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PACIFICORP'S COMMENTS ON THE FIRST REVISED EIM STRAW PROPOSAL
June 14, 2013

I. INTRODUCTION

Pursuant to the schedule established by the California Independent System Operator ("CAISO") for its Energy Imbalance Market ("EIM") Stakeholder Process, PacifiCorp submits the following comments to CAISO on the first Revised Straw Proposal (dated May 30, 2013) (Revised Straw Proposal). PacifiCorp has been an active participant in CAISO's Stakeholder Process, including having submitted comments on April 19, 2013 to CAISO's Initial Straw Proposal. PacifiCorp appreciates CAISO's consideration of all stakeholder comments to date and these comments are offered in the spirit of further achieving the development of robust and effective EIM market rules and practices. PacifiCorp acknowledges the ongoing nature of the issues addressed herein and reserves the right to supplement, modify, amend, or otherwise present additional comments at a future time, as permitted. In addition, PacifiCorp respectfully requests that CAISO or interested stakeholders not perceive the absence of comments on any particular question, issue or other matter as a conclusive indication of PacifiCorp's lack of interest, support or opposition with respect thereto.

In Part II of these comments, PacifiCorp presents its summary comments on ten key issues:

A. Definition of responsibilities;
B. Uplift allocations;
C. Greenhouse gas emissions;
D. Locational market power mitigation;
E. Transmission charges;
F. Governance and Oversight;
G. Membership expansion;
H. Metering;
I. Enforcement Protocol; and
J. Termination Rights.

In Part III, PacifiCorp provides more detailed comments and raises certain clarifying questions.

In Part IV, PacifiCorp identifies additional typographic corrections.

While there are a number of areas where the developing detail of the market design is in alignment with the principles established in the Implementation Agreement, challenging but workable issues remain. For example, PacifiCorp appreciates and supports CAISO's proposal to have no charge for transmission for EIM for the first year of operation, as alternatives are considered further for the long-term. PacifiCorp also supports CAISO's recent response to PacifiCorp's initial comments related to the Enforcement Protocol and termination rights. The Revised Straw Proposal, however, contains at least one area that appears significantly out of alignment with these principles, specifically the proposal on cost allocation of uplift charges.

Under the Revised Straw Proposal, the proposed uplift allocations could potentially delay development and implementation of the EIM and even threaten to render participation in the EIM uneconomic. Specific discussion on each of these topics is presented in the following sections.

In addition, as part of PacifiCorp's overarching comments on the Revised Straw Proposal, CAISO should clarify in its descriptions of the EIM that for each automated five-minute interval during which real-time optimization occurs, the EIM will dispatch resources bid into the EIM to serve the *total load* for the EIM footprint based upon which available resources are most economic and also taking into account the load that is being served through self-schedules (i.e. not available to be dispatched). EIM settlement is based upon the difference (or imbalance) between financially binding base schedules for the subject interval and the dispatch that actually occurred during the five-minute interval. This clarification will help explain to stakeholders how "imbalance" is functioning in the EIM and what is actually occurring during each automated five-minute dispatch interval.

II. COMMENTS ON KEY ISSUES

A. Definition of Responsibilities

In general, PacifiCorp supports the development of defined terms specific to the EIM, rather than using existing defined terms included in CAISO's tariff for its other market functions. This differentiation between the EIM definitions in CAISO's tariff and existing CAISO tariff definitions is critical to clarify responsibilities and to avoid confusion for EIM participants and for CAISO's existing market participants.

However, there remain important areas that require clarification or modification. Most importantly, the definition of EIM Participating Resource Scheduling Coordinator indicates that this could be the EIM Entity Scheduling Coordinator. PacifiCorp's implementation of EIM proposes that the EIM Entity Scheduling Coordinator will not represent any resources that will economically participate in the EIM. It is appropriate for any resources that will economically participate in the EIM to become an EIM Participating Resource Scheduling Coordinator or to obtain those services from a third-party. This will allow PacifiCorp in its function as the EIM Entity Scheduling Coordinator to maintain separation of functions in its EIM operations distinct from those entities which choose to bid their resources into the EIM. Accordingly, PacifiCorp requests that EIM Entities be given the discretion as to whether the EIM Entity Scheduling Coordinator will represent resources that will economically participate in the EIM.

In addition, PacifiCorp requests that CAISO structure the EIM such that: (i) an EIM Entity has the discretion to provide all balanced schedule information to the Market Operator through the EIM Entity Scheduling Coordinator, including balanced schedule information for all EIM Participating Resources within the Balancing Authority Area ("BAA") of the EIM Entity or (ii) permit a scheduling coordinator that represents both load and generation within the EIM Entity footprint to provide individually balanced schedule information to the Market Operator. Accordingly, CAISO should recognize another type of scheduling coordinator – the EIM Participating Customer Scheduling Coordinator, representing both load and generation within the

EIM Entity footprint, - who can submit their own balanced schedule information to the Market Operator. . With respect to EIM Entities that elect the option requiring all balanced schedule information be provided through the EIM Entity Scheduling Coordinator, PacifiCorp requests that CAISO work with parties to clarify how the EIM Entity Scheduling Coordinator will interact with EIM Participating Resource Scheduling Coordinator(s) regarding the timing for the responsible EIM Entity Scheduling Coordinator to submit balanced schedules for the entire BAA or BAAs. For example, the timelines for EIM processes set forth in the Revised Straw Proposal do not explain the timing for EIM Participating Resource Scheduling Coordinator(s) to submit information needed by the EIM Entity Scheduling Coordinator for it to provide CAISO with the combined base schedule information by the required deadlines.

B. Uplift Allocations

The cost/benefit study commissioned by CAISO and PacifiCorp concluded that an EIM could produce significant benefits for customers of both entities. However, rather than seeking to capture these mutual benefits, the Revised Straw Proposal proposed to shift significant CAISO-only costs to EIM Entities. Unless CAISO reverses course, it is unlikely that EIM Entities will find it economically rational to participate in an EIM that includes CAISO BAA.

1. Identification of CAISO Real-Time Uplifts

In its initial comments, PacifiCorp stressed the need for CAISO to identify each and every uplift charge associated with the real-time market.[1] The Revised Straw Proposal discusses allocation of real time uplifts in Section 3.7.8. CAISO identifies four real-time uplift charge types as "relevant" to the EIM:

- CC6477 Real Time Imbalance Energy Offset (RTIEO);
- CC6774 Real Time Congestion Offset (RTCO);
- CC6678 Real Time Bid Cost Recovery Allocation (RTBCR); and
- CC7024 Flexible Ramp Up Cost Allocation (FRCA).

The importance of proper allocation of these uplifts between customers of the EIM Entities and other CAISO market participants is magnified by the significant amounts CAISO has experienced for these four categories. These are summarized in Table 1.

[1] PacifiCorp Comments on CAISO's Initial Straw Proposal at 4.

