



September 28, 2023

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER23-____-000**

Tariff Amendment to Update Variable Operations and Maintenance Adders

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) submits this tariff amendment to implement tariff revisions arising from its triennial variable operations and maintenance (O&M) initiative, which assesses whether it is appropriate to update the current default Variable Operations and Maintenance (VOM) Adders.¹

VOM adders are a market instrument through which scheduling coordinators can reflect a resource's O&M costs in the CAISO's day-ahead and real-time markets. Scheduling coordinators may negotiate VOM adders with the CAISO or, if no negotiation takes place, the CAISO sets VOM adders to a pre-determined default value based on the resource's fuel source and technology requirements. In this filing, the CAISO proposes to revise default VOM adder values by applying an 18.73% inflation adjustment, accounting for inflation since the last update, which used 2019 as the reference year.² This 18.73% inflation adjustment is based on data from the US Bureau of Labor Statistics as of June 2023.

¹ The CAISO submits this filing pursuant to section 205 of the Federal Power Act (FPA), 16 U.S.C. § 824d, and Part 35 of the Commission's Regulations, 18 C.F.R. Part 35. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the CAISO tariff, and references herein to specific tariff sections are references to sections of the CAISO tariff unless otherwise specified.

² See Docket No. ER21-1266.

The CAISO respectfully requests the Commission issue an order by November 28, 2023, accepting the tariff revisions effective no later than December 15, 2023. The CAISO intends to implement these tariff revisions on December 1, 2023. The CAISO requests authorization to notify the Commission of the effective date of the tariff changes within five days of implementation.³ The CAISO requests that the Commission grant any and all waivers that might be necessary to approve the CAISO's proposed tariff revisions effective as proposed herein, including any necessary waivers of Rules 35.3 and 35.11 of the Commission's Rules and Regulations.⁴ Such waivers are appropriate if the actual effective date for the proposed tariff provisions turns out to be over 120 days after this filing

I. Background

The CAISO markets optimize economic commitment and dispatch of supply and demand resources based on submitted bids, including self-schedules and cost-based generated bids for resource adequacy resources, and other generally applicable bidding rules. The CAISO also uses these cost-based generated bids in local market power mitigation. VOM cost adders are a component of cost-based generated bids, and they reflect the O&M costs that change with the output, run hours, and starts of a resource.

1. Commitment Costs

In the day-ahead market, (*i.e.*, the integrated forward market (IFM) and the residual unit commitment (RUC) process), the CAISO commits long-start units and publishes a financially binding day-ahead schedule along with Ancillary Services and RUC awards.⁵ In addition, the real-time market commits resources in the real-time unit commitment and short-term unit commitment processes every 15 minutes.⁶ In making commitment decisions, the market separately considers the costs of starting resources (start-up costs), the costs of running resources at their minimum operating levels (minimum load costs),⁷ transition costs for resources that can operate in different configurations,⁸ and the costs for

³ The CAISO has included an effective date of 12/31/9998 as part of the tariff records submitted in this filing. The CAISO will notify the Commission of the actual effective date of these tariff records within five business days of implementation in an eTariff submittal using Type of Filing code 150 – Report. *See Cal. Indep. Sys. Operator Corp.*, 172 FERC ¶ 61,263 (2020).

⁴ 18 C.F.R. §§ 35.3 and 35.11.

⁵ Existing tariff section 31, *et seq.*

⁶ Existing tariff section 34, *et seq.*

⁷ See existing tariff section 31.3; tariff appendix A, definitions of “Start-Up Cost” and “Minimum Load Costs.”

⁸ The tariff refers to these resources as multi-stage generating (MSG) resources. See tariff appendix A, definition of “Multi-Stage Generating Resources.” For an MSG resource, transition

producing energy above minimum load. The CAISO uses default commitment costs as the cap on the start-up cost, minimum load costs, and transition cost bids submitted by scheduling coordinators for these values. These default commitment cost values also include VOM adders.

2. Default Energy Bids

The CAISO uses default energy bids, which can include VOM cost adders, to mitigate bids of resources subject to local market power mitigation.⁹ If a market bid is subject to mitigation, the CAISO systems substitute the default energy bid for the resource's bid in the market clearing process and use the default energy bid to determine the resource's bid cost recovery compensation.¹⁰ Where default commitment costs always serve as the cap of the values that scheduling coordinators may submit for minimum load cost bids, start-up cost bids, and transition cost bids, default energy bids apply only when the potential for the exercise of market power exists. For each resource, a scheduling coordinator can choose any of several options as its preferred option for calculating default energy bids, including the variable cost option.¹¹

3. VOM Adder Framework

In 2021, the CAISO proposed,¹² and the Commission approved,¹³ a revised framework for O&M cost recovery based on new variable O&M adders for start-up, minimum load, transition,¹⁴ and energy costs. Under the new framework, resources that satisfied the applicable fuel source and technology

cost is the dollar cost per feasible transition from a given MSG configuration to a higher MSG configuration when the resource is already on. Tariff appendix A, definition of "Transition Cost."

⁹ Existing tariff section 39.7.1, *et seq.*

¹⁰ Existing tariff section 11.8, *et seq.*

¹¹ Other default energy bid options are the negotiated rate option and the locational marginal price option. Existing tariff sections 39.7.1 – 39.7.1.3. Further, a scheduling coordinator for a frequently mitigated unit has a fourth option for calculating default energy bids, the frequently mitigated unit option. Existing tariff section 39.7.1.4. In addition, a scheduling coordinator for a hydroelectric resource with storage capability has a fifth option for calculating default energy bids, the hydro default energy bid option. Existing tariff section 39.7.1.7. And finally, there is a storage DEB available to battery resources. Existing tariff section 39.7.1.8. The CAISO may also establish temporary default energy bids. Existing tariff section 39.7.1.5.

¹² The CAISO filed updates to the VOM adders most recently in ER21-1266 (filed March 3, 2021).

¹³ *Cal. Indep. Sys. Operator Corp.*, Commission Letter Order, Docket No. ER21-1266 (May 12, 2021).

¹⁴ See, *supra* footnote 8. Transition costs are related to multi-staged generators and reflect the difference between start-up costs for each stage. These costs utilize the start-up O&M adder values.

requirements received new default variable O&M adders that superseded and replaced their default adders. Scheduling coordinators could, and can still, negotiate new variable O&M adders on a resource-specific basis. VOM cost adders can be either default values specified in the tariff based on the fuel source or technology of the resource, or negotiated values.¹⁵

II. Proposed Changes

1. VOM Cost Adder Adjustment

The CAISO has reviewed the existing default variable O&M adder values on a triennial basis since 2012.¹⁶ During the previous VOM cost review stakeholder process in 2021, the CAISO created a new framework and determined the current values based on data provided by an external consultant and values gathered from other external sources such as the NYISO's Cost of New Entry (CONE) studies.¹⁷ The CAISO also used data from VOM adders negotiated directly with scheduling coordinators. All of these sources were inflation-adjusted to 2019 year dollars using consumer price index data available from the United States Bureau of Labor Statistics (BLS).

