Memorandum

To: ISO Board of Governors

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

Date: July 8, 2014

Re: **Decision on interconnection process enhancements**

This memorandum requires Board action.

EXECUTIVE SUMMARY

California's ambitious renewable portfolio standards and environmental goals have stimulated significant activity by developers of new generation projects, especially new renewable solar and wind projects. The majority of proposed projects request interconnection to facilities under the operational control of the ISO and thus participate in the ISO generator interconnection process. Traditional interconnection procedures have not been entirely suited to the characteristics and total volume of the proposed renewable projects, however, the ISO has undertaken a series of major reforms in recent years to adapt its procedures to the new renewable development landscape.

The interconnection process enhancements stakeholder initiative is the latest in a series of stakeholder processes that the ISO has conducted to improve its generator interconnection process and associated interconnection agreements. The ISO launched this initiative in April 2013 with fifteen generator interconnection related topics for consideration in scope. Management proposals to address many of these topics have already received approval from the ISO Board of Governors. In this memorandum Management is presenting its proposal to address the remaining two open topics in this initiative: (1) the timing of reimbursement to interconnection customers for the transmission upgrades that they have funded; and, (2) redistribution of funds forfeited by withdrawn interconnection customers.

Although there are existing tariff rules in place that address both of these topics, most stakeholders indicated a preference to develop an improved approach on these topics and replace the existing rules. Toward this end, Management worked with stakeholders through this initiative to develop the following two recommendations.

First, Management recommends that reimbursement for required network upgrades be predicated both on a project achieving commercial operation and the upgrades being placed into service. Thus, reimbursement for network upgrades already in service will

commence upon the generating facility or phase of the generating facility that requires those upgrades achieving commercial operation, as specified in the generator interconnection agreement. Reimbursement for required network upgrades placed in service subsequent to the date the generating facility or phase of the generating facility achieves commercial operation will commence no later than the beginning of each calendar year for those required network upgrades placed in service during the prior calendar year.

Second, Management recommends a new method for redistributing funds forfeited by withdrawn interconnection customers that will reduce the costs of certain network upgrades still required for remaining interconnection customers and will reduce transmission access charges for transmission ratepayers.

Management recommends the following motion:

> ***Moved, that the ISO Board of Governors approves the proposal for the timing of reimbursement to interconnection customers for the transmission upgrades that they have funded and redistribution of funds forfeited by interconnection customers, as described in the memorandum dated July 8, 2014; 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 tariff change.***

DISCUSSION AND ANALYSIS

Timing of reimbursement to interconnection customers for the transmission upgrades that they have funded

Under the ISO's existing tariff rules, the timing of repayment of interconnection customer funding for network upgrades (i.e., reimbursement by the participating transmission owner to the interconnection customer) differs depending on whether a generator project is phased or non-phased.[1] For phased projects, transmission cost reimbursement does not begin until the commercial operation date of each completed phase and all network upgrades to support the desired level of deliverability for each completed phase are in service. For non-phased projects, transmission cost reimbursement begins upon the commercial operation date of the generating facility.

[1] A phased generating facility is a generating facility that is structured to be completed and to achieve commercial operation in two or more successive partial implementations or phases that are specified in the generator interconnection agreement, such that each phase comprises a portion of the total megawatt generation capacity of the entire generating facility. In contrast, a non-phased generating facility is a generating facility that is structured to be completed and to achieve commercial operation in its entirety at one time.

This topic was originally placed within the scope of this initiative because these rules left stakeholders desiring a different approach. Some generation developers took the position that network upgrade reimbursement should begin for all projects – whether phased or non-phased – once commercial operation is achieved. These generation developers further expressed concern that the current rules for phased projects could result in refunds being delayed for years for the last remaining network upgrade required by an interconnection customer while other network upgrades funded by the same interconnection customer are already in-service. In contrast, some participating transmission owners took the position that network upgrade reimbursement should not begin until all network upgrades are completed. Some participating transmission owners also believe that there is no logical basis for a difference in treatment between phased and non-phased generating facilities.

As a result, Management worked with stakeholders to develop a proposal that balanced several objectives: (i) alignment with the policies and requirements of the Federal Energy Regulatory Commission Order (FERC) No. 2003 series of orders that repayment for transmission assets should begin once those assets are utilized to deliver the output of the interconnection customer's generating facility; (ii) elimination of the differential treatment of phased and non-phased projects with respect to timing of reimbursement; (iii) broad stakeholder support; and, (iv) application of any new rules on a going forward basis.

After several rounds of proposals and stakeholder comments, Management's resulting proposal meets these objectives and is described by the following three elements.

First, reimbursement for required network upgrades already in service will commence upon the generating facility or the phase that requires those upgrades achieving commercial operation, as specified in the generator interconnection agreement.

Second, reimbursement for required network upgrades placed in service subsequent to the generating facility or phase achieving commercial operation (including those under construction at the time of the commercial operation date of the project or project phase) will commence at the beginning of each calendar year for those required network upgrades placed in service during the prior calendar year. Each annual reimbursement commencement period will last no more than five years.

