Company
APS

Additions:
Settlement of EIM to EIM transfers - The energy imbalance market does not settle imbalance between EIM entities except CAISO through transfer types identified as Mirrors. EIM Entities sub-allocate imbalance to transmission customers. Absent settlements at the ETSR, large sub-allocation settlements exist for customers imbalance on schedules that import or export to or from another EIM Entity. For customers whose transmission moves to a non-EIM Entity, the customer will have imbalance at an export with an offsetting imbalance at a resource or import – resulting in a settlement that is the price difference between the locations in similar volumes. When one settlement is not settled as is the case for EIM Entity to EIM Entity transfers, the settlement for the entity is large. Similar to the reasons and need to settle Mirrors, for CAISO, some form of Mirrors should exist for transfers between EIM Entities.
ISO Response
The ISO declines to add this initiative to the *2017 Stakeholder Catalog*. With the introduction of EIM, the ISO deliberately chose not to settle EIM transfer quantities since it would affect all participants. The ISO settles imbalance directly with all resources and load within the EIM footprint. There is no need to settle EIM transfers because the ISO does not reflect EIM transfers in the Real Time Imbalance Energy Offset and Real time Congestion Offset.

Additions:
Unaccounted For Energy - The market rules for tie meter and load submittal create Unaccounted For Energy ("UFE"). The market rules are generally extensions of the existing CAISO markets with Load Serving Entities that differ from that of a Balancing Authority Area. The two primary deviations are related to (1) measurements of load boundaries ("ties") and (2) incorporation of losses within load measurements. Load is measured by reducing the measured generation by the net tie values. Existing market rules have EIM Entities submit tie data based on actual meter data; however, industry practices for Balancing Authority Areas include checkout of tie values with neighboring entities. This checkout results in deviations from meter data to an agreed upon alternate value. The alternate value is used for load calculation. The market use of actual meter value creates a natural difference between the load value calculations settled a UFE. Tie data submittal for EIM Entities should match that of WECC practices which reflects the checkout process. This would resolve UFE settlements created by differences in meter submittal. The load cut-plane for an EIM Entity captures transmission losses. The existing Market rules require that the EIM Entity to create a methodology for removing losses from their load submissions. CAISO then calculates a value for transmission losses and adds it into the submitted load value for UFE settlements. The difference between the actual transmission losses calculated by CAISO and the proxy of losses is settled as part of UFE. The difference is created by market rules to remove losses in the data submittal. EIM Entities should submit load values with losses in and CAISO can use its calculated losses to adjust the load for other impacted settlements. This practice would also align the accuracy of forecast data with submitted load – which may improve model training and thus reliability
ISO Response

The ISO declines to add this initiative to the *2017 Stakeholder Catalog*. The ISO requires that an EIM Entity submit meter values at the interties. These values should be based upon actual meter data or meter checkout values. Internal to the ISO balancing area, the ISO utilizes both CAISO Meter and WECC checkout values to determine internal UFE. The ISO does not preclude the EIM entity from submitting the WECC checkout values in lieu of actual meter data.

One of the key principles of UFE is to account for loss differentials between market system's calculated loss and actual loss which materialized between the generation and load points. This request circumvents the purposes. This proposal would have a direct impact on the load serving entities within the ISO balancing area that have installed load meters. Based upon this proposal, these entities would need to artificially inflate their load meter values. This proposal would reduce the accuracy of submitted load data and shifts the burden of accounting for losses from an EIM entity to ISO load serving entities.

Company

ARES

Clarifying:

ARES requests more information on the scope of the Frequency Response Phase 2 (5.14) initiative. Recognizing that frequency response and frequency regulation are treated differently by FERC2 and in the CAISO market, ARES wonders how the CAISO anticipates developing market solutions to procure frequency response, given the close relationship of these ancillary service products. In the Frequency Response Phase 1 initiative, the CAISO responded to comments from the California Energy Storage Alliance requesting review of regulation product designs by stating that the CAISO will consider existing ancillary service market designs in developing the second phase of the initiative.3 ARES requests that this be more explicitly described in either the Frequency Response Phase 2 initiative scope or in an initiative specifically addressing the regulation market and mileage payments.

ISO Response

The *Frequency Response Phase 2* initiatives scope will be to develop a mechanism to procure primary frequency response from both internal and external resources. The scope will not include considering refinements to procuring regulation-up and regulation-down. That scope is included in a separate potential initiative titled *Regulation Pay-for-Performance Enhancements* listed under the "Market Products" section.

Additions:

Compensation for Performance in the Regulation Market

While the CAISO has implemented a market design for a regulation market in response to FERC's directive under Order 755, the regulation market is not functioning to compensate resources for performance in most hours. The CAISO compensates resources for performance through a payment for mileage. The CAISO regularly procures between 300 and 400 MW of regulation service, and earlier this year increased its procurement level to 600 MW. Between June and September, in 94.73 percent of all hours, mileage prices (both regulation-up and regulation-down mileage) are 1 cent/MWh or less, and are zero in many hours. Mileage payments are the source of compensation for performance, so with virtually no payment for performance, the market design provides no incentives for accurate and faster resources to enter this market, and no payment for those resources that are actually responding. ARES believe that this is a serious impediment to encouraging the development of new,accurate, and fast-responding storage resources, and suggests that the market dynamics that are driving the mileage price to negligible levels most hours should be examined and remedied to provide these resources with compensation for performance, as contemplated under Order 755.

ARES is also concerned that new fast and accurate resources provide significantly more mileage (regulation movement) than legacy regulation resources, but receive minimal to no compensation, resulting in undue discrimination on price and performance.

ARES suggests that the CAISO consider evaluating performance adjustments to the regulation-up and down payments as a possible solution to this problem. Another possible solution that could be examined is a “market-based” floor price for mileage bids. Setting a floor price ensures that regulation units providing mileage receive compensation for providing regulation movement. The floor price could be adjusted monthly to ensure that approximately half of the regulation payments are provided from mileage payments and half for reg-up and regdown payments. A more detailed analysis to determine the appropriate percentage of payments from mileage versus reg-up and reg-down payments would need to be conducted to ensure payfor- performance goals are met and simultaneously managing regulation costs for customers.

Improving Market Efficiency and Grid Reliability

ARES believes that one reason for the low mileage prices is that the price-setting marginal regulation resources have an incentive to bid zero (or close to zero) to ensure that they win the reg-up and reg-down award. A second reason may be that legacy resources with poor regulation accuracy prefer receiving regulation payments instead of mileage payments which are adjusted for performance. The current reg-up and reg-down prices are attractive enough such that the marginal regulation bidders won’t risk losing the reg-up and reg-down awards by bidding mileage prices above zero. ARES believes that this behavior occurs because the CAISO uses a co-optimization algorithm to find to least-cost combination of regulation and mileage bids to select the winning set of bidders for each hour. When a bidder offers reg-up and reg-down mileage bids above zero and the mileage clearing prices are zero, then this bidder loses the regupand reg-down awards regardless of the reg-up and reg-down price offers from this bidder.

The faster ramping and more accurate regulating resources provide more mileage (regulation movement) compared to slower and less accurate regulating resources. However, since their mileage payments are hovering between zero and one cent per megawatt-hour most ofthe time, these resources that provide a faster and more accurate response to the AGC signal incur costs to provide the service without receiving compensation. Conventional generation units operate less efficiently when output changes in response to AGC signals, compared to operating at a fixed set point. Storage resources incur round-trip efficiency losses and shortened lifespans (for battery systems) as more regulation mileage is provided. More mileage provided to the CAISO from a regulation resource results in less overall net compensation because of the costs of operational inefficiency and losses from roundtrip efficiency. Thus, resources that have slow ramp rates and poor accuracy in response to an AGC signal will receive much lower mileage awards compared to better regulating resources.

However, this creates an incentive for fast and accurate resources to offer a lower ramp rate than the technology’s capability and reduce their accuracy so that they aren’t disadvantaged financially by providing much more mileage compared to legacy resources. This perverse incentive for fast ramping and accurate regulation resources is exactly opposite of the goals set out in FERC’s Order 755.

The key design problem is that the co-optimization of regulation and mileage bids was based on the premise there would be significant revenue available from delivering regulation mileage. If there were significant mileage revenue, then CAISO regulation market design would have resulted higher payments for fast ramping and accurate regulation resources compared to poor regulating resources. In the CAISO report "Pay for Performance Regulation Draft Final Proposal February 13, 2012,4 " the optimization shows an example with mileage bids ranging from $2 to $3.8/MWh. If mileage prices were in this range, then the regulation market would have achieved the pay-for-performance design goal.

Finally, with negligible "pay-for-performance" differentiation among resources providing different levels of regulation performance, the CAISO's market design is not encouraging the development of fast-ramping resources. When FERC re-examines the waiver it allowed in the short run for resources to meet accuracy targets, the portfolio of resources that can provide regulation will likely be reduced. This could leave the CAISO with much higher cost regulation resources to meet its needs if it doesn't address this issue now.

Timing

A CAISO study of renewable integration5 shows that more and faster ramping regulation resources will be needed as more intermittent resources are added to the system. This CAISO report identifies the increasing need for fast ramping and accurate regulation resources. In order to meet this need, the CAISO needs to determine the regulation market refinements necessary to encourage the development of these types of resources. Note that the study only examined regulation needs through 2020. As California pursues a 50 percent Renewables Portfolio Standard by 2030, the trend of increasing need for fast ramping and accurate regulation resources shown in the above tables will continue. What is not clear from this study is the amount of regulation needed as a function of the ramp rate and accuracy of the regulation provided to the CAISO. A portfolio of fast-ramping and accurate regulation facilities has the potential to reduce the amount of regulation needed to meet the grid needs, which in turn could moderate the total regulation costs to customers. ARES believes that the time is right to begin an examination of this issue, so that market design changes could be implemented within the next two years. ARES recognizes that the issues are complex and any changes would require careful consideration to ensure competitive pricing. As more storage resources are developed under the California policy setting procurement targets for energy storage, and as more renewable resources are added to the grid, a market design that provides payment for performance will be important both to the resources providing fast and accurate response capabilities and to grid reliability. Finally, when FERC revisits its decision to allow a short-term reduction in the accuracy requirement for regulation resources, it would benefit the CAISO market to have addressed the issue of pay-for-performance.

ARES urges the CAISO to clarify that this issue is included in its 2017 initiative catalog or, if not, to add it to the list.

ISO Response

This initiative has been added to the *Stakeholder Initiatives Catalog* with the revised initiative name of *Regulation Pay-for-Performance Enhancements* under the "Market Products" section.