Table 1

Uplift Costs in Millions

Uplift	Total 2011[2]	Total 2012[3]	Total 1st Quarter 2013[4]
Real Time Imbalance Energy Offset	$137	$ 50	$15
Real Time Congestion Offset	$ 30	$185	$ 5
Real Time Bid Cost Recovery Allocation	$ 120 (includes day ahead and real time)	$ 49	$15 (includes day ahead and real time)
Flexible Ramp Up Cost Allocation	NA[5]	$ 20	$10
Total		$304	

While there are actions underway, such as CAISO's Order No. 764 compliance filing, which may reduce the historic level of uplifts, there is also continuing cause for concern about the potential levels of these costs. For example, in the first page of its filing letter in Docket ER13-550 CAISO stated,

> The influx of large quantities of variable energy resources and distributed generation will increase supply and load variability and unpredictability. The ISO anticipates that the retirement of the once-through-cooling resources will create a capacity gap of more than 3,500 megawatts needed to serve load in the ISO's balancing authority area as early as the end of 2017, and the ISO projects this capacity gap will grow to 4,600 megawatts by 2020. ISO studies have shown that the need for flexible resources and local capacity will increase as large amounts of variable energy resources and distributed generation resources come on-line and once-through-cooling units retire, while the once-through-cooling retirements will reduce the number of existing resources that are available to meet local reliability needs and to provide the flexibility necessary to maintain day-to-day reliability.. .

[2]Source CAISO DMM 2011 Annual Report on Market Issues and Performance. . http://www.caiso.com/Documents/2011AnnualReport-MarketIssues-Performance.pdf. See also, "Real-time Revenue Imbalance in CAISO Markets" by Ryan E. Kurlinski, Department of Market Monitoring, California Independent System Operator April 24, 2013. http://www.caiso.com/Documents/DiscussionPaper-Real-timeRevenueImbalance_CaliforniaISO_Markets.pdf.

[3]Source CAISO DMM 2012 Annual Report on Market Issues and Performance. http://www.caiao.com/Documents/2012AnnualReport-MarketIssue-Performance.pdf.

[4]Source CAISO DMM Q1 2013 Report on Market Issues and Performance dated May 29, 2013.http://www.caiso.com/Documents/2013FirstQuarterReport-MarketIssues_Performance-May2013.pdf.

[5]In December 2011, CAISO began enforcing the upward flexible ramping constraint in both the 15-minute real-time pre-dispatch and in the five-minute real-time dispatch markets. The constraint is applied to internal generation resources, as well as to proxy demand response resources, and not to external resources. DMM 2011 Annual Report at 75.

PacifiCorp notes that Flexible Ramping Constraint ("FRC") costs, which totaled $20 million for all of 2012, have already cost approximately $10 million for the first quarter of 2013.[6]

2. Current Allocation of These Uplift Charges

The $304 million in uplift costs in 2012 identified in Table 1 were allocated to CAISO Measured Demand (metered CAISO Demand plus Real-Time Interchange Export Schedules) with the exception of the FRC, which is allocated 75 percent to Measured Demand and 25 percent to gross negative supply deviations.

Simply stated, these costs exist today without an EIM. The existence of an EIM should not shift these existing costs to EIM participants. If CAISO served as the Market Operator, but the optimization included only external EIM Entities and not CAISO's BAA, presumably these uplift charges would be eliminated or significantly reduced. Accordingly, CAISO must seek to minimize not only uplift costs moving between an EIM Entity and CAISO BAA, but also uplift costs moving between CAISO BAA and an EIM Entity.

Of particular significance to PacifiCorp is the cost proposed for allocation of payments to "virtual" bidders who had neither actual resources nor actual load ($70 million of which were paid in 2012).[7] EIM Entities, such as PacifiCorp, will not expose CAISO customers to (i) costs associated with changes between day-ahead and real-time schedules in the external BAA; (ii) costs associated with procurement of sufficient reserves; or (iii) costs associated with "exceptional" dispatches. In addition, PacifiCorp, for one, does not engage in virtual transactions. CAISO should not impose its costs for these activities on EIM Entities.

The proposal with respect to the FRC is a further example of the inequity associated with CAISO's proposal. Currently, CAISO procures additional "non-contingent" reserves to account for changes between supply and demand in real-time. It is important to note that to implement the FRC, CAISO was required to file for and obtain Federal Energy Regulatory Commission ("FERC") approval to secure these additional reserves. On October 7, 2011, CAISO filed for authorization to impose the FRC in Docket No. ER12-50. FERC accepted the FRC for implementation, subject to hearing and settlement judge proceedings.[8] In its Order, FERC stated, "the difference between the Flexible Ramping Constraint service and non-contingent spinning reserves is not clear...[i]n other words, CAISO has not demonstrated how the two services differ."[9] PacifiCorp agrees with the Order that CAISO has offered no explanation as to why FRC should be treated differently for purposes of the EIM than other ancillary services,

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[6]See, the Department of Market Monitoring Q1 2013 Report on Market Issues and Performance dated May 29, 2013 at 48. The report can be found at http://www.ISO.com/Documents/2013FirstQuarterReport-MarketIssues_Performance-May2013.pdf

[7]*See*, the Department of Market Monitoring 2012 Annual Report on Market Issues and Performance at 75 (real-time bid cost recovery of $49 million), 77 (FRC costs of $20 million), 92 (real-time imbalance energy offset costs of $50 million and real-time congestion offset costs of $185 million), and 97. http://www.caiso.com/Documents/2012AnnualReport-MarketIssue-Performance.pdf.

[8]*California Independent Transmission System Operator Corporation*, 137 FERC ¶ 61,191(2011).

[9]*Id*. At ¶ 28.

which are excluded from the EIM allocations. Moreover, PacifiCorp is not aware of another BAA in the Western Interconnection that has sought or obtained similar approval from FERC to extend its reserve obligations beyond those FERC specified in Order No. 888.

Furthermore, the EIM has the potential to benefit CAISO's customers by lowering the amount of FRC CAISO needs to purchase and the cost of that procurement by expanding the pool of resources eligible to meet the need. Rather than recognize the benefit created by the EIM, CAISO's proposal transfers a significant percentage of the procurement costs for these California-required reserves to EIM Entities based on their respective percentage of real-time imbalances. In Section 3.4.3 of the Revised Straw Proposal CAISO writes,

> there is not a requirement for ISO load to have a day-ahead balanced position that includes unloaded capacity necessary to meet the flexible ramping constraint. Likewise, there will not be a requirement for an EIM Entity Scheduling Coordinator to submit a balanced schedule that includes additional unloaded capacity necessary to meet the flexible ramping constraint.

Rather than receiving an allocation of these significant CAISO-related costs, there ***should be*** a requirement that CAISO and EIM Entities bring sufficient ramping to the EIM. Further, if appropriately administered, the currently proposed balanced and feasible schedule requirement fulfills this requirement. CAISO is requested to explain why it believes a 15-minute average energy balanced and feasible schedule requirement, and four percent deviation penalty is not sufficient to prevent CAISO or an EIM Entity from leaning on the EIM.

3. Cost Causation – Application of the Seven Factors

While CAISO has developed a set of seven cost allocation principles,[10] the Revised Straw Proposal lacks discussion or analysis of how these principles will be applied to the four real time charge types for purposes of the EIM. CAISO should provide comprehensive justification for any application of any uplift allocation, including a detailed discussion of how they relate to the seven cost allocation principles and what steps CAISO proposes to take to mitigate any unwarranted cost shifts.

