



DRAFT FINAL PROPOSAL

Seven-Day Advanced Outage Submittal

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Draft Final Proposal Seven-Day Advanced Outage Submittal

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1. Executive Summary

The California Independent System Operator (“ISO”) publishes this final proposal regarding the ISO’s recent adoption of the Seven-Day Advanced Outage Submission requirement. The ISO’s BPM for Outage Management requires that Participating Transmission Owners (“PTOs”) submit requests for transmission outages at least 7 days in advance of the start date of the outage. This timeline will provide sufficient time for the Outage Coordination team to conduct appropriate analysis and engineering studies to optimize an outage solution with the PTO ahead of the advance market runs. The advanced submission will also allow the ISO to complete outage analysis and provide approvals in time to comply with WECC reporting requirements. The expectation is that outages submitted 7 days or more in advance will complete the required studies and modeling for both the EMS and Market models. By moving up the timing of submitting outages to a minimum of 7 days before an outage starts, ISO will be able to perform traditional outage modeling analysis and provide the best available information to the market systems as they initiate the advance market runs.

Currently, approximately 76% of transmission outage requests that have a model impact are received 7 days of the start of the outage. Therefore, approximately 24% of transmission outage request which have a model impact are received within a few days of the start of the outage. Requests made this close to the operating day are often not included in the advanced market analysis because of insufficient time to evaluate the market impacts and consequently end up being processed closer to real-time when prices for energy are higher and the opportunities to utilize less costly and more efficient resources are limited by availability.

The BPM requires that transmission outages to be submitted seven-days in advance. The ISO Tariff gives the ISO authority to reject outages submitted in less than 72 hours in Section 9.3.3, but is silent on rejecting outages submitted less than seven-days and greater than 72 hours.

With this Draft Final Proposal, the ISO will make the changes noted in Section 6 to clarify the timeline when a transmission outage request must be submitted and criteria for rejection.

2. Stakeholder Process

This Draft Final Proposal will be discussed during a stakeholder conference call on January 25, 2012. It will then incorporate the outage rejection language in the Tariff and make the necessary updates to the Outage Management Business Practices Manual (“BPM”) through the established BPM change management process to include the new categories for outages that can be submitted less than seven-days. The schedule for the stakeholder process and the BPM change management process is shown in Table 1.

Table 1: Schedule	
Stakeholder Process	
Feb 4, 2010	Post Transmission Outage Whitepaper
Feb 18, 2010	Receive Comments on Transmission Outage Whitepaper
Dec 21, 2011	Post Straw Proposal
Jan 4, 2012	Hold Stakeholder Conference Call
Jan 11, 2012	Receive Comments on Straw Proposal
Jan 18, 2012	Post Draft Final Proposal (“DFP”)
Jan 25, 2012	Hold Stakeholder Conference Call
Feb 1, 2012	Receive Comments on Draft Final Proposal
Feb 16 – 17, 2012	Board of Governors Meeting
Tariff Change Management Process	
Feb 23, 2012	Post Draft Tariff Language
March 1, 2012	Receive Comments on Draft Tariff Language
March 8, 2012	Hold Stakeholder Call on Draft Tariff Language
March 15, 2012	Post Final Draft Tariff Language
Late March 2012	File with FERC
BPM Change Management Process	
By April 6, 2012	Submit BPM Proposed Revision Request (“PRR”)
April 9-20, 2012	Open Comment Period on PRR, 10-business days
April 23, 2012	Hold BPM Monthly Management Meeting
April 30, 2012	Post PRR Recommendation
May 1-11, 2012	Open Comment Period on PRR, 10-business days
May 22, 2012	Hold BPM Monthly Management Meeting
May 29, 2012	Post Final PRR Decision, effective immediately or on a

Table 1: Schedule	
	date specified

A web page has been established for this initiative that provides access to meeting materials, proposals, and stakeholder written comments. This information can be found at <http://www.caiso.com/informed/Pages/StakeholderProcesses/Seven-DayAdvancedOutageSubmittal.aspx>.

