Comments on Resource Adequacy Enhancements
Fourth Revised Straw Proposal

Department of Market Monitoring

April 21, 2020

I. Summary

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the *Resource Adequacy Enhancements Fourth Revised Straw Proposal*.[1] The Fourth Revised Straw Proposal addresses resource adequacy (RA) imports, planned outage enhancements, system RA portfolio assessments, and changes to backstop procurement provisions. DMM provides comments on these aspects of the proposal. DMM also includes some prior recommendations related to issues which were not addressed in the scope of the Fourth Revised Straw Proposal.

II. Resource Adequacy Imports

DMM supports the ISO's efforts to strengthen rules for non-resource-specific import resource adequacy. A real-time must offer obligation (MOO) for import resource adequacy and provisions to ensure that energy from resource adequacy import capacity is not recallable by the source balancing area would significantly improve the reliability of the imports counted on to meet system resource adequacy requirements.

Ensuring import resource adequacy is committed to CAISO may require non-recallability provisions between CAISO and source balancing areas.

It is not clear that the proposed requirements for source attestation, contract submission, and availability verification will ensure that a source balancing area which relies on bilateral spot market purchases for its own load could not prevent the source generator from delivering to CAISO during the rare occasions when the balancing area could not find sufficient power in bilateral spot markets to meet its own load. If the ISO believes its proposal ensures non-recallability of import resource adequacy, DMM asks the ISO to explain in more detail how its proposal effectuates this. If the ISO's proposed suite of attestations and verifications does not prevent a balancing area from recalling import RA during tight WECC conditions, DMM continues to recommend that the ISO add a requirement that import resource adequacy capacity cannot be recalled by source balancing areas (i.e. exports from balancing areas supporting import resource adequacy will be afforded the same curtailment priority as native load).

Developing curtailment provisions across balancing areas may require further coordination with other WECC balancing areas, but may be necessary to ensure the credibility of imported

[1] *Resource Adequacy Enhancements Fourth Revised Straw Proposal*, California ISO, March 17, 2020: http://www.caiso.com/InitiativeDocuments/FourthRevisedStrawProposal-ResourceAdequacyEnhancements.pdf

capacity across the West. The ISO's curtailment rules for exports relied upon by other balancing areas for resource sufficiency purposes may also need to be reconsidered in this process.

The ISO proposes that import resource adequacy must specify a balancing area or specific resource as its source. In the absence of non-recallability provisions between CAISO and other balancing areas, this proposal may not prevent resource adequacy imports from being backed by spot market purchases originating outside the specified balancing area. For example, the source balancing area could rely on bilateral transactions or spot market purchases sourced from a third balancing area to meet some of its own load or reserve margin. Source attestations and verification requirements may illustrate that on most days the specific resource adequacy resource or generator delivers to CAISO or is reserved for CAISO.

However, on the rare days that power is scarce across the west, the spot market purchases that typically serve the resource adequacy source balancing area's load or reserve margins may not be available. On these rare days, it is not clear whether or not the ISO's proposal has gaps that would allow the resource adequacy source balancing area to meet its own load with the generation that normally appears to be the source of CAISO import resource adequacy. Without non-recallability provisions, DMM is not yet convinced that CAISO's proposed suite of attestations and verifications will ensure the import resource adequacy will be delivered on those rare days when power is scarce across the west—when resource adequacy capacity is needed most.

Requiring firm transmission rights does not appear to be a substitute for non-recallability provisions in ensuring import RA is committed to CAISO.

DMM clarifies that its concerns about the potential for import resource adequacy to be recalled by other balancing areas under the ISO's proposals pertains to *exported energy* from the source balancing area rather than *transmission limitations* from a source balancing area to the CAISO.[2] To ensure that import resource adequacy is dedicated to the CAISO, external balancing areas should not be able to prevent the energy supporting imports from being exported or tagged to CAISO when those balancing areas may be short on energy. While energy tagged over firm transmission would have scheduling priority over other transactions in the presence of transmission congestion, it is not currently clear to DMM whether energy backing exports may be recalled by other balancing areas to address balancing area energy shortages, even in the absence of transmission congestion.

