



California ISO
Your Link to Power

Renewable Energy Transmission Planning Process (RETPP)

Second Draft Final Proposal

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Introduction

The central objective of the ISO's proposed renewable energy transmission planning process (RETPP) is to enhance the existing transmission planning and generation interconnection processes to promote the development of infrastructure needed to achieve the state's 33 percent renewable portfolio standard (RPS) by 2020. To this end, the proposed RETPP will: (1) develop a statewide conceptual transmission plan through collaboration with other transmission providers and owners in California; (2) finalize that plan for the ISO balancing authority area (BAA) with sufficient detail both to establish needs and to elicit specific proposals to build the needed transmission elements; (3) establish, in the ISO tariff, access to renewable supply resources in order to meet state RPS goals as a formal criterion for assessing need for specific transmission upgrades and approving their cost recovery through regulated rates; (4) enable transmission infrastructure development to move forward expeditiously and efficiently to support the state's environmental goals; (5) coordinate in a practical way RETPP activities and milestones with key ongoing activities of the ISO's existing Order 890 compliant transmission planning process and the generation interconnection process; and (6) provide opportunities for stakeholder participation and input to the process.

The design of the RETPP is based on the recognition that the state's ambitious 33 percent RPS target will require significant spending on transmission infrastructure over the coming decade, which, to be most cost-effective, should be planned from a comprehensive statewide perspective. The task is made more challenging by the fact that because transmission development takes so long, it must proceed while there is still some uncertainty about where much of the new renewable generators will be concentrated. In the face of such uncertainty, transmission planning must both ensure that needed facilities will be operational in time to deliver energy from the new renewable generating resources coming on line, while at the same time avoiding the incurrence of excessive costs for under-utilized transmission facilities. These considerations all figure into the design of the RETPP proposal. In addition, to address the current uncertainties about the timing and location of substantial new renewable generation, the ISO proposes that the RETPP be repeated annually to incorporate new information and to decide whether upgrades that were conditionally approved or identified as potentially needed in the prior year should be unconditionally approved based on new evidence of generation development. Finally, the ISO envisions that the annual RETPP will, by incorporating the key elements of the ISO's existing Order 890 compliant transmission planning process, ultimately subsume and replace that process.

This second draft final proposal retains the three-phase approach described in the prior proposals. In Phase 1 the ISO collaborating with the California Transmission Planning Group (CTPG) and building on the work of the Renewable Energy Transmission Initiative (RETI), will produce by July 2010 a statewide conceptual transmission plan. In Phase 2 the ISO will accept further input from stakeholders on the Phase 1 plan, and will develop a final plan that applies to its BAA to present to its Board of Governors in December 2010 for approval. Also in Phase 2, the ISO will receive and evaluate proposals for reliability projects in response to the ISO's reliability study process currently in progress, and may receive and evaluate proposals for merchant transmission projects, projects required to maintain the feasibility of long-term congestion revenue rights (CRRs) and location-constrained resource interconnection facilities (LCRIF). The final Phase 2 plan presented to the ISO Board in December will then contain (1) proposals for reliability, long-term CRR-driven, merchant and LCRIF projects, (2) specific transmission upgrades or additions found unconditionally to be needed for access to renewable energy resources to meet the state's 33 percent RPS target (referred to as "least regrets" upgrades); and (3) specific transmission upgrades or additions that may be needed depending on the future course of renewable generation development. The Board will be asked to approve the first two groups of projects and needed upgrades, whereas the third group will be identified as potential needs to be revisited in the second annual RETPP cycle beginning in 2011.

In Phase 3 the ISO will receive proposals to build the renewable access transmission upgrades or additions that were approved unconditionally in the final Phase 2 plan. Within this category, those upgrades not assigned to participating transmission owners (PTOs) to construct under existing tariff provisions will be open to proposals to build from both PTOs and non-PTOs. The ISO will review such proposals to determine whether they are technically consistent with the specifications in the final Phase 2 plan, and if found to be technically acceptable the sponsors of the proposals may proceed to the CPUC or other appropriate siting and permitting authority.

The ISO expects that certain aspects of the proposed RETPP and the related changes to the existing transmission planning process (TPP) and large generator interconnection process (LGIP) needed to enhance their coordination with the RETPP will likely require supporting tariff changes. The ISO will present this proposal to its Board of Governors at the May 2010 meeting and given Board approval will file the tariff changes with the Federal Energy Regulatory Commission (FERC) shortly thereafter.

