

Memorandum

To: ISO Board of Governors
From: Armando Perez, Vice-President, Planning and Infrastructure Development
Gary DeShazo, Director, Regional Transmission - North
Date: December 4, 2007
Re: Decision on Authorization for Filing FERC Order No. 890 Transmission Planning Process

This memorandum requires Board approval.

EXECUTIVE SUMMARY

Management seeks Board approval to amend provisions of the MRTU Tariff related to the CAISO's Transmission Planning Process.¹ The proposed amendments serve to (1) satisfy the transmission planning requirements of the Federal Regulatory Energy Commission's (FERC) Order No. 890 and (2) conform the MRTU Tariff to the CAISO's current and anticipated Transmission Planning Process procedures. The changes to the MRTU Tariff resulting from Order No. 890 compliance will not have any impact on system specifications or the implementation schedule for MRTU.

FERC issued Order No. 890 to further address the potential for undue discrimination and preference in the provision of transmission service. Order No. 890 requires all transmission providers, including ISOs, to amend their existing open access transmission tariffs (OATT) to implement a coordinated, open and transparent transmission planning process that complies with nine planning principles specified in the order or, alternatively, demonstrate that their existing process is consistent with or superior to the requirements in the order.² The CAISO's existing tariff provisions governing its Transmission Planning Process are largely consistent with or superior to the Order No. 890 requirements. Even prior to Order No. 890, the CAISO initiated efforts to develop a more proactive, open, and transparent Transmission Planning Process, which is intended to ensure, over both short- and long-term planning horizons, a reliable, economically efficient transmission system that also facilitates achievement of State policy objectives. Accordingly, the CAISO's Order No. 890 compliance efforts do not reflect significant shifts or additions to CAISO policy. Rather, the CAISO has utilized the Order No. 890 compliance process to collaborate with stakeholders to refine, clarify, and better document elements of its recently implemented, more proactive Transmission Planning Process.

¹ The Governing Board was previously briefed on this item on October 17, 2007.

² A description of the Order No. 890 Planning Principles is included at Attachment 1.

The CAISO's Order No. 890 compliant Transmission Planning Process is memorialized both in the proposed amendments of the MRTU Tariff as well as in a newly created Business Practice Manual for the Transmission Planning Process (BPM). Consistent with other business processes under MRTU, the BPM contains specific implementation details that do not constitute "rates, terms and conditions" of transmission service under the Federal Power Act. A description of the CAISO's stakeholder activities related to this item and response to stakeholder comments are set forth in Attachment 2.

Major elements of the Transmission Planning Process addressed through the Order No. 890 tariff amendments that will be described in this memorandum:

- Description of the Transmission Planning Process Procedures
 - Open season
 - Creation of Unified Planning Assumptions and Study Plan
 - Study Process and Transmission Plan
- Refinements to CAISO confidentiality provisions
- An explicit delegation of authority to management to approve transmission projects with an estimated capital cost of up to \$50 million. This represents an update to the current practice that grants management authority to approve transmission projects with estimated capital costs of up to \$20 million to account for increased project costs
- Refinements to standards for determining when transmission projects will be approved as "needed"
- Addition of explicit authority for the CAISO to propose and identify "economic" transmission projects and the assignment of Project Sponsor responsibility for such projects
- Addition of provisions governing the conduct of Economic Planning Studies
- Creation of a Grid Planning Standards Committee
- Refinements to the provisions identifying entities with obligations to construct approved transmission projects
- Refinements to regional coordination provisions

MOTION

Moved, that the ISO Board of Governors approve the FERC Order No. 890 proposal as outlined in the memorandum dated December 4, 2007, and related attachments; and

