

## **Supplemental Comments on WEIM Resource Sufficiency Evaluation Enhancements Phase 2 - Revised Final Proposal**

**Department of Market Monitoring**

December 1, 2022

### **Summary**

The Department of Market Monitoring (DMM) has performed additional analysis to help different balancing areas and stakeholders assess the implications of the *WEIM Resource Sufficiency Evaluation Enhancements Phase 2 – Revised Final Proposal*.<sup>1</sup> For this analysis, DMM performed a back cast of what the potential costs and impacts of the energy assistance program would have been if provisions of the Revised Final Proposal had been in effect during the critical period from September 5 to 8, 2022. DMM performed similar analysis of the CAISO's prior revised draft final proposal.<sup>2</sup> This analysis also incorporates adjustments made to account for several issues which lead to counting of battery capacity that was actually unavailable during this period, as described in DMM's most recent monthly report on *Resource Sufficiency Evaluation Metrics*.<sup>3</sup>

### **Background**

#### ***Revised Final Proposal***

Under the revised final proposal, if an area elects to be eligible for energy assistance, the proposal will change the consequences for that balancing area of failing the upward capacity or flexibility test. Instead of having import transfers limited to the previous interval's transfer level, an area failing the test could receive additional WEIM transfers needed to meet load. In this scenario, the area failing the test would pay an additional out-of-market energy assistance penalty cost for some of these WEIM transfers.

The penalty cost will be set at the CAISO/WEIM penalty price (\$1,000 or \$2,000/MWh). The quantity of transfers into an area paying the energy assistance penalty cost would be the lesser

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<sup>1</sup> DMM previously submitted comments on the final proposal in *Comments on WEIM Resource Sufficiency Evaluation Enhancements Phase 2 – Revised Final Proposal*, Department of Market Monitoring, November 16 2022:

<http://www.caiso.com/Documents/DMM-Comments-WEIM-Resource-Sufficiency-Evaluation-Enhancements-Phase2-Revised-Final-Proposal-2022-11-16.pdf>

<sup>2</sup> *Supplemental Comments on WEIM Resource Sufficiency Evaluation Enhancements Phase 2 – Revised Draft Final Proposal*, Department of Market Monitoring, September 27, 2022.

<http://www.caiso.com/Documents/DMM-Comments-WEIM-Resource-Sufficiency-Evaluation-Enhancements-Phase2-Draft-Final-Proposal-Sep-27-2022.pdf>

<sup>3</sup> *Western Energy Imbalance Market Resource Sufficiency Evaluation Metrics Report covering October 2022*, Department of Market Monitoring, November 30, 2022, pp. 7–9.

<http://www.caiso.com/Documents/2022-10-Metrics-Report-on-Resource-Sufficiency-Evaluation-in-WEIM-2022-11-30.pdf>

of (1) the amount by which the area failed an upward capacity or flexibility test, or (2) dynamic WEIM transfers into the area. Under the proposal, low priority exports from the CAISO balancing area would be excluded from the demand used to calculate the capacity requirement for the CAISO area.

### ***Adjustments to capacity test results***

For this analysis, DMM incorporated the following adjustments into the historical capacity test results for the CAISO balancing area.

- ***Battery storage capacity that was counted in the capacity test but was not actually available.*** As described in DMM's most recent monthly report on *Resource Sufficiency Evaluation Metrics*, during peak hours of the September heatwave period, battery storage capacity counted in the capacity test significantly exceeded the actual available capacity from batteries for a variety of reasons.<sup>4</sup> For this analysis, DMM adjusted the amount of battery capacity used in the capacity test to account for the four issues described in DMM's monthly report which lead to significant over counting of battery capacity that was actually available.<sup>5</sup> This adjustment reduced the amount of available capacity from batteries by an average of about 1,300 MW during peak hours on September 6.
- ***Low priority exports that will not be included in demand used to set capacity test requirements under the ISO's proposal.*** For this analysis, DMM also recalculated the capacity test requirement for the CAISO area after excluding low priority exports, as proposed in the Revised Final Proposal. DMM estimates that low priority exports that would be excluded from the capacity test requirement under the proposal totaled an average of just over 1,100 MW during peak hours of September 5 and 6.<sup>6</sup>

Figure 1 illustrates the magnitude of these two different adjustments for the net peak hours of September 6. Excluding battery capacity that was unavailable from the supply used in the capacity test would have increased the intervals in which the CAISO area would have failed the test.<sup>7</sup> However, with low priority exports excluded from test requirements, there would be no change in the intervals in which the CAISO area failed the test over this period.<sup>8</sup>

During intervals in which the CAISO failed the test, these two adjustments would also both have an impact on the amount by which the CAISO area failed. Under the Revised Final Proposal, the amount by which an area fails the capacity or flexibility test is one of the factors that can determine the amount of the energy assistance penalty cost. Therefore, for this analysis, the potential cost of this penalty during intervals when the CAISO area failed the test was calculated based on the amount by which the CAISO would have failed the capacity or flexibility

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<sup>4</sup> Ibid. pp. 7–9.

<sup>5</sup> Ibid. pp. 7–9.