In the limited time available for these comments, PacifiCorp has not attempted to engage in a comprehensive evaluation or application of CAISO's seven cost causation factors. However,

[10] These principles are: (1) **Causation**: Costs will be charged to resources that benefit from the service CAISO procures through the market or drive procurement decision and resulting costs; (2) **Comparable Treatment**: Similarly situated resources and/or market participants should receive similar allocation of costs and not be unduly discriminated against; (3) **Accurate Price Signals**: The cost allocation design supports the economically efficient achievement of state and federal policy goals by providing accurate price signals from CAISO market; (4) **Incentivize Behavior**: Providing appropriate incentives is key to an economically efficient market; (5) **Manageable**: Market participants should have the ability to manage exposure to the cost allocation; (6) **Synchronized**: The cost drivers of the allocation should align as closely as possible to the selected billing determinant; and (7) **Rational**: Implementation costs/complexity should not exceed the benefits that are intended to be achieved by allocating costs.

See http://www.caiso.com/Documents/DraftFinalProposal-CostAllocationGuidingPrinciples.pdf.

Table 2 presents a preliminary examination of this issue as applied to the four potential uplifts. It is readily apparent from the Table that these charges predominately relate to circumstances beyond the scope of the EIM and should not be made a part of the EIM.

Table 2
CAISO Cost Causation Factors

<table>
<tr><th>Category</th><th>RTIEO</th><th>RTCO</th><th>RTBCR</th><th>FRCA</th></tr>
<tr><td>Causation</td><td>Revenue imbalance from the energy and loss components of hour-ahead and five-minute market real-time energy settlement prices.</td><td>Revenue imbalance from the congestion component of real-time energy settlement prices.</td><td>Units are eligible to receive BCR if total market revenues earned over the course of a day do not cover the sum of all accepted bids. Includes bids for start-up, minimum load, day-ahead energy, ancillary services, residual unit commitment availability and real-time energy.</td><td>Address situation in which CAISO has insufficient ramping capability to match real-time supply with real-time demand.</td></tr>
<tr><td>Comparable Treatment</td><td colspan="2">Costs relating to differences between the EIM Entity's day-ahead schedules and real-time schedule are not passed on to CAISO. Balanced schedule requirement for EIM Entities means no transmission constraint violations in the EIM Entity's system prior to the start of the real-time market optimization.</td><td>No BCR for external entities; CAISO assumes they are on-line; no payment for external exceptional dispatches.</td><td>No flexible ramping constraints exist for EIM Entities; costs of ensuring appropriate mix of resources are not passed on to CAISO; costs of ancillary services are not included in the EIM.[11] EIM Entities should not be paying CAISO-incurred capacity costs.</td></tr>
<tr><td>Accurate Price signals</td><td colspan="2">It is CAISO and CAISO market participants that can take action to reduce these costs. For example in its 1st Quarter 2013 report, DMM noted that CAISO's efforts "to address systematic modeling differences between day-ahead and real time markets contributed to reducing real-time imbalance costs this quarter."

Significant portions of these relate to virtual bidding which has no applicability to the EIM. The DMM estimates that about $70 million of real-time congestion revenues were paid to virtual bidders in 2012.[12]</td><td>BCR for reasons such as exceptional dispatch in CAISO may be due to a shortage of resources needed for local reliability concerns. As such the procurement signals are appropriately directed at CAISO LSEs. Otherwise CAISO is leaning on EIM Entities to support resource capacity decisions made by CAISO LSEs.</td><td>CAISO has been advocating for additional resources with fast ramping capabilities to meet the additional stains imposed by the California renewable portfolio standards and the needs to manage load variability, within CAISO Balancing Authority Area.

CAISO can establish a requirement that each Balancing Authority.</td></tr>
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[11]As noted by CAISO's DMM, "[t]he additional flexible ramping capacity is designed to supplement the existing non-contingent spinning reserves in the system in managing these variations." DMM 2012 Annual Report at 85.

[12]DMM 2012 Annual Report at Page 97.

Category	RTIEO	RTCO	RTBCR	FRCA
				Area, including CAISO, bring or pay for sufficient ramping reserves, without allocation to the other.
Incentivize Behavior	As a representative of CAISO DMM recently wrote, "[h]igh real-time imbalance offset charges can be an indicator of market inefficiencies. In addition, these uplift charges represent transactions that are not accurately reflected in market prices. Therefore, while some offset charges will inevitably result from uncertainties and fluctuations in real-time conditions, CAISO should work to reduce these out-of-market uplifts." [13]		Bid cost recovery is predominately related to behavior of CAISO and CAISO market participants.	Only the LSEs in CAISO can prevent or minimize this cost by procuring additional ramping capability.
Manageable	These costs are currently allocated 100 percent to CAISO Measured Demand. As they are uplifts, it should be possible to continue the existing allocation without expanding it to new EIM Entities.			
Synchronized	Currently, these costs are allocated to CAISO demand and exports. They reflect procurement decisions by CAISO LSEs, CAISO market rules, such as virtual bidding, and change in conditions between CAISO day-ahead and real time markets. Both parties, CAISO and the EIM Entities, should be insulated from costs related to changes from day-ahead expectations and exceptional dispatches.			
Rational	The rational for the EIM is to better utilize existing resources and existing transmission capability. The EIM should not shift CAISO uplift charges to external entities. Only if the EIM causes an incremental addition to these existing CAISO uplift charges should that incremental addition be allocated to EIM Entities.[14] In the case of the flexible ramping constraint the EIM should reduce the costs CAISO's customers would otherwise incur: (1) by potentially reducing the amount of reserve needed and (2) lowering procurement costs by expanding the pool of resources eligible to supply the ramping. It would be inappropriate for CAISO customers to realize these benefits at the expense of the EIM Entity's customers being burdened with a share of this uplift.			

[13] "Real-time Revenue Imbalance in CAISO Markets" by Ryan E. Kurlinski, Department of Market Monitoring, California Independent System Operator April 24, 2013, available at http://www.caiso.com/Documents/DiscussionPaper-Real-timeRevenueImbalance_CaliforniaISO_Markets.pdf.

[14] In its comments on the Initial Straw Proposal, PG&E requested clarification as to whether resources within CAISO BAA may be committed in the 15-minute market to address imbalance or transmission constraint enforcement needs in an EIM Entity and noted that if CAISO resources are committed to serve those needs, any bid cost recovery charges should be allocated to the benefiting EIM Entities. PG&E Comments at 5. PacifiCorp agrees that such an allocation would be appropriate. What is not acceptable, however, is for the EIM Entities to be responsible for bid cost recovery for commitments that they did not cause or from which they do not benefit.