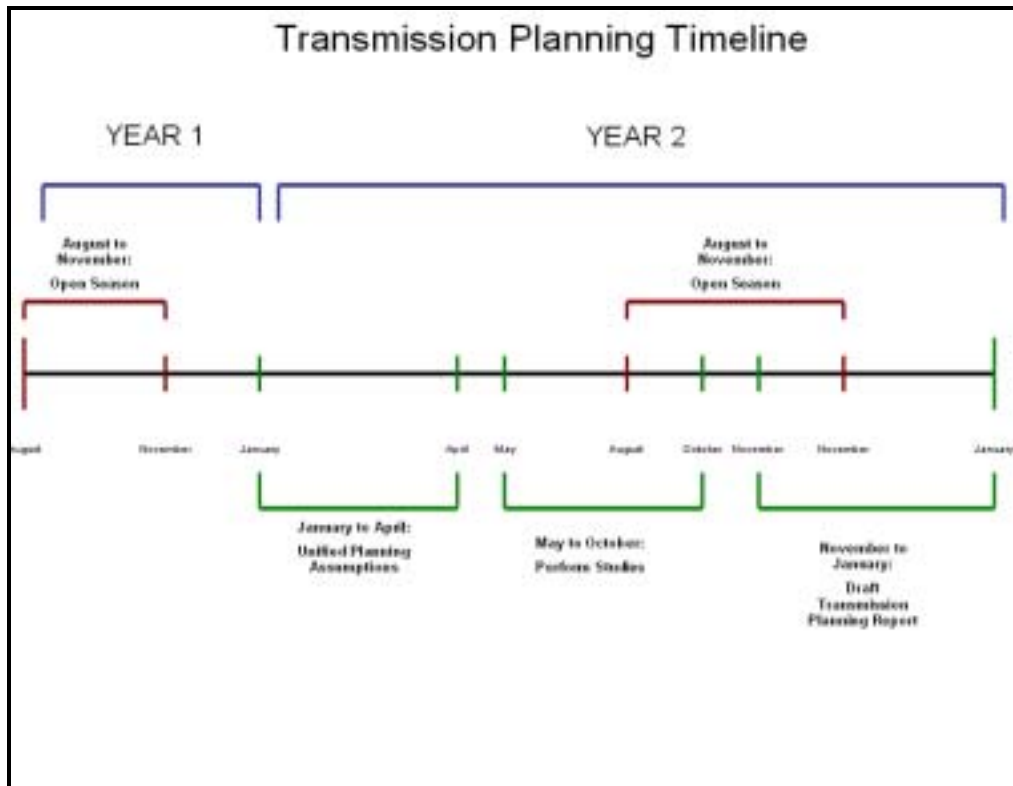
Moved, that the ISO Board of Governors authorize Management to make all the necessary and appropriate filings with the Federal Energy Regulatory Commission to implement this proposal.

DISCUSSION

Description of Transmission Planning Process Elements

1. Description of Transmission Planning Process

The CAISO's Transmission Planning Process consists of three planning process stages and utilizes an "open season timeframe to allow for certain types of transmission information to be submitted to the CAISO." A temporal depiction of the process is as follows:



- Open Season

Under current CAISO practice, information from stakeholders affecting transmission service and proposed transmission projects can be submitted to the CAISO at any time during the planning cycle. The CAISO proposes to change this by the establishment of an "open season" during which certain types of transmission information and projects, most notably "economic" transmission projects, must be submitted to the CAISO for review. The creation of an open season will allow for a more coherent consideration of relevant information and projects during the planning cycle, permitting an appropriate assessment of competing alternatives to resolve the same transmission related problem, and better coordination with regional planning activities. The proposed Open Season will span a timeframe from January 1 through October 31 of each annual planning cycle.

- **Unified Planning Assumptions and Study Plan Stages**

The purpose of this stage is to determine the goals of, and agree upon assumptions for, the various studies to be performed as part of that year's Transmission Planning Process cycle. Information obtained from this process and from other entities such as the California Energy Commission, Participating Transmission Owners, Load Serving Entities, etc., will be integrated into the study process. It is also at this stage that the Transmission Planning Process coordinates and accounts for other planning functions, including the outcome of previously completed generator interconnection studies, resource adequacy related studies, and the assessment of resources, including those needed to meet state Renewable Portfolio Standard goals.

Once all of this information has been accumulated and reviewed by stakeholders, a Unified Planning Assumptions and Study Plan will be produced by the CAISO to provide stakeholders with a coordinated plan for completing all of the required studies during that planning cycle. The Unified Planning Assumptions and Study Plan will describe the basic planning assumptions and input, sources for those assumptions and input, how they will be applied, methodology, tools used, study criteria, (i.e., WECC Planning Standards), expected study output, and assignments for performing specific analyses.

