

# Stakeholder Comments Template

## Consolidated Energy Imbalance Market initiative

### July 31, 2017 Straw Proposal

Submitted by	Company	Date Submitted
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SCE herein provides comments on the Consolidated EIM Straw Proposal (Straw Proposal) issued on July 31, 2017.<sup>1</sup> In the prior issue paper,<sup>2</sup> the CAISO sought input on allowing third parties to offer transmission to support EIM Transfers in exchange for compensation. SCE had concerns about the provision of third party transmission as the cost recovery implementation could outweigh the benefits. Based upon feedback, CAISO has removed this from the consolidated EIM Initiatives; SCE supports this outcome. On the equitable sharing of wheeling benefits in the Straw Proposal, the CAISO performed a study on the use of EIM transmission which, as SCE will explain in more detail, shows that currently there does not appear to be an inequity that requires resolution. The Straw Proposal also addresses some changes that are needed for the implementation for Powerex to participate in the EIM which require additional explanation from the CAISO.

### **Straw Proposal**

1. The data provided by CAISO shows that all EIM Entities and the CAISO are receiving benefits which are greater than the amount of wheel-through, so no transfer of EIM Benefits is required

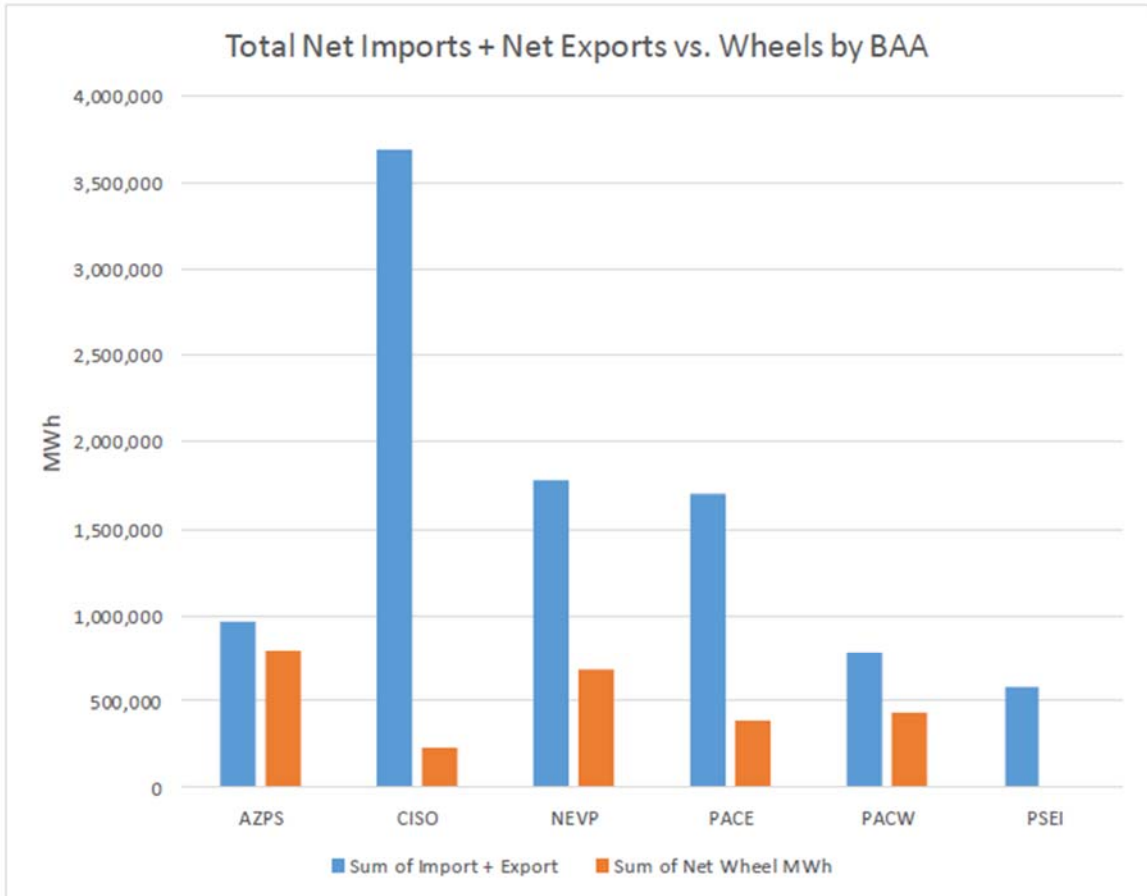
As EIM has grown, EIM Entities that are located on the interior of the network will provide wheel-through service to other EIM Entities or the CAISO. This is an expected outcome as part of the EIM design. There is a theoretical concern that an EIM

