

Comments of Powerex Corp. on Intertie Deviation Settlement Straw Proposal

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Powerex appreciates the opportunity to comment on the October 8, 2018 Intertie Deviation Settlement Straw Proposal (“Straw Proposal”) and the October 15, 2018 stakeholder meeting. In the Straw Proposal, CAISO proposes to replace the existing intertie decline charge with a new under/over delivery charge in order to provide stronger incentives for Scheduling Coordinators to accept and deliver on their intertie awards.

As discussed more fully below, Powerex believes the CAISO analysis is compelling evidence that intertie delivery failures can be significant, can pose a threat to reliability, and can impede the efficient functioning of CAISO’s markets. The existing decline charge framework has proven to be largely ineffective in encouraging physical delivery consistent with final market awards, and Powerex fully supports replacing it with the stronger measures outlined in the Straw Proposal, with certain modifications. Powerex also suggests that CAISO conduct additional analysis to monitor intertie delivery performance and to inform potential further measures. Finally, Powerex believes that CAISO also should use this opportunity to harmonize certain aspects of how the day-ahead market/hour-ahead scheduling process (“HASP”) Reversal Settlement Rule is applied.

I. The CAISO Analysis Is Compelling Evidence That Intertie Non-Delivery Can Harm CAISO Markets And Needs To Be Addressed

Powerex appreciates CAISO’s recognition of the significant challenges posed by intertie delivery failures, and believes the CAISO’s extensive analysis of the frequency, magnitude, and effects that delivery failures are having on CAISO’s ability to reliably and efficiently manage its system are very valuable to informing this initiative. In particular, Powerex believes that there is growing evidence that the failure of certain Scheduling Coordinators to deliver energy in accordance with their day-ahead and hour-ahead schedules has the potential to jeopardize system reliability—particularly during tight supply conditions—and impairs the accuracy and efficiency of unit commitment and pricing in the CAISO day-ahead and real-time markets, including the Energy Imbalance Market (“EIM”).

The growing challenge of intertie delivery failures reflects that the CAISO is unique among balancing authority areas (“BAA”) in the West, and among the operators of FERC-jurisdictional organized markets, in permitting entities to sell energy and capacity, both on a forward basis and in the short-term markets (day-ahead and real-time), without any demonstration that the seller actually has the physical resources and transmission necessary to meet its delivery obligations. This framework effectively allows a seller to submit a physical offer into the day-ahead and real-time markets that is not actually backed by physical resources and transmission, with the CAISO

effectively counting on the ability (and willingness) of the seller to purchase energy in the external bilateral short-term markets outside the CAISO if and when it receives a CAISO award. When a seller is unable to procure excess supply at a price that makes it economic to follow through with its sale to CAISO—or if there is simply no excess energy available—the result is that the seller fails to deliver energy in accordance with its schedule, leaving the CAISO to procure energy at the last minute to offset these delivery failures.

The CAISO analyses presented at the October 15th workshop are compelling. First, the analysis shows that the vast majority of intertie delivery failures occur through e-Tag “no shows” as opposed to an explicit decline of an award through the automated dispatch system (“ADS”). These e-Tag “no shows” are comprised of HASP awards for which the Scheduling Coordinator either fails to submit an e-Tag altogether (“full no show”) or submits an e-Tag for an amount less than the HASP award (“partial show”). The distinction between an e-Tag “no show” and an ADS decline is important; an ADS decline must occur by T-40, and thus informs the CAISO of the delivery failure prior to when CAISO initiates the Fifteen Minute Market (“FMM”) run for the first 15-minute interval of the delivery hour. In contrast, an e-Tag “no show” will not be identified until the e-Tag scheduling deadline in the Western Electricity Coordinating Council region of T-20, by which time the FMM for the first half of the delivery hour will have already been run. While the CAISO markets can potentially respond to an ADS decline in either the FMM or real-time dispatch (“RTD”) for the entire operating hour, only the RTD is available to respond to the first 30 minutes of an e-Tag “no show,” significantly limiting CAISO’s options to procure alternative supply.

