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

Department of Market Monitoring

September 16, 2022

Summary

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

DMM supports the idea of only allowing high priority transmission access up to a calculated available transfer capacity (ATC) value. However, DMM believes that the CAISO balancing authority area (BAA) practices should be similar to the practices of other transmission providers by calculating ATC on a point-to-point basis that considers the full flow impacts on both interties and internal CAISO transmission. As such, DMM views the proposed approaches for calculating ATC inputs only as options to calculate ATC for the import transfer capacity portion of a wheel through path, rather than viable options to calculate the ATC for a full wheel through path.

DMM supports many elements of the proposal to access ATC and establish scheduling priority. The requirement of a firm power supply contract to access ATC seems appropriate for establishing priority among 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 not ultimately cause any amount of ATC to go unsold.

DMM supports the development of a transmission study and expansion process to allow entities to fund upgrades and establish long-term priority service, but requests additional clarifications on some elements of the proposal.

DMM supports a prepaid reservation charge for scheduling priority and does not oppose the proposed compensation approach.

[1] *Transmission Services and Market Scheduling Priorities – Phase 2 Straw Proposal*, California ISO, July 29, 2022: http://www.caiso.com/InitiativeDocuments/StrawProposal-TransmissionService-MarketSchedulingPrioritiesPhase2.pdf

Comments

I. Calculating available transfer capacity in monthly and daily increments

DMM supports the idea of only allowing high priority transmission access up to a calculated ATC value. However, the ISO needs to calculate the ATC on a point-to-point basis that considers flow impacts on internal CAISO transmission

DMM supports the concept of calculating available transfer capacity (ATC) 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. 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 approach proposed by the ISO narrowly focuses on import capacity. The ISO states in the straw proposal that it is not proposing to calculate the ATC for internal paths at this time.

DMM believes that while import capacity is one element of ATC, focusing only on import capacity would be insufficient to establish an ATC value that ensures reliability of the CAISO BAA system and meets the needs of the CAISO BAA's native load. Without the consideration of flow impacts on internal transmission, this approach risks significant oversubscription of the CAISO BAA transmission system.

In order to ensure reliability and meet the needs of CAISO BAA native load, the ISO needs to involve transmission planning staff to conduct studies that determine ATC on the full path considered for high priority wheeling services. ATC for high priority wheeling should then 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.

DMM considers the proposed approaches for calculating ATC inputs as options to calculate import transfer capacity only, rather than options for calculating the ATC for a full wheel through path

In the straw proposal, the ISO describes multiple possible approaches to calculating the different inputs to the ATC calculation. As noted above and in the straw proposal, each of the ISO's proposed approaches to calculating ATC inputs are focused on determining intertie import capacity. Therefore, DMM has evaluated the proposed approaches only as possible methods for calculating the intertie import capacity portion of ATC. As noted above, no approach to determine import capacity alone appears sufficient to determine ATC for a full wheeling path across the CAISO BAA system.

A combination of historical RA showings and a well-defined transmission reliability margin (TRM) may capture native load needs in calculating existing transmission commitments (ETC) for interties

The ISO presents three potential approaches for the calculation of native load needs in the ETC portion of the ATC calculation:

- Historical resource adequacy (RA) showings
- Historical import flows serving native load (with 3 sub options)
- Higher of the volumes established from the options above

Each of these proposed approaches has potential issues in their ability to accurately reflect the import needs of native load in the CAISO BAA.

A potential issue with the use of historical import RA showings is that this approach is not likely to capture the CAISO BAA's dependence on non-RA imports during tight supply conditions. Additionally, the forecast used to calculate RA obligations could also be too low to account for extreme peak summer conditions. Further, actual RA showings for the given year may end up exceeding the historical value used to calculate native load needs. Each of these are ultimately an issue of uncertainty in the load forecast determining RA showing requirements. However, the use of historical import RA showings may achieve the closest estimate to capture at least the amount of import RA in the ETC calculation, establishing priority for that portion needed by native load in the CAISO.

As noted by the ISO, the use of historical import flows at an intertie may lead to higher volatility in the ETC calculation. This approach may also result in a value lower than needed to capture import RA showings in the ETC calculation. Further, the approaches outlined by the ISO consider periods with transmission derates and outages, which can significantly overstate available ATC on a given intertie.

