Stakeholder Comments
FERC Order 764 Compliance 15-Minute Scheduling and Settlement Straw Proposal

Submitted by	Company	Date Submitted
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Southern California Edison ("SCE") offers the following comments on the California Independent System Operator ("CAISO's") October 23, 2012 FERC Order 764 Market Changes Straw Proposal ("Straw Proposal").

I. Introduction.

SCE supports the CAISO's proposed schedule changes to allow for the prompt implementation of Order 764, but requests that CAISO continue to substantiate its Straw Proposal with more detail. Further, SCE recommends a number of specific changes to the CAISO Straw Proposal.

II. CAISO should ensure that its proposed market will harmonize with practices throughout the WECC.

In its creation of a new market, CAISO must be mindful of existing and proposed future practices of other WECC balancing authorities. CAISO should ensure that its new market will be easily accessible to parties that would like to take advantage of more frequent scheduling. E-tagging practices in particular should be discussed further to ensure that the proposed changes can be accommodated by all entities participating in the CAISO market.

III. CAISO should establish that its proposal fulfills the requirements of Order 764.

Order 764 calls for the provision of 15-minute scheduling, but the Straw Proposal allows only variable energy resources ("VERs") to change their schedules every 15 minutes. While CAISO may instruct 15-minute scheduling changes, non-VER resources do not have the option to change their bids or schedules for different intervals within an hour given that CAISO uses the same bids for the entire hour. CAISO should substantiate how its Straw Proposal complies with Order 764, as the Order states that "all transmission customers" shall have the option to change their schedules every 15 minutes.[1]

Establishing the Straw Proposal's compliance with Order 764 may require additional detail on the mechanics of the proposal. For example, CAISO should explain the consequences of an intertie transactor submitting an electronic schedule tag ("e-tag") with a quantity that differs from the CAISO award. Since the awarded energy quantity is known prior to submitting the e-tag, will the CAISO simply reject any e-tag for other than the awarded quantity? Alternatively, if CAISO intends to accept such e-tags, then import/export schedules can effectively be changed on a 15-minute basis by simply submitting an e-tag for a different quantity than the CAISO

[1] "Final Rule," FERC Order No. 764, 22 June 2012, page 4.

award. If the CAISO accepts such non-conforming e-tags, will the difference between the award and the schedule settle at the 5-minute price? Is the process the same for schedule increases or decreases? CAISO's proposed approach to these scenarios will have a significant impact on market dynamics and potentially the Straw Proposal's compliance with Order 764.

IV. CAISO should explain how it will collectively optimize internal generation and the interties given the new Transmission Capacity Reservation process.

The interplay between energy bids and transmission bids may result in odd market dynamics. For example, absent transmission capacity bids, if there is an internal generator bid at $29 and an import energy bid at $28, the CAISO optimization will award the import energy at the lower price of $28. However, if an importer also offers a Transmission Capacity bid of $2, how will the optimization treat the option of selecting between the $28 energy bid and the $2 Transmission Capacity Reservation bid? As we understand, the optimization would likely see Transmission Capacity Reservation as $2 of cost reduction, and as a result cost would be minimized by selecting the $29 internal energy bid in conjunction with the $2 Transmission Capacity Reservation (net cost of $29-$2 = $27) as opposed to selecting the $28 import bid. CAISO should provide greater detail as to how its optimization will consider Transmission Capacity Reservations.

V. CAISO should explain which constraints factor into congestion pricing given the new Transmission Capacity Reservation Process.

CAISO should detail which constraints factor into congestion pricing, with particular focus on the formation of the Transmission Capacity Reservation price. Are both the line constraint and the internal congestion multiplied by the relevant shift factors used in formulating the congestion price? Are there other constraints that factor into the congestion price as well? Will a Transmission Capacity Reservation bid contribute to the ultimate congestion price for all physical transactions?

VI. CAISO should explain the benefits of procuring Flexi-Ramp Product in the 5-minute market.

The Flexi-Ramp Product ("FRP") is a commitment tool which should be used during the 15-minute Real-Time Unit Commitment ("RTUC") run. The commitment results established in the RTUC run should then be sufficient to meet any flexible ramping needs during that 15-minute interval. The 5-minute real-time market is not a commitment process, and thus procuring additional FRP in that time frame would add unnecessary complexity. Moreover, the RTD process already "looks ahead" many intervals, and thus should be able to ration flexibility without additional constraints. If the CAISO intends to procure FRP in the 5-minute market, it should provide theoretical and empirical support for doing so.

VII. Revenue Neutrality and Deviations.

SCE requests the CAISO elaborate on its approach regarding charging incremental procurement to deviations. For instance, consider the case where the CAISO procures power in HASP since based on its forecast it anticipates deviations from DA schedules. Then, if in RT, there are no deviations, what is the procedure for cost allocation of this incrementally procured power?

VIII. Five minute settlements appears reasonable, contingent on analysis.

At this time SCE does not object to settlement on a five minute basis, under the assumption that CAISO implementation of five minute settlement will not result in material, adverse impacts on settlement that would be avoidable under 10 minute settlements.

IX. CAISO should reduce the incentives for intertie transactors to deviate from dispatch instructions by using a "worse-of" 15-minute or 5-minute price for uninstructed deviations.