Second, CAISO’s analyses indicate that intertie delivery failures are the result of not only random events, such as forced outages, but appear also to be correlated with regional market conditions. In particular, the analysis for the heat wave in late August and early September of 2017 shows increased intertie delivery failures during the specific days in which conditions in the CAISO market and in the regional bilateral markets were most stressed. This strongly suggests that the non-delivered supply was speculative, and not supported by real physical supply when the CAISO offer was made. When very high temperatures made it either impossible or too expensive for the speculative sellers to procure physical supply in the external bilateral markets, they failed to deliver on their CAISO awards, requiring CAISO to attempt to find substitute supply in real-time.

Third, the CAISO analyses show that tight conditions in the external bilateral energy markets can occur at the same time that tight conditions occur in the CAISO markets. This leads to the greatest threat to CAISO reliability, as the tight external conditions can lead to greater intertie delivery failures to CAISO at the same time that tight CAISO grid conditions make it difficult for CAISO to replace that supply from internal resources, increasing the reliability consequences of those delivery failures.

Finally, the CAISO analyses show that the existing decline charge is almost entirely ineffective at encouraging physical delivery consistent with final market awards. According to the CAISO analysis, the *actual* decline charge was less than 1% of the potential decline charge as a result of the 10% threshold that is used before applying any charges at all. Perhaps most compelling is that no decline charges were applied at all during the months with the greatest quantity of declined awards.

As Powerex explained in detail in its initial comments in this proceeding, Powerex believes that delivery failures associated with CAISO's continued willingness to permit speculative supply offers at the CAISO interties are having numerous consequences for the reliability and efficiency of the CAISO grid. In particular, Powerex believes that delivery failures associated with speculative supply offers are:

- Increasing reliability risks, particularly during tight supply conditions in western markets;
- Undermining the accuracy of CAISO's Residual Unit Commitment ("RUC") process and other unit commitment processes by overstating the quantity of physical supply committed in the day-ahead and real-time markets;
- Causing sudden and unexpected supply shortages, leaving CAISO to procure energy on a last-minute basis to offset these delivery failures and leading to sudden price spikes that generally affect all real-time transactions;
- Increasing reliance on exceptional dispatch and operator interventions, such as load biasing, to compensate for supply lost (or to prospectively guard against supply that operators anticipate may be lost) as a result of intertie delivery failures, resulting in market prices that may become disconnected to the costs of serving load or the actual needs of the grid; and
- Increasing costs for load serving entities, who are required to bear the costs of uplift and make-whole payments associated with exceptional dispatch.

Importantly, these consequences are not limited to the CAISO BAA. To the contrary, the harmful consequences of the CAISO's unique market design that permits speculative import supply through the intertie bidding framework have been extended due to the expansion and evolution of the EIM, and potentially impact all entities and regions that participate in the CAISO real-time market. In particular, intertie delivery failures of CAISO day-ahead market awards and declines of hour-ahead awards at the CAISO interties can result in real-time price spikes throughout the EIM footprint.

Speculative supply also directly undermines the effectiveness of the EIM resource sufficiency evaluation, as CAISO final hourly intertie awards at T-40 are *assumed* to be physically delivered, when in fact some portion may not be. This enables the CAISO—uniquely among EIM entities—to include supply from third-party sellers that may in fact not be real in the EIM resource sufficiency evaluation for its BAA. This can lead to the CAISO BAA erroneously passing the tests, and then leaning on the rest of the EIM for capacity and/or flexibility from time-to-time.

Certain entities that participated in the October 15th stakeholder meeting suggested that the risks posed by intertie delivery failures may not be that significant when viewed as a percentage of total system load or that imbalance charges associated with non-delivery should be sufficient to deter delivery failures. Neither of these points provides a basis for failing to take action to address the threat to reliability and market efficiency that is posed by intertie delivery failures, however.

As an initial matter, the size of intertie delivery failures relative to the size of the load within the CAISO footprint or the broader Western EIM footprint is irrelevant when evaluating the operational and market efficiency impacts of intertie delivery failures. As CAISO recognized at the October 15th stakeholder meeting, the failure of intertie suppliers to deliver in accordance with their day-ahead and hour-ahead awards can have a dramatic impact on system reliability, particularly during tight system conditions, leaving CAISO operators to scramble to commit supply, often through out-of-market dispatch and operator interventions, to maintain reliability and keep the lights on.

