

CALIFORNIA ISO 2012-2013 TRANSMISSION PLAN

COMMENTS OF THE STAFF OF THE CALIFORNIA PUBLIC UTILITIES COMMISSION FOLLOWING THE SEPTEMBER 26 AND 27 STAKEHOLDER MEETINGS ON ISO RELIABILITY STUDIES AND PTO-PROPOSED SOLUTIONS

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Introduction

The Staff of the California Public Utilities Commission (“CPUC Staff”) appreciate this opportunity to provide comments on the California Independent System Operator’s (“ISO”) reliability studies and Participating Transmission Owners’ proposed reliability solutions, as presented before and during the September 26-27 Transmission Planning Process (“TPP”) stakeholder meeting. Our comments below emphasize the value of benefit-cost analysis for reliability transmission projects, the need to clearly identify (and discuss) the nature and implications of alternative scenarios used to justify reliability projects, and the need to better identify opportunities and requirements for non-wires solutions, in enough detail and far enough in advance.

- 1. CPUC Staff support broader use of benefit-cost (b/c) methodology for justifying reliability upgrades, combined with explicit explanation of how other factors not captured in b/c may influence decisions.*

We applaud PG&E’s incorporation of b/c based on value of service by customer class and probability of load loss, for some proposed transmission solutions. However, this method should be applied further, for all PTOs and for more types of transmission

proposals especially where driven by Category C (multiple outage) contingencies. Value of service and probabilities of contingencies are not perfectly known, but b/c nevertheless provides a transparent and useful basis for understanding and discussing the rationale and need for transmission upgrades. For example, if value of service and probability of loss of load (and its magnitude, duration) yield a very high b/c, then the need for a proposed transmission (or non-transmission, if more economic) solution may be well established. On the other hand, a low b/c should indicate a need to carefully consider the strength of rationale other than loss of load-based b/c to justify a proposed project. Accompanying and essential for b/c assessments should be consistently reported estimates of the cost range for transmission upgrades being proposed. For projects exceeding \$50 million, this should include the basis for high and low estimates. It is also critical that key assumptions (e.g. value of service and loss of load) be reasonable, but with that caveat CPUC strongly supports b/c analysis of projects.

2. Where substantial transmission investments are being justified to a significant extent based on alternative (non-TPP base case) risk scenarios, those scenarios, their rationale and their impact on proposed investment decisions need to be fully identified.

Based on SDG&E's presentation and accompanying discussion at the September 27 stakeholder meeting, proposed large investments in synchronous condensers and a new 230 kV line appear to be driven in part by alternative supply (and load?) scenarios, such as regarding SONGS, Encina and imports. The exact nature, rationale and implications of such scenarios, and their relationship to the TPP base case, should be more fully explained, particularly as the ISO evaluates this proposal and shares its assessment and conclusions with stakeholders.

CPUC Staff strongly supports analysis of alternative supply scenarios/contingencies, but this information is only useful when all key assumptions are fully understood.

3. *Assessment of PG&E's proposal for a new 230 kV line into San Francisco should be transparently based on benefit versus costs including marginal benefit relative to a non-wires solution.*

Only a few years ago, major justifications for the Trans Bay Cable (TBC) included enabling retirement of local fossil generation while avoiding another AC import line that would itself be costly and challenging to site and permit. Now, we are told that after that retirement of local fossil generation, “catastrophic” (category D) outage of existing AC import lines would lead to inoperability of the TBC itself, unless another AC import line (that would need to avoid catastrophic outage affecting existing AC lines) is built, or perhaps if local generation is added that could energize the DC-AC converter at Potrero. The TBC presentation at the September 27 stakeholder meeting indicated that 3 MW of local generation could accomplish this energization.

Considering the imposing prospect of building a new \$0.5 billion (PG&E's estimate) AC transmission line into San Francisco with nontrivial siting and permitting implications, the ISO's evaluation of transmission needs and solutions for this situation must be thorough and clearly explained, including at least the following:

- Reconciliation of the present assessment with the original evaluation and approval of the TBC, including what conditions and assumptions have changed (if any) since that approval.
- Explicit quantitative characterization of the risk that would be mitigated by building a new 230 kV AC line, including the nature of the transmission contingency and its probability, as well as the magnitude, duration and estimated cost of the load outage. This should include description of the outage impacts that would be experienced even if the AC line was built.
- The ability and cost of non-wires alternatives, particularly non-emitting generation and storage, to maintain operability of the TBC under the catastrophic contingency in question should be fully explored and assessed. In particular, the options and costs for black starting the converter station with local power sources plus any needed modifications to the converter station itself should be thoroughly examined and reported.
- The marginal benefit and cost of the proposed AC line vs. non-wires alternatives should be clearly analyzed and reported.

