

## Comments on the CAISO Issue Paper for Extending the Day-Ahead Market to the EIM Entities

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SCE appreciates the opportunity to comment on the issues raised within the CAISO’s recently published Issue Paper<sup>1</sup> on extending the day-ahead market (EDAM) to the EIM footprint. SCE encourages the CAISO to seek alignment of the day-ahead and real-time market designs which strengthens the economic incentives that market participants face in both markets. While some issues such as transmission availability and accounting for greenhouse gas costs may pose challenges among stakeholders, SCE believes that these matters can be resolved through transparent and fruitful discussion among stakeholders.

SCE’s comments on the issues identified within the Issue paper, follow.

### **Price Formation and External Resource Participation**

Since participation in the DAM is voluntary, SCE expects that the market arrangements developed for facilitating the participation of EIM entities in this market will support efficient market operations inclusive of efficient price formation across the larger market footprint.

The CAISO has suggested fast-start pricing as a topic of interest in relation to the approach to market design for EDAM. SCE wishes to understand whether the current design of the flexible ramping product precludes any consideration of fast-start resources, hence the interest in fast start pricing. In addition, if this topic were to be included, the CAISO should be aware of and would need to address various concerns and potential adverse impacts thereof, including multiple concerns that the CAISO has previously noted<sup>2</sup>.

### **Resource Sufficiency Evaluation**

EIM entities are subject to the resource sufficiency evaluation in the RTM. Therefore the expectation is that the resource sufficiency evaluation will be applied to EIM entities that opt for participation in the DAM. The CAISO may wish to consider the exclusions of any transactions not bid into the DAM and that involve EIM entities and non-EIM entities within EIM BAAs as well as external resources to the EIM BAAs. Introducing this condition ensures the transparency of where capacity is sourced and the potential for delivery when needed. If the entry of incomplete transactions is allowed into the

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<sup>1</sup> Extending the Day-Ahead Market to the EIM Entities, <http://www.caiso.com/InitiativeDocuments/IssuePaper-ExtendedDayAheadMarket.pdf>

<sup>2</sup> See for example, the CAISO comments on Price Formation (AD14-14), available at [http://www.caiso.com/Documents/Mar6\\_2015\\_CAISOCComments\\_onTechnicalWorkshops\\_AD14-14.pdf](http://www.caiso.com/Documents/Mar6_2015_CAISOCComments_onTechnicalWorkshops_AD14-14.pdf).

evaluation, such an approach will very likely undermine the reliability of the test and thus allows for potential leaning among BAAs.

Inappropriate leaning by a BAA on other BAAs results in the energy transfers being frozen from the BAA that failed the test, the energy transfers are frozen at the level where the BAA most recently passed the evaluation.

The CAISO has expressed the desire to explore other options to the freezing of energy transfers when failure of the resource sufficiency test occurs. SCE is interested in understanding whether the CAISO seeks to determine, independently, resource sufficiency evaluation outcomes for BAAs between the DAM and RTM given the differing duration of the dispatch intervals prior to venturing into the consideration of alternative options.

The CAISO has expressed an interest in introducing resource flexibility trading to the market. While the trading of resource flexibility is an attractive consideration within EDAM, advancement of any considerations for trading flexibility will likely be contingent on the enhancements introduced within the Day-Ahead Market Enhancements (DAME) initiative. Consequently, it may be premature to discuss this matter now, and instead a delay may provide benefits from advancing the discourse and policy development within the DAME initiative.

Trading resource flexibility with neighboring BAAs should require that market participants pre-arrange transmission access to ensure delivery of the energy associated with the capacity included in the resource sufficiency evaluation for the relevant BAA.

### **Ancillary Services**

EIM entities usually have ancillary services commitments within the Western Electricity Coordinating Council (WECC) that are not managed by the CAISO. Accommodation of the reserve sharing groups as a complement to the DAM procurement of ancillary services may mean that whatever arrangements exist among the WECC members who happen to be EIM entities, may require that the quantities for the individual AS products are self-scheduled within the relevant AS market. However, deliverability needs to be addressed since the existence of reserve sharing groups is not a guarantee that delivery will occur when required. SCE wishes to understand how individual ancillary service products can complement the current ancillary services arrangements within the EIM BAAs.