Third, Management proposes to revise the tariff to apply these new rules on a going-forward basis to both phased and non-phased projects. The ISO believes that the appropriate balance between harmonizing the repayment rules and existing customer expectations is to apply this new policy beginning with customers who have not yet received a generation interconnection agreement. However, to avoid a situation in which customers in the same cluster, or even in the same study group, could be subject to different repayment rules, Management proposes to apply these new rules beginning with the customers in the first cluster in which no projects have been tendered a generator interconnection agreement at the time of FERC approval.

Redistribution of funds forfeited by withdrawn interconnection customers

Interconnection customers that withdraw from the interconnection queue may forfeit funds they have posted. These funds are comprised of unused study deposits intended to cover the costs of interconnection-related studies and financial security postings intended to secure their shares of network upgrades required for reliable interconnection to the grid and, where requested by the customer, deliverability of their output to qualify to provide resource adequacy capacity.[2] The total amount of funds forfeited in 2013 and available for redistribution[3] is approximately $16.4 million.

The existing method for redistributing forfeited funds follows the ISO's provisions for redistributing financial penalties collected for other reasons, which allocates shares of the forfeited funds to all scheduling coordinators in proportion to the amount of grid management charges they paid during the relevant year. This method was applied to interconnection funds forfeited during 2012 and in prior years.

Revising the redistribution method was raised early in the interconnection process enhancements initiative. Most stakeholders indicated a preference to replace the existing method with some method that applied the forfeited funds to reduce the costs of transmission facilities, though stakeholders differed in their preferences for how this should be done. After several rounds of ISO proposals and stakeholder comments, Management now proposes the following two-part method for redistributing the funds forfeited by withdrawn interconnection customers.

The two-part method entails applying a portion of the forfeited security postings to reduce the costs of specific network upgrades, as described below, and applying the rest of the forfeited funds to reduce the transmission revenue requirements of participating transmission owners, thereby reducing transmission access charges. It is important to note that both parts of the method ultimately reduce transmission access charges for transmission ratepayers. The first part, however, targets specific network upgrades needed by interconnection customers who remain in the queue, thus reducing the upgrade cost responsibilities of those customers. Management proposes to apply the new procedure annually to the total funds forfeited during each calendar year. The two parts are discussed in further detail as follows:

[2] An additional but usually small portion of the forfeited funds may come from security postings by customers that sought interconnection to the utilities' distribution systems and were found to require network upgrades on the ISO system.

[3] In some instances a withdrawing customer may have failed to pay all or a portion of an invoice from the participating transmission owner for a portion of the funds needed for construction of a network upgrade. In such cases, funds forfeited by the customer will be applied first to unpaid invoices. The approach described in this memorandum is intended to apply to the forfeited funds available after deducting the amounts needed to pay unpaid invoices.

First part: reducing the costs of specific network upgrades

Early in each calendar year the ISO begins the reassessment process as part of the generator interconnection and deliverability allocation procedures (GIDAP). One function of the reassessment is to determine which if any previously needed network upgrades can be eliminated or reduced as a result of project withdrawals in the prior year. Through this process the ISO will identify, for each withdrawn customer, those network upgrades for which the customer had cost responsibility prior to withdrawing, and which are still needed by other customers who remain in the queue after the withdrawal. For each of these upgrades, the ISO will apply the portion of the withdrawn customer's forfeited security posting that was associated with the still-needed upgrade to reduce the cost of that upgrade. To this end the ISO will provide the funds as a "contribution in aid of construction" to the participating transmission owner responsible for constructing the still-needed upgrade.

Because the cost of the still-needed upgrade is reduced in this manner, there will be a corresponding reduction in the transmission revenue requirements of the relevant participating transmission owner, thus benefitting transmission ratepayers. In addition, the ISO will use the lower upgrade cost that results from this use of the forfeited funds in calculating any reallocation of upgrade cost shares under the GIDAP reassessment process, thus benefitting interconnection customers that remain in queue and have cost responsibilities for the still-needed upgrade.

Of the $16.4 million of funds forfeited in 2013, approximately $15.5 million was from security postings by customers seeking interconnection to the ISO grid.[4] Of these funds, approximately $1.25 million was associated with nine network upgrades still needed after the withdrawals. The amounts of funds associated with a given still-needed upgrade can be quite small, however (as little $1,200 for one upgrade in 2013), so Management proposes to apply the funds to offset the costs of a specific upgrade only when the amount applicable to that upgrade is at least $100,000, which is still a relatively small amount in the context of network upgrades. On this basis, approximately $1.19 million of the 2013 funds would be applied to reduce the costs of four still-needed upgrades.

Second part: reducing transmission access charges

The second part of the approach involves the redistribution of forfeited security postings that were associated with network upgrades that are no longer needed after forfeiting customers' withdrawals, and forfeited study deposits.[5] Based on the results of the first part, this part would apply to roughly $15.2 million of the 2013 total.

Management proposes to divide these funds into two categories:

[4] The $16.4 million 2013 total also included $868,000 in security postings by customers seeking interconnection to a utility distribution system and needing upgrades on the ISO grid, and $53,000 in unused study deposits.

