

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

California Independent System Operator Corp.     )

Docket No. ER11-1830

**MOTION TO INTERVENE AND COMMENTS OF  
THE LARGE-SCALE SOLAR ASSOCIATION**

Pursuant to Rules 212 and 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212 and 385.214 (2010), the Large-scale Solar Association ("LSA") respectfully requests leave to intervene and submit these comments on the California Independent System Operator Corporation's ("CAISO") proposed tariff amendments (the "Filing") to modify its Small Generator Interconnection Process ("SGIP") and Large Generator Interconnection Process ("LGIP").

**I.     COMMUNICATIONS**

LSA designates the following person for service on the Commission's service list in this proceeding:

Shannon Eddy, Executive Director  
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**II.    BACKGROUND**

The Filing proposes to modify the terms and conditions of the CAISO's open access transmission tariff ("Tariff") that set forth the interconnection procedures under the SGIP and LGIP. The CAISO initiated this current reform process in April 2010 to address certain limited issues in its current study process. As noted by the CAISO, the current study process is inefficient due to the large volume of small generator interconnection requests ("IRs") that cannot be accommodated through the serial-study process and the conflict in the study process between small and large generators. In the filing, the CAISO, among other things, proposes to adopt an integrated clustered

study process for both small and large generators in order to improve the process for all generation developers.

The CAISO used a robust and extensive stakeholder process to develop the Filing. It held four stakeholder meetings and conference calls and had an active stakeholder working group, which held four additional meetings and engaged in considerable less-formal communications. Through these forums, stakeholders provided detailed input into all stages of the development of the proposals in the Filing.

Throughout the multi-month stakeholder process that led to the September 2010 CAISO Board of Governors approval, the CAISO also issued several versions of its proposals and requested stakeholder comments. The CAISO modified many elements of its proposal in response to stakeholder comments. The CAISO also issued draft tariff language before the Filing, provided an additional comment opportunity in writing and through another conference call, and incorporated many of the additional comments received in the tariff language submitted in the Filing.

The resulting CAISO proposals benefitted tremendously from this extensive stakeholder process. The Filing would, among other things:

- Establish an integrated cluster-study process for both large and small generation projects, using the two-phase study structure now in effect for the LGIP;
- Streamline and considerably shorten that study process, from 730-1,000+ days to about 420 days;
- Add two expedited, serial-study options to that study process, for projects that are independent of other generation projects in the study process and/or would have only a small impact on the system;
- Change the study-deposit structure to one that is graduated based on project size;
- Provide opportunities for both large and small projects studied under an Energy-Only interconnection framework to obtain Full Capacity deliverability,

including those interconnected (or in the process of becoming so) under distribution-level tariffs and other rules (e.g., for non-FERC-jurisdictional municipal-utility systems); and

- Establish a cap on the second interconnection financial-security posting of \$15 million.

### **III. MOTION TO INTERVENE**

The LSA is a non-profit, non-partisan, solar advocacy association whose purpose is to support market penetration of utility-scale solar technologies through appropriate policy mechanisms. The LSA represents multiple technologies, including utility-scale photovoltaic and solar thermal energy.

LSA companies are leaders in the utility-scale solar industry and share a common understanding of, and concern about, the issues facing development of the solar industry. They are actively developing technology and strengthening markets to facilitate significant penetration of renewable energy into the western U.S. power sector, in California, Arizona, and Nevada, as well as other states, and regional and federal venues, when appropriate.

The LSA works with its member companies to represent the utility-scale solar industry in important policy discussions, furthering support for large-scale solar development. Key policy areas of focus include:

- Transmission reform and expansion
- Rational and environmentally sound land use
- Progressive pricing, tax, and utility procurement policies
- Recognition of the societal and economic benefits of climate mitigation policies

The business interests of LSA members are significantly affected by regulatory policies like California RPS requirements, the cost of, and access to, transmission facilities, and the requirements for interconnecting new generating facilities to the transmission system. As such,

LSA members may be directly affected by the outcome of this proceeding. The interests of LSA members are not adequately represented by any other party, and so granting LSA's timely motion to intervene in this proceeding is in the public interest.

#### IV. COMMENTS

##### A. **CAISO's Proposals in the Filing Represent a Significant Improvement Over the Current Bifurcated Interconnection Process.**

The current process is simply not tenable, for either small or large proposed generation projects. The CAISO cannot process the large number of SGIP IRs currently in the queue in any reasonable time period. This problem will only be exacerbated in the future, when the number of IRs undoubtedly will increase as California moves toward a 33% RPS and smaller-scale distributed technologies become increasingly economic.