For instance, as shown in the straw proposal's example, calculating ATC for July 2021 on NOB using the top net load hour leads to an ATC of 1622 MW – the full CAISO import limit of the NOB intertie. This outcome occurs because the Pacific DC Intertie (PDCI) was fully derated and had no imports during the selected hour in 2021. However, it would be inaccurate to estimate that (up to) the full capacity of the NOB intertie is available as ATC and that 0 MW of NOB imports are needed for CAISO native load. If the ISO considers any of the sub-options within the historical import flow approach, DMM recommends the ISO develop a different approach to historical transmission outages that prevents this type of inaccurate outcome.

DMM suggests the following approach as a way of estimating the needs of native load in the import capacity ETC calculation. The ETC calculation could start by counting historical RA showings by each intertie. Then, the calculation could add on a transmission reliability margin (TRM) that explicitly accounts for each of the reasons actual imports needed to serve load might be higher than estimated by historical RA alone. This approach appears more precise and transparent than using historical imports to proxy for the needs of native load that may exceed historical import RA. For this reason, this approach may be preferred over the use of historical imports alone or a "higher of" approach.

This approach also appears to allow for more efficient use of limited transmission by allowing the ISO to use more conservative assumptions for more distant time horizons, and potentially relax assumptions to increase ATC as uncertainty may decrease closer to the time of power flow. As the ISO notes in the straw proposal, if native load needs are derived based on historical import flows, that value may not change in the daily timeframe.[2]

The role of a well-defined TRM would be to clearly account for each additional reason that import needs of native load may exceed levels estimated by historical RA showings. We discuss additional detail of the TRM in comments below.

The approach to account for native load growth in ATC needs to consider projected growth of internal capacity

The ISO proposes two potential approaches to account for native load growth in ETC. However, each of these approaches appears to implicitly assume that the portion of load served by imports will remain constant, and that CAISO BAA internal generation capacity will grow proportionately. DMM suggests that the ISO more explicitly include the projected growth of CAISO internal capacity when determining the share of future load growth to be met by imports.

DMM supports the use of a TRM and CBM to account for the needs of native load in intertie import ATC calculation

The ISO proposes to include a transmission reliability margin (TRM) in the calculation of ATC. The ISO also contemplates the potential role of a capacity benefit margin (CBM) in the calculation of ATC.

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. More generally, DMM would support the use of a well-defined TRM in any calculation of ATC, including one that may appropriately consider the full transmission path rather than just focusing on import capability.

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
- Simultaneous path interaction
- Variations in generation dispatch (e.g., renewable generation variability)
- Loop flow

DMM supports the inclusion of each of these components in the calculation of the TRM. DMM also supports an approach that allows more efficient use of limited transmission by permitting

[2] Straw proposal, p. 23

[3] NERC Standard Development Roadmap, *Standard MOD-008.1¸TRM Calculation Methodology,* May 25, 2007*:* https://www.nerc.com/pa/Stand/Project%20200607%20MODV0Revision%20DL/MOD-008-1_TRM_30-day_comment_25May07.pdf

the ISO to use more conservative assumptions for more distant time horizons, and potentially relaxing assumptions on each TRM component to increase ATC as uncertainty may decrease closer to the time of power flow.

In addition to considering which uncertainty components will be included in the TRM, the ISO will need to establish an approach to allocate the TRM across individual transmission paths.[4] The straw proposal does not address this topic. DMM asks in the next draft of the proposal, the ISO clearly establish a proposed approach to allocate the TRM across specific paths.

On the issue of the capacity benefit margin (CBM), the ISO states that the need for a CBM may depend upon how conservative the assumptions of other ATC components are, and how the TRM accounts for uncertainty. The current CAISO tariff limits the CBM for any CAISO BAA transmission element to 0 MW. Regardless of the immediate need for a CBM, DMM suggests that the ISO revise the tariff to allow for a non-zero CBM if necessary.

DMM supports the same general approach for monthly and daily ATC calculation, but with use of updated inputs where possible

The ISO proposes to use the same general components in the calculation of daily ATC as used in the monthly horizon, but with updated inputs (when possible). DMM supports this approach. The use of updated information on outages, RA showings, and load forecast from more conservative assumptions used in longer time horizons will facilitate efficient use of transmission closer to the time of power flow, while also supporting the needs of the CAISO BAA native load.

II. Accessing ATC to establish scheduling priority

DMM supports a first come, first served approach for establishing scheduling priority, and determining further priority by length of load serving contract. The requirement of a firm power supply contract or ownership of an external load serving resource 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. DMM supports this approach as it is consistent with the practice of other transmission providers.

