

Comments on Market Enhancements for Summer 2021 Readiness Final Proposal

Department of Market Monitoring

April 2, 2021

I. Summary

The ISO Department of Market Monitoring (DMM) appreciates the ISO's efforts to facilitate as much discussion as possible given the accelerated timelines needed to develop the ISO's *Market Enhancements for Summer 2021 Readiness Final Proposal (final proposal)*.¹ DMM supports the ISO's proposed changes to the prioritization of exports, load and wheeling transactions for summer 2021. The proposed changes to exports and wheeling priorities represent incremental improvements that should enhance the reliability of the CAISO BAA for summer 2021, while better aligning the CAISO market rules and practices with those of other BAAs.

DMM supports the proposed requirements for an export schedule to hold PT scheduling priority, and DMM views the ISO's proposed prioritization of PT exports as consistent with the practices of other BAAs. DMM recommends that if the ISO allows designation of a variable energy resource (VER) to support a PT export, the ISO maintain the ability to reduce the level of that PT export before CAISO load if the designated VER resource is producing less than the value of the PT export schedule.

DMM also supports the establishment of different scheduling priorities for PT and LPT wheel-through schedules, and the additional criteria proposed for wheel-through transactions to attain PT scheduling priority. The proposed prioritization of PT and LPT wheel-through schedules using a combination of penalty prices and manual pro-rata processes are incremental improvements that better align the scheduling priority practices of CAISO with other BAAs. However, DMM notes that the final proposal continues to afford wheel-through transactions access to CAISO transmission on more favorable terms than other BAAs. Further, DMM notes that the final proposal leaves the possibility that the scheduling priority provided to wheel-through transactions may lead to reliability challenges in CAISO.

Finally, DMM supports the ISO's proposal that the wheel-through priorities established in the Final Proposal are temporary measures. DMM recommends the ISO continue to better align its operating practices with those of other BAAs. DMM supports the ISO's recent commitment to address these issues in the *Maximum Import Capability Enhancements* initiative, and DMM appreciates the immediacy with which the ISO has sought to develop a more robust process to provide transmission service to wheel-through transactions.

¹ *Market Enhancements for Summer 2021 Readiness Final Proposal*, California ISO, March 19, 2021.

<http://www.caiso.com/InitiativeDocuments/FinalProposal-MarketEnhancements-Summer2021Readiness.pdf>

I. Comments

Scheduling priorities

DMM supports the ISO's proposed changes to the prioritization of exports, load and wheeling transactions for summer 2021 as incremental improvements that better align the practices of the ISO with those of other BAAs. However, DMM notes that the final proposal results in a transmission access framework that continues to favor wheeling transactions over CAISO area load to a greater extent than would occur in other BAAs and RTOs.

DMM supports the requirements the ISO has proposed to ensure that exports receiving PT scheduling priority equal to CAISO load are supported by non-RA resources that are physically available, have submitted bids in real-time, and have been forward contracted by an entity outside of CAISO. The ISO could further strengthen these requirements by preserving the ability to curtail certain PT exports before CAISO load when the designated resource supporting the PT export is a VER producing below the level of the PT export.

DMM also supports the additional criteria the ISO has proposed for wheeling transactions to attain PT scheduling priority, as well as the development of the manual post-HASP process to allow equal priority among PT wheels and the higher of real-time import RA bids or cleared RUC imports on a pro-rata basis under potential load shedding conditions. DMM further supports the ISO's development of a similar process to allocate transmission capacity on Path 26 among PT wheel-through transactions and the needs of CAISO load under potential load shedding conditions.

While the proposed export and wheeling priorities are an improvement over the ISO's current practice that better aligns the practices of CAISO with those of other BAAs, the proposal still appears quite favorable to entities serving load outside of CAISO. Based on DMM's understanding of rules governing wheeling schedules in other BAAs, the Final Proposal is more favorable to wheeling schedules in two ways.

- First, the proposal provides a path for some wheeling transactions to receive priority equal to CAISO load without any long-term compensation to CAISO transmission owners, simply by procuring outside transmission and signing an energy contract with another BAA.
- Second, this high priority can be provided to wheeling transactions without any process to first determine that sufficient excess transmission capacity exists on the CAISO system on a long-term basis to provide that priority. This provision appears to leave open the possibility that wheeling schedules may contribute to CAISO reliability challenges in summer 2021.