### **Distribution of Congestion Rents**

While the current distribution of congestion rent revenues relies on whether the market participant's bid produces directional flow or counterflow that results in a net positive or negative price differential between the sink and source pair, SCE expects that same mechanism that is implemented in the RTM will be implemented in the DAM, whether the current mechanism is used, or an alternative is considered. Such an approach ensures that the economic incentives are aligned between the markets. If the CAISO determines that congestion revenues in DA and in RT should be distributed differently, then the CAISO will need to ensure that the different treatments do not cause differing and conflicting incentives.

### **Modeling of non-EDAM Imports and Exports**

SCE acknowledges the current approach that the CAISO uses to model imports and exports for the CAISO BAA and EIM BAAs. Although there is an existing difference in modeling imports and exports for the CAISO BAA relative to the EIM BAAs, SCE prefers to hear what were the CAISO's considerations that resulted in the current difference in approach and how the potential use of "scheduling hubs" may offer a consistent approach to the representation of these transactions among the EIM BAAs and the CAISO BAA. The use of "scheduling hubs" will be a departure from the current approach and can have profound implications for price formation in the CAISO market. Further how the CAISO would manage the geographic definition of "scheduling hubs" when the market footprint itself may be constantly changing with new entities joining the RTM and/or DAM, and how such definition would support robust market participation and efficient market outcomes is likewise important. Therefore, such an approach will require thoughtful reflection on the wide-ranging effects on price formation in the energy and ancillary services markets and the behavioral responses of market participants towards virtual bidding and especially congestion revenue rights.

SCE supports consistent modeling of imports and exports among the BAAs including the CAISO BAA but reserves judgment on this issue until the stakeholder discussion evolves on this matter.

### **Accounting for Greenhouse Gas Costs**

Greenhouse gas accounting in the CAISO market is exclusive, currently, to the CA BAAs. The current CAISO approach to accounting for greenhouse gas costs relies on an adder for greenhouse gas costs to the energy bid that applies to sales that originate outside of California and terminate in California. In addition, the attribution of megawatts that count towards greenhouse gas compliance in California applies to the difference between the maximum available economic capacity and the resource's base schedule. The latter will necessitate change in the absence of base schedules and with a mixture of base schedules and submitted bids from EIM BAAs into the DAM.

As an alternative when base schedules are not being used, the CAISO may wish to consider apportioning the cleared quantity for the resource by applying the ratio derived from the offered quantity for California and non-California energy supply, separately, relative to the total bid quantity, to the cleared quantity for the resource in the DAM as an approach. Should other states introduce their carbon policy, the approach may be extended similarly with the refinement that the maximum quantity that may be attributed in any trading interval will be equivalent to the minimum of the maximum quantity that the sink or combination of sinks can accept, and the equivalent megawatts associated with the ratio determined from the offered quantity to the market. Other approaches may exist, and SCE is open to considering them when presented within the stakeholder process.

### **Convergence Bidding**

Currently, convergence bidding does not exist in the EIM though the success of its introduction in the day-ahead market among EIM BAAs should be scrutinized due to the voluntary participation of EIM entities in the DAM. Given the optional participation, any dominance of base schedules in the DAM reduces market liquidity in relation to active price formation which can affect the price spreads between sinks and sources when base schedule volumes dominate at either the sink and/or source nodes, such that the price spread does not accurately reflect the degree of congestion the network experiences.

Further, when a market footprint is non-contiguous, convergence bidding can result in market abuse at locations where discontinuities exist between the geographic boundary of the state and the boundary of the market. In fact, the quantity of convergence bids tends to be larger at locations where sizable physical resources are not located rather than the nearest node where sizable physical resources are located. This tendency potentially creates pseudo-congestion through flow reversal that is not a meaningful contributor to price formation in the broader market. While the CAISO places limits at some locations within the network to minimize such behavior, the consideration must not be lost if auction revenue adequacy must be managed particularly since the CAISO has raised the potential for “scheduling hubs” for which meaningful mapping of nodes will be necessary. Further, any consideration of “scheduling hubs” for the DAM must be extended to the RTM to preserve any opportunity for convergence between the markets.