The CPUC Staff strongly support conducting the additional analysis described above before considering an additional AC import line into San Francisco.

4. To provide real opportunities for non-wires alternatives to transmission, it is essential to determine what granularity in DSM and DG planning cases is needed to provide real substitutes for specific transmission additions, and to define opportunities and needs for non-wires alternatives far enough in advance of transmission decisions.

There seems to be a disconnect between DSM and DG in cases developed through the CPUC and CEC versus what granularity of non-wires information is sufficient to avoid or delay specific transmission additions. The ISO's studies and its communications with stakeholders should explicitly identify situations where, within the TPP, potential deferral or avoidance of transmission investments is precluded by imprecision regarding the location, characteristics or timing of DSM and DG included in planning cases. Then, we need to address how this situation could be improved. If the state and its energy loading order place a high priority (and expend considerable effort) on DSM and DG, and this does not translate into comparable impacts on transmission planning, then changes are needed.

More specifically and perhaps more immediately addressed, the TPP needs to clearly identify situations where non-wires solutions would be valuable to avoid or defer specific transmission additions that would otherwise be imminent. This needs to be done with sufficient specificity (needed locations and non-wires resource characteristics) to allow timely development of viable non-wires proposals and projects by market participants or even via regulatory initiatives. The short interval after posting of reliability studies (and even shorter interval after posting of proposed wires solutions) up to the deadline for submitting alternative reliability solutions is generally inadequate for development of appropriate, viable non-wires alternatives.

Part of the answer is to identify and flag as transparently and comprehensively as possible those imminent transmission needs for which non-wires solutions are likely to be applicable - - at least a year in advance of when a transmission decision will have to be

made. The recent proposal for an \$0.5 billion new AC line into San Francisco is an example of where non-wires solutions may be very desirable, but may need sufficient time to be developed and tailored to the situation and risks of concern.

Finally, until there is better advance identification of what characteristics, locations and timing of non-wires solutions are eligible to substitute for (or at least compete with) wires solutions, there is very limited ability of market participants, innovators, and even state agencies to identify, develop or promote the appropriate non-wires solutions and investments. For example, when does the non-wires solution need to be available? How dispatchable does it need to be? What reactive support or inertia does it need to provide? What locations on the grid are critical? What timing is critical? We hope that efforts such as the new DG deliverability studies, Rule 21 reforms and operational flexibility studies will help clarify these questions, particularly for critical areas such as the L.A. Basin. Otherwise, the TPP is not providing sufficient information, sufficiently in advance, to achieve the State's goals for preferred resources (e.g. DSM and DG) and prevent unnecessary costs to the State's economy.

5. The ISO should clearly identify and interrelate recommended near term transmission investments (next two years) driven by risk of continuing SONGS outage and the longer term value of these and other investments in the LA Basin and San Diego.

It is important that recommended near term investments as well as potential subsequent measures be evaluated on their longer term value with and without the return of one or both SONGS units. This must be done in the context of estimated overall longer term transmission needs in the L.A. Basin and San Diego local areas, to help provide a clearer picture of “least regrets” investments and the interaction of the transmission implications of the SONGS and OTC situations.

6. ***Assessment of Fresno area transmission upgrades should utilize benefit-cost assessment for reliability (and economic) upgrades, identification of which specific planning objectives beyond reliability are being used to justify transmission upgrades, and analysis of RPS portfolios beyond the base portfolio.***

The assessment should clarify both the need for and sufficiency of the set of proposed transmission additions to meet all stated objectives, as well as the likelihood and conditions for needing further transmission additions to meet the objectives within a few years.

7. ***Any reliability transmission needs significantly or solely driven by the generator interconnection process should be clearly identified as such, and the generation in question should be identified to the extent permitted by confidentiality considerations.***

This will be important to transparently link the planning of reliability-driven and other (especially policy-driven) transmission, consistent with the ongoing priority to better coordinate transmission and resource planning.

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