Additionally, under some conditions the final proposal still appears to allow prioritization of wheeling transactions over self-scheduled import transactions on congested interties. This can have implications for the availability of self-scheduled import RA resources, which may be needed to meet real-time CAISO load.

Export and load priorities

The ISO proposes to allow equal scheduling priority in the market software between CAISO load and PT exports supported by non-RA capacity contracted to an outside entity. DMM generally supports the ISO's proposed approach. Specifically, DMM supports the policy requiring that, for an export to have PT scheduling priority, the export must be supported by a non-RA resource that is physically available, has submitted bids in real-time, and has been forward contracted by an entity outside of CAISO. This should eliminate the possibility of an export receiving PT status in real-time simply because the export cleared the RUC process.

DMM supports the following elements of the final proposal which appear to be intended and necessary to achieve the proposal's overall market design objective:

- Exporters will be required to re-designate the supporting non-RA resource in real time in order to maintain PT export status in real-time, even if the export clears RUC (i.e., the ISO will no longer automatically grant PT status in real-time just because an export cleared IFM or RUC).
- The scheduling coordinator (SC) of a designated resource will be notified that the resource has been designated to support a PT export, and that by allowing the resource to be designated, the SC attests that the capacity has been forward contracted by an outside load-serving entity (LSE).
- Capacity contracted by a CAISO LSE cannot be used to support a PT export – which avoids the possibility of an entity designating capacity on CAISO RA resources above net qualifying capacity (NQC) as supporting a PT export.
- Energy-only resources and imports are not allowed to be used to support PT exports.
- The SC of a designated non-RA resource is required to rebid the resource in real-time to ensure the availability of the resource.
- If the MW bid into the real-time market from the designated resource is less than the MW of PT export from the resource clearing in the RUC process, the ISO will only give PT priority on the export in real time up to the amount of bid in MW from the designated resource.
- By allowing a resource to be designated, the SC attests the resource is capable at time of bid submission of supporting an hourly block schedule in the relevant operating hour equal to the PT export quantity.

In the final proposal, the ISO proposes to allow VER resources to support PT exports. The ISO proposes that when a VER is designated to support a PT export, the PT export quantity be no greater than the lowest 15-minute VER forecast within the hour, at the time of bid submission. However, scheduling coordinators can submit bids many hours in advance of the binding market interval, increasing the likelihood that a VER forecast may overestimate the capacity available to support a PT export.

Therefore, in addition to the proposed provisions outlined above, DMM recommends the ISO include an additional provision that permits the ISO to reduce PT exports supported by VERs before CAISO load, if the designated VER resource is producing less than the amount of the associated PT export. While the ISO has noted that it would be difficult to implement checks necessary to assure the availability of capacity supporting PT exports by summer 2021, DMM suggests the ISO prioritize the development of such checks specifically for PT exports supported by VERs (e.g., through a manual process if necessary) for summer 2021.

On the general issue of prioritizing exports, DMM supports the ISO working toward an approach that is consistent with other WECC BAAs. There appeared to be general agreement that the related business practices presented by Idaho Power at the January 12, 2021 workshop are representative of other WECC BAA practices. Idaho Power's stated business practice is to curtail native load before exports of capacity contracted to outside entities, or before exports supported by day-ahead sales of their own capacity.² If this is the expectation of WECC trading parties, DMM encourages CAISO to work with other WECC BAAs to document this standard in BAA OATTs and make this a clear written standard.

DMM views the ISO's proposal to prioritize PT exports equal to CAISO load as analogous to the OATTs of other BAAs, to the extent that other WECC BAAs maintain any right in their OATT to curtail transactions of transmission customers to maintain stability and reliability of their transmission systems. The ISO's proposal appears to allow similar provisions for export curtailment and continued market dispatch of internal generation, also in an environment where many actual curtailment decisions are manual and the result of other business practices.³

Wheel-through scheduling priorities

Current ISO operating practices allow wheel-through transactions to achieve higher scheduling priority than CAISO load in the market optimization. This results from the sum of market penalty prices on the import and export portions of a wheel-through transaction exceeding that used for CAISO load.

