

Comments on Transmission Services and Market Scheduling Priorities – Phase 2 Draft Final Proposal

Department of Market Monitoring

January 4, 2023

Summary

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the *Transmission Services and Market Scheduling Priorities – Phase 2 Draft Final Proposal*.¹

DMM supports the idea of limiting high priority transmission access to a calculated ATC (available transfer capacity) value. However, the ISO's proposed approach narrowly focuses on intertie import capacity and does not consider flow impacts on internal CAISO transmission. As such, the ISO's proposal leaves a risk that the CAISO transmission system may become oversubscribed.

DMM generally supports the ISO's proposed approach to account for native load needs in ATC on monthly and daily horizons, with the caveat that the TRM (transmission reliability margin) needs to be updated in regular intervals to account for decreasing uncertainty of load conditions closer to the time of power flow. DMM recommends the ISO develop a TRM that uses the most conservative assumptions for more distant time horizons to ensure the needs of CAISO load are met. As uncertainty is reduced closer to the time of power flow, additional ATC could be made available incrementally. This design element is especially important in the context of the ISO's proposal that awarded ATC will be unconditionally firm. Should the ISO choose to retain the TRM approach as proposed, DMM suggests that the ISO consider revising the proposal to make ATC awarded on more distant time horizons conditionally firm until uncertainty around the needs of native load is diminished closer to the time of power flow.

DMM supports many elements of CAISO's proposal to access ATC and establish scheduling priority. The requirement of a firm power supply contract to access ATC seems appropriate for establishing priority amongst ATC requests submitted in the same time window. It may even be appropriate to limit the amount of ATC granted to requests without firm power supply contracts in the more forward ATC request windows. However, the requirement of a firm power supply contract to access ATC should ultimately not cause any amount of ATC to go unsold.

DMM supports the ISO's proposal to allow resale of high priority transmission rights. DMM suggests the ISO establish and codify a rate at which transmission scheduling priority can be resold. This will prevent entities who may acquire transmission service in the first come, first

¹ *Transmission Services and Market Scheduling Priorities – Phase 2 Draft Final Proposal*, California ISO, December 9, 2022: <http://www.caiso.com/InitiativeDocuments/DraftFinalProposal-TransmissionService-MarketSchedulingPrioritiesPhase2.pdf>

served process from reselling at an inflated rate to other entities who may not have otherwise been able to secure high priority wheel through scheduling rights.

DMM supports the development of a transmission study and expansion process to allow entities to fund upgrades and establish long-term priority service. An approach similar to that currently used for merchant transmission upgrades may be most reasonable. However, DMM notes that the ISO may need to develop separate rules for upgrades to existing transmission elements from those to be used when developing entirely new transmission projects to support high priority wheeling.

DMM supports a full payment for high priority scheduling rights for the duration of scheduling priority, regardless of use. DMM does not oppose CAISO's proposed compensation approach.

Comments

I. Calculating ATC in monthly and daily increments

DMM supports the idea of limiting high priority transmission access to a calculated ATC (available transfer capacity) value. The approach in the draft final proposal leaves a risk of oversubscription of CAISO's internal transmission system.

DMM supports the concept of calculating ATC (available transfer capacity) and only allowing high priority wheel through transactions up to the available ATC limit. This approach is consistent with DMM's understanding of the practices of other transmission providers that will only sell transmission service to the extent capacity is available beyond that needed to meet the needs of native load and existing transmission commitments. However, DMM also understands that other transmission providers in the West would determine ATC and sell transmission service on a point-to-point basis that considers the full transmission path. The ISO's proposed approach narrowly focuses on intertie import capacity.

The ISO states in the draft final proposal that it does not propose to include a calculation of ATC across internal paths or export points from the CAISO system. However, the ISO does propose to conduct an annual power-flow assessment to test the robustness of the CAISO transmission system to support imports and wheel through transactions under different conditions. The ISO's proposal to conduct an annual power-flow analysis to assess the impact of wheel through transactions appears to represent an improvement over the straw proposal. However, as DMM understands, this approach does not factor into the proposed calculation of ATC, and therefore leaves an ongoing risk of oversubscription of the CAISO transmission system.

The draft final proposal represents an improvement over the interim approach that takes no consideration of ATC on any transmission element before awarding high priority wheeling access. Further, DMM appreciates the ISO's desire for an approach that is no more complex than necessary, and that can be implemented in time to eliminate the ongoing dependence on interim measures on the planned timeline. However, DMM notes that an approach to considering internal flow impacts could potentially be a simplified one and may not require a

complicated, entirely new design that requires all internal supply and exports to secure ATC. This additional analysis would only impose further limitation on a wheel through path if more restrictive than the ATC level established on the relevant import intertie under the ISO's proposal.