Company
Boston Energy Trading and Marketing
Additions:
Extending the submission deadline or allow updates for Real-Time Inter-SC trades

Boston Energy requests the CAISO add a new discretionary item to the 2017 catalog that would either (a) extend the submission deadline for real-time physical inter-SC trades and/or (b) allow adjustments to be made to a previously submitted real-time physical inter-SC trade. Such a change would improve the scheduling process for Variable Energy Resources (VERs) whose SC is required to submit real-time physical inter-SC trades with a counterparty.

Order 764 implementation introduced the ability for VERs to have their FMM and RTD schedules set by the most recent energy forecast calculated by the ISO. These forecasts are calculated for the binding and forward intervals of RTPD and RTD on a continual basis throughout the day. Given the submission deadline for real-time physical inter-SC trades and real-time bids, the current forecast available from the ISO at the time when the physical inter-SC trade is required to be submitted is the T-105. This T-105 forecast is often times very different than the binding FMM and RTD forecasts used for setting schedules, and as a result creates additional imbalance energy than what is seen by the ISO. This is because the ISO sees imbalance energy as the difference between the VERs binding RTD forecast and actual output, where the VER also see additional imbalance energy between the real-time physical Inter-SC trade MWs and actual output.

To better align the MWs associated with a VERs real-time physical inter-SC trade and its binding RTD final forecast, Boston Energy requests the CAISO either extend the inter-SC physical trade submission deadline until some period after the hour is completed or allow VERs to update their inter-SC physical trade MW value some period after the hour is completed. Either of these options would allow the VER's physical inter-SC trade MWs to match the hourly integrated binding RTD final forecast and avoid imbalance energy between the IST and actual output.

The concept of allowing submissions and updating of inter-SC physical trades is not new to the CAISO or to the larger ISO industry. CAISO current market rules allow day-ahead inter-SC trades to be submitted up to 30-minutes after the posting of the day-ahead market results. PJM allows for their version of real-time inter-SC trades (e-schedules) to be submitted/updated by a defined deadline the next day.

ISO Response

This initiative has been added to the *Stakeholder Initiatives Catalog* under the "Real-time Market" section.

Company

BPA

Additions:

Bonneville supports the following initiative proposed by WPTF

11.6 Flexible Ramping Product Enhancements Energy and Ancillary Service Price Formation Assessment (D, E2)

This initiative will assess the CAISO's success at effectuating the market elements of the ISO's most recent Strategic Plan and set forth recommendations on how to move forward with elements included in the Plan, including; how to ensure competitive prices, improve price transparency, develop appropriate financial support to keep needed plants online, and, develop market mechanisms to bring online resources offering operational flexibility. This initiative will explore holistically energy and ancillary service price formation issues in the context of high renewable penetration and make market design changes or recommendation for future initiatives as appropriate. Fundamentally the initiative will examine whether energy and ancillary service prices are providing a sufficient price signal to ensure needed flexible resource capabilities are being sufficiently compensated.

ISO Response
The ISO declines to add this initiative to the *2017 Stakeholder Initiatives Catalog.* WPTF's suggestion doesn't describe a specific initiative. Rather they describe principles that should be adhered to when designing specific market products and selecting initiatives during the ranking process.

Company
Calpine
Additions:

New Initiative – Preliminary Determination of CPM / RMR Reliability Need
The current tariff contains processes and timelines for CAISO consideration of either an RMR or CPM designation for a unit that may be needed for reliability, but is at risk of retirement. As described below, the processes provide an unreasonably short notice period for resources to plan and manage its reliability obligation. In fact, it appears that resources may not know of their reliability obligations (if any) until days before – or even after -- the date it wishes to retire. Calpine suggests that the ISO consider an early and conditional determination of reliability need that occurs shortly after the submission of a notice of PGA termination or removal of a resource from a PGA schedule.

The following is a high-level summary of the timing of CPM and RMR designations:
CPM: Section 43A.2.6 of the tariff includes the process of requesting, evaluating and ultimately, designating resources that are "at risk of retirement during the current RA Compliance Year1 and that will be needed for reliability by the end of the calendar year following the current RA Compliance Year." Importantly, the tariff holds that a CPM designation will not be made "until all other available procurement measures have failed to procure the resources". One might reasonably anticipate that these rules will defer CPM designation until the day of, or even after the announced day of retirement.

RMR: Section 41 of the tariff describes the broad discretion granted to the CAISO allowing it to designate a unit under RMR at any time. However, in operation, the ISO generally proposes a set of RMR units in the 4th quarter of every year and the ISO Board generally approves the proposed units just weeks or days before the next RA Compliance Year.

Unworkable Timeframes and Dangerous Brinksmanship
A unit that seeks to retire is confronting significant challenges regarding regulatory matters, human resources, permitting and major maintenance expenditures. In some cases, decommissioning plans must be submitted to regulatory authorities, personnel must be notified of options for relocation or termination, and permitting agencies must be satisfied that compliance will be maintained. These processes take months or years and cannot necessarily be reversed upon the short notice provided by either CPM or common RMR designations.

In fact, a unit that is slated for retirement likely will have personnel attrition, and would reasonably not invest in maintenance targeting future years of availability. These degradations cannot be remedied in the days or weeks of notice provided by CPM or RMR. In this regard, the ISO process unwisely creates reliability brinksmanship. Specifically, the CPM process may prove so unworkable and untimely that parties seeking to retire will choose to avoid CPM designation.

LCR Studies are Helpful but Insufficient
Most local areas and even many sub-areas are oversupplied, leaving even Local Resources no assurance of continued operation. But in fact, the CAISO may have information that would identify either a preferred set, or a critical set of resources within a Local Area. It may include very granular technical information (future outages, transmission maintenance, system operating limits, etc.) generally not considered in LCR studies.

Preliminary Designation of Reliability Need
Calpine proposes that the CAISO consider refinements to the CPM or RMR processes which provide a public and preliminary notice of reliability need within 30 days of the submission of a PGA termination notice. This preliminary notice can include appropriate caveats and conditions, but will be sufficient to notify the market of likely backstop procurement if the conditions are not met. Importantly, it would provide the resource with valuable and necessary information upon which it can make informed decisions on its operation and maintenance.

ISO Response
The ISO has added this initiative in the *2017 Stakeholder Initiatives Catalog* with the revised initiative name of *Multi-Year Risk-of-Retirement* under the "Resource Adequacy" section

Company
CDWR
Revisions:
CDWR recommends CAISO not predispose the culmination of initiatives in Section 4, and keep such ongoing initiatives in Section 5. Two examples are 4.11 BCR Self Schedule Allocation and Bid Floor (D, E2) and 4.13 Load Serving Entity Definition Refinement (D).
ISO Response
The ISO will keep *BCR Self Schedule Allocation and Bid Floor* in section 4. The ISO has moved the scope of the BCR self-schedule component of this initiative to back to the *Bid Cost Recovery Enhancements* initiative and has added a *Bid Floor* initiative to the catalog to indicate it will continue to monitor the need to lower the bid floor.
Revisions:
CDWR suggests that CAISO put proposed initiative 9.1 Real-Time Market Enhancements (D) into Section 5 because according to the 2016 Stakeholder Initiative Catalog, CAISO planned to start this initiative in June 2016, but it was delayed.
ISO Response

Yes, *Real-Time Market Enhancements* was planned to start in 2016. However, since it was delayed the ISO believed it was worth re-ranking to confirm stakeholders' current view of its priority.

Company
Clean Coalition
Clarifying
5.6 'Review Transmission Access Charges Billing Determinant Correct the description of initiative 5.6, as described on the initiative webpage and copied below, noting current status and replacement initiative. • Add description of the new initiative as described in the Sep 26 Status Update to ensure stakeholders are aware of the expanded scope and opportunity to participate in 2017. As the originators of the central proposal in the Review Transmission Access Charges Billing Determinant stakeholder initiative ("TAC Billing Determinant initiative"), we feel a particular responsibility to correct its wholly inaccurate description in the Draft Catalog (item 5.6). The current description of the TAC Billing Determinant initiative has almost no relation to the activities underway in that initiative and appears to have been drafted for use in a separate initiative. The central issue in the initiative is to review a proposal to change the billing determinant for the TAC, which for participating transmission owner (PTO) utilities within the CAISO jurisdiction is the end-user metered load or the Customer Energy Downflow (CED). The Clean Coalition has proposed using the Transmission Energy Downflow (TED)—the amount of energy that flows across defined transmission interfaces from higher voltages to lower voltages—in order to ensure that energy that is generated and consumed on the same distribution grid is not subject to TAC. Stakeholders in this initiative are analyzing whether the current TAC billing determinant should be changed since energy produced and consumed on the distribution grid currently incurs TAC despite not actually traveling on the transmission grid. The complete description available on the stakeholder initiative website is much more appropriate, copied below. *"This initiative will consider modifying the transmission access charge (TAC) wholesale billing determinant to exclude the end-use load that is offset by the energy produced by distributed generation. The ISO currently allocates the TAC to each MWh of internal end-use load and exports to recover participating transmission owners' costs of owning, operating and maintaining transmission facilities under the ISO operational control. This topic was originally included in the Energy Storage and Distributed Energy Resources Phase 2 initiative."* The scope of the TAC Billing Determinant is far more narrow than that described in the Draft Catalog. Rather than reviewing any fundamental changes in the TAC structure or distinction in cost allocation methodology between new and existing transmission facilities, the only proposed change under review in the initiative is whether to change the TAC billing determinant from CED to TED in areas that currently use CED. The TAC Billing Determinant initiative has not analyzed any change in the underlying TAC rate structure, regional integration, allocation of costs for new high voltage facilities, or cost shifts between states at all.

The Draft Catalog description of the TAC Billing Determinant initiative describes some of the considerations at issue in the wholly separate TAC Options stakeholder initiative, listed as initiative number 5.5. The TAC Options initiative (one of many focused on regional integration) has included a proposal to change the TAC methodology for high voltage facilities operating at over 200 kV from a "postage stamp" rate to one based on a review of benefits from each project.
Based on the errors in the Draft Catalog description, we recommend that CAISO use the description below for TAC Billing Determinant initiative:

This initiative will consider modifying the transmission access charge (TAC) wholesale billing determinant to exclude the end-use load that is offset by the energy produced by distributed generation. The ISO currently allocates the TAC to each MWh of end-user metered load and exports to recover participating transmission owners' costs of owning, operating and maintaining transmission facilities under the ISO operational control. By changing the billing determinant, energy both locally generated and consumed entirely within the distribution grid would avoid TAC.
This topic was originally included in the Energy Storage and Distributed Energy Resources Phase 2 initiative, and will be addressed in an expanded Review of TAC Billing Determinant Design initiative in 2017.

