

Attachment A

Stakeholder Process: Seven Day Advanced Transmission Outage Submittal

Summary of Submitted Comments

Stakeholders submitted 2 rounds of written comments to the CAISO on the following dates:

■ 1/8/2012-1/12/2012 Comments from Calpine, SCE, PG&E

2/01/2012 Comments from PG&E

Stakeholder comments are posted at: http://www.caiso.com/informed/Pages/StakeholderProcesses/Seven-DayAdvancedOutageSubmittal.aspx

Other stakeholder efforts include:

- Transmission Outage Whitepaper published on February 4th, 2010
- Several meetings held at all PTOs to explain and discuss in person the whitepaper in early 2010
- Comments on the Whitepaper were received by February 18th, 2010
- The formal PRR process to update the Outage Management BPM was started on April 8, 2011.
- The BPM was approved as submitted on June 15, 2011 with no stakeholder comments.
- Straw proposal published on December 21st, 2012,
- Stakeholder conference call held on January 4th, 2012
- Received Comments on Straw Proposal on January 11, 2012
- Posted Stakeholder Comments on January 12, 2012
- Post Draft Final Proposal on January 18, 2012
- Stakeholder conference call on January 25, 2012
- Receive comments on Draft Final Proposal February 1, 2012

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Stakeholders Comments on Transmission Outage Whitepaper:

Comments from 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 to SCE:

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.

Comments from 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 to PGE:

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

Comments from 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.

CAISO Response to SDGE:

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

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Stakeholders Comments on Straw Proposal for Seven-Day Advance Transmission Outage Submittal

Comments from Calpine:

Calpine supports the current CAISO policy to require transmission outage submissions at least 7 days before the day of outage and without further clarification, opposes any relaxation which would allow submittal of "Unplanned" transmission outages in less than 7 days.

ISO response to Calpine:

The ISO understands and realizes Calpine's concern regarding submission of unplanned outages for non-model impact clearances. The ISO is in no way 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.

In updating rules for advanced outage notification, the CAISO should also update rules to release this information to market participants. Market participants can leverage this information to make more optimal scheduling and bidding decisions, ensuring more efficient markets and improving CAISO system performance. Given the CAISO's proposed response times to outage notifications, outage schedule should be publicly available days in advance, coincident with CAISO approval to the PTO of planned outages.

SCE Comments:

In updating rules for advanced outage notification, the CAISO should also update rules to release this information to market participants. Market participants can leverage this information to make more optimal scheduling and bidding decisions, ensuring more efficient markets and improving CAISO system performance. Given the CAISO's proposed response times to outage notifications, outage schedule should be publicly available days in advance, coincident with CAISO approval to the PTO of planned outages.

ISO Response to SCE:

- 1. The CAISO BPM 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 CAISO 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 3 full business day in advance decision.
- 2. While the CAISO supports efforts for transparency of information for market participants, it is not part of this particular proposal. This proposal is for the submission of outage requests to the CAISO seven days prior to the start of the outage and is not intended to change any of the current mechanisms for market participants to obtain outage data.

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Comments from PG&E:

The Seven-Day Advanced Outage Submittal Needs to be Modified in Order to Accommodate Clearances Necessary for Reliability Within the Seven-Day Window

Page 7 of the CAISO's Seven-Day Advanced Outage Submittal Straw Proposal, dated December 21, 2011, Section 6.1, "Establish Criteria for Outage that May Be Submitted and Approved with Less than Seven-Days Advance Notice" reads as follows:

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 created [sic] significant reliability risk or efficient market operations.

This language provides no flexibility for occurrences where clearances (some of which may be for complicated multi-layered project phases) may bump up against or even inside the seven-day submittal period. With its focus on market conditions, the Seven-Day Advanced Outage Submittal does not anticipate the need for and inclusion of provisions exempting clearances associated for projects needed for *system reliability* of the Bulk Electric System (BES). Such projects cannot always be planned for in advance. Not only could situations arise that require immediate projects to maintain system reliability, but previously-scheduled projects could face delays or otherwise require changes in the schedule.

Without language exempting such reliability projects from the seven-day requirement, system reliability may not be satisfied. Failure to be prepared for this eventuality will create the significant potential for a system emergency. It is the responsibility of the CAISO and the Participating Transmission Owners (PTOs) to provide and safeguard system reliability of the BES. The market cannot and will not provide for system reliability. In addition, completion of the work benefits PG&E's electric transmission customers as well as the reliability of the interconnection and WECC. Therefore, language must be included in the Seven-Day Advanced Outage Submittal to "exempt" clearances related to reliability projects.

