



**COMMENTS OF NV ENERGY
REVISED STRAW PROPOSAL
DAY AHEAD MARKET ENHANCEMENTS
DATED APRIL 11, 2018
CAISO STAKEHOLDER PROCESS**

May 2, 2018

NV Energy appreciates the opportunity to comment on the CAISO's Revised Straw Proposal for the Day Ahead Market Enhancements. The proposal presents unique challenges for NV Energy and the other EIM Entities. The immediate impact of the proposal is to the granularity of how the EIM Base Schedules are submitted, possible changes to the EIM resource sufficiency evaluation, and over/under scheduling penalties. The initiative, however, also proposes to introduce a new product, the day-ahead imbalance reserve, not provided for in the *pro forma* Open Access Transmission Tariff (OATT) required by the Federal Energy Regulatory Commission (FERC) for use by the FERC-jurisdictional EIM Entities. The CAISO has stated that this product would be a cornerstone of a potential regional day-ahead market (RDAM).

This places a heightened importance on this stakeholder process, and NV Energy requests the CAISO proceed with care and caution. If the imbalance reserve is to apply only to the CAISO Balancing Authority Area (BAA) in the RDM, the NV Energy's concerns are diminished. But, if the product is to become a central component of the RDM, the CAISO must meet the "consistent with or superior to" test required by FERC for deviations from the pro forma suite of reserve products already ensconced in the OATT. Far more analysis needs to be done to meet that standard.

I. Impacts to the EIM of a 15 Minute Day-Ahead Market

EIM base schedules are currently submitted hourly consistent with the CAISO's day-ahead scheduling granularity. The CAISO is proposing to change this scheduling granularity to 15 minute intervals. NV Energy conditionally supports this proposal pending further considerations explained below. The CAISO states that the proposed change should reduce granularity changes by allowing base schedules to better reflect ramps. NV Energy agrees with this hypothesis. However, there are non-participating generators and other load serving entities within the EIM Entity's Balancing Authority Area to which this may create a burden. Hourly scheduling has been a longstanding scheduling practice under the OATT and transmission customers may have arranged their supply contracts with this as the scheduling practice. Further, there may be cost impacts for modifying various systems to accommodate sub-hourly data submissions that may be significant to smaller entities. The CAISO should consider allowing optional hourly base scheduling granularity to continue for both participating and non-participating resources and explain the settlement impacts for doing so. NV Energy supports the additional proposals to evaluate the resource sufficiency test and over/under scheduling penalties at each 15-minute

interval. The CAISO should clarify whether or not it proposes to evaluate the capacity test at the 15-minute interval and explain its rationale or methodology. Finally, the following proposals may require changes to the EIM Entity OATTs, which should be considered for the needed coordination efforts.

II. Challenges to Transitioning to a Regional Day-Ahead Market

A. The Imbalance Reserve Appears to Address the Needs of the CAISO BAA

The CAISO proposes to add a new day-ahead product, the imbalance reserve. This product appears to serve the CAISO Balancing Authority Area, specifically the need to manage the “Duck Curve” with its pronounced morning and late afternoon ramps. There has been no showing of the reasonableness of adding what amounts to a new ancillary service product to each of the other BAAs that may participate in the RDAM. Increasing reserve requirements has an obvious effect of increasing the cost to load-serving entities and can have a significant impact on the cost-benefit calculus of RDAM participation.

For example, the CAISO states that a primary purpose of the imbalance reserve is, “to compensate resources that would have a must offer obligation to bid into the real-time market.”¹ This appears to imply that the product is part of the CAISO’s resource adequacy program. The CAISO imbalance reserve product creates a must-offer obligation to bid into the real-time market to any resource that is awarded the imbalance reserve product. This proposal changes the voluntary nature of the EIM design, because it forces a real-time must offer obligation with a potential financial penalty for non-compliance. Additionally, large uncertainty has been occurring between the CAISO day-ahead market and real-time market due to the lack of participation of variable energy resources in the CAISO day-ahead market. The imbalance reserve product does not solve this issue, but rather adds a cost to procure capacity to meet this expected result.