The ISO seems to suggest that if an entity controlling a resource has firm transmission rights from the source balancing area to CAISO that this would ensure that energy scheduled from the source to CAISO would be treated with the same priority as native load when the source

[2] *Fourth Revised Straw Proposal*, p. 32: "Some parties have expressed concern that imposing firm transmission requirements for RA imports resources might create competitive advantages for holders of firm transmission service on major paths. Although CAISO understands the concern, this issue should not be conflated with the quality of firm transmission service and its degree of dependability."

balancing area is short of energy but there is no transmission congestion. If this is the case across WECC balancing areas, DMM understands that a firm transmission requirement for import resource adequacy could be an alternative option to non-recallability provisions for resolving the issue described above—ensuring RA import *energy* is committed to CAISO when energy is scarce in the west.

Thus, DMM asks that the ISO confirm that if the entity controlling a resource in a host balancing area holds firm transmission rights from the resource to CAISO, this ensures that the host balancing area would have to shed its own load before it could prevent energy from being scheduled to CAISO over uncongested transmission paths. If this is *not* the case, DMM argues that non-recallability provisions are needed to ensure RA import energy is committed to CAISO during the times CAISO needs reliable resource adequacy import energy.

Requiring firm transmission rights for resource adequacy imports may significantly limit the competitive supply of resource adequacy imports.

Even if it *is* the case that firm transmission rights (and robust attestations from the entity controlling the source) ensure resource adequacy import energy is committed to CAISO, DMM continues to have unrelated concerns about the ISO's proposal to require firm transmission for import resource adequacy. DMM remains concerned that requiring firm transmission for import resource adequacy from source to the CAISO border in advance of the day-ahead market could impact the competitiveness of the CAISO resource adequacy market if timelines and protocols for releasing unused firm transmission are not first reconsidered.

DMM agrees that firm transmission requirements could improve the reliability of import resource adequacy capacity and help ensure imported power cannot be curtailed across potentially multiple legs of transmission. However, firm transmission requirements for import RA resources could create significant competitive advantages for holders of firm transmission service on major paths, limiting the competitiveness of the CAISO resource adequacy market. In particular, the entities that obtain long-term firm transmission rights may physically or economically withhold the rights from other unaffiliated potential import resource adequacy suppliers. Therefore, DMM recommends that processes for selling firm transmission in varying release timeframes be assessed further before requiring import resource adequacy to be backed by firm transmission. Various other parties have expressed similar concerns in Track 1 of the CPUC rulemaking R.19-11-009.

In proposals submitted to the CPUC related to import resource adequacy issues in rulemaking R.19-11-009, Powerex and Morgan Stanley provided data on firm transmission right ownership to NOB and COB.[3] Powerex's data shows firm rights holders to NOB and COB for July 2020. However, this data does not confirm that the process through which potential import resource

[3] *Track 1 Proposal of Morgan Stanley Capital Group Inc. regarding the scope, schedule, and administration of R.19-11-009*, R.19-11-009, February 28, 2020, p. 15.

Track 1 Proposal of Powerex Corp., R.19-11-009, February 28, 2020, p. 17.

adequacy resources can procure firm transmission rights would be competitive – over 50% of all firm rights are held by three entities.

Additionally, it is not clear that all firm rights to NOB and COB reflected in these analyses are actually available to support CAISO imports. For example, some capacity may be committed to serve non-CAISO load or to support other long term contracts. Availability of firm rights and concentration of ownership is likely more constrained on smaller paths, should the ISO require a showing of firm transmission along an entire delivery path from the import resource adequacy source to the ISO border. The ISO should further examine the concentration of firm right holders on major interties in other timeframes and along various other paths through WECC which may be required to support imports from external sources to CAISO.

DMM has suggested that there may be opportunities to ensure firm transmission release and procurement is competitive through modifications to OATT timelines and scheduling practices in WECC. DMM suggested that these structures could be reconsidered in the context of EDAM.[4] DMM ultimately supports the ISO's efforts to ensure import resource adequacy is backed by actual resources instead of spot market purchases. However, further discussion on issues of non-recallability and firm transmission is still warranted.