In practice, if the intertie transfer constraint is likely to be the binding transmission element on the path, further assessment of the internal flow impacts may make little difference in the resulting ATC number. In the draft final proposal, the ISO shows in Appendix 1 that for summer 2023, there is little or no ATC available for wheels importing at the Malin intertie for July – September when using the proposed methodology. Malin is the major import point for wheels that could create north-to-south congestion on the ISO's internal system. Therefore, to the extent that 2023 is representative of a typical year, the analysis in Appendix 1 offers some assurance that the available ATC may be limited during tight supply conditions, even in the absence of assessment of internal flow impacts.

Nonetheless, as DMM understands the standards of other BAAs, ATC for high priority wheeling should only be available up to the amount of the most limiting element of the wheeling path, as determined by a transmission planning study and available intertie capacity. Because there remains a possibility that future conditions may not be well represented by past conditions analyzed in the ISO's analysis of Path 26 and Path 15 loading during recent extreme conditions, or the estimated ATC shown in Appendix 1 for 2023, the ISO proposed approach leaves an ongoing risk that the ISO's transmission system will become oversubscribed.

At a minimum, DMM recommends the ISO develop an approach to directly consider the proposed annual power flow analysis in the calculation of ATC. DMM recommends that the ISO continue to refine the ATC approach in a future initiative to include a more robust analysis of wheel through transactions on the internal CAISO transmission system. This will become increasingly important as CAISO's resource mix continues to evolve, and past outcomes may become increasingly less representative of future conditions.

The proposed approach for calculating native load needs seems reasonable overall, but should include a more dynamic TRM (transmission reliability margin) to reflect changing levels of uncertainty over time.

In previous comments, DMM suggested a potential approach to estimate the needs of native load in the import capacity ETC calculation.² This proposed approach relied on historical RA showings by intertie, coupled with a well-defined TRM to explicitly account for each of the reasons actual imports needed to serve load might be higher than estimated by historical RA alone.

² *Comments on Transmission Services and Market Scheduling Priorities Phase 2 – Straw Proposal*, pg. 3-4, Department of Market Monitoring, September 16, 2022: <http://www.aiso.com/Documents/DMM-Comments-Transmission-Services-Market-Scheduling-Priorities-Phase2-Straw-Proposal-Sep-16-2022.pdf>

The approach developed in the draft final proposal appears similar to that envisioned in DMM's earlier comments, with the added enhancements of considering "higher of" values over two years, and also adding consideration for non-RA supply that has been contracted by CAISO load-serving entities. The ISO further enhances the proposed approach by adding a 30-day "true-up" period to release additional ATC if finalized shown RA and non-RA contracted supply are less than the amount estimated from historical data.

DMM generally supports the ISO's proposed approach to account for the needs of native load, with the caveat that the TRM methodology needs to be refined to reflect changing levels of uncertainty over time. For example, load forecasts will become increasingly certain as the time horizon draws nearer to the time of power flow. ATC should, by way of the TRM, reflect these changes in load forecast uncertainty. More distant time horizons should use the most conservative assumptions of load forecast uncertainty, reserving larger amounts of ATC for potential use by native load. As the time of power flow draws closer and load forecast uncertainty diminishes, additional ATC could potentially be released.

The use of more conservative assumptions of load forecast uncertainty on more distant time horizons is especially important, since the ISO proposes that once ATC is awarded for a time period, it will be unconditionally firm and will not be revoked.

Should the ISO choose to retain the more static TRM approach as proposed, DMM suggests that the ISO consider revising the proposal to make ATC awarded on more distant time horizons conditionally firm until uncertainty around the needs of native load is diminished closer to the time of power flow.

DMM supports the use of a TRM to account for the needs of native load in intertie import ATC calculation. If the ISO chooses not to also use a Capacity Benefit Margin (CBM) at this time, the CAISO tariff should be revised to allow the possibility of a non-zero CBM in the future if needed.

DMM supports the use of a clearly defined TRM to account for all potential native load needs that may exceed those considered in the ISO's chosen approach to account for native load in import ETC.

The ISO proposes to calculate a TRM which accounts for the following elements, consistent with NERC standards:³

- Load forecast error
- Transmission system topology uncertainty
- Variations in generation dispatch (e.g., renewable generation variability)

³ NERC MOD-008: https://www.nerc.com/pa/Stand/Project%20200607%20MODV0Revision%20DL/MOD-008-1_TRM_30-day_comment_25May07.pdf

DMM supports the inclusion of each of these components in the calculation of TRM. As noted above, DMM also supports an approach that allows the ISO to use more conservative assumptions for more distant time horizons, and potentially relaxing assumptions on TRM components to incrementally increase ATC as uncertainty may decrease closer to the time of power flow.

