

Comments on Storage Design and Modeling: Straw Proposal on Default Energy Bids, Uplift, and State-of-Charge Management

Department of Market Monitoring

August 5, 2026

Summary

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the *Storage Design and Modeling: Straw Proposal on Default Energy Bids, Uplift, and State-of-Charge Management* issued July 15, 2026.¹ While DMM supports some aspects of the ISO's storage default energy bid (DEB) proposal, we have several significant concerns with the proposed design. The proposed storage DEB will significantly overstate the marginal cost of storage resources in nearly all instances. The proposed storage DEB does not appear to have been developed with the intent of accurately estimating marginal cost, and is instead designed to set DEBs for batteries at a higher level than DEBs for energy limited hydro resources.

DMM recommends that the ISO continue developing the time-of-day approach for storage default energy bids rather than the static approach, as the time-of-day framework can be designed to more accurately reflect the location-specific and time-varying opportunity costs of storage resources. However, DMM recommends that the time-of-day multiplier includes values below one to more accurately reflect falling opportunity costs during highest-priced hours. DMM also recommends that the ISO either remove the price-based opportunity cost multiplier entirely, or at most retain its current value of 1.1 rather than increase it to 1.4, as proposed. This recommendation is particularly important if the ISO continues to limit the time-of-day multiplier to values at or above one.

DMM continues to oppose inclusion of the gas floor in the storage DEB calculation. The gas floor is not related to the marginal costs of storage resources, and DMM does not agree that DEB design should be used to establish an *a priori* preferred dispatch order among resource types. DEBs should be designed to estimate marginal costs of each resource as accurately as possible, rather than to establish a preferred relative position of resources in the bid stack. Dispatch is most efficient when based on the actual marginal costs of each resource type.

More broadly, DMM encourages the ISO to ensure that the storage DEB remains grounded in a reasonable estimate of storage marginal costs. The combination of the proposed gas floor, 1.4 price-based opportunity cost multiplier, price adjustment scalar, and time-of-day multiplier will significantly overstate storage marginal costs in nearly all instances, particularly during peak hours when local market power concerns are greatest. Implementing a DEB that systematically overestimates storage costs may allow resources with local market power to submit bids substantially above their marginal cost during hours when mitigation is most important.

DMM recommends that the ISO re-evaluate its proposed storage DEB methodology to avoid substantially increasing storage DEB values without empirical evidence and a clear economic rationale demonstrating that such increases are necessary to accurately estimate storage marginal costs. The ISO should evaluate alternative time-of-day multiplier designs, and should provide empirical analysis of how any proposed designs result in DEB values that are consistent with storage opportunity costs.

¹ *Storage Design and Modeling: Straw Proposal on Default Energy Bids, Uplift, and State-of-Charge Management*, California ISO, July 15, 2026: <https://stakeholdercenter.caiso.com/InitiativeDocuments/Straw-Proposal-Storage-Design-and-Modeling-Uplift-DEB-Outage-Management-State-of-Charge-Jul-15-2026.pdf>

DMM supports extending the storage DEB framework to all Western Energy Imbalance Market (WEIM) resources using an approach similar to the negotiated DEB methodology currently used for WEIM storage resources. DMM also supports the ISO's proposal to implement a price adjustment scalar using a framework similar to the scalar currently applied in negotiated DEB calculations.

DMM views the proposed modifications to the non-generating resource (NGR) bidding model as a potential enhancement for storage resources that could allow them to better represent their costs and operational characteristics to the market. However, the proposed NGR bidding framework would not eliminate the need for storage operators to forecast prices over the day, and the proposed model does not address the inefficient real-time bidding incentives for storage created by the current bid cost recovery (BCR) rules. The proposed NGR bidding model is not a substitute or solution for revised real-time BCR rules for storage resources, and DMM does not believe NGR bidding enhancements should be pursued ahead of, or with higher priority than, redesign of storage bid cost recovery rules.