In the final proposal, the ISO proposes to create two distinct scheduling priority levels for self-scheduled wheel-through transactions: LPT and PT. LPT wheel-through transactions have a penalty price structure that results in lower scheduling priority than CAISO load in all markets. Transactions scheduled with this priority have no requirements beyond submission of the LPT

² Export and Load Scheduling, Idaho Power Company, January 12, 2021:
<http://www.caiso.com/InitiativeDocuments/IdahoPowerPresentation-MarketEnhancements-Summer2021Readiness-Jan122021Workshop.pdf>

³ For additional discussion, see: *Comments on Market Enhancements for Summer 2021 Readiness – Draft Final Proposal*, Department of Market Monitoring, February 26, 2021, p. 4-5:
<http://www.caiso.com/Documents/DMMComments-on-Market-Enhancements-for-Summer-2021-Readiness-Draft-Final-Proposal-Feb26-2021.pdf>

wheel-through self-schedule. PT wheel-through transactions have a penalty price structure that results in scheduling priority equal to CAISO load.

In order for a wheel-through transaction to hold PT scheduling priority, the scheduling coordinator must demonstrate that:

- It has acquired monthly firm transmission service to the CAISO border at least 45 days in advance of the month, and
- That it has an executed a contract to serve load in another BAA as of the time of filing of the tariff provisions to implement the Final Proposal.

In addition, the ISO has proposed a manual post-HASP process to ensure preservation of the designated wheel-through transaction priorities in the real-time market, when such priorities cannot be maintained by penalty prices alone. As DMM understands, this manual process is activated when the HASP market run makes schedule adjustments based on penalty prices. When this process is activated, LPT wheel-through schedules are reduced to 0 MW, and import capacity on each intertie is allocated on a pro-rata basis to PT wheel-through schedules, and the greater of real-time import RA bid volume or cleared RUC imports, subject to the intertie import limit.

The ISO has proposed that this manual process also extend to allocate transmission on Path 26 when constrained in the north to south direction. This additional pro-rata allocation of internal transmission capacity is intended to ensure that wheel-through transactions do not prevent CAISO imports and generation from northern California from reaching load in southern California.

DMM supports conceptually the extension of the post-HASP pro-rata allocation process for Path 26, but requests the ISO clarify the details of precisely how the allocation process might differ from that of a congested intertie. The final proposal only provides detailed examples of the pro-rata allocation for the case of a congested intertie. The final proposal offers no additional detail, for example, of how internal generation north of Path 26 would enter into the pro-rata allocation of Path 26 transmission capacity.

The final proposal establishes more appropriate, temporary measures to prioritize wheel-through transactions

The CAISO market design currently lacks the concept of transmission reservation priority that exists in other BAAs. One implication of this is that the CAISO market design does not offer CAISO load serving entities the ability to obtain network or similar high priority transmission service for CAISO native load. Nor does the CAISO market design allow any other entity contracted to serve load (including those that may wheel through CAISO to serve load in another BAA) to obtain network or similar high priority transmission.

The final proposal does not establish the concept of network or other transmission priorities in CAISO. However, in the ISO's efforts to better align CAISO practices with those of other BAAs, the final proposal does establish requirements for PT wheeling transactions that appear to be a

proxy for identifying those wheel-through transactions that would be scheduled on network service through CAISO if such service were available.

The concept of a PT wheel-through transaction in the final proposal appears to be a response by the ISO to earlier comments from EIM entities that some BAAs had entered contracts for summer 2021, which are dependent on the use of CAISO wheel-through transactions under current rules.⁴ These are transactions that, if conducted over transmission in any BAA other than CAISO, would require the contracting entities to procure network or similar priority transmission service on a long-term (i.e., at least monthly) basis. However, because CAISO does not have transmission reservation priorities, or a process to procure long-term wheel-through transmission, DMM views the proposed requirements for, and prioritization of, PT wheel-through transactions through penalty prices and the manual HASP allocation process as a workable temporary measure that can be realistically implemented for summer 2021.

