# Memorandum

**To:** ISO Board of Governors

**From:** Keith Casey, Vice President, Market & Infrastructure Development

**Date:** July 6, 2011

**Re:** **Decision on ISO Planning Standards**

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***This memorandum requires Board action.***

## EXECUTIVE SUMMARY

The California Independent System Operator Corporation is required through its tariff to adhere to planning standards established by the North American Electric Reliability Corporation (NERC), as well as regional standards and criteria established by the Western Electricity Coordinating Council (WECC). In addition, the ISO has identified other requirements necessary for reliable system operation that are referred to and documented as the ISO planning standards.

All of these planning standards are critical to providing reliable service to customers. They also form the foundation or basis for all planning activities. Transmission projects are developed and advanced as necessary to ensure compliance with these standards, and when transmission projects are advanced for other reasons, such as meeting economic or policy considerations, those projects must also remain compliant with approved planning standards.

As such, the planning standards set the direction for planning activities, and the basis for many of the transmission projects approved by the ISO; the planning standards are therefore only modified with careful consideration.

Management is requesting the ISO Board of Governors approval of revisions to the proposed planning standards.

As described below, Management proposes to: 1) remove one outdated planning standard (the San Francisco/Greater Bay Area generation outage standard); 2) add three new standards pertaining to applicability of reliability standards to the entire ISO controlled grid, requirements for voltage levels, and contingency treatment of combined cycle power plant outages; and 3) provide updates and enhancements to the existing planning standard for the involuntary load shedding standard that will be considered as a guideline for the first year of implementation. The ISO also has proposed modifications to the guidelines for special protection systems.

The revisions were developed through the ISO stakeholder process with meetings, conference calls and ample opportunity for stakeholders to submit meaningful input. An overwhelming majority of

comments and suggestions from stakeholders were submitted tothe ISO and included in the final version of the ISO planning standards.

Management recommends that the Board approve the proposed ISO planning standards as attached herein.

> ***Moved, that the ISO Board of Governors approves the ISO planning standards, stated in full in attachment 1, and as described in the memorandum dated July 6, 2011.***

## DISCUSSION AND ANALYSIS

The ISO planning standards have been revised to remove outdated information and process requirements and to add necessary enhancements to the existing standards and guidelines, including the addition of three new standards. The current planning standards have been in effect since 2002, and a stakeholder process to update them was initiated in the 2007-2008 timeframe. However, that initiative was put on hold because of the substantial changes to the NERC reliability standards that were being considered at approximately the same time. Nonetheless, some of the changes proposed in the earlier stakeholder process were carried over into the revised standards addressed in this initiative.

Based on the outcome of the current planning standards initiative described in the next section, the revised planning standards will consist of six standards and one guideline. A summary of the existing planning standards and proposed modifications is set out below:

### A. Planning standards

1. Applicability of NERC Reliability Standards to Low Voltage Facilities under ISO Operational Control – the ISO has consistently applied certain NERC Reliability Standards to all of the facilities under its operational control and in the current planning standard this application was described through the definition of Bulk Electric System. However, NERC is currently changing the definition of Bulk Electric System; therefore, in order to avoid confusion, the ISO eliminated the definition and added a new planning standard making it clear that application of certain NERC and WECC standards to all facilities under ISO operational control (not already covered under the NERC definition of Bulk Electric System) is an ISO standard.

2. Combined Line and Generator Outage Standard - no changes are being proposed to this existing standard.

3. Voltage Standard – this is a new voltage standard added to achieve consistent and transparent high and low voltage levels across the NERC TPL-001, TPL-002 and TPL-003 planning standards and across all transmission elements in the ISO grid.

4. Specific Nuclear Unit Standards – no changes are being proposed to this existing standard.

5. Loss of a Combined Cycle Power Plant Module as a Single Generator Outage Standard – this is a new standard added this year to provide greater transparency to a practice that the ISO has applied since the first combined cycle power plants became operational. Supporting information regarding this standard is set forth at Section V of the planning standards.

6. Planning for New Transmission versus Involuntary Load Interruption Standard – this existing standard contained process requirements for approval of capital projects proposed in lieu of involuntary load shedding. These process requirements have been subsumed into the ISO's transmission planning process and therefore were no longer needed as part of the planning standards. In addition, the ISO has added four criteria by which to evaluate the need to upgrade the transmission system from a radial to a looped configuration, or to eliminate load shedding otherwise permitted by NERC and WECC. These criteria were proposed to provide consistency across the ISO grid with regard to substation and system design;

7. San Francisco/ Greater Bay Area Generation Outage Standard – this existing standard was eliminated primarily because after the construction of Trans Bay Cable and retirement of the Potrero power plant, San Francisco no longer has any local generation resources.

**B. Guidelines**

1. New Special Protection Systems Guideline – this guideline was expanded to be applicable to load-driven special protection systems as well as new resource-driven special protection systems. The guideline consists of seventeen criteria to be considered in designing new special protection systems.

2. Planning for New Transmission versus Involuntary Load Interruption Guideline (Planning Standard No. 6 above) – this will be considered a planning guideline for the first year of implementation so that the potential impacts of the criteria can be evaluated in a transmission planning cycle.

## POSITIONS OF THE PARTIES

The stakeholder process started in April when the ISO posted draft planning standards and scheduled a stakeholder meeting on May 2, 2011. Following the first round of stakeholder comments, the ISO posted a second draft on May 13, held a conference call on May 20, and solicited a second round of comments. A summary of stakeholder comments is provided in Attachment A. The ISO incorporated the majority of stakeholder comments and suggestions in the final version of the new ISO planning standards that are attached to this memorandum. Specifically, stakeholders submitted technical comments that were addressed and were incorporated by Management into the final draft. Stakeholders also presented several cautionary concerns regarding the planning for new transmission versus involuntary load interruption standard and its impact on cost to ratepayers. As discussed above, in order to address this issue, Management has downgraded this standard, for the first applicable year, to a guideline in order to quantify the system impacts and cost of these revisions before it becomes a standard.

## MANAGEMENT RECOMMENDATION

Management recommends approval of these revised ISO planning standards in order to remove and adjust outdated information, and to incorporate enhancements to the standards as described above. Upon Board approval, Management will use the revised planning standards in the 2011/2012 transmission planning process.