

**COMMENTS OF THE STAFF OF THE CALIFORNIA  
PUBLIC UTILITIES COMMISSION**

**ON THE 2014-2015 TRANSMISSION PLANNING PROCESS PRELIMINARY  
RELIABILITY STUDY RESULTS AND STAKEHOLDER MEETING**

**(MEETING DATE: SEPT. 24 AND 25, 2014)**

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**October 9, 2014**

**Introduction**

The Staff of the California Public Utilities Commission (“CPUC Staff”) appreciates this opportunity to provide comments on preliminary reliability study results presented and discussed at the California Independent System Operator’s (“CAISO”) September 24 and 25, 2014 Transmission Planning Process (“TPP”) stakeholder meeting. This includes Participating Transmission Owner (“PTO”) proposed reliability solutions as well as discussion of the San Francisco Peninsula Extreme Event (*Category D*) Study.

CPUC Staff comments address the following topics:

1. There should be ample opportunity for stakeholder review of San Francisco Extreme Event Study results and recommendations ahead of a meeting to discuss those results, as well as opportunity for reasoned response to subsequent comments and concerns *before* any action is taken based on recommendations. Certain information and clarification summarized below should be provided when study results and recommendations are posted and discussed.
2. Major differences in CASIO and PTO reliability study assumptions should be clearly identified, and major PTO-proposed reliability transmission projects such as the Inland Power Link must be assessed within the context of broader planning scenarios, assumptions and solutions.
3. The Harry Allen-Eldorado project evaluation should assess capacity benefits based on appropriate distinction between local versus flexible versus system capacity needs, values and sources, and this should be fully reflected in benefits assessment and in consideration of the project for approval.

CPUC Staff comments on the above topics are included below.

**1. *The San Francisco Peninsula Extreme Event Study Should Go Beyond “Qualitative” Assessment of the Justification of the Proposed Moraga-Potrero Transmission Project to Provide Semi-Quantitative Insights into Risks (e.g., Relative to Other Kinds of Risks) and Mitigation Benefits (e.g., for Moraga-Potrero vs. Other Mitigations), with Sufficient Opportunity for Review and to Address Comments Before any Action is Taken Based on Recommendations.***

*If certain comments regarding the San Francisco Peninsula Extreme Event Study are deemed ineligible for posting on the public website, then CPUC Staff request that these comments be redacted so that the remaining CPUC Staff comments can be posted on the public website, with the full comments posted on the secure website.*

The San Francisco Peninsula Extreme Event Study is described as filtering 86 seismic scenarios for Northern California down to 16 scenarios around the San Francisco Bay Area, then down to 4 primary study scenarios with 2-4 sensitivity cases for each primary scenario. The final study report and associated stakeholder meeting should clarify what range and types (e.g., events, magnitudes, probabilities locations) of risks are thus *included versus not included* (filtered out of) the detailed analysis of seismic risks and risk mitigation - - clarifying what was analyzed versus what was not analyzed. There should also be clarification of how event magnitudes, associated impacts and *event probabilities* were factored into the filtering process to select scenarios and sensitivities for study. This filtering process should emphasize not only the vulnerability of existing infrastructure, loads and critical services to seismic events, but also the vulnerability of *potential mitigation measures* such as the Moraga-Potrero transmission line.

Documents from the September 24 stakeholder meeting state that the study will “consider economic assessment as one factor recognizing shortcomings in applying[ing] an economic assessment in the extreme event case.” There should be clear identification of which *other factors* are combined with economic assessment, and *how*, to produce an overall assessment.

In San Francisco Peninsula Extreme Event Study presentations, system contingencies are mentioned repeatedly in contexts that are not clear and should be clarified. For example:

- “...system *contingencies* for the interrupted load”,
- “....event impact...on the *contingencies*”
- “.....estimate length of outage based on....*contingency availability*...”

- Regarding load serving capability assessment in a flowchart: “Determine available *contingencies* for lost load” and “determine *contingency capacity*”

It appears that in these varied contexts *contingency* may refer to outage or damage experienced by particular electric infrastructure components that could result from particular identified and studied seismic events, in turn resulting in particular load loss, perhaps characterized by magnitude, location, type of load, time to restore and ability of potentially damaged load to actually receive electric service. “Contingency” is central to the study methodology, but its definition and application within that methodology needs to be clarified.

Finally, the CAISO should ensure that stakeholders have sufficient opportunity to review the San Francisco Peninsula Extreme Event Study results and recommendations before the study is discussed at a future stakeholder meeting. After that, there should be reasoned response to stakeholder comments and concerns *before* any action is taken based on recommendations.

**2. *Important Differences Between CAISO and PTO Reliability Study Assumptions (and the Implications) Should be Clearly Identified, and Major LA Basin, and San Diego Reliability Transmission Projects Such as the SDG&E-Proposed Valley Inland Power Link Should be Assessed Within the Broader Context of Planning Assumptions and Options Such as Established via CAISO, CPUC and CEC Processes.***

In several TPP planning cycles, differences between reliability transmission needs identified by the CAISO versus by a PTO have been attributed at least in part to different study assumptions. Particularly in the LA Basin-San Diego area, the interplay among major uncertainties, alternative planning scenarios, and a diverse mix of solutions creates a challenging situation to assess. Discussion and understanding are hindered when differences among studies regarding key assumptions are unclear. Thus, the CAISO and PTOs should make such differences clear to stakeholders. For example, there might be different assumptions regarding loads, regarding the magnitudes, locations or performance of demand side measures, and regarding characteristics and locations of both preferred and conventional resources.

Furthermore, any major reliability transmission project such as the SDG&E-proposed Inland Power Link should be assessed within the broader set of planning uncertainties and potential solutions applicable to the LA Basin-San Diego area, using clearly identified planning assumptions such as established through CAISO, CPUC and CEC processes. This particular

proposed transmission project might be a candidate for consideration within such a broader planning context, which should include careful consideration of the environmental consequences and feasibility of potential solutions.

**3. *The Harry Allen-Eldorado 500 kV Project Evaluation Should Distinguish Between Future Need for (and Value of) Local Capacity Versus Flexible Capacity Versus any Residual Need for System Capacity, Along with the Ability of this Transmission Project to Deliver Each Kind of Capacity.***

In 2013-2014 TPP studies of the Delaney-Colorado River and Harry Allen-Eldorado transmission projects, a substantial portion of the estimated benefits came from cost savings for obtaining system Resource Adequacy (RA) capacity from out of state via the transmission line rather than from within California. This depends in part on the deliverability and cost of the out-of-state capacity, including the extent of any out-of-state capacity surplus. However, a factor not addressed that could affect capacity import benefits is the future in-state need for *local* versus *flexible* versus *residual (system)* capacity, and the extent to which these different needs would or could be met by particular kinds of in-state resources, including preferred and local resources, versus out-of-state resources. This affects the need for and value of capacity delivered over an out-of-state or interstate transmission line proposed for incorporation (and cost recovery) within the CAISO controlled grid, and should be addressed in the Harry Allen-Eldorado study. The ability of the proposed project to enhance delivery and utilization of flexible capacity, including via an Energy Imbalance Market, also appears to be relevant.

Appropriate treatment of different kinds of capacity and capacity benefits should be documented as part of study results and should be fully reflected in overall Harry Allen-Eldorado benefits assessment, and in consideration of the project for approval.

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