



California Independent  
System Operator Corporation

January 31, 2011

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: California Independent System Operator Corporation Combined Q4 2010 Quarterly Progress and Comprehensive Status Report Following Completion of the Study Phase for Projects in the Transition Cluster;  
Docket No. ER08-1317-\_\_\_**

Dear Ms. Bose:

Please find our combined fourth quarter 2010 report and comprehensive status report following completion of the study process for the transition cluster. The California Independent System Operator Corporation ("ISO") submits the report pursuant to Paragraph 200 and 201 of the Commission's "Order Conditionally Approving Tariff Amendment" issued in this docket on September 26, 2008, 124 FERC ¶ 61,292 (2008). The document is submitted by electronic filing and is entitled "California Independent System Operator Corporation Combined Q4 2010 Quarterly Progress and Comprehensive Status Report Following Completion of the Study Phase for Projects in the Transition Cluster." The Commission granted an extension of time to file this comprehensive report on December 30, 2010.

If there are any questions concerning this filing, please contact the undersigned.

Respectfully Submitted,  
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**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

California Independent System                    )  
Operator Corporation                                )     Docket No.   ER08-1317-\_\_\_\_

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR COMBINED Q4 2010  
INTERCONNECTION QUARTERLY PROGRESS REPORT AND  
COMPREHENSIVE STATUS REPORT FOLLOWING COMPLETION OF THE  
STUDY PHASE FOR PROJECTS IN THE TRANSITION CLUSTER**

Quarterly Report Reporting Period:  
October 1, 2010 to December 31, 2010

Date:   January 30, 2011

Baldassarro (“Bill”) Di Capo  
Senior Counsel  
California Independent System  
Operator Corporation

## **INTRODUCTION AND DISCUSSION OF THE REPORTING REQUIREMENTS GIVING RISE TO THIS REPORT**

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**Cluster LGIP Distinguished from Legacy LGIP.** The two primary features that distinguish the ISO's Cluster LGIP from the legacy standard LGIP process can be described as follows:

1) The change from a serial process (processing requests sequentially in the order received) to a cluster process (processing requests in clusters received during a request window period), in order to eliminate delays caused by the need for each individual project sponsor to have to wait for studies of the project(s) ahead of it to be studied and avoid the frequent "cascade failure" dilemma which can occur when earlier-queued projects drop out of the process mid-stream, causing the need to restudy later queued projects whose studies assumed upgrades assigned to the withdrawn projects;

2) The addition of an "increasing generator commitment" feature, designed so that the interconnection process would concentrate on projects sufficiently mature to be able to complete the process. This feature is primarily implemented by requirements that customers make advanced financial security postings for a portion of their network upgrade costs prior to commencement of construction activities.

**This Report is Structured as Two Parts.** This is a combined report of the California Independent System Operator Corporation ("ISO"), covering the following subjects:

1) The first part of this report discusses the ISO's quarterly progress over the fourth quarter period October 1 to December 31, 2010 in processing large generator interconnection requests in the ISO interconnection queue;

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2) The second part is a comprehensive status report discussing the ISO's experience with interconnection studies for the transition cluster (the first cluster processed under the ISO's Cluster LGIP (ISO Tariff Appendix Y)).<sup>1</sup>

### **The Quarterly Reporting Requirement and Prior Quarterly Reports**

The Cluster LGIP was established in 2008 when the Commission accepted the ISO's 2008 (Generator Interconnection Process Reform (GIPR)) in the September 2008 Order. That order included requirements that the ISO file quarterly status reports and two comprehensive status reports, one pertaining to the transition cluster and one pertaining to the first queue cluster. The Commission explained that the quarterly reports were intended as a tool to evaluate how well the ISO's queue cluster process is working.<sup>2</sup>

This report includes the ISO's ninth quarterly report. The prior quarterly reports are as follows:

<b>2010</b>
Q3 2010 report (dated October 30, 2010) <sup>3</sup>
Q2 2010 report (dated July 30, 2010) <sup>4</sup>
Q 1 2010 report (dated April 30 2010) <sup>5</sup>
<b>2009</b>
Q4 2009 report (dated January 29, 2010) <sup>6</sup>
Q3 2009 report (dated October 30, 2009) <sup>7</sup>
Q2 2009 report (dated July 30, 2009) <sup>8</sup>
Q1 2009 report (filed April 30, 2009) <sup>9</sup>

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<sup>1</sup> ISO Tariff Appendix Y can be accessed on the ISO's website at <http://www.caiso.com/2779/27798a00271c0.pdf>. Note that, after the Cluster LGIP was initially accepted in 2008, the ISO amended the Cluster GIP in 2009 and combined the LGIP and SGIP into one tariff process in 2010. The 2010 amendment (known as the Generator Interconnection Process, (GIP)) has an effective date of December 19, 2010.

<sup>2</sup> *Order Conditionally Approving Tariff Amendment*, dated September 28, 2008, at P 200 (*California Independent System Operator Corp.* 124 FERC ¶ 61,292) (hereinafter, "September 2008 Order").

<sup>3</sup> The report can be accessed on the ISO website at <http://www.caiso.com/2457/2457e6f4470c0.pdf>

<sup>4</sup> Access ISO webpage at <http://www.caiso.com/27e3/27e3d90ce6a0.pdf>

<sup>5</sup> Access ISO webpage at <http://www.caiso.com/2788/2788c4ca34340.pdf>

<sup>6</sup> Access ISO webpage at <http://www.caiso.com/272d/272dbd991d4c0.pdf>

<sup>7</sup> Access ISO webpage at <http://www.caiso.com/2457/2457e6f4470c0.pdf>

<sup>8</sup> Access ISO webpage at <http://www.caiso.com/2403/2403907271f30.pdf>

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2008

Q 4 2008 report (filed Feb 27 2009)<sup>10</sup>

### **The Comprehensive Status Report Requirement for the Transition Cluster**

In addition to the quarterly reporting requirement, the September 2008 Order contained a requirement for two comprehensive status reports, the first following the conclusion of the study process for the transition cluster:

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.<sup>11</sup>

The Commission ordered a second comprehensive status report following completion of Phase II studies for the first queue cluster.<sup>12</sup>

### **The ISO's Large Interconnection Queue is Broken down into Various Component Parts**

This quarterly progress portion of this report breaks down the large interconnection queue into the following queue components:<sup>13</sup>

- *Two legacy groupings.* These are interconnection requests being processed under legacy, pre-Cluster LGIP interconnection processes;

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<sup>9</sup> Access ISO webpage at <http://www.caiso.com/23a0/23a0de6d701a0.pdf>

<sup>10</sup> Access ISO webpage at <http://www.caiso.com/2362/2362d4e612850.pdf>.

<sup>11</sup> September 2008 Order at P 201.

<sup>12</sup> *Id.* At P 202.

<sup>13</sup> The component numbers generally correspond to time (i.e. Component 1 generally consists of that group of interconnection requests that are oldest in time). However, this is not exactly so, as the groupings were also based on common characteristics (i.e. studies were already completed) that make collective treatment of the individual requests within the group more logical. This means that some interconnection requests which were older in time are part of Component 2 rather than Component 1.

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- Component 1: certain projects that predated the serial study group. These requests were grouped together because, at the time the ISO made its waiver request, the associated interconnection studies for these projects had already been complete.<sup>14</sup>
- Component 2: projects known as “the serial study group.” These projects still required to have interconnection studies completed at the time the ISO categorized interconnection requests and filed its tariff request waiver that preceded the 2008 GIPR Amendment.
- *Five cluster groupings under the Cluster LGIP;*
  - Component 3: projects in the transition cluster: requests received at time of categorization that would transition to the new cluster study process.
  - Component 4: the first queue cluster: the first group of interconnection requests received during an open request window (June 2, 2008 to July 31, 2009)
  - Component 5: the second queue cluster: the second group of interconnection requests received during an open request window (October 1, 2009 to January 31, 2010)
  - Component 6: the third queue cluster: the third group of interconnection requests received during an open request window (March 1, 2010 to July 31, 2010)
  - Component 7: Under the Cluster LGIP, the fourth queue cluster window opened on October 1, 2010 and was set to close on January 31, 2011. However, while the window period was opened, the GIP became effective. Under the GIP, the fourth queue cluster window applications are intended to be processed together with the cluster track applications that the ISO receives during the GIP’s March 2011 window period (March 1-31).