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<sup>1</sup> <http://www.caiso.com/Documents/StrawProposal-ConsolidatedEnergyImblanaceMarketInitiatives.pdf>

<sup>2</sup> [http://www.caiso.com/Documents/IssuePaper-ConsolidatedEnergyImbalanceMarketInitiatives\\_Updated.pdf](http://www.caiso.com/Documents/IssuePaper-ConsolidatedEnergyImbalanceMarketInitiatives_Updated.pdf)

Entity may be providing wheel-through service without receiving an equitable share of benefits from either purchasing cheaper power or selling power to other EIM participants.<sup>3</sup> To address this issue the CAISO performed a study that showed the volume of imports and exports—which are a benefit—compared the volume of wheel-through, which is shown below.<sup>4</sup>



**Figure 6: Summation of total net imports + total net exports in comparison to total wheels by BAA**

From the study, there is no balancing authority that is wheeling-through more energy than the amount of the combined imports and exports. If imports and exports are viewed as a benefit due to importing cheaper power or making sales to neighboring areas and wheeling-through is considered a cost (via lost revenues that would have been paid if the

<sup>3</sup> This is only on a volumetric energy basis, there are other benefits that EIM Entities receive by participating in EIM.

<sup>4</sup> Straw Proposal page 18, Figure 6. It is SCE’s understanding that the data is from November 2016 through mid July 2017. As the study only uses MWh there is no discussion of the value of the energy.

entity had not joined EIM), then based upon the energy volume analysis no party is receiving insufficient benefits to cover the costs. Therefore, it does not appear that a re-allocation of EIM benefits is warranted as it is not clear that any party is being harmed.

A simple volumetric measurement of benefit also ignores other benefits that EIM Entities receive by providing transmission, such as reduced cost and congestion management through security constrained optimization, reduced renewable curtailment, and reduced flexible ramping procurement through diversity. In addition, the analysis ignores any congestion revenues are collected from the action of providing EIM wheel-through. Therefore, before any decision is made to redistribute EIM benefits, additional analysis is required.

Finally, any redistribution of EIM benefits is counter to the transmission reciprocity principle used to support the EIM transfer. The CAISO states that this is not related to changes to transmission cost recovery due to EIM<sup>5</sup>, and no party has requested changes to the reciprocity principle of providing transmission. The proposed solutions, as described in more detail in the next section, produce inequitable results for CAISO located customers or reduce economic benefits to all participants.

For the above reasons, SCE does not support a redistribution of EIM benefits.

2. The Proposed solutions to redistribute EIM Benefits through an ex-post wheeling charge is unfair for CAISO's load customers and the hurdle rate approach distorts economic dispatch.

The CAISO is different from EIM Entities in two significant ways. First, the CAISO is not turning over a specific amount of transmission or using available transfer capacity<sup>6</sup> (ATC) to support the EIM Transfer. Instead, all unencumbered transmission is available to support EIM Transfers as CAISO's transmission capacity is allocated on an economic basis. If an EIM resource is cheaper than another import bid, the transmission is used to support the EIM Transfer and no revenue is collected through the reciprocity

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<sup>5</sup> See Consolidated EIM Issue Paper, issued June 27, 2017, page 12.

<sup>6</sup> ATC is unused transmission capacity which is only known after the deadline for submitting e-tags at T-20 before the trading interval.

principle.<sup>7</sup> At the stakeholder meeting on August 7, the CAISO mentioned one of the justifications for compensating for wheel-through is to encourage parties to make more transmission available for EIM. The CAISO has already made all available participating transmission available to support the EIM transfer.<sup>8</sup> The principle of reciprocity then would imply that EIM Entities should make their transmission available for market use in a similar fashion.

Second, only load (e.g. CAISO internal load or exports) from the CAISO system pay for transmission, which is different from the EIM Entities where load and generation pay for transmission. Generators located in the CAISO do not pay for transmission to deliver power to a CAISO trading boundary, and it would be the purchaser of a CAISO export that would pay the CAISO transmission charge.<sup>9</sup> To the extent an EIM Transfer has reduced CAISO wheeling-out exports, then the revenue reduction is re-allocated through the transmission access charge (TAC) calculation and most of the revenue shift will be paid by CAISO load customers. Thus CAISO load customers are supporting the cost recovery for EIM exports to other EIM balancing authorities.<sup>10</sup> It is hoped that CAISO's load customers would receive similar benefits through the reciprocity principle by not paying for non-CAISO transmission. However, the ex-post payment solution allocates the EIM Benefit Transfer (aka wheeling charge) based upon EIM Transfer exports plus imports. Since, CAISO cannot collect revenue from generators for transmission, the EIM Benefit Transfer would be charged to CAISO load. Since the large California investor owned utilities are not highly vertically integrated, the revenue for the export power supplied by merchant generation does not flow back to load customers. Therefore CAISO load will receive the costs without any off-setting revenue. As currently designed, the ex-post payment for EIM Benefit Transfer is unfair to CAISO's load customers as it is a benefit transfer not a transmission cost recovery. In contrast,

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<sup>7</sup> When there is an import, the revenue will be collected from internal CAISO load customers. This happens regardless if the flow is an import schedule or an import through the EIM transfer.