Alternatively, limiting convergence bidding to within each BAA fractures the market relative to how energy is traded across the BAAs leading to different challenges. Therefore, the CAISO will be better served in developing its understanding of the dynamics between fractured markets and price formation in the broader market with greenhouse gas pricing layered in a single BAA prior to making the determination of whether a fractured market is a worthwhile option or the consideration of “scheduling hubs” and their interaction with price formation in the sub-markets that the CAISO administers. In any event, if the CAISO were to propose convergence bidding for EDAM, the issue of how the cost allocation would work should be explored. For example, whether uplifts costs associated with convergence bidding for one BAA should be allocated within that BAA or should the costs be allocated to all BAAs.

#### **EDAM Administrative Fee**

SCE prefers the use of a similar structure for the EDAM administrative fee as is currently implemented for the EIM. Payment for services rendered by the CAISO to the EIM entities should be the basis for the fee structure.

#### **Transmission Availability**

Individual entities have arrangements under their open access transmission tariffs for the provision of transmission on a firm or non-firm basis for different durations – hourly, daily, monthly, annually. Often, non-firm transmission is limited to shorter durations – daily, hourly or monthly. The window closure for declarations of use of the transmission right is seldom aligned with the window closure for the CAISO’s day-ahead market and non-use of the right is non-transferable to the succeeding day or a third-party in the case of non-firm transmission arrangements since the release clause in transmission agreements restrict onward sale of non-firm transmission rights. Therefore, either the transacting parties in the DAM may be required to have firm transmission rights accompanying their bids or the development of another transmission product may be necessary.

SCE appreciates the various transmission mechanisms identified in the issue paper and wishes to understand more about whether new transmission products will be required, or capacity set-asides of existing transmission will be necessary on a non-discriminatory basis for use in the EDAM. Of course, if the provision of transmission for the DAM can be made without the significant intrusion of rate pancaking, that outcome holds potential for the preservation of anticipated net benefits from the EDAM. Failure to derive such an outcome will restrict the uninhibited exchange of energy expected from the market arrangements to support the EDAM.

## Transmission Access

Expansion of the day-ahead market to the EIM footprint while adhering to the principles of voluntary participation, costless entry and low-cost exit fees, seems to result in transmission access pricing that is likely based on wheeling out and wheeling through access charges given that the control and operation of transmission assets within the EIM footprint will remain with the current owners of those assets. Whether this philosophy to charging for transmission access within the EIM footprint can support an efficient DAM depends on whether the rates established are just and reasonable for the services derived in the market.

Regional and wholesale access charges as structured among Participating Transmission Owners in California may have an equivalent model within the EIM BAAs that involves an integrated transmission access charge. If such equivalence and comparability are absent within the EIM BAAs, then rate pancaking cannot be overlooked. Imposing the current regional transmission access charge and wheeling access charge structure on EIM BAAs may be viewed as an encroachment on state jurisdictional authority for ratemaking unless state decision-makers agree to the participation of EIM entities in the DAM given the market arrangements contemplated. The FERC has enumerated its transmission pricing principles in Order Nos. 890 and 1000. Operation and control of the transmission assets of the EIM entities is not required for introducing the principles, though support is necessary from state commissions where the EIM entities are located.

SCE supports transmission access pricing that upholds the following principles:

- Cost causation
- Charges must be commensurate with the benefits received
- Rates must be affordable and fair
- Rates that support recovery of the total revenue requirement of the participating entities in the market
- Rates must be non-discriminatory between customers and among customer types
- Rates must support technology neutrality
- Comply with state carbon reduction policy goals
- Promote economic efficiency
- Support practical implementation

Transmission pricing structures that reflect the above principles have the potential to embrace the changes that power markets are experiencing currently. SCE recommends that these principles are borne in mind within the stakeholder process as market arrangements are developed to support EDAM.