**The ISO has Recently Adopted a Revised Interconnection Tariff Known as the GIP which Combines Small and Large Interconnection Requests into One Tariff Process**

It should be noted that, in late 2010, the ISO filed the Generator Interconnection Process (GIP) Tariff Amendment with the Commission, in order to the LGIP and the Small Generation Interconnection Process (SGIP) into one tariff process. The effective date for the GIP is December 19, 2010, and, from that date forward, the five cluster groupings identified above and all future queue clusters will be processed under

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<sup>14</sup> See discussion of the ISO’s waiver petition in earlier quarterly reports, such as the Q1 2009 Report at p. 1.

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the GIP. The primary impact of the GIP on the transition cluster will be that second postings of interconnection financial security will be subject to a cap of \$15 million.

The GIP recognizes that, within the current environment for generator development and interconnection within the ISO balancing authority, with its emphasis on fast-paced renewable project development to meet California's 33% Renewable Portfolio Standard (RPS), efficiencies can be gained, and more meaningful interconnection study results can be presented to customers under a cluster approach that includes all projects, regardless of size. Under the GIP, the next queue cluster window for interconnection requests, both small and large, is during the month of March 2011.

In addition to the cluster study track, the GIP also provides for (1) an independent study track available to projects of any MW size that can show both the ability to move at an expedited pace and electrical independence from other interconnection requests, and (2) a fast track for projects of 5 MW or less that can pass certain eligibility screens. Interconnection requests for these two tracks can be submitted at any time throughout the year. The GIP is found in the ISO's revised Appendix Y effective as of December 19, 2010.

**Components 1 and 2 are Included so that the Quarterly Progress Report Covers the Entire Large Interconnection Queue, Including the Projects Being Processed Under the Pre-Cluster LGIP**

The Commission's September 2008 Order only directs the ISO to report on the queue cluster component of the ISO interconnection queue and not on the ISOs work to complete the legacy, pre-Cluster LGIP interconnection requests. Nevertheless, the ISO has made a practice of including the legacy interconnection requests in its reporting, so that each report would cover the entire ISO large generation interconnection queue. This report continues that practice, and discusses the legacy large interconnection requests as Components 1 and 2 of the large generator interconnection queue.

## **PART ONE OF THIS REPORT: QUARTERLY PROGRESS: FOURTH QUARTER 2010**

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### **The Queue Components Being Processed Under Legacy (Pre- Cluster LGIP) Procedures**

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**Component 1: Projects Predating the Serial Study Group.** As stated above, the ISO grouped these requests because, at the time the ISO made its 2008 waiver request that preceded the 2008 GIPR Amendment, the ISO had already completed interconnection studies for these requests according to the applicable legacy interconnection tariff. The governing tariff provision for each project depends on the date that the interconnection customer submitted the request. If that date was before July 1, 2005, the governing tariff is Appendix W, *Interconnection Procedures in Effect Prior to July 1, 2005*, also known as the “Amendment 39 Procedures.” If the date was on or after July 1, 2005, the applicable tariff is Appendix U, *Standard Large Generator Interconnection Procedures* (LGIP), which is the ISO’s 2005 version of the LGIP.

**Component 2: the Serial Study Group.** For all requests in this grouping, the applicable process is Appendix U, *Standard Large Generator Interconnection Procedures* (LGIP), the 2005 version of the LGIP, which are the ISO the procedures which immediately preceded the Cluster LGIP.

### **Queue Components Being Processed Under the Cluster Process**

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**Component 3: The Transition Cluster.** The transition cluster is the first queue cluster being processed under the Cluster LGIP. The term “transition cluster” reflects the fact that the ISO received these requests when the ISO’s LGIP was still serial, but that,



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with Commission approval, these interconnection requests were transitioned to cluster study and processing under the Cluster LGIP. This component consists of LGIP interconnection requests:

- (i) that had been made under the ISO's 2005 version of the LGIP,
- (ii) that were still pending as of June 2, 2008, but
- (iii) which the ISO did not assign to the serial study group.<sup>15</sup>

Through December 18, 2010, the applicable ISO tariff has been Appendix Y, *Large Generator Interconnection Procedures (LGIP) for Interconnection Requests in a Queue Cluster Window*, with specialized provisions for the transition cluster included within Appendix 2 to Appendix Y, *Large Generator Interconnection Procedures (LGIP) Relating to the Transition Cluster*. Effective December 19, the ISO's revised Appendix Y which is the GIP Tariff Amendment governs completion of the transition cluster. As a practical matter, the impact of the GIP Tariff Amendment on the transition cluster is that the second posting of financial security instruments includes a cap of \$15 million, which operates to lower the deposit requirement of some of these customers.

**Component 4: The First Queue Cluster.** . The first queue cluster consists of the interconnection requests received under the request window that opened after the Cluster LGIP was approved. This window period opened June 2, 2008 and closed July 31, 2009. The applicable tariff has been Appendix Y, *Large Generator Interconnection Procedures (LGIP) for the Interconnection Requests in a Queue Cluster Window*.

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<sup>15</sup> As the ISO explained in its transmittal letter transmitting its GIPR Amendment request to FERC on July 28, 2008:

The serial study group consists of certain "late stage" Interconnection Requests, which the ISO will continue to study serially and pursuant to existing timelines. The ISO elected to define late stage Interconnection Requests as those that either: (1) had met specific advanced milestones in the current LGIP Interconnection Study process, (2) had a power purchase agreement approved, or pending approval, by the CPUC or Local Regulatory Authority, or (3) were next in queue order to interconnect to any transmission project that has received land use approvals from any local, state, or federal entity, as applicable, up to the capacity studied by the ISO. The ISO explained that these criteria were logical and consistent with the Commission's guidance in the March 20 Order.

ISO Transmittal Letter to FERC submitted the ISO's GIPR Tariff Initiative, dated July 28, 2008 at p10.n15. The ISO's Transmittal Letter can be accessed on the ISO's web site at <http://www.caiso.com/2012/2012c70a7880.pdf> .

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Effective December 19, 2010, the revised Appendix Y which is the GIP Tariff Amendment governs further processing.

**Component 5: The Second Queue Cluster.** This component consists of interconnection requests received during the second queue cluster window, which opened October 1, 2009 and closed January 31, 2010. The applicable tariff has been Appendix Y, *Large Generator Interconnection Procedures (LGIP) for the Interconnection Requests in a Queue Cluster Window*. Effective December 19, 2010, the revised Appendix Y which is the GIP Tariff Amendment governs further processing.

**Component 6: The Third Queue Cluster.** This component consists of interconnection requests received during the third queue cluster window, which opened March 1, 2010 and closed July 31, 2010. The applicable tariff has been Appendix Y, *Large Generator Interconnection Procedures (LGIP) for the Interconnection Requests in a Queue Cluster Window*. Effective December 19, 2010, the revised Appendix Y which is the GIP Tariff Amendment governs further processing.