This description is largely based on the initiative's current webpage description but includes the correction of the term used to describe the current TAC billing determinant (CED or end-user metered load) and also adds a final clarifying sentence to illustrated the predicted effect from changing the billing determinant.

ISO Response

The following descriptions have been updated in the *2017 Stakeholder Initiatives Catalog*: *Review Transmission Access Charges Billing Determinant* and *Transmission Access Charge Options*. *Review Transmission Access Charge Structure* was added to the catalog under the "Initiatives Currently Underway and Planned" section.

Company

EDF

Clarifying:

Clarification on Commitment Cost and Default Energy Bid Enhancements Process
During the September 16th Aliso Canyon FERC technical conference, CAISO stated it would begin a stakeholder process to refine how it calculates fuel costs in various bid components, consistent with FERC's June 1 Order on the CAISO's Phase 1 Aliso Canyon tariff revisions.1 CAISO's September 15, 2016 Stakeholder Initiatives Milestone document provides that the "Commitment Cost and Default Energy Bid enhancements stakeholder process will begin in the third quarter of 2016."
The Commitment Cost and Default Energy Bid Enhancements process listed on page 14 of the catalog states that it is "in progress" and "discretionary." EDF seeks confirmation that this process will in fact begin in the third quarter of 2016, which ends September 30, 2016. Given the direction in the June 1 Order on Aliso Canyon, as well as FERC's December 30, 2014 Order in Docket No. ER15-15,3 EDF submits that this process should be characterized "FERC-mandated."

ISO Response
The classification for *Commitment Cost and Default Energy Bid Enhancements* has been updated in the *2017 Stakeholder Initiatives Catalog* to reflect your comment. This initiative will be starting in November.

Additions:
<u>Three Year-Forward Looking Market Reliability Assessment</u> Over the past few years, CAISO has addressed the pricing and sufficiency of ancillary services and other market products in separate initiatives such as “Pay for Performance Regulation,” “Frequency Response,” “Reactive Power Requirements and Financial Compensation,” and the FRP. This initiative would take a more holistic approach to assessing the effectiveness of the CAISO’s ability to transparently and effectively procure and price these products and services, especially during times of high renewable output and low load levels and the steep ramp-up to higher net load levels and lower renewable output in the evening hours. This process would set forth CAISO’s three-year strategy for efficiently and reliably integrating variable energy resources consistent with CAISO’s focus on integrating renewables on the grid as outlined in its current Strategic Plan, with an overall goal of developing market mechanisms that enable fair competition among all technology types capable of providing the products and services

ISO Response
The ISO declines to add this proposed initiative to the *2017 Stakeholder Initiatives Catalog*. Our current process is to publish a one year roadmap. However, the ISO will consider a three-year roadmap process in the future.

Company
First Solar

Additions:
The current Generator Interconnection Rules that designate deliverability status to generation projects do not provide sufficient time for the projects to compete in procurement cycles before depriving them of deliverability, which strips the projects of their commercial viability under current procurement frameworks. First Solar fully supports the structure the CAISO has designed to manage the transmission planning process in tandem with the interconnection process. However, the rules need to accommodate realistic timeframes for projects to compete in procurement solicitations. Losing the opportunity to compete for deliverability on an equal footing with other post-Phase II studied projects after one year removes viable, cost-effective projects from competition. The CAISO’s established interconnection process provides the avenue to remove non-viable projects from the queue, and First Solar is supportive of these rules which serve to limit the amount of time a project may persist in the queue without showing significant commercial progress. However, the misalignment between transmission plan deliverability and the procurement process, and requirement to show very early success in procurement cycles to retain eligibility for transmission deliverability, has the effect of stripping projects of commercial viability early or forcing withdrawal from the queue far before the seven-year time-in-queue limitation. This is not just and reasonable given the

loss of investment dollars and deposit forfeiture that results.

The interconnection rules should allow highly-viable projects to receive and retain eligibility for deliverability status as long as the project continues to show progress towards commercial success, and the interconnection customer funds the reasonable cost of updating the annual studies. This can be achieved by allowing a project to "park" longer while it competes for a long-term contract in utility and other consumers' solicitations (like commercial and industrial customers and community choice aggregators).

Particularly in California, where state policies are driving ever-higher levels of renewable procurement, and where the procurement rules are being modified to optimize for reliability, reduction of greenhouse gas emissions and cost, allowing serious developers capable of bringing cost-effective, grid-scale solar projects to market to remain in the interconnection queue should be a top priority of interconnection rule design. The system needs to be designed with a realistic appreciation for the timelines required to bring a project to the point that it can compete, and a realistic opportunity to compete in successive solicitations for a reasonable period of time.

First Solar suggests that the transmission deliverability timelines should be aligned with the time-in-queue limitations, which require a showing of commercial viability to remain in the interconnection queue beyond seven years.

Timing

The CAISO recognized early the need to marry the transmission planning process with the interconnection process. It proposed tariff changes to integrate these processes in 2012, resulting in new Generator Interconnection and Deliverability Allocation Procedures that were approved by the Commission in 2012. Under these rules, CAISO determines transmission availability based on its most recent transmission plan and allocates this availability to projects seeking deliverability, if those projects meet certain criteria.

For generating facilities that entered CAISO's queue in 2012 or later (and where the generator does not wish to assume the cost for delivery network upgrades), the criteria for the first cut at eligibility includes 1) that the generating facility has, at a minimum, applied for certain permits, **and** 2) is either on an active short list in a procurement cycle for a load serving entity or is willing to balance-sheet finance the project.

CAISO's Business Practice Manual for Generator Interconnection and Deliverability Allocation Procedures assigns points to these and other criteria that CAISO uses to measure a project's eligibility for deliverability, and when there are fewer megawatts of transmission available to allocate than are being requested
For projects that are short-listed one year but do not advance to securing a power purchase agreement, they lose deliverability the following year under the rules. For developers who "park" their projects because they do not receive the deliverability allocation needed to cover the output of the facility, they lose the ability to compete for deliverability on an equal footing with other post-Phase II projects after a year if they can't demonstrate success in a procurement solicitation.

Now that one cycle of the new deliverability allocation process has been completed, it has become clear that moving projects into energy-only status as the only alternative to withdrawing from the queue, forfeiting deposits and having to re-enter a later queue prematurely curtails that project's ability to compete in procurement processes. While there has been discussion and initial analysis of pursuing energy-only as part of the procurement and planning framework, the fact is that today a project is harmed by this designation and stripped of its commercial potential. The CAISO must address these issues swiftly to maintain a viable interconnection process.

Benefits to the Market

Losing deliverability or the ability to compete for deliverability takes a project out of the running for competitive solicitations under current procurement practices in California. Even though the time-in-queue rules are designed to allow a project a full seven years to develop before having to demonstrate commercial viability to remain in the queue, the deliverability rules have the effect of cutting a project's meaningful life short after just three years. This is the case because the rules require a project to convert to energy-only deliverability status. Once this happens, the project must get back in line for transmission plan deliverability, where the process for the annual allocation takes two years, and does not even hold the same ranking order for the deliverability the project is requesting. During those two years, it is highly unlikely that the project would be competitive to bid into solicitations. A project must have deliverability to count towards resource adequacy in California; under the CAISO rules, an energy-only project is automatically assigned a net qualifying capacity of zero. Because of the limitations on deliverability and the lack of value for resource adequacy, financing an energy-only project is widely seen as not feasible. Meanwhile, the clock is running on the time-in-queue limitation, and added investment is needed to ready the project for commercial operation.

The benefits of allowing project to retain its opportunity of obtaining its deliverability status while continuing to remain parked are significant. With more projects parked, more projects will qualify to compete in solicitations. Load serving entities will have more choice, and the more robust competition will serve to keep procurement costs down.

ISO Response
The ISO has added this proposed initiative to the *2017 Stakeholder Initiatives Catalog* under the title of *GIDAP and Industry Generation Procurement Solicitations Alignment Opportunities* under the "Infrastructure and Planning" section. The ISO notes that First Solar's suggestion would be a significant shift from the current tariff rules that were developed in the recent *Generation Interconnection and Deliverability Allocation Procedures* (GIDAP) stakeholder effort. The ISO has heard the generators' perspective on this issue and is eager to hear the load serving entity procurement teams' perspectives.

Company
LSA
Clarifying:
The Catalog includes the Generator Interconnection Driven Network Upgrade Cost Recovery initiative (Section 5.2). Section 5 contains "…stakeholder initiatives that are currently underway and will not be presented to the ISO Board for approval by December 2016." However, the CAISO's latest proposal in that initiative indicates that the CAISO intends to bring this matter to the Board at the December 14-15, 2016 meeting. (LSA's comments in that initiative have

supported the CAISO's proposal to move expeditiously, to avoid delays in concluding Generator Interconnection Agreements (GIAs) with Valley Electric Association (VEA), the Participating Transmission Owner (PTO) that seems to be impacted most imminently.) Thus, this issue properly belongs in Section 4, with other issues that "…may still be currently underway, but will be approved by the ISO Board of Governors by December 2016."

ISO Response

The ISO declines to revise this initiative to the *2017 Stakeholder Initiatives Catalog.*

The schedule referred to above has changed. This initiative now plans to seek approval from the ISO Board of Governors at the February 15-16, 2017 meeting.

Additions:

Economic Bidding improvement initiative

For the last several years, CAISO studies identified the need to increase the level of economic bids to promote renewables integration. The CAISO's 2009 Annual Report on Market Issues and Performance cited a finding from an earlier study that "self-scheduling is a significant barrier to efficient renewable integration."

Similarly, the ISO Study of Operational Requirements and Market Impacts at 20% RPS (September 2010) stated that "self-scheduling is a significant barrier to operational flexibility and must be addressed to successfully integrate 20% renewable energy."

The CAISO's 2014 Annual Report on Market Issues and Performance, stated: "Energy from new solar resources is expected to continue at a high rate in the next few years" to meet the state's renewable portfolio standards. "This will increase the need for flexible and fast-ramping capacity that can be dispatched by the ISO to integrate increased amounts of variable energy efficiently and reliably."

The CAISO has implemented several reforms intended to increase the supply of economic bids, to better resolve any over-supply situations using CAISO market mechanisms. Some improvements have been made, most notably: (1) lowering the bid-price floor from -$30 to -$150/MWh; (2) revising the Participating Intermittent Resources Program (PIRP) to allow wind/solar participants to submit economic bids; (3) implementing the Flexible Resource Adequacy (FlexRA) program, with a must-offer obligation for FlexRA resources to submit economic bids, and the Flexible Ramping Product to help monetize that capability in CAISO markets.