Since 2019, many indicators of price levels show historically high increases. For example, the BLS Consumer Price Index for All Urban Consumers increased 16% from December 2019 to December 2022.¹⁸ The higher-than-normal levels of inflation are an indicator that the current default values should be updated. Price levels have further risen from December 2022 to June 2023 by an additional 3% relative to December 2019, for a total increase of 18.73% relative to December 2019. The CAISO proposes to update the current values to reflect the 18.73% rate of inflation.¹⁹

Using the BLS Consumer Price Index is appropriate because it is a federal government report that is publicly available. The index is consistent with the

¹⁵ Existing tariff section 30.4.5.4.1.

¹⁶ See *Cal. Indep. Sys. Operator Corp.*, 134 FERC ¶ 61,257, at P 22 (2011) ("CAISO also notes that it did agree to review its current default adders on a three-year cycle and continues to make efforts to evaluate costs and improve its cost recovery options."). The CAISO may review these values sooner than once every three years.

¹⁷ The most recent CONE study was performed in 2020, which does not reflect the current costs.

¹⁸ BLS Consumer Price Index for All Urban Consumers, *available at* <https://www.bls.gov/cpi/data.htm>.

¹⁹ Proposed tariff section 30.4.5.4.2.

inflation adjustment methodology used in the previous VOM cost reviews and approved by the Commission.²⁰

Further, the CAISO corroborated these proposed default VOM adder values using negotiated VOM adders as a reference point. The negotiated values serve as a good reference point to assess the reasonableness of the proposed default VOM adder values because the negotiated values reflect resource-specific costs and are thus indicative of actual costs. The CAISO compared the proposed default VOM adder values to internal benchmarks derived from aggregating information about negotiated VOM adder values. The proposed default VOM adder values are slightly more conservative (*i.e.* lower) than the internal benchmarks, demonstrating the proposed values reasonably reflect, and should not exceed, actual costs. For scheduling coordinators that find the default values do not reflect a resource’s actual costs, the negotiated VOM cost adder remains an option.

The CAISO initially proposed to use December 2022 as the reference date. However, in response to stakeholder feedback, the CAISO now proposes to use June 2023 as the reference date to ensure the VOM adders reflect the most accurate and up-to-date inflation data. The following table shows how the proposed 18.73% adjustment for inflation affects each of the existing VOM cost adders.

Table 1: Comparison of Current and Proposed VOM Cost Adder Values

Technology Type	Default Variable Energy O&M Adder (\$/MWh)		Default Variable Minimum Load O&M Adder (\$/run-hour/MW)		Default Variable Start-up O&M Adder (\$/start/MW)	
	Current	Proposed	Current	Proposed	Current	Proposed
Coal	2.69	3.19	-	-	-	-
Steam turbines	0.33	0.39	-	-	-	-
Natural gas-fired combined-cycle	0.59	0.70	1.74	2.07	-	-
Frame combustion turbines	0.97	1.15	-	-	52.13	61.89
Aeroderivative combustion turbines	2.15	2.55	4.38	5.20	-	-
Reciprocating internal combustion engines	1.10	1.31	-	-	-	-
Nuclear	1.08	1.28	-	-	-	-
Biomass	1.65	1.96	-	-	-	-

²⁰ Cal. Indep. Sys. Operator Corp., Commission Letter Order, Docket No. ER21-1266 (May 12, 2021).

Technology Type	Default Variable Energy O&M Adder (\$/MWh)		Default Variable Minimum Load O&M Adder (\$/run-hour/MW)		Default Variable Start-up O&M Adder (\$/start/MW)	
Geothermal	1.16	1.38	-	-	-	-
Landfill gas	1.21	1.44	-	-	-	-
Hydroelectric	-	-	0.65	0.77	-	-
Solar	-	-	-	-	-	-
Wind	0.28	0.33	-	-	-	-
Other (e.g., storage, demand response)	-	-	-	-	-	-

2. Removing Outdated Process Transition Language

As described above, in the previous VOM adder review, the CAISO also performed a more comprehensive review of other aspects regarding O&M costs in addition to updating the default values. These changes included updates to the VOM cost framework and the introduction of cost categorization principles. As a typical triennial review, the CAISO is not proposing to make changes to these elements. However, the CAISO proposes to remove certain outdated language from the tariff used to describe the transition to the current framework.²¹ This language is no longer relevant or controlling because the transition has already occurred and relevant transition dates have passed.

3. Stakeholder Process

The CAISO published a draft proposal on July 24, 2023 and held an associated stakeholder call. One stakeholder provided comments seeking an update to a forward-looking indicator of inflation, or in the alternative, a more recent inflation value. Given the uncertainty of future inflation rates, the CAISO believes historical values are more appropriate than forecasting future inflation to reflect actual costs and thus updated the proposal to reflect a more recent inflation value. In addition, this stakeholder requested the CAISO review VOM adders on an annual, rather than triannual basis. The CAISO is not pursuing this more frequent review because scheduling coordinators have the opportunity to negotiate resource-specific VOM adders at any time, if they determine the default values do not reflect the resource's actual costs. If justified based on actual inflation rates, a negotiated VOM value can reflect a more recent inflation value.

The CAISO published a final proposal and draft tariff language and held an associated call. One stakeholder suggested that scheduling coordinators be able to request an update to the default VOM adder values more frequently than during the triennial review. The CAISO will consider any scheduling coordinator

²¹ Proposed tariff sections 30.4.5.4.1 and 30.4.5.4.2 remove outdated language; the CAISO also proposes to remove the entirety of existing tariff section 30.4.5.4.6.

requests in determining whether a VOM cost review is warranted sooner than the typical three-year cycle.