## **Composition of Cluster Interconnection Requests by Technology**

### **Component 3: The Transition Cluster**

The breakdown by technology of interconnection customers in the transition cluster is as follows:

<b>Table 1</b>						
<b>Transition Cluster Interconnection Customers Categorized by Prime Mover Technology</b>						
Prime Mover	Number	Technology				
		B	G	NG	S	W
Steam Turbine	19	1	7		11	
Photovoltaic	14				14	
Wind Turbine	8					8
Combined Cycle	6			6		
Combined Cycle/PV	1			0.5	0.5	
Combustion Turbine	2			2		
<b>Total</b>	<b>50</b>	<b>1</b>	<b>7</b>	<b>8.5</b>	<b>25.5</b>	<b>8</b>
B=Biomass; G=Geothermal; NG=Natural Gas; S=Solar; W=Wind						

### **Component 4: The First Queue Cluster**

The breakdown by technology of interconnection customers in the first queue cluster is as follows:

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<b>Table 2</b>						
<b>First Queue Cluster Interconnection Customers Categorized by Prime Mover Technology</b>						
Prime Mover	Number	Technology				
		WTR	NU	NG	S	W
Steam Turbine	3		1		2	
Photovoltaic	7				7	
Wind Turbine	2					2
Combined Cycle	0					
Wind Turbine/PV	0					
Combustion Turbine	1			1		
Hydraulic Turbine	1	1				
<b>Total</b>	<b>14</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>2</b>
WTR=Water; NU=Nuclear; NG=Natural Gas; S=Solar; W=Wind						

### Component 5: The Second Queue Cluster

The breakdown by technology of interconnection customers in the second queue cluster is as follows:

<b>Table 3</b>						
<b>Second Queue Cluster Interconnection Customers Categorized by Prime Mover Technology</b>						
Prime Mover	Number	Technology				
		G	NG	S	W	WTR
Steam Turbine	1	1				
Photovoltaic	25			25		
Wind Turbine	4				4	
Combined Cycle	3		3			
Combustion Turbine	2		2			
Hydraulic Turbine	1					1
<b>Total</b>	<b>36</b>	<b>1</b>	<b>5</b>	<b>25</b>	<b>4</b>	<b>1</b>
B=Biomass; G=Geothermal; NG=Natural Gas; S=Solar; W=Wind						

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**Component 6: The Third Queue Cluster**

The breakdown by technology of interconnection customers in the third queue cluster is as follows:

<b>Table 4</b>						
<b>Third Queue Cluster Interconnection Customers</b>						
<b>Categorized by Prime Mover Technology</b>						
Prime Mover	Number	Technology				
		G	NG	S	W	B
Steam Turbine	7	3		3		1
Photovoltaic	24			24		
Wind Turbine	3				3	
Wind Turbine/PV	2			1	1	
Combined Cycle/PV	1		0.5	0.5		
Combustion	6		3	3		
<b>Total</b>	<b>43</b>	<b>3</b>	<b>3.5</b>	<b>31.5</b>	<b>4</b>	<b>1</b>
B=Biomass; G=Geothermal; NG=Natural Gas; S=Solar; W=Wind						

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**Quarterly Progress in Processing the Large Generator Queue**

**Component 1: Projects Covered by Amendment 39 or the 2005 LGIP**

<b>Table 5</b>				
Component 1 Projects	Q4 2010	Q3 2010	Q2 2010	Q1 2010
Number of projects which have completed interconnection process	37	37	37	37
Number of projects which have not completed interconnection process	1	1	1	1
Number of projects withdrawn	5	5	5	5
Number of projects in this category	43	43	43	43
<b><u>Breakdown of the status of projects in this Category</u></b>				
Projects with completed studies for which LGIA not completed	1	1	1	1
Projects for which studies and LGIAs signed but which have not yet come online	15	16	16	18
Projects with signed LGIAs, which have completed interconnection process and are now online and with declared Commercial Operation Date (COD).	22	21	21	19
Number of projects withdrawn	5	5	5	5
Number of projects in this category	43	43	43	43

This grouping consists of 43 projects. The remaining item to close out this queue component is a single project for which the LGIA must be completed.

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**Component 2: The Serial Study Group**

<b>Table 6</b>				
Queue Component 2: The Serial Study Group	Q4 2010	Q3 2010	Q2 2010	Q1 2010
Number of projects which have completed interconnection process	6	3	3	2
Number of projects to be completed	61	64	66	68
Number of projects that have withdrawn from Serial Study Group	10	10	8	7
Total Number of projects in Category 2	77	77	77	77
<b><u>Breakdown by milestone</u></b>				
<b><u>Study Work</u></b>				
Projects for which studies are completed	60	59	55	50
Projects for which Facilities Study is in progress	1	4	10	17
Projects for which Systems Impact Study is in progress <sup>1</sup>	0	1	1	1
Projects for which Feasibility Study is in progress	0	0	0	0
Projects completed or withdrawn	16	13	11	9
Total Number of projects in Category 2	77	77	77	77
<b><u>Interconnection Agreements</u></b>				
Projects with completed studies for which LGIA not completed	29	31	34	29
Projects for which studies completed and LGIAs signed but which have not yet come online <sup>2</sup>	31	28	21	21
Projects with signed LGIAs, which have completed Interconnection process and are now online and with declared Commercial Operation Date (COD).	6	3	3	2
Projects for which studies have not been completed	1	5	11	18
Projects that have withdrawn	10	10	8	7
Total Number of projects in Category 2	77	77	77	77
<sup>1</sup> Feasibility studies either completed, not applicable, or waived.				
<sup>2</sup> Two LGIAs are being circulated for signatures, but yet to be fully executed.				

No additional serial study projects withdrew during Q4 2010. Subtracting the projects which had earlier withdrawn, there are 67 serial study projects which have not achieved commercial operation, a milestone which can be used to mark final completion of and exit from the interconnection process. Looking at the study phase for this grouping, three additional projects completed the study phase in Q4 2010, leaving only one project for which interconnection studies have not been completed. The facilities study is still in progress for this project. Roughly half of the active (i.e. non-withdrawn) serial study group has cleared the LGIA negotiation stage; twenty-eight have executed LGIAs and two completed LGIAs are being circulated for signature. During Q4 2010,

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construction was completed for three additional generation projects, and those projects are now in commercial operation.

**Component 3: The Transition Cluster**

<b>Table 7</b>				
Queue Component 3: The Transition Cluster	Q4 2010	Q3 2010	Q2 2010	Q1 2010
Active Projects as of beginning of Quarter	52	52	52	52
Transition Cluster eligible Projects having withdrawn during the Quarter	2	0	0	0
Projects added to Transition Cluster during the Quarter	0	0	0	0
Active Transition Cluster Projects as of end of Quarter	50	52	52	52

Two projects withdrew during Q4 following receipt of their Phase II study report, reducing the number of active transition cluster projects to 50 at the end of 2010. Large Generator Interconnection Agreements (LGIAs) negotiations have started with all customers having been tendered LGIAs and four LGIAs have been completed and fully executed. During 2010, 16 of the 52 transition cluster project sponsors targeted their projects for federal stimulus funding under the American Recovery and Reinvestment Act of 2009 (“ARRA”). The participating transmission owners and the ISO accommodated interconnection customers by completing the studies and LGIAs for customers who informed the ISO and participating transmission owner that they were seeking ARRA funding, so that ARRA deadlines requiring execution of the LGIA before the end of 2010 could be met.

The second posting of interconnection financial security has come due for some customers in the transition cluster, with the majority being due during Q1 2011. A small number of second postings are not due until Q2 2011, as these customers received a revised Phase II study reports which triggered additional time for posting as they reports either included increased customer cost responsibility or altered the in-service date of the necessary transmission upgrades for interconnection in a way that affected the customer’s desired commercial operation date.