4. CAISO's Proposed Allocation Methodology Is Unreasonable

With respect to allocation of any potential EIM-related uplift charges, CAISO proposes to use the gross absolute value of the changes from the initial state prior to the start of the EIM and the meter for all supply and demand, regardless of whether the changes are instructed or uninstructed deviations.[15] The Revised Straw Proposal contains the following example:

	DA	Adjusted Baseline	Gross ABS Deviations	%
ISO	31,500 MWh	N/A	1,500 MWh	50%
EIM Entity A	N/A	10,000 MWh	1,000 MWh	33%
EIM Entity B	N/A	2,000 MWh	500 MWh	17%
		Total	3,000 MWh	100%

Modifying the existing cost allocation for these uplift payments from CAISO Measured Demand to one solely based on EIM imbalances would lead to unjust and unreasonable results. An initial evaluation limited to the example from the Revised Straw Proposal would have 50 percent of the uplift costs transferred from CAISO customers to external EIM participants. Even if the actual percentages of imbalances were to be weighted more toward CAISO's changes from the day-ahead schedule, there is no reasonable tie between the amount of imbalances in real-time and cost incurrence for these CAISO uplifts.

Moreover, the problems with CAISO's cost allocation are exacerbated if the allocation occurs during a time in which transfer capability between CAISO and EIM Entities is extremely restricted, or even completely unavailable. PacifiCorp or its transmission customers could have significant imbalances, but during a period where they would not be benefiting from any CAISO resources.

The EIM Entities do not impose charges on CAISO for deviations from the EIM Entity's day-ahead schedules or commitment determinations. Comparability requires that CAISO similarly hold EIM Entities harmless from uplift costs related to changes from its forward markets. Moreover, EIM Entities should not be exposed to payments for virtual transactions that do not provide the actual energy necessary to supply imbalances.

5. The Solution

CAISO must fundamentally reverse course with respect to allocation of these uplift charges if the EIM is to capture the benefits identified in the E3 Study.

First, CAISO must engage in a proper cost causation analysis. CAISO cannot simply assume because these charges relate to the existing CAISO real-time market they should be incorporated

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[15] According to CAISO, the usage will be calculated for each 15-minute interval in the hour. The usage for each 15-minute interval will be summed for the hour. An hourly percentage will be calculated for each BAA. For CAISO supply and load, the gross deviations for each resource will be calculated as the absolute value of the difference between the day-ahead schedule and the meter. For EIM Entities, the supply and load gross deviations will be the absolute value of the difference between the adjusted base schedule and the meter.

into the EIM. CAISO must ensure that comparability exists. If the EIM Entity does not uplift to CAISO costs associated with changes from day-ahead assumptions, neither should CAISO. If the EIM Entity does not impose bid cost recovery charges on CAISO, neither should CAISO. If the EIM Entity does not charge CAISO for exceptional dispatch costs, neither should CAISO. If the external EIM Entity does not lean on CAISO to meet its ramping needs, neither should CAISO. Application of appropriate cost causation principles should lead to the removal of these costs from the EIM.

Second, any uplift charges should be determined at the EIM Entity/ISO level. Only those uplift charges caused by the external EIM Entity to CAISO or by CAISO to the external EIM Entities should be eligible for reimbursement and that reimbursement should come from the EIM Entities who benefitted. The proposed allocation based upon an EIM Entity's/CAISO's use of the real-time market is a socialization and cost-shift of significant dollars and will result in those disadvantaged by that socialization opting out of EIM participation. Uplift incurred in one EIM Entity area should not be paid by another, especially if there is limited or no transfer capability between them.

Third, CAISO has not presented any data or analysis as to how the EIM may affect the level of uplift payments that would otherwise be incurred. If there is a limited incremental effect, PacifiCorp can accept a two stage process in which the uplift costs are first allocated to CAISO Measured Demand and then the incremental component is allocated to EIM Entities based on imbalances occurring in that hour. If, however, CAISO systems cannot identify this incremental effect, CAISO must apply cost causation to determine whether and where the costs are predominately attributable to CAISO markets and reliability needs or related to the EIM Entities.

In summary, CAISO's uplift proposal is fundamentally flawed and inconsistent with the longstanding cost-causation principles established by FERC. If an EIM that includes CAISO as a participant (rather than simply as an administrator) is to be viable, CAISO must redirect its efforts at capturing the mutual benefits of the EIM.

C. Greenhouse Gas Requirements

CAISO is proposing to incorporate greenhouse gas ("GHG") costs into the dispatch and pricing of the real-time EIM transactions. This is proposed to be implemented in such a way that allows for different costs for GHG emissions that take into account the resources' individual emission properties when adding GHG costs to energy produced from those resources selected *for import into California*. Critically, the Revised Straw Proposal notes that EIM Participating Resources whose energy is deemed to serve load outside California would not be assessed GHG costs and that load in EIM Entity BAAs outside California will not be assessed GHG costs. CAISO proposal also assumes that generators outside California that are carbon emitting resources and deemed to import energy into California will be required to procure GHG allowances to cover their emissions and have GHG related costs that are non-zero in the SCED-objective function for the portions of their output that is allocated to import energy into CAISO.

CAISO proposal satisfies a primary objective – it is designed to ensure that GHG costs are borne by California entities; CAISO will collect GHG revenue for the net imbalance energy exports from each EIM Entity BAA at the respective net imbalance energy export allocation constraint shadow price and then distribute this revenue back to the optimal net imbalance energy export allocations in addition to the imbalance energy at the LMP. If designed correctly, this would compensate supply resources in EIM Entity BAAs for their energy and GHG costs. It is understood by PacifiCorp to be designed to ensure that entities that do not participate in the EIM or do not import energy into California are unaffected and that the LMP for resources that do not import energy to California will not reflect any GHG costs.

While PacifiCorp is supportive of this approach and that it conceptually meets this core objective, PacifiCorp requests confirmation of CAISO proposal as follows:

CAISO should confirm that its approach will work if the California Air Resources Board ("ARB") does not change the current method of identifying imports into California. Currently, ARB uses e-tags to identify imported energy. More specifically, the importer is the purchasing-selling entity ("PSE") on the e-tag on the transmission segment crossing the California border. Under the current CAISO tariff rules, the Scheduling Coordinator is required to be the PSE on the e-tag on that transmission segment. Accordingly, under the current regulation PacifiCorp as the Scheduling Coordinator will be the only entity with an obligation to purchase GHG allowances. CAISO should confirm that the Scheduling Coordinator will be fully compensated for its allowance purchases and that the quantity of imports assessed by ARB will not be different from that assessed and reported by CAISO to the EIM Entity for the dynamic e-tag.

CAISO should confirm the EIM Entity will be required to allocate GHG cost obligations to emitting resources importing into California among participating resources within the EIM Entity BAA. CAISO should confirm the SCED may have non-unique solutions for the export allocation of emitting resources. If confirmed, CAISO should add a requirement for the EIM Entity or CAISO to provide a ranking of bid and emitting resources that will be used to create a unique solution.

D. Locational Market Power Mitigation

In Section 3.2.5 of the Revised Straw Proposal, CAISO introduces a proposed approach to mitigating localized market power in the EIM consisting of two parts: (1) mitigation based on LMP decomposition and (2) dynamic competitive path assessment ("DCPA") based on the residual supplier index ("RSI"). According to CAISO, the "LMP decomposition" produces dispatches and prices that are potentially impacted by market power. CAISO's computations depend on the reference bus which states "should be at a location free of local market power impact." The RSI is the ratio of counter flow capacity supply excluding the three largest suppliers and the original counter flow provision to determine if the three largest suppliers are pivotal for a constraint in terms of counter flow. If they are pivotal, which means the residual counter flow capacity supply cannot reach the original counter flow provision, the constraint is deemed non-competitive. Otherwise, the constraint is deemed competitive. EIM Participating Resource Scheduling Coordinators will need to submit information that is necessary to perform DCPA to CAISO, such as tolling agreements. CAISO proposes to use the same DCPA and LMPM methodology to mitigate power for EIM Participating Resources.