III. Effective Date(s)

The CAISO respectfully requests the Commission issue an order by November 28, 2023, accepting the tariff revisions as effective no later than December 15, 2023. The CAISO intends to implement these tariff revisions on December 1, 2023. The CAISO requests authorization to notify the Commission of the effective date of the tariff changes within five days of implementation.²² The CAISO requests that the Commission grant any and all waivers that might be necessary to approve the CAISO's proposed tariff revisions effective as proposed herein, including any necessary waivers of Rules 35.3 and 35.11 of the Commission's Rules and Regulations.²³ Such waivers are appropriate if the actual effective date for the proposed tariff provisions turns out to be over 120 days after this filing

IV. Communications

Under Rule 203(b)(3),²⁴ the CAISO respectfully requests that all correspondence and other communications about this filing be served upon:

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V. Service

The CAISO has served copies of this filing on the CPUC, the California Energy Commission, and all parties with scheduling coordinator agreements under the CAISO tariff. In addition, the CAISO has posted a copy of the filing on the CAISO website.

²² The CAISO has included an effective date of 12/31/9998 as part of the tariff records submitted in this filing. The CAISO will notify the Commission of the actual effective date of these tariff records within five business days of implementation in an eTariff submittal using Type of Filing code 150 – Report. See *Cal. Indep. Sys. Operator Corp.*, 172 FERC ¶ 61,263 (2020).

²³ 18 C.F.R. §§ 35.3 and 35.11.

²⁴ 18 C.F.R. § 385.203(b)(3).

VI. Contents of this filing

Besides this transmittal letter, this filing includes these attachments:

Attachment A	Clean CAISO tariff sheets
Attachment B	Marked CAISO tariff sheets
Attachment C	Final Proposal
Attachment D	Board of Governors Memo and Vote

VII. Conclusion

For the reasons set forth in this filing, the CAISO respectfully requests that the Commission issue an order accepting the tariff revisions in this filing by November 28, 2023, effective as of the dates specified herein.

Respectfully submitted,

/s/ Sarah E. Kozal

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Attachment A – Clean Tariff

Tariff Amendment to Update Variable Operations and Maintenance Adders

California Independent System Operator Corporation

September 28, 2023

30.4.5.4 Variable Operations and Maintenance Adders

30.4.5.4.1 Generally

Each resource that satisfies the applicable fuel source and technology requirements set forth in Section 30.4.5.4.2 will receive the default Variable Operations and Maintenance Adders specified thereunder.

The Scheduling Coordinator for any resource may choose to negotiate with the CAISO pursuant to Section 30.4.5.4.3 for negotiated Variable Operations and Maintenance Adders that supersede or replace any default Variable Operations and Maintenance Adders the resource may receive. Variable Operations and Maintenance Adders are subject to renegotiation pursuant to Section 30.4.5.4.4 and to informational filings pursuant to Section 30.4.5.4.5.

30.4.5.4.2 Default Variable Operations and Maintenance Adders

The default Variable Start-Up Operations and Maintenance Adder for a frame combustion turbine resource will equal \$61.89 per start per MW multiplied by the PMax of the resource or MSG Configuration of the resource.

The default Variable Minimum Load Operations and Maintenance Adder will vary by fuel source or technology as follows: (1) for a natural gas-fired combined cycle resource, the adder will equal \$2.07 per run-hour per MW multiplied by the PMax of the resource or MSG Configuration of the resource; (2) for an aeroderivative combustion turbine resource, the adder will equal \$5.20 per run-hour per MW multiplied by the PMax of the resource or MSG Configuration of the resource; and (3) for a hydroelectric resource, the adder will equal \$0.77 per run-hour per MW multiplied by the PMax of the resource or MSG Configuration of the resource.

The default Variable Energy Operations and Maintenance Adder will vary by fuel source or technology as follows: (1) nuclear \$1.28/MWh; (2) coal \$3.19/MWh; (3) wind \$0.33/MWh; (4) natural gas-fired combined cycle units \$0.70/MWh; (5) steam units \$0.39/MWh; (6) geothermal \$1.38/MWh; (7) landfill gas \$1.44/MWh; (8) frame combustion turbines \$1.15/MWh; (9) aeroderivative combustion turbines \$2.55/MWh; (10) reciprocating internal combustion engines \$1.31/MWh; and (11) biomass \$1.96/MWh.

30.4.5.4.3 Negotiated Variable Operations and Maintenance Adders

30.4.5.4.3.1 Principles

The CAISO will negotiate resource-specific and MSG Configuration-specific Variable Operations and

Maintenance Adders with a Scheduling Coordinator based on the following principles:

- (a) Any operations costs proposed for inclusion in the Variable Operations and Maintenance Adders must be variable operations costs, meaning the costs of consumables and other costs that vary directly with electrical production (i.e., Start-Up/Shut-Down, run-hours, or electricity output) of a resource. Variable operations costs exclude maintenance costs, auxiliary power costs, Greenhouse Gas Allowance Prices, fuel costs, grid management charges, Opportunity Costs, and other excluded costs set forth in the Business Practice Manual.
- (b) Any maintenance costs proposed for inclusion in the Variable Operations and Maintenance Adders must be variable maintenance costs, meaning the costs associated with the repair, overhaul, replacement, or inspection of a resource that meet the following conditions:
 - (i) The costs must vary with the electrical production (i.e., Start-Up/Shut-Down, run-hours, or electricity output) of the resource.
 - (ii) The costs should reflect future maintenance costs that are expected to be incurred within the service life of a major component of plant or equipment.
 - (iii) The costs should be consistent with Good Utility Practice.
 - (iv) The costs should not effect a substantial betterment of the resource.
 - (v) If the item is a replacement, it cannot be a replacement of an existing major component of plant or equipment.

30.4.5.4.3.2 CAISO Process

Scheduling Coordinators may submit updated resource-specific and MSG Configuration-specific information for purposes of seeking a change to any negotiated Variable Operations and Maintenance Adder, no sooner than thirty (30) Business Days after a negotiated Variable Operations and Maintenance Adder has been determined. The CAISO will evaluate the information provided by Scheduling Coordinators, and may require Scheduling Coordinators to provide additional information, to enable the CAISO to determine reasonable negotiated Variable Operations and Maintenance Adders or to conduct audits of negotiated Variable Operations and Maintenance Adders. Within fifteen (15) Business Days of

receipt of the information or any requested additional information, the CAISO will notify the Scheduling Coordinator in writing whether it has sufficient and accurate information to determine reasonable negotiated Variable Operations and Maintenance Adders to be included in the calculations for the Proxy Start-Up Cost, Proxy Minimum Load Cost, and/or Default Energy Bid under the Variable Cost Option. Within ten (10) Business Days after providing written notification to the Scheduling Coordinator that the information is sufficient and accurate, the CAISO will determine the reasonable negotiated Variable Operations and Maintenance Adders to be included in the Proxy Start-Up Costs, Proxy Minimum Load Costs, and/or Default Energy Bids under the Variable Cost Option, and will so inform the Scheduling Coordinator in writing.