The ISO will need to establish an approach to allocate TRM across individual transmission paths.⁴ The draft final proposal does not address this topic beyond stating that it will be applied “on select interties where the ISO has historically relied upon import supply to serve load”.⁵ DMM asks that the ISO establish and clarify the proposed approach to allocate TRM across specific paths.

On the issue of CBM (capacity benefit margin), the ISO proposes not to set aside transmission capacity for a CBM, noting that the other components of the ATC design are sufficient. The current ISO tariff limits the CBM for any CAISO BAA transmission element to 0 MW. DMM suggests that regardless of the immediate need for a CBM, the ISO revise the tariff to allow for a non-zero CBM in the future if necessary.

DMM supports the application of the same general approach for monthly and daily ATC calculation, but with use of updated inputs where possible. DMM also supports the ability of ISO load serving entities to access additional ATC on the daily horizon.

The ISO proposes to use the same general components in calculation of daily ATC as used in the monthly horizon. DMM supports this approach, but with the use of updated inputs where possible. In particular, DMM suggests that the ISO update the TRM used in the daily horizon to reflect diminished uncertainty of load forecasts.

The ISO proposes to use updated transmission outage information in the daily horizon, and will also reflect the RA and non-RA contracted capacity true-up by carrying over from the monthly horizon. However, the ISO proposes to carry over the TRM from the monthly horizon into the daily horizon. Similar to DMM’s comments above on TRM in the monthly horizon, DMM recommends the ISO update the TRM used in the daily horizon to reflect changes in uncertainty as the time is nearer to power flow and uncertainty of load forecast diminishes. This approach would allow the use of more conservative assumptions in longer timeframes to ensure the needs of CAISO native load are met, while potentially releasing additional ATC in shorter timeframes as load forecasts become more certain.

⁴ Ibid, Requirement R1.3

⁵ Draft final proposal, pg. 20

Finally, in the draft final proposal the ISO proposes to allow CAISO load serving entities to access additional ATC in the day-ahead time frame. This would be ATC incremental to that already established to meet the needs of native load. DMM supports this enhancement, with the same process and requirements applying to CAISO load serving entities seeking additional ATC for contracted supply as to other entities that may be seeking additional ATC on the daily timeframe.

II. Accessing ATC to establish scheduling priority

DMM supports a first come, first served approach to establishing scheduling priority as well as further priority determined by length of load serving contract; the requirement of a firm power supply contract to access ATC is appropriate for prioritization, but should not cause any amount of ATC to go unsold

The ISO proposes that ATC will be available to entities seeking to establish high priority wheeling on a first come, first served basis within established request windows. DMM supports this approach as consistent with DMM's understanding of the practice of other transmission providers.

In order for any entity to access ATC to establish high priority wheeling, the ISO is also proposing that the entity demonstrate an executed firm power supply contract to serve external load, or such a contract dependent upon wheeling through scheduling priority on the CAISO BAA's system. DMM supports this requirement as a prioritization approach, but believes that it is inappropriate for this requirement to prevent ATC from being sold to other entities when it may otherwise go unsold.

DMM understands that the ISO's proposed process for calculating ATC intends to conservatively account for all needs and uncertainties of CAISO native load. Therefore, when this robust process is conducted, the resulting ATC value should be clearly interpreted as excess capacity available for purchase. This amount should not be considered for additional uncertainty or other needs of CAISO native load, which should already be met by the ETC or TRM calculations.

DMM appreciates that the resulting ATC on a given wheeling path may be less than the demand for high priority scheduling rights on that path. In that case, DMM agrees that it may be appropriate to prioritize limited ATC for entities with contracts to serve external load over those with no contract. Further, DMM agrees that entities contracted to serve load for more total hours per week may place higher value on scheduling priority and therefore may warrant higher priority access to ATC. As such, DMM supports the ISO's proposal to grant priority among requests submitted during the same request time window to entities contracted to serve load for a greater number of hours.

While DMM supports the use of load serving contracts and terms to prioritize access to ATC, the existence of a load serving contract should not be a prerequisite to access ATC for high priority wheeling. In the situation that ATC on a given path exceeds demand by entities with contracts to serve load, it would be inappropriate and likely inconsistent with transmission open access rules to prevent sale of that remaining ATC to a willing buyer on the basis that they may not have a contract to serve load.

The ISO's proposed approach of prioritization by intraday load serving duration may naturally address the case of a non-contracted entity (contracted to serve 0 hours per day). As DMM understands, the ISO's proposal would establish the lowest priority for this group among transmission service requests submitted during the same request time period. This would allow access only to any ATC remaining after meeting the needs of entities contracted to serve external load.