CAISO also should not rely on imbalance charges alone to deter the submission of speculative supply offers for multiple reasons:

- First, the cost of the actions taken in response to real-time delivery failures are often not fully reflected in the particular market clearing prices against which delivery failures are settled. For instance, short-term unit commitment, exceptional dispatch, or manual dispatch of intertie supply may all occur in response to, or in anticipation of, intertie delivery failures, but will generally result in costs that are recovered through real-time imbalance offset charges (*i.e.*, uplift) rather than through market-clearing energy prices. As a result, imbalance charges often do not reflect the full impact of such speculative supply.
- Second, the anticipation of potential delivery failures that have not yet occurred may lead CAISO operators to take pre-emptive steps (such as making manual load adjustments) to mitigate the risk of a potential energy shortfall. These proactive adjustments often raise prices in the FMM by increasing demand in order to ensure that the FMM commits additional supply to offset intertie delivery failures. If such potential delivery failures materialize at a lower than expected level, however, the extra supply dispatched as a result of the manual load adjustment can ultimately lead to reduced prices in RTD. In other words, the magnitude of the imbalance charges assessed on a supplier for non-delivery depends on a number of factors, including the specific market in which the delivery failure is financially settled. In some cases, the actions taken by CAISO operators in order to maintain reliability in the face of anticipated intertie delivery failures may reduce real-time prices relative to the FMM and, ultimately, reward the speculative suppliers that fail to deliver on their awards.
- Finally, imbalance energy settlement cannot capture the adverse impact of speculative supply on the market into which it was initially sold. These impacts can include displacing other sources of supply (which would have been able to deliver), depressing market price formation, and potentially stranding CAISO transmission capacity.

As CAISO emphasized in the Straw Proposal and at the stakeholder workshop, it is the expectation under the CAISO market design that Scheduling Coordinators will perform on final market awards; that is, HASP awards should be accepted and e-Tagged. The post-market e-Tagging process is not intended as a further opportunity for Scheduling Coordinators to make a discretionary economic choice regarding whether or not to deliver the energy awarded in the CAISO markets.

For the foregoing reasons, Powerex strongly supports CAISO's decision to develop further measures to, at the very least, discourage speculative supply in its short-term markets.¹

II. CAISO's Proposal Represents An Important Step Forward Towards Addressing The Issue Of Speculative Supply

There are two possible broad approaches to addressing the issues associated with speculative supply offers. One approach would be to require that all supply in the CAISO day-ahead and real-time markets be supported by physical resources at the time of offer submission. This is already required for resources internal to the CAISO BAA, which distinguishes between explicit virtual supply and physical supply. This is also the approach applied by other BAAs and load-serving entities across the west in both the day-ahead and real-time timeframes.² A second approach would be to adopt rules that create stronger financial incentives for market participants to submit supply offers that reflect their expected physical supply capabilities, and to fulfill their delivery obligations, such as by imposing financial penalties on market participants for non-delivery. This approach could, at least in concept, ensure that all supply offers are either backed by physical resources at the time they are offered, or that the seller is highly confident in their ability to secure physical resources prior to delivery.

CAISO's Straw Proposal adopts the second approach and proposes to create additional financial incentives to help ensure the delivery of intertie awards. Powerex believes that CAISO's proposal, if successful, could substantially improve the CAISO markets by reducing reliability risk, improving the accuracy of CAISO's commitment processes and pricing, and reducing CAISO's reliance on out-of-market dispatch and operator interventions. Powerex encourages CAISO to move forward with its effort to implement the proposed under/over-scheduling charge, and provides certain specific recommendations that it believes will strengthen the proposal.

