

# Memorandum

To: ISO Board of Governors  
From: Keith Casey, Vice President, Market & Infrastructure Development  
Date: May 10, 2010  
Re: *Decision on Revised Transmission Planning Process*

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*This memorandum requires Board action.*

## EXECUTIVE SUMMARY

A primary function of the ISO is to plan for and promote the enhancement and expansion of transmission capability within its footprint to meet the evolving needs of the system. In considering how best to plan transmission to achieve California's ambitious goal of meeting the state's electricity demand with 33 percent renewable energy by the year 2020, Management recognized the need to revise the current transmission planning process. The changes proposed to the existing process were driven by the following factors:

- The need for an unprecedented amount of new transmission over the next decade to deliver energy from new renewable resources;
- The need to adopt a statewide perspective and take a comprehensive, whole-system approach to transmission planning and approval, rather than the current project by project approach;
- The need for a new tariff-based criterion for approving transmission projects that address state energy policy goals requiring access to renewable energy supply resources; and
- The need to address the new challenges while continuing to fulfill the ISO's ongoing responsibilities as planning authority for its balancing authority area and the requirements of FERC Order 890.

With the proposal presented here, Management addresses these needs through carefully targeted enhancements to the existing transmission planning and generation interconnection processes. This enhanced transmission planning process was referred to throughout the stakeholder process as the "Renewable Energy Transmission Planning Process" (RETPP). But as the proposal has evolved Management now recognizes that it is more appropriate to refer to it as a revision of the ISO's current transmission planning process, reflecting the fact that the transmission needs driven by environmental

or other state policy goals must be integrated with the existing transmission planning requirements and processes so as to provide a single, comprehensive, annual transmission plan. The revised process will:

1. Develop a statewide conceptual transmission plan through collaboration among all transmission providers in California, through the structure of the California Transmission Planning Group (CTPG);
2. Finalize that plan for the ISO balancing authority area with sufficient detail both to support formal findings of need and to elicit specific proposals to build the needed renewable access transmission;
3. Establish, in the ISO tariff, transmission infrastructure needed to meet state energy policy goals (such as access to renewable supply resources) as a formal criterion for assessing need for specific transmission upgrades and approving their cost recovery through regulated rates;
4. Incorporate into a single planning process key activities and milestones of the ISO's existing transmission planning and generation interconnection processes in a practical way;
5. Enable transmission infrastructure development to move forward expeditiously and efficiently to support the state's environmental goals;
6. Provide meaningful opportunities for stakeholder participation and input to the process;
7. Provide opportunities for qualified independent transmission developers to build and own elements of the ISO plan that are not covered under the tariff transmission categories that assign the projects to the participating transmission owners (PTOs) to build; and
8. Maintain full compliance with the FERC's Order 890.

The stakeholder process to develop the revisions to the ISO's transmission planning process began in September 2009 with the release of an initial ISO straw proposal. Since that time the ISO team posted two revised straw proposals, a draft final proposal, a revised draft final proposal on April 2 and a supplement to that proposal on April 28. The team held numerous stakeholder meetings and conference calls and received written stakeholder comments following each proposal. The most recent stakeholder comments were received on April 15 and May 6 in response to the April 2 and April 28 proposals, respectively, and are summarized in a separate document accompanying this memorandum. In addition, by the time of the Board meeting, staff will have completed the first of two rounds of stakeholder discussion of draft tariff changes to implement the revised transmission planning process. With Board approval Management plans to file the required tariff changes at FERC by June 1.

Management notes that there are some controversial elements of the proposal, and in the course of the stakeholder process the ISO has considered alternative ways to address stakeholder concerns. Management now believes that the proposal presented here for Board approval strikes an optimal balance among the various interests and concerns of the stakeholders. The revised transmission planning process offers an approach that maximizes California's ability to realize the transmission expansion needed to achieve the 33 percent renewable energy policy goal in a timely and cost effective manner, while maintaining all the requirements of a comprehensive, Order 890-compliant annual transmission planning process.

Management now requests that the Board approve the following motion:

***Moved, that the ISO Board of Governors approves the proposal to revise the transmission planning process, as detailed in the memorandum dated May 10, 2010; 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.***

## **SUMMARY OF THE PROPOSAL**

The proposed transmission planning process is structured in three phases.

