COMMENTS OF THE EIM ENTITIES[1] ON CAISO'S FERC ORDER 831 IMPORT BIDDING AND MARKET PARAMETERS REVISED STRAW PROPOSAL

December 19, 2019

In both stakeholder comments,[2] and a FERC filing,[3] NV Energy, PacifiCorp, Idaho Power Company, Portland General Electric, and Arizona Public Service, explained why implementing a $2,000/MWh power balance constraint penalty is unjust and unreasonable, especially if applied to the utilities and their customers participating in the Western Energy Imbalance Market ("EIM"). In both of those filings, these EIM Entities also reminded the CAISO of the long-standing commitment to them and to the Federal Energy Regulatory Commission ("FERC") to engage in a stakeholder process *to reduce the existing $1,000/MWh power balance constraint penalty* in steps based on the amount of megawatts of infeasibility. The CAISO's Revised Straw proposal does not acknowledge this regulatory commitment. Instead, the CAISO presents three options:

- Option 1: Do nothing and wait for FERC to act by September 2020 on the September 5, 2019 filing that proposed to raise the power balance constraint penalty from $1,000/MWh to $2,000/MWh.[4]

- Option 2A: Set the power balance constraint penalty at $1,000/MWh, unless there is a cost-verified cleared bid greater than $1,000/MWh in which case the penalty would be set at the price of the highest cost-verified cleared bid.

- Option 2B: Set the power balance constraint penalty at $1,000/MWh, unless there is a cost-verified cleared bid greater than $1,000/MWh in which case the penalty would be set at $2,000/MWh.

CAISO's Option 1 is not just and reasonable and therefore not viable, especially as applied to the EIM. In accordance with Order No. 831,[5] any supply offer above the current energy bid cap of $1,000/MWh will happen only under the most extreme situations and require a cost-based

[1] These comments are submitted on behalf of the following EIM Entities: Arizona Public Service Company, Idaho Power Company, Portland General Electric, PacifiCorp, and NV Energy.

[2] *See* Joint Party Comments Commitment Costs and Default Energy Bid Draft Tariff Language dated May 28, 2019. These can be found at http://www.caiso.com/InitiativeDocuments/JointPartiesComments-CommitmentCostsandDefaultEnergyBidEnhancements-DraftTariffLanguage.pdf.

[3] *See* Motion to Intervene and Protest of the EIM Entity Parties filed in FERC Docket No. ER19-2757 on September 26, 2019.

[4] The CAISO's Filing Letter submitted in Docket No. ER19-2757 requested that FERC issue an order by September 1, 2020.

[5] *Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 831, FERC Stats. & Regs. ¶ 31,387 (2016) (Order No. 831), *order on reh'g and clarification*, Order No. 831-A, 161 FERC ¶ 61,156 (2017) (Order No. 831-A).

justification. Without this factual demonstration, the energy bid cap remains at $1,000/MWh at all times. The CAISO has not made the justification that $2,000/MWh is necessary as a scarcity price at all times in its own market and certainly not made the case that is appropriate in the EIM, where participation is voluntary and the EIM Entities are responsible for reliably meeting demand in their respective Balancing Authority Areas. Additionally, since the EIM does not co-optimize energy and ancillary services, the power balance constraint may be triggered for transient conditions that do not reflect true scarcity. It is inappropriate to utilize scarcity pricing for EIM participants where there is there is no actual physical shortage of resources in the EIM Entity's Balancing Authority Area.

Similarly, Option 2B addresses only one of the two flaws with Option 1. While it would be triggered in the unlikely event there was a cleared cost-verified bid above $1,000/MWh, this option also increases penalties to $2,000/MWh without cost justification.

Option 2A is closest to the status quo. It would be triggered only if there was a cost-verified cleared bid above $1,000/MWh and would set the penalty at the highest cleared economic bid. Nevertheless, this option fails to address the longstanding commitment to develop stepped power balance constraint penalties based on the amount of any insufficiency.

The EIM Entities request that the CAISO consider Option 3 which would: (1) establish a series of steps based on the amount of infeasibility leading up to a $1,000/MWh power balance constraint penalty and (2) only raise the $1,000/MWh ceiling if there is a cost-verified cleared bid greater than $1,000/MWh, in which case the penalty would be raised only to the amount of the highest cleared cost-verified bid.