It is important to recognize, however, that adopting an approach that continues to permit speculative supply, but relies on financial penalties to encourage delivery in accordance with market awards, may not fully address the reliability risks and other adverse consequences set out above. Because such an approach continues to allow sellers to wait until after they receive a CAISO award before procuring the physical supply and transmission service necessary to fulfill their delivery obligation, the CAISO market will continue to be exposed to the risk that a seller will be unable or unwilling to procure energy—and hence will fail to deliver to the CAISO. While Powerex supports the CAISO moving forward with its efforts to discourage intertie delivery failures

¹ Powerex notes that speculative supply also poses challenges to forward market activity such as Resource Adequacy procurement from external supply sources. CAISO has determined that forward market concerns are out of scope in this stakeholder proceeding, but will be addressed in the concurrent initiative on Resource Adequacy Enhancements.

² As explained in prior comments, it is the general expectation and practice in day-ahead and real-time bilateral physical energy transactions for the seller to have procured or otherwise secured access to physical generation for the offers it makes and the transactions it agrees to. Thus, purchasers of physical energy in the bilateral spot markets typically know the generation source and the source BAA, even prior to the submission of an e-Tag. Thus the generic observation that all EIM entities are subject to the same e-Tag deadline as the CAISO BAA is irrelevant: the CAISO market is unique among purchasers of imported physical energy in the west in the complete lack of information that is received regarding the import resources until (and unless) an e-Tag is submitted.

through stronger financial penalties, Powerex continues to believe that the numerous harmful consequences associated with the continued inclusion of speculative supply in CAISO markets likely far outweigh any benefits. Moreover, Powerex believes CAISO's continued inclusion of supply that is not real in its day-ahead market may pose a potential barrier to the development of an organized day ahead market. For these reasons, Powerex urges CAISO to continue to analyze and report on intertie delivery failures going forward to inform whether further measures may be necessary.

A. CAISO Should Clarify T-40 E-Tagging Requirement For Hourly Block Awards

In the Straw Proposal, the CAISO “proposes to introduce a real-time tagging requirement of T-40 for hourly block resources. This will ensure when the fifteen-minute market runs that it has an accurate estimation of the energy that will, or will not, be delivered.” Powerex fully supports this proposal, as it is consistent with ensuring that the FMM reflects the most accurate available information regarding supply and demand. The HASP is the last market process that changes the awards for hourly block resources; once the HASP results are communicated to Scheduling Coordinators, there is no reason for CAISO to not require prompt submission of an e-Tag consistent with those awards.

However, Powerex believes clarification is needed regarding the T-40 e-Tagging requirement for hourly block resources. In particular, the Straw Proposal states that “[t]he fifteen minute market binding award will equal the lower of the HASP schedule, HASP accepted award (ADS accepted value), or *E-Tag transmission profile*.”³ Powerex believes this should be revised to refer to the e-Tag *energy profile*. While the transmission profile must be at least sufficient to support the energy obligation, it is the energy profile itself that properly reflects the most accurate estimate of the **energy** that will, or will not, be delivered for hourly block HASP schedules.

B. Under/Over-Delivery Charge Should Be Based On Higher Of FMM Or RTD Price

In order to minimize the potential risks associated with the CAISO's proposed approach, it is critical that the under/over-delivery charge be set at a level that creates robust incentives for sellers to deliver in accordance with their awards under a full range of operational scenarios. In the Straw Proposal, CAISO proposes to set the under/over-delivery charge equal to 50% of the RTD LMP. While Powerex agrees that basing the under/over-scheduling charge on the RTD price may be a workable approach in certain circumstances, it is important to recognize that basing the charge exclusively on the RTD price may result in only *de minimis* charges for intertie failures under certain grid conditions, which could significantly undermine the effectiveness of CAISO's proposal.

For example, consider a block intertie import that was awarded 100 MW in the HASP, and is not e-Tagged. Under the Straw Proposal, both the FMM and RTD settlement would appropriately be \$0, and there would also be a decline charge equal to the HASP award (100 MW) times 50% of the RTD price. As discussed above, however, delivery failures on HASP awards can affect either the FMM or the RTD, or both. If the delivery failure is anticipated by CAISO operators, for

³ Straw Proposal at 34 (emphasis added).

instance, then they may enter a manual load adjustment or load bias in order to increase energy procurement in the FMM. Due to the generally conservative nature of operator actions, this additional procurement may “over correct,” however, with the net effect of reducing prices in RTD. Basing the decline charge solely on RTD prices may fail to reflect the more severe impacts in the FMM.