However, the CAISO has indicated that it will need additional flexibility in the future. As the CAISO's Draft Final Proposal Addendum in the Self-Schedules Bid Cost Recovery Allocation and Bid Floor initiative states (at p.6):

Furthermore, as the supply fleet evolves towards a 50 percent RPS, there will be increased instances of over-supply conditions. A deeper pool of economic bids will enable the market to more efficiency manage over-supply conditions…

Despite this stated need, the CAISO has had limited success in a number of recent efforts to promote economic bids, so while there have been some improvements, only a fraction of the resources the CAISO believes could be offering economic bids and providing additional flexibility are doing so.

ISO Response

The ISO declines to add this initiative to the *2017 Stakeholder Initiatives Catalog.*

As described above, the ISO has worked with stakeholders to complete a number of changes to provide incentives for economic bidding. The ISO will address specific issues as identified.

The ISO notes that it deferred proposing lowering the bid floor further from -$150/MWh to -$300/MWh because currently there are enough economic bids to avoid excessive amounts of supply self-schedule curtailments. The ISO will continue to monitor this and would likely move forward with lowering the bid floor if there are not enough economic bids to avoid excessive self-schedule curtailments.

Additions:

Import and Export Liquidity in 15-Minute Market, an October 2015 workshop about increasing economic bids from import and export transactions into and out of the CAISO in the Fifteen Minute Market (FMM). The workshop focused on reasons why so many import and export transactions are submitted as inflexible self-schedules and "block" schedules – specifically, to:

- Understand 15-minute import & export availability on interties
- Identify incentives/disincentives for FMM economic bidding from imports and exports
- Distinguish reasons that economic bids are not submitted from reasons economic bids are submitted but don't clear

The CAISO, Western Power Trading Forum and Bonneville Power Administration gave presentations at the meeting, and many problems and potential solutions were discussed. Stakeholders offered additional suggestions in written comments after the workshop.

Suggestions included various ways to reduce costs or uncertainties preventing some entities from participating in the FMM, and cooperative efforts to encourage other BAAs to implement 15-minute scheduling. Some stakeholders raised concerns about some of these measures in written comments.

The CAISO stated in the workshop that it would decide (based on this feedback) whether to initiate a stakeholder process to consider FMM intertie bidding/scheduling design changes. However, the CAISO has not responded to stakeholder suggestions or concerns, or conducted any public follow-up announcement or action on these issues.

LSA notes that recent "SB350" and other studies include scenarios with exports from the CAISO (and expanded ISO) BAAs to other BAA areas of up to 6 - 8,000 MW – meaning that the current typical CAISO import position would have to be reversed, and then up to 8,000 MW of exports would have to be accommodated. Assuming that a large portion of these net exports would consist of variable renewable generation, these export levels may not be achievable, even with the Energy Imbalance Market (EIM), if the CAISO cannot remove impediments to achieving increased flexibility from existing intertie transactions

Self-Schedules Bid Cost Recovery Allocation and Bid Floor initiative: This initiative, nearing completion, is addressing the economic bid minimum price (energy bid floor) and Integrated Forward Market (IFM) Bid-Cost Recovery (BCR) cost allocation – into a single stakeholder process, with the CAISO proposals summarized below

TOPIC	CURRENT MARKET RULE	DRAFT FINAL PROPOSAL
Energy Bid Floor	Bid floor = -$150/MWh	Lower bid floor to -$300/MWh
IFM BCR Cost Allocation	BCR allocation based on: (Cleared IFM Demand) – (Self-Scheduled Generation & Imports) +/- (Inter-SC Trades of IFM Load Obligation)	BCR allocation based on: (Cleared IFM Demand) +/- (Inter-SC Trades of IFM Load Obligation) *(delete subtractor for self-schedules)*

The Draft Final Proposal Addendum issued last week in this initiative proceeds with the BCR proposal (with a limited exception), but reverses the bid-floor proposal even though it retains all the arguments supporting the change. The CAISO has said it reversed its position, in part, due to concerns expressed by other stakeholders, including the following:

- **Possible market power for decremental energy bids,** though the CAISO: (1) said it has detected some market-power exercise with the current bid floor but has not (to LSA's knowledge) addressed these concerns; (2) has effective market-power mitigation for incremental energy bids that presumably could be extended to decremental bids; and (3) does not seem to have investigated how ISOs with lower bid-floor limits address those issues.

- **Relevant metrics to measure the degree and extent of self-schedule cuts**, since the CAISO and its Department of Market Monitoring (DMM) seem to disagree on such metrics;

- **The increase in economic bids that might be elicited by bid-price floor changes**, e.g., the amount of resources with opportunity costs between $150 and $300/MWh, and below $300/MWh (LSA and other stakeholders have provided information on the former), and other changes (e.g., contractual or operational changes, or technological developments) that might be facilitated at various price-limit levels.

If the above concerns prevent the CAISO from lowering the bid-price floor in the current stakeholder process, LSA strongly recommends that the CAISO not drop this issue. Instead the CAISO should undertake a full and consolidated initiative to chart a reasonable course of action to identify, select, develop, and deploy needed reforms (including the bid-price floor reduction). This initiative would consider the following:

(1) **Problems that are impeding market efficiency** (including economic-bid submission) and are expected to do so in the future, as renewables penetration increases;
(2) **Potential solutions to those problems**, including the steps needed to develop and implement those solutions and, for each, either: (1) an implementation schedule; or (2) market indicators or metrics that would trigger their implementation.

As part of this initiative, LSA recommends that the CAISO systematically identify and address stakeholder concerns such as those expressed in the two stakeholder processes noted above

ISO Response

During the intertie liquidity workshop held last year, three items were identified that could address real-time intertie liquidity: (1) modifications to congestion revenue rights (CRR) clawback rules, (2) exempting export bids from transmission access and measured demand uplift charges (3) allowing imports to count as resource adequacy flexible capacity so they can receive a capacity payment. This ISO completed the *CRR Clawback Rule Modifications* initiative and will be submitting the tariff changes to FERC. The appropriateness of market charges for export bids is within the scope of the

Export Charges under the "General Market Design Enhancements" section of this catalog and could be addressed if prioritized through the roadmap process. Allowing imports to count as flexible resource adequacy capacity is in the scope of *Flexible Resource Adequacy* and Must Offer Obligation Phase 2 initiative that is restarting this year.

The currently planned *Commitment Cost and Default Energy Bids Enhancements* initiative will explore decremental market power mitigation for exceptional dispatches. The ISO and stakeholders can consider if the scope should be broadened to include more general decremental market power mitigation. However, the ISO did not mean to imply that decremental market power mitigation had to be in-place to lower the bid floor. Rather, the ISO's decision to not proceed with lower the bid floor was because the current amounts of self-schedule curtailments did not currently justify increased risks of a market participant exploiting decremental market power.

Additions:

Interconnection Process Enhancements (IPE) 2017 The CAISO has not held a comprehensive Interconnection Process Enhancement (IPE) examination since GIDAP implementation several years ago. (The CAISO did conduct a more limited initiative addressing mostly administrative changes in the "IPE 2015" effort last year.) LSA has compiled two lists of issues that should be addressed is this initiative – one with complex issues and one with topics that would be simpler to address.

MORE COMPLEX IPE ISSUES

SUBJECT	***DEFINITION***
GIDAP "parking" rules	Review & consider adjustments to better align rules with utility procurement processes, e.g.,
Transmission upgrade status	Require annual PTO updates to generators with projects in the queue of: (1) expected completion date of NUs needed for In-Service Date or requested RA deliverability; and (2) "operational deliverability assessment" Phase II Study tables.
Generator Interconnection	Standard template & change process for GIA Appendices, e.g., include payment
Behind-the-Meter (BTM) storage issues	
NQC impact	Allow NQC to increase up to level studied
Metering	Allow combined metering with different technologies, w/CAISO development of "pro rata" forecast based on installed capacity
PTO construction timing	
Interconnection Financial	IFS (e.g., under Second Posting provisions) for PPA loss due to PTO construction delays beyond Phase II Study or GIA estimates, even if
COD/milestone timing	Automatic extensions when caused by: (1) time estimates in Interconnection Studies that make limitations impossible to meet; and/or (2) construction delays beyond Phase II Study or
Shared Stand-Alone Network Upgrades (SANUs)	Allow/clarify that generation projects can share SANUs, and the treatment of their financial-security postings (e.g., postings should total only SANU cost and, if a project withdraws, its security should benefit of remaining projects)
Reassessment cost cap	More fairly adjust the cost cap where the percentage allocation to a participant is very small
Affected System options	Include potential CAISO-system mitigation to Affected System impacts in interconnection

SUBJECT	DEFINITION
Shared transformer	Clarification of requirements to share transformer between project phases
Downsize before Ph. I Study	Clarify that downsizing of the IR capacity is allowed as part of the post-Scoping Meeting information submission
LCR qualification	Include in Interconnection Studies information on whether a project would qualify as a Local Capacity Resource (LCR) for RA purposes based on the criteria
Security impacts of withdrawal – phased	Formalize clarifications on release of second-posting amounts if a project withdraws from the queue after some third-posting installments have
Process clarification	Clarify/formalize invoicing/notice and posting process (e.g., meaning of "on or before" posting deadline)

ISO Response

The ISO has added this initiative to the *2017 Stakeholder Initiatives Catalog*, under revised title of *2017 Interconnection Process Enhancements* under the "Infrastructure and Planning" section.

Company

NVEnergy

Revisions

With respect to the commitment cost enhancements and DEB enhancements (5.13), NV Energy does not believe this initiative is discretionary. In the June 1, 2016 order in which FERC approved the interim measures to address the Aliso Canyon gas storage field constraints, FERC highly encouraged the ISO to continue to engage stakeholders on issues raised in the Aliso Canyon Phase 1 stakeholder process. This "encouragement" responded to multiple assurances in the ISO's request for approval of its tariff provisions that it would continue to engage the stakeholders on the several issues of concern raised but not addressed by the emergency measures, including issues concerning cost recovery. In July, at the market performance and planning forum, the ISO announced that it would initiate a gas cost recovery enhancements stakeholder initiative, and at the Aliso Canyon Technical Conference held at FERC on September 16, 2016, the ISO made comments about addressing cost recovery issues in a stakeholder proceeding. At this point the expectation is well developed enough that this initiative may no longer be deemed "discretionary," but has risen to the status of a commitment. In any event, revisiting commitment costs and the default energy bid and the flexibility they should provide for volatile gas prices is important to the EIM Participating Resources and to all market participants and – even more so because of the interim measures concerning the Aliso Canyon constraints – is ripe for stakeholder engagement.