I. Background

In an Order issued on December 17, 2015, FERC found it appropriate to establish the power balance constraint penalty at $1,000/MWh for the EIM, pending a promised stakeholder process to develop lower stepped levels.[6] As the CAISO had noted previously,

[6] *See Cal. Indep. Sys. Operator Corp*., 153 FERC ¶ 61,305 (2015) at P. 82. and P. 84 ("We find that the level of the penalty price that will apply when an infeasibility occurs is beyond the scope of this proceeding because there is no proposal in front of us to change the existing CAISO tariff provisions regarding the penalty level. However, we note that CAISO has initiated a stakeholder process to investigate CAISO's transmission constraints and we encourage CAISO and its stakeholders to work together to address these concerns."). Previously, in an Order issued on July 20, 2015, FERC stated, "[w]e note that CAISO states its intention to explore whether the transmission constraint parameter should be calibrated at different levels, as well as the advantages and disadvantage of reducing the $1,000/MWh parameter price, as part of its planned Stepped Transmission Constraint stakeholder initiative, and encourage CAISO to follow through on its consideration of this potential EIM enhancement." *Cal. Indep. Sys. Operator Corp.*, 152 FERC ¶ 61,060 (2015) at note 45. The Commission's order reflected testimony during the April 9, 2015 technical conference from Scott Harvey, a member of the CAISO Market Surveillance Committee. Dr. Harvey explained that other RTOs have also addressed the need to relax modeling constraints when faced with the need to balance the system on a five-minute basis using economic bids. The values identified for the Midcontinent Independent System Operator, Inc. and the New York Independent System Operator, Inc. ("New York ISO") were substantially below the $1,000/MWh parameter penalty price. *Cal. Indep. Sys. Operator Corp.*, Transcript of April 9, 2015 Technical Conference, Docket Nos. ER15-861-000 and EL15-53-000, at 129–38 (Apr. 9, 2015).

> The CAISO agrees that it is necessary to evaluate whether the existing power-balance and transmission constraint relaxation rules, which trigger the $1,000/MWh penalty price in one step when there is insufficient supply to address the constraint relaxation, are still appropriate. The CAISO has already announced its intent to commence a stakeholder process to consider these issues.[7]

Instead of meeting this commitment to its Federal regulator, the CAISO filed on September 5, 2019 to double the power balance penalty to $2,000/MWh. The CAISO did so despite its prior recognition that, "[a]lthough setting the cap at $2,000/MWh, rather than having a $1,000/MWh soft cap, would avoid having to update the penalty prices if the [CA]ISO accepted a bid above $1,000/MWh, it would result in the penalty prices not functioning appropriately because they would be set contemplating bids up to $2,000/MWh when bids would be much less than $1,000/MWh the vast majority of the time.[8]

The proposed doubling of the power balance penalty price ***was not required by FERC*** in Order No. 831. When the CAISO stated that it will face significant implementation challenges if it changes its current $1,000/MWh offer cap because the administrative penalty prices CAISO uses in its market model to indicate that constraints have been relaxed, such as the power balance constraint, are based on the offer cap, FERC's response was clear and unequivocal, "[a]n RTO/ISO may file, pursuant to section 205 of the Federal Power Act, to propose modifications to shortage prices or other market elements that require revision in light of the offer cap reforms adopted in this Final Rule."[9] In other words, make the necessary fixes to the CAISO Tariff required to keep the power balance penalty just and reasonable.

II. Any Option that Contains a $2,000/MWh Power Balance Penalty Does Not Meet the Federal Power Act Standard that Rates Be Just and Reasonable

Option 1 is not a "strong scarcity price signal."[10] It is an unreasonable proposal that uses a requirement for a cost-verified value under extreme market conditions as a penalty that would apply at all times under all conditions. In addition, Option 1 is based on the potentially flawed assumption that FERC would approve the September 5, 2019 filing which was vigorously contested by the EIM Entities.

Moreover, there should have been no need for the protest. First, FERC gave the CAISO the option to delink the parameter price by explicitly offering the option of a section 205 filing. If the CAISO needed this stakeholder process to determine $2,000/MWh is unjust and unreasonable it could have asked for another waiver of the need for its compliance filing which was originally due in 2017. Finally, if the CAISO was concerned about the need for another waiver, it could have requested an extension of the comment date for intervenors to the summer of 2020 since the CAISO informed FERC it only needed an order by September 1, 2020, almost a full year after

[7] *See* Motion for Leave to Answer and Answer of the California Independent System Operator Corporation in Docket No. ER15-861 dated October 21, 2015 at 44

[8] CAISO, Comments, Docket No. RM16-5-000, at 16 (filed Apr. 4, 2016).