DMM supports the "greater of" approach to establish an interim hybrid resource DEB. Implementation of the "greater of" hybrid DEB approach should not be delayed in the event that it becomes overly controversial or time consuming to establish an appropriate minimum technology share value, or there is significant implementation cost or complexity to including the minimum share feature.

Comments

Storage DEB

The time-of-day approach provides a more accurate estimate of storage resource marginal costs than the static approach

The ISO presented two approaches to calculating a storage DEB—the time-of-day approach and the static approach. The time-of-day approach for the discharge DEB introduces four new components: (1) inclusion of a gas floor, (2) a scalar to adjust the prices that determine the price-based opportunity cost, (3) an increase in the price-based opportunity cost multiplier, and (4) a time-of-day multiplier applied in the real-time DEB calculation. While DMM believes the proposed time-of-day approach requires several refinements, it remains preferable to the static approach. Therefore, DMM recommends the ISO continue developing the time-of-day approach to address the concerns discussed in the following sections rather than pursue the static alternative.

The static approach reduces the precision of DEBs by retaining a consistent value throughout the day, and failing to capture changing opportunity costs of storage resources across the day. This approach further reduces precision by relying on electricity pricing hub indices rather than locational marginal prices (LMPs). DMM agrees with the ISO's assessment that using different proxy prices (default generation aggregation point values for the WEIM-only resources and LMPs for extended day-ahead market resources) appropriately balances consistent treatment across resources with the preservation of more accurate location-specific signals. DMM has also previously noted that during critical system conditions, ICE trading activity can be limited, resulting in index prices that may not accurately reflect underlying marginal costs.² Consequently, reliance on hub indices may not accurately estimate the marginal costs of storage resources or adequately mitigate opportunities for market power when those indices are based on limited trading

² Comments on FERC Order 831 – Import Bidding and Market Parameters Final Proposal, Department of Market Monitoring, September 10, 2020: <https://www.caiso.com/documents/dmmcommentsonfercorder831-importbiddingandmarketparametersfinalproposal-sep102020.pdf>

activity. Relying on indices to set DEBs may not accurately estimate marginal costs of storage resources or protect from market power exertion whenever those indices are only set by a low volume of trade.

The design of a DEB should be based on estimating marginal costs, not effectuating a pre-determined bid-stack ordering

Both the static and time-of-day approach incorporate a gas floor into the storage DEB calculation. DMM continues to argue against this component because gas prices are not directly related to the marginal cost of battery resources. To the extent that gas prices affect storage opportunity costs, those effects are reflected through electricity prices and therefore captured in the price-based opportunity cost component.

The ISO acknowledges that the gas floor is not intended to estimate storage marginal costs directly. Instead, the ISO states that the gas floor is included to ensure storage resources are not dispatched ahead of hydro resources when both are mitigated. DMM is not persuaded by this justification. Resource dispatch should result from a cost-minimizing optimization based on the marginal costs, not from an administrative preference regarding the relative ordering of resource types. Storage resources should be dispatched before or after hydro depending on the actual marginal costs of those resources in a given interval.

DMM's understanding is that the gas floor in the hydro DEB was originally intended to account for replacement energy costs and protect against situations in which real-time prices significantly exceed day-ahead index prices.³ These concerns are already sufficiently addressed in the storage DEB framework. Unlike the hydro DEBs, the storage DEBs rely on LMPs or default generation aggregation point (DGAP) values that are much more representative of expected real-time prices. Moreover, the ISO proposes additional upward adjustments through the price scalar, the opportunity cost-multiplier, and potentially the time-of-day multiplier depending on the hour. Collectively, these components provide substantial protection against underestimating real-time prices, reducing any justification for adding a separate gas-floor component that could become quite large and determine the DEB in instances when gas prices spike significantly.

More fundamentally, DEB design should not be driven by a desire to place one resource type ahead of another in the bid stack. DEBs are intended to estimate marginal costs, and the methodology for one resource type should not depend on the characteristics of another resource, absent a clear economic rationale. DMM therefore does not see a theoretical basis for incorporating the hydro gas-floor component into the storage DEB.