<sup>8</sup> Transmission rights held by non-participating transmission owners is not

<sup>9</sup> This only applies to non-EIM exports.

<sup>10</sup> This is different from EIM Entities that can redistribute any revenue short-fall to both load and generation customers.

EIM Entities can pass on the EIM Benefit Transfer to both load and generation customers and could use the ratio of imports to exports to obtain an equitable cost recovery.

The Proposed solutions to redistribute EIM Benefits through an EIM Benefits Transfer is unfair for CAISO's load customers and would be inconsistent with how wheeling-through is modeled in the CAISO market. Through its Full Network Model Expansion initiative, the CAISO has set aside the transmission capacity of its system in both day-ahead and real-time markets to support loop flow (which is a form of wheel-through), which essentially reduces the transmission capacity that otherwise would be available for the market to clear while CAISO load does not receive any compensation. This is another example whereby CAISO load customers have already paid to support wheel-through transactions. Having CAISO customers pay again to support wheel-through in another balancing authority amounts to a double payment.

Finally, the application of a hurdle rate distorts economic dispatch and is counter to the goal of EIM to reduce rate pancaking. The solution of applying a hurdle rate will result in a reduction of EIM benefits to all parties.

In summary, EIM has been highly successful in generating benefits and in part this is due to the principle of reciprocity in providing transmission to support the EIM transfer without a hurdle rate. When EIM Entities decided to join, they performed a benefit analysis which should include the all benefits they receive versus the cost or impacts to the transmission cost recovery. Ultimately, the EIM Entity joined because they would receive positive net benefits overall. There is no guarantee that the EIM benefits obtained would be uniform across EIM Entities and the CAISO. While SCE understands that examining the actual benefits and costs after the fact rather than relying on estimates prior to EIM is a good practice, SCE believes that in this case, the data support the current practice and policy and that no changes are warranted.

3. The new EIM functionality tools to support Powerex's participation need more explanation and justification

The CAISO is proposing adding the following additional EIM functionality to support the participation of Powerex:

- Automated Matching of Import/Export Schedule Changes with a Single EIM Non-Participating Resource

- Automated Mirror System Resources at ISO Intertie Scheduling Points
- Base EIM Transfer System Resource Imbalance Settlement
- Leveraging New Non-Generator Resource (NGR) Modeling Functionality
- Allow submission of Base Generation Distribution Factors (GDFs) for aggregated EIM Non-Participating Resources

The CAISO has not explained why Powerex needs these additional features and how these features address possible problems related to their participation. Furthermore, the CAISO does not mention how these features will improve other EIM Entities' participation. The CAISO should provide clear explanation of why these features are needed. In addition, examples should be provided for the changes that would impact settlement such as the automated matching and the use of generation distribution factors. The CAISO should clarify if the NGR modeling functionality is going to be applied to the same types of resources in the CAISO or if it is going to be applied to additional resources in the EIM that would not be categorized as NGR resources otherwise. If NGR is to be utilized for resources that would not otherwise be categorized as NGR, then the CAISO should explain why such treatment is necessary for the EIM and is not necessary for the CAISO market design. Finally, SCE would like to better understand why the CAISO will not be able to calculate generation distribution factors for aggregated resources as the child resources should be metered, and why it is different than existing resources in the EIM footprint.

- a. The automated matching of import/export schedule changes after the T-40 minute base schedule deadline should be for only for reliability situations and not economic reasons.

The straw proposal states that the automated functionality will eliminate the need for the EIM Entity to issue a Manual Dispatch instruction. The current tariff allows EIM Entities to make Manual Dispatches to participating and non-participating resources to address reliability or operational issues in their balancing authority.<sup>11</sup> When implemented after T-40 and prior to the fifteen minute or five minute optimization run, a manual dispatch can have the impact of changing an uninstructed deviation settled at the five minute price to instructed deviation at the fifteen or five minute price. SCE supports the

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<sup>11</sup> CAISO Tariff 29.7(g)

automated feature if it used for this purpose. However, this system should not be used to support changes to unit dispatch based upon economic information that may exist after the T-40 minute base schedule deadline. This would potentially enable EIM Entities in the real-time market to take advantage of economic opportunities based upon ex-post information which is not appropriate for a market design.