



Memorandum

To: Western Energy Markets Governing Body
From: Anna McKenna, Vice President Market Design and Analysis
Date: October 13, 2026
Re: **Decision on 2026 variable operations and maintenance cost review**

This memorandum requires action by the Western Energy Markets Governing Body (primary authority) and the ISO Board of Governors (consent agenda).

EXECUTIVE SUMMARY

Management seeks approval of the final proposal for the 2026 variable operations and maintenance cost triennial review initiative. The proposal updates default variable operations and maintenance cost adders to reflect inflation since 2023 and establishes a default variable operations cost for energy storage resources.

Variable operations and maintenance cost adders allow generating resources to reflect their variable operations and maintenance costs in default energy bids and default commitment costs. For storage resources, variable operations costs serve a similar purpose but apply only to default energy bids.

Management proposes a 9.84 percent inflation increase to the default variable operations and maintenance adders based on Consumer Price Index data. The review assessed inflation, negotiation activity, and industry-wide cost studies and determined that inflation since the previous review warrants an update. The proposed approach is consistent with previous review cycles and stakeholder practices.

Management also proposes a new default variable operations cost of \$14.74/MWh for storage resources. Currently, market participants must negotiate a variable operations cost with the ISO. With more than 17,000 MW of storage capacity participating in ISO markets and over 60 negotiated cost agreements currently in place, establishing a default value would reduce administrative burdens and streamline market participation. The proposed default value is based on the median of battery manufacturer long-term service agreement costs, which best reflects actual storage operating costs.

Management recommends approval of the proposal, which received general stakeholder support and has no remaining unresolved stakeholder requests or questions. The proposal ensures current market conditions are reflected through

updated default variable operations and maintenance cost adders and streamlines the process of incorporating these costs for energy storage resources through a new default variable operations cost.

WEM Governing Body motion:

Moved, that the WEM Governing Body approves the revision to the default variable operations and maintenance cost adders and establishment of a default variable operations cost for storage resources as described in the memorandum dated October 13, 2026, and requests that Management place this initiative on the ISO Board of Governors' consent agenda; and

Moved, that the WEM Governing Body authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the change proposed in this memorandum, including any filings that implement the overarching initiative policy but contain discrete revisions to incorporate Commission guidance in any initial ruling on the proposed tariff amendment.

BACKGROUND

Market participants submit information to reflect their resources' operational capabilities and costs in the ISO's markets. These submissions include resources' variable operations and maintenance costs, and for energy storage resources, variable operations costs. The ISO includes these costs in its default energy bids for market power mitigation and default commitment costs. The ISO's markets offer default variable operations and maintenance cost adders for market participants to use in lieu of negotiating values with the ISO. However, a default variable operations cost has not previously been established for energy storage resources because it is a relatively new technology, requiring market participants to negotiate values individually with the ISO.

Variable operations and maintenance cost adders and variable operations costs are intended to reflect resource operating costs when the market triggers market power mitigation measures. Variable operations and maintenance cost adders are used in the ISO's default energy bids for most generating resources. They are also incorporated into most generating resources' default commitment costs which establish caps on minimum load, start-up, and transition cost bids used in resource commitment decisions and bid cost recovery settlements. Energy storage resources only use variable operations cost as part of their default energy bids because they do not have commitment costs.

The default variable operations and maintenance cost adders vary by resource fuel and technology type (e.g. natural gas combined cycle gas turbine, hydroelectric, geothermal,

etc.). The ISO reviews the default adders every three years in collaboration with stakeholders. The previous review, completed in 2023, updated the default variable operations and maintenance cost adders for inflation using 2023 as the reference year and became effective December 1, 2023.

However, if a resource determines that the default variable operations and maintenance cost adders do not reflect its costs, it may negotiate a resource-specific adder with the ISO at any time.

PROPOSAL

The final proposal includes two components: updating the default variable operations and maintenance cost adders to reflect inflation and establishing a default variable operations cost for energy storage resources.

1. Updating default variable operations and maintenance cost adders

Management proposes a 9.84 percent inflation adjustment to the default variable operations and maintenance cost adders based on the U.S. Bureau of Labor Statistics Consumer Price Index for All Urban Consumers from June 2023 through May 2026.

As part of this triennial review, Management evaluated inflation, negotiation activity, and industry-wide cost studies. The review found that negotiation activity remains within historical norms and that the existing technology categories continue to appropriately represent resources participating in ISO markets. Accordingly, Management determined that an inflation-based adjustment is the most appropriate update at this time and that broader modifications to the framework are not warranted.

Use of the Consumer Price Index for the inflation adjustment is consistent with prior review cycles and market participant practices for adjusting their negotiated values. If the updated default adders are not sufficient, market participants have the option to negotiate a value with the ISO.

Going forward, the ISO proposes to undertake a triennial review of these values in consultation with stakeholders and publish revised values in the Business Practice Manual rather than state them directly in the tariff.