Some complex electric transmission projects require complicated clearances involving a series of clearances. One such example would be a northern California transmission project that involves line reconductoring, tower upgrades, switch replacements, and SCADA additions. To complete this project, both clearances and non-tests are required at various times on the Palermo-Pease, Palermo-Nicolaus, Palermo-Bogue and Pease-Rio Oso 115kV Lines. These clearances and non-tests are set up and approved on a daily basis. In light of the complexity of the project, the multiple work streams and resources that must be coordinated, and the day-to-day testing and analysis that could result in additional work, it is not feasible to require prior advance notice. For example, sometimes the expected scope of the daily planned work shifts to include non-test orders that may be required for safety, which were not anticipated and therefore not identified in the original scope of the work. PTOs need to be able to execute these "unplanned" clearances to accommodate the overall work schedule so as to not extend the original planned clearance window and ensure prompt completion of the reliability project. The CAISO proposal could result in significant delays if the clearances and non-tests needed to be rescheduled to accommodate seven-day or three-day advance notice. Additional delays due to the seven-day notice window requirement could result from the unavailability of parts, equipment, or labor. A seven-day advance

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and possibly even a 3-day advance notification could bring the project to a halt. As is, the CAISO's proposal fails to provide sufficient flexibility to allow PTOs to complete necessary work.

The CAISO straw proposal dictates that the CAISO reserves the right to cancel any clearances that do not meet the seven-day (and minimum three-day) submittal period. PG&E suggests that the proposal be modified to include explicit exemptions for clearances, often complex ones, that may not make the seven-day window, but are necessary in order to guarantee system reliability.

Long Range Outages Need to Be Specifically Addressed in the CAISO Proposal

The CAISO's proposal does not specifically address Long Range Outages: Those that are submitted to the CAISO with at least 30 days notice. Long Range Outages should be identified specifically and their treatment spelled out. As an outage that is submitted at least seven-days in advance, Long Range Outages will presumably be categorized as in the Planned Category: "Outages that have network model impact submitted at least seven-days in advance." [Page 6 of the CAISO's Seven-Day Advanced Outage Submittal Straw Proposal, dated December 21, 2011, Section 5] This should be clarified. In addition, the straw proposal should be clarified to provide flexibility for real-time schedule changes to the schedule for Long Range Outages. In spite of long range planning, there may be unforeseen real-time changes to the BES that may preclude PG&E from performing the work exactly as "Planned" through the long range. Similar to PG&E's concerns discussed above, PG&E asks that the CAISO provide a clause in the straw proposal that addresses these cases, and allows this work to still be executed as "Planned" work, even if changes occur within the seven-day window.

ISO Response to PG&E:

The Seven Day Advanced Outage Submittal Needs to be Modified in Order to Accommodate Clearances Necessary for Reliability Within the Seven-Day Window

The CAISO Straw Proposal 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), etc. 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 CAISO 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 CAISO 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

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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 CAISO to be prepared with the correct mix of generation, reliability limits and tools to operate the system.

The CAISO 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 CAISO believes PTOs can manage their projects within the proposed and established timelines for long range outage submittal per the ISO Tariff Section 9.3.6, Section 9.6.6.1 and ISO Outage Management BPM Section 3.

Long Range Outages Need to Be Specifically Addressed in the CAISO Proposal

The CAISO encourages PTOs to submit outages up to 15 months in advance and rewards those who do 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 CAISO 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.

PG&E Comments on the Final Proposal

Further Clarification Sought on Planned Outages Affected by Changes within Seven-Day Window

PG&E seeks further clarification on how one other issue would be affected by the proposal. How would a complex electric transmission outage/project planned well in advance (e.g., Long Range) requiring a complicated series of clearances be affected by schedule changes within the seven-day window caused by "external" events outside of the given project, or by "internal" events having to do with the given project? In other words, how will the CAISO accommodate schedule changes for projects, particularly reliability projects, where the utility has submitted the proposed work in advance of the window required under the proposal, but where unforeseeable subsequent events necessitate schedule changes?

Examples of "external" events that could result in a given project delay are delays due to other projects taking precedence, or inclement weather forestalling work.

Examples of "internal" events that could result in a given project delay are delays due to the results of a given project test, supply/resource delays/shortages, or slipped scheduled dates within the given project.

Both external or internal delays might delay the start of a project or cause schedule changes once work has commenced, requiring additional outages and/or rescheduling of planned outages. For example, once work has commenced on a project, uncontrollable and unforeseeable events (equipment delays, weather conditions, etc.) could prevent completion on time. No advance planning could anticipate all such possible delays without unduly and unreasonably extending the timing for a planned outage, which would cause reliability impacts.

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Especially for reliability projects, the CAISO's proposal should confirm that there will be accommodation for rescheduling outages within the seven day window under such uncontrollable and unforeseeable circumstances.

ISO Response to PG&E:

The ISO maintains that long range or complicated outage projects submitted by the PTOs should be able to manage the critical path outages within the project using excellent planning. The PTOs can reschedule non-critical path outages in the 7 day outage submittal timeframe just like any other outage.

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