Memorandum

To: ISO Board of Governors

From: Karen Edson, Vice President of External Affairs

Date: September 2, 2009

Re: **Decision on Proposed Amendment to Large Generator Interconnection Procedures**

This memorandum requires Board action

EXECUTIVE SUMMARY

The California Independent System Operators Corporation's (ISO) Management asks the ISO's Board of Governors (Board) for authorization to modify the Large Generator Interconnection Process (LGIP) to mitigate the impact of today's constrained financial climate in combination with high interconnection costs and high levels of regulatory risk.

Two proposed changes affect the LGIP on a going forward basis and would:

- Revise the calculation of both the overall financial security requirement and the posting amounts at risk to levels that are reasonable yet continue to test project viability.
- Modify the basis of reliability network upgrade cost allocation from pro-rata mega watt (MW) to short circuit duty contribution – a change affecting only future interconnection clusters.

Other recommended changes would affect only the processing of the transition cluster and would:

- Give interconnection customers included in this transition cluster a one time opportunity to increase their project capacity or change their status from energy only to full capacity.

Overall, these changes reflect a balance between imposing financial security amounts that appropriately test project viability and amounts that are unreasonable in today's financial market and permitting climate. Management is bringing this proposal to the board on an accelerated basis, in order to enable a tariff filing with the Federal Energy Regulatory Commission (FERC) on a schedule making it possible for FERC to act before the time to

post initial additional financial security generally around a December 1, 2009 date (dates vary depending on the exact date the customer received its own Phase I interconnection study report).

Management would like to thank the extraordinary efforts of the stakeholder community in providing valuable input on these matters in a very short timeframe. Management also understands that internal and external forces on generation development are continually changing and that there is an ongoing need to examine the process and consider necessary changes. Management commits to address stakeholder concerns on an ongoing basis and address future amendments to the LGIP in a more systematic manner.

Management seeks the following action by the Board:

MOTION

Moved, that the ISO Board of Governors authorizes the amendments to the Large Generator Interconnection Procedures as described in the memorandum dated September 2, 2009; and

Moved, that the Board authorizes Management to make all the necessary and appropriate filings with FERC to implement proposal.

BACKGROUND AND DISCUSSION

2008 reform of the LGIP under the GIPR initiative

In July 2008, Management proposed and the Board approved a major revision of the LGIP, called the Generation Interconnection Process Reform (GIPR). The GIPR initiative was driven by the backlog in the interconnection queue under the then-applicable LGIP. At that time, the ISO had 361 interconnection requests totaling more than 105,000 MW pending in the ISO interconnection study process. Of these, over 68,000 MW were from renewable resources. These requests far exceeded the ISO's historic peak demand of 50,270 MW and also exceeded the ability of the then-applicable LGIP to process the requests efficiently.

Two primary goals for the GIPR reform effort were to:

1) Clear the backlog of interconnection projects in the queue, by establishing new financial obligations that would cause speculative projects to drop out of the queue, while not over burdening the ones likely to be successful.
2) Process interconnection requests more efficiently by studying them under a group study approach, to avoid the need to conduct a new study each time a project withdrew from the queue.

The Board approved the GIPR initiative in July 2008 and FERC accepted it in September 2008.

Current Status

The GIPR initiative, approved by the Board in July 2008, essentially divided projects in the then-existing queue into three groups – (1) those pending projects that would be continue to be processed under prior serial study processes; (2) projects that would be studied in the transition cluster (a group that would transition to the new reformed LGIP process); and (3) future projects that would be studied in future clusters. Work on the first group continues unaffected by this proposal.

The new study process required the transition cluster projects to submit a $250,000 study deposit (and another $250,000 deposit if they did not have project site control) on November 25, 2009, in order to be studied in the first phase of studies (Phase I studies). As a result of these requirements, 122 projects dropped from the transition cluster, leaving approximately 39,000 MW of capacity. (Of this, approximately 31,500 MW are from renewable generation.) This reflects 108 projects, contained within 12 geographical areas that moved forward for Phase I study. Attachment 1 is a map displaying the location and capacity under consideration in the transition cluster and includes the location of renewable energy zones identified in the Renewable Energy Transmission Initiative process.

The ISO, working closely with the participating transmission owners, completed the Phase I cluster studies on schedule, and all interconnection customers received their Phase I study reports by August 5, 2009. These reports provide critical information, including cost estimates and schedules to help determine project viability. Currently, the ISO is in the process of having a study "results meeting" with each interconnection customer, which allow interconnection customer to discuss the study results with ISO and the applicable participating transmission owner. These meetings should be completed by October 1, 2009.