### ***Phase 1 – Collaborative statewide planning and development of the ISO study plan***

In Phase 1, the ISO and other participants in the California Transmission Planning Group (CTPG), building on the work of the Renewable Energy Transmission Initiative (RETI), begin the collaborative process to produce a statewide conceptual transmission plan for access to renewable resources to achieve the 33 percent RPS target. The work of the CTPG actually began in 2009 and will result in a conceptual statewide transmission plan by early July which will be a key input to the ISO's Phase 2 process described below. It is important to note that the CTPG is not a decision making body, so the ISO and the other California planning authorities participating in CTPG will follow their own rules and processes for approving and funding transmission projects.

Also in Phase 1, in parallel to the CTPG effort, the ISO's planning department will conduct its annual stakeholder process to develop the unified planning assumptions and study plan for the ISO balancing authority. For this year, this activity has already been completed. Starting with the 2011/2012 annual cycle, the Phase 1 stakeholder process will also provide the opportunity for participants to submit economic planning study requests, which help to focus the ISO planners' efforts on areas of the grid where transmission upgrades may yield significant economic benefits. The results of this track of Phase 1 – the study plan – provide the basis for the ISO's planning studies that mark the beginning of Phase 2.

## ***Phase 2 – Development of a comprehensive transmission plan for the ISO footprint***

Phase 2 begins as the ISO planners start to perform the studies specified in the study plan. At the same time, the work of the CTPG continues with ISO staff participation to complete the conceptual statewide plan. The goal of Phase 2 is to develop a final comprehensive transmission plan for the ISO balancing authority area that includes the transmission additions and upgrades Management has concluded are needed to support renewable access and to meet the other infrastructure needs of the grid. To arrive at the final Phase 2 plan ISO staff will refine the portion of the statewide conceptual plan that applies to the ISO balancing authority area to identify the most cost-effective transmission additions and upgrades needed to achieve 33 percent renewable energy.

Phase 2 will provide opportunities for stakeholders to submit comments on the CTPG conceptual plan, which ISO staff will consider in developing the final Phase 2 plan. During this period, ISO staff will also accept, and integrate into the final Phase 2 plan, proposals by participating transmission owners (PTOs) to build reliability projects to meet needs identified in the ISO's reliability studies, as well as merchant transmission projects (for which the developer is not seeking cost recovery through the transmission access charge), upgrades needed to maintain the feasibility of long-term congestion revenue rights, and interconnection projects identified through the large generator interconnection process (LGIP) or proposed under the location constrained resource interconnection facilities tariff provisions. Phase 2 concludes with Management's presentation of the final comprehensive transmission plan for Board approval in March of each year, fifteen months after the start of Phase 1.

A crucial component of the ISO's infrastructure development process is the LGIP. For large network upgrades identified in the interconnection studies performed under the LGIP, the proposal contains a provision that allows further evaluation of these upgrades within the Phase 2 transmission study process. This approach ensures a more comprehensive assessment of whether these identified upgrades are the best solution or whether there are better alternatives. For 2010, however, in recognition of the urgency surrounding certain generation projects that are in the current LGIP study process (such as projects eligible for stimulus funding under the American Recovery and Reinvestment Act, the ISO will have the discretion to exempt the identified network upgrades for these projects from assessment in the transmission planning process so that the project developers can complete their interconnection agreements in a timely manner.

The revised process also provides that the ISO will conduct economic planning studies in Phase 2 and use these to identify transmission elements that provide cost-effective economic benefits such as congestion cost reduction to be included in the final Phase 2 plan. For the 2010 cycle, the ISO will use these studies as the basis for evaluating the economic project proposals that were submitted in the 2008 and 2009 transmission planning request windows. The parties who submitted those projects that Management finds to be needed based on an economic assessment will be allowed to build and own the approved facilities, subject to the following conditions:

1. The ISO finds the project is needed as a Category 1 element (see definition below);
2. The party meets certain minimum qualifications;<sup>1</sup>
3. Only one party submitted a proposal for the project (if more than one party have submitted proposals to build the same transmission elements, the ISO will apply the Phase 3 procedure for deciding between competing proposals, described below in the Phase 3 discussion); and
4. The elements of the project are not under existing tariff transmission categories that assign the project to another party (i.e., PTO) to build.