While CAISO identifies the process it will undertake to determine if mitigation for locational market power is warranted, CAISO does not identify what the proposed mitigation will be for the

EIM. Under CAISO's current mitigation regime in Section 39.7.1 of the tariff, if a resource is subject to local market power mitigation, it means that the unit will be required to utilize a "default energy bid" based on one of four options: (1) Variable Cost Option,[16] (2) Negotiated Rate Option,[17] (3) LMP Option,[18] or (4) Variable Cost Option plus Bid Adder.[19] The Scheduling Coordinator for each Generating Unit must rank order the following options starting with its preferred method and provide the data necessary for determining the Variable Costs, unless the Negotiated Rate Option precedes the Variable Cost Option in the rank order, in which case the Scheduling Coordinator must have a negotiated rate established with the Independent Entity charged with calculating the Default Energy Bid.[20] CAISO should clarify if it intends to use the same mitigation methodology for the EIM.

Further consideration of this issue would benefit by CAISO providing additional explanation, including specific examples, as to how its proposal would work in the External Entity BAAs. Pending that additional discussion, PacifiCorp can support CAISO's proposal.

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[16]For natural gas-fueled units, the Variable Cost Option calculates the Default Energy Bid by adding incremental cost (comprised of incremental fuel cost plus a greenhouse gas cost adder if applicable) with variable operation and maintenance cost, adding ten percent (10%) to the sum, and adding a Bid Adder if applicable. CAISO Tariff Section 39.7.1.1.

[17]Scheduling Coordinators that elect the Negotiated Rate Option for the Default Energy Bid submit a proposed Default Energy Bid along with supporting information to either CAISO or an Independent Entity selected by CAISO. If the proposal is accepted it becomes effective within three business days. If it is rejected, CAISO or Independent Entity selected by CAISO and the Scheduling Coordinator enter into a period of good faith negotiations that terminates sixty days following the date of submission of a proposed Default Energy Bid by a Scheduling Coordinator. If the issue is still not resolved, the Scheduling Coordinator has the right to file a proposed Default Energy Bid with FERC. During the interim period before FERC's determination, the Scheduling Coordinator has the option of electing to use any of the other options. CAISO Tariff Section 39.7.1.3.

[18]CAISO will calculate the LMP Option for the Default Energy Bid as a weighted average of the lowest quartile of LMPs at the generating unit PNode in periods when the unit was dispatched during the preceding ninety day period for which LMPs that have passed the price validation and correction process set forth in Section 35 are available. CAISO Tariff Section 39.7.1.2.

[19]A Frequently Mitigated Unit is eligible for a Bid Adder. Under CAISO Tariff section 39.8, to receive a Bid Adder, a Generating Unit must: (i) have a Mitigation Frequency that is greater than eighty (80) percent in the previous twelve (12) months; and (ii) must not have a contract to be a Resource Adequacy Resource for its entire Net Qualifying Capacity. The value of the Bid Adder will be either: (i) a unit-specific value determined in consultation with CAISO or an independent entity selected by CAISO, or (ii) a default Bid Adder of $24/MWh. For Generating Units with a portion of their capacity identified as meeting an LSE's Resource Adequacy Requirements, that Generating Unit's Bid Adder value is reduced by the percent of the Generating Unit's capacity that is identified as meeting an LSE's Resource Adequacy Requirements. The reduced Bid Adder is applied to that Generating Unit's entire Default Energy Bid Curve.

[20]If no rank order is specified, then the default rank order of (1) Variable Cost Option, (2) Negotiated Rate Option, (3) LMP Option will be applied. For the first ninety days after changes to resource status and configurations, the Default Energy Bid option for the resource is limited to the Negotiated Rate Option or the Variable Cost Option. CAISO Tariff Section 39.7.1.

E. Transmission Charges

PacifiCorp appreciates and supports CAISO's proposal to have no charge for transmission for the EIM for the first year of operation, while alternatives are considered further for the long-term. This approach is consistent with the outlined principles articulated by CAISO in Section 3.10 of the Revised Straw Proposal[21] and promotes an efficient EIM, but also allows time for evaluation of EIM operations and participant utilization of EIM prior to establishing any charges. Similarly, one of the proposals being considered by PacifiCorp in its stakeholder process is not to impose any additional charges for transmission but to require EIM Participating Resources to also be transmission customers of PacifiCorp. As such, it may be appropriate for an EIM Entity to have discretion to require subscription of transmission service in order to allow participation in the EIM. If charging for transmission is determined to be appropriate based on actual operations, the data resulting from the period of actual utilization will be useful for determining the best method for establishing and imposing charges.

F. Governance and Oversight

In Section 3.8 of the Revised Straw Proposal, CAISO states that it will be implementing a parallel stakeholder process regarding governance of the EIM and will be publishing a proposal for stakeholder consideration in August. In its June 4, 2013, response to stakeholder comments, CAISO stated that PacifiCorp's concern with respect to Section 205 filing rights for issues such as the determination of Load Aggregation Points would be "subject to discussion in this parallel stakeholder engagement effort." PacifiCorp supports the development of a parallel stakeholder process to address governance of the EIM and will be an active participant to ensure that appropriate governance and oversight mechanisms are included in the EIM market rules.

There is, however, one oversight issue that need not be a part of the separate determination of the EIM governance structure. In Section 4.1 of the Initial Straw Proposal, CAISO raised the possibility of instituting an EIM Advisory Committee chartered under CAISO bylaws. This committee would directly engage with CAISO Board (or other final form of EIM governance) on issues affecting the EIM, serve as a forum for consideration of EIM market rule changes, and provide regular reports to stakeholders. In its comments, PacifiCorp supported development of the advisory committee.[22] In its June 4, 2013 response to Stakeholder comments, CAISO did not discuss this issue further.

The EIM Advisory Committee is an important forum to ensure timely recognition and correction of issues associated with this new market. CAISO has publicly suggested that an EIM Advisory

[21]These principles consist of: (1) there should be no pancaking for transmission service; (2) each transmission owner should meet its transmission revenue requirement; (3) resource owners should not have to estimate or attempt to incorporate where their production is going, as part of their supply bids, (4) the implementation cost of a transmission access charge approach should be consistent with the magnitude of the total transmission costs expected to be incurred through EIM operations and recovered in EIM-related rates, and (5) the transmission charge should be consistent regardless of whether the EIM Participating Resource is operated by an EIM Entity. In other words, transmission cost recovery should not be affected by whether or not a load is the native load of the business entity that also is the transmission provider.

[23]See April 30. 2013 filing letter of CAISO in Docket No. ER13-1372, Attachment B at P 21.