If an accurate estimate of storage marginal cost results in placement of storage below hydro in the mitigated bid stack, but market participants maintain that hydro dispatch ahead of storage is consistent with relative marginal costs, this is more an indication that the hydro DEB is overstating the marginal cost of hydro resources, rather than justification for inflating a storage DEB informed by marginal cost to ensure storage is dispatched after hydro.

An upward adjustment for the prices used to calculate the price-based opportunity cost appropriately addresses differences in prices across the market runs

The ISO is proposing to incorporate a scaling process for both day-ahead and real-time storage DEBs. The day-ahead storage DEB uses prices from the market power mitigation run to estimate prices in the final day-ahead market run. The real-time storage DEB uses prices from the final day-ahead market run to

³ CAISO Tariff Amendments to Enhance Local Market Power Mitigation and Reflect Hydroelectric Resource Opportunity Costs in Default Energy Bids. California ISO, July 2, 2019: <http://www.caiso.com/Documents/Jul2-2019-TariffAmendment-LocalMarketPowerMitigationEnhancements2018-ER19-2347.pdf>

estimate prices in the real-time market runs. These prices would be scaled up to reflect expected differences between the markets. DMM supports this proposal and recommends the ISO use a similar framework to the one DMM uses to adjust DGAP prices in negotiated DEB calculations for WEIM storage resources.

DMM believes this scalar should remain separate from the time-of-day multiplier. The scalar addresses differences between prices used in the DEB calculation and the prices ultimately realized in the market, whereas the time-of-day multiplier is intended to reflect variation in intraday opportunity costs. These components serve distinct purposes and should remain conceptually separate.

There is no economic basis for applying a 1.4 opportunity-cost multiplier throughout the day

DMM does not support the ISO's proposal to increase the price-based opportunity cost multiplier from 1.1 to 1.4. The existing price-based opportunity cost framework already estimates the highest opportunity cost of the day by using the Nth-highest hourly price, where N corresponds to the resource's discharge duration in hours. By construction, this methodology already reflects the highest opportunity cost. The ISO's proposal using the time-of-day approach would further increase this value through three separate mechanisms: a price-adjustment scalar, the opportunity cost multiplier, and the time-of-day multiplier. DMM cautions that these combined adjustments substantially overstate marginal costs in nearly all instances.

DMM's analysis indicates that the incremental benefits of higher time-of-day multipliers diminish once the multipliers reach approximately 1.3 or 1.4 in the hours with the highest opportunity cost.⁴ Rather than applying those higher values only during hours where opportunity costs are greatest, the ISO proposal effectively applies a 1.4 multiplier across all hours and then includes an additional time-of-day multiplier on top of the 1.4 multiplier. Under this structure, DEBs reach values 1.4 higher than the Nth highest price during the peak hours when storage opportunity costs are lowest, and reach 1.96 times higher than the Nth highest price during the hours prior to the peak.

Given DMM's finding that the benefits of higher multipliers diminish beyond 1.4, and the ISO has not provided any additional analysis of potential multiplier values, DMM does not see a basis for effectively applying a multiplier of almost 2x during the hours when opportunity costs are highest. More concerning is the resulting overstatement of storage marginal costs during peak hours when opportunity costs are lowest and local market power concerns are greatest. DMM cautions that the proposed storage DEB calculation may substantially overestimate the marginal costs of storage resources without empirical evidence of additional benefit or economic justification.

Because the proposed price-adjustment scalar already addresses day-ahead versus real-time price differences, and the time-of-day multiplier captures changing intraday opportunity costs, DMM recommends eliminating the separate price-based opportunity cost multiplier altogether. At a maximum, the ISO should retain the current 1.1 multiplier rather than increasing it to 1.4 without a demonstrated theoretical or empirical basis. DMM is not persuaded by the ISO's justification that 1.4 is the appropriate value because it aligns with the value used in the hydro DEB.