[9] Order 831 at P. 210 and 213.

[10] Straw Proposal at 20.

filing. This would have avoided the need for the EIM Entities to expend resources protesting the wholly unjustified penalty price increase. The CAISO took none of these actions. Indeed, had the EIM Entities not vigorously protested the September 5, 2019 filing and the CAISO proceeded with Option 1 after this stakeholder process, the EIM Entities would have forgone their opportunity to protest a fundamentally flawed proposal.

A. There Is No Valid Justification for $2,000/MWh as a Power Balance Constraint Penalty Price

On November 17, 2016, FERC issued Order No. 831, requiring that each regional transmission organization and independent system operator: (1) cap each resource's incremental energy offer at the higher of $1,000/MWh or that resource's verified cost-based incremental energy offer; and (2) ***cap verified cost-based*** incremental energy offers at $2,000/MWh when calculating locational marginal prices ("LMPs").[11] A critical component of Order No. 831 is that in order to be just and reasonable, energy offers above $1,000/MWh must be cost-verified. Nothing in Order No. 831 states that the $2,000/MWh level was intended to be utilized as a penalty price or indication of scarcity 8,760 hours per year. Order No. 831 arrived at the $2,000/MWh level because it was above the single cost-based incremental offer in PJM of $1,724/MWh during the Polar Vortex in 2014.[12] Although the actual cost for of that resource may have been less than $1,500/MWh,[13] FERC selected $2,000/MWh in recognition that under limited extreme circumstances "resources may experience costs that approach but are unlikely to exceed $2,000/MWh."[14]

Thus, the CAISO's statement that Order No. 831 increased the bid cap from $1,000/MWh to $2,000/MWh[15] is misleading. Since market participants cannot cost-verify a bid above $1,000/MWh, the bid cap in that hour is $1,000/MWh. Previously, the CAISO has recognized:

- There is no evidence indicating that incremental costs in the CAISO markets have approached the current $1000/MWh cap.

- The CAISO has previously stated, and continues to believe, that the current hard cap is sufficient for the CAISO markets because $1,000/MWh is far in excess of what the highest reasonable cost-justified offer could be from a resource in the CAISO generation fleet.

- The CAISO appreciates that gas market fundamentals may change over time or that unforeseen events may occur that might raise the costs of incremental energy for a generator above $1,000/MWh, but the record of this proceeding contains no evidence

[11] Order 831 at P 1. For an incremental energy offer equal to or above $1,000/MWh and less than or equal to $2,000/MWh, the RTO/ISO or Market Monitoring Unit must verify that the offer is cost-based before the RTO/ISO may use the offer to calculate LMPs. *Id.* P 78.

[12] Order No. 831 at P. 90.

[13] *See* Order No. 831-A at P. 6.

[14] Order No. 831 at P 90.

[15] Revised Straw proposal at 3.

that those conditions have occurred or have almost occurred in the CAISO's market. Even if the fundamentals were to change, the CAISO believes such events would be infrequent and short-lived and do not justify the changes the CAISO would have to make to allow market participants to bid in above the soft bid-cap based on cost-verified bids.

- It is not clear to the CAISO that it would be appropriate for scarcity pricing and these other market parameters to float dynamically along with the cap.[16]

The Revised Straw Proposal states that Option 1 "makes the assumption that the price of the hard bid cap is the appropriate scarcity price signal the market should send when there are not enough supply bids to meet demand."[17] There are numerous reasons why this assumption is erroneous:

- Absent extreme circumstances, the actual cap in all hours is $1,000/MWh;

- A scarcity signal at $1,000/MWh that was tied to a cap applicable to all bids at all times does not justify a scarcity signal at twice that price that may not be related to any actual bid cap used at any time during the course of that hour, day, month, or year;

- The CAISO had committed to FERC to examine lowering the power balance constraint penalty from the $1,000/MWh bid cap level in effect in that interval, not to double it; and

- The assumption that a lack of bids in a voluntary EIM market means there is actual scarcity present in an EIM Entity's Balancing Authority Area is not correct.

