

## Memorandum

**To:** Energy Imbalance Market Governing Body

**From:** Anna McKenna, Interim Head of Market Policy and Performance

**Date:** November 25, 2020

**Re:** Decision on EIM base schedule submission deadline proposal

---

***This memorandum requires EIM Governing Body action.***

### EXECUTIVE SUMMARY

Management proposes two changes to the rules related to an energy imbalance market (EIM) entity's base schedules, which reflect the entity's planned system operation. Base schedules serve as the baseline for an EIM entity's imbalance energy settlement and are also an important component of an EIM entity's hourly resource sufficiency evaluation.

The first change Management proposes is to move the final hourly base schedule submission deadline 10 minutes closer to the beginning of each hour by moving it from 40 minutes before each operating hour to 30 minutes before each operating hour. This will allow EIM entities to submit more accurate base schedules because they will be based on information that is closer to the operating hour.

The second change Management proposes is to allow base schedules for energy production below an EIM resource's minimum load so that base schedules can reflect energy produced when an EIM resource is starting up. This will enable the resource sufficiency evaluation to consider this additional energy production, and also will decrease the resource's uninstructed imbalance energy.

These rule changes apply specifically to EIM entities and participants and are, therefore, under the EIM Governing Body's primary approval authority.

Management proposes the following motion:

***Moved, that the EIM Governing Body approves the proposal for base schedule submission as described in the memorandum dated November 25, 2020; and***

***Moved, that the EIM Governing Body authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory***

***Commission to implement the proposal described in the memorandum, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.***

## **PROPOSAL**

### ***Base schedule submission deadline***

Management proposes to move the final hourly base schedule submission deadline from 40 to 30 minutes before the start of each operating hour. In conjunction with this change, Management proposes that the ISO conduct an additional resource sufficiency test evaluation run, which would be at 30 minutes before the start of each operating hour.

Base schedules reflect an EIM entity's planned supply resource schedules and demand forecast for its BAA. They are the baseline for imbalance energy settlement in the EIM and are an important component of the EIM entity's hourly resource sufficiency evaluation, which assures EIM entities schedule sufficient supply resources.

Moving the timeline for submitting final base schedules to be 10 minutes closer to the start of each operating hour allows base schedules to include information from closer to the operating hour. Consequently, the EIM's resource sufficiency test will use more accurate information than it currently uses. This more accurate information will also lead to lower amounts of uninstructed imbalance energy. This revised deadline also better aligns with Bonneville Power Administration's timeline for designating its customers' hourly energy schedules based on its hydroelectric production forecast. Bonneville Power Administration is planning to join the EIM in fall 2021.

The ISO currently requires EIM entities to submit base schedules by 40 minutes before the start of each operating hour because the fifteen-minute market optimization for the first interval of the hour begins running at 37.5 minutes before the hour. Technology improvements now allow the ISO to configure the market systems to complete this fifteen-minute market run in a shorter time. Consequently, the ISO can move the start of the market run to after 30 minutes before the hour without impacting system performance.

EIM entities submit base schedules for each operating hour to the ISO at multiple intervals. They submit initial base schedules at 75 minutes before the hour. The ISO systems then run the EIM resource sufficiency evaluation and provide advisory results back to EIM entities. This process repeats at 55 minutes before the hour and then final base schedules are currently due at 40 minutes before the hour.

This iterative process enables EIM entities to update their base schedules with more accurate information, such as resource output and load forecasts and bilateral transaction schedules. It also allows EIM entities to view advisory results produced by the resource sufficiency evaluation, and allows them time to correct any resource

sufficiency evaluation failure. This is important because EIM rules specify that the EIM cannot dispatch additional transfers into (or potentially, out of) a BAA that fails a final resource sufficiency evaluation.

In conjunction with moving the final base schedule submission deadline to 30 minutes before each operating hour, Management proposes that the ISO systems conduct an additional resource sufficiency evaluation, which will be run at 30 minutes before the start of each operating hour. This will become the final resource sufficiency evaluation run that determines whether a BAA can participate in additional EIM energy transfers. The resource efficiency evaluation currently run at 40 minutes before the hour will remain and become an additional advisory run.