⁴ *Comments on Storage Design and Modeling Working Group Presentation on March 16, 2026*, Department of Market Monitoring, April 3, 2026: <https://www.caiso.com/documents/dmm-comments-on-storage-design-and-modeling-mar-16-2026-working-group-presentation-apr-03-2026.pdf>

The time-of-day multiplier should include values below one in order to accurately reflect varying intraday opportunity costs

DMM continues to recommend a time-of-day multiplier that reflects both higher opportunity costs before peak hours and lower opportunity costs during the highest-priced hours. During the highest-priced periods, the opportunity cost for storage resources to discharge declines due to fewer future opportunities for the resource to earn higher revenues. As a result, marginal costs during peak intervals are often lower than those implied by the current DEB framework.

By limiting the multiplier range to 1 or 1.4, the ISO's proposal addresses concerns regarding premature discharge but does not address the longstanding issue that storage DEBs may significantly overestimate marginal costs during peak hours—the very periods in which local market power concerns are the most significant. DMM's analysis has consistently shown limited evidence of premature dispatch resulting from storage DEBs that are too low.⁵ If the ISO is revising the storage DEB framework to address those infrequent instances, it should also address the more persistent concern that DEBs overstate marginal costs during peak net-load hours.

DMM agrees that the ISO should be cautious when determining the hours when the multiplier falls below one. However, concerns over determining the appropriate hours for the multiplier to fall below one should not justify a DEB design that does not accurately reflect how storage opportunity costs vary throughout the day. The purpose of the DEB is to mitigate prices that exceed competitive levels due to the potential exercise of local market power. By maintaining a DEB that overestimates storage marginal costs during peak hours, and further increasing those estimates through a higher price-based opportunity cost multiplier, the ISO risks allowing resources with local market power to bid further above their actual marginal costs without being mitigated during the periods when mitigation is most important.

DMM therefore recommends that the ISO incorporate time-of-day multipliers below one in order to better align storage DEBs with the underlying opportunity costs of storage resources and improve the effectiveness of the mitigation framework. DMM recommends that the multiplier should fall below one in a set number of hours over peak demand periods, when the highest prices are likely to occur (e.g., 18-22). Similar to the approach discussed in the section below, this period could be determined by empirical analysis of historical data, and could be configurable to reflect changes over time, e.g., due to seasonality or overall pattern changes.

DMM also recommends the ISO incorporate the time-of-day multiplier into the day-ahead storage DEB as well. It is unclear to DMM why the same multiplier cannot be applied to day-ahead storage DEBs and why the ISO instead proposes to use the upper-bound of the multiplier throughout the entire day. DMM supports aligning the storage DEB structure across the day-ahead and real-time markets to support convergence between the two markets.

