



Variable Operations and Maintenance Cost Review - 2023


Draft Final Proposal
July 31, 2023

CAISO PUBLIC

Housekeeping reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- Meeting is structured to stimulate dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Please try and be brief and refrain from repeating what has already been said so that we can manage the time efficiently.

Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located on the top right above the chat window. **Note:** #2 only works if you dialed into the meeting.
 - Please remember to state your name and affiliation before making your comment.
- If you need technical assistance during the meeting, please send a chat to the event producer.
- You may also send your question via chat to all panelists.

Agenda

Time	Topic	Presenter
11:00-11:05	Welcome	Kaitlin McGee
11:05-11:15	Presentation of cost review and draft final proposal	Kevin Head
11:15-11:30	Q&A	Kevin Head
11:30-11:35	Next steps	Kaitlin McGee

Summary

- The CAISO has a recurring stakeholder process to review the default Variable Operations and Maintenance (VOM) adders once every three years
- The previous cycle used 2019 values as the reference year, making 2022 the next appropriate reference year
- CAISO reviewed the existing default VOM adder values and determined that an update is appropriate given high inflation rates from 2019-2022
- CAISO proposes to apply a 16% inflation increase to the default VOM adder values

Background

- Scheduling coordinators use VOM adders to reflect their cost of operations (e.g. consumables) and maintenance (e.g. wear-and-tear) in CAISO markets
- VOM adders are used in the calculation of:
 - Default energy bids (used to replace bids if resource is mitigated in the market power mitigation process)
 - Default commitment costs (used to cap the minimum load cost and startup cost bids submitted by SCs)
- VOM adders are set at “default” values or can be negotiated if the default values are insufficient

History

- Original VOM framework and default VOM values were established in 2012, at which time CAISO committed to its triennial review process
- Previous triennial review involved a more extensive review of the framework and default values:
 - New framework clarified definition of VOM costs and introduced a more flexible concept of VOM adders
 - External consultant Nexant performed a comprehensive review of default VOM adder values
 - 2019 was used as reference year for inflation adjustment purposes

CAISO Review

- For the 2023 VOM cost review, the CAISO considers several factors:
 - Inflation: price levels show historically-high increases
 - Frequency of VOM negotiations: frequency and volume of negotiations has not changed substantially
 - Review of external sources: no conflicting information
- CAISO believes that the inflation factor should be weighted most heavily so an update is appropriate

Proposal

- CAISO proposes to adjust default VOM adders using a simplified adjustment based on CPI from the US Bureau of Labor Statistics from 2019 to 2022 (16% increase)

Technology Type	Pre-Update Values			Post-Update Values		
	Default VOM-EN	Default VOM-ML	Default VOM-SU	Default VOM-EN	Default VOM-ML	Default VOM-SU
	(\$/MWh)	(\$/run-hour/MW)	(\$/start/MW)	(\$/MWh)	(\$/run-hour/MW)	(\$/start/MW)
Coal	2.69	-	-	3.12	-	-
Steam turbines	0.33	-	-	0.38	-	-
Natural gas-fired combined-cycle	0.59	1.74	-	0.68	2.02	-
Frame combustion turbines	0.97	-	52.13	1.12	-	60.46
Aeroderivative combustion turbines	2.15	4.38	-	2.49	5.08	-
Reciprocating internal combustion engines	1.10	-	-	1.28	-	-
Nuclear	1.08	-	-	1.25	-	-
Biomass	1.65	-	-	1.91	-	-
Geothermal	1.16	-	-	1.35	-	-
Landfill gas	1.21	-	-	1.40	-	-
Hydroelectric	-	0.65	-	-	0.75	-
Solar	-	-	-	-	-	-
Wind	0.28	-	-	0.32	-	-
Other (e.g., storage, non-generating resource)	-	-	-	-	-	-

NEXT STEPS

Initiative Schedule

Date	Development
07/24/23	Draft final proposal posting
07/31/23	Stakeholder conference call: draft final proposal
08/14/23	Comments due: draft final proposal
08/24/23	Publish draft tariff language and final proposal
08/31/23	Stakeholder conference call: draft tariff language and final proposal
09/14/23	Comments due: draft tariff language
09/20/23	Board of Governors Meeting
Fall 2023	FERC filing and implementation

**Dates are tentative and subject to change.*

Next Steps

- Please submit comments on the draft final proposal and meeting discussion using the commenting tool linked on the initiative webpage
 - Comments are due by end of day August 14, 2023
- Visit initiative webpage for more information:
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/Variable-operations-maintenance-cost-review-2023>
- If you have any questions, please contact isostakeholderaffairs@caiso.com