

# Stakeholder Comments Template

## Review Transmission Access Charge Wholesale Billing Determinant

### June 2, 2016 Issue Paper

Submitted by	Company	Date Submitted
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The ISO provides this template for submission of stakeholder comments on the June 2, 2016 issue paper. The issue paper, presentations and other information related to this initiative may be found at:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/ReviewTransmissionAccessChargeWholesaleBillingDeterminant.aspx>

Upon completion of this template please submit it to [initiativecomments@caiso.com](mailto:initiativecomments@caiso.com). Submissions are requested by close of business on **June 30, 2016**.

### Issue Paper

Currently the ISO assesses transmission access charge (TAC) to each MWh of internal load and exports. Internal load is measured as the sum of end-use metered customer load (EUML) in the service area of each participating transmission owner (PTO) in the ISO balancing authority area. Clean Coalition proposes that the ISO change how it measures internal load for TAC purposes, to measure it based on the hourly energy flow from the transmission system to the distribution system across each transmission-distribution substation; a quantity called “transmission energy downflow” (TED). The main difference between using TED or EUML as billing determinant is that TED excludes load that is offset by distributed generation (DG). Please see the ISO’s June 2 straw proposal for additional details.

The ISO does not yet have a position on the Clean Coalition proposal, and it has posted the June 2 issue paper in order to stimulate substantive stakeholder discussion and comments on this topic.

1. At this point in the initiative, do you tend to favor or oppose Clean Coalition's proposal? Please provide the reasons for your position.

When there are system-wide costs or benefits that can be clearly identified, SVP supports the allocation of such costs and benefits to those parties that are creating the benefits or costs. However, SVP is not convinced that the Clean Coalition's Proposal ("Proposal") will result in an appropriate identification and allocation of such costs and benefits without posing additional problems and cost shifts.

2. Clean Coalition states that TED is better aligned with the "usage pays" principle than EUML is, because load offset by DG does not use the transmission system. Do you agree? Please explain your reasoning.

SVP generally supports aligning cost allocation with cost/benefit causation, but has concerns with the Proposal. With respect to the existing transmission system, the Proposal has not demonstrated any identified cost savings, but it does potentially result in significant cost shifts. Though historical transmission expenditures have been made to serve the Customer Energy Downflow (CED) prior to the installation of DG, the Proposal would allow the purchasers of DG to avoid paying for these past investments and shift the costs of existing transmission facilities to others.

With respect to the proposition that "DG does not use the transmission system," SVP has several questions:

- Since many DG facilities are variable or intermittent generators, to what extent can their production be relied upon to reduce transmission costs, both existing infrastructure and planned future additions? How is this proposition supported by CAISO transmission planning practices? Doesn't the Load offset by DG still need the transmission system when the DG isn't producing?
- The transmission-distribution voltage level interface differs by PTO. Would the proposal also apply to large gas fired generators that service system load requirements? For example, what about existing or future large gas fired generators that are installed on SCE's non-CAISO controlled < 200 kV system? Would load served by their generation be excluded from TAC charges?
- Would the Proposal apply to aggregated DG that may not all be fed from the same transmission station or even in the same sub-LAP or at the same LMP node? If aggregated DG from different locations is bid into the CAISO market would it still be assumed to not use the CAISO transmission system?

3. Clean Coalition states that using TED will be more consistent with the “least cost best fit” principle for supply procurement decisions, because eliminating the TAC for load served by DG will more accurately reflect the relative value of DG compared to transmission-connected generation. Do you agree? Please explain your reasoning.

SVP supports integrated planning that looks at the entire cost of serving customers. With respect to transmission costs associated with resource selection, this consists of two components – the incremental transmission cost incurred and the decremental transmission costs avoided by the resource selection. The current generation interconnection process focuses on identifying the incremental transmission costs; the procurement processes are able to incorporate such costs in Least Cost Best Fit evaluation protocols. There is currently no significant coordination on the location of generation facilities in order to reduce transmission costs.

The process for calculating avoided transmission investments by targeted procurement choices is less developed and requires information exchange and coordination between the CEC, CPUC and CAISO. This process was most recently exhibited in the resource procurement efforts in Orange and San Diego Counties following the shutdown of SONGS. In such cases, it was the spatial location of the resource that was equally or more important than the interconnection voltage. In the SONGS shutdown example, generation within the target area connected at transmission or distribution voltage assisted in addressing the reliability need.

SVP is concerned that the Proposal seeks to claim 1) a reduction in payment for current transmission costs based on a future transmission cost savings that is speculative, and 2) that the transmission benefit follows the interconnection voltage. The benefits claimed by the Proposal are possible only if the transmission planning process is coordinated with the procurement process. However, if the transmission planning process is coordinated with the procurement process, then the benefits of DG and reduced transmission expansion costs would be realized even without implementing the Proposal while ensuring appropriate allocation of costs and benefits (achieving an integrated planning solution in an unbundled environment).

4. Clean Coalition states that changing the TAC billing determinant to use TED rather than EUML will stimulate greater adoption of DG, which will in turn reduce the need for new transmission capacity and thereby reduce TAC rates or at least minimize any increases in future TAC rates. Do you agree? Please explain your reasoning.