Additionally, CAISO states that this product should be used as a resource sufficiency evaluation within the RDAM, when the day-ahead market extends to EIM participants. NV Energy does not agree that the CAISO has demonstrated that this approach is just and reasonable. First, any resource sufficiency test in the RDAM is going to have to recognize and accommodate the existing use of designated Network Resources (DNRs) under the OATT. FERC has said that energy-only contracts are acceptable to qualify as DNRs. Second, the RDAM should be structured to support day-ahead energy trading without a new ancillary service capacity product being a participation requirement. This is not to say that the RDAM could not be structured to meet the CAISO’s additional ramping needs, but the market should be designed to incent EIM Entities to participate in the RDAM not to stay out. As currently proposed, the imbalance reserve product creates disincentives for EIM entities to participate by mimicking or increasing the ancillary service requirements and costs already incurred by those entities in serving native load obligations. It should be continually recognized that the EIM is a voluntary market incremental to each EIM Entities’ primary responsibilities to its native load customers. To that

¹ CAISO. “Day Ahead Market Enhancements Revised Straw Proposal”.
<http://www.caiso.com/Documents/RevisedStrawProposal-DayAheadMarketEnhancements.pdf>. Pg 4.



point, an EIM Entity should be allowed to simply bid into the CAISO day-ahead market without being subject to the imbalance reserve requirement.

Currently, the resource sufficiency evaluation in real-time requires EIM Entities to provide a certain level of ramping biddable capacity to the market. This requirement is not a forced product that requires EIM Entities to provide a specified amount and then pay for the specified amount as a capacity product. EIM Entities utilize capacity that is only accessed by the participating BAA to handle internal uncertainties. This capacity is used for uncertainty conditions within the BAA, but is not used towards passing the resource sufficiency test. This means that a BAA has its own methods for meeting its uncertainty. These methods, combined with the current OATT ancillary service requirements do not rely on bids or capacity payments toward generators and they do not apply towards the resource sufficiency evaluation. Therefore, NV Energy believes that the proposed imbalance reserve product will require EIM Entities that participate in the RDM to carry and procure additional capacity above and beyond the amount necessary for their realized uncertainty.

Overall, there appears to be a fundamental disconnect between the CAISO's expectations and the operating practices of EIM Entities. EIM Entities are not only market participants, but also Balancing Authorities with separate reliability obligations. The CAISO, however, seems to base its market design on the concept that EIM Entities should simply bid all resources at all times and let the Market Operator's optimization solution control. This is not a realistic expectation for EIM Entities whose primary responsibility is to its native load customers.

NV Energy's load serving obligations and fuel procurement practices are subject to policies and procedures approved by its state regulatory authority. Regional market participation should provide additional opportunities, where practical, to enhance the value of resources paid primarily by retail customers and that must be available to meet the requirements of the Nevada BAA. Transaction opportunities are only taken to the extent projected costs are covered and those transactions will not restrict the ability to call on resources when needed by NV Energy's native load customers. The CAISO premise of simply bidding all resources at all times would deplete the availability of NV Energy's resources (particularly use-limited resources) from their primary purpose of serving native load customers.

B. The CAISO Has Not Demonstrated a Need for the EIM BAAs To Carry Additional Ancillary Service Reserves

1. The Current FERC Pro Forma Structure Already Addresses Many of the Identified Uncertainties

Earlier this year, in the 2018 road map process, CAISO illustrated three separate stakeholder initiatives that would contribute to the day-ahead resource sufficiency evaluation. These initiatives include the imbalance reserve product, combined IFM and RUC process, and FRACMOO phase 2. The CAISO has not demonstrated how the imbalance reserve product and the FRACMOO phase 2 initiatives do not overlap with requirements that are already required in Balancing Authority Areas outside of CAISO. Absent a specific demonstration of the



reasonableness of this requirement as applied to EIM Entities, the CAISO should not push this additional requirement into the RDAM.

The overlap between the identified needs addressed by the CAISO’s proposed imbalance reserve and the current OATT are summarized in Table 1. From Slide 36 of the CAISO’s presentation, drivers of upward imbalance reserves include:

Table 1

CAISO Identified Need Slide 36	Current OATT
Conventional generators that are unable to meet their schedule	This happens today
VERs that are unable to meet their schedule	This is managed today
Imports that don’t tag their IFM schedule	This is managed today
Exports that self-schedule above their IFM schedule	This is managed today
Virtual supply	Not a current feature of EIM; questionable as to why non-physical action should require RDAM participant to carry more physical reserve

CAISO has stated that virtual or convergence bidding will take place as part of the RDAM. NV Energy challenges this assumption. Non-physical bidding should not be allowed to increase a physical need in the expanded RDAM region. The design process has to be open to the idea that a regional day-ahead market might be cleared at the EIM Entity forecast rather than bid in demand plus virtual demand. Furthermore, the EIM trading hubs are not as liquid as the CAISO region.