The design of time-of-day multipliers warrants empirical analysis

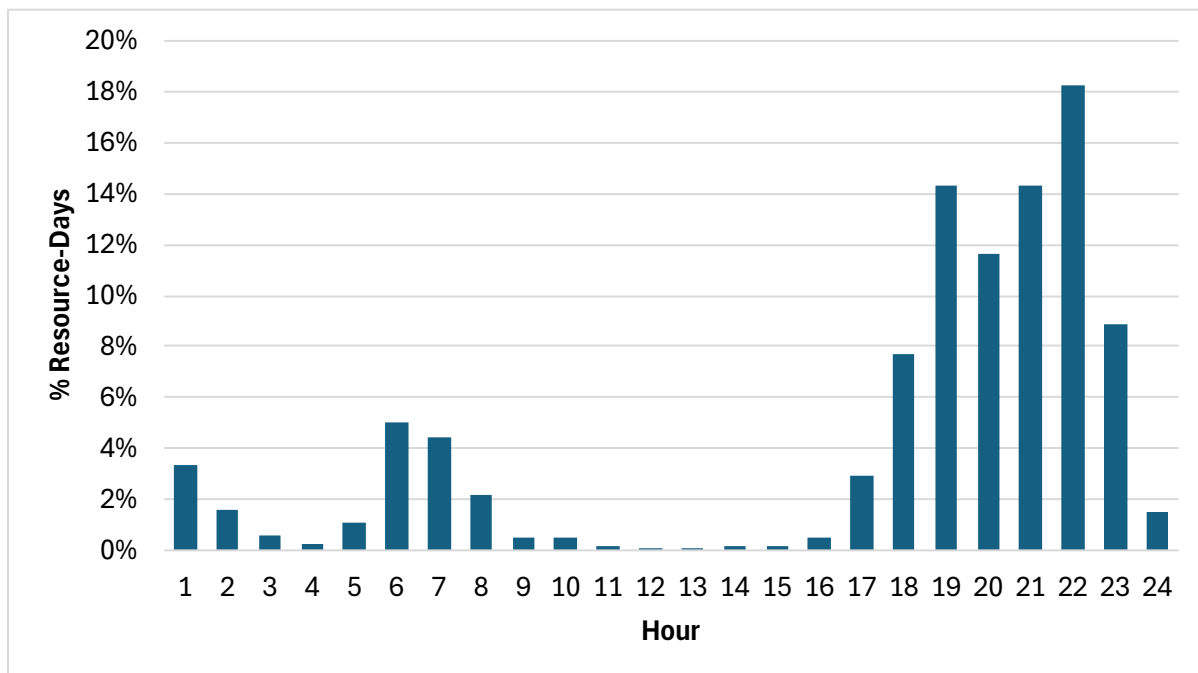
The ISO proposes to transition the time-of-day multiplier from 1.4 to 1 based on the Nth highest-priced hour used to determine the price-based opportunity cost. DMM recommends the ISO conduct empirical analysis to determine the hours in which the time-of-day multiplier would have decreased to lower values under this framework. Such analysis would help assess whether the proposed design accurately captures variation in storage opportunity costs across different market conditions.

⁵ 2024 Special Report on Battery Storage, Department of Market Monitoring, May 29, 2025: <https://www.caiso.com/documents/2024-special-report-on-battery-storage-may-29-2025.pdf>

DMM remains concerned that the proposed approach may not accurately capture opportunity costs in all circumstances. For example, if the Nth highest price occurs late in the evening, such as hour-ending 22 or later, the higher time-of-day multiplier could apply throughout most of the peak period encompassing the N-1 highest priced hours, even though prices are already elevated and relatively few high-priced intervals remain. In these hours, the opportunity cost of storage resources to discharge may already be declining, making the high multiplier less appropriate. Similarly, there may be periods when day-ahead prices peak higher during the morning ramp than in the evening peak period. In such circumstances, it may not be reasonable to apply the lower time-of-day multiplier throughout the remainder of the day. These examples do not capture every possible outcome, but illustrate the importance of evaluating the proposed methodology using historical data. As discussed below, DMM’s empirical analysis finds that both outcomes occur with meaningful frequency under historical market conditions.

