



Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market and Infrastructure Development

Date: July 18, 2018

Re: **Decision on Initial Interconnection Process Enhancements**

This memorandum requires Board action

EXECUTIVE SUMMARY

Over the years, the ISO has made numerous policy and process improvements regarding how it manages the generator interconnection study process and generator interconnection queue. These changes, many of which were designed to address specific concerns of renewable energy developers, have resulted in a very effective interconnection process. The ISO is now in a position of continuous improvement where certain refinements and clarifications to the interconnection process are required to manage projects in the current interconnection queue and to provide additional structure and clarification for projects seeking to interconnect in future queue clusters.

The ISO and its stakeholders identified a total of twenty-five (25) topics for inclusion in the interconnection process enhancements initiative this year. Some will require tariff amendments and some will result in modifications to the business practice manuals. Seven topics have reached successful conclusion in the stakeholder process and are being presented here for Board consideration. The remaining topics requiring tariff changes will be presented at future board meetings this year. The specific seven topics being presented here for Board consideration include the following:

1. Revise the tariff to incorporate reference to the new resource implementation process;
2. Exempt participating transmission owners from posting interconnection financial security to themselves;
3. Specify that if an upgrade is identified in the Phase I report but is determined to no longer be needed prior to the initial financial security posting, then the posting requirement will be revised prior to the posting;
4. Incorporate the execution of the generation interconnection study process agreement in the interconnection request;

5. Require interconnection customers to provide a copy of their power purchase agreement when demonstrating commercial viability;
6. Increase the deposit for customer-requested repowering studies and serial re-studies from \$10,000 to \$50,000 consistent with the cost of recent studies; and
7. Clarify that modifications to generator projects after they achieve commercial operation is based on the impact to total capability and electrical characteristics, not the impact to projects in the queue.

Management recommends the following motion:

Moved, that the ISO Board of Governors approves the proposed interconnection process enhancements, as described in the memorandum dated July 18, 2018; and

Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed interconnection process enhancements, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.

DISCUSSION AND ANALYSIS

The ISO currently has 319 active projects in the interconnection queue that have not achieved commercial operation. One hundred fourteen (114) of these were submitted during the open application window in April of this year. In order to effectively manage the interconnection and queue processes continuous improvement in the form of policy modifications and clarifications to the interconnection process are required. To that end, Management is seeking Board approval of the following items:

Modify the tariff to reference the new resource implementation process:

New generators seeking interconnection to the ISO are required to go through the ISO generator interconnection request process. Generators that pre-existed the ISO and operate under grandfathered power purchase agreements (typically qualifying facilities) can convert to a participating generator status upon expiration of their original agreement, and receive interconnection service under a 2-party or 3-party generator interconnection agreement with the ISO and participating transmission owner.¹ Besides going through the agreement conversion process, these generators are also required to go through the new resource implementation process, which ensures compliance with interconnection requirements (while accounting for the age of these generators). The ISO believes that it should clarify these procedures in the tariff to make them more

¹ Most of these entities are currently listed under the investor-owned utility's agreements and need to execute new agreements with the ISO and provide separate metering and telemetry. Distribution connected resources execute interconnection agreements only with the participating transmission owner.

transparent. Any tariff amendment would be for clarification purpose only, and would not create new obligations.

Modify the participating transmission owner posting requirements:

Interconnection customers currently post interconnection financial security to participating transmission owners for the construction of their network upgrades and interconnection facilities. There currently is no distinction in the tariff for projects where the interconnection customer itself is also the participating transmission owner. Pacific Gas and Electric Company (PG&E) proposed that participating transmission owners should not have to post financial security to themselves when they develop new generation projects interconnecting to their own areas. PG&E has noted that the participating transmission owners have already successfully petitioned FERC for case-by-case waivers on this issue, which FERC has granted.² This tariff change would codify what FERC has already approved and removes the administrative burden from both the participating transmission owners and FERC to waive the posting on a case-by-case basis. This tariff change would also clarify that a participating transmission owner that withdraws their generator interconnection request will be required to provide non-refundable funds to the ISO similar to any other interconnection customer.

Impact of modifications on initial financial security posting:

Between the issuance of the Phase I study and the initial interconnection financial security (IFS) posting, changes such as project withdrawals or network changes may cause network upgrades identified in the Phase 1 study to no longer be needed.³ If a network upgrade is no longer needed, then that will be reflected in the Phase II studies, however, no changes are made to the Phase I study report or the associated financial security posting requirements. This can create an unnecessarily excessive financial burden to interconnection customers particularly if the no longer needed upgrade is expensive. To address this, the ISO proposes that if engineering judgement can definitively determine that a required network upgrade in an interconnection customer's Phase I study report is no longer needed, and that determination is made in advance of the initial financial security posting, the interconnection customer should not be required to post financial security for that upgrade.

Revise the generation interconnection study agreement process:

Currently interconnection customers submit an interconnection request and then execute a generator interconnection study process agreement (GISPA) after the project is validated. The ISO proposes to incorporate the GISPA into the interconnection request so that they are executed together.⁴ To achieve this efficiency, the interconnection request form would be changed slightly to incorporate the GISPA. In addition, the ISO would establish that the interconnection requests could only be submitted by an authorized signatory of the interconnection customer.

² See, e.g., FERC Docket No. ER18-859-000.

³ This financial posting is due 90 calendar days after the issuance of the Phase I report or 40 calendar days after issuance of the revised final Phase I report.