The following subsections begin by providing the overarching rationale and design of the new RETPP and the accompanying changes needed to the current TPP and the LGIP. The section then provides a high-level overview of the three phases of the draft final RETPP proposal.

1. Design of the RETPP Planning Framework

Statewide assessment of transmission needs. As evidenced in the RETI process, a statewide renewable transmission plan, along with mechanisms for regional and sub-regional coordination, are needed to enable efficient development and delivery of state and regional renewable energy resources. Under the new RETPP structure the annual transmission planning process will include ISO collaboration with the California Transmission Planning Group (CTPG) in developing and then updating the comprehensive statewide transmission plan, as reflected in Phase 1 of this proposal.

Access to renewable energy resources as a new criterion for determining need for transmission upgrades. The ISO's prior straw proposals have discussed the need to adopt a new criterion for approving transmission upgrades, namely accessing renewable resources to meet the state's 33% RPS objectives. The current TPP has reliability and economic criteria for approving the need for an upgrade, whereas the LGIP provides for reliability and deliverability network upgrades to accommodate new generation resources that satisfy the requirements of the ISO interconnection queue. Accordingly, the ISO is proposing to establish a new criterion for evaluating transmission projects: accessing renewable resources to meet state RPS and environmental goals.

Effective integration and consolidation of ISO planning processes. In the initial September 15 issue paper, the ISO sought to address RPS needs simply by modifying the current TPP to incorporate a renewable access planning criterion. The ISO and stakeholders quickly recognized, however, that the current TPP and the companion LGIP were not suited for the comprehensive, yet targeted, planning approach required to meet state policy goals. Then in later straw proposals the ISO developed a separate renewable energy planning track that would parallel the current TPP and LGIP with certain linkages between the tracks at designated milestones. In response, stakeholders pointed out and the ISO agreed that the three-track process would be too fragmented and would not achieve the ISO's stated objective to do comprehensive planning. The current RETPP proposal therefore retains the approach described in the ISO's prior draft final proposal to integrate key elements of the TPP and the LGIP into the RETPP. This integration is explained further below.

Shift from a project proposal approach to a comprehensive plan approach. The new RETPP proposal departs from today's TPP where parties can submit any project proposals into a request window regardless of whether they meet ISO- identified needs. Instead, under the RETPP the ISO will provide a comprehensive plan that specifies the actual transmission elements needed for access to renewable energy supply resources to meet 33% RPS, to which parties can respond by submitting proposals to build specific elements of that plan. The exceptions to this new paradigm are the ability in RETPP Phase 2 of parties to submit merchant transmission projects (i.e., projects not seeking cost recovery through the transmission access charge) and LCRIF projects, which would be evaluated in accordance with existing provisions. Similarly the RETPP proposal does

not propose any change to the existing rules and procedures for reliability projects, generator interconnection-related projects (LGIP and SGIP), and projects needed to maintain the feasibility of long-term CRRs.

Treatment of the existing TPP categories. The RETPP will retain and will integrate the current TPP approach for developing reliability projects, which will become baseline assumptions for renewable transmission planning. The ISO has accelerated its schedule for the reliability-related activities of the TPP in 2010 to be in a position to implement this coordination this year.

Under the current TPP parties have been able to submit economic projects during the request window to be evaluated by the ISO to determine whether there are sufficient economic benefits to justify funding them through the ISO's transmission access charge. Under the proposed RETPP, however, where meeting statewide renewable energy goals requires comprehensive planning, the economic benefits of any particular new transmission element must be assessed relative to a comprehensive plan that takes into account, among other factors, the expected types and quantities of renewable resources expected to be developed in various locations and the transmission needed to interconnect and access those renewable generation resources. Under the RETPP, economic studies of the final Phase 2 plan will provide the appropriate basis against which the ISO can evaluate other projects that may offer economic benefits. For the 2010 cycle of the RETPP the ISO intends to apply this approach to evaluate the need for projects submitted in the 2008 and 2009 TPP request windows that do not fall under the PTOs' obligation to build under existing tariff provisions. If any of these transmission elements is found to be needed, parties can submit proposals to build that element, and then seek approval from the CPUC or other siting and permitting authority to build the element.

Category 1 and Category 2 Renewable Access Transmission Elements. The final Phase 2 plan presented to the ISO Board for approval in December 2010 will identify some transmission upgrades that have been determined to be unconditionally needed for access to renewable energy resources to meet the 33 percent RPS target (referred to as Category 1 upgrades), and other upgrades that could be needed depending on how new renewable generation development occurs (Category 2). The Category 1 facilities will reflect the "least regrets" concept to minimize the risk of building under-utilized transmission capacity. In RETPP Phase 3 the ISO will accept proposals from PTOs and non-PTOs to build those Category 1 facilities that are not assigned to PTOs under existing generation interconnection tariff provisions.

