



California ISO

NRS-RA Import Resource Bid Insertion Tariff Clarification

August 21, 2019

CAISO has identified two clarifications/updates to the RA tariff provisions that require immediate attention

1. Updating tariff provisions covering real-time market bid generation for Non-Resource-Specific System Resources providing RA capacity (NRS-RA)
2. Clarifying existing obligation for RA resources to “remain available” through real-time

Needed clarifications for NRS-RA bid generation rules

- The CAISO has identified a minor but needed update to RA bid generation rules for NRS-RAs
- The current implementation of bid insertion for NRS-RAs may not align with tariff provisions
- Initial plan was to modify implementation to ensure better alignment
- Following review of the related impacts, CAISO believes current implementation is preferred approach and intends to amend tariff to remove questions about alignment with current implementation

Background on the current NRS-RA import provisions

- Bid Insertion for NRS-RAs is covered under Tariff Section 40.6.8(f)
 - *The CAISO will submit a Generated Bid in the Day-Ahead Market or Real-Time Market for a non-Resource Specific System Resource in each RAIM assessment hour, to the extent that the resource provides Resource Adequacy Capacity subject to the requirements of Sections 40.6.1 or 40.6.2 and does not submit an outage request or Bid for the entire amount of that Resource Adequacy Capacity*
- This provision suggests that CAISO is supposed to generate bids in RAIM assessment hours to match the NRS-RA must-offer obligation

Real-Time bid insertion

- The issue that needs clarification is the quantity and price of a real-time market generated bid for NRS-RAs
- Current implementation for Real-Time
 - CAISO inserts self-schedule (not generated bid) up to the amount of MWs cleared in Day-Ahead (IFM or RUC)
- Tariff suggests requirement for Real-Time is that:
 - CAISO will generate economic bids up to full amount of RA capacity if there is any Day-Ahead market award
- CAISO could change SIBR system to eliminate questions regarding alignment but is concerned that this approach may have unintended consequences, including potential reliability impacts

Potential impacts of changing implementation to insert bids up to full amount of RA MWs shown in Real-Time

- Could produce RT market awards for NRS-RAs that may not be tagged or delivered
- CAISO may expect delivery of these awarded MWs in RT that may not materialize and could require operations to intervene to replace missing energy
 - Resource SC may not have energy delivery planned for MWs over DA awards
 - May result in potential reliability concern, out of market actions, price impacts, increased costs to serve load

Also possible concern related to efficient use of transmission system

- If NRS-RA is awarded in RT up to full MW of RA showing due to bid insertion but is not delivered as described in prior slide there are also concerns related to efficient utilization of the transmission system
 - Awards result in reserving RT transmission capacity that goes unused or underutilized if awards are not delivered

Day-Ahead Market Bid Generation for NRS-RAs *(status quo on tariff and implementation)*

- The CAISO will submit a Generated Bid in the Day-Ahead Market for a NRS-RA in each RAAIM assessment hour, to the extent that the resource provides Resource Adequacy Capacity subject to the requirements of Sections 40.6.1 and does not bid its full RA or have an outage

Real-Time Market Bid Generation for NRS-RAs *(status quo on implementation but change to tariff)*

- The CAISO will not submit generated bids for NRS-RAs in the real-time market
- If IFM award not rebid to RTM, then CAISO will insert a self-schedule in the real-time market to match whatever is awarded from the IFM (day-ahead and RUC)
- This self-schedule insertion is pursuant to generally applicable rules where a resource does not rebid its IFM award
- **Bid generation/insertion will not always align with RAIM exposure**
 - RA resources that rely on bid generation/insertion to manage RAIM exposure do so at their own risk

Proposed edits to section 40.6.8(f)

NRS-RA Resources. The CAISO will submit a Generated Bid in the Day-Ahead Market ~~or~~ ~~Real-Time Market~~ for a non-Resource Specific System Resource in each RAAIM assessment hour, to the extent that the resource provides Resource Adequacy Capacity subject to the requirements of Sections 40.6.1 ~~or 40.6.2~~ and does not submit an outage request or Bid for the entire amount of that Resource Adequacy Capacity. Aside from where the generally applicable bidding rules in Section 30 call for bid insertion, the CAISO will not submit a Generated Bid in the Real-Time Market for a non-Resource Specific System Resource that fails to meet its bidding obligations under Section 40.6.2. A bid inserted for the Real-Time Market pursuant to the generally applicable bidding rules in Section 30 may not necessarily cover the full Real-Time Market obligation under Section 40.6.2 and the resource may thus remain exposed to Non-Availability Charges.