- **Perform Studies and Produce Transmission Plan Report**

During the second stage, the CAISO performs technical studies and present initial results to stakeholders. The studies follow the Study Plan using the Unified Planning Assumptions to the maximum extent practical. The third stage of the Transmission Planning Process involves documenting the technical results and addressing stakeholder comments and concerns. The products resulting from this stage of the process are the CAISO Transmission Plan, which will be presented to the CAISO Board of Governors. It should be noted that the Transmission Plan may or may not include the final evaluations of larger transmission projects. Because of the substantial time needed to perform more complex transmission project assessments, such significant projects may be on a study schedule that calls for their review by the CAISO Board of Governors independently of the Transmission Plan. However, the Transmission Plan will account for and coordinate with all pending studies to ensure a complete plan is presented to all stakeholders.

2. Confidentiality and Information Exchange

Order No. 890 requires that the transmission provider develop guidelines for the submission of information to facilitate transmission planning. The CAISO has complied with this requirement by identifying specific information that must be provided by Participating Transmission Owners (Participating TOs) as well as information that the CAISO will request from other transmission customers or other entities, including that related to procurement plans, results of requests for offers, and other long-term supply arrangements. Given the commercially sensitive nature of this information, the CAISO will explicitly protect such information as confidentiality and subject to disclosure only to non-market participants as defined by FERC Standards of Conduct.

3. Increase in Dollar Value of Management's Authority to Approve Transmission Projects Without Concurrent Board Approval

Under current CAISO practice, all transmission upgrades or additions with an estimated capital cost of greater than \$20 million must be approved by the Governing Board to be deemed "needed" by the CAISO in accordance with the Tariff. In contrast, CAISO management may independently approve and direct a Project

Sponsor to proceed with a transmission upgrade or addition with an estimated capital cost of less than \$20 million. This practice has been in place since the early period of CAISO operation. Given the general increase in the cost of capital improvements over time, the dollar threshold triggering the Governing Board's approval should be updated to allow for small projects to be approved by Management while still requiring Governing Board approval for significant transmission projects. Management proposes a \$50 million threshold in place of the \$20 million threshold.

4. Refinements in Description of "Needed" Transmission Projects

Under the CAISO's existing Tariff, there are three general categories of transmission projects that will can be deemed "needed": (1) the project "promotes economic efficiency"; (2) the project "maintains System Reliability"; and (3) the project maintains the feasibility of Long Term Congestion Revenue Rights (Long Term CRRs) over their term. An additional category, pending for acceptance before FERC, is the CAISO's October 31, 2007 proposed Tariff provisions governing conditions for approval of Locational Constrained Resource Interconnection Facilities to facilitate the interconnection of generation whose primary fuel source is at a fixed location. The Order No. 890 filing will retain these four categories, but refine or clarify the standards to be applied to the determination of need for economic and reliability projects.

For economic transmission projects, the clarifications include:

- Maintaining the Merchant Transmission Facility classification, but specifying that such project must satisfy any CAISO operational concerns and not degrade the feasibility of allocated Long Term CRRs.
- Specifying that the CAISO must consider whether the benefit of the project outweighs its costs and that the benefit may include, but need not be limited to, a reduction in production costs, congestion cost, transmission losses, capacity costs, and environmental costs. Although several stakeholders questioned the explicit inclusion of "environmental costs" given the flexibility of the CAISO's Transmission Economic Assessment Methodology (TEAM), the term has been included to ensure there is no dispute regarding the scope of the CAISO's authority in this regard.
- Specifying that the cost of the project must considering maintaining the feasibility of Long Term CRRs.
- Specifying that the CAISO must consider transmission alternatives, including the acceleration or expansion of previously approved projects and demand management.

For reliability projects, the clarifications include:

- Ensuring that reliability standards to be applied include not only NERC and WECC standards, but also CAISO Grid Reliability Standards developed by the CAISO in collaboration with stakeholders.

5. Addition of Explicit Authority for the CAISO to Propose Economic Transmission Projects

Under the CAISO's more proactive Transmission Planning Process, it takes the lead in evaluating congestion and opportunities to economically mitigate the congestion through transmission additions and upgrades. In addition, the CAISO assesses the economic efficiency of reducing the need for local capacity by expanding the transmission systems transfer capability into the "load pockets." Consequently, the CAISO must be able to propose economically efficient transmission projects and direct their construction. The Order No. 890 filing confirms this authority. Where the CAISO proposes and approves a project, it will designate one or more Participating Transmission Owners (Participating TOs), in whose service territory the project is located or the line will terminate, as the Project Sponsor with the responsibility to seek the necessary authority to construct the

upgrade or addition. If the Participating Transmission Owner refuses to act as the Project Sponsor, the CAISO may solicit bids from other entities to finance, own and construct the identified transmission project.