ISO Response

The classification for *Commitment Cost and Default Energy Bid Enhancements* has been updated in the *2017 Stakeholder Initiatives Catalog*.

Clarifying:

As an EIM Entity and EIM Participating Resource Scheduling Coordinator, NV Energy seeks clarification as to whether the following three initiatives would affect EIM operations: full network model enhancements Phase 2 (5.15); exceptional dispatch decremental settlement (9.4); and multi-stage generator regulation refinements (11.5).

ISO Response:

Full Network Model Enhancements – Phase 2 – See updated classification

Exceptional Dispatch Decremental Settlement – Exceptional dispatch and settlement is not with the EIM scope.

Multi-Stage Generator Regulation Refinements – Market procurement of ancillary services, including regulation, are not within the EIM's scope.

Additions:

As both an EIM Entity and a Participating Resource Scheduling Coordinator, NV Energy is particularly interested in a stakeholder discussion concerning reserves management for EIM Entities. Currently, the ISO optimization cannot account for a change in reserves that occurs when units are moved into different configurations that have different ramp rates. Although the unit may be carrying a certain amount of stated reserves, it may not be able to provide that amount of reserves if it is moved into an operating state with a lower ramp rate. NV Energy believes that this topic deserves inclusion in the 2017 stakeholder initiatives because of the importance of maintaining and managing reserve amounts in the Western Interconnection, particularly as more EIM Entities join the market and bring additional multi-stage generators that could also present this issue. As an alternative to a stand-alone initiative, this issue may also be covered by expanding multi-segment ancillary service bidding (11.4) or multi-stage generator regulation refinements (11.5).

ISO Response

The ISO declines to add this proposed initiative to the *2017 Stakeholder Initiatives Catalog*.

Currently in the EIM, ancillary services are not co-optimized in the FMM for EIM entities. At the time the original EIM design was developed, stakeholders believed that allowing an EIM entity to procure reserves though the real-time market would displace balancing authority area responsibility from the EIM entity. Nevertheless, the ISO is developing system changes that will allow EIM Participants to protect reserves provided by a MSG resource.

Additions:

In addition, NV Energy proposes that the ISO engage the stakeholders on the topic of the SIBR software and bidding rules that result in autopopulation of bids for multi-stage generators. NV Energy understands that the bidding rules are uniform to real time market participants, and the autopopulation feature serves a certain purpose. For multi-stage generators in the EIM, however, the autopopulation feature at times forces a bid for a unit that is intended to be self-scheduled, and this creates an inconsistency with the design of EIM that intends (1) for EIM to be a voluntary market and (2) for the EIM Entities to manage reserve obligations in their own balancing authority area. NV Energy would appreciate the ISO considering adding this topic to the EIM-specific stakeholder initiatives.

ISO Response

The ISO declines to add this proposed initiative to the *2017 Stakeholder Initiative Catalog*.

The policy for MSG requires all states to have energy bids up to the highest Upper Economic Limit among all energy bids submitted on all states. For example, if there is an energy bid up to UEL1 on C1 and C2 is available, an energy bid is required on C2 up to min (UEL1, Pmax2). This is necessary for the market to be able to transition the MSG to other configurations as required for optimality or feasibility. The solution is an EIM entity can outage a configuration that they do not want the market to optimize (C2 in the example). Unless NVE can show compelling reasons to why this solution does not work, there is not a sufficient justification for an initiative to be added to the catalog.

Additions:

Finally, NV Energy is strongly in favor of and requests an initiative focused on improving and enhancing forecasting transparency and accuracy and revisiting the penalty bands for EIM Entities deviating from the forecast. After some experience, NV Energy believes that the art of forecasting and the margin of error in forecasting, particularly in certain seasons, warrants a look at methods and potential areas of enhancement. In addition, NV Energy would like to see reconsideration of the 5% tolerance for deviation before penalties apply when an EIM Entity substitutes its own forecast for the ISO's, or in the alternative a reconsideration of the penalty amounts. As more EIM Entities join the market, the issues of forecasting for balancing authority areas outside of the ISO footprint become increasingly salient and deserve attention in the near term.

ISO Response

The ISO has added this proposed initiative to the *2017 Stakeholder Initiatives Catalog* with the initiative name of *Over/Under Scheduling Load Enhancements* under the "Energy Imbalance Market" section.

Company

NRG

Additions:

Multi-year Forward Capacity Risk-of-Retirement Backstop Procurement

Description: The CAISO's current authority to issue a "risk-of-retirement" backstop procurement designation extends only a single year into the future. As a result, there is no mechanism to ensure that capacity that might otherwise retire would be kept in operation to maintain reliability for needs projected more than a single year out. Extending the CAISO's authority to issue a "risk-of-retirement" backstop designation, and provide appropriate compensation, to more than a year in advance would help address this current deficiency in procurement processes.

ISO Response

The ISO has added this proposed initiative to the *2017 Stakeholder Initiatives Catalog* with the revised initiative name of *Multi-Year Risk-of-Retirement* under the "Resource Adequacy" section.

Company

PacifiCorp

Clarifying:

PacifiCorp believes that the following initiatives have some impact on the EIM and should definitely have at least an E2, E3, or E4 indicator:

- 7.1 Multi-Stage Generator Bid Cost Recovery
- 7.2 Extended Pricing Mechanisms
- 9.1 Real-Time Market Enhancements
- 9.2 Hourly Bid Cost Recovery Reform
- 11.6 Flexible Ramping Product Enhancements

ISO Response

Please see revised classifications for these initiatives in the *2017 Revised Stakeholder Initiatives Catalog.*

Clarifying:

Further, PacifiCorp requests clarification on whether or not the following initiatives have any connection to or impact on the EIM and should also include an E2, E3, or E4 categorization.

- 5.15 Full Network Model Enhancements – Phase 2
- 9.4 Exceptional Dispatch Decremental Settlement
- 11.5 Multi-Stage Generator Regulation Refinements

ISO Response:

Full Network Model Enhancements – Phase 2 – See updated classification
Exceptional Dispatch Decremental Settlement – Exceptional dispatch and settlement is not with the EIM scope.
Multi-Stage Generator Regulation Refinements – Market procurement of ancillary services, including regulation, are not within the EIM's scope.

Clarifying:

There are several points of clarification that are needed to clearly define the scope of these related initiatives:

- The ISO should clarify what is meant by the term "third party" as used in both initiative descriptions. PacifiCorp understands this term to mean transmission owners that are not also EIM Entity BAAs. For example, this could mean the Bonneville Power Administration which is a non-EIM Entity BAA adjacent to PacifiCorp's EIM Entity PACW BAA. The term "third party" could also be used to mean a transmission customer of a non-EIM Entity BAA.
- The ISO should clarify if the term "third party" could also be used to mean a transmission customer of an EIM Entity BAA and if the ISO supports an EIM Entity allocating EIM transfer congestion rents directly to any transmission customer, whether of an EIM Entity or a non-EIM Entity BAA, that is willing to make transmission available to support EIM transfers.

ISO Response:

The term "third party" means not the ISO and not EIM Entities.

Revisions:

PacifiCorp comments that there appears to be a direct linkage between initiatives 10.4 and 10.5 and suggests that these be combined. The two initiatives, when taken together, will analyze whether the ISO may allocate revenues from congestion rents to either non-EIM Entity BAA transmission owners or to transmission customers that make (or "donate") available incremental transmission to support EIM transfers.

ISO Response:

The ISO declines to combine these proposed initiatives in the *2017 Stakeholder Initiatives Catalog*. Having two separate items in the catalog does not prevent the scope of the two items being combined into a single initiative when any stakeholder process begins.

Additions:

1. **FMM Settlements of Non-Participating Resources**. Through this initiative, the ISO and stakeholders would review the EIM settlement rules and processes governing settlement of non-participating resources, including variable energy resources ("VERs") in the ISO's 15-minute market ("FMM"), to determine if the current settlement processes should be revised to ensure a certain level of FMM settlements, regardless of whether or not it is economic. PacifiCorp believes that non-participating resources should be consistently settled on their 15-minute schedules and forecast data to ensure and improve market efficiency, particularly with respect to non-participating VERs. On behalf of its transmission customers, PacifiCorp believes this initiative should be highly ranked.

ISO Response

This ISO has added this initiative to the *2017 Stakeholder Initiatives Catalog* under the "Real-Time Market" section as the issue described above would not affect EIM only participants.

Additions:

2. **Expanded Access to ISO EIM Systems and Data**. This initiative would explore expanding access of certain ISO systems and data to non-participating resources and load serving entities, primarily for purposes of EIM settlements validation. PacifiCorp recommends that non-participants gain access to the ISO's Customer Market Results Interface ("CMRI"), and any other ISO systems and data that would be valuable to customers for EIM settlement validation purposes. PacifiCorp understands that this is very important to its non-participating transmission customers and recommends a high ranking to get this done as quickly as possible.

ISO Response

The ISO declines to add this proposed initiative to the *2017 Stakeholder Initiatives Catalog*.

This request should be addressed through the ISO's data release process.[1]

Additions:

3. **Availability of Real-Time Market Data Displayed in CMRI**. This initiative has been discussed with ISO staff, who indicated support of making additional real-time market data available to EIM entities in CMRI. Specifically, the ISO would make available in an identified display for the current interval, load forecast data, net scheduled interchange ("NSI") data, VER forecast data, load conforming data, and aggregate of EIM transfer system resource ("ETSR") dynamic signals, and totals of each for all intervals. This initiative would improve market efficiency by providing additional data transparency, and PacifiCorp believes it should be a high priority.

ISO Response

[1] Market Participants should contact their customer service representative and open a CIDI ticket. If you are not a Market Participant, submit a request via "Contact Us" on our website.

The ISO declines to add this proposed initiative to the *2017 Stakeholder Initiatives Catalog.*

This request should be addressed through the ISO's data release process [2].

Additions:

4. **Disturbance Control Standard ("DCS") Reserve Recovery Enhancement**. This initiative would develop a mechanism to better inform the market of real-time instances of DCS events in EIM entity BAAs. Currently, EIM entities experience adverse pricing during recovery from DCS events. PacifiCorp believes that the market requires enhanced visibility of contingency reserve sharing capacity and actions in order to prevent pricing excursions. PacifiCorp is currently developing a more detailed description and proposal for this initiative to present to EIM entities and the ISO, and recommends it be given high priority.

