the manner in which they will be identified in the GIPR Interconnection Studies. The CAISO explains that ambiguity has arisen regarding whether a thermal overload can constitute a reliability upgrade or must always be classified as delivery network upgrade. The proposed modification to the definition specifies circumstances when an upgrade to address thermal overload may constitute a reliability network upgrade. Specifically, the CAISO proposed the following definition: "Reliability Network Upgrades shall only be deemed necessary for thermal overloads, occurring under any system condition, where such thermal overloads cannot be adequately mitigated through Congestion Management, Operating Procedures, or Special Protection Systems based on the characteristics of the Large Generating Facilities included in the Interconnection Studies, limitations on market model, systems, or information, or other factors specifically identified in the Interconnections Studies."

235. The CAISO proposes to retain the definition from the current LGIA of applicable reliability standard as the requirements and guidelines of the North American Electric Reliability Corporation, the applicable reliability council, and the balancing authority

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<sup>162</sup> Direct Testimony of Stephen Rutt, Exhibit ISO- 1 at 3.

<sup>163</sup> See Appendix A – Master Definition Supplement in the CAISO S&R Tariff.

area of the PTO's transmission system to which the generating facility is directly interconnected.

236. The CAISO notes that in order to implement the GIPR tariff amendments, it has submitted a number of what it characterizes as minor conforming changes to its currently effective tariff. In addition, the CAISO notes that it has likewise submitted conforming tariff pages for its MRTU tariff.<sup>164</sup> With respect to the proposed tariff changes to the CAISO's MRTU tariff, the CAISO requests waiver of Section 35.3 of the Commission's regulations<sup>165</sup> in order to have the MRTU tariff pages take effect upon implementation of MRTU.

**b. Comments and Protests**

237. Metropolitan Water District of Southern California (Metropolitan) recommends some changes to the CAISO's proposed revision to the definition of "Reliability Network Upgrades" as follows:

Reliability Network Upgrades shall ~~only~~ be deemed necessary for thermal overloads, ~~occurring under any system condition~~ whether on peak or off-peak, where such thermal overloads cannot be adequately mitigated through Congestion Management or Operating Procedures, ~~or Special Protection Systems~~ based on the characteristics of the Large Generating Facilities included in the ~~Interconnection Studies~~ analysis, limitations on market models, systems, or information, or other factors specifically identified in the Phase I Interconnection ~~Studies~~ Study.

Metropolitan proposes inclusion of the proposed amended definition into the CAISO GIPR Tariff text in Section 6.3.1., Reliability Network Upgrades.<sup>166</sup> Metropolitan claims that the reliability network upgrades description proposed by the CAISO is inadequate to address the reliability concerns introduced by the interconnection of large amounts of energy-only resources that are likely to cause severe and chronic congestion, and to endanger the reliable operation of the transmission system. Metropolitan notes that the CAISO's reliance on operator intervention in real time to mitigate reliability violations should be considered a last line of defense, and not the solution to relieve planned congestion caused by the reformed interconnection process.

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<sup>164</sup> CAISO Transmittal Letter at 35.

<sup>165</sup> 18 C.F.R. § 35.3 (2008)

<sup>166</sup> See GIPR LGIP section 6.3, Identification and Cost Allocation Methods for Network Upgrades in Phase I Interconnection Study.

238. Wind and Solar Parties state that the CAISO should treat network upgrades to relieve thermal overloads as delivery network upgrades and not as reliability network upgrades. Wind and Solar Parties argue that the CAISO has not clearly explained the role of thermal overloads in determining reliability network upgrades, and thus thermal overloads should be restricted to delivery network upgrades.

239. SCE states that the CAISO has appropriately included references to the definition of “Applicable Reliability Standards” in several sections of the GIPR-LGIA to comply with the Commission’s mandatory reliability standards initiative. SCE recommends that the definition be revised in order to clarify the Commission’s authority to promulgate reliability standards to read:

.....Generating Facility is directly connected, including the requirements pursuant to Section 215 of the Federal Power Act.

240. SCE also recommends that the same changes made to the GIPR-LGIA be incorporated into the LGIA under Appendix V of the CAISO Tariff that still applies to the serial study group under the GIPR proposal.

241. In its Protest, Iberdrola requests that the Commission clarify that an interconnection customer may replace its wind or solar technology if the replacement technology is reasonably equivalent to, or better than, the original equipment, or there are otherwise no reliability impacts. Iberdrola contends that since wind and solar technologies continue to advance at a rapid pace, developers often cannot commit to use a specific technology type within three to five years.