6. Economic Planning Studies

As noted, the CAISO has long recognized, and incorporated, the need to plan the transmission system to enhance economic efficiency and market competitiveness. Projects such as the Palo Verde-Devers #2 500 kV line were approved to promote economic efficiency. Order No. 890 now recognizes the importance of this obligation and requires all transmission providers to publish information regarding "significant and recurring" congestion to send signals to market participants where transmission development should take place. The adoption of locational marginal prices under MRTU will inherently provide the market with significant transmission pricing information. The CAISO intends to augment LMP information by defining "significant and recurring" congestion and publishing a Congestion Data Summary covering Congestion during the prior year. The CAISO will utilize "significant and recurring" Congestion from this Congestion Data Summary as well as local capacity requirements to perform Economic Planning Studies, which are intended to provide preliminary assessments of the economic viability of realizing economic efficiencies through conceptual transmission upgrades or additions.

In addition, the CAISO will allow stakeholders (as part of the open season) to request that the CAISO perform Economic Planning Studies of specifically identified constrained transmission elements. Economic Planning Studies are intended to provide preliminary assessments of the economic viability of realizing economic efficiencies through conceptual transmission upgrades or additions that provide can form the basis of actual transmission project submissions. The CAISO may designate up to five (5) requests as "High Priority." High Priority studies will be preformed by the CAISO without cost to the requesting party. The CAISO will select High Priority studies based on locations of significant and recurring congestion, the need for Locational Constrained Resource Interconnections, the need for reduction in local capacity requirements, and forecasts of future Congestion. As noted, it is the intent of the CAISO that Economic Planning Study information provides a foundational framework upon which project proposals can be submitted into the planning process through the open season.

7. Grid Planning Standards Committee

The CAISO currently follows the CAISO Grid Planning Standards which were published in 2002 pursuant to existing Tariff authority. The CAISO Grid Planning Standards were developed by an informal CAISO Grid Planning Standards Committee in order to (1) address specifics not covered by NERC or WECC Planning Standards, (2) provide interpretations of NERC or WECC Planning Standards, and (3) determine whether certain criteria should be more stringent than NERC or WECC Planning Standards. The CAISO's Order No. 890 revisions include provisions that call for, at least, an annual meeting of the Grid Planning Standards Committee. The Grid Planning Standards Committee would be open to all interested parties and would function to review and provide advisory recommendations as to potential changes to the CAISO Grid Planning Standards.

8. Obligation to Construct Projects

The existing CAISO Tariff includes provisions governing the Participating TOs' obligation to construct transmission upgrades and additions. The Order No. 890 compliance filing clarifies the obligation of Participating TOs and other parties to propose transmission additions and upgrades. The CAISO intends to continue its current practice in which the Participating TOs with "service territories" will have the primary

obligation to ensure system reliability. In addition, such Participating TOs will have primary responsibility to sponsor and construct CAISO identified upgrades or additions to preserve the feasibility of allocated Long-term CRRs during their terms and any Locational Constrained Resource Interconnection Facilities identified by the CAISO as part of a "clustered" study conducted in accordance with the Large Generator Interconnection Procedures. However, any party may propose an economic transmission project or Locational Constrained Resource Interconnection Facility not otherwise identified by the CAISO through interconnection studies.

9. Regional Coordination

Ensuring regional coordination is an important objective of Order No. 890. The CAISO will enhance its existing provisions regarding coordination within the WECC by including specific requirements to exchange information with sub-regional planning groups and, in their absence, directly with interconnected neighbors. The CAISO is currently pursuing a bifurcated approach. First, the CAISO's Transmission Planning Process itself offers an open, transparent, and structured opportunity for interconnected neighbors to exchange planning information and objectives. Second, the CAISO is participating in the development of the California Sub-Regional Planning Group (CSPG), which hopes to encompass most of the transmission systems in California. Through either of these means, the CAISO would satisfy the requirement in Order No. 890 that transmission providers coordinate with neighboring systems to ensure simultaneous feasibility of their respective plans and assess the possibility of efficiencies through mutual cooperation.