At the end of Phase 2, the ISO will produce a final comprehensive transmission plan for the ISO balancing authority area that includes the transmission additions and upgrades Management has concluded are needed to support renewable access as well as the other infrastructure needs of the grid. Each of the specific elements of the transmission plan will be designated as either a Category 1 or Category 2 element. Category 1 transmission elements are those elements the ISO has a high level of confidence are needed for renewable access, based on sufficient commercial interest from new generation to ensure that the new transmission capacity will be efficiently utilized, or that are found to be economically justified based on the economic assessment. The ISO will seek Board approval of Category 1 transmission elements. Category 2 elements are those elements that will potentially be needed, but whose approval must await further evidence of commercial interest to minimize the risk of under-utilized transmission capacity. Category 2 elements will not be submitted to the Board for approval but will be included in the final Phase 2 plan to identify them for consideration in the next annual cycle of the planning process.

### ***Phase 3 – Receive proposals to build the Category 1 elements identified in the transmission plan***

In Phase 3 the ISO will receive proposals to build the Category 1 elements of the Phase 2 plan. Non-PTOs will be able to submit proposals to build those Category 1 elements that are not covered under existing tariff categories that assign the projects to the PTOs to build. The elements open to non-PTO proposals will be those renewable-access transmission facilities that are not identified in completed interconnection cluster studies for generation projects in the ISO's current interconnection queue, and any economically justifiable elements identified by the ISO.<sup>2</sup> ISO staff will evaluate the submitted proposals for technical completeness and consistency with the requirements of the final Phase 2 plan

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<sup>1</sup> Such minimum qualifications will be identified in the ISO tariff and will include determination that (1) the project proposal satisfies applicable reliability criteria and ISO planning standards, (2) the sponsor is financially, technically and physically capable of completing the project in a timely manner, (3) the sponsor has a track record of successfully completing projects of comparable magnitude and scope, and (4) the sponsor is capable of operating and maintaining the facilities consistent with good utility practice and applicable reliability criteria for the life of the project.

<sup>2</sup> For the 2010/2011 cycle, the sponsor of an economic project submitted to the 2008 or 2009 request window and approved by the ISO will be entitled to build the project, as discussed under Phase 2.

and, upon finding them acceptable, will refer the proposals to the state siting authorities for their approval processes. In situations where multiple parties submit proposals to build the same element of the final Phase 2 plan and they are subject to different siting authorities, the ISO will decide based on clear criteria which one to approve for cost recovery through the transmission access charge. There will be a period of at least 90 days for parties to submit such proposals to the ISO, after which, if any of the needed elements in the final Phase 2 plan do not have acceptable proposals, the ISO may require one of the PTOs to build.

One critical goal of this first cycle of the revised process is to complete the Phase 2 transmission plan for the ISO balancing authority area in time for presentation to the Board in March 2011, so that initial project approvals to build the Category 1 elements of the plan can be granted expeditiously. To accomplish this goal the ISO team is already engaged in the critical-path activities of the revised process. The ISO team is currently working with other California planning authorities and transmission owners through the CTPG to develop the statewide conceptual plan by July 2010. In addition ISO planners have completed the unified planning assumptions and the study plan for the ISO balancing authority area and are in the process of performing the study plan studies. This will ensure that needed reliability projects identified in that process can be folded into the final Phase 2 plan. Such activities are consistent with existing ISO tariff provisions and have not required Board or FERC approval to proceed.

## **STAKEHOLDER VIEWS AND MANAGEMENT RESPONSES**

In general stakeholders are supportive of the fundamental design features being proposed; specifically they support:

- The development of a conceptual statewide plan for planning and building new transmission to achieve state renewable energy goals;
- The three-phase structure of the revised transmission planning process;
- The incorporation of key activities and processes of the current transmission planning process and generation interconnection process into the revised process, so that the ISO will have one integrated planning process resulting in an annual comprehensive plan for the ISO balancing authority area;
- The establishment in the tariff of a new criterion, based on access to resources needed to achieve state policy goals, for approving transmission infrastructure projects and recovering their costs through the transmission access charge;
- The opportunity for parties other than PTOs to submit proposals in Phase 3 to build elements of the ISO's comprehensive plan.