DMM also supports the ISO's proposal for the relatively low scheduling priority of LPT wheel-through transactions, compared to the priority of CAISO load or PT wheel-through transactions. The final proposal appears to accomplish these objectives through the use of appropriately lower penalty prices, and by curtailing all LPT wheel-through transactions through the manual post-HASP process when the HASP market run makes uneconomic adjustments based on penalty prices. DMM understands that LPT wheel-through transactions would include those associated with day-ahead or spot bilateral transactions wishing to schedule on CAISO transmission on an hourly basis. The ISO's proposal to de-prioritize these transactions over those of the *de facto* network transmission customers is appropriate and fully consistent with the practices of other BAAs.

DMM expects that PT exports meeting the ISO's proposed criteria, and receiving scheduling priority equal to CAISO load, will be used only for the purpose of meeting load of load serving entities who have already entered long-term contracts for 2021 based on the understanding of existing CAISO operating practices that would allow deliverability of contracted energy. DMM does not view it as appropriate, or consistent with the operating practices of other BAAs, to allow hourly day-ahead or spot bilateral transactions using CAISO transmission the same or greater scheduling priority than CAISO load.

⁴ *Comments of Select EIM Entities on the CAISO's Market Enhancements for Summer 2021 Readiness Initiative Draft Final Proposal*, February 26, 2021, p. 2: <https://stakeholdercenter.caiso.com/Common/DownloadFile/92bb03abe2ba-4ee4-bedb-968880b8e247>

The final proposal is still more favorable to wheel-through transactions than practices of other BAAs

The ISO's final proposal presents a set of improvements in the scheduling practices for wheel-through transactions that better aligns the practices of CAISO with other BAAs. However, the proposal still results in CAISO operating practices that provide more favorable transmission access to wheel-through transactions than the practices of other BAAs.

As an initial point, DMM understands that other BAAs only sell long-term firm or additional network transmission service to the extent that there is sufficient excess transmission capacity on the system to provide that service, after the needs of the BAA's native load are met. CAISO has no process to determine the long-term availability of excess transmission that could be sold to other entities at priority equal to CAISO load. Because of this, it may well be the case that there is no excess capacity beyond that needed to meet the needs of CAISO load.

In other BAAs, this scenario would prevent the sale of long-term firm or network transmission for wheel-through or other transactions that would receive scheduling priority equal to native load in the BAA. However, the ISO's final proposal still allows PT wheel-through transactions scheduling priority equal to CAISO load, even when there has been no determination that the CAISO system has sufficient excess capacity to support this priority for PT wheel-through transactions. These provisions benefit entities using PT wheel-through transactions by guaranteeing availability of high-priority transmission access at the potential expense of CAISO reliability.

In addition to provisions that guarantee priority transmission access to PT wheels without determination that long-term excess capacity exists, the final proposal also has no requirement that entities compensate CAISO transmission owners for higher scheduling priority, or otherwise procure long-term transmission access for wheel-through transactions. The final proposal affords PT wheel-through transactions firm transmission through the CAISO BAA, simply because an entity has signed an energy contract in another BAA, and procured transmission to reach the CAISO border. This approach is unique to the CAISO BAA, and highly favorable to transactions wheeling through the CAISO BAA as PT wheel-through transactions.

Other BAAs require entities scheduling on their system to purchase and reserve transmission service at the desired priority level. DMM understands that if that desired priority level is network or similar transmission service, the entity would need to purchase that transmission service (only if available) on a long term basis, regardless of any outside energy contracts or transmission procured in other BAAs. Holding transmission service or being party to an energy contract in another BAA does not automatically convey firm, network level scheduling priority across any BAA other than CAISO.