A more conservative approach may be possible by further limiting access to ATC by entities without a contract to nearer time horizons, after load serving entities' needs are likely to have been met. For example, by only allowing access to ATC by entities without a load serving contract in the daily horizon, this would establish them among the very lowest priority, effectively only making available ATC that would otherwise very likely go unsold. Alternatively, ATC sold to entities without a contract could be made available on a conditional basis such that it could be revoked if needed in a later reservation window to meet the ATC reservation needs of an entity holding a contract. This approach would ensure that entities with a load serving contract always have priority access to available ATC, but that the requirement to have a load serving contract would not cause ATC to go unsold.

DMM supports the ability to resell high scheduling priority for wheeling at an established rate

The CAISO proposes to allow resale of high priority wheeling rights for the same duration and quantity as the underlying supply contract used to secure the rights. DMM supports this proposal and understands the ability to resell transmission rights to be consistent with the rules of other transmission providers.

Also consistent with DMM's understanding of the practices of other transmission providers, DMM suggests the ISO establish and codify a rate at which transmission scheduling priority can be resold. This will prevent entities who may acquire transmission service in the first come, first served process from reselling at an inflated rate to other entities who may not have otherwise been able to secure high priority wheel through scheduling rights.

DMM further requests the ISO to clarify whether or not an entity purchasing scheduling priority through a resale, rather than from the CAISO BAA directly, would also be required to demonstrate an executed contract to serve load for the duration of the scheduling rights.

III. Transmission study and expansion process

DMM supports the development of a transmission study and expansion process to allow entities to fund upgrades and establish long-term priority service

The ISO proposes a process to allow entities seeking long-term priority wheeling service to request and fund transmission studies and upgrades needed to support long term priority scheduling. DMM supports the establishment of this process.

In the draft final proposal, the ISO contemplates three potential approaches to funding a transmission upgrade:

- The wheeling customer would pay for the upgrade over an agreed-upon period of time (presumably the duration of the wheeling customer's priority request) through the payment of wheeling access charges 24/7 to the applicable transmission provider(s) and/or possibly other lump-sum payments. During that time the wheeling through customer would have a priority.
- The wheeling customer would upfront fund the upgrade and receive transmission credits until it recovers the amount it upfront funded (along with a wheeling priority). Under this approach, the wheeling through customer would not be charged for wheeling until after it recovers the amount it funded up front to enable the upgrade.
- The wheeling customer funds the upgrade up front and receives CRRs (similar to merchant transmission) and a wheeling priority for the life of the project. The wheeling through customer funding the upgrade would be able to resell the wheeling through scheduling priority established through the upgrade.

The final option appears to provide the most comparable treatment to existing approaches for merchant transmission upgrades. For example, a CAISO load serving entity may fund a merchant transmission upgrade to increase import capability, and in exchange will receive access to the transmission to meet native load needs for the life of the project. The load serving entity would also receive CRRs associated with the upgrade. The entity could sell a portion of the upgrade determined to be ATC under the ISO's proposal to another entity seeking to establish wheeling priority.

A similar approach may be the most reasonable in the context of entities requesting upgrades for wheeling priority. However, the ISO may need to consider different rules for an upgrade to an existing transmission owner's system than a new merchant transmission facility. DMM recommends that the ISO and stakeholders review the practices of other BAA's and attempt to develop comparable policies.

If at any point in the project's lifespan high priority wheel through rights are made available to another entity, or the project supports import RA, it may be appropriate for the entities obtaining such rights to compensate – in proportion to determined flow impacts - the entity

who funded the upgrade for the high scheduling priority. This treatment is also consistent with the third proposed approach by the ISO as listed above, and appears more appropriate than entities paying a WAC (wheeling access charge) that offsets the transmission revenue requirement of CAISO BAA participating transmission owners who did not fund the construction or maintenance of the upgrade facilitating the high scheduling priority.

IV. Compensation process

DMM supports a full payment for scheduling priority, regardless of use; DMM does not oppose CAISO's proposed compensation approach.

The CAISO proposes that high priority wheeling through transactions pay for transmission scheduling priority based on the quantity and duration of the priority, as determined by the underlying power supply contract to serve external load. Payment of the WAC (wheeling access charge) would be required for the full duration of the contract, independent of market schedules and whether the rights are utilized. This approach is distinct from the interim approach to establish high priority for wheel through transactions where WAC is only paid when the priority is exercised.

DMM supports the concept of a fully paid charge to establish scheduling priority for the full duration of the load serving contract. DMM does not oppose the CAISO's proposal to use the WAC for this purpose, paid in proportion to the reserved priority hours. This approach appropriately reflects the value of access to high priority scheduling, where compensation increases for additional hours of scheduling priority reflecting additional value. This approach is also consistent with DMM's understanding of the practices of other transmission providers which impose a charge for establishing transmission rights, even when not exercised. DMM does not oppose the CAISO's proposed change to allow payment on the standard settlements timeline instead of full prepayment at the time priority is established.