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**Component 4: The First Queue Cluster**

<b>Table 8</b> Queue Component 4: Requests Within the First Queue Cluster under GIPR LGIP	Q4 2010	Q3 2010	Q2 2010	Q1 2010
Active Projects as of beginning of Quarter	18	22	23	23
Number of Interconnection Requests that withdrew during the Quarter	4	4	1	0
Total Interconnection Requests	14	18	22	23

The number of projects in the first queue cluster (Cluster 1) decreased over Q4 2010 to 14, as four projects withdrew during the quarter. All 14 remaining projects have posted their first interconnection financial security instrument and will proceed to the Phase II study process, beginning in January 2011. Cluster 1 projects will be combined with the Second Queue Cluster projects that make their first financial security postings in the Phase II study.

Additionally, the “SGIP transition cluster projects,” part of the GIP Amendment, will be included in this combined Phase II study. The SGIP transition cluster consists of projects smaller than 20 MW which had entered the ISO SGIP process before December 19, 2010 and for which the ISO would not be able to complete SGIP system impact or facilities studies by approximately December 19, 2010. These projects will transition to the GIP, as approved by the Commission under the Commission’s December 16, 2010 Order conditionally accepting the GIP Amendment.<sup>16</sup> A total of 65 projects are in the SGIP transition cluster, which will be studied as energy only projects.

<sup>16</sup> *California Independent System Operator Corporation* (Docket No. ER11-1830-000), Order Conditionally Accepting Tariff Revisions (December 16, 2010) (hereafter “December 2010 Order”), accessible on the ISO’s website at <http://www.caiso.com/286e/286eae8221bd0.pdf>.

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**Component 5: The Second Queue Cluster**

<b>Table 9</b> Queue Component 4: Requests Within the Second Queue Cluster under GIPR LGIP	Q4 2010	Q3 2010	Q2 2010	Q1 2010
Active Projects as of beginning of Quarter	37	39	44	44
Number of Interconnection Requests that withdrew during the Quarter	1	2	5	0
Total Interconnection Requests	36	37	39	44

Over Q4 2010, one project withdrew from the second queue cluster (Cluster 2), reducing the number of projects from 37 to 36. All of the Phase I interconnection study reports were completed and delivered to interconnection customers over the quarter. Under the cluster process, issuance of interconnection study reports is followed by “results meetings,” which provide the customer the opportunity to ask clarifying questions regarding study results. The ISO conducted all of these meetings during Q4.

The first financial security postings for project in the second queue cluster will be coming due during Q1 2011. Under the ISO’s cluster process, customers provide security for construction of the necessary network upgrades and participating transmission owner interconnection facilities in three installments, with the first and second installments being made in advance of start of construction. The first financial security instrument posting serves as the demarcation to determine what interconnection requests continue from the Phase I interconnection studies to Phase II: only those customers who make an initial posting will be included in the Phase II interconnection studies; the remaining interconnection requests will be deemed withdrawn.

The ISO will provide an update in its Q1 2011 report as to the number of interconnection requests and corresponding projects that posted their first interconnection financial security instrument and were included in the combined Cluster 1, Cluster 2 and SGIP transition cluster Phase II studies.

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### Component 6: The Third Queue Cluster

<b>Table 10</b> Queue Component 4: Requests Within the Third Queue Cluster under GIPR LGIP	Q4 2010	Q3 2010
Active Projects as of beginning of Quarter	50	50
Number of Interconnection Requests that withdrew during the Quarter	7	0
Total Interconnection Requests	43	50

Over Q4 2010, seven projects withdrew from the third queue cluster, reducing the number of projects from 50 to 43. The ISO began the Phase I studies for the cluster in November 2010.

## **PART TWO OF REPORT: COMPREHENSIVE STATUS REPORT PERTAINING TO THE STUDY PROCESS FOR THE TRANSITION CLUSTER**

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### **Initial Observations**

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During the SGIP reform stakeholder process (which, as it unfolded, was later referred to as the “Generator Interconnection Process”), it quickly became apparent, and most stakeholders agreed, that the best way to reform the SGIP was to integrate the small process into the LGIP. This can be attributed to the overall success that the participating transmission owners, customers and the ISO considered the 2008 generation interconnection procedure reform to be. Furthermore, the accelerated schedule used to accommodate customers applying for ARRA funding proved that the process timeline could be condensed successfully. This resulted in FERC approving the ISO proposed 2010 generation interconnection procedures (GIP) tariff revisions that reduced the Phase I and Phase II study timeline from 750 calendar days down to 420 calendar days, which allowed for the inclusion of small projects (20 MW and less) into the clustered study process.

There are a few issues with the clustered approach that the ISO continues to deal with, including, managing the schedule of the three Participating Transmission Owners and the ISO to keep the study process within the allotted timeline and having to issue a large number of study reports in a short period of time at the completion of each study phase. While there will continue to be a need to manage these issues, the level of concern should decrease as the process become less novel and more routine.

An aspect of the continued evaluation of the Cluster LGIP since 2008 has been the gathering of feedback and refinement of the increased financial commitment as it relates to the financial security postings. As indicated in the more detailed discussion

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below, the ISO reduced the posting requirements in the 2009 Cluster LGIP amendment, and further reduced the posting application by capping the second posting in the GIP Amendment.

### **Tariff Changes Since the Study Process for the Cluster Transition Began**

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It is the ISO's surmise that, when it imposed the reporting requirement in September 2008, the Commission contemplated that the comprehensive reporting requirement following the completion of the study cycle for the transition cluster might be the first opportunity for the Commission to "check in" on the ISO cluster process, obtain feedback as to how the cluster process was unfolding and evaluate whether the "increasing generator commitment" advanced posting requirement was serving the purpose in clearing unviable projects from the queue or whether it needed recalibrating.

It is important to note that the interconnection tariff has not remained static since the 2008 GIP Amendment. Rather, the ISO has amended the interconnection tariff twice in the interim between initial adoption of the Cluster LGIP in 2008 and January 2011. In 2009, the ISO further amended the Cluster LGIP during the time period between the ISO's completion of the Phase I interconnection studies and the start of Phase II studies. Then again in 2010, the ISO adopted the GIP which consolidated the SGIP and LGIP into one tariff process though most projects, regardless of size, would be studied under a cluster approach.

**The 2009 LGIP Amendment.** The 2009 amendment brought about three primary changes: first, a reduction in the dollar amounts of the financial security posting requirements; secondly, the caps on amounts of the customer financial security posting that the ISO retains (and the customer effectively forfeits) if the customer withdraws for

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certain specified reasons which are beyond the customer's control. This change lowered the amount of deposit that the customer has at risk if it withdraws.

Thirdly, several options were added that allowed transition cluster interconnection customers additional flexibility to modify their generation projects as they moved to Phase II of the study process. For these customers only, the ISO added the ability for such customers to request to increase in MW value (up to 130%) of their proposed generating facility or to change deliverability status from energy only (EO) deliverability status to full capacity (FC) deliverability status prior to entering Phase II.<sup>17</sup> (Under the 2008 GIPR Amendment, customers moving from Phase I to Phase II are entitled to downgrade from FC to EO status, but not the reverse.)

**The GIP.** The GIP affects large generator requests in essentially four ways. First, the study deposit amount is now based in part on the MW size of the proposed facility, so that large facilities sized between 20 and 199 MW are subject to smaller study deposit requirements.<sup>18</sup> Secondly, large projects that can move at an expedited pace and are electrically independent may qualify for the independent study process track which progresses faster than the cluster process. Thirdly, under GIP a \$15 million cap is placed on large generator second financial security deposits, thus lowering the deposits if the 30% deposit amount for network upgrades exceeds \$15 million. Fourthly, the GIP altered the Cluster LGIP study scheme under which formerly the ISO would open two queue cluster windows each year and conduct the Phase I study for each of those

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<sup>17</sup> In the stakeholder process, the ISO had proposed the ability to change delivery status from EO to FC as a permanent change available to all interconnection customers, but stakeholders objected due to gaming concerns, and so the flexibility was provided only for the transition cluster. The reason for allowing the change was that power purchase requirements (PPA) were trending toward disqualifying energy only facilities in 2009 and this afforded customers who had elected energy only at Phase I to capture greater PPA opportunities. For those transition cluster customers electing either of the two new options, the initial FSI posting amount was established at the lesser of \$20,000/MW or \$7.5 million.