On the October 15th stakeholder call, Powerex explored a hypothetical example using the CAISO’s Intertie Deviation Settlement Spreadsheet. Powerex posited the example of a financial marketer that offers 100 MW in the HASP on a day of tight CAISO market conditions, speculating on being able to procure supply in the short-term bilateral markets outside of the CAISO. But due to tight market conditions across the west, the marketer in this scenario is unable to procure supply to perform on its HASP award, and does not submit an e-Tag (*i.e.*, it “no shows” on its award). Some degree of import delivery failures is anticipated by CAISO operators, however, who use load biasing to increase the net energy procured in the FMM, which clears at \$700/MWh. In RTD, however, it becomes apparent that the supply shortfalls were not as deep as operators planned for, and prices clear at \$50/MWh. The Intertie Deviation Settlement Spreadsheet reflecting this example is shown below:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	PROPOSED HOURLY BLOCK SETTLEMENT												
2													
3	Schedule												
4	Interval	1	2	3	4	5	6	7	8	9	10	11	12
5	DAM	0											
6	HASP Schedule	100											
7	HASP ADS Accept	100											
8	FMM	0			0			0			0		
9	E-Tag T-40	0											
10	E-Tag T-20	0											
11													
12	LMP												
13	DAM	\$500.00											
14	FMM	\$700.00			\$700.00			\$700.00			\$700.00		
15	RTD	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
16													
17	Settlement												
18	DAM	\$0.00											
19	FMM	\$0.00			\$0.00			\$0.00			\$0.00		
20	RTD	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21	Decline Charge	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33
22	Net per interval	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33	\$208.33
23	TOTAL FOR HOUR	\$2,500.00											
24													
25													
26													
27	Yellow cells are input data												
28	For illustrative purposes only												
29	(Paid) Charged												
30													
31		California ISO											
32													
33													

The decline charge in this example would be \$2,500.⁴ This represents less than 4% of the potential \$70,000 that the speculative seller would have earned had it been successful in

⁴ 100 MW * \$50/MWh * 50% = \$2,500.

procuring energy to deliver on its HASP award, however.⁵ Powerex is concerned that this is likely insufficient to encourage sellers “to have physical generation and transmission procured when a bid is submitted,” as intended by the Straw Proposal.⁶

For the foregoing reasons, Powerex recommends that CAISO consider modifying its proposal such that the charge is equal to 50% of the *higher of the RTD price or the FMM price*. In the hypothetical example provided above, the decline charge under this proposed approach would be \$35,000, or 50% of the potential sale value. Powerex believes that modifying the proposal to employ a “higher of” rule will help minimize the potential that efforts by CAISO operators to maintain reliability in the face of stressed market conditions could have the unintended result of weakening the incentives to deliver according to CAISO energy awards.

C. CAISO Should Not Permit “Over-Tagging” Of Hourly Block Awards

The Straw Proposal states that “[i]f the E-Tag exceeds the market award, the ISO will allow it to flow as long as it does not cause any reliability problems...”⁷ The Straw Proposal explains that one scenario in which an import e-Tag may exceed the final market award is when a day-ahead import award is reduced in the HASP, but the Scheduling Coordinator declines some or all of the HASP adjustment. The Straw Proposal says that the CAISO “maintains it is the responsibility of the Scheduling Coordinator to submit E-Tags that match ISO market awards,” but it proposes to rely only on the under/over-delivery charge to achieve this goal (absent reliability problems).⁸

Powerex is opposed to this aspect of the Straw Proposal. Simply put, there is no reason for the CAISO to enable Scheduling Coordinators to submit an e-Tag that contradicts the market award. It is one thing to rely on financial charges to encourage physical delivery when the CAISO lacks more direct means to ensure that an e-Tag conforms to the market awards—such as for HASP awards that represent a new import schedule. But it seems questionable in cases where the CAISO has the ability to adjust an e-Tag to levels that are consistent with those awards. Indeed, the Straw Proposal recognizes that CAISO will have the *ability* to adjust e-Tag energy profiles to eliminate over-tagged quantities; it simply appears to propose that it will not use this ability, as a matter of market design policy. Powerex does not see a justification for relying on financial charges to discourage harmful activity when CAISO has the ability to prevent that harm in the first instance.