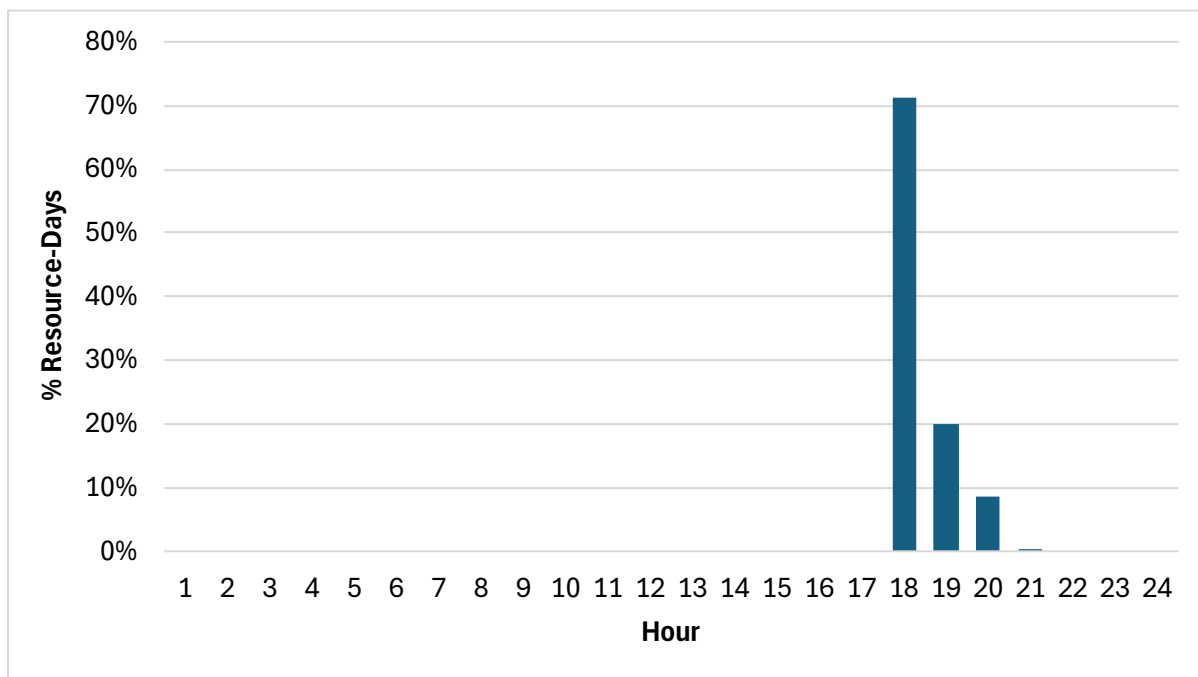
DMM conducted analysis to evaluate the hours in which the ISO’s proposed time-of-day multiplier would decrease. This analysis focuses on the fourth highest-price hour because the vast majority of CAISO storage resources are 4-hour duration. Figure 1 shows the frequency with which each hour of the day was the fourth highest day-ahead LMP based on resource-day level data for all CAISO storage resources during 2024 and 2025. The results indicate that the fourth-highest priced hour occurred most frequently in hour-ending 22, accounting for about 18 percent of observations. Under the CAISO’s proposed methodology, this results in the time-of-day multiplier increasing the DEB during many of the peak hours (18-21), even though true opportunity costs in those hours are much lower. In addition, Figure 1 also highlights that in a significant number of observations, the fourth highest-priced hour occurs earlier in the day. In these instances, the ISO’s proposed methodology could result in the highest DEBs occurring during morning hours and no multiplier during the pre-peak hours when opportunity costs are highest.

Figure 1 – Frequency of hour that time-of-day multiplier would decrease under ISO proposal



DMM recommends the ISO consider an alternative mechanism for reducing the time-of-day multiplier during hours with lower opportunity costs. One potential approach would be to use the earliest of the four highest-priced hours, subject to an hourly floor to prevent the multiplier from decreasing too early. Figure 2 illustrates the hour in which the multiplier would decrease under this methodology using the historical data described above. Under this approach, the hour in which the time-of-day multiplier decreases would be the later of (1) earliest hour of the four highest priced hours and (2) hour-ending 18. The floor of hour 18 ensures that the time-of-day multiplier is not lowered inefficiently early based on higher prices in the day. As shown in Figure 2, this alternative time-of-day multiplier would decrease in hour-ending 18 in the majority of observations. However, on days when prices peak later, the reduction may occur in hour-ending 19 or 20. DMM notes that this methodology would more consistently lower the time-of-day multiplier during the hours when storage resource opportunity costs are lowest and conditions may be more susceptible to the exercise of local market power.