The Category 2 upgrades, in contrast, will not be authorized to proceed further as a result of this first annual cycle of the RETPP. The ISO's prior draft final proposal indicated that these upgrades would be authorized under the conditional approval concept to proceed with pre-construction activities with a guarantee of recovery of expenditures by the project sponsor for projects that are ultimately rejected. Upon further

consideration the ISO has decided to revise this approach. Under the current proposal, the Category 2 upgrades identified in the December 2010 plan will be reevaluated in the second annual RETPP cycle beginning in the first half of 2011. The reevaluation process will consider any new information regarding commercial interest by new generation that would be served by these upgrades, as well as any alternative upgrades stakeholders may identify, in order to decide whether any additional renewable-access facilities should receive Category 1 approval at the end of 2011.

Order 890 compliance. The ISO will ensure that the key decision-making phases of the RETPP for the ISO BAA (i.e., Phases 2 and 3) will, like the current TPP, be Order 890 compliant.

2. RETPP Phase 1

Phase 1, is a collaborative effort among various transmission providers and owners in California under the structure of the California Transmission Planning Group (CTPG). The goal of Phase 1 is to complete a statewide 33 percent RPS conceptual transmission plan by the end of July 2010, with 3 study phases, each releasing results for comment between February and June.¹

As described more fully in the next section, the CTPG is working with RETI and other stakeholders to develop a plan for conducting renewable resource scenario-based transmission studies that can provide a basis for a robust final conceptual plan by July 2010.

An important qualification of the CTPG process and the July 2010 conceptual plan is that CTPG will not make decisions or otherwise determine the outcomes of any decisions regarding approval of specific projects or allocation of project costs. Such decisions will be made by the relevant CTPG participants in accordance with their own processes and standards for such decisions. Thus, the July 2010 statewide plan is intended to be truly conceptual, not prescriptive, and the CTPG is merely intended to be a vehicle for statewide collaboration on planning, not a decision making body. In any event, the ISO and the other CTPG participants are making every effort feasible to ensure that the July 2010 plan will provide a meaningful and useful basis for further refinement by them as they develop the refinements needed for their own BAAs.

¹ CTPG materials are available at www.ctpg.us.

3. RETPP Phase 2

In Phase 2 of the RETPP, the ISO will finalize a transmission plan for its own BAA by December 2010 that will then be submitted to the ISO Board of Governors for approval. Board approval of the Phase 2 plan will constitute a finding of need for the new renewable access transmission elements identified in the December 2010 plan, thereby setting the stage for project proposals to build specific elements of the plan and allowing the costs of these elements to be recovered through the ISO's transmission access charge mechanism.

The ISO will conduct a stakeholder process as part of Phase 2 starting in May 2010 after the May 8 release of the CTPG's "Phase 2" statewide conceptual plan² and continuing through the summer. During this time the ISO will provide opportunities for stakeholders to provide written comments on the May draft and July final CTPG plans. Under this approach, comments or ideas submitted by stakeholders in Phase 2 would not establish rights to develop any specific elements of the final Phase 2 plan that may be based on those ideas. The Phase 2 stakeholder process will also serve as the submission window for proposed merchant transmission projects, LCRIF projects, projects needed to maintain the feasibility of CRRs and reliability projects, all of which would be evaluated by the ISO in accordance with existing tariff requirements and criteria and included in the December 2010 plan for ISO Board approval. This Phase 2 submission window will not be open to economic projects as the current TPP request window allows because, as noted earlier, it is not possible to evaluate economic project proposals until the final Phase 2 plan is completed to serve as the reference against which to evaluate the economic benefits of a proposal. The ISO intends to modify the request window provisions of its tariff to reflect these changes in scope.

As needed, the ISO will refine the Phase 1 transmission plan by applying specific criteria for ranking alternative transmission elements to access particular renewable zones, which will include commercial interest, estimated construction costs, measures of potential and expected renewable energy development potential, renewable integration requirements, and potential environmental concerns that may impact project feasibility. This second draft final proposal retains the provision for distinguishing Category 1 (unconditional or final approval) versus Category 2 (conditional approval) elements of the December 2010 final plan. In contrast to the ISO's prior draft final proposal, however, Category 2 transmission upgrades will not be authorized for pre-construction work with guaranteed abandoned-plant cost recovery during the first RETPP cycle this year. During the second RETPP cycle in 2011 the ISO and stakeholders will reconsider the

² Descriptions of the phases of the CTPG process – not to be confused with the three phases of the proposed RETPP – and the schedule for release of draft and final CTPG transmission plans are available in documents on the CTPG web site: www.ctpg.us.

need for these Category 2 facilities in light of more up-to-date information on generation development and other relevant factors.