Management proposes an additional feature that will increase the usefulness of the advisory resource sufficiency evaluation that will run at 40 minutes before the hour. Management proposes that the two resource sufficiency evaluations respectively run at 30 and 40 minutes before the hour, each use the same input data from the ISO systems, including projected resource output and variable energy resource and demand forecasts. Both runs will use the same the ISO system input data as the resource sufficiency evaluation currently run at 40 minutes before the hour uses.

This will provide EIM entities whose BAA fails the resource sufficiency evaluation run at 40 minutes before the hour a greater likelihood of taking corrective actions and then passing the final resource sufficiency evaluation at 30 minutes before the hour. They will be more certain of passing the final evaluation because the inputs from the ISO systems will be the same in the two runs.

In conjunction with this change, Management also proposes to change the timing of related market processes such as the reference for scheduled intertie transactions to final tagged amounts that the resource sufficiency evaluation uses to adjust BAAs' supply requirements based on their historical intertie transaction delivery rate. The reference point will change to look at intertie schedules at 30 minutes before each operating hour rather than the existing 40 minutes.

### ***Energy below resource minimum load***

The second base schedule related change Management proposes is to allow base schedules for energy production below an EIM resource's minimum load. This is so that base schedules can reflect energy produced when an EIM resource is starting up.

The current rules do not allow base schedules to represent energy produced below an EIM resource's minimum load. This prevents an EIM entity from accounting for energy produced while a resource is starting in the EIM's hourly resource sufficiency evaluation. One of the metrics the resource sufficiency evaluation assesses is whether base schedules for resource's in a BAA are submitted for sufficient supply to meet the BAA's demand forecast. The energy produced by a resource when it is starting up should be accounted for when evaluating whether an EIM entity can meet its BAA's demand forecast.

Management proposes that the ISO use these base schedules below minimum load in the resource sufficiency evaluation and as the basis for imbalance energy settlement. Management also proposes to not change how it settles differences between a resource's actual energy production and these base schedules below minimum load. Currently, the ISO settles all of the energy produced while starting up as uninstructed imbalance energy.

## **STAKEHOLDER POSITIONS**

In general stakeholders strongly support Management's proposals as they include important changes Management made during the stakeholder process in response to stakeholder suggestions.

Management revised its initial proposal in response to EIM entity concerns regarding a draft proposal that would have moved the final base schedule submission deadline to 30 minutes before the hour without retaining the existing resource sufficiency run at 40 minutes before the hour. EIM entities were concerned they would have 10 minutes less time to take operational actions, such as starting-up additional resources, in the event their BAA failed the final resource sufficiency evaluation run at 30 minutes before the hour. In response to this concern, Management revised its proposal to retain the existing resource sufficiency evaluation run at 40 minutes before the hour to provide additional advisory results. In addition, in response to EIM entity suggestions, Management revised its initial proposal so that that the resource sufficiency evaluation runs at 30 and 40 minutes prior to each operating hour will use the same input data from the ISO systems.

Finally, some stakeholders were concerned that shortening the time allowed for the fifteen-minute market to solve for the first fifteen-minute interval of the operating hour might not be feasible once the real-time market optimization becomes even more technologically complex with the implementation of nodal flexible ramping product implementation in fall 2021. In response, Management proposes to not implement the new final base schedule submission deadline of 30 minutes prior to the operating hour until after it has implemented the nodal flexible ramping product and testing shows the shortened fifteen-minute market run time is still feasible.

The Department of Market Monitoring did not submit comments in response to this proposal.

## **CONCLUSION**

Management requests the EIM Governing Body approve Management's proposed base schedule submission rule changes. These changes will enable the EIM resource sufficiency evaluation to more fully account for EIM entities' available energy supply and will allow them to submit base schedules based on information from closer to the beginning of each operating hour.