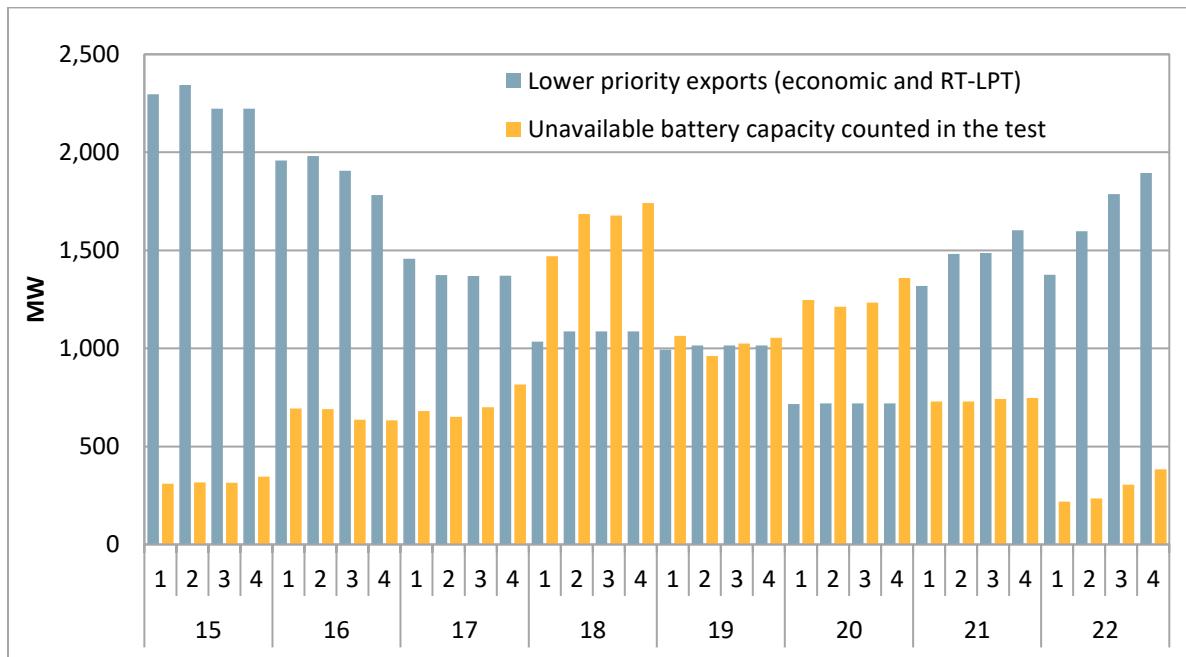
<sup>6</sup> Ibid. pp. 9–10.

<sup>7</sup> Ibid. Figure 2-8, p. 11.

<sup>8</sup> Ibid. Figure 2-8, p. 11.

test after including the adjustments to available battery capacity and low priority exports described above.

**Figure 1. Adjustments made to exclude unavailable battery capacity and low priority exports from capacity test (September 6, 2022)**



## Results of Analysis

Table 1 summarizes results of this analysis for all balancing areas in the WEIM. The first column shows the number of 15-minute intervals each area failed the test during this period. Results in the rest of Table 1 are summarized for two different categories of intervals:

- The columns on the left side of Table 1 summarize results for intervals in which the limit on WEIM transfers that is triggered when an area fails the test was not binding in the 5-minute market. During these intervals, no additional transfers into those BAAs from the WEIM would have occurred through participation in the energy assistance program, as explained in DMM's analysis of the ISO's prior energy assistance proposal.<sup>9</sup>
- The columns on the right side of Table 1 summarize results for intervals in which the limit on WEIM transfers triggered when an area fails the test was binding in the 5-minute market. During these intervals, additional transfers into those BAAs from the WEIM could

<sup>9</sup> *Supplemental Comments on WEIM Resource Sufficiency Evaluation Enhancements Phase 2 – Revised Draft Final Proposal*, op. cit., pp. 4-6.

have occurred through participation in the energy assistance program. This analysis does not include any estimate of the volume or cost of any such additional transfers.

For each of these two categories of intervals, Table 1 shows (1) the average net imports from the WEIM in the 5-minute market, and (2) the average RSE insufficiency for each balancing area, along with the total estimated amount of energy assistance surcharges that would have been imposed under the Revised Final Proposal.

**Table 1. Estimated impacts of energy assistance proposal by balancing area**  
**September 5-8, 2022**

BAA	Resource Sufficiency Evaluation failures	<u>Market transfers below the imposed import limit</u>				<u>Market transfers below the imposed import limit</u>			
		Percent of RTD failure intervals	Average RTD dynamic net import (MW)	Average RSE insufficiency (MW)	Total assistance surcharge (\$)	Percent of RTD failure intervals	Average RTD dynamic net import (MW)	Average RSE insufficiency (MW)	Base assistance surcharge (\$)
BANC	9	41%	56	191	\$21,390	59%	65	294	\$75,259
BPA	7	10%	-65	238	\$0	90%	13	146	\$21,334
California ISO	13	100%	1,572	595	\$2,867,446	0%	—	—	\$0
Idaho Power	11	11%	63	10	\$4,982	89%	18	54	\$56,980
LADWP	2	100%	-59	36	\$0	0%	—	—	\$0
NorthWestern	5	27%	-67	109	\$0	73%	29	73	\$25,668
PacifiCorp East	2	33%	-69	64	\$0	67%	186	153	\$91,452
PacifiCorp West	3	33%	-260	17	\$0	67%	1	34	\$540
PSC New Mexico	1	100%	-153	22	\$0	0%	—	—	\$0
Puget Sound	7	48%	-26	13	\$5,069	52%	16	31	\$12,047
Seattle City Light	9	100%	-7	7	\$1,177	0%	—	—	\$0
Salt River Project	11	42%	-20	42	\$0	58%	0	171	\$0
Turlock Irrig. Dist.	3	89%	-20	3	\$0	11%	0	3	\$0