The Revised Straw Proposal states that a higher power balance constraint penalty could incent a supplier to bid its actual costs "because, if there is scarcity, the supplier receives the higher relaxation penalty price" and "[i]f the supplier did not think its bid would be the marginal bid, the supplier could have incentive to increase its bid price to set a higher market clearing price."[18] This justification is without merit. First, there is no assurance when and where the power balance constraint penalty will be triggered. Second, there is no support for the proposition that a price of $1,000/MWh would not provide sufficient incentive.

Under FERC and federal court precedent, any non-cost-based incentive or penalty must be needed and no more than needed for the intended purpose.[19] The CAISO has not made a case for linking

[16] CAISO, Comments, Docket No. RM16-5-000, at 2, 4–5, 14 (filed Apr. 4, 2016) (citations omitted) ("CAISO Comments").

[17] Revised Straw Proposal at 19.

[18] Revised Straw Proposal at 20.

[19] *City of Detroit v. Fed. Power Comm'n*, 230 F.2d 810, 817 (D.C. Cir. 1955), *cert. denied sub nom., Panhandle E. Pipe Line Co. v. City of Detroit*, 352 U.S. 829 (1956) ("*City of Detroit*"); *see also Farmers Union Cent. Exch. Inc. v FERC*, 734 F.2d 1486, 1503 (D.C. Cir. 1984) ("FERC failed to forecast or otherwise estimate the dimensions of the need for additional capacity, and did not even attempt to calibrate the relationship between increased rates and the attraction of new capital."); *City of Charlottesville v. FERC*, 661 F.2d 945, 950 (D.C. Cir. 1981) (citing *City of*

a cost-verified bid to a doubling of the power balance constraint penalty price. Tested against this criteria, both Option 1 and Option 2B fail.

B. While It is not Just and Reasonable to use $2,000/MWh as a Power Balance Constraint Penalty Price in the CAISO Balancing Authority Area, It is Even less Appropriate for the EIM

1. The Power Balance Penalty Does Not Apply the Same Way in EIM as It Applies in CAISO

During the April 9, 2015 technical conference at FERC, the CAISO testified, "[t]hose parameters were designed for the California ISO system" and, "[a]t least from the perspective of the EIM application of that parameter, at this point it may not be the right parameter to use . . . ."[20] The CAISO noted that the EIM only optimized energy, and did not co-optimize reserves. Accordingly, the power balance constraint penalty was not applied in the same way in the EIM as compared to the CAISO market.[21]

A critical omission in the Revised Straw Proposal is the failure to discuss and differentiate the reasonableness of applying a $2,000/MWh power balance penalty price in the EIM. As described previously by CAISO,

> Fundamentally, as designed and approved by the Commission, the Energy Imbalance Market serves as a means by which balancing authority areas other than the CAISO can choose *voluntarily* to serve as much, or as little, of their imbalance needs as they wish, and for resources to compete to serve the balancing authority needs of all balancing authority areas in the EIM area. The Energy Imbalance Market does not co-optimize ancillary services and energy, as the CAISO does in its own balancing authority area. Moreover, the CAISO does not, through the Energy Imbalance Market, assume the responsibility for ensuring that each EIM entity is adequately resourced to meet all imbalance energy balancing needs in its balancing authority area. Rather, the design of the Energy Imbalance Market assumes that the CAISO and EIM entities will retain their respective resource adequacy programs after implementation of the Energy Imbalance Market. Consistent with this principle of the Energy Imbalance Market, the sufficiency tests do not test for resource adequacy. They are designed to evaluate whether each EIM Entity will meet specific capacity tests and flexibility tests to ensure that it does not "lean" on the capacity of any other EIM Entity. The Commission accepted this design of the Energy Imbalance Market, recognizing that "CAISO and the EIM

Detroit); *Pub. Serv. Comm'n of N.Y. v. FERC*, 589 F.2d 542, 552–53 (D.C. Cir. 1978). The Commission recognized this requirement in its 1992 Policy Statement on incentive ratemaking which stated, the Commission "is free to set rates [above cost-based rates] to provide incentives so long as there is a correlation between the incentive and the result to be induced." *Incentive Ratemaking for Interstate Natural Gas Pipelines, Oil Pipelines, and Electric Utilities*, 61 FERC ¶ 61,168, at 61,594 (1992) (citation omitted).