Special Issues Identified by Stakeholders Not Addressed by the CAISO's Proposal

As a result of the stakeholder process described below, the CAISO has incorporated several changes to the Transmission Planning Process recommended by stakeholders. For example, the CAISO has eliminated the proposed "transmission queue" based on ambiguity as to its intended use. The CAISO has also refined its selection criteria for "high priority" Economic Planning Studies in response to stakeholder concerns. Nevertheless, several issues raised by stakeholders remain in dispute or not addressed by the CAISO as outside the scope of the current proceeding.

- **Reformation of the Generator Interconnection Queue Process**

Order No. 890 does not address or require any alterations to the generator interconnection procedures previously approved by FERC in its Order No. 2003 and progeny. FERC, the CAISO, and other entities within California and across the country nevertheless recognize that many interconnection procedures require reconsideration and potential modifications. FERC has opened a new docket to address interconnection procedures. The CAISO anticipates working with stakeholders both within the parameters of this FERC docket and, if necessary, independently to address such concerns. However, queue modifications are not part of the CAISO's Order No. 890 filing.

- **Expedited Alternative Dispute Resolution (ADR) process**

The CAISO Tariff contains an Order No. 890 compliant ADR process. However, given the potential importance of study inputs in study outcomes and the significant involvement of stakeholders in the creation and identification of base cases and study inputs for the planning cycle, a more expedited ADR process was requested by stakeholders to address disputes arising during this aspect of the Transmission Planning Process. CAISO Management considered an expedited ADR process applicable only to disputes arising from development of the Transmission Planning Process study plan and assumptions during the stakeholder process, but ultimately concluded that its existing Order No. 890-compliant ADR process is

sufficient at this point. However, the CAISO is committed to expeditiously resolving issues related to the study plan and assumptions. If an independent assessment or additional expertise would assist in addressing disputes during the process, the CAISO will rely on those resources to ensure prompt resolution.

Preserving Generator Deliverability

Under the state's resource adequacy program, as facilitated by the CAISO's MRTU Tariff, resources must be deliverable to serve Load in order to be entitled to count towards resource adequacy obligations and potentially receive an associated capacity payment. The CAISO has stated that it intends to utilize its existing generator interconnection queue process to ensure that new generator interconnections do not degrade the deliverability of existing generators. Moreover, the CAISO has noted that it will consider deliverability in analyzing the transmission project alternatives. However, Management has elected not to include in its Order No. 890 filing an explicit obligation to use the Transmission Planning Process to ensure the deliverability of existing generation resources should system changes, such as the location of Demand or generator retirements. The simple reason is that it may not be economically efficient to build a transmission upgrade or addition to preserve a generator's deliverability. If, in fact, an upgrade is economically efficient based on an increase in the availability of deliverable capacity, that project may be approved under the CAISO's existing category of economic transmission projects.

STAKEHOLDER PROCESS

The CAISO has augmented the stakeholder process outlined by the FERC in Order No. 890. A summary of the CAISO's stakeholder activities is set forth in Attachment 2. FERC directed the posting of a "strawman" and a draft of the transmission planning process, both of which were the subject of FERC-sponsored technical conferences. The CAISO complied with the FERC directives, but also posted for stakeholder review and comment two additional iterations of its BPM and two iteration of proposed CAISO Tariff language. Also, in addition to participating in the two FERC technical conferences, the CAISO held three of stakeholder meetings of its own. The final stakeholder meeting was held on November 14, 2007. The CAISO provided stakeholders until December 3, 2007 to provide final comments. Accordingly, while the CAISO has provided a preliminary stakeholder matrix as part of Attachment 2, it may be that a further review of the comments could lead to modifications or additions to that matrix. In this regard, to the extent the stakeholder comments trigger reconsideration of any fundamental element of the Transmission Planning Process, management will also provide an updated memorandum to the Board, if necessary. However, a preliminary review of the comments indicates that the stakeholder suggestions will lead only to refinements that are consistent with the policy positions outlined in this memorandum.

CONCLUSION

The CAISO's current Transmission Planning Process largely satisfies the principles incorporated into Order No. 890. Nevertheless, the CAISO has utilized the Order No. 890 process to further enhance its Transmission Planning Process. CAISO management requests that the Board approve these efforts and authorize management to make the necessary filings with FERC to obtain approval of CAISO Tariff provisions consistent with this memorandum.