There are some highly controversial features of the proposal, however, as summarized below. Additional details on these issues and Management's responses are provided in the stakeholder summary document accompanying this memo.

- First, independent transmission companies argued that opportunities for them to build needed transmission would be extremely limited. They were concerned that most if not all renewable access elements in the ISO's comprehensive plan would be related to generation in the interconnection queue and as such would automatically be given to PTOs to build. In addition, they objected to the provision in an earlier ISO proposal that any of the economic project proposals that were submitted to the ISO in the 2008 or 2009 request windows and found by the ISO to be needed would be open to all qualified parties to propose to build. They argued that under current tariff provisions the party that proposed the project would have the right to build it.

To address these concerns Management has modified the proposal in two ways. First, the proposal now clarifies that transmission elements needed for renewable access will be reserved for PTOs to build only in cases where the elements result from completed ISO interconnection studies for generation in the current queue cluster. Renewable access Category 1 transmission elements that are not driven by the current or prior LGIP interconnection studies would be open to both non-PTOs and PTOs to build. Second with regard to economic project proposals submitted in the 2008 and 2009 request windows and found by the ISO to be needed, the proposal now states that the party that submitted the proposal would be entitled to build it under the conditions discussed above in Phase 2. Management believes these changes should address the concerns raised in an effective and fair manner.

- Second, many parties were concerned that the proposal did not provide a process for deciding between competing proposals when more than one party proposes in Phase 3 to build the same element of the ISO's comprehensive plan. They argued that the ISO should make such decisions, instead of deferring to the state siting authorities. Deferring such decisions to the state siting processes would, they argued, (1) cause all of the project sponsors to incur substantial costs in preparing their applications, which would be a complete loss to all but the winning project sponsor and would therefore be an impediment to participation by otherwise capable entities, and (2) defer some projects indefinitely because currently there is no state process for making such decisions when the competing project sponsors are subject to different siting authorities.

To address this concern, Management agreed to augment the proposal with provisions whereby the ISO would evaluate and decide between competing proposals to build the same

element of the final plan when different state siting authorities are involved. For instances where multiple project proponents would all be seeking siting approval from the same siting authority, the ISO would still defer to that authority to make the decision.

Third, many parties have asked for additional details about how the generator interconnection process will work during 2010. They expressed concern that by integrating LGIP related upgrades into the revised transmission planning process it would delay the ability for generation project sponsors to sign their large generator interconnection agreements (LGIAs), and as a result cause some of these projects to be disqualified from receiving federal stimulus funding under the American Recovery and Reinvestment Act.<sup>3</sup>

In response, Management proposes to allow these projects to continue with their LGIA negotiation and signing without having to wait for the final Phase 2 plan to be completed. Any transmission projects that are specified in such LGIAs would then become input assumptions to the formulation of the Phase 2 plan.

Please refer to the stakeholder summary document attached to this memorandum for additional details about stakeholder views on various aspects of the proposal and Management's responses.

## **MANAGEMENT RECOMMENDATION**

With the noted modifications discussed above, Management now believes that the proposal presented for Board approval strikes an optimal balance among the various interests and concerns of the stakeholders. The revised transmission planning process offers an approach that maximizes California's ability to realize the transmission expansion needed to achieve the 33 percent renewable energy policy goal in a timely and cost effective manner, while maintaining all the requirements of a comprehensive, Order 890-compliant annual transmission planning process. Management recommends the Board approve the proposed modifications to the ISO transmission planning process described herein and authorize Management to make all necessary and appropriate filings with FERC to implement this policy.

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<sup>3</sup> The American Recovery and Reinvestment Act requires certain milestones to be achieved by eligible renewable generation projects no later than December 31, 2010. These milestones depend on the project receiving from its lenders and expending certain of its project funds through specific activities, which in turn depend on its having a completed LGIA.