[20] *Cal. Indep. Sys. Operator Corp.*, Transcript of April 9, 2015 Technical Conference, Docket Nos. ER15-861-000 and EL15-53-000, at 129–38 (Apr. 9, 2015) at 16–17.

[21] *Id.* at 18.

> Entities continue to operate under their separate respective tariffs, amended in part for EIM arrangements only. Hence, when the EIM entity fails these tests, the only consequence is that transfers between the balancing authorities are frozen to the levels prior to failing the test. The consequence of failure is not complete isolation of the entity from the Energy Imbalance Market generally. The CAISO's proposed enhancement does not change these rules at all.[22]

As Balancing Authorities, EIM Entities are responsible for maintaining the supply balance within their respective Balancing Authority Areas. Their resource adequacy requirements are determined by their local regulatory authorities through an integrated resource planning process. Limited infeasibilities will not send price signals to modify that process. They will, however, produce unjust and unreasonable prices for that interval if the power balance parameter penalty is set at a price that would not be appropriate, but for a cost-based justification reflective of extreme conditions.

The failure to recognize differences in the applicability of the proposed power balance constraint penalty between the CAISO and the EIM is reflected in one of the primary justifications of a scarcity signal. The Revised Straw Proposal states,

> A stronger scarcity price signal also could increase incentives to deliver on day-ahead market supply schedules. The Market Surveillance Committee's (MSC) recent opinion on the CAISO's system-level market power mitigation conceptual design, pointed out that higher scarcity prices would help ensure that importers have actual generation capacity to back day-ahead market import bids. This is of particular concern for resource adequacy import capacity. The MSC states that "some import supply offered to cover resource adequacy obligations is offered at or near the bid cap ($1,000/MWh). Rather than reflecting an attempt to exercise market power, this import supply could be offered at the price cap to avoid being scheduled in the day ahead market because there might in fact be no supply backing the resource adequacy contract. In addition, because real-time shortage pricing in the CAISO is capped at $1,000/MWh, an import supplier that bids supply in the day-ahead market at $1,000/MWh is unlikely to incur material losses if its bid clears in the day-ahead market and the supplier is unable to deliver this power in real-time."[23]

To be clear, this is an issue solely related to California's resource adequacy requirements and completely unrelated to the EIM. Moreover, FERC previously directed CAISO to,

> develop a reserve shortage scarcity pricing mechanism that applies administratively-determined graduated prices to various levels of reserve shortage. Such a pricing structure is advantageous because it does not create incentives for generators to change their bidding behavior based on speculation of when a shortage may occur. Moreover, because California has resource adequacy

[22] CAISO Reply Comments in Docket No. ER15-861 dated May 21, 2015 at 9-11.

[23] Revised Straw Proposal at 21.

> requirements, we expect that LSEs will procure enough capacity to meet peak load plus a reserve margin, and therefore periods of scarcity should be infrequent. In the event that a shortage occurs, prices should reflect the economic value of the reserves necessary to resolve the shortage. Thus, the prices for both reserves and energy in California should increase automatically as the severity of the shortage increases.[24]

The CASIO implemented this requirement in Docket No. ER10-500. As reflected in Section 27.1.2.3 of the CAISO Tariff, the graduated shortage pricing is as follows:

Product	Shortage	Impact
Non-Spinning Reserve	Up to 70 MW	$500
	70 MW-to 210 MW	$600
	Above 210 MW	$700
Spinning Reserve	Any amount	$100
Regulation	Any amount	$200
Maximum upward sum		$1,000

By contrast in the EIM, the CAISO is triggering the power balance constraint penalty only at the maximum level, even when there may be extremely limited quantities of bid insufficiencies and when there is no actual physical shortage of resources in the EIM Entity's Balancing Authority Area.

In the EIM context, it is important to differentiate between transient shortages and scarcity conditions. While there is not a definition in the market today that differentiates between "transient shortage" and "scarcity," the EIM Entities generally find that a transient shortage is one of short duration (1-4 market intervals) and/or of small magnitude. Transient shortages can be caused by forecast error, load bias, or market lag.

As noted above, since the CAISO market co-optimizes energy and ancillary services, transient shortages are addressed through the release of regulating reserves and therefore do not trigger penalty prices. In the EIM, the power balance constraint penalty price is triggered for any magnitude of shortage. To better illustrate this point, Portland General Electric completed a review of its infeasibilities from January 2018 through February 2019 and confirmed that 73% of RTPD infeasibilities and 30% of RTD infeasibilities during this timeframe lasted two intervals or less. These short, low magnitude infeasibilities are not reflective of actual scarcity.