<sup>18</sup> The study deposit is comprised of a \$50,000 component plus an incremental portion based on 1,000 per MW, with a cap at \$250,000 (which was the Cluster LGIP maximum). Accordingly, facilities sized at 20 MW would deposit \$70,000 (\$50,000 + \$20,000) and facilities sized at 199 MW would deposit \$249,000 (\$50,000 + \$199,000). The deposit fee for facilities from 20 to 199 MW would deposit less than the \$250,000 required before GIP. Ultimately, all customers pay actual costs which are deducted from deposits, and are billed for excess over deposit or are returned any excess deposit.

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windows in that same year and then perform a combined Phase II for those queue clusters in the subsequent calendar year. Under the GIP, the ISO has shortened the timeline, by having only one queue cluster window in March of each calendar year and a study process consisting of one shortened Phase I study, which begins June 1, followed by a shortened Phase II study beginning in January of the following year. As a result, the GIP has reduced the Phase I through Phase II study timeline to 420 calendar days as compared with the Cluster LGIP's 750 calendar days. An October window was also added to allow customers to participate in an early scoping meeting on their project. Following the early scoping meeting a customer can either keep the project unchanged for the next Phase I study with the projects that entered in the subsequent March queue cluster window, or make changes to the project and resubmit the it in the next window in March.

#### **The ISO Will Conduct a Further GIP Refinement (GIP II) in 2011**

As the ISO informed the Commission in its GIP Amendment filing, the ISO will conduct a further stakeholder process in 2011, culminating in an additional tariff amendment filing in the fourth quarter of 2011. The 2010 GIP effort concentrated almost entirely upon small generator interconnection. The 2011 effort will focus primarily on issues that were not able to be resolved during the 2010 reform process due to the aggressive schedule of reform process that was needed to resolve the small project study process as quickly as possible. In the draft final GIP Proposal paper issued in August 2010, the ISO identified various issues collected from stakeholders during 2010 for consideration in the next stakeholder iteration. In addition to these, the ISO has identified certain other issues for potential consideration. The ISO anticipates that its 2011 stakeholder effort will begin with issuance of an issue paper and stakeholder comment to scope the process.

## **Overview Discussion of the Transition Cluster Study Process Activities**

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As of September 26, 2008, the effective date of the GIPR Amendment as approved in the Commissions September 2008 Order, the transition cluster consisted of 230 requests which the ISO had deemed eligible to progress in the study cycle. After the order was issued, the ISO notified these interconnection customers, in writing, of any additional information or deposits that were required to complete their applications, requiring that they submit the information by November 25, 2008. Depending on the interconnection customer, the required items included an increased study deposit amount so as to bring their total deposit to \$250,000, a demonstration of site exclusivity (or an in lieu of such demonstration, a deposit of \$250,000) and any technical data that had not been previously submitted.

One hundred twenty two (122) projects did not submit further information by the applicable deadline, and, so were deemed to have withdrawn from the transition cluster. The ISO does not know the specific reasons that these customers elected not to proceed. In general, however, in conversations with ISO personnel, some interconnection customers generally commented that the increased study deposit amounts and/or increased site exclusivity deposits constrained their ability to proceed or limited the number of projects which a particular customer could move forward. Subtracting the 122 projects from the original 230 projects in the transition cluster left 108 projects to be processed in the transition cluster.

Transition cluster study activities began on December 1, 2008. Pursuant to the Cluster LGIP, the requests were grouped into study groups for purposes of conducting the interconnection studies. During Q1 2009, the ISO performed the on-peak and off-peak deliverability assessment studies and proposed mitigation plans for violations identified in those studies. In addition, the ISO discussed the study results with the PTOs and



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proposed mitigation plans. During this same period, the PTOs performed the power flow portion of the on-peak and off-peak reliability studies and developed proposed mitigation plans for violations identified in the power flows or supplements to the mitigation plans proposed by the ISO. Discussions between the ISO and PTOs regarding the mitigation plans for violations identified in the PTOs power flow studies began in April 2009.

No projects withdrew through Q2 2009. In Q3 2009, the ISO is completed the Phase 1 interconnection study work for the 108 projects and released the study reports to interconnection customers over late July to early September as individual reports were completed. The study results provided the customers with Phase I estimates of customer cost responsibility interconnection costs and descriptions of necessary interconnection facilities and network upgrades.

After release of the Phase I studies, the next step in the cluster process involves interconnection customer receipt and evaluation of the study results and customer discussion with the ISO and PTO in results meetings. The ISO and PTOs conducted results meetings with each of the 108 customers, intended as an opportunity for the customer to raise questions about the study results and cost estimates. The 108 results meetings were generally conducted over the time period from August 1 to September 30 2009. The 60-day time frame between Phase I and Phase II studies is intended as a period for customers to evaluate the interconnection costs and descriptions of necessary interconnection facilities and network upgrades, for purposes of determining how to proceed, and whether to proceed, to the next phase, the Phase II interconnection study step. Moving forward will requires customers to provide financial security instruments (such as letters of credit) to finance the construction of network and interconnection infrastructure.

In general, after release of the Phase I studies, parties expressed surprise at the cost of interconnection facilities.<sup>19</sup> Many interconnection customers expressed the

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<sup>19</sup> For more background on this subject, see the ISO September 2, 2009 Board Memorandum related to the September 11, 2009 Board Meeting Agenda Item to consider the Cluster LGIP 2009 Amendment entitled

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opinion that the costs were much higher than they expected them to be. In general, the cost levels were due to two primary factors. First, the transition cluster consisted of a high number of renewable projects seeking to interconnect to regions far removed from load, in some cases in remote areas where little or no transmission existed. Secondly, the transition cluster consisted of a large amount of MW capacity (in proportion to the historic MW system peak of the ISO) that sought to connect to the ISO-controlled grid at one time. Evaluating the circumstances and intent on calibrating the Cluster LGIP so as not to be a barrier to renewable generation, the ISO conducted a stakeholder process over August and September on issues centering on the financial security deposits, and, in September 2009, the ISO submitted a further tariff amendment to the Cluster LGIP, which included changes to the structure and amounts of the financial security instrument postings. The Commission accepted the 2009 Cluster LGIP Amendment in a November 2009 Order.<sup>20</sup> The revised Cluster LGIP provided additional flexibility for transition cluster customers in the modification of their projects as they moved to Phase II, lowered and capped the Phase I deposit requirements and split the remaining deposit requirement into two installments (thus spreading out the deposit installments from two to three). Under the Cluster LGIP, transition cluster interconnection customers were required to post their initial financial security on or before December 15, 2009. The initial financial security consists of two separate postings to cover the network upgrades and PTO interconnection facilities as identified in the Phase I interconnection studies. Of the 105 interconnection requests 53 customers did not post the required financial security instruments. Accordingly, as of the end of 2009, the transition cluster consisted of 52 interconnection requests.

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“Decision on Proposed Amendment to Large Generator Interconnection Procedures,” accessible on the ISO’s website at <http://www.caiso.com/241e/241ebba3386e0.pdf>.

<sup>20</sup> *California Independent System Operator Corporation*, Docket Nos. ER08-1317-005, ER09-1722-000, EI10-15-000, Order Accepting Tariff Amendments and Compliance Filing and Instituting Section 206 Proceeding, 129 FERC ¶ 61,124 (November 17, 2009). The order can be accessed on the ISO website at <http://www.caiso.com/2469/2469da8d51ab0.pdf>.

