

26 October 2016

Board of Governors
California Independent System Operator Corporation
P.O. Box 639014
Folsom, CA 95763-9014

RE: Board of Governors Meeting and the TAC Wholesale Billing Determinant Stakeholder Initiative Cancellation

Dear CAISO Board of Governors,

As California moves to build an energy portfolio with 50% renewable energy, we need to ensure that energy investments optimize benefits to the ratepayers. To do this, we must correct the market distortion that Transmission Access Charges (TAC) currently create, which burdens parties receiving energy from local renewables with approximately \$0.03 per kWh of unfairly assessed energy delivery costs.¹ CAISO had the opportunity to resolve this market distortion through its TAC Wholesale Billing Determinant stakeholder initiative. However, on September 26, CAISO staff abruptly cancelled that initiative, stating that it will open a new initiative to consider the TAC structure in a comprehensive manner after resolving regional expansion issues.²

CAISO's stated rationale for delaying discussion on the proposal included serious flaws and contributed to existing factual disagreements. Although CAISO staff has since privately corrected at least one of its errors (that increased deployment of local generation can and does reduce transmission investment), other stakeholders and the market have not heard that message, factual disagreements remain unresolved by CAISO that prevent stakeholders from further analyzing the Clean Coalition's proposal, and CAISO continues to delay resolving this market distortion even though a simple fix exists that would save ratepayers billions of dollars in avoided transmission investment.

We urge you to direct the staff to address this issue without delay, starting with (i) providing clear indication to stakeholders and to the market that the ISO recognizes that distributed generation resources do contribute to reducing transmission needs, that TAC does not currently reflect this value, and that the ISO intends to make changes to TAC that will appropriately reflect this value, and (ii) resolving the factual disputes.

California stakeholders and policymakers such as Rep. Anna Eshoo (D-CA) are concerned over CAISO's failure to implement easy, impactful, inexpensive, needed TAC reform under the ISO's current structure, and the implications if expanding to become a regional grid governed by a multi-state board.

Reasons for Urgency to Address Significant Market Distortion

Statewide, planning and procurement decisions are reliant upon direction from CAISO on this matter and require guidance today in concert with timely progress in refinement, approval, and

¹ For a very brief overview of this issue and the Clean Coalition's proposal, see the attached addendum.

² <http://www.caiso.com/Documents/StatusUpdate-ReviewTransmissionAccessChargeBillingDeterminant.pdf>

implementation of proposed resolution of the issue. Stakeholders are engaged, the continued hiatus is unwarranted, and the delay is costly. Below are the reasons this issue should not be delayed:

1. By obscuring the true value of local renewables, California ratepayers risk paying a steep price in unnecessary transmission infrastructure investments and related costs. This artificially depresses the development of clean local energy and the associated economic and environmental benefits. Utilities are currently working to meet renewable portfolio standard goals through energy procurement decisions *and the transmission planning necessary to support those resources*. Without fully valuing the contributions of local renewables, California ratepayers are missing out on savings.
2. The proposed path forward is not likely to yield the results CAISO staff are seeking. Broader review of the TAC structure is unrelated to—and unnecessarily complicates—the question of the correct location to measure the current volumetric usage, potential demand rates, or any other billing determinant. Where to meter transmission usage for the purposes of assessing TAC will remain a question regardless of whether the TAC structure changes. Any other TAC changes can *be addressed separately*. Conflating where to measure the billing determinant with whether and how to redefine the TAC structure would combine a relatively narrow question with a much broader, more variable, and politically much thornier issue that will take much more time and resources to resolve. A more efficient approach would be to resolve the billing determinant location matter in its current initiative, and then convene a subsequent initiative or phase to undertake a broad review of the underlying TAC structure.
3. Failure to resolve the TAC market distortion on local renewables frustrates other California policy priorities that rely on cost-effective renewable procurement. Meeting the 50% renewable portfolio standards by 2050 requires significant planning and procurement decisions by the major California utilities, many of which are already underway. In addition, the state is heavily engaged in distribution resources planning to identify locations and opportunities where local renewables offer net benefits over conventional infrastructure and generation solutions. The outcome of comparative cost effectiveness is dramatically influenced by the application of long term transmission assessments on energy received from local resources. Additionally, the California Public Utilities Commission is developing models to manage integrated resources planning where interactive technologies might be identified as cost-effective solutions to localized energy issues. These initiatives rely on comparing the values of different energy sources, and failure to credit local renewables for the avoided transmission costs distorts the outcomes of all these processes and proceedings.
4. It is possible that the easy fix to the existing TAC market distortion in PTO utility service territories can also be applied at the SHV level in a regionalized balancing authority. Hence, it is important to make the relatively easy and timely fix *before* spending immense amounts of additional wherewithal contemplating regionalization.
5. The delay risks spreading the market distortion to other states. By subjecting local renewables in other states to transmission fees, CAISO could chill additional development even beyond California.