2. If the Goal Is Increased Participation by EIM Entities, the Approach Should be Through Market Improvements Not Unreasonable Penalties

The CAISO's justification of $2,000/MWh as a strong scarcity signal must be consistent with FERC's requirement that there must be "a correlation between the incentive and the result to be

[24] *See Cal. Indep. Sys. Operator Corp*., 116 FERC ¶ 61,274 (2006) at P. 1079.

induced."[25] As applied to the EIM Entities, this justification does not withstand scrutiny. The EIM is designed as a *voluntary* market. The resource sufficiency tests are designed to protect against leaning by restricting transfers. The market was not designed with financial penalties to mandate a certain level of bidding. Enhanced participation in the EIM should come from removing barriers. A good example of an action taken by the CAISO to increase EIM participation by improved market design was the tariff amendment filing in Docket No. ER19-2347 on Local Market Power Mitigation Enhancements that was conditionally approved by FERC.

FERC has stated that it is "not appropriate for a penalty price to apply when no actual scarcity exists."[26] EIM Entities may have resources, such as use-limited, short-start peaking units, that are not participating due to current market rules. For example, in March 2018, the CAISO Board of Governors approved rules to allow suppliers to submit market-based bids for commitment costs that would only be mitigated to a reference level if a test in the market detects the resource has commitment cost local market power. Otherwise, these "market-based" bids will only be limited by a circuit-breaker commitment cost bid cap. In addition, market participants would be accorded a negotiated option for determining commitment cost reference levels. [27] However, the CAISO has delayed implementation of this important improvement until late 2022, at the earliest.[28] While the CAISO has taken action to modify the default energy bid for hydro units to include opportunity costs, it has not yet commenced the stakeholder process to consider opportunity costs for use-limited gas units.[29] The CAISO needs to take action to facilitate greater participation or recognition of these units.

Recently, PacifiCorp, NV Energy, Idaho Power Company, Arizona Public Service, and Portland General Electric submitted comments on the Flexible Ramping Product Refinements stakeholder process recommending that CAISO place greater priority on incorporating forecast levels of load,

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[25] I*ncentive Ratemaking for Interstate Natural Gas Pipelines, Oil Pipelines and Electric Utilities,*. 61 FERC ¶ 61,168, 61,594 (1992).

[26] *Cal. Indep. Sys. Operator Corp*., 153 FERC ¶ 61,305 (2015) at P. 83.

[27] *See* the CAISO's March 14, 2018 Memorandum on Decision on Commitment Costs and Default Energy Bid Enhancements Proposal at 4-5. http://www.caiso.com/Documents/Decision_CCDEBEProposal-Memo-Mar2018.pdf.

[28] *See* the CAISO's Roadmap at p. 19. http://www.caiso.com/Documents/2020DraftPolicyInitiativesRoadmap.pdf

[29] The 2020 Policy Initiatives Catalog includes the following:

6.1.5 Use-limited Gas Resource Default Energy Bid (D, 2)

> During the stakeholder process for *Local Market Power Mitigation Enhancements 2018*, Nevada Energy expressed use-limited gas resources have opportunities for bilaterally selling energy at different hub locations. The Western Power Trading Forum also expressed the opportunity cost methodology for use-limited gas resources should include daily limitations. Both issues went beyond the scope of the *Local Market Power Mitigation Enhancements 2018* initiative. Consequently, the CAISO added these issues to the catalog as part of the February 2019 policy initiative catalog process. *Commitment Cost Enhancements Phase 3* developed a default energy bid opportunity cost methodology for use-limited resources. This initiative would consider whether it is appropriate to account for bilateral energy sales at different hub locations and daily limitations in default energy bids for use-limited gas resources.

http://www.caiso.com/Documents/2020FinalPolicyInitiativesCatalog.pdf.

wind and solar in the determination of the real-time flexible ramping requirement. Ensuring that this requirement is properly calibrated is vital in any resource sufficiency evaluation.