Committee is a reasonable option for ensuring that EIM Entities have a venue for discussing EIM market issues and improvements. As a result, at a minimum, PacifiCorp strongly encourages CAISO to affirmatively support this modest request in the next iteration of the Straw Proposal and in the final EIM market design.

G. Membership Expansion

PacifiCorp strongly supports establishing a process to facilitate expansion of the EIM to new BAAs.

To establish a transparent and equitable process for new entities, CAISO should set forth in the EIM tariff provisions the information and timing requirements to facilitate participation. The tariff should also specify that the initiation fee will be consistent with the amount reflected in the recently filed Implementation Agreement between CAISO and PacifiCorp. As explained in the Affidavit of Michael Epstein Submitted with CAISO's April 30, 2013 filing in Docket No. ER13-1372, having determined that the total cost of implementing the WECC-wide energy imbalance market would be $18.3 million, CAISO proceeded to develop a rate that could be used for individual participants. To do so, CAISO divided its projected $18.3 million total cost by the 616.0 million MWh of non- CAISO net energy for load in the WECC, for a rate of $0.03/MWh.[23] Use of a consistent rate will assure comparable treatment of participating Balancing Authority Areas.

H. Metering

CAISO and PacifiCorp metering teams have discussed metering requirements. PacifiCorp plans to participate in the upcoming EIM on a basis similar to a Scheduling Coordinator Meter Entity ("SCME"). Section 10.3.7 of CAISO tariff, however, identifies metering standards for SCME's established by the Local Regulatory Authority. PacifiCorp does not have a local regulatory authority in relation to an EIM and proposes it uses its Company standards which have been established with in its BA.

Accordingly, CAISO metering team has recognized the need for a new pro forma agreement for an EIM Scheduling Coordinator Meter Entity which would include requirements specific to the EIM market and would address the case where no Local Regulatory Authority certification requirements exist. The concept is to create requirements similar to the option of SCME but specify certain requirements in the Metering Business Process Manual that the Scheduling Coordinator will have to obtain and maintain. This concept should be incorporated into the next draft of the Straw Proposal. Furthermore, as a result of the new meter entity type and standards, CAISO and PacifiCorp will together to define the expectations for documentation, certification, and standards related to metering.

I. Enforcement Protocol

In the Initial Straw Proposal, CAISO stated that EIM participants would be subject to CAISO's existing Enforcement Protocol. In its comments, PacifiCorp recognized that there is the need for

[23] See April 30. 2013 filing letter of CAISO in Docket No. ER13-1372, Attachment B at P 21.

oversight and enforcement of the EIM, but noted that Section 37 of CAISO Tariff, contained numerous provisions that do not apply to the EIM, EIM Entities or EIM participants.[24]

In its June 4, 2013 response to Stakeholder comments, CAISO stated, "The EIM tariff provisions will reference the relevant portions of the enforcement protocol applicable to EIM participation. This will be included in the draft tariff provisions to be developed in relation to this stakeholder process." PacifiCorp supports CAISO's proposed resolution of this issue. However, the Revised Straw Proposal indicates that the Enforcement Protocol for the EIM is anticipated to be the same as in CAISO tariff. PacifiCorp requests that CAISO clarify in the next version of the Straw Proposal that only certain portions of CAISO tariff Enforcement Protocol will apply to EIM Entity Scheduling Coordinators and EIM Participating Resource Scheduling Coordinators.

J. Termination Rights

In its comments on the Initial Straw Proposal, PacifiCorp noted the importance of CAISO specifying termination provisions for EIM participants:

> The ability to exit the EIM expeditiously if the market does not produce the expected benefits or if the market design is altered in a manner that conflicts with PacifiCorp's core principles is essential. The exit provisions are also a key component of PacifiCorp's acceptance of the proposed, initial governance structure. The termination process must have three key elements. First, there must be a limited notice period. Second, consistent with ISO's representation in its January 29, 2013 proposal to the PUC EIM group, there would be no exit charge or fee. This is consistent with the up-front initial fee charged by ISO and the pay-as-you-go administrative charges utilized thereafter. Third, the end of the notice period should terminate the EIM Entity or the EIM Participant's incurrence of additional financial obligations.[25]

. . . . .

In its June 4, 2012 response to Stakeholder comments, CAISO responded:

> An EIM entity can end its participation in the EIM by terminating the service agreements associated with the EIM. The ISO will propose service agreement termination notice provisions for an EIM entity to exit completely as part of the draft ISO tariff, and will take these comments into consideration. As discussed in

[24] PacifiCorp Comments on CAISO's Initial Straw Proposal at 6. For example, Section 37.2.1.1 requires compliance with operating orders issued by CAISO directing a Market Participant to undertake, a single, clearly specified action (e.g., the operation of a specific device, or change in status of a particular Generating Unit) that is intended by CAISO to resolve a specific operating condition. This provision does not appear to apply to EIM Entities that operate as distinct BAs. With respect to Sections 37.2.3 and 37.4.2, CAISO is not overseeing outages taken by EIM Participants. Similarly, 37.2.4 concerns activity on the part of CAISO's Resource Adequacy Resources. The EIM does not address resource adequacy and suppliers in the EIM can be committed to serve load in the EIM Entity and not be CAISO Resource Adequacy Resources. Section 37.3.1 covers bids for RUC Capacity and Ancillary Services as well as Energy.

[25] PacifiCorp Comments on the ISO's Initial Straw Proposal at 5.

> relation to administrative fees, there will be no exit charge for termination of EIM services. The ISO will clarify the associated resource notice requirements in the second revised straw proposal for needed notification similar to the ISO Master File change process which requires 7-10 days lead time before the changes become effective. An EIM Participating Resource can elect not to participate by not submitting an economic bid.

PacifiCorp appreciates CAISO's attention to this issue as it is a critical element of the EIM design. Potential participants must have a clear understanding of their termination rights and responsibilities. PacifiCorp looks forward to reviewing the discussion in the next iteration of the Straw Proposal.

III. COMMENTS ON KEY ISSUES

Section 2.1 New Terms

- Figure 1: The terminology should be reconciled to new terms proposed in section 2.1.

Section 3.1 Key Roles

- In Section 3.1.3 h, "…as soon as they are known" should be replaced with "…within x minutes of the implemented change."

Section 3.2 EIM Process

- With regard to Section 3.2.5, what information needs to be submitted (and how should this information be submitted) by an EIM Participating Resource Scheduling Coordinator for CAISO to conduct the dynamic competitive path assessment? In addition, CAISO should explain why the Market Operator will not be mitigating for scheduling constraints as they are binding from the transmission customer's point of view.

- With regard to Section 3.2.5, PacifiCorp requests CAISO define the terms shift factor, shadow price, dynamic competitive path assessment ("DCPA"), residual supplier index ("RSI"). PacifiCorp also requests CAISO define the term tolling agreements.

Section 3.3 EIM Input Data

- Section 3.3.2 (and other sections): PacifiCorp recognizes the need for balanced and feasible schedules among all EIM Entities and CAISO for the EIM. The definition of balanced schedules, including but not limited to the time duration evaluated, the evaluation frequency, should be the subject of additional discussion. Enforcement and/or ramifications should also be discussed.