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The Phase II study activities began in January 2010. Under the Cluster LGIP timelines for the transition cluster, Phase II interconnection studies were scheduled for completion in the October 2010 time frame. However, during Q1 2010, some interconnection customers and various California representatives participating in the Renewable Energy Action Team coordination efforts to streamline renewable projects targeted to receive federal stimulus cash grants<sup>21</sup> began asking the ISO to consider how to accelerate the Phase II study projects. Accordingly, the PTOs and the ISO developed a work plan to speed up this process, with the goal of completing the studies during the June-July timeframe. By the end of Q2 2010, the ISO had prepared versions of the Phase II interconnection study reports for all but four reports had been sent the prepared reports to transition cluster interconnection customers. The four remaining reports were for projects located outside of the state of California and required resolution of several detail points which were being discussed with one of the PTOs.

During Q3 2010, the ISO completed versions of the remaining four Phase II interconnection reports and transmitted them to interconnection customers, and scheduled and conducted Phase II study results meetings to allow customers an opportunity to discuss the study results. The ISO also began the negotiation process for Large Generator Interconnection Agreements (LGIAs).

Eight Phase II study reports needed to be reissued due to errors or oversights that were discovered after the final report was issued. Additionally, a number of report addendums were required to accommodate customer requests to build telecommunication facilities. In these cases, the interconnection customer elected to build the redundant portion of the telecommunication facility itself rather than following the standard convention of having the PTO build that portion. The result of the switch from PTO construction to customer build was that the PTO cost estimates for this portion was

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<sup>21</sup> These funds are available to qualifying renewable generators under the American Recovery and Reinvestment Act of 2009 (ARRA).

“backed out” of the studies, decreasing the PTO cost estimate, and correspondingly decreasing the interconnection financial security amount for network upgrades.

## **Various Issues that Arose During Processing**

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### **1. Study process issues**

#### **a. Modification Requests After Phase II**

One of the challenges in conducting the Phase II studies for the transition cluster has been the increased level of interconnection customer modification requests as projects have progressed through the study process. Many renewable wind and solar projects are modular by their nature, comprised as they are of multiple configurations of wind turbines and or solar panels, and, accordingly, the evolution of their development can be more modular. The interconnection process, however, is less flexible, as change of generating facility design configuration mid-stream the study processes complicates them. The ISO’s observation is that customer modifications of projects and business models derive from very dynamic and changing landscape with respect to the US economy, California and federal policy on renewable development, evolving requirements of power purchase agreements, the advent of ARRA stimulus requirements, and the apparently nascent and somewhat-evolving lending requirements for lenders lending for large-scale renewable development projects. One of the results of this development environment has been that some project sponsors have made more than one modification request for the project as it progresses through the study cycles.

Another outgrowth of the current development environment is that the ISO has experienced increased customer requests for project modification not only in the interim between Phase I and Phase II studies, but in the middle of Phase II study work. In general, the Cluster LGIP process anticipates that the ISO will receive customer modification requests during the interim period between Phase I studies, which are more conceptual in nature, and Phase II studies, in which specific plans of service are

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developed. However, the ISO experienced customer requests for certain modifications after the Phase II studies were underway. These included requests for partial technology changes (i.e. to change a portion of the MW capacity of the generating facility from one technology to another), modification of capacity size (both upwards and downwards), changes of commercial operation date, and an increased desire to phase generation facility development. In general, the ISO has endeavored to act reasonably and flexibly within the parameters of the interconnection tariff in such circumstances. Rather than rejecting such requests out of hand on the grounds that the request is untimely because it comes later than the 5 business days from the results meeting (a timeframe set forth in (Appendix Y Section 6.7.2), the ISO has agreed to hear the customer out and evaluate such requests for a determination as to whether the requested change is a material modification. This is defined in the ISO Appendix A (Definitions) as “a modification that has a material impact on the cost or timing of any interconnection request or any other valid interconnection request with a later queue priority date.” The ISO has followed the business practice that if the extent of the evaluation would require the ISO to actually conduct a separate study to reach a reasonable engineering conclusion, that this signals that the request should be denied as a material modification. In certain circumstances, considering the totality of the circumstances, the ISO has permitted such changes as a limited change in the species of the technology (i.e. some MW capacity changing from solar thermal to solar PV) where the customer agreed to “hold the system harmless” by configuring the plant profile so that it remains the same as if there was no technology change, thus preventing material adverse affect (i.e. change in configuration, construction timing, increase costs) on other interconnection customers.

**b. Nominal versus constant dollars**

For some projects in remote areas where little or no transmission currently exists, the PTO estimated that the network upgrades (generally delivery network upgrades) could take up to 84 months to build. In situations where facilities may take many years to

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build, the question arises as to whether cost estimates which form the basis for the second and third financial postings should be calculated in nominal dollars (dollars unadjusted for inflation) or constant (adjusted for inflation so that all dollar-costs are referenced from a base year).<sup>22</sup>

As completed Phase II studies were reviewed for incorporation of cost estimates into draft appendices for draft LGIAs, the ISO began to understand that PTOs did not follow one common approach and practices differed among the three PTOs. While there may be reasons other than historic practice for PTOs to use a different methodology, the initial thinking of the ISO is that, on a going forward basis, it would be better if a common methodology were followed. The ISO is currently gathering information for purposes of introducing the issue for consideration in the ISO's stakeholder process planned to begin in Q1 2011.

**c. Final Report Issue (when is a final study final)**

The date upon which the final interconnection study report is completed is a critical milestone in the LGIP and LGIA process, since the date of the final Phase I study starts the 90-day clock for posting of the first financial posting, and the final Phase II report starts the 180-day clock for making the second posting. It is not uncommon for there to be modifications to the study report after the report is completed and provided to the interconnection customer. In a communication to interconnection customers, the ISO described the conditions under which the ISO determines that a revision to a study report is sufficiently significant to trigger a re-setting of the posting timeframes. The substance of the ISO's communication was as follows:

*The following limited criteria determine whether an update to a final Phase II study report warrants a change in the final report date, resulting in a corresponding adjustment to the financial security posting date. Any other changes to the final Phase II study report will not result in a change*

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<sup>22</sup> By way of reminder, the second deposit covers 30% of the cost of the facilities and third posting is for 100% of the costs of construction and is due at the start of construction activities.

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*in the date of the report or the corresponding financial security posting date.*

*If ISO or Participating TO execution of the Phase II study resulted in a report that includes errors or omissions, and the necessary updates to the report resulted in either:*

- (1) the interconnection customer's estimated interconnection costs were increased (either network upgrades or Participating TO interconnection facilities);*  
*or*
- (2) a delay to the in-service date of required network upgrades or interconnection facilities that results in an expected delay to the commercial operation date of the proposed generating facility.*

*Then the date of the final Phase II study report will be revised and the corresponding financial security posting date will be adjusted accordingly.*

The ISO is also planning to issue a market notice on the matter in the near future.

## **2. Partial deliverability assessment for Multi-Year Phased Transmission Upgrades**

Some full capacity deliverability status interconnection customers in the transition cluster face a multi-year gap between the planned commercial operation date for their generating facility (or phase of a phased facility) and the scheduled in-service dates of the transmission upgrades needed to provide them full capacity deliverability status. These customers had requested full capacity delivery status in their interconnection requests in order to be able to contract with load-serving entities to provide resource adequacy (RA) capacity to meet the load-serving entities' RA requirements. Until the transmission upgrades are completed and full capacity can be achieved, and these resources archive commercial operation, these generating facilities will not be eligible to receive RA capacity eligibility corresponding to their full facility output.