Factual Disagreements about How CAISO Operates Prevent Further Analysis and Discussion

The cancellation notice claimed that local renewables do not reduce peak load, when both the Clean Coalition and PG&E's own projections directly contradict that assertion. Additionally, the notice stated that transmission investment is primarily driven by increases in peak load. Although peak load growth is a driver of transmission investment in general, California's efficiency measures have resulted in

little recent or projected growth in peak load, and most currently planned transmission infrastructure is being built to deliver energy from remote renewable sources—a demand that would be reduced if local renewables were properly valued.

CLECA's [letter](#) opposing the Clean Coalition's proposal grossly misrepresents the proposal from top to bottom, and includes numerous unsubstantiated claims of error which are themselves inaccurate. It is a very strong example for why it is so important for ISO staff to address factual errors and misrepresentations introduced by stakeholders that obfuscate and confuse the issue as well as the proposed remedy. Until CAISO confirms how TAC is assessed and collected, (i) stakeholders cannot efficiently evaluate the Clean Coalition's TAC proposal, and (ii) the Clean Coalition cannot determine what modifications, if any, to make to its proposal. The Clean Coalition has delivered to CAISO a document identifying the areas of stakeholder disagreement, and offered to assist in resolving them as needed.

Reopening the initiative will allow stakeholders to move forward on at least refining what analysis would be required by CAISO staff so that they will be prepared to schedule and take on such tasks as soon as they are available. Likewise, we can work with stakeholders to address concerns and move toward consensus, or at least a clear understanding of policy differences, if CAISO is responsive to the questions of fact on this issue, as summarized in the Factual Disagreements document we provided, collated from stakeholder comments.

TAC Market Distortion Background

As we have mentioned in our previous letter and comments, TAC should *only apply to energy delivered through the transmission system*. CAISO currently assesses TAC on all California electric energy consumption in Participating Transmission Owner (PTO) service territories based on the End-User Metered Load. As a result, TAC currently applies to all metered consumption of energy—including both energy from local wholesale distributed generation and all energy entering the distribution system from NEM customers³ (i.e., customer generation in excess of immediate consumption). In reality, locally generated energy reduces transmission costs by reducing peak load conditions, reducing the demand for additional transmission investment, and freeing capacity on the transmission system.

By assessing transmission costs on energy from local renewables, the current TAC billing determinant causes local generation to subsidize costs associated with the transmission grid, artificially increasing the cost of utilizing local renewable resources, and artificially inflating the demand for additional transmission investment. This market distortion harms ratepayers by discouraging the development of cost-effective local renewable energy resources, depriving communities of the benefits of local energy development, and artificially inflating demand for transmission capacity.

The Clean Coalition leads an alliance of 57 organizations, including major environmental, producer and community groups, supporting a proposal to address this issue by changing the billing determinant from the End-User Metered Load to the Transmission Energy Downflow.⁴ This proposal was

³ Customer generation in excess of their instantaneous load is exported to the distribution system and delivered to serve the metered load of neighboring customers.

⁴ For additional detail on the proposal, please see the Clean Coalition's June 30, 2016 Comments in response to CAISO's TAC Wholesale Billing Determinant stakeholder initiative Issue Paper, available at: <http://www.caiso.com/informed/Pages/StakeholderProcesses/ReviewTransmissionAccessChargeWholesaleBillingDeterminant.aspx>.

under review in the TAC Wholesale Billing Determinant stakeholder initiative. Initial stakeholder comments in the initiative revealed significant disagreement between parties on the current TAC metering and billing process, only some of which are relevant to the actual proposal, highlighting a need for the resolution of multiple factual disagreements. The proposed fix would effectively solve the market distortion while adopting a consistent practice that is simple, cheap to implement, and already in use by most municipal utilities in CAISO territory -- meter transmission usage based on the transmission energy downflow (TED) at the substations. This solution would cost less than \$20 million to implement and would save California ratepayers billions in avoided transmission costs over the next 20 years.⁵

We urge you to direct CAISO staff to address the factual disputes raised by stakeholders about how transmission access charges currently operates. As the organization defining transmission access charges, CAISO has the ability and responsibility to lead this discussion and resolve these basic issues of fact. In addition, we ask that CAISO should re-open the designated stakeholder initiative created to resolve the TAC billing determinant and retain its focus on where to measure transmission usage.