A prerequisite for integrating VERs is maintaining resource flexibility; in order to maintain flexibility there must be disincentives for uninstructed deviations. Under the current Straw Proposal, implicit virtual bids will be placed using over and under-delivery of physical energy at the interties as entities "chase prices" between the 15-minute and 5-minute markets. Given SCE's current understanding of the CAISO Straw Proposal, SCE believes implementing a "worse-of" the 15-minute or 5-minute price for the interties that deviate from CAISO instructions would provide sufficient incentive to perform as instructed and would eliminate all incentives for "implicit virtual bids". Under a "worse-of" framework, the uninstructed energy would settle on the less favorable price of either the 15-minute or 5-minute market, so that entities could never benefit by disobeying CAISO's instructions.

X. Given the results of the hour-ahead Transmission Capacity Reservation process, CAISO should allow intertie transactors the option to make certain changes before the start of the hour's real-time markets.

It is likely that many intertie transactors will be unable or unwilling to change their schedules on a 15-minute basis as CAISO's current Straw Proposal requires. The proposed structure, which does not accommodate hourly schedules, will likely reduce liquidity at the interties or institutionalize uninstructed deviation as transactors cannot respond to 15-minute instructions. To avoid these unintended consequences, CAISO must make provisions to support hourly schedules on the interties for those transactors that are willing to accept the financial risks associated with the fluctuating 15-minute prices. CAISO should allow intertie transactors that are awarded a Transmission Capacity Reservation to change their economic bid to a self-schedule across the hour if they are selected in the Reservation process. While these intertie transactors will assume the inherent risk of being a price-taker, they will have necessary scheduling certainty. Similarly, an intertie transactor that is ***not*** awarded a Transmission Capacity Reservation must be allowed to withdraw its bids to preclude subsequent awards in any 15-minute interval within the hour.

XI. The CAISO should explore the feasibility of 2.5 minutes for updated e-tags[2].

SCE has concerns about the impact on operations of the proposed 2.5 minute timeframe for submission of updated e-tags. SCE instead proposes a 5 minute timeframe for tag submission which is more practical to allow operational feasibility. We would hope the CAISO could "make up" for this by shortening the market run-time. The CAISO should solicit stakeholder opinion on a 5 minute timeframe.

XII. Neither of CAISO's proposals to address the dual-constraint problem are sufficient remedies; CAISO should consider SCE's proposed solutions.

SCE agrees with CAISO that the dual-constraint problem must be addressed prior to reinstating convergence bidding at the interties. However, neither of the two remedies suggested by CAISO in its Straw Proposal adequately addresses the dual-constraint issue. As SCE demonstrated in its

[2] Page 11, Section 4.5, http://www.caiso.com/Documents/StrawProposal-FERC-Order764MarketChanges.pdf

May 7, 2012 comments on the Intertie Pricing and Settlement Second Revised Proposal, the "Option A" solution can be gamed.[3] Furthermore, as SCE discussed in its July 9, 2012 comments on the Intertie Pricing and Settlement Third Revised Proposal, the day-ahead e-tag approval limits solution may threaten reliability, physical liquidity, and market efficiency.[4]

SCE suggests that CAISO implement either of the two dual-constraint solutions that SCE has proposed in the past. First, CAISO could adopt SCE's proposed Physical Counterflow Feasibility Run, which will not impact physical liquidity and will place uplift risk only on virtual counterflow parties based on causation principles.[5] Second, CAISO could adopt the Virtual Intertie Bids ("VIBs") solution, which achieves the key goals of virtual bidding hedging, but avoids the major structural problems related to revenue sufficiency and uplift related to virtual bids.[6]

XIII. SCE supports CAISO's proposed transition out of Participating Intermittent Resource Program ("PIRP").

SCE agrees with CAISO that PIRP is no longer necessary given that Order 764 market changes will provide VERs the opportunity to schedule more accurately. PIRP cannot be justified in a market designed specifically to minimize VERs' uninstructed deviation.

XIV. Conclusion.

SCE looks forward to more fully understanding CAISO's Straw Proposal and assisting CAISO in shaping an efficient new market.

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[3] SCE Comments on Intertie Pricing and Settlement Second Revised Straw Proposal, Section C, Pages 2–4, 7 May 2012, http://www.caiso.com/Documents/SCE-Comments-IntertiePricingSettlementSecondRevisedStrawProposal.pdf.

[4] SCE Comments on Intertie Pricing and Settlement Third Revised Straw Proposal, Section 4, Pages 5-6, 9 July 2012, http://www.caiso.com/Documents/SCE-Comments-IntertiePricingSettlementThirdRevisedStrawProposal.pdf.

[5] "Solving the Dual-Constraint – a Physical Counterflow Feasibility Run", Southern California Edison, 30 April 2012, http://www.caiso.com/Documents/SCEpresentation-PhysicalReplacementFeasibilityRun-IntertiePricingSettlement.pdf.

[6] "Framework to Reinstitute Virtual Bidding at the Interties," Southern California Edison, 17 February 2012, http://www.caiso.com/Documents/SCEPresentation-IntertiePricing_Settlement.pdf.