



## Stakeholder Comments Template

### Variable Operations and Maintenance Cost Review Working Group – Gas Resources

This template has been created for submission of stakeholder comments on the VOM Cost Review working group for gas resources that was held on July 15, 2019. The workshop, stakeholder meeting presentations, and other information related to this initiative may be found on the initiative webpage at:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/VariableOperations-MaintenanceCostReview.aspx>.

Upon completion of this template, please submit it to [initiativecomments@caiso.com](mailto:initiativecomments@caiso.com). Submissions are requested by close of business on **July 26, 2019**.

**Note:** Upon submission, please indicate if you would like your comments to be confidential.

Submitted by	Organization	Date Submitted
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Please provide your organization's comments on the following topics and questions.

- 1. Appendix A to this template contains a list of maintenance activities for gas-resources. What maintenance activities are missing from this list that should be included for consideration?**

The Six Cities do not have comments on this topic at this time.

- 2. Appendix A also allocates the maintenance activities to three cost components (Major Maintenance [green], Other Maintenance – Variable [yellow], Other Maintenance – Fixed [red]). Please review and note whether you disagree with our proposed allocation and why.**

The Six Cities do not have comments on this topic at this time.

- 3. Please provide any comments or updates you may have to the definitions of Major Maintenance Costs, Variable Operations Costs, and General and Administrative Costs, if any, listed in the July 2, 2019 report found on the stakeholder initiative website.**

During the working group call, there was discussion as to whether incremental costs of labor – either contract labor or employee overtime – associated with operating a unit are recoverable as variable costs if those costs are a function of dispatches by the CAISO. The CAISO's feedback on this was unclear, and the Six Cities request clarification as to whether the CAISO considers this type of cost as recoverable through the VOM cost adder.

- 4. Please provide any comments or updates to the categories/sub-categories of generation technologies for VOM adders. Should the “Combined Cycle and Steam” or “Combustion Turbine & Reciprocating Engine” categories currently found in the CAISO BPM for Market Instruments be further disaggregated into sub-categories (e.g. CC H Frame, CC F Frame, E Class CT, H Class CT)?**

In considering this question, it would be useful to understand how the CAISO is correlating the categories that are currently used to the categories listed in Section 3.2 of the CAISO's December 26, 2018 VOM cost report. In its next proposal or document issued for this initiative, if the CAISO proposes to identify categories of unit types with more granularity than exists in the BPM now, the Six Cities request that the CAISO correlate the current categories with the proposed categories so that stakeholders can understand how the default costs are changing.

- 5. Please offer your feedback on structure of this stakeholder initiative and working groups.**

Representatives of the Six Cities listened to the working group meeting for the Natural Gas Resources category. Although the Six Cities are encouraged by the CAISO's decision to accommodate more stakeholder input into identifying and updating VOM costs, the one-hour working group meeting did not allow enough time for a complete consideration and discussion of the issues in this initiative, and the process that the CAISO intends to use to update or add related definitions and VOM costs in its tariff and/or BPMs is unclear. Will the CAISO be issuing straw proposals for adoption of the proposed definitions and cost categorization? What will the CAISO do with the report issued on December 26, 2018 proposing revised costs? The July 2, 2019 report does not specify if the CAISO is continuing to propose adoption of the costs specified in the December 2018 report, or if this working group effort is expected to result in revised costs. If so, when will the CAISO be issuing a new report or proposal?

In the absence of clarity regarding how the CAISO intends to update the currently-applicable VOM costs and the timing for that effort, the CAISO should confirm that the current VOM cost levels will remain in place. It is the Six Cities' understanding

based on statements by the CAISO at the working group meeting that this is the CAISO's intent pending completion of its VOM cost review process.

Going forward, the Six Cities urge the CAISO to follow its standard stakeholder procedures for adding and changing definitions as discussed in the July 2<sup>nd</sup> report and for revising VOM costs.