Priority granted to wheel-through transactions can displace self-scheduled import supply

The final proposal appears to consistently prioritize PT wheel-through schedules over self-scheduled imports at interties when the self-scheduled imports are not required to meet CAISO load. Similarly, it appears that LPT wheels will also be prioritized over self-scheduled imports when the marginal cost of alternative supply to serve load is below a price threshold determined by the penalty prices of each market run.⁵

Import RA resources under the jurisdiction of the California Public Utilities Commission are obligated to submit bids at or below \$0/MWh, and often self-schedule in practice.⁶ Therefore, the prioritization of wheeling transactions over self-scheduled imports in the day-ahead market can ultimately reduce the likelihood that this import RA capacity will be available in real-time to meet CAISO load if needed.

Import RA resources that do not receive RUC schedules are not included in the RUC market solution, and do not have a real-time must offer obligation. Further, without a RUC schedule or real-time bid, it does not appear that import RA capacity would be included in the proposed pro-rata allocation process for import capacity triggered when HASP makes uneconomic scheduling adjustments based on penalty parameters.

When import self-schedules do clear RUC, and when this capacity is needed to meet the HASP CAISO load forecast, the proposed penalty prices appear to prioritize these imports in real-time over PT wheel-through transactions submitted in real-time. However, if import self-schedules cleared in RUC are not needed to meet the HASP CAISO load forecast, the proposed penalty prices appear to prioritize PT wheels submitted in real-time over import self-schedules cleared in RUC. Further, if the HASP market run makes uneconomic adjustments based on penalty prices and the post-HASP pro-rata allocation process is used on congested interties, real-time PT wheels may displace a portion of import self-schedules cleared in RUC. This can have reliability implications when RUC may have committed additional long-start internal generation resources instead of some portion of import self-schedules in the presence of PT wheel-through transactions, but such internal resources are unable to be committed in the timeframe of the real-time market.

Each of the scenarios above highlight sources of uncertainty, and illustrate the importance of the willingness and ability of the ISO to adjust the RUC forecast as needed to account for uncertainty between the day-ahead and real-time markets. Because CAISO does not have a

⁵ The exact price at which self-scheduled imports will have scheduling priority over LPT wheel-through transactions on a congested intertie appears to vary by market. In the IFM, for example, this appears to occur at a price of \$750/MWh. If congestion occurs on an intertie in the IFM, and a self-scheduled import on that intertie does not clear, the cost to the market optimization based on the proposed penalty prices is: \$400 + (marginal cost of alternative supply to serve load). If an LPT wheel with the import leg at the congested intertie does not clear, the total optimization cost is: \$0 (import leg) + \$1150 (export leg) = \$1150. Therefore, the least cost solution will result in the LPT wheel clearing on the congested intertie before the self-scheduled import, until the marginal cost of alternative supply to serve load exceeds \$750/MWh.

⁶ For delivery year 2021, the California Public Utilities Commission (CPUC) began requiring all CPUC jurisdictional import Resource Adequacy (RA) resource bids to be submitted at or below \$0/MWh.

process to determine excess transmission or generation capacity, these adjustments can help to ensure that there is adequate supply available to meet real-time CAISO load.

DMM supports the ISO's commitment to develop a long-term solution to provide transmission service to wheel-through transactions.

The ISO's final proposal is an improvement for summer 2021 that better aligns the practices of the CAISO with those of other BAAs. DMM supports the ISO's proposed changes to current export and wheeling practices as temporary measures, but recommends that the ISO continue to work on making its transmission priorities for wheel-through transactions even more equivalent to those of other BAAs.

Based on DMM's understanding of rules and practices in other BAAs, this would involve the following additional changes:

- Establishing a process to determine excess available transmission capacity on the CAISO system;
- Establishing an option for wheel-through transactions to purchase excess firm or similar quality transmission service on a long-term basis, and;
- Developing clear priority access to transmission for CAISO load, and other network- quality transmission customers, relative to hourly wheeling schedules (which have not purchased firm transmission on a long-term basis).

DMM supports the ISO's recent commitment to address these issues through the *Maximum Import Capability Enhancements* stakeholder initiative launched in March 2021, and DMM appreciates the immediacy with which the ISO has begun to seek durable, long-term solutions to address these important issues.⁷

⁷ *Maximum Import Capability Enhancements – Issue Paper*, California ISO, March 11, 2021:
<http://www.caiso.com/InitiativeDocuments/IssuePaper-MaximumImportCapabilityEnhancements.pdf>