242. Iberdrola also contends that developers frequently purchase equipment from multiple suppliers, and the complexities associated with manufacturing, shipping, site suitability, site optimization and other factors may cause the developer to reassign equipment among multiple projects. In the interest of making the interconnection process practical and not unduly rigid, Iberdrola states that the Commission should permit equipment flexibility at any time in the interconnection process provided that a change in equipment will have no reliability impact on the system that cannot be mitigated.

243. Iberdrola states that if a proposed change in equipment would impact reliability, the interconnection customer, at its own expense, would have the option to engage a reputable engineering company to conduct any applicable restudies necessitated by such equipment changes. Iberdrola states that if the CAISO and applicable PTO accept the restudies as sufficient to mitigate any system impact, the GIPR LGIP provides flexibility for the CAISO and applicable PTO to allow the interconnection customer to retain its queue position and move forward in the interconnection process.

c. **The CAISO's Answer**

244. In its answer, the CAISO states by way of response to the conflicting concerns of Metropolitan and Wind and Solar Parties, that the CAISO chose to address Metropolitan's concern through a revision to the definition of reliability network upgrades in the GIPR proposal, in order to make this clarification more generally applicable throughout the CAISO Tariff, rather than include it in a specific section of the Tariff. The CAISO states that the definition now includes thermal overloads as a condition to be addressed by reliability network upgrades.

245. The CAISO also states, to address the concerns of Wind and Solar Parties, thermal overloads caused by energy only systems will only require reliability network upgrades that cannot be adequately mitigated through congestion management, operating procedures, or special protection systems based on the characteristics of the large generating facilities included in the Interconnection Studies, or limitations on market models, systems, or information, or other factors specifically identified in the Interconnection Studies. The CAISO states that it believes that this approach is a reasonable resolution that ensures that thermal overloads caused by energy only facilities are properly addressed without over-burdening renewable resource developers with network upgrade costs.

246. In its answer, the CAISO states that while SCE's requested revision does not appear to be necessary, nor particularly objectionable. Regardless, the CAISO did not revise the definition as part of the filing. The CAISO states, therefore, that the definition is beyond the scope of this proceeding. However, the CAISO adds that if the Commission agrees that the definition should be revised, the CAISO proposes to revise the definition to read:

.....Generating Facility is directly connected, including requirements adopted pursuant to Section 215 of the Federal Power Act.

The CAISO further stated that if the Commission does direct a definition change, the CAISO agrees with SCE that the same change should be made to current LGIA for the sake of consistency.

247. In response to Iberdrola, the CAISO states that it is sensitive to the fact that renewable technology presents unique concerns, but does not believe it prudent or necessary to prejudge whether and to what extent a modification would impact a generator's position in the interconnection process. The CAISO states that it is willing to revisit this issue in a timely manner in conjunction with the stakeholders, if in practice the GIPR LGIP appears to be unnecessarily restricting flexibility in the development of renewable generation.

**d. The CPUC's Answer**

248. The CPUC states that, while it believes the proposed GIPR LGIP language concerning thermal overloads is essentially sound, it has two concerns. First, it states that the “cannot be mitigated through Congestion Management...” condition for distinguishing between reliability and deliverability network upgrades for addressing thermal overloads should not be placed only in the definitions part of the tariff. For clarity, the CPUC proposes revising Section 6.3.1 of the proposed GIPR LGIP to read as follows:

. “ . . . . The CAISO, in coordination with the applicable Participating TO(s) . . . . identify Reliability Criteria violations, including applicable thermal overloads, that must be mitigated by Reliability Network Upgrades because it has been demonstrated that all applicable congestion management and/or other operational measures cannot reliably address such potential thermal violations.”

**e. Commission Determination**

249. The Commission finds the definition of reliability network upgrades as originally proposed by the CAISO in Appendix A – Master Definition Supplement is adequate to address thermal overloads as result of energy-only facilities. We agree with the CAISO that since it is intended to apply more generally throughout the CAISO Tariff, the definition does not necessarily need to be included in the LGIP text. Therefore, we deny Metropolitan’s protest and the CPUC’s answer.

250. We conclude that the CAISO appropriately includes thermal overload considerations in both reliability network upgrades and delivery network upgrades to ensure grid reliability for both the full delivery status and energy-only status services. Therefore, we deny the Wind and Solar Parties’ request to restrict thermal overload considerations to delivery network upgrades.