### **Additional comments**

Please offer any other feedback your organization would like to provide on the topics discussed during the working group.

At this time, the Six Cities do not support the revised costs for natural gas resources as proposed in the December 26, 2018 VOM cost report. Why are the identified costs in the December 26, 2018 report so much lower than those that have been in effect since 2012? Does the CAISO have data that the applicable cost inputs have decreased in the past seven years, or is the CAISO eliminating cost items from the VOM cost adder that were included in the 2012 costs? If so, which categories of cost items for which the CAISO has previously allowed recovery through the VOM cost adder will no longer be recoverable?

During the working group meeting, the CAISO stated that it had identified research supporting its view that fixed maintenance costs that do not fall into the "major maintenance" category are not properly recoverable through the CAISO energy markets but, rather, that those costs should be addressed in capacity contracts. The Six Cities request that the CAISO more fully discuss or provide references to this research. Furthermore, we would like to have a greater understanding of the CAISO's rationale for asserting that the fixed component of maintenance activities are not recoverable in the markets.

Finally, the Six Cities urge the CAISO to assess and provide information regarding the expected impacts of the proposed VOM cost changes on bid cost recovery in the markets.

**Appendix A:**

Cost Component Allocation		
Major Maintenance	Other Maintenance - Variable	Other Maintenance - Fixed

Maintenance Activity	Please note if you disagree and why
<b>Inspections, Repairs and Overhauls, and Replacements:</b>	
1) Air Heater/Pre-Heater	
2) Alignment Checks	
3) Battery System	
4) Bearings	
5) Boilers, Burners, and Related Items	
6) Borescopes	
7) Casings, Shells, and Frames/Diffusers	
8) Combustion Turbine Generator Evaporative Cooling System Media	
9) Combustion Turbines and Related Items	
10) Compressor, Generator, and/or Turbine Rotors	
11) Condensers and Evaporators	
12) Communication Systems	
13) Compressor Blades	
14) Compressor Wash System	
15) Condensate Systems	
16) Clutches and Gears	
17) Cooling Tower Equipment	
18) Demineralization Systems	
19) Device Calibrations	
20) Distributed Control Systems	
21) Duct Burner and Liners	
22) Emissions Control Equipment Repairs	
23) Emissions Monitoring Tests	
24) Filters	
25) Fuel Metering Equipment	
26) Fuel Treatment System	
27) Generator Field Rewinds	
28) Heat Transfers	
29) High Energy Piping	

30) Hot Gas Paths	
31) Hot Sections	
32) Hotwell and Related Items	
33) Instrument and Service Air and Water Supply Systems	
34) Main Steam Piping	
35) Nozzle Block	
36) Oil Changes	
37) Oxygen Boiler	
38) Plant Electrical Systems	
39) Pumps & Motors	
40) Radial and Axial Clearance Checks	
41) Seals	
42) Steam Drum and Related Items	
43) Tubes and Piping	
44) Transformer	
45) Turbine Blades and Diaphragms	
46) Turbine Lube Oil Sampling	
47) Turning and Ratchet Gear Maintenance	
48) Valves	
49) Vibration Analysis Monitoring	
50) Water Circuits	
51) Waterbox	

<b>Cleaning</b>	
52) Boiler Cleaning	
53) Chemical Cleaning	
54) Heat Transfer Cleaning	
56) Hydro-Blast Cleaning	
57) Relay Cleaning	

<b>Testing</b>	
58) Hydrogen Embrittlement Testing	
59) Non-Destructive Testing	
60) Performance Testing (Oxygen Boiler Tests, On-Line Testing, Pre-Air Heater Test)	
61) Relay & Interlock Testing	

<b>Other</b>	
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62) Balance-of-Plant	
63) Distributed Control System Upkeep	

<b>Materials</b>	
64) Instruments	
65) Safety Equipment	
66) Shop Supplies	
67) Tools	