A TAC billing determinant that utilized TED rather than EUML may certainly provide a significant incentive for procuring DG. However, SVP is concerned that the anticipated future transmission cost savings assumed by the Proposal are speculative. As noted above, the process for avoiding transmission investments by targeted procurement

choices is less developed and requires information and coordination between the CEC, CPUC and CAISO. Improvements to that process targeted to specific transmission deficiencies could result in demonstrable savings. Such process improvements are neither dependent on nor improved by the Proposal. The Proposal assumes that by encouraging DG throughout the electric distribution system, all installations will reduce the need for new transmission. In reality, absent coordinated planning and procurement processes, only some installations will, by chance, be in locations that reduce the need for new transmission. Again, this is not only speculative, but inefficient. Given the small number of transmission capacity projects to serve load in recent planning cycles, many DG projects would not have an appreciable impact on the need to expand the transmission system. It is also possible that the reduction in load due to DG may actually trigger the need for additional transmission, rather than a reduction in transmission.<sup>1</sup> As noted above, the coordination required to achieve the Proposal benefits would achieve the benefits in the absence of the Proposal.

To the extent Clean Coalition is asserting the need for transmission to connect renewable resources will be displaced by DG stimulated by the Proposal, SVP questions whether the quantity of renewable resources necessary to meet California's Renewable Portfolio Standards could possibly be interconnected with the distribution system. If not, then DG is not likely to eliminate the magnitude of transmission expenditures assumed by Clean Coalition.

5. In the issue paper and in the stakeholder conference call, the ISO pointed out that the need for new transmission capacity is often driven by peak load MW rather than the total MWh volume of load. This would suggest that load offset by DG should get relief from TAC based on how much the DG production reduces peak load, rather than based on the total volume of DG production. Please comment on this consideration.

As noted previously, SVP generally supports aligning cost allocation with cost causation. Therefore, a demand based charge for a capacity product, such as transmission, might be appropriate and a more efficient way to allocate costs to those who benefit from the additional product. A number of questions would need to be resolved, however, before implementing such a change. For example:

- How would the demand charge be determined? Monthly, annually?
- Would the demand charge be ratcheted? If so, for how long (e.g., annually, every ten years)?

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<sup>1</sup> Consider the case of an area with surplus generation that is exported on the transmission system. The addition of any generation in the area, whether transmission or distribution connected, will increase the flows on the transmission system.

- How would a demand based charge be reflected in other CAISO market processes?<sup>2</sup>
6. Related to the previous question, do you think the ISO should consider revising the TAC billing determinant to utilize a peak load measure in addition to or instead of a purely volumetric measure? Please explain your reasoning.

Please see the response to question 5.

7. Do you think adopting the TED billing determinant will cause a shift of transmission costs between different groups of ratepayers? If so, which groups will pay less and which will pay more? Please explain your reasoning, and provide a numerical example if possible.

Please see the response to question 2.

8. Do you think a third alternative should be considered, instead of either retaining the status quo or adopting the TED billing determinant? If so, please explain your preferred option and why it would be preferable.

A third alternative that could be considered would be the improved coordination in the transmission planning and resource procurement processes, including consideration of the transmission deferral value of local generation in targeting procurement in specific areas of the electric system where there is a forecasted transmission deficiency. (See response to questions 3 and 4). In this case, perhaps DG in a location could be credited for future benefits to the system based on actual benefits to that area. For example, if in future TPP processes, it is determined that the need for additional transmission in a load pocket has been avoided by DG serving load in that area, then at that future time the affected DG could be credited for the reduction in costs to the transmission system. This sort of a transition to TED would require close modeling, tracking and identification of DG projects and how they impact load/supply balances in each area.

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<sup>2</sup> Consider the case where generation that is used, in part, to manage demand charges submits a bid to the CAISO energy markets. How would such potential transmission charges be included in evaluating the bid to determine the optimal unit commitment and dispatch? What would be the impact on bid cost recovery payments if a resource running to manage peak demand is dispatched down? Would the resulting increased demand charges be recoverable through bid cost recovery?

9. Do you think that ISO adoption of TED by itself will be sufficient to accomplish the Clean Coalition's stated objectives (e.g., incentives to develop more DG)? Or will some corresponding action by the CPUC also be required? Please explain.

No. Increased coordination in the CPUC-jurisdictional procurement processes with the CAISO transmission planning process would be needed. As noted in the response to questions 3 and 4, however, such coordination would yield the desired benefits even in the absence of the Proposal.

10. What objectives should be prioritized in considering possible changes to the TAC billing determinant?

Please see the response to question 11.

11. What principles should be applied in evaluating possible changes to the TAC billing determinant?

- Avoidance of cost shifts not tightly linked to cost or benefit causation.
- The proposed change should be the most efficient and effective manner to accomplish the stated objectives.

12. Please add any additional comments you'd like to offer on this initiative.

Regarding distributed energy storage - in general a distributed energy storage device would increase TED because the round trip efficiency is something less than 100%, but at the same time it would be able to shift peak transmission usage to non-peak hours.

Further, any adjustment to the wholesale billing determinant should be technology neutral and shouldn't benefit one technology at the detriment of another.