Moreover, there is no realistic way to treat both large and small projects fairly in a queue-based framework when they are subject to entirely different study procedures, with entirely different timing and process requirements. Studying large and small projects together, in a streamlined and integrated process, is the fairest and most efficient way to facilitate quicker interconnection of renewable and other generation to the CAISO grid.

The dividing line between "large" and "small" projects has always been somewhat arbitrary. Renewable-energy development tends to be very area-specific, and a large number of small-project IRs is no different, substantively, than a smaller number of large IRs in the same area; there is no rational reason to treat them differently and/or separately in the transmission-interconnection process.

##### B. **The Filing Offers Significant Benefits to Large Generating Projects.**

The primary benefits of the Filing for LSA members and other large-project developers would arise from the significant proposed shortening of the IR study process. The

current LGIP timeline is very long, and the resulting prolonged uncertainty is a significant impediment to generation-project financing and development.

Integrating the study processes will also make it more likely that the CAISO would meet the deadlines in the interconnection-study process. With the more efficient use of scarce study resources provided by the proposed integrated interconnection-study process, the proposed shorter study timeline should be eminently achievable, and LSA commends the willingness of the CAISO and the Participating Transmission Owners (“PTOs”) to commit to this significant improvement to the process timeline.

**C. The Filing Offers Significant Benefits to Small Generating Projects.**

The Filing offers small projects a less-onerous path to the Full Capacity interconnection that buyers are increasingly seeking. This feature is not available under the SGIP, or under the various distribution-level small-project development procedures.

The Filing also offers small project developers the timing certainty now lacking under the SGIP. Virtually no SGIP requests are now being studied within the timelines of the SGIP, and the information in the Filing makes it clear that this situation will only get worse in the future; today, developers of such projects have no way of knowing how long their studies will take.

The Filing also offers small project developers at least some of the necessary cost certainty now lacking under the SGIP. Under the current process, small generators (like large generators) must upfront fund the actual cost of the Network Upgrades (“NU”) attributable to their projects, but they may be subject to additional costs, sometimes far into the interconnection process, if higher-queued project drop out. If the proposal in the Filing is adopted, small generators would have upfront cost certainty for their Network Upgrades early in the process, as is now available under the recently reformed LGIP.

**D. The Filing Should be Modified in a Few Aspects.**

Like most stakeholders, the LSA did not see all of its positions adopted in the CAISO Filing. Because LSA believes that the Filing is a significant improvement over the current process, and because the CAISO has committed to consider additional changes in the future (as described below), LSA does not suggest large substantive changes here.

However, LSA believes that some clarifications and small changes, which are listed in the Attachment, would improve the proposals in the Filing. Therefore, LSA requests that the Commission direct the CAISO to make those changes, and to include them in a subsequent compliance filing.

**E. The Reform Process Should Continue.**

As the CAISO and stakeholders progress through the recently reformed LGIP, it is becoming increasingly clear that additional changes will be needed. The CAISO has committed to stakeholders to consider additional changes in these areas (among others), later this year and in early 2011:

- **“Start of Construction” clarification:** Clarification of timing requirements for third interconnection financial security posting
- **Developer information:** (1) Enhanced data availability about “favorable” locations; and (2) Feasibility Study/preliminary scoping meetings to provide early siting/interconnection information
- **Study methodology:** (1) Per-unit cost issues (Phase I Study); and (2) cost-allocation methodology
- **Project financing issues:** (1) Repayment of NU amounts for plants with phased CODs; and (2) financial-security requirements for projects where the PTO provides upfront funding

- **Modifications of Security Postings:** The second and third Security Postings should be modified to reflect any modifications to cost estimates agreed to by both parties following the Phase II study report.

As noted, LSA commends the CAISO for the current Filing; however, LSA's support for the Filing should not be construed as support for all elements of the Filing, nor all aspects of the current LGIP. LSA's support for the Filing is contingent on the CAISO's commitment to address these and other GIP issues in a timely and expeditious manner. LSA requests the Commission, in its Order in this proceeding, take notice of the CAISO's commitment to address these issues and direct the CAISO to do so according to the promised timeline described above.

V. **CONCLUSION**

WHEREFORE, for the foregoing reasons, LSA respectfully moves for leave to intervene as a Party to this proceeding and submits the foregoing comments on the CAISO's Filing.

Date: November 5, 2010

Respectfully submitted,

/s/ Shannon Eddy  
Shannon Eddy  
Executive Director  
Large-scale Solar Association

## CAISO GIP REFORM FILING Recommended Modifications

### Section 3 – Interconnection Requests

#### Section 3.5.1.5 – Proposed Commercial Operation Date

- Current language

The proposed Commercial Operation Date of the new Generating Facility or increase in capacity of the existing Generating Facility shall not exceed seven years from the date the Interconnection Request is received by the CAISO, unless the Interconnection Customer demonstrates, and the applicable Participating TO(s) and the CAISO agree, such agreement not to be unreasonably withheld, that engineering, permitting and construction of the new Generating Facility or increase in capacity of the existing Generating Facility will take longer than the seven year period.