ISO Response

The ISO declines to add this proposed initiative to the *2017 Stakeholder Initiatives.* Efforts to streamline communication of contingency reserve deployment would likely not require policy changes.

The ISO encourages and looks forward to working the EIM entities to find ways to streamline the communication: 1) when, 2) how much and 3) what resources the EIM entity is deploying contingency reserve on. To the extent we can facilitate streamlining to reduce the time lag of such information via ICCP or other mechanisms, we are open to ideas.

Company

PGE

Clarifying

PGE requests that CAISO consider whether EIM code is appropriate for the following initiatives, or clarify their rationale for not applying an EIM code to them:

- 7.1 Multi-Stage Generator Bid Cost Recovery
- 7.2 Extended Pricing Mechanisms
- 9.1 Real-Time Market Enhancements
- 9.2 Hourly Bid Cost Recovery Reform
- 11.6 Flexible Ramping Product Enhancements

ISO Response

Please see revised classifications for the above in the *2017 Revised Stakeholder Initiatives Catalog.*

Clarifying:

PGE also requests additional clarification on the scope of the following initiatives in order to determine whether it is appropriate to apply an EIM code:

- 5.15 Full Network Model Enhancements – Phase 2
- 11.5 Multi-Stage Generator Regulation Refinements

[2] Ibid.

ISO Response:
Full Network Model Enhancements – Phase 2 – See updated classification *Multi-Stage Generator Regulation Refinements* – Market procurement of ancillary services, including regulation, are not within the EIM's scope.
Clarifying:
PGE requests CAISO clarify whether the scope of 9.1 Real-Time Market Enhancements will include consideration of the alignment of scheduling and dispatch between the CAISO Fifteen Minute Market, EIM, and bilateral markets
ISO Response:
The scope of the initiative could consider the alignment of scheduling and dispatch between the CAISO fifteen-minute market, EIM, and bilateral markets. One of the goals of the goals of the initiative would be to move the deadline for submission of EIM base schedules closer to the beginning of the
Revisions:
BCR Self Schedule Allocation and Bid Floor Initiative PGE requests CAISO update item 4.11, "BCR Self Schedule Allocation and Bid Floor initiative", in the catalog to reflect the removal of the energy Bid Floor enhancement from the draft final Self-Schedules Bid Cost Recovery Allocation and Bid Floor initiative proposal, and insert the following new initiative to carry forward the energy Bid Floor enhancement work undertaken in 2016 (see additions section).
ISO Response:
The ISO will keep *BCR Self Schedule Allocation and Bid Floor* in section 4. The ISO has moved the scope of the BCR self-schedule component of this initiative to back to the *Bid Cost Recovery Enhancements* initiative and has added a *Bid Floor* initiative to the catalog to indicate it will continue to monitor the need to lower the bid floor.
Additions:
To carry forward the bid floor from BCR self-schedule allocation and bid floor : 7.7 Energy Bid Floor Modification: This initiative would evaluate a modification of the energy bid floor (currently -$150) to allow the CAISO and market participants to address the market's need for decremental energy more efficiently.
ISO Response
The ISO has added an initiative similar to your request to the *2017 Stakeholder Initiatives Catalog* with the revised initiative name of *Bid Floor* under the "Initiatives Currently Underway and Planned" section.

Company
PG&E
Clarifying
As this is the first iteration of the Catalog with the EIM Governing Body in place, it would be helpful to better understand initiative classifications regarding the EIM Governing Body's primary versus advisory authority. For the initiatives with one of the EIM Governing Body authority classifications, how does the CAISO determine the level of authority or overlap between CAISO's Board of Governors and the EIM Governing Body?
ISO Response
The EIM Governance Charter provides an explanation of the classifications[3]. Currently, the ISO is working with stakeholders on a guidance document that will provide further criteria for the governance process.[4]
Clarifying:
Simplified Reporting of Forced Outages (16.1) Regarding CAISO's proposed deletion of some initiatives currently in the catalog, PG&E would appreciate clarification about the proposed removal of the Simplified Reporting of Forced Outages initiative (16.1). In the Catalog, CAISO notes that this topic has been subsumed in the Reliability Services Phase 1 (RSI Phase 1) initiative. However, we cannot identify where that topic has been addressed in RSI Phase 1.
ISO Response:
The ISO did address this issue in *Reliability Services Phase 1* and it will be a part of the *Reliability Services Phase 1b* filing. It is currently scheduled for fall 2017 implementation. A more detailed description can be found in part three of the *Reliability Services Addendum to the Draft Final Proposal*[5].
Clarifying:
The Metering Rules Enhancements initiative (5.9) has an EIM categorization of "E2," though it is not wholly clear what involvement the EIM Governing Body may have with this initiative which is now approaching conclusion and CAISO Board disposition.
ISO Response:
As an E2 classification, the EIM Governing Body has an advisory role for this initiative. The EIM Governance Charter provides an explanation of the classifications.[6]
Clarifying:
The Exceptional Dispatch Mitigation initiative (9.5) has no categorization
ISO Response:
The ISO has combined this initiative with *Commitment Cost and DEB Enhancements* in the *2017 Stakeholder Initiatives Catalog.*

[3] http://www.caiso.com/Documents/CharterforEnergyImbalanceMarketGovernance.pdf
[4] http://www.caiso.com/informed/Pages/StakeholderProcesses/CompletedStakeholderProcesses/EnergyImbalanceMarketGovernanceDevelopment.aspx
[5] http://www.caiso.com/Documents/DraftFinalProposalAddendum-ReliabilityServices.pdf
[6] http://www.caiso.com/Documents/CharterforEnergyImbalanceMarketGovernance.pdf

Additions:
Intraday Utilization of NGR PG&E proposes the CAISO add a new initiative regarding CAISO's utilization of Non-Generator Resources ("NGR") across a daily period. The CAISO, through a new daily NGR capacity bid, could select some NGR resources for REM-like optimization. However, the CAISO's utilization would not be limited to regulation. The utilization would include CAISO's selection (optimization) of charging energy, discharging energy, ancillary services and flex ramping needs across all markets and dispatch cycles. The NGR capacity would effectively be turned over to the CAISO for the operating day (based on a single, daily capacity bid) to increase overall market and system efficiency, with the expectation that the use of the NGR would respect the Master File limits and subject to returning the NGR at the end of the day to the same beginning of the day state of charge.
ISO Response:
The ISO declines to add this initiative to the *2017 Stakeholder Initiatives Catalog.* This topic should be addressed through the *Energy and Aggregated Storage Phase 3* initiative that will begin in 2017. The specific scope of any ISO initiative is determined after the initiative's issue paper has been posted. PG&E should request during this stage this topic as an additional scope item to be included in the initiative.
Additions:
FERC Technical Conference Competitive Transmission Compliance PG&E requests that the CAISO add an initiative in anticipation of FERC Competitive Transmission Technical Conference compliance activity. This initiative would be a response to any actions that FERC may require the CAISO to take to address issues raised in FERC docket AD16-18-000. This initiative would explore developing specific tariff improvements related to the competitive solicitation processes at the CAISO.
The ISO declines to add this initiative to the *2017 Stakeholder Initiatives Catalog.* If FERC does requires the ISO to take action, it would be a compliance directive not a policy initiative.
Additions:
RDRR Market Modelling Enhancements PG&E suggests an initiative focused on an enhancement of Reliability Demand Response Resources ("RDRR") market modeling through block scheduling in the Fifteen Minute Market ("FMM"). This initiative would address deficiencies in the dispatch of RDRR in the CAISO real-time markets. Demand Response ("DR") programs used to address CAISO system emergencies are required to be bid into the CAISO real-time markets beginning on May 1, 2017. These programs have salient characteristics that cannot be captured in the five-minute dispatch process, where they are currently expected to be dispatched to curtail load. These include the following: 1. RDRR programs have a significant notification requirement. Instructions received in the five-minute dispatch process cannot be responded to until the notification process has completed. This period is equivalent to a startup notification period for a resource with startup constraints. 2. RDRR programs have both a minimum and maximum duration for which the program can be called. These durations are equivalent to minimum and maximum up times for resources with commitment constraints.

3. For any given hour, RDRR programs are called at a constant level. The programs cannot respond to varying five-minute instructions.

The RDRR Market Modelling Enhancements initiative would propose to address RDRR model deficiencies with the following:

1. Use of a master file defined startup notification time and startup time, as well as minimum and maximum commitment durations; and
2. Dispatch of RDRR resources at block levels in the FMM processes, with no re-dispatch in the five-minute market processes.

When the CAISO considers this initiative, it should consider that startup and commitment constraints cannot currently be defined or properly enforced for resources with a pmin that is equal to zero. If the resource model cannot be modified to recognize a commitment with a pmin equal to zero, a non-zero pmin will have to be defined for RDRR resources to enable the first proposed enhancement. In this case, the minimum load cost would need to default to a value consistent with the energy bid requirements imposed on RDRRs. These requirements enforce energy bidding between $950/MWh and $1,000/MWh. The minimum load cost will need to default to a value greater than or equal to $950 multiplied by the pmin.

ISO Response

The ISO has added this initiative to the *2017 Stakeholder Initiatives Catalog* with the revised name of *FMM Block Scheduling of Demand Response Resources* under the "Real-Time Market" section.

Company

PGP

Clarifying

5.4 Flexible RA Criteria and Must Offer Obligation Phase 2 (I,D). In December 2015, the ISO put out a straw proposal on the Flexible Resource Adequacy Criteria and Must Offer Obligation Phase 2 (FRACMOO2) initiative, in which the ISO proposed to allow qualified 15-minute intertie resources to provide flexible RA capacity. PGP continues to support this proposal. Stakeholder comments were submitted on the straw proposal and stakeholders did not hear anything from the CAISO until July 2016, at which point the CAISO sent out a market notice that it is modifying the scope of the initiative. The new scope includes a holistic assessment of the existing flexible capacity product to be completed and the results to be made available in late Q3 or Q4 of 2016.

1. What is the reason behind the ISO re-scoping this initiative?
2. Will the proposal to allow qualified 15-minute intertie resources to provide flexible RA capacity be included in the re-scoping? If not, where and when will that be addressed?

ISO Response

1. The ISO decided to modify the scope of this initiative based on stakeholder input. The modified scope added a step in the initiative of a holistic assessment of the existing flexible capacity product. The assessment was needed to inform subsequent discussions with stakeholders. The ISO expects the results of the assessment to be available in Q4 of 2016.
2. Yes. All elements that have been in the scope will stay in scope.

Clarifying:

Is the 10.1 initiative different than initiative 10.6 Bidding Rules on External EIM Interties? If so, how are they different? If not, what was the reason behind listing the same initiative twice?