3. Background

The ISO issued *the Transmission Outage Whitepaper* on February 3, 2010. The paper presented the ISO's vision and plan to improve transmission outage reporting and outage coordination practices to focus on the following areas:

- Improved grid reliability and market efficiency
- Reduced grid operating costs
- Improve transmission outage reporting quality and accuracy
- Measure and evaluate the effectiveness of the transmission outage management business process practices.

To implement the improvements mentioned above the ISO proposed eight initiatives:

- Initiative 1: Seven-Day Advanced Outage Submittal
- Initiative 2: Submission of Critical Outage Data as Formatted Data
- Initiative 3: Managing Outage Data in Real-time
- Initiative 4: Outages Affecting Interties
- Initiative 5: Multiple Configurations In a Single Outage
- Initiative 6: Identifying Project Information within an Outage
- Initiative 7: Standardized Outage Short Descriptions

The ISO published the Transmission Outage Whitepaper on February 4, 2010 and received comments back from the PTOs on or before February 18, 2010. Please reference the whitepaper for additional information on the eight initiatives.

The first initiative is addressed in this paper. On April 8, 2011 the Outage Management team started the formal process in requiring PTOs to submit outages seven days in advance of the outage start time by updating the Outage Management BPM and submitting the revised BPM to the ISO BPM PRR process. The Outage Management BPM went through the full BPM PRR stakeholder process with no comments. The BPM was approved as submitted with an effective date of June 15, 2011.

The ISO initiated a Stakeholder Process on December 21, 2011 to make the appropriate changes to the ISO Tariff to clarify when an outage will be rejected. The Straw Proposal was posted in December 21, 2011 and a stakeholder conference call was held on January 4, 2012. Comments to the straw proposal were received by January 12, 2012.

4. Issue to be Addressed

This paper outlines the ISO's steps to clarify the timeline when transmission outage requests must be submitted. The ISO recognizes that there are outages that will have no impacts on the ISO's EMS and market models and do not require as much advance notice as those outages that will impact the models. Therefore, this paper will also develop criteria for accepting or rejecting outage requests with less than seven-day advance notice.

5. Stakeholder Comments

5.1. Comments on the Transmission Outage Whitepaper (Seven-Day Advanced Outage Submittal)

Comments on the whitepaper were received from San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE) and Pacific Gas & Electric Company (PG&E).

SDGE: For what equipment? (500kV, 230kV, 69kV, Banks, etc...)? SDG&E is a smaller utility and 7 days out will most likely result in a less accurate model with more jobs being cancelled due to lack of crews.

ISO Response:

All transmission facilities under ISO operational control that have network model impacts must be submitted per seven day outage standard.

SCE: It must be recognized that the CISO and PTOs will be forced to repeat the "Existing 3 day Coordination Process" a second time closer to, and prior to the "Operating Day". No matter how early outages are submitted to the CISO, they must still perform the outage coordination process as close to the operating day as possible for the sake of system reliability. It is unrealistic to infer from the model that they can approve an outage 5 days before it occurs with no further scrutiny. Furthermore, because topology changes seem to be the main concern, outage requests associated with relay changes, telecom changes or hot washes for example (i.e. no topology change) should still be allowed to follow the current 3 day notice process.

ISO Response:

As outlined in the Transmission Outage Whitepaper, outages will continue to be evaluated up to the operation day. Having outage requests submitted in advance will allow the ISO to have more accurate modeling of outages for the day three, day two and day ahead market runs and allows time to correct any issues that arise. These market runs begin three days prior to the operating day and are used to optimize a market solution.

PG&E: internally we have updated procedures that should cover the 7 day advance notice. The statement "*CAISO is requiring that transmission outages be submitted 7 days in advance*" means that otherwise they will be considered forced?

ISO Response:

The ISO is proposing to have three categories for outages: Planned, Unplanned, and Forced.

- Planned – Outages that have network model impact submitted at least seven days in advance.
- Unplanned – Outages that have network model impacts that are submitted less than seven days in advance.
- Forced – Outages submitted in real time that, for example, result from system emergencies, pose a safety risk, result from a force majeure condition, or give rise to a reliability risk.