- Recommended changes: Given the 8-year estimates for some LGIP Transition Cluster transmission upgrades, it's clear that an Interconnection Request (IR) could have a COD more than 7 years out (e.g., if it will be located in an area with such long-duration upgrades), for reasons other than the time needed to construct the generating plant. The Commission should direct the CAISO to revise this language to recognize those situations, e.g., by allowing the COD to be the later of 7 years from IR submission or 3 years after expected Network Upgrade completion in the area where the plant will be located.

#### Section 4.2.2 – Short Circuit Test

- Proposed language

If the short circuit contribution from the Generating Facility (existing or proposed) being tested at the transmission facility identified in GIP Section 4.2.1(i) is less than 100 amperes, the Generating Facility shall pass the short circuit test.

- Recommended changes

- The short circuit test is unnecessary, because any upgrade overlap as a result of this test will likely be trivial. The Commission should direct the CAISO to remove it.
- If the test is retained, it should be modified to recognize short-circuit software limits. For example, SCE has indicated that its short-circuit software only has a resolution of 100 amps; thus, assuming normal rounding, it cannot distinguish between 51-amp and 100-amp contributions. If so, the criteria requires more precision than the modeling tool can support, and the Commission should direct the CAISO to change the threshold to 150 amps.

### Section 6 – Interconnection Study Process for Queue Clusters

#### Section 6.2 – Scoping Meeting

- Proposed language

The CAISO shall prepare minutes from the meeting, and provide the Interconnection Customer and the other attendees and opportunity to confirm the accuracy thereof, that will include, at a minimum, discussions among the applicable Participating TO(s) and the CAISO

of the expected results and a good faith estimate of the costs for the Phase I Interconnection Study.

- ***Recommended changes:*** The proposed revisions to the current LGIP language would change the meaning of this provision from requiring concurrence by the Interconnection Customer (IC) to simply giving the IC the opportunity to comment. At the very least, the final minutes should reflect any disagreements by the IC with the CAISO's account of the meeting. Moreover, the CAISO should be bound to distribute the minutes within a reasonable timeframe, such as 3 business days. The CAISO indicated in the tariff-language conference call that it did not intend to change the meaning of the provision, but this additional clarification was not made in the Filing.

## ***Section 8 – Additional Delivery Assessment Options***

### **Section 8.3 (No section name given)**

- ***Proposed language***

To the extent that a Participating TO's tariff provides the option for customers taking interconnection service under the Participating TO's tariff to obtain Full Capacity Deliverability Status, the ISO will, in coordination with the applicable Participating TO, perform the necessary deliverability studies to determine the deliverability of customers electing such option. The CAISO shall execute any necessary agreements for reimbursement of study costs it incurs and to assure cost attribution for any Network Upgrades relating to any deliverability status conferred to such customers under the Participating TO's tariff.

- ***Recommended changes:*** The CAISO added this provision to address situations where distribution-level projects – either those already operating or those seeking interconnection in the future – might seek the Full Capacity interconnection status on the CAISO system that would allow them to be counted toward meeting Resource Adequacy Requirements (“RARs”). We believe that this will be a significant benefit to those projects, and also to the RA program in general. However, the proposed language:

- **Excludes distribution-level generating projects not in a PTO's service area**, e.g., those in the service area of a municipal utility that is not also a PTO; and
- **Provides no certainty to developers of such projects** about the process by which they would be studied for Full Capacity status.

Instead, the CAISO language should be modified to read as follows:

An Interconnection Customer seeking interconnection to a Distribution System connected to the CAISO Controlled Grid, where the Participating TO's tariff or other applicable interconnection rules do not preclude Full Capacity Deliverability Status on the CAISO Controlled Grid, may elect a one-time option to be studied for Full Capacity Deliverability Status by entering a Cluster Application Window prior to, or immediately after, execution of the agreements necessary for interconnection to the Distribution System.

These changes would provide ICs interconnecting to any CAISO-area distribution system the same one-time election for Full Capacity status as ICs connecting to the CAISO grid, as long as the rules of the distribution utility do not prohibit such status, and under the then-existing regular CAISO interconnection-study process and timeline. The Commission should direct the CAISO to make these changes in its compliance filing in this proceeding.

### **Section 8.2.4.3**

- **Proposed language**

If the assessment of available transmission capability conducted under this GIP Section 8.2.4 indicates that there is some transmission capacity available for use by the Interconnection Customer, but less than is necessary to deliver the full output of the Interconnection Customer's Generating Facility, then the Interconnection Customer's Generating Facility will be considered to be partially deliverable, and the amount of transmission capability made available to that Interconnection Customer's Generating Facility will be equal to the determination of available capacity for the Generating Facility rounded down to the nearest 50 MW increment.