ISO Response:

10.1 *Enhancing Participation of External Resources*, would examine different resource models for allowing external resources not in EIM balancing areas to participate in the EIM. 10.6 *Bidding Rules on External EIM Interties* would examine rules for non-resource specific imports and exports energy bids at EIM external interties.

Clarifying:

14.2 Review of Maximum Import Capability Methodology (D).

- Would this initiative consider changes to the historically based calculation methodology?

ISO Response:

The scope of the initiative could consider changes to the historically based calculation methodology.

The specific scope of any ISO initiative is determined after the initiative's issue paper has been posted. Stakeholders then have the opportunity to request additional scope items to be included in the initiative.

Clarifying:

PGP was encouraged by the progress made with the CAISO advancing a set of guiding principles for EIM external resource participation at the August 4, 2016 Regional Issues Forum (RIF). However, the process to provide comment on the principles was unclear and not transparent. PGP provided comments to the RIF stakeholder liaisons, but it was unclear how the comments will be disseminated and processed, if they will get posted publicly and if all stakeholder were given opportunity to provide comment. PGP requests this initiative be given priority and that the CAISO begin a formal stakeholder process on this initiative by the end of calendar year 2016. PGP also requests that the stakeholder process begin with revisions to the CAISO's draft guiding principles, that all stakeholders be given the opportunity to comment on the principles and that all comments be posted publicly on the CAISO website.

- Will revisions to the CAISO's guiding principles be included as part of the initiative?

ISO Response:

Stakeholders will have the opportunity to comment on the guiding principles if this initiative is prioritized and undertaken after the ISO posts the initiative's issue paper.

Deletions:

PGP believes the following proposal in the Stepped Constraint Parameters (5.11) initiative should be deleted:

5.11 Replacing Freezing of EIM Transfers with Penalties. Under the Stepped Constraint Parameters initiative, the ISO is considering replacing the current market rules that freeze energy transfers if an EIM BA fails an hourly resource sufficiency evaluation with penalties. However, it has not been demonstrated that the current structure has negative consequences. PGP and other stakeholders have expressed multiple concerns about the ISO's proposed change to replace the current resource sufficiency enforcement structure with a penalty approach. The current enforcement framework has been successful in ensuring that EIM Entities are resource sufficient for a high percentage of hours. PGP believes this portion of the Stepped Constraint Parameters initiative should be deleted for the reasons stated in its May 26, 2016 comments to the ISO.

ISO Response

The ISO declines to delete this initiative and add the suggested above initiative to the *2017 Stakeholder Initiatives Catalog.*

This is an ongoing initiative and any change in the scope should be done through that initiative.

Company

Puget Sound Energy

Clarifying:

PSE requests the CAISO add clarity to the following initiatives by providing an EIM indicator for each initiative, which PSE believes impacts the EIM:

- 5.15 Full Network Model Enhancements – Phase 2
- 7.1 Multi-Stage Generator Bid Cost Recovery
- 7.2 Extended Pricing Mechanisms
- 9.1 Real-Time Market Enhancements
- 9.2 Hourly Bid Cost Recovery Reform
- 9.4 Exceptional Dispatch Decremental Settlement
- 11.5 Multi-Stage Generator Regulation Refinements
- 11.6 Flexible Ramping Product Enhancements
- 14.1 Energy Products Delivered on Interties

ISO Response

Please see the updated classifications in the *2017 Stakeholder Initiatives Catalog* for the following: *Full Network Model Enhancements – Phase 2, Multi-Stage Generator Bid Cost Recovery Extended Pricing Mechanisms, Real-Time Market Enhancements, Hourly Bid Cost Recovery Reform,* and *Flexible Ramping Product Enhancements.*

Exceptional Dispatch Decremental Settlement – Exceptional dispatch and settlement is not within the EIM's scope.
Multi-Stage Generator Regulation Refinements – Ancillary service procurement, including regulation, is not within the EIM's scope.
Energy Products Delivered on Interties- This initiative is unclear on the elements it proposes to address. It has been moved to the "Proposed Deletion" section.

Additions:

Currently, the CAISO market has no way to determine definitively the Multi-Stage Generator (MSG) operating stage or configuration (unless the MW output is unique to a given stage), nor is there a way to efficiently communicate the output limits of each configuration. We must notify the market of the limits via outage cards, which causes inefficiencies in the market by not notifying the market as soon as possible. Ideally, the EIM Entity would be able to automatically communicate the real-time status of

the MSG configuration and the limits via ICCP or other appropriate means. We request that CAISO hold a stakeholder process to be completed this year and allows for this information to be provided in real-time (without the need for outage cards), with the overall goal of the most efficient utilization of the assets.
ISO Response
The ISO declines to add this initiative to the *2017 Stakeholder Initiatives Catalog*. This is a market system issue that only involves a system change and does not involve policy development. The ISO plans to address this issue in the upcoming EIM Enhancement 2017 project[7].

Company
SDG&E
Revisions:
SDG&E believes the ISO should combine sections 14.2, 14.3 and 14.4 into a singular initiative to review the entire MIC allocation process and also offer market participants an efficient means of procuring needed MIC rather than only through a bilateral market.
ISO Response
The ISO has added your suggestion in the *2017 Stakeholder Initiatives Catalog.*
Additions:
SDG&E requests the ISO to add an initiative to develop NQC values for resources based on an ELCC methodology. This issue was originally brought up within the regional resource adequacy initiative and the ISO mentioned that it would start such an initiative. SDG&E believes the ISO should start this initiative without regionalization taking place as it is a fundamental part of the RA framework itself.
ISO Response
The ISO has added this initiative to the *2017 Stakeholder Initiatives Catalog* under the "Resource Adequacy" section.

Date
Six Cities
Clarifying/Revisions:
Item 12.1 CRR Market versus Auction - - The issue described in Item 12.1 should be re-classified as a non-discretionary initiative and pursued as soon as possible. As described at page 7 of the Draft 2017 Catalog, non-discretionary initiatives "address significant . . . market efficiency

[7] Market Participants should review the Release User Group meeting for a summary of scope. Questions about the project can be addressed in this forum.

issues." The ISO's Department of Market Monitoring has documented and explained in detail that the current design of the ISO's CRR auction process has resulted in revenue deficiencies averaging approximately $130 million per year from 2012 through 2015 at the expense of LSEs in the ISO area. *See* DMM's 2015 Annual Report on Market Issues and Performance at 182-190. To place that amount in perspective, the ISO's quarterly reports quantifying Energy Imbalance Market benefits estimated gross 2015 EIM benefits to ISO market participants of approximately $12.7 million. Thus, the average annual costs to ISO LSEs resulting from the design of the CRR auction process have been more than ten times the estimated EIM benefits to ISO market participants in 2015. Clearly the CRR auction design issue qualifies as a significant market efficiency issue, and addressing that issue should be classified as non-discretionary and assigned a correspondingly high priority for prompt action (*i.e.*, prioritized ahead of discretionary initiatives).

ISO Response

The ISO declines to revise the classification for this initiative in the *2017 Stakeholder Initiatives Catalog.* The ISO has reflected this initiative's market impact in its initial ranking and welcomes stakeholder input.

Clarifying:

Item 12.9 CRR Revenue Inadequacy - - The Six Cities request clarification of this item. It is not clear from the description whether this item coincides with Item 12.1 or is simply related to Item 12.1. If the two items overlap completely, the Cities recommend combining them into one non-discretionary initiative as discussed above. If, however, Item 12.9 includes issues that are not encompassed within Item 12.1, the Cities recommend that the ISO evaluate whether it would be most efficient and effective to address the related issues as part of the same non-discretionary initiative described in Item 12.1 or to address separately issues covered by Item 12.9. The Six Cities emphasize that the issue described under Item 12.1 should be covered by a non-discretionary initiative to be commenced as promptly as possible.

ISO Response:

The ISO has revised the initiative's name and descriptions in the *2017 Stakeholder Initiative's Catalog* to better clarify the issues raised by DMM and PG&E. *CRR Market versus Auction* has been revised to *CRR Auction Efficiency*. *CRR Revenue Inadequacy* has been revised to *CRR Revenue Sufficiency*.

It would be more efficient and effective to address the issues covered by both catalog items separately.

Clarifying:

Item 5.5 Transmission Access Charge Options and Item 5.6 Review Transmission Access Charge Billing Determinant - - The Six Cities request clarification of the scope of the two items described in 5.5 and 5.6. The description under Item 5.6 appears to be within the scope of issues being considered under Item 5.5. The Six Cities understand that the topic heading of Item 5.6 covers a different in-progress initiative, *i.e.*, whether TAC billing determinants should be reduced by subtracting the amount of energy produced by local distributed generation. The Six Cities further understand that the ISO recently decided to defer further consideration of whether the TAC should apply to energy produced by local distributed generation pending comprehensive review of the TAC billing determinants structure. It appears, therefore, that the description currently included under Item 5.6 should be transferred to Item 5.5, and that the topic heading currently labeled as Item 5.6 should be classified as a discretionary new initiative to encompass an overall review of the TAC billing determinants structure

ISO Response:

The following descriptions have been updated in the *2017 Stakeholder Initiatives Catalog*: *Review Transmission Access Charges Billing Determinant* and *Transmission Access Charge Options*. *Review Transmission Access Charge Structure* was added to the catalog under the "Initiatives Currently Underway and Planned" section.

Deletion:

Item 16.6 Multi-Year Import Allocation Process - - The Six Cities oppose deletion of this item from the catalog. The basis for the proposed deletion is deferral of multi-year Resource Adequacy procurement requirements by the California Public Utilities Commission. Procurement of long-term capacity resources, however, offers benefits to the ISO BAA whether or not multi-year RA showings are required, and the absence of multi-year import allocations creates unnecessary and undesirable uncertainties with respect to the valuation of long-term resources. To support long-term capacity procurement, even if not required by the CPUC's RA program, the ISO should move forward to develop and make available multi-year import allocations.

ISO Response

The ISO has removed this initiative from the "Proposed Deletion" section in the *2017 Stakeholder Initiatives Catalog*.

This initiative was then combined with several other initiatives to create the new initiative, *Maximum Import Capability* under the "Resource Adequacy" section.