Needed Clarification on “Remain Available” Phrase for Real-Time Must-Offer Obligation

- Section 40.6.2 outlines the RTM must-offer obligation
- Tariff uses phrasing like the RA resource “must remain available to the CAISO through Real-Time” and that the resource “must be available to the CAISO through Real-Time”
- The “remain available” obligation has been implemented to mean that self-schedule/economic bid for the required quantity is needed in RTM
- Stating this specifically in tariff will provide helpful clarity

Rationale for Proposed Edits to section 40.6.2

- This language states that the RTM must-offer matches the must-offer for the IFM for the quantity described in section 40.6.2
 - Short-start and medium start must cover full RA quantity irrespective of whether they get zero IFM award
 - All others cover full RA so long as there is a non-zero IFM award
- The RUC exception in the proposed language acknowledges that resources could not submit RUC bids for RTM

Proposed edits to section 40.6.2(a)

- (a) **General Requirement.** Except as otherwise provided in Section 40.6.4, for every Trading Hour in which a Resource Adequacy Resource receives an IFM Schedule for Energy or Ancillary Services or a RUC Schedule, the Resource Adequacy Resource must submit Bids to the Real-Time Market for that Trading Hour that conform with the Resource Adequacy Resource's obligations under Section 40.6.1 for the Day-Ahead Market. Provided, however, that any reference in Section 40.6.1 to RUC bidding does not apply to the Real-Time Market bidding obligations. ~~Resource Adequacy Resources that have received an IFM Schedule for Energy or Ancillary Services or a RUC Schedule for all or part of their Resource Adequacy Capacity must remain available to the CAISO through Real-Time for Trading Hours for which they receive an IFM or RUC Schedule, including any Resource Adequacy Capacity of such resources that is not included in an IFM Schedule or RUC Schedule, except for Resource Adequacy Capacity that is subject to Section 40.6.4.~~

Proposed edits to section 40.6.2(b)

- (b) **Short Start Units or Medium Start Units.** Irrespective of their IFM Schedule for Energy, IFM Schedule for Ancillary Services, or RUC Schedule, Short Start Units and Medium Start Units must, for each Trading Hour, submit Bids to the Real-Time Market that conform to their obligations under Section 40.6.1 for the Day-Ahead Market. Provided, however, that any reference in Section 40.6.1 to RUC bidding does not apply to the Real-Time Market bidding obligations for Short Start Units or Medium Start Units. ~~Short Start Units or Medium Start Units that are Resource Adequacy Resources that do not have an IFM Schedule or a RUC Schedule for any of their Resource Adequacy Capacity for a given Trading Hour must be available to the CAISO through Real-Time. Resource Adequacy Resources with Resource Adequacy Capacity that is required to be available to the CAISO through Real-Time and does not have an IFM Schedule or a RUC Schedule for a given Trading Hour must submit to the RTM for that Trading hour: (a) Energy Bids and Self-Schedules for the full amount of the available Resource Adequacy Capacity, including capacity for which it has submitted Ancillary Services Bids or Submissions to Self-Provide Ancillary Services; and (b) Ancillary Services Bids and Submissions to Self-Provide Ancillary Services for the full amount of the available Ancillary Service-certified Resource Adequacy Capacity and for each Ancillary Service for which the resource is certified, including capacity for which it has submitted Energy Bids and Self-Schedules.~~

Next Steps

- Stakeholders may submit written comments on the proposed revisions by September 4, 2019 to initiativecomments@caiso.com
- FERC filing will follow review stakeholder comments