- **Recommended changes:** The CAISO, in Section 4.4.2.(5) of its Draft Final Proposal, stated that conceptual transmission congestion mitigation plans would be identified for generation assessed in the annual deliverability study that were denied Full Capacity, and would be considered in the CAISO comprehensive transmission planning process. The CAISO said in the tariff-language conference call that it would consider adding this provision, but it was not included in the Filing. The Commission should direct the CAISO to include this provision in a compliance filing, to ensure that IC desires for Full Capacity status, as well as those of their buyers, are considered in the planning process.

## **Section 9 – Interconnection Financial Security**

### **Section 9.2**

- **Proposed language:** The proposed language accurately reflects the \$15 million cap on the second interconnection financial-security posting.
- **Recommended changes:** This proposal is intended to apply to all second security postings, including those due from the Transition Cluster in early 2011. The CAISO confirmed that interpretation in the stakeholder process and said that the intent would be made clear in the transmittal note for the Filing to the Commission.

However, though the cap is mentioned on p.30 of the transmittal note and on pp.30-31 of the Prepared Testimony of Stephen Ruddy, neither text explicitly references the LGIP Transition Cluster. The Commission should clarify, in its Order in this proceeding, that this provision would apply to the LGIP Transition Cluster.

## **GIP Appendix 1 – Interconnection Request – Attachment A**

The technical data requested should be modified as follows:

- **Section 11a (Collector System Equivalenced Impedance Data):** The data request is inconsistent – it asks for equivalenced data but refers to the data for each collector circuit. Instead, the equivalenced data should be submitted as per the draft “WECC Guide for

Representation of Photovoltaic Systems In Large-Scale Load Flow Simulations” or its wind counterpart (WECC Wind Power Plant Power Flow Modeling Guidelines” dated May 2008). These documents include a data form to be completed by the IC for the equivalenced model.

- **Section 12:** The requirement should allow the IC to provide the electrical data to populate the PSLF models, since not all generators have access to the PSLF software and can provide the data in the \*.epc format.

#### ***GIP Appendix 4 – Agreement for Allocating GIP and Study Responsibilities Attachment A – Interconnection Study Responsibility Allocation***

- **Queue cluster study timeline:** This timeline inappropriately allows for consideration of modifications to LGIP-identified upgrades in the annual CAISO transmission-planning process. This provision reflects the CAISO’s “Revised Transmission Planning Process” proposal filed in DocketER10-1401; however, FERC has accepted but suspended that filing, so this provision should be deleted from the Filing. It can be added later if and when FERC accepts that element of the RTPP.
- **Other study timelines:** The timelines for the Independent Study Process and Fast-Track Process should also be included in this Appendix (or separate Appendices).

#### ***GIP Appendix 8 – Additional Delivery Assessment Options***

##### **Section 4.3**

- **Proposed language**

An Interconnection Customer in the SGIP Transition Cluster must post, within thirty (30) calendar days of the effective date of this Appendix 8, all of the following: (i) a Study Deposit equal to the amount set forth in Section 3.5.1 of Appendix Y, if it has not done so already; and (ii) a Demonstration of Site Exclusivity, if it has not done so already. An Interconnection Customer that does not satisfy these posting requirements will be withdrawn from the SGIP Transition Cluster. Interconnection Customers who withdraw from the SGIP Transition Cluster will be refunded the entire amount of their Study Deposit upon withdrawal, less any amounts that the CAISO, Participating TO(s), and third parties have incurred in performing studies on the Interconnection Customer’s behalf.

- **Recommended changes**

- **Site Exclusivity:** Requirement (ii) makes no sense here, because SGIP projects had to demonstrate Site Control (a stronger demonstration than “Site Exclusivity”) to have had a valid SGIP IR.

Moreover, even if they did not meet this requirement for some reason, they should be allowed to post an “in-lieu” deposit instead, consistent with the proposed new process. The CAISO indicated on the tariff-language conference call that it intends to give these projects the same Site Exclusivity options as LGIP projects, but that change was not included in the Filing. The Commission should direct the CAISO to add this provision.

- **Refund provisions:** These provisions should exclude “third parties;” costs for any third parties under CAISO or PTO contract would count under CAISO-/PTO-incurred expenses,

and implying that there could somehow be some separate costs aside from this type of subcontract arrangement will only add confusion.

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list of Docket No. ER11-1830 and in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Oakland, California, this 5<sup>th</sup> day of November 2010.

/s/ Ellen Berman  
Ellen Berman