DMM supports a real-time must offer obligation for import RA.

DMM supports the ISO's proposal to enforce a real-time must-offer obligation for import resource adequacy resources. DMM has recommended that the ISO consider a real-time must-offer obligation which would address concerns that non-resource specific import resource adequacy today can bid themselves out of the day-ahead market process and have no further obligation to be available in real-time. Requiring import resource adequacy to have a real-time must offer obligation could be a significant enhancement to current resource adequacy import rules.

III. Planned outage process enhancements

In response to the CAISO executive appeals committee decision on proposed revision request 1122 (PRR 1122) related to "planned-to-forced" outage reporting, the ISO proposes to initiate a separate, expedited stakeholder initiative to address this complex issue. However, DMM is concerned that the "planned-to-forced" outage reporting issues cannot be fully addressed without considering the entire design of the planned and forced outage processes and availability incentives comprehensively. While DMM acknowledges the need to clarify the tariff for the concerns raised in PRR 1122 in a timely manner, DMM believes these concerns directly relate to the RA Enhancements initiative and should be addressed here. Therefore, DMM continues to encourage the ISO to design outage processes, UCAP, and other availability

[4] *DMM comments on extended day-ahead market: February 11-12, 2020 stakeholder workshop*, February 26, 2020, p.2: http://www.caiso.com/InitiativeDocuments/DMMComments-ExtendedDay-AheadMarketTechnicalWorkshop-Feb11-12-2020.pdf

incentives in this RA Enhancements initiative that help to address the legitimate concerns raised in PRR 1122.

In working through these important and complex issues, DMM cautions the ISO against redesigning its outage process in ways that may alleviate major concerns raised in PRR 1122 but that result in a less efficient resource adequacy program. In particular, the ISO's proposed Option 1 eliminates the "burden of providing replacement capacity and the potential incentives created for withholding capacity from the bilateral capacity markets."[5] This would be accomplished by not allowing planned outages in peak months and by requiring a reserve margin in the off-peak months large enough to cover the anticipated reliability needs after all planned outages.

Compared to the status quo, the Option 1 off-peak month proposal significantly reduces incentives that LSEs and resource providers have for procuring resources that have the qualities that a resource adequacy program are intended to provide: availability and reliability. The status quo requires resource owners to provide available replacement resource adequacy capacity when a planned outage threatens reliability and to pay an availability penalty (RAAIM) when a resource has an unexpected forced outage or cannot find replacement capacity. This places a strong monetary incentive on resource adequacy providers to provide resources that will be available and operate reliably when the grid needs them.

Option 1 forces LSEs to procure a much larger quantity of resource adequacy capacity, much of which may be unavailable or unreliable. Option 1 could allow resource providers to show unavailable, unreliable resources during off-peak months and to avoid having to even bid them into the market by submitting planned outage requests far enough in advance of the start of the month. The ISO's proposal would seem to address the reliability issues this would create by requiring the ISO to further increase the off-peak month reserve margin. As a result, the increased capacity and capacity costs may not increase the overall reliability provided by the resource adequacy program. It instead significantly reduces the monetary rewards that high quality capacity could expect from resource adequacy compensation relative to low quality capacity.

DMM suggests that the ISO try to design outage process enhancements that mitigate major problems with the current outage process without undermining aspects that facilitate efficient resource adequacy procurement and performance. DMM believes the most significant problem that the ISO should try to address is the fact that uncertainty over planned outage substitution obligations creates incentives for resource-controlling entities to withhold capacity from bilateral resource adequacy markets. The ISO should try to address this problem while maintaining the efficiency benefits of holding resource adequacy providers financially responsible for failing to fulfill their obligation to make reliable resources available when needed.

[5] *Fourth Revised Straw*, p. 12.

DMM recommends that the ISO continue to explore changes to the existing planned outage substitution timeline. There may be adjustments to the timeline that could allow resource providers to sell resource adequacy capacity in a bilateral market after being informed of whether or not they need to provide substitution for planned outages.