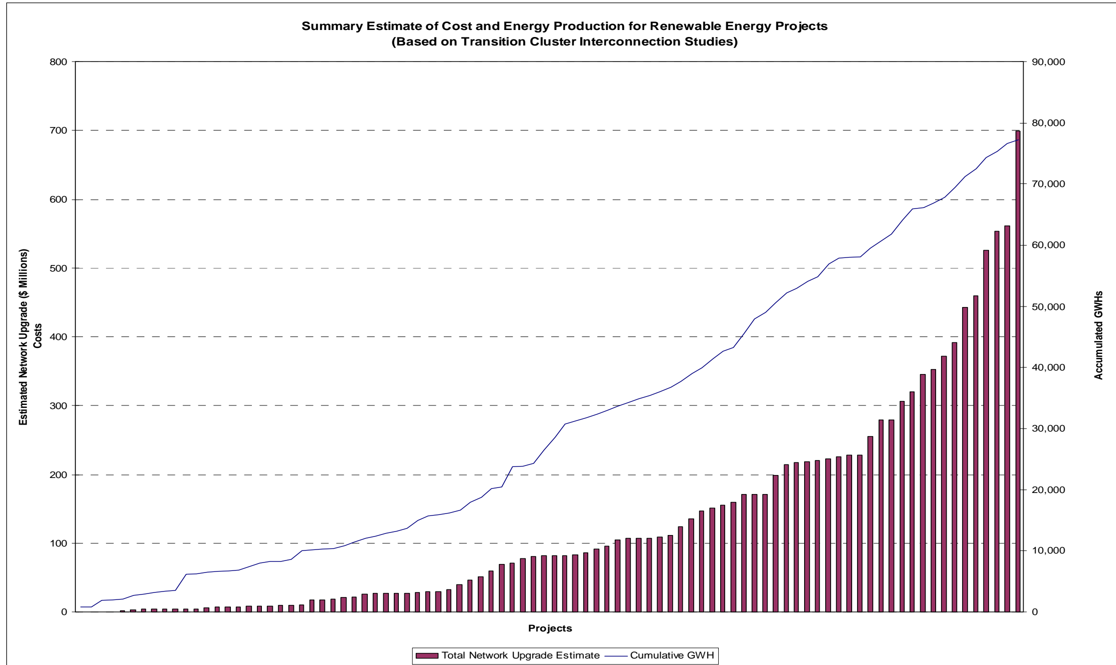
In order to move into the next study phase, each interconnection customer must, within 120 days of having received its own report, post its initial financial security. The project-specific dates depend on the day the customer received its specific report. All interconnection customers will have elected whether or not to post financial security by December 1, 2009.

Justification for amending the LGIP

1. *ISO experience with the transition cluster and feedback from stakeholders*

Upon receiving the Phase I study results in early August, numerous interconnection customers raised concerns about the high posting amount required under the tariff and the portion of the posting (50%) that would be at risk if the project were later withdrawn. They stated that even strong projects might withdraw before the time to post the 20% financial security, particularly if the interconnection customer had not yet received regulatory approval for its power purchase agreements.

The following chart illustrates the range of allocated network upgrade costs associated with the 108 interconnection requests. Based on the requirement to post 20% of the network upgrade costs, for example, a project that is allocated $200 million in network upgrade costs would need to post financial security of $40 million by December 1, 2009 of to be eligible to be included in the second study phase (”Phase II studies”).



2. *External driving forces*

Requiring increased financial commitments from an interconnection customer was an important part of the GIPR reform, as FERC recognized in its order accepting the GIPR proposal.[1] Management reaffirms its commitment to this feature but is recalibrating it to incorporate experience in processing the transition cluster and to reflect marked changes in the development world since July 2008.

- **Accelerated renewables resources policy** - California state policy has moved from a 20% renewable portfolio standard (RPS) by 2010 to a 33% RPS by 2020.[2]
- **Economic downturn** - The US economy is in the midst of a recession of a magnitude not experienced in decades, which has had a particularly serious impact on U.S. and international financial markets. These events increase the difficulty of gaining access to investment capital.

[1] FERC's September 26, 2008 order is posted to the CAISO Website at http://www.caiso.com/2051/20517cf513430.pdf
[2] On November 17, 2008, California Governor Arnold Schwarzenegger signed Executive Order S-14-08, which calls for a renewable portfolio standards target of 33% by 2020. The executive order is posted on the Governor's Website at http://gov.ca.gov/executive-order/11072/. Legislation to place the requirement in statute is pending before the State Legislature.