In the event of a dispute regarding the sufficiency or accuracy of the information provided by the Scheduling Coordinator, the CAISO and the Scheduling Coordinator will enter a period of good-faith negotiations that terminates sixty (60) days after the date the dispute began. If the CAISO and the Scheduling Coordinator resolve the dispute during the 60-day negotiation period, within ten (10) Business Days of such agreement, the CAISO will determine the reasonable negotiated Variable Operations and Maintenance Adders and will provide the adders to the Scheduling Coordinator in writing. If the CAISO and the Scheduling Coordinator fail to agree upon the sufficiency or accuracy of the information during the 60-day negotiation period, the Scheduling Coordinator has the right to petition FERC to resolve the dispute as to the sufficiency or accuracy of its information.

In the event of a dispute regarding the CAISO's determination of Variable Operations and Maintenance Adders, the CAISO and the Scheduling Coordinator will enter a period of good-faith negotiations that terminates sixty (60) days after the date the dispute began. If the CAISO and the Scheduling Coordinator resolve the dispute during the 60-day negotiation period, the agreed-upon negotiated Variable Operations and Maintenance Adders will be effective as of the third Business Day following the resolution date.

30.4.5.4.3.3 FERC Process

If the CAISO and the Scheduling Coordinator fail to agree on the Variable Operations and Maintenance Adders for the Proxy Start-Up Costs, Proxy Minimum Load Costs, and/or Default Energy Bids under the Variable Cost Option following the 60-day negotiation period, the Scheduling Coordinator has the right to file proposed values and supporting information for the adders with FERC pursuant to Section 205 of the

Federal Power Act.

30.4.5.4.3.4 Interim Variable Operations and Maintenance Adders Pending Dispute Resolution

In the event of a dispute regarding the reasonableness of the Variable Operations and Maintenance Adders determined by the CAISO, but not a dispute regarding the sufficiency or accuracy of the information provided by the Scheduling Coordinator, the CAISO will determine reasonable interim Variable Operations and Maintenance Adders until the adders are determined by agreement between the CAISO and the Scheduling Coordinator or by FERC. Any subsequent agreement or FERC order determining the Variable Operations and Maintenance Adders will be reflected in an adjustment to the interim Variable Operations and Maintenance Adders in the next applicable Settlement Statement.

30.4.5.4.4 Renegotiation of Variable Operations and Maintenance Adders

The CAISO may require the renegotiation of any negotiated or interim Variable Operations and Maintenance Adders established pursuant to Section 30.4.5.4.3 that have become outdated, are possibly erroneous, or for which the Scheduling Coordinator has changed. In the renegotiation process, the CAISO may review and propose modifications to such Variable Operations and Maintenance Adders, and may require the Scheduling Coordinator to provide updated information to support their continuation.

30.4.5.4.5 Informational Filings

The CAISO shall make an informational filing with FERC of any default Variable Operations and Maintenance Adders established pursuant to Section 30.4.5.4.2 and any negotiated or interim Variable Operations and Maintenance Adders established pursuant to Section 30.4.5.4.3, no later than seven (7) days after the end of the month for which the Variable Operations and Maintenance Adders were established.

Attachment B – Marked Tariff

Tariff Amendment to Update Variable Operations and Maintenance Adders

California Independent System Operator Corporation

September 28, 2023

30.4.5.4 Variable Operations and Maintenance Adders

30.4.5.4.1 Generally

Each resource that satisfies the applicable fuel source and technology requirements set forth in Section 30.4.5.4.2 will receive the default Variable Operations and Maintenance Adders specified thereunder.

The Scheduling Coordinator for any resource may choose to negotiate with the CAISO pursuant to Section 30.4.5.4.3 for negotiated Variable Operations and Maintenance Adders that supersede or replace any default Variable Operations and Maintenance Adders the resource may receive. Variable Operations and Maintenance Adders are subject to renegotiation pursuant to Section 30.4.5.4.4 and to informational filings pursuant to Section 30.4.5.4.5. ~~Pursuant to Section 30.4.5.4.6, the CAISO will convert negotiated operations and maintenance values that were established for a resource prior to January 1, 2022 into corresponding negotiated Variable Operations and Maintenance Adders.~~

30.4.5.4.2 Default Variable Operations and Maintenance Adders

The default Variable Start-Up Operations and Maintenance Adder for a frame combustion turbine resource will equal ~~\$52.13~~ \$61.89 per start per MW multiplied by the PMax of the resource or MSG Configuration of the resource.

The default Variable Minimum Load Operations and Maintenance Adder will vary by fuel source or technology as follows: (1) for a natural gas-fired combined cycle resource, the adder will equal ~~\$1.74~~ \$2.07 per run-hour per MW ~~multiplied~~ multiplied by the PMax of the resource or MSG Configuration of the resource; (2) for an aeroderivative combustion turbine resource, the adder will equal ~~\$4.38~~ \$5.20 per run-hour per MW multiplied by the PMax of the resource or MSG Configuration of the resource; and (3) for a hydroelectric resource, the adder will equal ~~\$0.65~~ \$0.77 per run-hour per MW multiplied by the PMax of the resource or MSG Configuration of the resource.

The default Variable Energy Operations and Maintenance Adder will vary by fuel source or technology as follows: (1) nuclear ~~\$1.08~~ \$1.28/MWh; (2) coal ~~\$2.69~~ \$3.19/MWh; (3) wind ~~\$0.28~~ \$0.33/MWh; (4) natural gas-fired combined cycle units ~~\$0.59~~ \$0.70/MWh; (5) steam units ~~\$0.33~~ \$0.39/MWh; (6) geothermal ~~\$1.16~~ \$1.38/MWh; (7) landfill gas ~~\$1.21~~ \$1.44/MWh; (8) frame combustion turbines ~~\$0.97~~ \$1.15/MWh; (9) aeroderivative combustion turbines ~~\$2.15~~ \$2.55/MWh; (10) reciprocating internal combustion engines ~~\$1.10~~ \$1.31/MWh; and (11) biomass ~~\$1.65~~ \$1.96/MWh.