In order for any entity to access ATC to establish high priority wheeling, the ISO proposes that the entity demonstrate an executed firm power supply contract to serve external load, demonstrate a contract with execution contingent upon wheeling through scheduling priority on the CAISO BAA system, or demonstrate of ownership of a resource to serve external load. 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.

[4] Ibid, Requirement R1.3

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 – including any needed transmission studies on internal transmission elements – 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.

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. DMM agrees that it may be appropriate to prioritize limited ATC for entities with contracts to serve external load over those without a contract. Further, DMM agrees that entities contracted to serve load during more hours per day may place higher value on scheduling priority, and may therefore warrant higher priority access to ATC. As such, DMM supports the 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 in the day.

While DMM supports the use of load serving contracts and their terms to prioritize access to ATC, the existence of a load serving contract or external load serving resource 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 or external load serving resources, it would be inappropriate and likely inconsistent with transmission open access rules to prevent the 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 proposal to prioritize 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 proposal would establish the lowest priority for this group amongst transmission service requests submitted during the same request time period. This would only allow access to any ATC remaining after meeting the needs of entities contracted to serve external load.

DMM does not oppose establishing the length of priority scheduling based on the length of a load serving contract, but suggests the ISO consider alternatives to accommodate a wider range of contract durations

The ISO proposes that wheeling through scheduling priority be established for the period of the duration of the underlying supply contract supporting the wheeling through priority (e.g. hours per day and days per week). DMM does not oppose this approach, but questions why the ISO further restricts the possible priority length to one consistent with import RA. DMM requests the ISO clarify how priority would be established for an entity seeking ATC for wheeling through when the underlying supply contract does not conform to the duration options for an import RA contract. Additionally, if the ISO considers expanding access to ATC for high priority wheeling to entities without contracts at any time horizon, the ISO would need to consider the minimum duration for which priority may be secured without an underlying supply contract.

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

The ISO 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 is consistent with the rules of other transmission providers.

DMM suggests the ISO establish and codify a rate at which transmission scheduling priority can be resold. This would be consistent with DMM's understanding of the practices of other transmission providers. 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 wheeling through scheduling rights.

DMM further requests the ISO clarify whether or not an entity purchasing scheduling priority though 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; DMM requests additional clarifications on the ISO's proposal

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, but requests additional clarification from the ISO about what happens in the event that a needed transmission upgrade is not chosen as a reliability, economic, or policy project, and is instead funded by the requesting entity.

In the straw proposal, the ISO states that in this situation when the requested upgrade is complete, the requesting entity would begin receiving transmission credits, and not be charged for high priority wheeling service until it recovers the amount it funded up front to facilitate the upgrade. The ISO also seeks input on whether the entity should receive congestion revenue rights (CRRs), and if other entities should receive RA import capability for upgrades to support wheel-through transactions.

As an initial point, DMM requests that the ISO clarify whether it plans to charge entities funding long-term upgrades to maintain high priority scheduling rights after the upfront cost of the upgrade is recovered. Additionally, the ISO may need to consider different rules for an upgrade to an existing transmission owner's system, rather 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.

Similarly, 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 approach appears more appropriate than entities paying a wheeling access charge (WAC) 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.

On the issue of congestion revenue rights (CRRs), the ISO clarified verbally in the stakeholder call on August 11, 2022 that these upgrades would be treated as merchant transmission facilities, and as such, would be entitled to CRRs.[5] Assuming the definition of merchant transmission described in the tariff applies, DMM supports this treatment and requests that the ISO clarify in the next draft of the proposal how the treatment of these facilities relates to current tariff provisions, and that they would be entitled to CRRs.[6]

IV. Compensation process

DMM supports a prepaid reservation charge for scheduling priority and does not oppose the proposed compensation approach

The ISO proposes that high priority wheeling through transactions prepay 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. Prepayment of the wheeling access charge (WAC) 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 prepaid reservation charge to establish scheduling priority for the full duration of the contract. DMM does not oppose the proposal to use a prepayment of the WAC for this purpose. 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 reservation charge for scheduling priority, even when not exercised.

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[5] California ISO, *Transmission Service and Market Scheduling Priorities – Phase 2,* Straw Proposal Stakeholder Meeting, August 11, 2022, time stamp 02:29 - 02:30: https://www.youtube.com/watch?v=iUEhFFjdKZQ

[6] CAISO Tariff Section 24.4.6.1 states that a Merchant Transmission facility must pay the full cost of construction and operation of the facility; CAISO Tariff Section 24.14.3 states that Merchant Transmission facilities under CAISO control that do not recover costs are entitled to receive CRRs.