With regard to reliability and delivery network upgrades related to the interconnection of new generation resources in the interconnection queue, the ISO's prior draft final proposal indicated that LGIP-related transmission upgrades of significant cost and impact on the grid would be evaluated within the context of the comprehensive planning approach of the RETPP. The ISO has recognized, however, as several parties have indicated, that waiting for the results of the final Phase 2 plan in December 2010 may adversely impact the ability of some generation projects in the queue to obtain federal funding under the American Recovery and Reinvestment Act (ARRA). Although the ISO still believes that the optimal approach would be to consider all significant LGIP-related upgrades within the RETPP, the ISO also agrees that there are circumstances such as the ARRA deadlines that warrant exceptional treatment in 2010 so as not to adversely affect these projects. Accordingly, the ISO proposes to exempt LGIP related transmission upgrades or additions identified for ARRA funding from further consideration within the RETPP and allow them to be finalized within the Large Generation Interconnection Agreement (LGIA) process.

4. RETPP Phase 3

In Phase 3, which starts in January 2011 following ISO Board approval of the December 2010 plan, the ISO will receive project proposals from non-PTOs as well as PTOs to build the Category 1 renewable access upgrades identified in the plan. Non-PTOs will be eligible to submit proposals to build those Category 1 transmission facilities that are not assigned to PTOs to build under existing tariff provisions. Proposals for Category 1 transmission facilities must be received within the first three months of 2011. If at the end of that time there is a facility for which a PTO is assigned to build under existing tariff provisions but the ISO has not received an acceptable proposal, the ISO may, depending on the circumstances, either open facility for all project sponsors to submit proposals to build (non-PTOs and PTOs) or require the PTO to build it. Conversely, if at the end of that time there is a facility for which a PTO is not assigned to build under existing tariff provisions but the ISO has not received an acceptable proposal, the ISO may require one of the PTOs to build it.

5. Linkages between the RETPP, the current TPP and the LGIP

This second draft final proposal retains the ISO's objective of integrating the new RETPP with the existing TPP and the LGIP, consistent with other policy considerations (such as ARRA stimulus funding). The motive for such integration is the recognition that much if

not most of the new transmission infrastructure needed over the next decade will be driven by access to renewable resources or support for renewable integration, and as such these activities cannot be conducted apart from one another. In particular, the ISO must ensure that consistent study assumptions are being developed for all of the studies that will be conducted in the TPP and the RETPP, beginning with the 2011 study cycle. Parties who are following the ISO's 2011 TPP currently in progress are aware that that process has already completed its initial milestones and is on track to complete the annual reliability assessment this summer.³

As noted earlier, the 2011 TPP will not include a request window for economic projects as has been the practice in prior years; the ISO intends to submit tariff language effecting this change to FERC as part of the RETPP proposal. Projects submitted in the 2008 and 2009 request windows that do not fall under the PTOs' obligation to build under existing tariff provisions will be evaluated following the completion of the RETPP Phase 2 final plan, so that their benefits can be assessed against the baseline of that plan. If any of these transmission elements is found to be needed, parties can submit proposals to build that element, and then seek approval from the CPUC or other siting and permitting authority to build the element.

With regard to the LGIP, the ISO is already engaged in its study process to address the interconnection and deliverability needs of the projects currently in the queue, including the serial projects and the transition cluster. In the prior draft final proposal the ISO indicated that LGIP-related upgrades of significant size need to be taken into account within the process of developing the final RETPP Phase 2 plan. The ISO still supports this approach in principle, but is considering ways to address circumstances where waiting for the final 2010 RETPP Phase 2 plan could adversely affect the generation project. For example, some of the renewable generation projects in the interconnection queue are eligible for federal stimulus funding under the ARRA, but to qualify they will need to have signed Large Generator Interconnection Agreements (LGIA) before the Phase 2 plan can be completed, so they can finalize their project funding and complete some initial project activities prior to the end of 2010. Therefore, the ISO proposes to exempt LGIP related transmission upgrades or additions identified for ARRA funding from further consideration within the RETPP and allow them to be finalized within the LGIA process.

³ Documents related to the ISO's 2011 TPP can be obtained at the following link:
<http://www.caiso.com/2734/2734e3d964ec0.html>.