While the CAISO has many competing requests for market improvements, a fundamental rule for any market modification should be to do no harm or at the very least not take an action where the harm outweighs any potential benefit. Especially as applied to the EIM, the CAISO's September 5, 2019 filing to double the power balance penalty is an unfortunate example of a harm with no offsetting benefit. The CAISO should move swiftly to rectify the situation.

III. The CAISO Should, as Part of this Initiative Review, Implement Steps up to the $1,000/MWh Penalty Price or Inform FERC that CAISO is Not Going to Meet the Prior Commitment

It has been more than four years since the CAISO made multiple commitments to market participants and FERC to examine a gradual approach to power balance constraint penalties before triggering the $1,000/MWh limit in the EIM. The CAISO announced its Stepped Constraint Parameters initiative on May 5, 2016. In the Issue Paper the CAISO noted,

> When developing the available balancing capacity design, the [CA]ISO reviewed approaches developed by other ISO/RTOs. Power balance constraint infeasibilities between half of a percent to 1 percent of intervals are not unusual. To mitigate instances of small power balance constraint infeasibilities triggering extreme prices, other ISOs have recognized that for small infeasibilities of a transient nature, the ISO was not in true scarcity because it had sufficient operating reserves that could be utilized without negatively impacting reliability. Other ISOs rationally relate prices in these intervals to the practices which resolve the imbalance. In the NYISO for instance, a system of penalty prices allows the operator to balance the system, which includes releasing up to 25 MW at a penalty price of $25/MWh and 55MW at $400/MWh. Over the years, they have evolved at which price based on the amount ratepayers spend for extra regulation capacity.[30]

The CAISO sought stakeholder input on the appropriateness of implementing a similar approach for addressing small infeasibilities of the power balance constraint in addition to the available balancing capacity proposal already implemented.[31] As the issue paper aptly pointed out, there is little rationale for allowing a small change in load forecast to cause an extraordinary jump in market clearing prices. As noted above, reserves are available to meet system needs, in addition to the energy offered into the organized market. As such, it is not a foregone conclusion that the grid will necessarily experience a critical reliability emergency simply because the last MW of resources available to the market software have been exhausted. However, the CAISO abruptly closed the initiative March 7, 2017, cancelling the stakeholder call scheduled for the next day. The CAISO's market notice stated,

[30] Stepped Constraint Parameters Issue Paper dated May 5, 2016 at 8-9.

[31] Stepped Constraint Parameters Issue Paper dated May 5, 2016 at 9.

> The Real-Time Market Enhancements initiative, planned for later this year, will include considering co-optimizing ancillary services and energy in the real-time market. This will provide an opportunity to consider if graduated penalty prices are appropriate when there are insufficient energy bids.[32]

The CAISO has not commenced the Real Time Market Enhancement initiative and, based on the most recent Roadmap, will not do so prior to 2022 at the earliest.[33]

The decision to abandon the initiative (and any attempt to implement penalty prices that are proportional to the size of shortages) and to hastily increase the penalty price by $1000/MWh seems to have pushed the CAISO (and stakeholders) even further away from determining appropriate prices for energy when meeting forecast load requires reducing the amount of reserve capacity below target levels needed for reliability.

Market participants and regulators must be able to rely on the CAISO's commitments. While a measure of flexibility to properly sequence timing and implementation of new initiatives is understandable, extensive delays over many years undermines confidence in the process. If the CAISO is not going to examine implementation of the power balance constraint penalty in steps based on the amount of the infeasibility, the proper course would be to inform FERC of that decision. Market participants would then have an opportunity to raise objections.

IV. Decisional Classification

An initiative proposing to change rules of the real-time market now falls within the primary authority of the EIM Governing Body either: (1) if the proposed new rule is EIM-specific in the sense that it applies uniquely or differently in the balancing authority areas of EIM Entities, as opposed to a generally applicable rule, or (2) for proposed market rules that are generally applicable, if "an issue that is specific to the EIM balancing authority areas is the primary driver for the proposed change." The CAISO states in the Revised Straw Proposal that at this stage of the initiative, the topics would be generally applicable to the entire CAISO market and therefore the initiative would fall entirely within the advisory role of the EIM Governing Body.

The EIM Entities disagree with this classification. The specific circumstances of the EIM Entities as individual Balancing Authority Areas responsible to assure adequacy of supply while participating in a voluntary market warrant a different approach to the power balance constraint penalty. Several differences are identified in the following chart.