251. We accept the proposed addition to the definition of applicable reliability standards in the current LGIA as well as the GIPR LGIA to acknowledge the Commission’s authority to oversee and enforce mandatory reliability standards. We, therefore, direct the CAISO to include the revisions in the tariff sheets submitted in compliance with this order.

252. Regarding Iberdrola’s request to clarify an interconnection customer’s ability to replace its wind or solar technology, we agree with the CAISO that it does not seem appropriate to speculate on or prejudge whether and to what extent a modification would impact a generator’s position in the interconnection process. We note that the CAISO has indicated that it will revisit this issue in connection with stakeholders if, in practice,

the GIPR LGIP appears to be unnecessarily restricting flexibility in the development of renewable generation. We find the CAISO's approach to be reasonable.

253. Finally, the Commission finds it appropriate that the MRTU tariff pages take effect upon implementation of the MRTU.

The Commission orders:

(A) The proposed tariff amendments are hereby conditionally accepted, effective September 26, 2008, as discussed in the body of this order.

(B) The proposed MRTU tariff pages are hereby conditionally accepted to become effective upon the implementation of the MRTU.

(C) The CAISO is hereby directed to make a compliance filing within 60 days of the date of issuance of this order modifying its proposed tariff revisions as discussed in the body of this order.

(D) The CAISO is hereby directed to file, within 60 days of the completion of the Phase II Interconnection Study for the transition cluster, a comprehensive status update as discussed in the body of this order.

(E) The CAISO is hereby directed to file, within 60 days of the completion of the Phase II Interconnection Study for the initial GIPR cluster, a comprehensive status update as discussed in the body of this order.

(F) The CAISO is hereby directed to file, quarterly status reports as discussed in the body of this order.

By the Commission. Commissioner Wellinghoff not participating.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

**Appendix A**  
**Parties Filing Motions/Notices of Intervention, Comments or Protests**  
**Docket No. ER08-1317-000**

The listed parties have filed motions to intervene in Docket No. ER08-1317-000. A short-name reference to a party, shown in parentheses after the full name, indicates the party also filed comments or a protest.

1. Acciona Wind Energy USA LLC
2. The Cities of Anaheim, Azusa, Banning, Colton, Pasadena and Riverside, California (Six Cities)
3. Babcock & Brown Infrastructure Group US LLC (Babcock)
4. California Municipal Utilities Association
5. California Wind Energy Association, the Large-Scale Solar Association and the American Wind Energy Association (Wind and Solar Parties)
6. The Cogeneration Association of California and the Energy Producers and Users Coalition (CAC/EPUC)
7. Cogentrix Energy, LLC (Cogentrix)
8. CPV Renewable Energy Company, LLC
9. Dynergy Morro Bay, LLC and Dynergy Moss Landing, LLC, Dynergy South Bay, LLC and Dynergy Oakland, LLC
10. Electric Power Supply Association
11. FPL Energy LLC
12. GWF Energy LLC (GWF)
13. Horizon Wind Energy LLC (Horizon)
14. Iberdrola Renewables, Inc. (Iberdrola)
15. Imperial Irrigation District

16. Independent Energy Producers Association (IEP)
17. LS Power Associates, L.P. and Tenaska, Inc. (Joint Protesters)
18. Macquarie Energy North America Trading Inc. (MENAT)
19. Metropolitan Water District of Southern California (Metropolitan)
20. Mirant Energy Trading, LLC, Mirant California, LLC, Mirant Delta, LLC and Mirant Potrero, LLC
21. Modesto Irrigation District
22. Radback Energy Inc.
23. Northern California Power Agency
24. NRG Power Marketing LLC, Cabrillo Power I LLC, Cabrillo Power II LLC, El Segundo Power LLC, and Long Beach Generation LLC (NRG)
25. Optisolar, Inc. (Optisolar)
26. Pacific Gas and Electric Company (PG&E)
27. Public Utilities Commission of the State of California (CPUC)
28. San Diego Gas & Electric Company
29. City of Santa Clara, California and the M-S-R Public Power Agency
30. Sempra Generation
31. Southern California Edison Company (SCE)
32. SunPower Corporation (SunPower)
33. Wellhead Electric Company (Wellhead)
34. The City and County of San Francisco

Document Content(s)

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