- In the 1st paragraph of Section 3.3.2, CAISO should delete "…at least…". Also, the 2 hour horizon appears inconsistent with the 4.5 hour horizon described in 3.3.4. CAISO should provide definitive horizons for each forecast submittal requirement.

- In the 3rd paragraph of Section 3.3.2, please provide an explanation as to how disaggregation can occur for system sales (e.g., WSPP Schedule C), where quantities are not allocated to specific resources?

- As to the 2nd paragraph of Section 3.3.6, the three reserve quantities should be combined into two: up regulation and down regulation capacity. The market operator should not be concerned why reserves are held on a resource. Also with respect to Section 3.3.6, please verify there is no minimum resource capacity threshold for modeling/metering/ scheduling. For example, can any size resource be included as an offset to the load forecast?

- With respect to Section 3.3.7, CAISO should describe how the supply adequacy requirement will be enforced. Furthermore, CAISO should confirm that as a Balancing Authority Area it will be subject to the same supply adequacy requirements as the EIM Entities.

- In addition, Section 3.3.7 (Section 3.3.8 of the Initial Straw Proposal) and others refer to " ... dynamic schedules with resources ..., " PacifiCorp requests that CAISO clarify that this does not apply to all bid resources and that this only applies to dynamic schedules on the interties. In addition, Section 3.3.7 and others also state that dynamic e-tags will have an initial value of zero. This may be inconsistent with NERC Reliability Standards for interchange ("INT"). Rather, the initial value should be the EIM Entity's best estimate, which may be zero.

- Also with respect to Section 3.3.7, how will the Market Operator notify the EIM Entity Scheduling Coordinators of the supply adequacy analysis results?

- In Section 3.3.8, Reserve Sharing Schedules, PacifiCorp wants clarification that responses to contingencies are reported to the Market Operator via the outage management system (currently SLIC).

- Also in Section 3.3.8, PacifiCorp requests that CAISO clarify how the EIM Entity Scheduling Coordinator submits updated resource plans after actual resources have been deployed.

- In Section 3.3.8, Reserve Sharing Schedules, PacifiCorp requests that CAISO clarify how energy schedules for deployment of reserves are reflected in base schedules or in exceptional dispatch instructions. CAISO also needs to be clear on "if time permits" statement; what is the timing requirement to reflect deployment of reserves in the base schedules rather than in exceptional dispatch instructions?

- In Section 3.3.9.1, PacifiCorp is concerned that minimum shift of base schedules will result in unexpected imbalance charges, without a clear understanding that a base schedule has been modified and for what reason. How does the EIM participant know a base schedule has been subject to minimum shift optimization? Accordingly, CAISO must describe how the EIM Participating Resource Scheduling Coordinator knows a base schedule has been subject to minimum shift optimization. Also, how is the EIM Entity Scheduling Coordinator informed that the submitted energy bid ranges were not sufficient? Does this come from ADS, CMRI, or some other system? Does CAISO have an estimate of volume and financial impacts that EIM participants could incur as a result of minimum shift optimization? What are the volumes and financial impacts of minimum shift optimization in the current market? It would be helpful for each EIM participant to understand these impacts and how they might change when entering the EIM market.

- In 3.3.9.1 Minimum Shift Optimization: PacifiCorp requests CAISO needs to define how much and where they will "relax" transmission constraints.

- With regard to the 4th paragraph of Section 3.3.11, does SIBR currently have rules built into it that will allow the reservation of capacity from a resource bid? PacifiCorp understands that SIBR does not currently do this for other market participants and requests clarification on how this system will handle this or if it will be a different system receiving bids.

- In Section 3.3.11 Variable Energy Resource Production Forecast: PacifiCorp requests CAISO clarify how the revised base schedules will reflect deployed reserves.

- As to the 1st paragraph of Section 3.3.12, please identify which entity is responsible for the initial mapping of loads to nodes in the network model. Also, in its prior comments on this section (3.3.13 of the Initial Straw Proposal), PacifiCorp recommended that CAISO should explain or delete the sentence "The number of LAPs will also determine the effort in managing multiple load forecasts." PacifiCorp's understanding is that the number of LAPs and load forecasts are independent of each other.

- With reference to the 2nd paragraph of Section 3.3.13, what is the definition of a load forecast zone? As to the 3rd paragraph, CAISO should provide definitive horizons for each forecast submittal requirement rather than a range of 6 to 10 hours.

- In Section 3.3.14, CAISO should add an under/over scheduling penalty for inaccurate variable energy resource base schedules, similar for load base schedules. In the alternative, CAISO should describe why there is no penalty as the ability for gaming is the same for both.

- Also with regard to Section 3.3.14, PacifiCorp appreciates CAISO's clarification that if the EIM Entity has an independent forecast for its variable resources and shares its forecast, the $0.10 per MWh service charge is waived. Does CAISO propose to establish minimum requirements for such forecasts and forecast delivery?

- In Section 3.3.15 Generation and Transmission Outages: CAISO needs to remove the term "preferably." PacifiCorp requests that CAISO clearly define the deadline for submission of outage information.

- In Section 3.3.16, aside from registering non-participating resources, why is min, max and ramp rate data required? How is it used by the market operator? CAISO should remove the requirement for non-participating resources to provide this information.

- With reference to Section 3.3.18, please provide clarification on where the limits are coming from and how they need to be communicated. PacifiCorp is working on how to automatically send SCADA/model limits, or are these different limits?

Section 3.4 EIM Optimization

- PacifiCorp continues to request that CAISO add clarity and a full description for Minimum Shift Optimization, which is the process to ensure a balanced and feasible dispatch prior to the economic dispatch. PacifiCorp also requests that CAISO clarify that the EIM Entity will be required to run a network model in the hourly and/or 15-minute time frame to assure feasibility.

- As to Section 3.4.2, what happens if there are not enough EIM energy bids to manage congestion? Does CAISO re-dispatch non-participating resources to manage the congestion or is it left up to the EIM Entity to resolve?

- Also with regard to section 3.4.3, the flexible ramping constraint and to-be-developed replacement product should be balancing authority functions and not part of the EIM. Removing this function from the EIM reduces uplift charges and inappropriate cost-shifts. An enforced balanced schedule requirement is sufficient. If an EIM Entity/CAISO submits balanced schedules for two successive 15-minute periods, but has insufficient ramping capability between the two, then in fact the entity does not have a balanced schedule for the second 15-minute period.

- Regarding the Section 3.4.4 (Section 3.6.4 from the Initial Straw Proposal) the provision on scarcity, PacifiCorp previously noted that the proposal does not provide details as to how this administrative penalty would be set and that CAISO should clarify that this penalty cost is a model parameter and not a direct cost to the EIM Entity. If, however, the penalty does affect the LMP, an additional issue for discussion should be if the scarcity is attributable to either CAISO BAA or a PacifiCorp BAA whether the other BAA should be subject to the administrative penalty cost. Stated another way, is it possible that as proposed, this is a mechanism whereby one entity's resource insufficiency can adversely impact another entity financially. If so, why wouldn't the administrative penalty be administered in such a way to prevent this outcome?