[5] This would also include forfeited funds not allocated to specific network upgrades because they did not meet the $100,000 threshold.

a) Security deposits associated with no longer needed regional or high-voltage network upgrades (i.e., facilities rated at or above 200 kV), plus forfeited study deposits. For this category, the ISO will accumulate the total amount forfeited by all withdrawn customers and then apportion shares for each participating transmission owner proportional to each entity's share of the total high-voltage transmission revenue requirements for the entire ISO system, as of December 31 of the year in which the funds were forfeited.[6]

b) For each participating transmission owner, security deposits associated with needed local or low-voltage network upgrades (i.e., below 200 kV) on that entity's system.

Each participating transmission owner will then receive a share of these funds comprised of its pro rata share of category (a) plus its specific category (b). The ISO will transmit the funds to each participating transmission owner well before the end of third quarter of each year, to enable that entity to reflect these funds in its annual FERC filing of its transmission revenue balancing account, which upon FERC approval is reflected in transmission access charges for the next calendar year.

POSITIONS OF THE PARTIES

Most stakeholders either fully support, or support with qualification, Management's proposal on the timing of transmission cost reimbursement. These stakeholders include Pacific Gas and Electric Company (PG&E), Large-scale Solar Association (LSA), California Wind Energy Association (CalWEA), Southern California Edison Company (SCE), and the Cities of Azusa, Banning, Colton, Pasadena, and Riverside, California (Six Cities). The qualifications expressed and Management's responses are summarized in the attached stakeholder matrix.

Only one stakeholder, Independent Energy Producers (IEP), opposes Management's proposal on the timing of transmission cost reimbursement. IEP states that it opposes Management's proposal because it does not comport with FERC Order No. 2003, specifically the requirement that an interconnection customer receive full reimbursement for network upgrades that it has funded within five years of achieving commercial operation. Management disagrees with IEP's conclusion. As explained during the stakeholder process leading up to this proposal, this issue was addressed by FERC in the context of a prior ISO generation interconnection process tariff amendment. Therein, FERC accepted the ISO's proposal to base the time period for reimbursement of network upgrades for phased generating facilities on both the achievement of commercial operation and the placement into service of the related upgrades. Finding that repayment of network upgrades is appropriately tied to the utilization of the

[6] In some cases an entity's transmission revenue requirements as of December 31 (or any particular date) may be subject to revision and refund at a later time. Because these amounts are used only to determine pro rata shares of the forfeited funds, and such funds will be relatively small compared to overall transmission revenue requirements, Management proposes not to make any revisions to the redistribution of forfeited funds to reflect revisions to transmission revenue requirements.

transmission provider's network, FERC concluded that the ISO's proposal to require that network upgrades associated with a particular phase be in service prior to the commencement of the five-year repayment period was just and reasonable and consistent with FERC's interconnection policies. Despite the fact that FERC decided this matter in the context of phased facilities, FERC did not state or suggest that its reasoning was specific to phased facilities, nor does the ISO believe there is any logical reason that FERC's reasoning should be so limited.

As shown in the attached stakeholder matrix, all but one of the submitted stakeholder comments either fully support or do not oppose Management's proposal on the redistribution of funds forfeited by withdrawn interconnection customers. One submission, from Large-scale Solar Association and California Wind Energy Association (LSA/CalWEA), supports Management's proposal but argues that it should go further in using forfeited security deposits to reduce the costs of network upgrades for remaining customers in the electrical areas of the withdrawn customers. Specifically, LSA/CalWEA argue that forfeited security that was originally posted to apply to network upgrades that are no longer needed should not be redistributed in accordance with the second part above, but should instead be applied to reduce the costs of other network upgrades needed by customers in the same electrical area as the withdrawn customer, even though the withdrawn customer had no cost responsibility for those upgrades.

In response, Management points out that the first part of the above proposal accurately reflects what LSA/CalWEA had requested in a previous comment submittal, and also aligns with a principle that Management finds to be reasonable. That is, if an amount of forfeited security was originally posted to apply to a specific network upgrade and that network upgrade is still needed, that amount should still apply to the cost of the same upgrade. Management finds it problematic, however, to apply forfeited security funds to other network upgrades for which they were not originally intended. A primary concern is that there is no justifiable basis to decide which network upgrades should receive cost reductions from such funds. Using the funds to benefit remaining customers in the same electrical area as a withdrawn project, as LSA/CalWEA suggest, would be only one possible basis for allocation. Management expects that other stakeholders could come up with other defensible ideas if the use of these funds is opened up for further discussion. Since transmission ratepayers ultimately pay the costs of all network upgrades, Management believes that its proposed two-part approach provides an appropriate benefit to customers who have shares of the costs of still-needed upgrades, while returning the remaining funds to ratepayers as expeditiously as possible.

CONCLUSION

Management recommends that the Board approve the proposal described in this memorandum. Management's proposal is broadly supported by stakeholders and was refined over the course of the initiative to address their comments and concerns. Management believes that this proposal will further enhance the generator interconnection process to better accommodate the needs of interconnection customers.