5.2. Comments on the Straw Proposal

Comments were received from Calpine, Southern California Edison Company (SCE) and Pacific Gas & Electric Company (PG&E).

Calpine's comments support the current CAISO policy to require transmission outage submissions at least seven days before the day of outage. Calpine, without further clarification, opposes any relaxation of the existing outage reporting requirements that would allow submittal of "Unplanned" transmission outages in less than seven days. In addition, Calpine proposes that Planned and Unplanned Outages be "approved" three days prior to their start date and that no outages be "approved" any later than two hours before the submission of day-ahead market bids.

The ISO shares Calpine's concern regarding submission of unplanned outages for non-model impact clearances. However, the ISO is not proposing to relax its current outage evaluation method. The same evaluation and coordination will be given to all proposed non-model impact outages to insure there are no impacts prior to approving the outage.

The ISO agrees with Calpine's comments that late outage requests can have significant market impacts. The ISO endeavors to respond to Planned and Unplanned outages at least three days prior to the start of the outages and has developed an internal process to approve, deny or reschedule planned outage requests prior to the day three market runs.

PG&E's comments suggest that the seven-day advanced outage submittal should be modified in order to accommodate clearances necessary for reliability within the seven-day window. In addition, PG&E suggests that long range outages should be specifically addressed in the ISO's proposal. Further, PG&E suggests that the straw proposal should be clarified to provide flexibility for real-time schedule changes to the schedule for long range outages. PG&E indicates that, in spite of long range planning, there may be unforeseen real-time changes that preclude PG&E from performing the work exactly as planned through the long range.

The ISO Straw Proposal, in Section 6.1, was intended to provide the Participating Transmission Owners (PTOs) a measure of flexibility in scheduling outages on equipment that does not affect the reliability and market studies already completed or in progress. These include maintenance work on protective relays, hot washing of equipment, non-tests (or hot line orders), and similar activities. The proposal is also not intended to preclude the submission of emergency work for equipment that has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.

The ISO disagrees with PG&E's comment that the proposal "does not anticipate the need for and inclusion of provisions exempting clearances associated for projects needed for system reliability of the Bulk Electric System." In fact, that is exactly why this proposal has been made. The proposal is intended to give the ISO sufficient time to study the entire scope of work planned for each day - in both off line studies and in early market runs prior to the actual Day

Ahead Market and real time. Introducing new outages or changing the conditions of these studies causes the ISO to reevaluate those studies as well as study the new outages. The intent of the proposal is for maintenance work and projects that are not urgently needed to be planned out - with sufficient time for the requester to have the work proceed as scheduled, for the market participants to get the most accurate results when the markets run and for the ISO to be prepared with the correct mix of generation, reliability limits and tools to operate the system.

The ISO expects that "complex electric transmission projects" should be planned well in advance, even more so than routine maintenance outages. The complexity dictates that excellent planning is required to ensure the success of the project, including outages needed for the project. The ISO believes PTOs can manage their projects within the proposed and established timelines for long range outage submittal in accordance with ISO Tariff Sections 9.3.6 and 9.6.6.1, and ISO Outage Management BPM Section 3.

The ISO encourages PTOs to submit outage requests up to 15 months in advance and provides incentive to do so by handling those requests with priority over short notice outages. Nothing in this proposal changes that. By definition, outages submitted in that time frame are considered to be included as "Planned" outages, as long as they have sufficient detail for the ISO to properly assess them seven days or more prior to the start of the outage. The ISO disagrees that "real time schedule changes" for Long Range Outages can't be determined in advance with the same timeline as other outages.

SCE has concerns about the time frame for the ISO to respond to transmission outage requests. Under the current proposal, SCE notes that the ISO may grant outage approval three business days prior to the outage start date, excluding any unforeseen event which would delay a response, which then allows the PTO as few as two business days to prepare switching procedures and schedule personnel. SCE requests that the ISO provide notice three full business days in advance in order to allow for reasonable preparation to accommodate switching procedures, scheduling of personnel, and safety issues.