⁴http://www.caiso.com/Documents/AppendixDD_GeneratorInterconnectionAndDeliverabilityAllocationProcess_asof_Mar8_2016.pdf

The ISO also will clarify that interconnection customers must submit the \$150,000 interconnection study deposit within the interconnection request window (and not during the validation/correction window).⁵ Absent the deposit, the ISO does not have funds to process and validate the interconnection request. Interconnection requests that lack a deposit by the close of the interconnection request window will be denied.⁶

Revise requirements for power purchase agreements:

The ISO requires interconnection customers to demonstrate commercial viability criteria with a power purchase agreement if they are requesting an extension of their commercial operation date beyond the maximum period allowed in the ISO tariff. In these cases, the ISO requires the interconnection customer to provide a copy of the power purchase agreement so the ISO can verify that the project capacity and the power purchase agreement capacity match for purposes of retaining deliverability.⁷ This requirement ensures accurate project-to-power purchase agreement data relationship and a robust and transparent commercial viability process. In order for interconnection customers to modify the project's commercial operation date, the power purchase agreement must match the specific generating facility. The CAISO proposes no changes to this process, but intends to move the requirement from the BPM for Generator Management to the tariff for greater transparency.

Increase repower study and serial re-study deposit amount:

When electing to request optional studies, interconnection customers are required to submit an initial deposit (currently \$10,000). Once the study is completed, interconnection customers pay the remaining actual study costs or are credited if actual study costs are less than the deposit. The ISO has observed that the current \$10,000 deposit is often insufficient for covering repowering study and serial re-study costs, forcing the ISO and PTOs to seek additional funds from the customers. The ISO thus proposes to increase the study deposit for repowering and restudy of serial projects to \$50,000 as a reasonable and prudent amount. The ISO selected the \$50,000 amount because the repower and serial re-studies are reaching this amount and selecting a lower amount would continue to result in further shortfalls. Moreover, projects often withdraw from the queue and dissolve their LLCs before paying these shortfalls, leaving the shortfall with the participating transmission owner and ISO ratepayers. CAISO will also include the standard invoice process for these studies.

Clarify criteria for modifications after the commercial operation date is achieved for the project:

Interconnection customers frequently struggle to understand the criteria the ISO uses to determine whether their project modification request will be approved. This confusion frequently stems from the fact that the ISO applies different criteria depending on whether the project is in the interconnection process or has already achieved

⁵ The ISO posts in advance the timing of the interconnection request window. In 2018, the interconnection request window was April 1st to April 16th therefore, both the application and the funds were required to be received by April 16th.

⁶ The ISO notes that this clarification is not true for Site Exclusivity Deposits. Often interconnection customers submit site exclusivity documentation that is deemed insufficient. Interconnection customers will continue to have the opportunity to cure this deficiency with either further documentation or submitting a \$250,000 deposit within the cure window.

⁷ BPM for GM section 6.5.2.2

commercial operation. For modification requests to projects that are still in the interconnection process, the generator interconnection procedures base modification approval on whether the modification affects the scope, schedule, or budget of another project in the queue. For modification requests to projects that have already achieved commercial operation, Section 25 of the tariff allows existing, online generating units to request modifications to their generating facility if the total MW capability of the generating facility and its electrical characteristics do not substantially change. The ISO proposes to clarify and make more transparent which test applies when. In addition to the clarification, stakeholders requested that the ISO allow projects to downsize after they have achieved commercial operation. The ISO previously only allowed post-commercial generating facilities to downsize in 2014. As such, the ISO proposes to remove the limitation for downsizing after achieving the commercial operation date of the project.

POSITIONS OF THE PARTIES

The ISO conducted stakeholder outreach on these topics consisting of an issue paper on January 24, 2018 and straw proposal on May 21, 2018. Stakeholders were able to provide comments at each phase and were generally supportive of the proposed changes with some exceptions. Specifically, CalWEA recommended in its reply to the Issue paper that the participating transmission owners continue to seek waivers at FERC on a case-by-case basis versus modifying the tariff to exempt their posting requirement. Further, in the comments to the straw proposal CalWEA commented they could agree to not requiring the participating transmission owners to seek waivers provided they provide documentation that the generation is required to meet the participating transmission owner's load. Management believes the additional administrative burden of filing on the participating transmission owners and FERC is not productive nor does the ISO want to be in a position of validating generation need. With respect to increasing the re-power study and serial re-study deposit amount CalWEA and sPower generally agreed but recommended raising the deposit to a median historical cost number (~\$25,000) and sPower opposes the increase on the grounds that they have not received timely refunds of their study deposits. As stated above, Management selected the \$50,000 amount because the re-power and serial re-studies are reaching this amount and selecting a lower amount would continue to result in further shortfalls. Moreover, projects often withdraw from the queue and dissolve their LLCs before paying these shortfalls, leaving the shortfall with the participating transmission owner and ISO ratepayers. The ISO agrees with sPower that we need to be timelier in refunding deposits and have been working with the participating transmission owners to accomplish this.

CONCLUSION

Management recommends that the Board approve the seven changes proposed in this memorandum. These changes are generally supported by stakeholders and were refined to address many of their comments and concerns throughout the stakeholder process. The proposed modifications will continue to improve the ISO's ability to

administer the queue more efficiently as we move closer to meeting California's ambitious renewable energy and environmental goals.