Section 3.5 EIM Output Results

- Regarding Section 3.5.3 Dynamic Imbalance Schedules to Net: This section should clarify that the static schedules will not change every five minutes, and only the dynamic signal portion of the Net Scheduled Interchange (the transfer of energy from CAISO-PAC and vice versa) is all that changes and is sent to PacifiCorp every five minutes. Also, please clarify how this relates to the Net Scheduled Interchange being sent every four seconds, as mentioned in the matrix found in section 3.2.1.

Section 3.6 EIM System Operations

- Congestion Management - The Revised Straw Proposal notes "EIM includes external sources and sinks in its market network model to accurately model flows between EIM and areas with which it coordinates." *See* Revised Straw Proposal at 37. PacifiCorp understands the benefits of external entities providing information to CAISO, specifically balancing authority areas and transmission service providers that are not EIM Entities. PacifiCorp recognizes there is additional discussion required to resolve this issue. PacifiCorp recognizes the value of interregional (i.e., Balancing Authority Area to Balancing Authority Area) transfer capability to EIM benefits. However, similar to the voluntary nature of bidding resources, each EIM Entity should have the opportunity to voluntarily commit any amount or no amount of reserved transmission capacity between Balancing Authority Areas for EIM transactions.

- In Section 3.6.4 Seams Coordination and Interaction with WECC Congestion Management:

  a) CAISO either needs to define the terms "Participating market or non-market system operators" or remove them and replace with defined terms from section 2.1.

  b) PacifiCorp currently does not have any qualified paths that are included in the Unscheduled Flow Mitigation Procedure; therefore, PacifiCorp can't initiate any of the UFMP related processes under WECC.

  c) The WECC Enhanced Curtailment Calculator ("ECC") is not currently implemented. PacifiCorp requests CAISO include the current WECC unscheduled flow mitigation tool, webSAS, in the document and how the EIM parties are expected to interface with it as well; or the term ECC needs to be replaced with generic WECC unscheduled flow mitigation language.

- With regard to Section 3.6.6, PacifiCorp requests that CAISO provide additional clarification on how this "decoupling" is going to occur with an example.

Section 3.7 EIM Settlement and Accounting

- In the first paragraph of section 3.7.3 it states, "Resources with financial settlement based on energy delivered in each dispatch interval, with separate price calculations for instructed and uninstructed energy, may be deemed to be settled using cost-based LMPs, and therefore not subject to uninstructed deviation charges." PacifiCorp recommends that CAISO provide an example on when a "separate price calculation" would be used and "cost-based LMP's" would be derived.

- In the fourth paragraph of section 3.7.3, PacifiCorp is unclear on how the algebraic difference between the hourly meter data and the load forecast that clears the five-minute market is treated. Is it covered in the second to the last sentence as a "load forecast deviation in a five-minute market" or in the last sentence as a "neutrality charge". PacifiCorp recommends additional clarification be added.

- In Section 3.7.9 of the Initial Straw Proposal, CAISO stated that it conducts a revenue neutral market and called for additional discussion to determine if Unaccounted for Energy (which it labels as "MW neutrality") will be calculated based on the EIM Entity as a whole or performed at lower levels of granularity. Additionally, CAISO proposed that an EIM Entity's LMP differences will be allocated to the EIM Entity's measured demand, including loads and exports. PacifiCorp agreed that more discussion is needed on these issues. Given the nature of the EIM as an imbalance market, PacifiCorp was particularly concerned about allocation of charges to metered demand, rather than the net deviations for that particular hour. Allocations to measured demand raise significant cost causation concerns. The Revised Straw proposal did not include the section on neutrality but noted with respect to section 3.7.4 on unaccounted for energy, that additional discussions are needed to define the specific make-up of the UFE service area for EIM Entities in conjunction with the needed metering points to calculate UFE for each service area. Accordingly, these concepts need to be developed further.

- In section 2.1 and 3.1.4 the Revised Straw proposal clarifies that the EIM Entity Scheduling Coordinator will be responsible for imbalance energy settlement of non-participating resources. Section 3.1.5 also clarifies that the EIM Participating Resource Scheduling Coordinator will be responsible for imbalance energy settlement of its EIM participating resources. Does this mean that non-participating resources and load are required to have their uninstructed imbalance settled under the same scheduling coordinator ID as the EIM Entity scheduling coordinator? Is uninstructed imbalance on participating resources settled under the EIM Participating Resource Scheduling Coordinator ID or the EIM Entity Scheduling Coordinator ID?

Section 3.9 Market Rule Structure

- PacifiCorp supports CAISO's determination that the EIM rules should be contained in a discrete part of CAISO tariff. While this discrete section may contain cross references, CAISO must be cautious about overbroad references to portions of the tariff that contain provisions inapplicable to the EIM. Overbroad references undermine the importance of the separation of the EIM-related tariff provisions.

Section 3.10 Transmission Service

- PacifiCorp requests that CAISO modify the Revised Straw Proposal in Section 3.10, first paragraph, to remove the statement "In any event, any EIM transmission service rate should be the same across all EIM Entities." It is premature to definitively prejudge at this time how any transmission charges will be designed, particularly in light of the fact that the Revised Straw Proposal allows time for evaluation of EIM operations and participant utilization of EIM prior to establishing any charges.

Section 3.13.1 Market Monitoring

- Section 3.13.1 on Market Monitoring is unchanged from Section 3.8.1 of the Initial Straw Proposal. As explained in its initial comments[27] and reiterated here, PacifiCorp continues to believe that additional discussion is necessary regarding the appropriate limitations to place on the information that can be requested by DMM of EIM-only participants. This should balance the need for the DMM to have information necessary for effective oversight of the EIM, but not go beyond that to include information that may be appropriate to entities that have joined CAISO or are participating in the other CAISO markets and processes.

- With respect to CAISO's statement that services provided by DMM will be included in the administrative charges, PacifiCorp noted in its prior comments that the proposed EIM charges already are based on an allocated share of the overall Market Services component of CAISO's Grid Management Charge.[28] PacifiCorp requests confirmation that there will not be any separate, additional EIM charges associated with DMM oversight.

IV. ADDITIONAL TYPOGRAPHIC CHANGES

- On page 1, CAISO should change "National Electric Energy Reliability Corporation" to "North American Electric Reliability Corporation."

- In Section 2.1, CAISO should insert an "a" into the definition of EIM Participating Resource after "is" and before "resource."

- In the 4th paragraph of Section 3.4.3, CAISO should change "where" to "were."

- In the 3rd paragraph of Section 3.11, CAISO should insert "month" after "12-18."

[27] PacifiCorp Comments on CAISO's Initial Straw Proposal at 11.

[28] PacifiCorp Comments on CAISO's Initial Straw Proposal at 11.

V. CONCLUSION

PacifiCorp continues to appreciate the ongoing efforts of CAISO management and staff to develop the EIM in a timely basis and in accordance with the principles in the Implementation Agreement. PacifiCorp's comments are intended to: (1) focus on critical issues related to the market design; (2) identify areas where PacifiCorp needs additional explanation or data to understand CAISO's proposal; and (3) provide specific proposed changes to improve the next iteration of the Straw Proposal. PacifiCorp will continue to be an active participant in the EIM stakeholder process and undertake the necessary activities to be able to support startup of the EIM October 1, 2014.