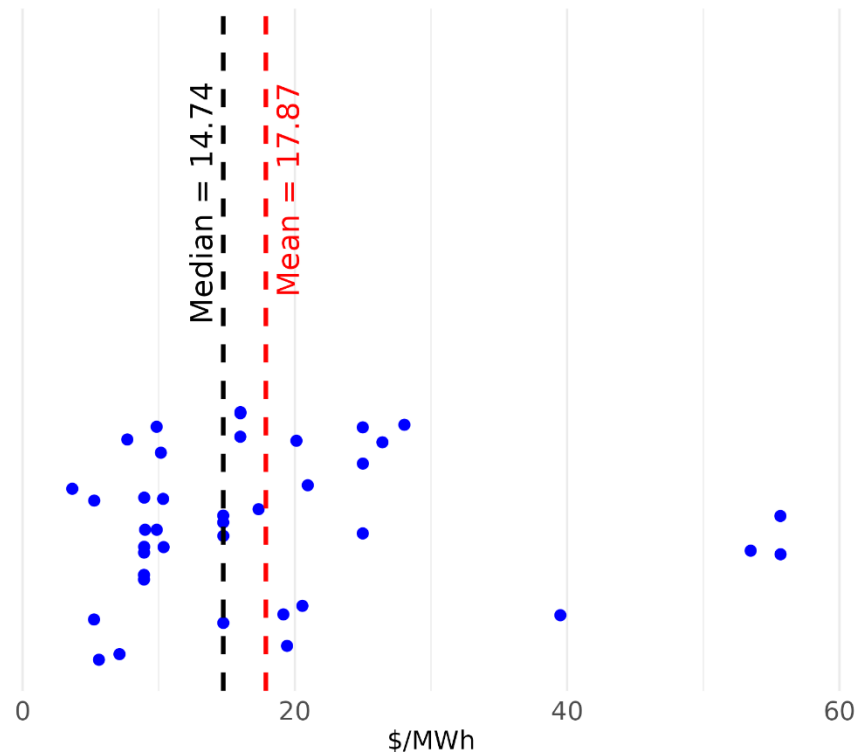
2. Establishing a default variable operations cost for storage resources

Management proposes establishing a default variable operations cost for energy storage resources of \$14.74/MWh. This value is based on a thorough review of values documented in supporting long-term service agreements and original equipment manufacturers from negotiated costs approved by the ISO over the past five years.

The proposed value of \$14.74/MWh is the median of long-term service agreements-supported negotiated costs and is illustrated in Figure 1. Negotiations supported by long-term service agreements provide the most transparent and reliable representation

of actual storage operating costs because they are derived from manufacturer maintenance agreements and are supported by detailed cost information. A median value is less sensitive to outliers than the mean and therefore provides a more representative measure of typical costs.

Figure 1: Scatter plot of negotiated costs supported by long-term service agreements



Management considered several alternatives including using all negotiated values regardless of supporting documentation, establishing manufacturer-specific default values, or maintaining the current approach of requiring individual negotiations. These options are not recommended because they either rely on less transparent cost data, lack sufficient statistical basis, or may continue to impose unnecessary administrative burdens on market participants and the ISO.

The proposed value provides a balanced and data-driven approach that reflects reasonably representative storage operating costs while streamlining the cost-approval process. The ISO presented this methodology through the stakeholder process where stakeholders generally supported the proposed value and provided feedback on the supporting dataset of negotiated costs, the statistical methodology, and treatment of inflation.

Going forward, Management proposes to undertake a triennial review of these values in consultation with stakeholders and publish revised values in the Business Practice Manual rather than state them directly in the tariff.

STAKEHOLDER FEEDBACK

The ISO published an issue paper on May 29 and held a stakeholder meeting on June 4, followed by a straw proposal on July 7 and a stakeholder meeting on July 9. Stakeholder comments on both documents informed the final proposal and draft tariff language published on August 6. The ISO held a stakeholder meeting on August 20, and no comments were submitted on the final proposal or draft tariff language.

Two WEIM entities commented on the issue paper, while two storage stakeholders commented on the straw proposal, one of whom also commented on the issue paper. The comments supported both the proposed update to default variable operations and maintenance cost adders and the establishment of a new default variable operations cost for storage resources. Comments focused on the transparency of supporting data, treatment of inflation in future review cycles, and methodologies used to calculate the proposed values. Specifically, stakeholders requested further information on the relationship between default and negotiated values, the application of inflation adjustments, and the statistical basis for the proposed default value. Management addressed these comments in the straw proposal and final proposal by clarifying the use of negotiated values, the application of inflation adjustments, and the rationale for using the median as the basis for the proposed default value. There were no outstanding stakeholder requests or questions remaining at the conclusion of the stakeholder process.

After evaluating all stakeholder feedback, Management determined that substantive changes to the proposal were not necessary. Realized inflation, rather than a forward-looking indicator, remains the most objective basis for updating the adders given the uncertainty of future inflation rates. For storage resources, Management determined that the median of long-term service agreement-supported negotiated values is the most appropriate basis for establishing a default value as it provides a transparent and representative measure of actual operating costs while minimizing the influence of outliers.

CONCLUSION

Management recommends increasing the existing default variable operations and maintenance cost adders by 9.84 percent to reflect current market conditions driven by inflation since the 2023 review.

Management also recommends establishing a new default variable operations cost for energy storage resources of \$14.74/MWh based on the median of long-term service agreement-supported negotiated values. The proposed value reasonably reflects storage operating costs, provides a transparent and data-driven default, and reduces the administrative burden associated with individual cost negotiations.

Finally, Management proposes to publish future updates to these cost adders in the Business Practice Manual following stakeholder consultation and consideration of the factors identified in the tariff, rather than state the values directly in the tariff.