~~Effective January 1, 2022, default adders established pursuant to this Section 30.4.5.4.2 will supersede and replace any then-existing default adders established prior to that effective date.~~

30.4.5.4.3 Negotiated Variable Operations and Maintenance Adders

30.4.5.4.3.1 Principles

The CAISO will negotiate resource-specific and MSG Configuration-specific Variable Operations and Maintenance Adders with a Scheduling Coordinator based on the following principles:

- (a) Any operations costs proposed for inclusion in the Variable Operations and Maintenance Adders must be variable operations costs, meaning the costs of consumables and other costs that vary directly with electrical production (i.e., Start-Up/Shut-Down, run-hours, or electricity output) of a resource. Variable operations costs exclude maintenance costs, auxiliary power costs, Greenhouse Gas Allowance Prices, fuel costs, grid management charges, Opportunity Costs, and other excluded costs set forth in the Business Practice Manual.
- (b) Any maintenance costs proposed for inclusion in the Variable Operations and Maintenance Adders must be variable maintenance costs, meaning the costs associated with the repair, overhaul, replacement, or inspection of a resource that meet the following conditions:
 - (i) The costs must vary with the electrical production (i.e., Start-Up/Shut-Down, run-hours, or electricity output) of the resource.
 - (ii) The costs should reflect future maintenance costs that are expected to be incurred within the service life of a major component of plant or equipment.
 - (iii) The costs should be consistent with Good Utility Practice.
 - (iv) The costs should not effect a substantial betterment of the resource.
 - (v) If the item is a replacement, it cannot be a replacement of an existing major component of plant or equipment.

30.4.5.4.3.2 CAISO Process

Scheduling Coordinators may submit updated resource-specific and MSG Configuration-specific information for purposes of seeking a change to any negotiated Variable Operations and Maintenance

Adder, no sooner than thirty (30) Business Days after a negotiated Variable Operations and Maintenance Adder has been determined. The CAISO will evaluate the information provided by Scheduling Coordinators, and may require Scheduling Coordinators to provide additional information, to enable the CAISO to determine reasonable negotiated Variable Operations and Maintenance Adders or to conduct audits of negotiated Variable Operations and Maintenance Adders. Within fifteen (15) Business Days of receipt of the information or any requested additional information, the CAISO will notify the Scheduling Coordinator in writing whether it has sufficient and accurate information to determine reasonable negotiated Variable Operations and Maintenance Adders to be included in the calculations for the Proxy Start-Up Cost, Proxy Minimum Load Cost, and/or Default Energy Bid under the Variable Cost Option. Within ten (10) Business Days after providing written notification to the Scheduling Coordinator that the information is sufficient and accurate, the CAISO will determine the reasonable negotiated Variable Operations and Maintenance Adders to be included in the Proxy Start-Up Costs, Proxy Minimum Load Costs, and/or Default Energy Bids under the Variable Cost Option, and will so inform the Scheduling Coordinator in writing.

In the event of a dispute regarding the sufficiency or accuracy of the information provided by the Scheduling Coordinator, the CAISO and the Scheduling Coordinator will enter a period of good-faith negotiations that terminates sixty (60) days after the date the dispute began. If the CAISO and the Scheduling Coordinator resolve the dispute during the 60-day negotiation period, within ten (10) Business Days of such agreement, the CAISO will determine the reasonable negotiated Variable Operations and Maintenance Adders and will provide the adders to the Scheduling Coordinator in writing. If the CAISO and the Scheduling Coordinator fail to agree upon the sufficiency or accuracy of the information during the 60-day negotiation period, the Scheduling Coordinator has the right to petition FERC to resolve the dispute as to the sufficiency or accuracy of its information.

In the event of a dispute regarding the CAISO's determination of Variable Operations and Maintenance Adders, the CAISO and the Scheduling Coordinator will enter a period of good-faith negotiations that terminates sixty (60) days after the date the dispute began. If the CAISO and the Scheduling Coordinator resolve the dispute during the 60-day negotiation period, the agreed-upon negotiated Variable Operations and Maintenance Adders will be effective as of the third Business Day following the resolution date.

30.4.5.4.3.3 FERC Process

If the CAISO and the Scheduling Coordinator fail to agree on the Variable Operations and Maintenance Adders for the Proxy Start-Up Costs, Proxy Minimum Load Costs, and/or Default Energy Bids under the Variable Cost Option following the 60-day negotiation period, the Scheduling Coordinator has the right to file proposed values and supporting information for the adders with FERC pursuant to Section 205 of the Federal Power Act.

30.4.5.4.3.4 Interim Variable Operations and Maintenance Adders Pending Dispute Resolution

In the event of a dispute regarding the reasonableness of the Variable Operations and Maintenance Adders determined by the CAISO, but not a dispute regarding the sufficiency or accuracy of the information provided by the Scheduling Coordinator, the CAISO will determine reasonable interim Variable Operations and Maintenance Adders until the adders are determined by agreement between the CAISO and the Scheduling Coordinator or by FERC. Any subsequent agreement or FERC order determining the Variable Operations and Maintenance Adders will be reflected in an adjustment to the interim Variable Operations and Maintenance Adders in the next applicable Settlement Statement.

30.4.5.4.4 Renegotiation of Variable Operations and Maintenance Adders

The CAISO may require the renegotiation of any negotiated or interim Variable Operations and Maintenance Adders established pursuant to Section 30.4.5.4.3 that have become outdated, are possibly erroneous, or for which the Scheduling Coordinator has changed. In the renegotiation process, the CAISO may review and propose modifications to such Variable Operations and Maintenance Adders, and may require the Scheduling Coordinator to provide updated information to support their continuation.

30.4.5.4.5 Informational Filings

The CAISO shall make an informational filing with FERC of any default Variable Operations and Maintenance Adders established pursuant to Section 30.4.5.4.2 and any negotiated or interim Variable Operations and Maintenance Adders established pursuant to Section 30.4.5.4.3, no later than seven (7) days after the end of the month for which the Variable Operations and Maintenance Adders were established.

~~30.4.5.4.6 Conversion of Existing Negotiated Values~~

~~Notwithstanding any other provision in this Section 30.4.5.4, effective January 1, 2022, the CAISO will~~

~~convert any then-existing adder values for major maintenance expenses previously established for a resource pursuant to Section 30.4.5.4 (or any predecessor of that Section), and will convert any then-existing negotiated operations and maintenance values previously established for a resource pursuant to Section 39.7.1.1.2 (or any predecessor of that Section), into corresponding negotiated Variable Operations and Maintenance Adders with values equivalent to the previously established values. Each Scheduling Coordinator for a resource for which the CAISO performs such conversions will subsequently have the option to either: (1) retain the corresponding Variable Operations and Maintenance Adders for the resource; (2) negotiate changes to all of the corresponding Variable Operations and Maintenance Adders for the resource pursuant to Section 30.4.5.4.3; or (3) negotiate changes to some of the corresponding Variable Operations and Maintenance Adders for the resource pursuant to Section 30.4.5.4.3, and have the CAISO convert the balance of the corresponding Variable Operations and Maintenance Adders into default Variable Operations and Maintenance Adders pursuant to Section 30.4.5.4.2.~~

Attachment C – Final Proposal

Tariff Amendment to Update Variable Operations and Maintenance Adders

California Independent System Operator Corporation

September 28, 2023



California ISO

Variable Operations and Maintenance Cost Review - 2023

Final Proposal

August 24, 2023

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I. Executive Summary

Variable operations and maintenance (VOM) adders are a market instrument through which scheduling coordinators can reflect a resource's operations and maintenance (O&M) costs in the CAISO's day-ahead and real-time markets. VOM adders can be negotiated with the CAISO or, if no negotiation takes place, the VOM adders are automatically set to a pre-determined default value.