It is the right thing to do for California and its energy future.

Sincerely,

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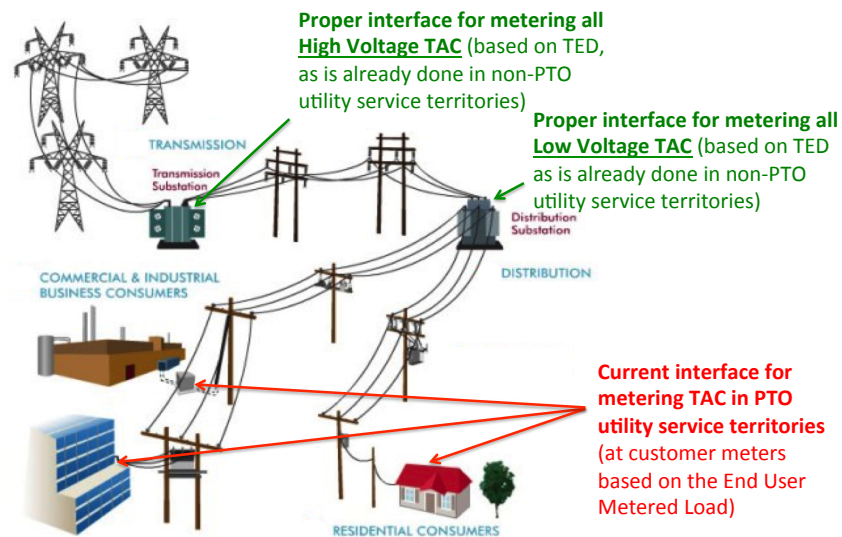
⁵ Clean Coalition modeling of a fix of the existing TAC mechanism and decreased Transmission Revenue Requirements due to increased development of local resources project avoided cost savings in the range of \$20-30 billion over 20 years. The Clean Coalition has developed a TAC Impact Model to allow stakeholders to vary and assess factors used to develop these estimates.

Addendum to Clean Coalition Letter to the Board of Governors

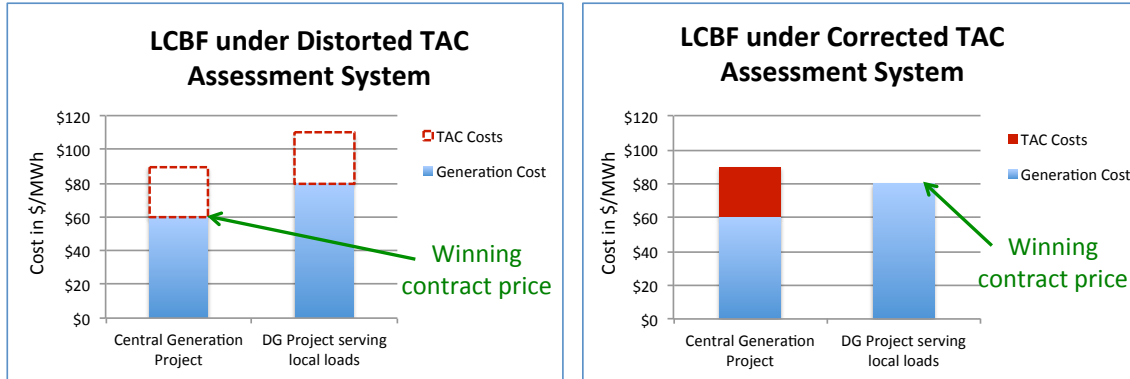
RE: Board of Governors Meeting and the TAC Wholesale Billing Determinant Stakeholder Initiative Cancellation

This addendum aims to provide a very brief overview of the Transmission Access Charges (TAC) market distortion that disadvantages local renewables by approximately \$0.03/kWh. CAISO currently assesses TAC on all California electric energy consumption in Participating Transmission Owner (PTO) service territories based on the End-User Metered Load, or the amount of energy that crosses from the distribution system to the customer via a meter. As a result, TAC currently applies to locally generated energy (including exported net energy metering energy) that does not travel along the transmission system to reach customers. In reality, locally generated energy reduces transmission costs by freeing capacity on the transmission system.