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To facilitate the customers in this situation, the ISO provided eligibility criteria under which certain eligible interconnection customers could request to be included in an advisory assessment that the ISO agreed to conduct pertaining to proposed full capacity deliverability status projects where the transmission upgrades would be constructed in multi-phase fashion (over multiple phases over multiple years). The advisory assessment estimated the expected MW amount of deliverable partial capacity for the customer's generating facility for each of the years between the time of the generating facility's commercial operation date and the completion of the multi-stage transmission upgrades necessary to achieve the generation facility's ultimate full capacity status. The ISO set out this criteria and its proposed methodology for conducting the assessment in a technical bulletin issued August 30, 2010<sup>23</sup> and conducted the assessment and provided information to pertinent customers in the form of an addendum to their Phase II interconnection studies in September 2010.

**a. Focus on Deliverability; Project Desire to Change Delivery Status**

As load serving entity contracting practice has involved over the recent few years under the increased RPS requirement of 33 percent by 2020, load serving entities have increasingly required that power suppliers show deliverability for their plant output so that the generating facility qualifies as a RA resource. This requires that the facility to have interconnected having full capacity deliverability status rather than energy-only deliverability status.<sup>24</sup> The ISO found that some transition cluster interconnection

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<sup>23</sup> See the ISO's Technical Bulletin entitled "Generator Interconnection Process, Partial Deliverability analysis for Generation Interconnection Transition Cluster Phase II Projects, accessible on the ISO's website at <http://www.caiso.com/2802/2802860e49b50.pdf>

<sup>24</sup> Full Capacity Deliverability Status is defined under the ISO Tariff (Appendix A) as

The condition whereby a Large Generating Facility interconnected with the CAISO Controlled Grid, under coincident CAISO Balancing Authority Area peak Demand and a variety of severely stressed system conditions, can deliver the Large Generating Facility's full output to the aggregate of Load on the CAISO Controlled Grid, consistent with the CAISO's Reliability Criteria and procedures and the CAISO On-Peak Deliverability Assessment.



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customers entered the interconnection process as energy-only deliverability status, but then later determined that this might be an economically disadvantageous choice in given the increasing requirement by load serving entities that generating facility qualify as a RA resource. Under the Cluster LGIP as established under the 2008 GIPR Amendment, it was not permissible for an interconnection customer to switch from energy-only to full capacity from Phase I to Phase II (only the reverse, full capacity to energy only).

Moreover, in communicating with interconnection customers, the ISO discovered that some customers mistakenly believed that ISO Tariff Section 25 (which governs when the generator interconnection process applies) permitted the customer to make an initial interconnection to interconnect a generating facility as an energy only resource and then, once interconnected, make a subsequent interconnection request for the sole purpose of converting that interconnected facility to full capacity deliverability status.

In order to address the issue, the ISO created an opportunity in the 2009 Cluster LGIP Amendment to allow energy only interconnection customers in the transition cluster only to switch from energy only in Phase I to full capacity in Phase II. In the stakeholder process, the ISO originally recommended making this a standard feature, but a significant number of stakeholders disagreed with this approach, concerned about potential gaming by interconnection customers. In addition to the change to the 2009 Cluster LGIP, the GIP included a one-time only opportunity for existing energy only generating plants and in-process interconnection customers to submit a second interconnection request in the fourth queue cluster window (now the March 2011 window under the GIP Amendment) to switch to full capacity deliverability status. This opportunity extends to both prior SGIP interconnection requests (which by definition

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This is distinct from Energy-Only Deliverability status, which ISO Tariff (Appendix A) defines as:  
A condition elected by an Interconnection Customer for a Large Generating Facility interconnected with the CAISO Controlled Grid the result of which is that the Interconnection Customer is responsible only for the costs of Reliability Network Upgrades and is not responsible for the costs of Delivery Network Upgrades, but the Large Generating Facility will be deemed to have a Net Qualifying Capacity of zero, and, therefore, cannot be considered to be a Resource Adequacy Resource.

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were energy-only under the SGIP) as well as large generators who had previously applied for energy-only status.

### **3. Financial Security Postings**

#### **a. 2009 modifications**

As indicated above, the ISO modified the financial security postings for network upgrades and made certain other changes to reduce the overall capital outlay of interconnection customers with respect to advanced postings and amounts at risk. The pertinent changes as to posting amounts can be summarized as follows:

- The first posting for network upgrades was lowered from 20% to 15% or \$20,000 per MW capacity of the proposed generating facility (or proposed addition to existing facility).
- A cap was introduced cap for the first posting where the posting could not exceed \$7.5 million for the network upgrades.
- The second posting requirement (that required 100% at start of construction activities) was split into two postings, one for 30% due 180 days after Phase II study report) and the last (increasing to 100%) at start of construction activities.

The Commission summarized the full extent of the 2009 Cluster LGIP Amendment provisions well in its November 2009 Order conditionally accepting them:

CAISO states that after receiving their Phase I interconnection study results in early August of 2009, a number of interconnection customers in the transition cluster raised concerns about the current tariff requirements for posting interconnection financial security. Specifically, CAISO states that interconnection customers expressed concern that, in light of the current constrained economic climate and high levels of regulatory risk, the amount of financial security required prior to the commencement of construction activities was overly burdensome. CAISO also states that such customers maintain that these requirements could create an incentive for projects to withdraw their interconnection requests, particularly for those interconnection customers that had not yet received regulatory approval of their power purchase agreements. Further, under the current GIPR tariff provisions, too large a portion of the posted financial security amount would be non-refundable in the event that an interconnection customer withdrew its interconnection request for a reason that was beyond the interconnection customer's control.

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CAISO states that, while it remains committed to the fundamental requirement of the GIPR that interconnection customers must provide sufficient and timely financial security so as to demonstrate project viability, it recognizes that the financial security obligations under the GIPR tariff provisions should be adjusted as appropriate based on experience and prevailing economic conditions and should not create disincentives for the interconnection of generation resources.

Among other things, CAISO proposes amendments to LGIP provisions relating to the assignment of the costs of short circuit-related reliability network upgrades (sections 6.3 and 7.3) and interconnection customer modifications to interconnection requests (section 6.7.2). CAISO also proposes certain revisions to its provisions for initial and subsequent postings of interconnection financial security (sections 9.2, 9.3, 9.4, and Appendix 2).

With respect to the amendments relating to financial security posting requirements, CAISO proposes to modify the requirements for initial and subsequent postings of interconnection financial security contained in LGIP sections 9.2, 9.3, and Appendix 2. CAISO explains that, within 90 calendar days after publication of the final Phase I interconnection study report, current LGIP section 9.2 requires that each interconnection customer post, with notice to CAISO, two separate financial security instruments: (1) an instrument in the amount of (a) 20 percent of the total cost responsibility assigned to the interconnection customer in the final Phase I interconnection study for network upgrades, or (b) \$500,000, whichever is greater; and (2) an instrument in the amount of 20 percent of the total cost responsibility assigned to the interconnection customer in the final Phase I interconnection study for the Participating Transmission Owner's (PTO) interconnection facilities.

[In the 2009 Cluster LGIP] filing, CAISO proposes to modify the amount of the first of the two interconnection financial security instruments that the interconnection customer is required to post. Under section 9.2 as modified, interconnection customers must post financial security for network upgrades equal to the lesser of (1) 15 percent of the total cost responsibility assigned to the interconnection customer in the final Phase I interconnection study for network upgrades, (2) \$20,000 per megawatt of electrical output of the large generating facility, including any requested modifications thereto, or (3) \$7.5 million, but in no event less than \$500,000. CAISO states that the modifications appropriately balance the need for required financial security amounts that are large enough to discourage speculative interconnection projects and yet not so large as to discourage the continuation of viable projects.

