

## Comments on Penalty Prices and Scheduling Priorities in CAISO Market – 11/20/20 Informational Call

### Comment period

November 30, 2020 - December 9, 2020

#### 1. Provide summary of your organization's comments on the workshop and the scope of the material presented:

SMUD appreciates the opportunity to provide comments and input on the CAISO's effort to change and clarify its scheduling and export priorities. SMUD is an active market participant in the CAISO's Day-Ahead and Real-time Markets. We are situated in the Balancing of Authority of Northern California (BANC) Balancing Authority (BA), through which SMUD also participates in the CAISO's Western Energy Imbalance Market, and have robust interties with the CAISO grid, which we use frequently to import and export power. SMUD responded to the CAISO's Business Practice Manual (BPM) proposed revision request 1282 process, and these comments supplement and expand on those.

With respect to exports, SMUD has for years contracted with resources located in the CAISO BA Area (BAA,) which provide SMUD capacity in support of its own resource adequacy (RA) obligations. These are so-called "non-RA (CAISO Tariff terminology) resources" which we use as Supporting Resources for exports are critical for SMUD's load serving purposes and ensure SMUD, and BANC, maintain an adequate level of reliability. "Non-RA" means that these particular resources, or a portion thereof, which are located in the CAISO BAA, are not already committed to serve an RA obligation of a load serving entity (LSE) in the CAISO. SMUD commits millions of dollars a year to these contracts to ensure deliverability, especially during high demand periods in the summer. Thus, this premium is necessarily paid in order to support SMUD's reliability obligations.

While SMUD supports the CAISO's efforts to clarify export priorities in the real-time market (RTM), we are concerned that the CAISO's emergency BPM change was adopted before any consultation with neighboring BAs, and prior to the CAISO investigating and fully understanding all of the root causes of the system issues related to the August 2020 heatwave and the implications of such a change on its overall market. SMUD recognizes that the August 2020 heatwave was a serious event, and understands that the CAISO, and the West in general, needs to reexamine the way we all serve load and procure capacity. We would also like to point out that SMUD was resource sufficient for all months in 2020 and imported to the CAISO during the peak hours of the August 2020 heatwave both through direct energy sales to the CAISO and through EIM transfers. This BPM change has major financial and reliability implications for neighboring entities like SMUD which could

also impact its support for neighboring BAs like the CAISO. It is SMUD's view that such a significant market change should have the benefit of a stakeholder process and changes and/or clarification in the CAISO Tariff *before* adoption. The overnight change to the CAISO's BPM in September is both disruptive and creates uncertainty with respect to historic scheduling practices, energy flows, and investment decisions that SMUD has relied on for over a decade. It has materially undermined much of the certainty over the CAISO-based exports which SMUD can rely on to reliably serve its load. Moreover, it effectively nullifies a portion of our multi-million-dollar investment in capacity resources, which up to this point, had been fully available. With this background, SMUD has the following specific comments:

**2. Provide your organization's comments on change in practice the CAISO adopted on September 5, 2020, to use schedules from scheduling run in the day-ahead residual unit commitment (RUC) process instead of schedules from pricing run:**

Clarification is Needed, Including Tariff Amendments

Even without the September 5, 2020 emergency BPM change, the CAISO rules around the practice of self-scheduling exports in the Day-Ahead Market (DAM) are in various parts of the Tariff, BPM, and Scheduling Infrastructure Business Rules (SIBR). Having a clearer explanation and section cross references would help participants understand market operations and plan for expected schedules and curtailments, especially during high demand periods. This is a great opportunity for the CAISO to do a holistic review of its export rules. Most importantly, given the significant impacts on neighboring BAA reliability, the CAISO should revise its Tariff to reflect the current export curtailment priorities which will provide market participants a level of certainty that sudden changes to export rules will not occur in the future without an open stakeholder process. In addition, CAISO Tariff changes will clarify the levels of export curtailment priority.