Scope and Timing of the Proposal

Management is proposing narrowly focused tariff changes that address the current situation, reflect a high level of consensus, and allow the current process to stay on schedule. To remain on schedule, it is critical to finalize the changes in time to file with FERC before September 15, 2009 -- the date that allows for a FERC ruling in time for interconnection customers to post their financial security to continue in the process to Phase II. Waiting any longer would disrupt the established time for beginning the Phase II studies and would extend the Phase II study schedule to such a degree that gains associated with modifying the LGIP could be outweighed by the negative impact on the projects in the queue.

Below is the timeline of the stakeholder process for considering these issues and related Board and FERC review:

- August 18 – Market notice and posting of proposed tariff amendments
- August 24 – Comments due
- August 27 – Stakeholder conference call
- August 31 – Final tariff language posted
- September 2 – Second stakeholder call for description of final proposal
- September 10-11 – Board Meeting
- Shortly following Board Action – File with FERC
- Early November – Anticipated FERC decision
- About December 1, 2009 – Initial financial security instruments required to be posted to continue to Phase II studies

Management Recommendation

1. *Proposal restructures the interconnection financial security requirements and timing for posting of financial security*

The draft proposal to stakeholders did not change the initial posting amount (20% of network upgrades). However, after reviewing written and oral stakeholder comments, the ISO agrees that both the required LGIP initial posting amount required 90 days after Phase I studies and the subsequent posting amount required 180 days after Phase II studies (currently 100%) should be reduced. The following table illustrates the existing and proposed amounts and timing for the posting of financial securities:

Amount of Financial Security Postings		
Postings and Timeframes	**Existing Tariff**	**Proposal**
Initial financial security posting (90 days after Phase I studies are complete)	20% of network upgrades (min $500,000) and 20% of PTO interconnection facilities, both as identified in the Phase I studies	Lesser of 15% of network upgrades as identified in the Phase I study, $20,000/MW, or $7.5 million (min$500,000); and 20% of PTO interconnection facilities as identified in the Phase I studies
Second posting (180 days after phase 2 studies are complete)	100% of network upgrades (min $500,000) as identified in the Phase I study and 100% of PTO interconnection facilities, as identified in the Phase II studies	30% of the lower of network upgrades, as identified in the Phase I or Phase II studies (min $500,000); and 30% of PTO interconnection facilities as identified in the Phase II studies
Proposed third posting (start of construction)	N/A	100%

With regard to financial security requirements, stakeholders generally agreed that limiting the amount of the initial and second posting of financial security was warranted. Recommendations as to what that amount should be varied widely, however:

- The Independent Energy Producers (IEP) proposed that the initial amount be limited to the lesser of $5,000 per MW or $2.5 Million.
- The Large Scale Solar Association (LSA) proposed the lesser of $20,000 per MW or $5 Million.
- SCE and others proposed to keep the initial amount at 20% of interconnection costs. The company expressed concern that, if the requirements are too low, speculative projects will not drop out <u>*prior*</u> to the Phase II studies, but would drop out <u>*after*</u> the Phase II studies, and that this would trigger restudies and delay final project design. In further written comments, however, SCE has indicated that it could support the lesser of 15% of network upgrades, $25,000/MW, or $10 million.

Management believes its proposal to lower the overall financial security requirement properly balances the need for a financial hurdle sufficient to cause speculative projects to drop out of the process yet at a level that allows viable projects to continue.

Stakeholders raised three additional concerns in the stakeholder process regarding financial security requirements.

1) SCE and PG&E argued that the second posting of 30% of the network upgrades as identified in Phase II studies should incorporate an adder as determined by the PTO to cover expenditures for long lead time equipment; and
2) Many interconnection customers asked the ISO to align the 100% funding requirement, due at the start of construction, with the timing of major segments of the required upgrade, some of which may be many years off.

3) Another issue involves whether the proposed reductions in posting amounts should extend beyond network upgrades to include PTO interconnection facilities.

Although these issues may be valid, Management does not feel there is enough time to fully understand their impact on PTOs or interconnection customers. Management will continue to consider these ideas, and, if warranted, will open a stakeholder process in the future to develop recommended tariff or Business Process Manual (BPM) changes. With the second installment not due until June of 2011, there is time to hold a later stakeholder process, if appropriate.

2. *Proposal modifies the provisions that allow customers to recover a portion of their posted financial security when they withdraw a project for specified reasons beyond the customer's control.*

The existing LGIP allows an interconnection customer to recover 50% of its financial security amount for network upgrades if one of four conditions causes the interconnection customer to withdraw from the cluster. These conditions, considered to be out of the interconnection customer's control, are: (1) regulatory rejection of the power purchase agreement, (2) failure to obtain a permit to construct/operate, (3) an increase of more than 30% in interconnection cost, provided the increase is not attributable to the interconnection customer, or (4) a material change in the interconnection customer interconnection facilities caused by an ISO change in the point of interconnection. An interconnection customer cannot recover any its financial security if it withdraws from the cluster for a reason other than one of these four conditions.