Company
TANC
Clarifying
Full Network Model Enhancement – Phase 2 The Draft Catalog lists Full Network Model Enhancements-Phase 2 as a necessary initiative, and provides that this initiative will include consideration of the potential use of "scheduling hubs," and settlement rule refinements. Draft Catalog at 14 (Section 5.15). The CAISO has been engaged in efforts to enhance and expand its Full Network Model for a few years. In 2013, the CAISO had contemplated using a North pricing hub for imports from integrated balancing authority areas ("IBAAs"), which include TANC Members and implicates TANC's entitlements to the California-Oregon Transmission Project. In response to comments from TANC and others, the CAISO agreed to defer consideration of North Hub pricing for imports by IBAAs until Phase 2 of the FNM Expansion Initiative. In December 2013, TANC commented to the CAISO that instead of predetermining how or whether it will revise the pricing structure in Phase 2, the CAISO should use Phase 1 to better understand the pricing implications of the Full Network Model and to publish on its website an analytical analysis on the pricing implications of moving to the North/South pricing hubs or any potential alternatives that could be used (including no change). On December 30, 2013, the CAISO responded that it "will endeavor to share as much pricing and scheduling information as practical and lawful pursuant to the restrictions of non-disclosure agreements." The CAISO also stated that "the stakeholder process to discuss Phase 2 can be effectively used to revisit the ISO's proposal and consider alternatives that may be more appropriate given input from Phase 1. In addition, implementing Phase 1 will allow the ISO to provide to stakeholders the pricing analysis requested by TANC." TANC supports CAISO's efforts to improve its modeling. In fact, as TANC has previously advised the CAISO, there is a need for accurate reflection of the operational realities based on real-time, historic operational data, including as to historic congestion on the California-Oregon Intertie. However, there has not been any information exchanged that would warrant the consideration in the slated Full Network Model Enhancements-Phase 2 initiative, of a North pricing hub for imports from IBAAs. Indeed, any consideration of pricing based on aggregated scheduling hubs (such as the North Hub pricing) seems to be premature due to lack of disclosure of sufficient information. Moreover, such a proposal appears ill-timed given the ongoing regional initiatives, which may impact modeling and pricing issues for imports and exports. Thus, TANC requests CAISO's clarification that the scope of the Full Network Model Enhancements Phase 2 will not include consideration of aggregated hub pricing or other proposals until sufficient information and analysis has been done to determine if such aggregation will adversely impact imports and exports from neighboring Balancing Authority Areas.
ISO Response
When phase two of this initiative starts, it will include the analysis discussed above.

Company
WPTF
Clarifying
WPTF seeks feedback on whether the Discretionary items listed in Section 5 as "On-going" will be re-ranked in the catalog? Will market participants need to include them in their rankings for these initiatives to continue to be active?
ISO Response
No, "Planned and Currently Underway" initiatives will not be subject to ranking and should not be included in the next round of stakeholder comments.
Revisions:
WPTF recommends the description of item 10.1 related to EIM external participation be changed to the following: *This initiative will investigate potential EIM enhancements to allow participation of at the EIM boundaries through balancing authority areas that have not joined the energy imbalance market. The proposed changes will ensure that external participation is complementary and compatible with bilateral trades. In addition, this initiative will consider whether external participation will need to meet similar requirements of EIM participating resources. Requirements may include; locational bidding of a physical resource, modeling of resource characteristics, telemetry, and metering to enable accurate modeling of physical flows, congestion management, and ensure feasible dispatches. Also, the initiative will evaluate whether these external resources may need to be subject to market power mitigation procedures and make transmission available to exclusively accommodate its maximum bid range. Lastly, rules may need to be developed to address potential leaning by extending the resource sufficiency evaluation to external participation.*
ISO Response:
The ISO declines to revise the description of this initiative in the *2017 Stakeholder Initiatives Catalog.* The specific scope of any ISO initiative is determined after the initiative's issue paper has been posted. Stakeholders then have the opportunity to request additional scope items to be included in the initiative.
Revisions:
WPTF recommends the following changes be made to the in-progress initiative, 5.13 Commitment Cost and DEB Enhancements (I, D, E2): *This initiative is evaluating changes to the market rules for bidding commitment costs and calculating commitment cost and energy bid reference levels. This initiative will also address whether to continue the current commitment cost bid caps used by the ISO or allow additional bidding flexibility. The initiative will specifically address how resources without capacity contracts are able to recover fixed costs and debt service within any commitment costs caps. In concert with additional bidding flexibility, this initiative will develop a market power mitigation methodology for commitment costs.*
ISO Response:

The ISO declines to update the description for the initiative mentioned above in the *2017 Stakeholder Initiatives Catalog*.

The specific scope of any ISO initiative is determined after the initiative's issue paper has been posted. Stakeholders then have the opportunity to request additional scope items to be included in the initiative

Revisions:

WPTF recommends the following changes be made to the in-progress initiative, 5.17 Economic and Maintenance Outages (D):

> *This initiative will consider whether the ISO should allow for economic outages and what form of compensation, if any, the ISO should provide if it denies a generator's maintenance or economic outage. It will explore how economic outages would interact with other requirements of the tariff and with grid and market operations. Further, this initiative will define specific mothball rules and process for resources desiring to go on an extended economic outage.*

ISO Response:

The ISO declines to update the description for the initiative mentioned above in the *2017 Stakeholder Initiatives Catalog*.

The specific scope of any ISO initiative is determined after the initiative's issue paper has been posted. Stakeholders then have the opportunity to request additional scope items to be included in the initiative.

Additions:

EIM Intertie Participation (D, E1)
This initiative will investigate potential intertie enhancements that would allow participation by entities at the EIM interties. The proposed changes will ensure that external participation is complementary and compatible with the WECC bilateral market, the CAISO's existing intertie structure, and the EIM markets. This initiative will consider operational, behavioral, and transmission recovery aspects of EIM intertie participation.

ISO Response:

The ISO declines to add this initiative to the *2017 Stakeholder Catalog*.

This would be a duplicate entry to the *Enhancing Participation of External Resources* and *Bidding Rules on External EIM Interties* initiatives found under the "Energy Imbalance Market" section.

Additions:

Energy and Ancillary Service Price Formation Assessment (D, E2)
This initiative will assess the CAISO's success at effectuating the market elements of the ISO's most recent Strategic Plan and set forth recommendations on how to move forward with elements included in the Plan, including; how to ensure competitive prices, improve price transparency, develop appropriate financial support to keep needed plants online, and, develop market mechanisms to bring online resources offering operational flexibility. This initiative will explore holistically energy and ancillary service price formation issues in the context of high renewable penetration and make market design changes or recommendation for future initiatives as appropriate. Fundamentally the initiative will examine whether energy and ancillary service prices are providing a sufficient price signal to

ensure needed resource capabilities are being sufficiently compensated such that they are likely to be secured in the Resource Adequacy market compared to resources less needed resources to integrate renewables.
ISO Response:
The ISO declines to add this initiative to the *2017 Stakeholder Initiatives Catalog.* WPTF's suggestion doesn't describe a specific initiative. Rather they describe principles that should be adhered to when designing specific market products and selecting initiatives during the ranking process.
Additions:
Regional Multi-Year Resource Adequacy (D) *This initiative will work in tandem with the California Public Utility Commission's Multi-Year RA proceeding with the intent on expanding any CPUC-jurisdictional program to all CAISO participants.*
ISO Response:
The ISO has add this initiative to the *2017 Stakeholder Initiatives Catalog* under the "Resource Adequacy" section.
Deletions:
The CAISO should not delete the following initiative: 16.6 Multi-Year RA Import Allocation Process (D). The ISO's reason for deletion was that the CPUC had closed the Joint Reliability Plan proceeding, thus deferring multi-year resource adequacy procurement for the foreseeable future. Given the CPUC has once again opened up a multi-year RA proceeding, this makes the ISO's reason for deletion no longer applicable.
ISO Response
The ISO has removed this initiative from the "Proposed Deletions" section in the *2017 Stakeholder Initiatives Catalog*. This initiative was then combined with several other initiatives to create the new initiative, *Maximum Import Capability* under the "Resource Adequacy" section.

Company
XO Energy
Clarifying/Revisions:
XO Energy believes the description for **Section 13.2 Implement Point-to-Point Convergence Bids** does not adequately define the initiative. The below paragraphs are proposed so that it can be better understood and more accurately rated. "A Point to Point (PtP) Convergence Bid is a bid in the Day-Ahead Market to purchase congestion and losses between two points. PtP Convergence Bids can be based on the prevailing flow direction where the PtP Convergence Bid is buying a position on the Day-Ahead Market congestion or they can be in the counter flow direction where they are paid to take a position. In either case, like supply/demand convergence bids, PtP Convergence Bids are bids that impose flows on the transmission network in the Day-Ahead Market that do not exist in real time and therefore classify as a virtual transaction. A major difference between supply/demand convergence bids and a PtP Convergence Bid is that

supply/demand convergence bids is a discrete injection or withdrawal at a location whereas a PtP Convergence Bid transaction is an injection at a source point and a withdrawal at a sink point. Effectively, the PtP Convergence Bid transaction takes an identical MW position at two different locations that from an energy perspective net to zero (absent losses) but do not for congestion and losses.

Like supply/demand convergence bids, PtP Convergence Bids are virtual transactions in the Day-Ahead Market that do not represent the physical delivery of power in real time and therefore represent a deviation between MWs in the Day-Ahead and Real-Time Markets that is liquidated at the real-time LMP. What makes the PtP Convergence Bid deviation different from a discrete supply/demand convergence bid is that the PtP Convergence Bid is both a supply and demand deviation because it has a source and sink. This makes the PtP Convergence Bid identical to a supply offer at the source point and a demand bid at the sink that are cleared simultaneously.

More specifically, forward flow PtP Convergence Bids (i.e. PtP Convergence Bids where the LMP in the Day-Ahead Market is lower at the source point than it is at the sink point) are profitable when they increase day-ahead congestion such that it is closer to the congestion observed in real time. In the counter flow direction (i.e. PtP Convergence Bids where the LMP in the Day-Ahead Market is higher at the source point than it is at the sink point), PtP Convergence Bids are profitable when they relieve day- ahead congestion on a path that is less constrained in real time.

Because PtP Convergence Bids are profitable when they drive congestion between the Day-Ahead and Real-Time Markets closer to each other, they also work to converge price spreads between both markets but not necessarily convergence of prices at discrete source and sink locations themselves. This is because the profitability of a PtP Convergence Bid does not depend on all three components of the LMP (energy, congestion and losses) but only congestion and losses. As a result, energy component differences between the day-ahead and real-time LMPs are irrelevant when it comes to a PtP Convergence Bid's profitability because, absent losses, the source and sink energy positions offset each other."

ISO Response

The ISO declines to revise this initiative's description in the *2017 Stakeholder Initiatives Catalog.*

The ISO believes the current description adequately describes the issue.