As noted above, the September 5<sup>th</sup> BPM change that ties exports to the residual unit commitment (RUC) scheduling run instead of the integrated forward market (IFM) pricing run fundamentally changes the market and the CAISO interactions with neighboring entities. As part of an integrated system, and SMUD/BANC and the CAISO often rely on each other to maintain balanced systems and in support of our broader grid reliability obligations. Indeed, the CAISO has noted this interdependence in recent months in various stakeholder meetings and heat wave analysis. During the August heatwave, SMUD was able to export from the CAISO to serve load during certain hours, and in other hours SMUD provided significant imports of energy to the CAISO for its needs.

We are concerned that in its haste to shore-up capacity concerns following the heatwave, the CAISO's emergency BPM significantly disrupts the RA capacity market and SMUD's (and other utilities') plans for meeting RA requirements in the near-term, and also undermines some of the options under consideration in utility decarbonization strategies in the long-term. Something of this magnitude deserves a stakeholder process *before* the change, including adding express export scheduling and curtailment priorities in the Tariff to ensure everyone can rely on a practice without risk of an overnight change.

**3. Provide your organization's comments on the change in practice the CAISO adopted on September 5, 2020, to use RUC schedules for exports as the reference protected into real-time markets:**

Export Uncertainty

Prior to the CAISO's September 5th BPM change, SMUD's full self-schedules in the IFM that were supported by non-RA were treated on-par with internal CAISO load. This provided a level of certainty SMUD needed to serve load, since this export would not be curtailed except under emergency circumstances where the CAISO needed to curtail its own internal load. As long as SMUD submitted a DAM self-scheduled export that was supported by a non-RA resource bid, this ensured export delivery. After the BPM change, however, there is much less certainty. The market optimization and RUC process that occurs between the 10 a.m. DAM bid submission deadline and the afternoon market award is in effect a black box. There is no transparency or certainty on the outcome of this process and when SMUD, or another load serving entity (LSE), receives a schedule less than its bid submission, it is very difficult to shore-up this gap in the remaining time. Furthermore, if the CAISO over-forecasts demand and overcommits supply, this will likely cause additional reduction in our IFM export schedules to meet the RUC schedule. SMUD raises this forecast issue because it is an important piece to the overall market performance, and with increased variable energy resources, forecasting becomes more critical.

The CAISO for full transparency should have but has not provided any data or analysis as to how often an IFM schedule is curtailed down to a RUC schedule, and the magnitude of this reduction. This information will help the CAISO (if it has not already examined this impact), SMUD, and other entities better understand the potential impact of this change.

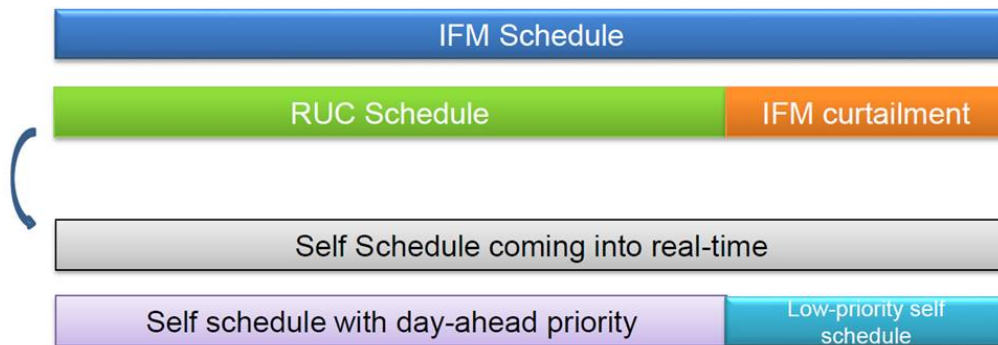
In addition, it is not clear what level of priority a DAM export self-schedule that is supported by a non-RA resource has if a portion of such schedule exceeds the amount of the resulting schedule amount after the RUC is performed. The slide below states that if the export schedule is not supported by non-RA, it has the lowest priority. Is this LPT status? But if such schedule *is* supported by non-RA, what level of priority does this schedule now have?