The CAISO has committed to review the default VOM adder values once every three years. During the previous VOM Cost Review initiative in 2020,¹ the CAISO reviewed and updated the default VOM adder values. These default VOM adder values were updated to an inflation reference year of 2019. Given that three years have elapsed since that reference year, the CAISO determined that it is appropriate to review the current default VOM adder values. In this paper, the CAISO reviews the current default VOM adder values and determines that an update is warranted due to the higher-than-normal inflation rates since 2019.

The CAISO proposes to update the current default VOM adder values by applying an 18.73% inflation adjustment to all default values. This 18.73% inflation adjustment is based on data from the US Bureau of Labor Statistics. In the previous VOM Cost Review, the CAISO also performed a more comprehensive review of other aspects related to O&M costs in addition to updating the default values. These changes included updates to the VOM cost framework and the introduction of cost categorization principles. As a typical triennial review, the CAISO is not proposing to make changes to these elements. The CAISO believes that the WEIM Governing Body has joint authority with the CAISO Board of Governors over the proposed changes.

The CAISO appreciates the comments submitted by Salt River Project, the only stakeholder to submit comments, on the draft final proposal. In response to that feedback, the CAISO updates the inflation reference point used to calculate the proposed default VOM adder values from December 2022 to June 2023, resulting in a slightly higher inflation adjustment.

II. Background

Variable operations and maintenance (VOM) adders are a market instrument through which scheduling coordinators can reflect a resource's variable operations and maintenance (O&M) costs in the CAISO's day-ahead and real-time markets.

VOM adders are a component of most resources' default energy bids (DEBs) and all default commitment costs.² DEBs are used in the local market power mitigation process to limit the bids the CAISO markets use in determining resource schedules when a resource is found to have the potential to exert market power. The DEB mitigation system seeks to mirror competitive outcomes when participants might have the ability to exercise local market power. In such cases, the CAISO may adjust a resource's submitted energy bid downward to the resource's DEB or the competitive locational marginal price, whichever is higher. Default commitment costs serve a similar purpose but function differently in practice. Instead of applying only when the potential for the exercise of market power exists, default commitment costs

¹ <https://stakeholdercenter.caiso.com/StakeholderInitiatives/Variable-operations-maintenance-cost-review>

² There are several types of DEB options in CAISO's markets. VOM adders are included only in the variable cost-based DEB option. The variable cost-based option is the most commonly used option for thermal generators.

always serve as the cap of the values that scheduling coordinators may submit for minimum load cost bids, start-up cost bids, and transition cost bids. These bids are then used by the CAISO’s market processes in its determination of whether to commit the resource and for bid cost recovery settlements.

VOM adders can be negotiated with the CAISO or, if no negotiation takes place, the VOM adders are automatically set to a pre-determined default value. The pre-determined value varies based on the resource’s fuel and generation technology type (natural gas combined cycle gas turbine, hydro, etc.).

III. Review of current default VOM adder values

The CAISO has committed to review the default VOM adder values once every three years. This commitment has been articulated in previous iterations of this stakeholder process and is codified in the BPMs. The previous default VOM adder updates used 2019 values as the reference year, making 2022 the next appropriate reference year. As 2022 data is now available, the CAISO is fulfilling its commitment to review the default VOM adder values.

Table 1 has the currently effective default VOM adder values. There are three types of adders: the variable energy O&M adder, variable minimum load O&M adder, and variable start-up O&M adder.

Table 1 – Current default VOM adder values

Technology Type	Default Variable Energy O&M Adder (\$/MWh)	Default Variable Minimum Load O&M Adder (\$/run-hour/MW)	Default Variable Start-up O&M Adder (\$/start/MW)
Coal	2.69	-	-
Steam turbines	0.33	-	-
Natural gas-fired combined-cycle	0.59	1.74	-
Frame combustion turbines	0.97	-	52.13
Aeroderivative combustion turbines	2.15	4.38	-
Reciprocating internal combustion engines	1.10	-	-
Nuclear	1.08	-	-
Biomass	1.65	-	-
Geothermal	1.16	-	-
Landfill gas	1.21	-	-
Hydroelectric	-	0.65	-
Solar	-	-	-
Wind	0.28	-	-
Other (e.g., storage, demand response)	-	-	-

During the previous VOM Cost Review stakeholder process, the CAISO determined these current values based on data provided by an external consultant and values gathered from other external sources such

as the NYISO's Cost of New Entry (CONE) studies. The CAISO also used data from VOM adders that had been negotiated directly with scheduling coordinators. All of these sources were inflation-adjusted to 2019 year dollars using consumer price index data available from the US Bureau of Labor Statistics (BLS).

For our 2023 VOM cost review, the CAISO considers several factors:

- Inflation: Since 2019, many indicators of price levels show historically-high increases. For example, the BLS Consumer Price Index for All Urban Consumers increased 16% from December 2019 to December 2022.³ The higher-than-normal levels of inflation are an indicator that the current default values need to be updated. Price levels have further risen from December 2022 to June 2023 by an additional 3% relative to December 2019, for a total increase of 18.73% relative to December 2019.
- Frequency of VOM negotiations: The CAISO continues to conduct a steady but not an abnormally high amount of negotiations for VOM adder values. If the default values were too high for many resources, this would indicate that negotiations aren't needed and thus the CAISO would conduct VOM negotiations infrequently; conversely, if the default values were too low, the CAISO would be constantly negotiating VOM adder values in high volumes. Given that the frequency and volume of VOM negotiations falls between these two extremes, this factor does not indicate whether or not an update is warranted.
- Review of external sources: As explained above, NYISO's CONE report was a key input into the previous update of the default VOM adder values. The most recent CONE study was performed back in 2020 which is not reflective of the current costs.

Of the three factors, the CAISO believes that the inflation factor should be weighted most heavily because it is most quantitatively rigorous indicator. As such, the CAISO's review of the current default VOM adder values indicates that an update is appropriate.