Stakeholders voiced concern that 50% retained amount of financial security was too great. Management agrees and proposes a dollar per megawatt cap on the amount security retained in the event one of these four conditions arises.

The table below indicates the existing LGIP financial retention requirements and management's proposal:

Amount of Financial Security at risk upon withdrawal for defined reasons		
Timeframe	**Existing Tariff**	**Proposal**
After the initial financial security and up to 180 days after final Phase II study report is issued	50% (1/2) of the 20% financial security for network upgrades min $250K	1/2 of the standing financial security up to max $10K/MW*
Between 181 days and 365 days after Phase II study report is issued	50% (1/2) of the 100% financial security for network upgrades min $250K	1/2 of the standing financial security up to max $20K/MW
Between 366 days and 445 days after the Phase II study report is issues	80% (4/5) of the 100% financial security for network upgrades min $250K	1/2 of the standing financial security up to max $20K/MW
Anytime after 446 days after Phase II study report is issued	100 %	100% at start of construction of Network upgrades

* This maximum continues to apply through the start of construction of network facilities in the event a project fails to secure a PPA or necessary permit.

Most stakeholders agreed with this proposal, although a few written comments asked the ISO to lower the retention amounts even further.

The following table provides examples of various sized projects and the corresponding maximum initial financial security and the amount of this security that would be at risk should the project withdraw.

Plant Capacity in MW	Initial Financial Security (Lesser of $20K/MW or $7.5 million, Min $500K)	Amount at risk upon withdrawal (Lesser of 50% of posting or $10K/MW)
20	$500,000	$200,000
50	$1,000,000*	$500,000
100	$2,000,000*	$1,000,000
250	$5,000,000*	$2,500,000
375 or greater	$7,500,000*	$3,750,000

* These amounts could be less if 15% of the estimated network upgrades is lower than these levels.

In addition, the Large Solar Association and others asked the ISO to expand conditions for recovering financial security amounts to include: 1) loss of an approved power purchase agreement for reasons beyond the interconnection customer's control, such as delays in construction of needed transmission network upgrades; and 2) imposition of permit conditions on the interconnection customers that are beyond the scope of the original application.

As noted above, Management does not feel there has been enough time in this accelerated process to consider any additional proposed modifications. Management will continue to consider these ideas, and, if warranted, will open a stakeholder process in the future to consider Tariff or Business Process Manual (BPM) changes.

3. Proposal allows interconnection customers in the transition clusters to modify their interconnection request between the Phase I and Phase II interconnection studies.

A number of interconnection customers have requested the ability to: 1) add additional MW capacity to their interconnection request; or 2) change from an energy only resource to a full capacity resource. Several reasons underlie these requests. In some cases, improvements in generation technology since the interconnection request was submitted led to increased facility output. Also, scoping meetings for the transition cluster projects occurred before the creation of the transition cluster. As a result, some customers did not fully understand the ramifications of selecting full capacity or energy only in their interconnection request.

Management agrees that the unique timing and circumstances of the transition cluster study process contributed to these issues. Management originally proposed to permanently amend the LGIP to allow for these types of changes, within limits.

However, stakeholders voiced concerns about possible unintended consequences and advised against making a permanent change.

Accordingly, Management's final proposal contains the following two amendments to the LGIP *for the transition cluster only*:

1) A project in the transition cluster may request an increase in the MW amount, not to exceed 30% more than the original request.
2) A project may change the deliverability status from energy only to full capacity.

A transition cluster project electing to make one of these two changes will initially face the following posting requirements--the lesser of $20,000 per MW of the revised total plant capacity, or $7.5 million. The second and third posting of financial security for projects electing to make one of these changes, however, will be based on the Phase II study results and will not be capped by the Phase I study results.

Some stakeholders asked the ISO to consider reducing the required financial security if they: 1) reduce MW capacity output, or 2) change deliverability status from full capacity to energy only. Management did not incorporate this change in the belief that the financial caps included elsewhere in this proposal provide sufficient relief.

4. Proposal modifies the reliability network upgrade cost allocation based on short circuit duty contribution instead of on a pro rata MW basis

Management recommends changes to the LGIP Tariff to better align cost causation with the allocation of short circuit-related reliability network upgrades identified in the Phase I and Phase II studies. Without the change, costs would continue to be allocated pro rata based on MW size rather than on short circuit duty contribution to cost. Management proposes to apply this change prospectively to future clusters. Stakeholders supported this change.