DMM also supports the ISO continuing to work on the details of a replacement marketplace that could be used to procure substitute capacity. The ISO may be able to further reduce the uncertainty in substitution requirements and to reduce incentives to withhold capacity from bilateral resource adequacy markets through a more nuanced design of substitute capacity cost allocation.

For example, consider situations when a generator follows newly designed outage procedures and timelines and has a planned outage approved without substitution, but conditions change that require either substitution or a deferral of the planned outage. In such a scenario, the ISO should not allocate the replacement mechanism substitution costs (or the generator's opportunity costs for having to defer the outage) to the generator that planned its outage according to the rules. Instead, the ISO could allocate the costs to the generation, transmission, or load entities whose changes after the study period necessitated the new need for either substitute capacity or deferring the approved outage.

IV. Backstop capacity procurement provisions

It is not clear that the proposed UCAP deficiency tool would directly improve incentives for LSEs to trade and true up resource adequacy positions in the bilateral market. In some cases, the UCAP deficiency tool may even interfere with existing incentives for entities to trade in the bilateral market prior to ISO showings. LSEs are already incentivized to trade resource adequacy amongst each other to avoid being exposed to local regulatory authority (LRA) penalties and potential ISO backstop procurement costs. It is not clear that the UCAP deficiency tool directly enhances the existing procurement framework.

Related policy changes being considered by the ISO and CPUC also seek to address the issue of LSEs withholding excess capacity, which is the same issue the ISO believes the UCAP deficiency tool would address. The ISO should consider whether related policy efforts may limit the perceived benefits of the UCAP deficiency tool. For example, proposals considered under the CPUC's PCIA rulemaking (R.17-06-026) would minimize the extent to which LSEs can hold back capacity in excess of resource adequacy requirements. A joint group of LSEs have proposed a process where IOUs would allocate capacity attributes associated with PCIA portfolios among IOUs and LSEs representing departed load, such that IOUs would likely no longer be able to hold PCIA portfolio capacity back for substitution purposes.[6] While this proposal is not finalized, DMM understands that the general framework of allocating PCIA portfolio attributes to

[6] *Final Report of Working Group 3 Co-Chairs: Southern California Edison Company (U-338E), California Community Choice Association, and Commercial Energy*, R.17-06-026, February 21, 2020: http://efile.cpuc.ca.gov/FPSS/0000146067/1.pdf

departed load has been discussed extensively at the CPUC and there has been some consensus formed around this concept. Additionally, the ISO's proposals to develop a UCAP counting framework and replace RAAIM, plus potential changes to the planned outage substitution process, could reduce incentives for LSEs to withhold capacity in excess of resource adequacy requirements.

The ISO should consider further how its proposal may interact with other related policy changes and existing incentives for LSEs to transact in the bilateral resource adequacy market.

V. Additional comments

DMM summarizes our prior recommendations on issues which were not addressed within the scope of the Fourth Revised Straw Proposal:

- The ISO proposes to remove the real-time must-offer obligation (MOO) for resource adequacy capacity that does not receive day-ahead or imbalance reserve awards. The ISO cites a new imbalance reserve product being developed in a separate initiative as obviating the need for a real-time must-offer obligation because the new product will cover potential uncertainty needs between day-ahead and real-time markets. The specific design elements of the imbalance reserve product could determine whether the removal of the real-time must-offer obligation is appropriate or not. The ISO should not remove the real-time must-offer obligation until the imbalance reserve product has been further defined, and perhaps even implemented for a period of time.
- The UCAP framework is an improvement over NQC-based resource adequacy requirements today for resource adequacy sales at the system level. The UCAP calculation should drive incentives for resources to maximize availability when the ISO needs capacity the most. To strengthen incentives for resources to be available in periods with tightest supply margins, the ISO could consider assessing all season hours in UCAP calculations (not just the top 100 hours with tightest supply margin), and weight each hours' impact to availability factors by the magnitude of the supply margin.
- The ISO will continue to define local capacity requirements in terms of NQC. Maintaining NQC-based local requirements could mute the incentives that UCAP provides for local resources to reduce forced outages and increase availability. If NQC-based local requirements are maintained, the ISO should consider developing a separate availability incentive mechanism for local resources.