It is highly questionable that additional requirements above the uncertainties should be covered in the imbalance reserve product as applied to BAAs outside of California. CAISO proposes to include EIM dynamic transfers and the real-time market flexible ramping product as additional capacity to procure. The day-ahead to real-time uncertainty will be calculated by using a reliability forecast, which uses a VER adjusted demand forecast. The VER adjusted demand forecast accounts for any variable energy that deviates from its day-ahead schedule. Therefore, there is no reason to count EIM dynamic transfers on top of this forecast uncertainty. The EIM dynamic transfers are the result of the market optimization and do not indicate whether a specific BAA has imbalances as it may be wheeling through to a neighboring BAA. Furthermore, the EIM Entity would have passed the resource sufficiency test which would have allowed these transfers to take place. The flexible ramping product is a real-time uncertainty product that is procured at a calculated demand curve. This demand curve sets the price at the level appropriate to reflect the scarcity and uncertainty needed for the specific interval. Historically, these prices have been low, this indicates that there is not an issue procuring flexible ramp. The proposed imbalance reserve product should not procure this capacity in the day-ahead market for EIM Entities, because this would increase the costs to the flexible ramping product.



2. Certain Transmission Providers Have Addressed Uncertainty By Demonstrating Specific Needs in Their BAA

NV Energy agrees that increased use of variable energy resources can increase the reserves a BAA must carry. But, that need is specific to the individual BAA and must be demonstrated and approved by FERC.

In Order No. 764, FERC recognized that intermittent generation resources may impose a disproportionate impact on overall system variability, thereby requiring transmission providers to hold a greater per MW amount of regulation reserves for VERs than for load and/or other generation resources.² FERC therefore concluded that it may be appropriate for a public utility to differentiate among customers (or customer classes) in determining their customers' relative regulating reserve responsibilities.³

To date, the FERC has recognized the disproportionate impacts VERs can have on a transmission system, in certain specific cases. Again this is a BAA-specific showing. With respect to Public Service Company of Colorado, for example, FERC has accepted as Schedule 16 of their OATT, a Flexible Reserve Service:

Flex Reserve Service is needed to maintain generation and load balance in the event of a reduction of online wind generation of 100 MW or more in 30 minutes due to reductions in wind speed. Any Transmission Customer or Ancillary Service Customer using wind generation to serve load in the PSCo Balancing Authority Area or exporting the output of wind generation out of the PSCo Balancing Authority Area must purchase or self-supply Flex Reserve Service. Flex Reserve Service may be provided by the following resources: (i) generating units that are on-line but unloaded, (ii) generating units off-line but capable of starting in 30 minutes, or (iii) interruptible load or other non-generation resources capable of providing this service.

* * *

A Transmission Customer's or Ancillary Service Customer's Flex Reserve Service requirement shall be the total Flex Reserve Requirement of 411 MW for the PSCo Balancing Authority multiplied by the Customer's customer's proportional share of wind generation in the PSCo Balancing Authority Area, based on the nameplate capacity of installed wind generation in the PSCo Balancing Authority Area to which the customer has rights, as determined on a monthly basis by the Transmission Provider serving the customer's load or scheduled exports. This nameplate capacity will be the customer's Flex reserve billing determinants. As conditions change on the PSCo system, PSCo may make a single-issue Section 205 filing with the Commission to update the total Flex Reserve Requirement value.

The test is very dependent on the type of variable resource and the demonstrate variability within the BAA from those variable resources.

With respect to the CAISO presentation in this initiative, the slides of imbalances do not identify a specific BAA, presumably it is California. It is not appropriate for the CAISO to simply assume this requirement is reasonable passed on to other BAAs without demonstration of a specific need not being met by current requirements.

² Order No. 764 at P 210.

³ P 320.



NV Energy recognizes that this is still early in the consideration of this stakeholder initiative. Nevertheless, NV Energy recommends that if the CAISO chooses to adopt the imbalance reserve product, it do so only as a feature of the CAISO BAA and not as an element of the RDAM resource sufficiency test. Alternatively, the CAISO will need to review and quantify how the imbalance reserve is a just and reasonable addition to the OATTs of the participating EIM Entities and to ensure customers are protected against redundant requirements that over procure reserves.