Figure 2 – Frequency of hour that time-of-day multiplier would decrease under alternative methodology



NGR bidding enhancements

The proposed NGR bidding enhancements could improve storage modeling, but should not be pursued as a higher priority than BCR design for storage resources

The ISO has proposed a bidding enhancement model for storage resources that would replace the current price-quantity pair bidding paradigm with an end-of-horizon opportunity cost framework. The proposed NGR bidding framework would allow storage resources to bid a single-value end-of-horizon state-of-charge (EOH SOC) parameter. This parameter would indicate to the market the shadow value of the stored energy at the end of the horizon, which the current market model does not consider explicitly.

DMM understands that in the day-ahead, the EOH bid would provide a parameter for the market software to optimize storage schedules over the day, given the financial willingness of a resource to deviate between

its initial and end-of-day SOC. DMM understands that in real-time, the EOH bid will be an hourly bid to express willingness to deviate from the day-ahead SOC at the end of that hour, which similarly will allow the market to assign a value to the SOC outside of the optimization horizon. The ISO has highlighted that the day-ahead and real-time model will both use the registered variable operations and maintenance (O&M) cost parameter to reflect minimum spreads required to cover variable O&M costs incurred by operating within the optimization horizon.

DMM views the proposed modifications to the NGR bidding model as a potential enhancement for storage resources that could allow them to better represent their costs and operational characteristics to the market.⁶ Further, the proposed enhancements would eliminate the need to forecast prices and SOC changes within the optimization horizon. However, as DMM understands the proposed model, resources would still need to forecast prices and expected SOC at points beyond the horizon to inform the value of the EOH SOC bid. In real-time, this amounts to a continued need for an hourly forecast of prices and expected resource positioning over the day in order to establish each hourly EOH SOC value. This is what resources need to do today under the current NGR bidding framework to establish bids that appropriately reflect expected intraday opportunity cost.

Further, the development and implementation of a new NGR bidding model for storage is a large undertaking that seems likely to require significant resources by the ISO and stakeholders. DMM recommends the ISO continue to prioritize BCR design for storage resources and ensure that work on other storage market design changes does not further delay work on storage BCR design. DMM notes that because the proposed NGR bidding enhancements do not address the real-time BCR issues, and because real-time BCR rules must still be developed to handle instances of day-ahead schedule buybacks due to insufficient SOC, BCR rules can and should be developed independently and ahead of any enhancements to the NGR bidding model.

The NGR bidding concept does not address issues with the BCR design for storage resources

The ISO indicated in the straw proposal that this proposed improvement addresses, “[a] key issue[...] regarding storage bid cost recovery: unlike other resources, batteries are not exposed to real-time prices when they fail to meet their day-ahead schedules.” However, the proposal as described does little to nothing to address real-time BCR received when the real-time SOC is not sufficient to meet a day-ahead schedule. Differences between day-ahead and real-time SOC will still occur as they do today.

Using the day-ahead SOC at the end of each optimization horizon as a reference point for the EOH SOC bid does not impact a resource’s willingness to deviate from that value in real-time. Like real-time energy bids today, the value reflected in the EOH SOC bid would still be determined by expected real-time prices over the day, and estimated intraday opportunity costs based on exposure to those real-time prices when deviation occurs. The proposal does nothing to modify existing BCR rules that insulate storage resources from exposure to real-time prices when day-ahead schedules are undeliverable due to insufficient SOC.

⁶ *Comments on Storage Design and Modeling Working Group Presentation on January 22, 2026*, Department of Market Monitoring, February 17, 2026: <https://www.caiso.com/documents/dmm-comments-on-storage-design-and-modeling-jan-22-2026-working-group-presentation-feb-17-2026.pdf>

Therefore, the proposed approach does not solve DMM's core concern that the current BCR design does not incentivize efficient real-time bidding by storage resources.⁷

If pursued, the proposed NGR bidding concept should allow storage resources to represent opportunity costs across the full range of SOC

The ISO is proposing to implement a biddable price parameter to allow scheduling coordinators to represent the value of stored energy beyond the market model horizon. However, the ISO has proposed the bidding improvement with just one end-of-horizon opportunity cost. The opportunity value of the stored energy is dependent on the SOC of the resource, and the current formulation of the EOH SOC bidding proposal only takes a single value of the EOH SOC. This assumes the SOC range has an opportunity cost that scales linearly across the full range of SOC.