CAISO	EIM
Co-optimization of ancillary services	Energy-only
Mandatory participation through must-offer requirement	Voluntary participation to economically trade energy

[32] *Stepped Constraint Parameters: Initiative Closed, 3/8/17 Call Cancelled*, CAISO (Mar. 7, 2017), http://www.caiso.com/Documents/SteppedConstraintParametersInitiativeClosed030817CallCancelled.html.

[33] CAISO, 2020 THREE-YEAR POLICY INITIATIVES ROADMAP AND ANNUAL PLAN (November 25, 2019), *available at* http://www.caiso.com/Documents/2020FinalPolicyInitiativesRoadmap.pdf.

Resource sufficiency achieved through bids	Resource sufficiency test prevents "leaning;" resource sufficiency is a responsibility of EIM Entity as a Balancing Authority
Problems with incenting day ahead deliveries	Not applicable
Graduated scarcity pricing applied based on amount of ancillary service insufficiency.	Power balance constraint penalty may be triggered even if the Balancing Authority Area has no shortage of resources or insufficient supplies of ancillary services

Accordingly, the just and reasonable level of the power balance constraint penalty in the EIM should be considered separately under the primary authority of the EIM Governing Body.

V. Conclusion

It causes a lack of confidence in the CAISO's market administration, if the CAISO itself does not recognize the unjustness and unreasonableness of a $2,000/MWh power balance constraint penalty. It erodes confidence in the stakeholder process if the CAISO further ignores the comments of stakeholders, including PG&E,[34] Six Cites,[35] the Department of Market

[34] *See* February 28, 2019 Comments of PG&E on Commitment Costs and Default Energy Bid Enhancement Draft Final Proposal

> PG&E continues to have concerns about the potential for substantial increases in price volatility associated with the proposed scaling of penalty pricing parameters (especially in context of recent realized increases in real-time price volatility, especially in the 15-minute market), the true impact of which are not known and hard to predict at this point. PG&E has raised in past comments that CAISO should explore the possibility of making the penalty price parameters contingent on whether there are actually offers exceeding $1000/MWh for that trade date. At a minimum, CAISO should provide analysis and arguments alleviating or countering these concerns. Given that this design element likely would need to be included in the package necessary to comply with FERC Order 831, there is urgency for CAISO to address this concern as soon as possible.

See http://www.caiso.com/InitiativeDocuments/PG_EComments-CommitmentCostsandDefaultEnergyBidEnhancementsRevisedDraftFinalProposal.pdf.

[35] *See* February 27, 2019 Comments of Six Cities on Commitment Costs and Default Energy Bid Enhancement Draft Final Proposal:

> The Six Cities oppose CAISO's proposal to reset penalty price parameters by applying the increase in the energy bid cap (*i.e.*, from $1,000 to $2,000) as a multiplier in setting the revised values for penalty price parameters. The Revised Draft Final Proposal states at 44 that the revised values for penalty parameters proposed by the CAISO reflect "the assumption that the relative difference between the current values for the internal and intertie constraint scheduling parameter relative to the current $1,000/MWh offer cap is the appropriate relationship between these parameters and the cap." The Six Cities believe that CAISO's assumption is unwarranted and that doubling each of the penalty parameter values will lead to excessive prices when the constraints must be relaxed. The relative priorities for constraint relaxation can be maintained by applying the $1,000 increase in the energy bid cap as an adder to each of the existing penalty parameter values (*e.g.*, increasing the IFM penalty value to $6,000) and will not produce such extreme price spikes when the constraints must be relaxed.

See http://www.caiso.com/InitiativeDocuments/SixCitiesComments-CommitmentCosts-DefaultEnergyBidEnhancementsRevisedDraftFinalProposal.pdf.

Monitoring,[36] and the EIM Entities, pointing out this critical error. Customers of utilities participating in the EIM should not be exposed to these unjust and unreasonable prices at any time, especially as a result of penalties proposed by the market operator.

[36] *See* Comments of the Department of Market Monitoring filed in FERC Docket No. ER19-2757 on September 26, 2019 at 2 ("DMM opposes CAISO's proposal in this filing to raise the power balance penalty price from $1,000/MWh to $2,000/MWh. CAISO has not justified this proposal and this change is not required to comply with Order 831. DMM believes this is an unjust and unreasonable adjustment to a parameter that is extremely important in setting CAISO and energy imbalance market (EIM) prices").