SMUD experienced unexpected curtailments this past October, and it appears that our export corresponding to a non-RA export self-schedule in the IFM that did not clear RUC had the same priority as Real-time (RT) self-schedules. While SMUD does not know for sure if this is the case, we note that there should be differentials in priorities of these schedules and a Day-Ahead self schedule of this nature should take priority over a RT self-schedule.

SMUD asks the CAISO to clarify the priority levels, and whether SMUD's assumption regarding DAM and RT priorities is correct.

With this change, any day-ahead exports self scheduled into real-time will have a day-ahead priority only up to the RUC schedule

- Prior to this change the self schedule had a day ahead priority up to the IFM schedule.
- When RUC assesses the need to curtail exports, RUC schedules will be lower than IFM schedules



- Any self schedule above RUC level will not have a day-ahead priority. If not supported by non-RA, it will have the lowest priority

**4. Provide your organization's comments on current priority assigned to the various types of export self-schedules as described in Section 31.4 and 34.12 of the CAISO tariff:**

SMUD requests that the CAISO make changes in Sections 31.4 and 31.5 of the CAISO Tariff to align with the BPM changes. The changes to the BPM result in additional complexities and to ensure clarity and long-term certainty, changes to the Tariff are necessary.

**5. Provide your organization's comments on what additional detail regarding today's practices should be included in the BPM language to better describe business practice change adopted on September 5, 2020**

Section 7.1.6 RTM Self-Schedules

SMUD believes the CAISO should add details included in Slides 9-12 of the September 9th Policy and Planning Forum presentation. Accordingly, SMUD recommends the CAISO add a priority list in the BPM to further clarify the export priority, which will result in needed changes to Section 31.4 of the Tariff. In addition, SMUD requests updates to the Tariff to align the BPM and Tariff to avoid any future confusion. Lastly, the CAISO should consider creating a priority category Export Self-Schedules (or something similar), and under this category provide the subcategories of non-RA RUC export, non-RA IFM export, other IFM export. For example:

*Consistent with Section 31.4 of the Tariff, the following is the priority sequence for curtailments, from highest to lowest priority:*

- a. XXXX
- b. XXXX
- c. *Export Self Schedules*
  - i. *RUC non-RA Supporting Resource*
  - ii. *IFM non-RA Supporting Resource*
  - iii. *RT non-RA Supporting Resource*
  - iv. *IFM other not supported by a Supporting Resource*
  - v. *RT other not supported by a Supporting Resource*

**6. Provide your organization's comments on what additional details regarding scheduling priorities and the treatment of self-schedules should be discussed in subsequent stakeholder meetings.**

Stranded Investments

As noted above, SMUD has invested millions of dollars in resources that provide non-RA capacity to reliably serve our load, particularly during peak summer months. SMUD typically pays these resources a significant \$/kW capacity payment premium to ensure the resources are available to the CAISO market in the rare times that SMUD uses it as a Supporting Resource for exports. We note that of all of the contracted hours, SMUD may only use these non-RA resources to support an export 5% of the time. For example, the contract may require 24/7 availability by the resource and DAM bidding during the months of May – October, but SMUD only exports using it as a Supporting Resource a few hours during a few days over the course of the 6 months. Accordingly, the CAISO market benefits from these resources, and this is not borne by CAISO ratepayers. When the CAISO uses the RUC schedule to award export priorities, it is not clear whether our resource is getting passed over in the IFM/pricing run, then picked up by the CAISO in RUC. In other words, a portion or all of SMUD's self-schedule linked to a Supporting Resource is being lowered to LPT status and the Supporting Resources is being used for CAISO load. If so, this exposes these investments to export curtailment, which allows the CAISO to obtain the value of some or most of this capacity at no cost to CAISO LSEs and ratepayers. If this policy stands, it may lead to significant unintended consequences regarding the options SMUD has and the actions it will need to take in response. Accordingly, SMUD would appreciate further clarification on this nuanced issue to confirm the CAISO is not confiscating this non-RA capacity.