To create a fair, transparent, and consistent TAC assessment practice, the Clean Coalition recommends that CAISO measure PTO transmission usage at the Transmission Energy Downflow, where energy down-converts from transmission to distribution voltages. Importantly, CAISO already allows non-PTOs to pay TAC based on this assessment system by opting to be treated as Metered Sub-Systems. The graphic below compares how TAC is metered in PTO utility service territories (at the End-User Metered Load) to how TAC is metered in non-PTO utility service territories (at the TED).

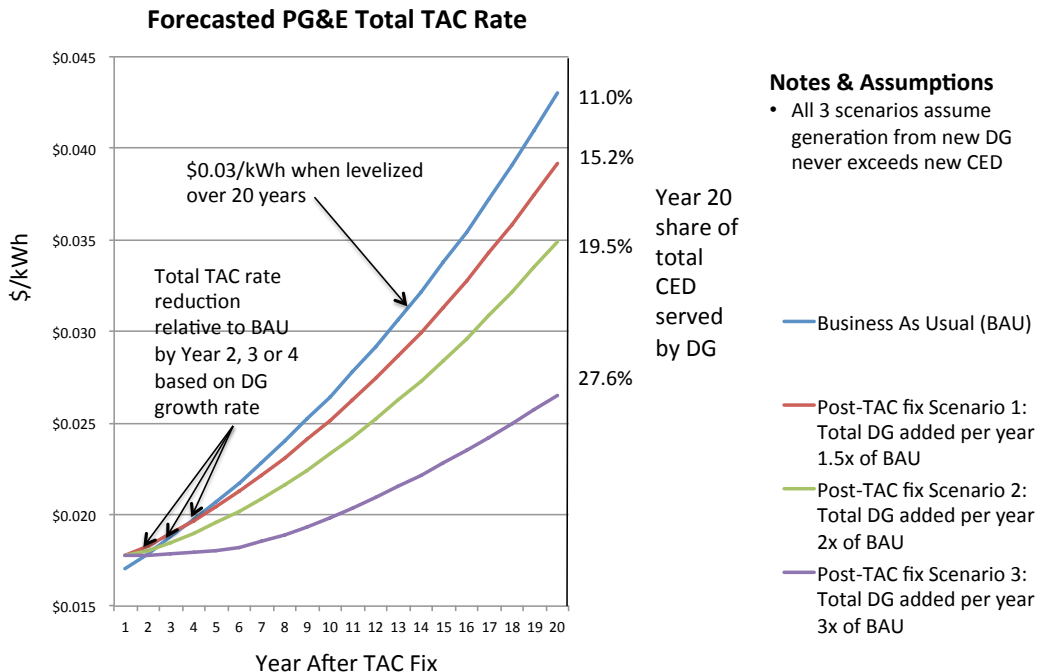


The current method for assessing TAC causes local generation to subsidize costs associated with the transmission grid, distorting Least Cost Best Fit (LCBF) conclusions when comparing local generation to centralized generation. The charts below compare distorted LCBF conclusions (left chart) against corrected conclusions (right chart). This market distortion harms ratepayers by discouraging the development of cost-effective local renewable energy resources, depriving communities of the benefits of local energy development, and artificially inflating demand for transmission capacity.



Re-opening the TAC Wholesale Billing Determinant initiative and resolving the existing factual disagreements between stakeholders will enable all parties to agree on the status quo and adequately review a proposed solution. Addressing this issue without further delay will provide parties the opportunity to identify potential solutions.

Measuring TAC at substations in all service territories will provide consistent TAC treatment across the entire CAISO region and ensure accurate market signals. The elimination of the massive TAC market distortion will result in increased deployments of local generation, which will significantly reduce TAC over time and save ratepayers enormously. The Clean Coalition estimates that a solution to the TAC distortion will increase the amount of local renewables by at least a factor of 5 and save California ratepayers about \$40 billion in transmission costs over 20 years. The chart below shows drastically reduced TAC rate outcomes over 20 years by eliminating the TAC market distortion. The area between the blue and red curves represents about \$20 billion in avoided PG&E transmission costs over 20 years.



By prioritizing the review of the TAC billing determinant, we can work together to resolve the TAC market distortion that currently disadvantages local renewables and build a more fair, transparent, and cost-effective electricity system.

For additional information on the Transmission Access Charges campaign, visit www.clean-coalition.org/tac.