Deviating from the reference SOC value by different amounts can carry different costs for the resource in future intervals. The opportunity value of the stored energy does not scale linearly, and allowing scheduling coordinators to reflect the opportunity of the stored energy across the SOC range may require the scheduling coordinator to have the ability to submit multiple bid pairs associated with different values of SOC. DMM recommends the ISO evaluate whether multiple SOC-price pairs, or another piecewise representation of terminal opportunity value, would better reflect the economics of stored energy than a single EOH-SOC value.

DMM recommends the ISO detail the tradeoffs between the risk and reward using the proposed bidding concept

The current framework for storage resources allows the scheduling coordinators to reflect private estimates of their costs and benefits in their bidding strategies across the optimization horizon. The new bidding concept reorients a larger portion of the financial decisions of the resource into the market optimization, whereby the day-ahead schedule uses the bid spreads to generate a profit maximizing schedule. The real-time schedule would then attempt to follow the profit maximized day-ahead schedule unless the bid value of stored SOC at the end of each optimization horizon results in deviations from the day-ahead SOC trajectory.

The proposed EOH SOC bidding framework reduces the number of bidding dimensions available to storage resources. In day-ahead, this reduces the need for resources to reflect forecasts of hourly prices through hourly bid adjustments. In real-time, the proposal reduces the need to forecast prices and resource movement between the time of bid submission and the end of the operating hour. The proposal would also place greater reliance on the ISO market model to determine economically efficient charging and discharging decisions within the optimization timeline.

DMM recommends the ISO provide additional analysis describing how the proposed framework changes the allocation of risk and reward between market participants and the market optimization, including the implications for storage revenues, dispatch efficiency, and future bid cost recovery design.

⁷ *Ibid.*

DMM continues to emphasize the need for clarity and consideration of market power mitigation impacts with the new bidding concept

DMM requests the ISO more generally elaborate on the intended direction with SOC bidding, if this framework is likely to be further developed and pursued in the near future. As SOC bidding functionality is explored, it will be important to consider how market power mitigation may work in SOC-based bidding frameworks. Unlike cost-based bids for a given energy output level, the reference levels of SOC bids are not as readily observable and have the possibility of leading to new gaming strategies or exercise of market power. As a result, SOC bidding frameworks will need to be jointly evaluated with future DEB enhancements.

Hybrid resource DEB

DMM supports the “greater of” approach to establish an interim hybrid resource DEB

Hybrid resources currently do not have a DEB, and are not subject to local market power mitigation. DMM continues to place a high priority on the development of a hybrid resource DEB to facilitate local market power mitigation for hybrid resources. DMM previously supported development of a hybrid resource DEB in the near-term by calculating the maximum of the DEBs that apply to each of the generation components that make up the hybrid resource. This aligns with the “greater of” approach the ISO has outlined in the straw proposal. This initial approach should be easy to implement and should achieve the goal of subjecting hybrid resources to local market power mitigation.

As part of the “greater of” approach, the ISO proposes to establish a minimum share requirement, where a given technology would have to account for a minimum share of the overall hybrid capacity for that technology’s DEB to be considered in the “greater of” calculation. DMM sees the concern addressed by this proposal, and agrees that this would be an effective approach to prevent the hybrid DEB from significantly exceeding the marginal cost of the large majority of the hybrid generation capacity in a resource. However, DMM notes that given the composition of the existing hybrid resource fleet, and the intended interim nature of this approach for hybrid resource DEBs, implementation of the “greater of” hybrid DEB approach should not be delayed in the event that establishing an appropriate minimum share value becomes overly controversial or time consuming, or there is significant implementation cost or complexity.

After a near-term solution for hybrid resource DEBs is developed, the ISO should prioritize additional hybrid resource DEB enhancements to more accurately reflect the costs of hybrid resources as a full system of different generation components.