CAISO states that currently section 9.3 requires only a second posting of financial security. CAISO explains that within 180 calendar days after publication of the final Phase II interconnection study report or at the start of construction activities of network upgrades or the PTO's interconnection

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CALIFORNIA INDEPENDENT SYSTEM OPERATOR COMBINED Q4 2010  
INTERCONNECTION QUARTERLY PROGRESS REPORT AND COMPREHENSIVE STATUS  
REPORT FOLLOWING COMPLETION OF THE STUDY PHASE FOR PROJECTS IN THE  
TRANSITION CLUSTER

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facilities on behalf of the interconnection customer, whichever is earlier, the current section 9.3 requires that the interconnection customer post separate interconnection financial security instruments in the total amount of 100 percent of the total cost responsibility assigned to the interconnection customer (1) in the final Phase I interconnection study for network upgrades, if greater than \$500,000, and (2) in the final Phase II interconnection study for the PTO's interconnection facilities

CAISO proposes to modify section 9.3 to divide this second posting of interconnection financial security into two subsequent postings and to revise the required posting amounts. CAISO states that the purpose of dividing the second posting requirement into two separate postings is to allow the interconnection customer to provide the required interconnection security on a more gradual basis, instead of all at once.

CAISO also proposes to modify the tariff provisions concerning the effects on interconnection financial security of withdrawing an interconnection request or terminating an LGIA, including the provisions regarding the schedule for determining what portion of the financial security is rendered non-refundable by the withdrawal or termination.

According to CAISO, as modified section 9.4.1 provides that only a portion of the interconnection financial security amount posted will be refunded to the interconnection customer if it withdraws its interconnection request or terminates its LGIA for any of the following reasons: (1) the interconnection customer fails to secure a power purchase agreement after a good-faith effort to do so; (2) the interconnection customer fails to secure a permit or other authorization necessary for the construction or operation of the large generating facility; (3) there is an increase in the estimated cost of the PTO's interconnection facilities of more than 30 percent or \$300,000, whichever is greater, between the Phase I interconnection study and the Phase II interconnection study, provided that the increase is not due to the interconnection customer's modification to the interconnection configuration; or (4) there is a material change from the Phase I interconnection study in the point of interconnection for the large generating facility mandated by CAISO. CAISO states that all of these reasons are considered to be beyond the interconnection customer's control.<sup>25</sup>

In general, interconnection customers have appreciated the lowered capital outlay requirements, although some interconnection customers continue to argue that the posting requirements should be further reduced. The ISO has placed the interconnection posting requirements within the scope of the upcoming 2011 stakeholder process.

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<sup>25</sup> November 2009 Order, PP 5 -13.

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**b. Up front funding interrelation—June 2010 tariff waiver request**

As the Commission will recall, the issue of the interrelation between the advanced posting requirements and a commitment by a PTO to up-front fund network upgrades was the subject of a June 2010 waiver request by the ISO. In this regard, the ISO relayed that such factors as the increased RPS requirement and accelerated renewable development activities in California as well as the state goal of capturing ARRA stimulus funding opportunities rendered it appropriate to waive the interconnection customer advanced posting requirements for the transition cluster only for network upgrades for which the PTO had made an unequivocal commitment to up-front fund. The Commission agreed, and in its August 2010 order granted the ISO's request.

The ISO anticipates that the tariff waiver principle will be evaluated in the 2011 stakeholder effort.

**c. 2010 \$15 million Cap on the Second Financial Posting**

The second financial posting and interconnection financial security requirement was further revised in the 2010 reforms by:

- Introducing a cap for the second posting where the posting could not exceed \$15 million.
- Adding criteria to the minimum requirement to allow projects that have a total network upgrade cost of less than the required \$500k minimum to post their actual total network upgrade cost.

**4. ARRA Impact—Need for Acceleration of Processes**

Over the past year the ISO has been diligently working to accelerate the study process to allow projects applying for funding under the American Recovery and Reinvestment Act (ARRA) of 2009. An aspect of ARRA that the ISO has been especially involved in is the Treasury Department's Section 1603 cash grant program. The program allows businesses to receive a cash grant in lieu of the 30 percent federal

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Investment Tax Credit for installing solar photovoltaic systems or other renewable energy equipment.

The ISO played an integral role in making sure entities looking to develop utility-scale renewable projects met required deadlines in order to receive Section 1603 cash grants. The ISO was determined to do what it could to facilitate projects seeking ARRA funding in obtaining ARRA funding approval. Up until the end of 2010, developers were required to begin construction by the end of 2010 to qualify for funding. In order to ensure that developers met this deadline, the ISO accelerated the Transition Cluster Phase II study processes, cutting months off the original schedule.

Originally set to expire at the end of 2010, Section 1603 cash grants have been extended to the end of 2011. Congress approved this extension last December as part of the Federal tax bill. Now entities must apply for the grant by October 1, 2011 and begin construction by the end of 2011. The ISO remains committed to doing everything possible to aid in the timely study and interconnection agreement development of projects eligible for federal funds.

**a. Coordination with governor's office and REAT team, and energy agencies.**

The ISO was also busy over 2010 participating in various cross-agency action teams created in California to facilitate the development of renewable resources. The ISO's participation included providing status information at various meetings in which renewable projects were discussed and efforts to assist permitting were conducted, as the project sponsors of some of the identified projects were ISO interconnection customers.

The basis for such cooperative effort included Governor Arnold Schwarzenegger's Executive Order # S-14-08<sup>26</sup>, which raised California's renewable energy goals reflected in the states RPS to 33 percent by 2020 and provided for

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<sup>26</sup> Issued November 17, 2008. The Executive Order can be accessed at [http://www.dmg.gov/documents/EO\\_S\\_14\\_08\\_Renewable\\_Energy\\_CA\\_111708.pdf](http://www.dmg.gov/documents/EO_S_14_08_Renewable_Energy_CA_111708.pdf). (Website maintained by the Desert Managers Group.)

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coordinating activities intended to streamline and thus improve the processes for licensing renewable generation projects. The Executive Order directed state agencies to create comprehensive plans to prioritize regional renewable projects based on an area's renewable resource potential and the level of protection for plant and animal habitat. To implement and track the progress of the Executive Order, various state agencies formed the Renewable Energy Action Team (REAT). The ISO has been an active participant in weekly REAT meetings.

To facilitate the development of renewable projects in California, the Governor's office and the US Department of the Interior formed the Renewable Energy Policy Group (REPG) consisting of senior policy representatives of the Department of the Interior, the California Governor's Office, and the California Natural Resources Agency. The ISO is participating in monthly REPG meetings as well.<sup>27</sup>

In addition to REAT and REPG, the Secretary of the Interior's Order 3285 establishes a policy encouraging the production, development, and delivery of renewable energy as one of the Department's highest priorities.<sup>28</sup> The ISO actively participating with federal and state agencies, local communities and private landowners are working collaboratively with each other to encourage the timely and responsible development of renewable energy and associated transmission. The intent of this coordinated approach is to reduce the time and expense for developing renewable energy on federally-owned California land, including the priority Mojave and Colorado Desert regions.

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<sup>27</sup> Information on REPG meetings as related to nine solar thermal plants under joint review by the California Energy Commission (CEC) and federal Bureau of Land Management can be found on the CEC's website, e.g. notice of Jan 22, 2010 meeting at [http://www.energy.ca.gov/siting/2010-01-22\\_REPG\\_MEETING.PDF/](http://www.energy.ca.gov/siting/2010-01-22_REPG_MEETING.PDF/)

<sup>28</sup> Order No 3285, issued March 11, 2009 can be accessed on the US Bureau of Land Management's website at [http://www.blm.gov/or/energy/opportunity/files/order\\_3285.pdf](http://www.blm.gov/or/energy/opportunity/files/order_3285.pdf).

## ***Certificate of Service***

I hereby certify that I have this day served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 31<sup>st</sup> day of January 2011 at Folsom, California.

*/s/ Anna Pascuzzo*

Anna Pascuzzo