SCE comments further suggest that, in updating rules for advanced outage notification, the ISO should update rules to release this information to market participants. SCE believes that market participants can leverage this information to make more optimal scheduling and bidding decisions, which will ensure more efficient markets and improve the ISO system performance.

The ISO will not adopt SCE's suggestion for outage responses three full business days in advance of the start date of the outage. The ISO BPM for Outage Management states that for transmission outages submitted seven days or more in advance the requester can expect a response by three business days prior to the start of the outage. It is expected that most outages will be approved ahead of that deadline. Once all outages are following the seven day rule, there should be less need to restudy already studied outages due to late notice requests. As outage reviews are completed, the ISO provides the response back to the requester as soon as they are completely processed. The CAISO would have to require outage information greater than the requested seven day submittal to meet a firm three full business day in advance decision.

While the CAISO supports efforts for transparency of information for market participants, the ISO is not at this time proposing the release of additional transmission outage information. The release of additional information is beyond the scope of this proposal. This proposal addresses the submission of outage requests to the ISO seven days prior to the start of the outage and is not intended to change any of the current mechanisms for making outage data available to market participants.

6. Final Proposal

6.1. Outage Submittal Time

ISO Outage Management BPM Section 4.2.1 provides that: "Each Participating TO must submit a new Maintenance Outage or a revision to an Approved Maintenance Outage to CAISO for approval. Such an Outage request must be submitted to the CAISO OCO via the SLIC application no later than Seven Days prior to the start date of the proposed Outage for Transmission facilities, as specified in CAISO Tariff Section 9.3.6.3.1." The ISO Tariff should be modified to clarify when a transmission outage request must be submitted and when it will be rejected as untimely.

6.2. Outage Response Time

ISO Outage Management BPM Section 4.2.1 provides that: "Outages submitted no later than seven days prior to start date can expect to receive a response by three business days prior to the outage start date. Note: The determination of seven day prior notice excludes the date of submission and the date of the outage." The ISO has considered all comments and has determined that no changes should be made to the established response time.

6.3. Establish Criteria for Outages that May Be Submitted and Approved with Less than Seven-Days Advance Notice

Short notice maintenance requests may be permitted when the requested system equipment does not affect the reliability of or transfer capability for any part of the ISO Controlled Grid. Consideration for outages submitted with less than seven days notice will be on a first come first served basis and at discretion of the ISO Outage Coordination, as determined by volume and complexity of currently submitted outages which have been submitted seven days in advance and system conditions where an opportunity to take a facility out-of service would not create a significant reliability risk or disrupt efficient market operations. Evaluation of these types of outages will still be processed and vetted through the ISO's outage coordination process to determine and verify impacts to the network model and generation resources if applicable. If impacts are determined then the outage will be rejected and must be submitted per the seven day outage requirement. Examples of such outages include presented in the table below:

Annunciators	Alarms	Automatic Tests Backup	Back up Relays (OAT)
Bare Hand Work	Bus relays	Carrier equipment (CXR)	Comm. Facilities
Channel Failure Alarm	Channel Transfer Trip	DTT non-automatic	EMS
EMS/OAG Failovers	Fault Recorder	Ground Bank de-energized	High Speed Recloser
Hot Line Training	Hot Line Order	Hot, cold and dry wash	ICCP Link Failover

IRAS Schemes	IT PMR	Limitations	Line Test Feature
Load Management System	Non-Test	OAT (one at-a-time)	OK, On-or-Near
On or Near (non-test)	Panel Meters	Pilot Wire	POTT Relays
RAS Schemes	Relay non-automatic	Revenue Meter Testing	RTUs
SCADA	Set Relays (A, B or C)	SHNB Relay Non-automatic	SLD Relay non-automatic
SPS disarmed	SPS Path	Station Service Bank	Steady SKBU Alarm
Sunset Electrode Tests	Sync Check Relay	Test Program	Transfer Trip (relay)
Transducers	USAT Unavailable	VG- Valve Group	

7. Next Steps

For detailed schedule please see table 1 on page 4.

The ISO will host a meeting on January 25, 2012 to discuss this Draft Final Proposal and answer any questions that stakeholders may have.