In addition to updating the default VOM adder values, the previous review also codified certain cost categorization principles and included a more comprehensive update to the VOM cost framework. This more substantial stakeholder initiative took several years to complete and went beyond the scope of the typical triennial default VOM adder review. As this is a typical triennial review, the CAISO does not believe an issue paper is necessary.

IV. Proposal

The CAISO proposes to update the default VOM adder values with an 18.73% inflation increase. This increase is based on the BLS Consumer Price Index for all Urban Consumers from December 2019 to June 2023.

Stakeholder Feedback

The CAISO received one set of comments from stakeholders. The CAISO appreciates that Salt River Project (SRP) took the time to review the proposal and provide detailed comments. SRP suggests that the CAISO perform the VOM cost review annually rather than triennially. The CAISO does not believe this is appropriate at this time because of resource constraints and the requirement to obtain approval from the CAISO Board of Governors and the WEIM Governing Body for the associated tariff changes. SRP

³ BLS Consumer Price Index for All Urban Consumers (<https://www.bls.gov/cpi/data.htm>)

also points out that the current default VOM adder values for coal resources appears to be based on 2018 year dollars. The CAISO reviewed the basis of the current default VOM adder values for coal resources, noting that they are in 2019 year dollars rather than 2018 year dollars⁴.

SRP also suggests that the CAISO use a forward-looking indicator of inflation, rather than a retrospective indicator. If the CAISO does not use a forward-looking indicator, SRP suggests using a more recent reference point. The CAISO does not believe that using a forward-looking indicator is appropriate at this point given the uncertainty of future inflation rates as supply chains constraints continue to unwind and the economy reacts to actions taken by the Federal Reserve. However, given that the proposal is taking place in the latter half of 2023, the CAISO does believe that updating the inflation reference point used to calculate the proposed default VOM adder values from December 2022 to June 2023 is appropriate. This results in a slightly higher inflation adjustment of 18.73%, rather than the 16% increase that was proposed in the draft final proposal.

Proposal

The proposed default VOM adder values are shown in Table 2.

Table 2 – Proposed default VOM adder values

Technology Type	Default Variable Energy O&M Adder (\$/MWh)	Default Variable Minimum Load O&M Adder (\$/run-hour/MW)	Default Variable Start-up O&M Adder (\$/start/MW)
Coal	3.19	-	-
Steam turbines	0.39	-	-
Natural gas-fired combined-cycle	0.70	2.07	-
Frame combustion turbines	1.15	-	61.89
Aeroderivative combustion turbines	2.55	5.20	-
Reciprocating internal combustion engines	1.31	-	-
Nuclear	1.28	-	-
Biomass	1.96	-	-
Geothermal	1.38	-	-
Landfill gas	1.44	-	-
Hydroelectric	-	0.77	-
Solar	-	-	-
Wind	0.33	-	-
Other (e.g., storage, demand response)	-	-	-

⁴ See VOM Cost Review (2020) Final Proposal, page 11 of Appendix F.

<http://www.caiso.com/InitiativeDocuments/FinalProposal-VariableOperations-MaintenanceCostReview.pdf>

The CAISO believes that the BLS Consumer Price Index is appropriate because it is consistent with the inflation adjustment methodology used in the previous VOM Cost Review.

The CAISO corroborated that belief using negotiated VOM adders as a reference point. A number of resources in CAISO's markets have negotiated VOM adder values and the CAISO corroborated the appropriateness of the proposed update in the chart above by comparing these values to the existing set of negotiated VOM adder values. These negotiated values serve as a good point of reference to determine the reasonableness of the proposed default VOM adder values because the negotiated values reflect resource-specific costs and are thus indicative of actual costs. The CAISO compared the proposed default VOM adder values to internal benchmarks derived from negotiated VOM adder values. Even after considering the higher inflation increase in this final proposal, the proposed default VOM adder values are slightly more conservative (i.e. lower) than the benchmarks.

This is appropriate because the default VOM adder values should balance being sufficiently conservative while also high enough to be useful. The values should be sufficiently conservative because, if they weren't, scheduling coordinators might be able to collect market revenues above their actual costs. However, they should also be useful in that they should be used by some scheduling coordinators in lieu of negotiations. Furthermore, this is consistent with the methodology used in the previous VOM Cost Review which used benchmarks based on negotiated values as the "cap" for the default VOM adder values.

As explained above, NYISO's CONE report was a key input into the previous update of the default VOM adder values. At the time of publishing this paper, the 2020 CONE report was the most recent version publically available so this could not be used to corroborate the proposed default VOM adder values.

As a reminder, the default VOM adder values are simply default values to be used if a scheduling coordinator does not wish to go through the negotiation process. Accordingly, if a scheduling coordinator believes the values are too low or otherwise inadequate, they can negotiate a more appropriate resource-specific value.

The CAISO does not propose to make any changes to the cost categorization principles included in the CAISO tariff, nor do we propose any changes to the VOM cost framework such as those included in the previous VOM Cost Review. At the time, those changes were deemed necessary due issues that were arising during VOM adder negotiations arising from the lack of explicit cost categorization principles. Since the implementation of the cost categorization principles and updated VOM cost framework, the CAISO has experienced fewer such issues during VOM adder negotiations.

V. WEIM Decisional Classification

This initiative proposes to adjust variable operation and maintenance adders, which are one element of total costs of operations and maintenance, which may be reflected in market bids. As explained below, CAISO staff believes that the WEIM Governing Body has joint authority with the Board of Governors over the proposed changes.

Under the Charter for EIM Governance, the Board and the WEIM Governing Body have joint authority over any "proposal to change or establish any CAISO tariff rule(s) applicable to the EIM Entity balancing authority areas, EIM Entities, or other market participants within the EIM Entity balancing authority

areas, in their capacity as participants in EIM. This scope excludes from joint authority, without limitation, any proposals to change or establish tariff rule(s) applicable only to the CAISO balancing authority area or to the CAISO-controlled grid.” The changes proposed here would all be “applicable to EIM Entity balancing authority areas, EIM Entities, or other market participants within EIM Entity balancing authority areas, in their capacity as participants in EIM.” They would not be applicable “only to the CAISO balancing authority area or to the CAISO-controlled grid.” Accordingly, these proposed changes would fall within the scope of joint authority.

VI. Stakeholder Timeline

The schedule for stakeholder engagement is detailed below in Table 3. The CAISO will discuss this final proposal paper with stakeholders during a call on Thursday, August 31 at 11:00AM PT. The CAISO will also discuss the draft tariff language that accompanies this proposal during that call. Stakeholders can submit written comments regarding this draft final proposal paper by Thursday, September 14.