Powerex requests that CAISO revise the Straw Proposal to not limit its use of e-Tag adjustments to situations that raise reliability challenges, and instead state that CAISO will adjust the energy profile of e-Tags to prevent over-tagging.

E. Additional Clarification Is Needed Regarding Curtailments

Powerex supports the Straw Proposal’s efforts to not apply the under/over-delivery charges to delivery failures due to circumstances beyond the control of the seller. In order for this objective

⁵ 100 MW * \$700/MWh = \$70,000.

⁶ Straw Proposal at 35.

⁷ *Id.* at 37.

⁸ *Id.*

to be achieved, Powerex believes further detail is needed regarding how CAISO will identify delivery failures that should not be subject to financial penalties.

In particular, Powerex believes the CAISO should clarify that financial penalties will not apply to schedules that were subject to a curtailment by a transmission provider, or to a reduction in CAISO intertie capability, that occurred *after* the deadline for submitting bids in the CAISO real-time market (*i.e.*, after T-75). Curtailments performed by transmission service providers are not the result of actions by the Scheduling Coordinator⁹; hence, such curtailments will not be either encouraged or discouraged by the financial penalties under the Straw Proposal.

F. Ongoing Monitoring And Reporting Is Needed Of Intertie Delivery Failures By Scheduling Coordinators

Given that CAISO's proposal will not eliminate the potential risks associated with speculative offers, Powerex also believes that it will be critical for CAISO to continue to monitor and publish information regarding the frequency, severity, and nature of the intertie delivery failures on an ongoing basis. Powerex appreciates the significant effort that CAISO has spent in providing stakeholders with transparency into the frequency and magnitude of intertie delivery failures on days on which the CAISO experienced tight grid conditions and the impact of those delivery failures on CAISO's ability to effectively and efficiently maintain reliability and manage the grid. Powerex believes that continuing to provide this type of transparency will be important to allowing CAISO and stakeholders to accurately assess the effectiveness of CAISO's proposal as well as the factors driving intertie delivery failures. In particular, Powerex believes that CAISO should publish information regarding the frequency and magnitude of intertie deliveries in the five hours with the highest level of intertie delivery failures each month as well as days on which the CAISO grid experienced tight supply conditions, including the quantity of import awards that were delivered, the quantity of non-delivered awards, and the steps that CAISO took to replace any lost supply.

In providing this data, Powerex also believes that there would be value in tracking the Scheduling Coordinators—on an anonymous basis—that failed to deliver on the relevant days and hours each month and across months. For instance, CAISO could show the quantity of intertie deliveries and delivery failures associated with each Scheduling Coordinator in the reported days and hours. Tracking intertie deliveries and delivery failures by Scheduling Coordinator will provide CAISO and stakeholders with insight into the factors that are driving intertie delivery failures and allow them to more meaningfully assess the effectiveness of CAISO's approach. If it is the case that all Scheduling Coordinators are unable to deliver a certain percentage of their supply during tight supply conditions, then it seems more likely that the intertie delivery failures are perhaps being caused by factors common to all external supply, and beyond the control of the suppliers. If it

⁹ Powerex believes it is important to distinguish between curtailments performed by transmission providers and curtailments performed by a source BAA. The latter may be due to a reliability emergency in the source BAA, but it may also be the result of insufficient balancing reserves to backstop deliveries from variable energy resources. Powerex believes it is entirely appropriate to apply the proposed financial penalties to import deliveries that a seller elects to procure from supply sources that may not be able to produce at the scheduled levels over the delivery interval.

turns out, however, that there are only a handful of Scheduling Coordinators that repeatedly fail to deliver energy in accordance with their awards, even while other Scheduling Coordinators are able to largely fulfill their delivery obligations, then it likely means that certain entities are responding to economic incentives that continue to exist in the market, and doing so in a manner that undermines reliability and/or market efficiency.¹⁰ In that case, Powerex believes that it would be critical for CAISO to take a hard look at the overall costs and benefits of that activity—including the extent to which this activity is imposing additional costs on other participants in the CAISO BAA and across the broader Western EIM footprint—and to determine whether additional steps are necessary to deter such conduct going forward.