Please note that the dates below are tentative until the CAISO publishes a notice formally confirming them.

Table 3 – Stakeholder timeline

Date	Milestones
July 24, 2023	Post draft final proposal
July 31, 2023	Hold stakeholder call on draft final proposal
August 14, 2023	Stakeholder written comments due on draft final proposal
August 24, 2023	Post final proposal and draft tariff language
August 31, 2023	Hold stakeholder call on final proposal and draft tariff language
September 14, 2023	Stakeholder written comments due on final proposal and draft tariff language
September 20, 2023	CAISO Board of Governors and WEIM Governing Body joint decision

Attachment D – Board of Governors Memo and Vote
Tariff Amendment to Update Variable Operations and Maintenance Adders
California Independent System Operator Corporation
September 28, 2023



Memorandum

To: ISO Board of Governors and Western Energy Imbalance Market Governing Body
From: Anna McKenna, Vice President Market Design and Analysis
Date: September 13, 2023
Re: **Decision on 2023 Variable Operations and Maintenance Cost Review 2023**

This memorandum requires ISO Board of Governors and WEIM Governing Body action.

EXECUTIVE SUMMARY

Pursuant to the ISO business practice manuals, a review of the default variable operations and maintenance costs is performed every three years. As a result of the most recent triennial review of default variable operations and maintenance (VOM) cost adders, Management proposes to update the current default VOM adder values by applying an 18.73% inflation adjustment to all default values. This 18.73% inflation adjustment is based on data from the US Bureau of Labor Statistics (BLS) from June 2023 and is necessary to make a general adjustment to reflect the notable inflation experienced since the last comprehensive assessment of all aspects of the VOM costs in 2020. For this triennial review, Management is not proposing to make changes to other elements.

ISO Board of Governors and WEIM Governing Body motion:

Moved, that the ISO Board of Governors and WEIM Governing Body approve the revision to the variable operations and maintenance cost adders as described in the memorandum dated September 13, 2023; and

Moved, that the ISO Board of Governors and the WEIM Governing Body authorize 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.

DISCUSSION AND ANALYSIS

Market participants submit multiple types of data to the ISO's day-ahead and real-time market systems to reflect a resources' operational capabilities and costs. Among these data submissions are resources' VOM costs which serve as an adder to market calculations such as default energy bids and commitment costs. Default VOM adders are codified in the tariff and reviewed every three years. However, if a market participant believes the default VOM adder is incorrect for their resource, they have the option to negotiate a VOM adder with the ISO.

VOM adders are a component of most resources' default energy bids. Default energy bids are used in the local market power mitigation process to limit the bids that the markets use in determining resource schedules when a resource is found to have the potential to exert market power. The default energy bids are constructed to reflect competitive outcomes absent the participant's ability to exercise local market power. In such cases, the ISO's market power mitigation process may adjust a resource's submitted energy bid downward to the resource's default energy bid or the competitive locational marginal price, whichever is higher.

VOM adders are also a component of resources' default commitment costs. Default commitment costs serve a similar purpose to default energy bids. However, instead of applying only when the potential for the exercise of market power exists, default commitment costs always serve as a cap on the values that scheduling coordinators may submit for minimum load cost bids, start-up cost bids, and transition cost bids. These bids are then used by the ISO's market processes to determine commitment of individual resources and for calculation of bid cost recovery settlements.

Default VOM adders are specified in the tariff and, in collaboration with stakeholders, reviewed every three years. The pre-determined value varies based on each resource's fuel and generation technology type (i.e., natural gas combined cycle gas turbine, hydroelectric, geothermal). The previous VOM cost review initiative that occurred in 2020 updated the default VOM adder values to an inflation reference year of 2019, which went into effect January 1, 2022, after some related work.

Given that three years have elapsed since that reference year, staff undertook this current review of the default VOM adder values. For the 2023 VOM cost review, several factors were evaluated: price inflation since the previous update to VOM adders; the frequency of VOM adder negotiations; and a review of additional sources including benchmarking to other ISO-RTOs.

Management has determined that an update is warranted due to the higher-than-normal inflation rates since 2019 levels were implemented in 2022. Specifically, Management proposes to update the default VOM adder values with an 18.73% inflation increase. This increase is based on the changes to the US BLS Consumer Price Index for all Urban Consumers from December 2019 to June 2023, as published in June 2023.

POSITIONS OF THE PARTIES

Management appreciates the comments submitted by Salt River Project, the only stakeholder to submit comments, on the draft final proposal. Salt River Project pointed out that newer inflation figures had become available since the original proposal was posted. In response, the proposal uses updated June 2023 inflation reference point rather than December 2022, as originally proposed.

Salt River Project further requested that the ISO consider more frequent reviews of VOM adders. Salt River Project also suggested consideration of a methodology to forecast VOM costs. Management appreciates the need to keep default VOM adder values current. Management believes that the current market design mitigates the concerns arising from these two suggestions because it provides an option for a negotiated VOM adder in the case of rapid changes to these costs. Furthermore, despite recent higher-than-usual inflation, there was not a significant increase in market participant requests for the negotiated option. If there is a sudden increase in the negotiated option, Management will investigate the reasons for the increase and will consider whether there is a need for more frequent updates. Finally, Management is concerned with using forecasted costs because they would be dependent on inflation rates which are difficult to predict.

CONCLUSION

Management recommends that the default VOM adders for each generation type be adjusted upward to reflect the 18.73% inflation since the last review of the default VOM cost adders.

ISO Board of Governors and WEIM Governing Body September 20, 2023

Decision on variable operations and maintenance cost review 2023

Joint General Session

Motion

Moved, that the ISO Board of Governors and WEIM Governing Body approve the revision to the variable operations and maintenance cost adders as described in the memorandum dated September 13, 2023; and

Moved, that the ISO Board of Governors and the WEIM Governing Body authorize 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.

WEIM Governing Body vote: ISO Board of Governors vote:			Action: Passed 10-0					
Name	Position	Body	Move/ Second	Yes BoG	No BoG	Yes GB	No GB	Other
Borenstein	Governor	Board		Y				
Campbell	Chair	GB				Y		
Decker	Member	GB				Y		
Eto	Governor	Board		Y				
Galiteva	Governor	Board	Moved	Y				
Kondziolka	Vice Chair	GB	Second			Y		
Leslie	Chair	Board		Y				
Prescott	Member	GB				Y		
Schori	Vice Chair	Board		Y				
Wagner	Member	GB				Y		
Vote Count				5		5		