III. CAISO Should Clarify the HASP Settlement Rule

As noted at the October 15th stakeholder workshop, Powerex believes that CAISO should use this proceeding as an opportunity to remedy a discrepancy regarding the timing used to determine the application of the HASP Reversal Settlement Rule.

As shown below, under Section 11.32 of the CAISO Tariff, the HASP Reversal Settlement Rule applies when a Scheduling Coordinator either (a) fails to submit an e-Tag or e-Tags consistent with the Scheduling Coordinator's day-ahead schedule and WECC scheduling criteria; or (b) *withdraws the E-Tag or E-Tags prior to forty-five (45) minutes before the Trading Hour.*

11.32 Measures to Address Intertie Scheduling Practices

The CAISO will take the following actions regarding Schedules that clear the Day-Ahead Market at the Interties and that are wholly or partially reversed through a FMM Schedule:

- (i) The CAISO will charge the Scheduling Coordinator the positive difference between the Day-Ahead Market price and the FMM LMP applicable to any imports that clear the Day-Ahead Market and are reduced through a Bid to the RTM if the Scheduling Coordinator either: (a) fails to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria; or **(b) withdraws the E-Tag or E-Tags prior to forty-five (45) minutes before the Trading Hour.**
- (ii) The CAISO will charge the Scheduling Coordinator the positive difference between the FMM LMP and the Day-Ahead Market LMP applicable to any exports that clear the Day-Ahead Market and are reduced through a Bid to the RTM if the Scheduling Coordinator either: (a) fails to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria; or **(b) withdraws the E-Tag or E-Tags prior to forty-five (45) minutes before the Trading Hour.**

¹⁰ More specifically, a Scheduling Coordinator that exhibits a materially greater delivery failure rate than other similarly situated sellers may be electing to not deliver on its CAISO market awards, or it may be electing to offer energy into the CAISO market beyond what it is highly likely to be able to deliver, or both.

The *BPM Configuration Guide – 6460 – FMM Instructed Imbalance Energy Settlement*, however, appears to imply that the HASP Reversal Settlement Rule applies when the day-ahead schedule is reduced *prior to the publication of the HASP results* (rather than T-45):

3. Charge Code Requirements

3.1 Business Rules

Bus Req ID	Business Rules
5.0	<i>The CAISO will take the following actions (through this charge code) regarding Schedules that clear the Day-Ahead Market (or the RUC Schedule if lower than DA Schedule) at the Interties and that a Scheduling Coordinator wholly or partially reverses prior to HASP solution availability. This is identified as the HASP reversal settlement rule and it applies to any import or export that clear the Day-Ahead Market (or the RUC Schedule if lower than DA Schedule) and <u>is reduced prior to the HASP solution availability for which the Scheduling Coordinator has failed to submit an E-Tag consistent with the Scheduling Coordinator’s Day-Ahead Schedule</u> (or the RUC Schedule if lower than DA Schedule).</i>
5.6	<i>The tagged MW value per resource ID as of the time when HASP solution is available must be captured for implementation of the HASP reversal settlement rule.</i>

The HASP results are generally published before the T-45 CAISO Tariff deadline, at approximately T-57. Powerex understands that the CAISO has been using the HASP results publication, rather than T-45, to determine if the HASP Reversal Settlement Rule applies.

Powerex supports using the HASP results publication as the “snapshot point” for the purposes of the HASP Reversal Settlement Rule in order to allow sufficient time to adjust schedules and initiate curtailments. In order to resolve this inconsistency and to ensure that the CAISO has the authority to use the HASP results publication as the “snapshot point” for the HASP Settlement Reversal Rule, Powerex suggests that the CAISO modify subclause (b) of Sections 11.32(i) and 11.32(ii) of the Tariff as follows:

... (b) withdraws the E-Tag or E-Tags prior to the earlier of (1) forty-five (45) minutes before the Trading Hour and (2) the publication of the HASP results for the upcoming Trading Hour.