April 22, 2024

The Honorable Debbie-Anne A. Reese
Acting Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: California Independent System Operator Corporation
Docket No. ER15-861-___
Western Energy Imbalance Market – First Quarter 2024
Available Balancing Capacity Report

Dear Acting Secretary Reese:

The California Independent System Operator Corporation (CAISO) hereby submits its quarterly informational report for the first quarter of 2024 (from January 1 up to and including March 31, 2024) on the Available Balancing Capacity (ABC) enhancement for the Western Energy Imbalance Market (WEIM). The purpose of the quarterly informational report is to provide the Commission with information on the performance of the ABC enhancement and to provide the same information the CAISO provides in its monthly informational reports submitted during a WEIM Entity's first six-month transition period.

Consistent with the Commission's directive in the December 17, 2015 order, the CAISO will continue to file such quarterly reports for at least the first year after implementation of the ABC enhancement, or until the Commission finds the quarterly informational reports are no longer needed.

Please contact the undersigned with any questions.

Respectfully submitted

By: *<u>/s/ John Anders</u>*

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Western Energy Imbalance Market

January 1 – March 31, 2024

Available Balancing Capacity Report

April 20, 2024

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I. Background

On December 17, 2015, the Federal Energy Regulatory Commission (Commission) approved the California Independent System Operator Corporation's (CAISO) proposed tariff revisions to comply with the Commission's July 20, 2015 order in FERC Docket No. ER15-861-006.[1] The CAISO's proposed tariff provisions enhanced the Western Energy Imbalance Market (WEIM) functionality so that the market systems automatically recognize and account for capacity a WEIM entity has available to maintain reliable operations in its own balancing authority area (BAA), but has not been bid into the WEIM.[2] This enhancement is referred to as the Available Balancing Capacity (ABC) enhancement. The CAISO implemented the ABC enhancement on March 23, 2016.

Consistent with the CAISO's commitments made in this proceeding, the Commission directed the CAISO to prepare and file with the Commission quarterly informational reports for at least the first year after implementation of the ABC enhancement, and until the Commission finds the quarterly informational reports are no longer needed.[3] The quarterly informational reports are to provide information on the performance of the ABC enhancement and to include the same information the CAISO provides in its monthly transitional period report submitted during a WEIM entity's first six-month transition period.[4] There were no WEIM entities undergoing a transition period during this quarter.

1 *Cal. Indep. Sys. Operator Corp.,* 152 FERC ¶ 61,060 (2015) (July 20 Order); and *Cal. Indep. Sys. Operator Corp*., 153 FERC ¶ 61, 305 (2015) (December 17 Order).

2 December 17 Order at P 1.

3 December 17 Order at P 99

4 December 17 Order at P 39.

II. Available Balancing Capacity

A. ABC Submitted to the Market

Each WEIM entity can identify and choose the amount of ABC they will make available to the CAISO and the resources supporting this capacity through its resource plan. The WEIM entity submits this capacity to the CAISO on an hourly basis, and it is available for both the Fifteen-Minute Market (FMM) and the five-minute Real-Time Dispatch (RTD). The data in this section shows the ABC bid into, and awarded by, the market in each of the WEIM BAAs for each month within the quarter.

Table 1 below summarizes the percentage of hours in which each WEIM entity submitted upward and downward ABC bids to the WEIM for each month within the quarter. Many entities submitted ABC for nearly all intervals in each month with some exceptions. AVRN, EPE, IPCO and PSEI did not submit any ABC to the WEIM during the quarter.

Table 1: Frequency of ABC Submitted to the WEIM

BAA	January 2024		February 2024		March 2024	
	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity
AVA	99.87%	99.87%	99.86%	99.86%	100.00%	100.00%
AVRN	--	--	--	--	--	--
AZPS	95.03%	95.43%	97.99%	94.68%	93.94%	94.08%
BANC	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
BCHA	99.87%	100.00%	100.00%	100.00%	100.00%	100.00%
BPA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
EPE	--	--	--	--	--	--
IPCO	--	--	--	--	--	--
LADWP	95.83%	0.00%	99.71%	0.00%	99.60%	0.40%
NEVP	99.87%	88.04%	99.57%	80.89%	99.87%	73.08%
NWMT	97.58%	99.73%	99.14%	100.00%	99.33%	99.73%
PACE	21.24%	4.97%	16.95%	13.07%	55.45%	79.81%
PACW	1.34%	5.91%	--	--	38.90%	50.61%
PGE	97.85%	0.00%	99.57%	0.00%	98.65%	0.00%
PNM	0.13%	48.66%	0.00%	49.57%	0.00%	44.82%
PSEI	--	--	--	--	--	--
SCL	10.22%	0.00%	--	--	--	--
SRP	99.73%	97.98%	99.86%	98.28%	100.00%	97.44%
TEP	100.00%	100.00%	99.71%	100.00%	100.00%	100.00%
TIDC	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
TPWR	70.97%	99.06%	84.05%	100.00%	45.90%	100.00%
WALC	100.00%	99.87%	100.00%	99.43%	100.00%	100.00%

Table 2 below shows the average ABC capacity, in MW, which each WEIM entity submitted to the WEIM for each month within the quarter. BCHA consistently submitted the highest average ABC capacity to the WEIM in both the upward and downward directions.

Table 2: Average ABC Capacity Submitted to the WEIM

BAA	January 2024		February 2024		March 2024	
	Upward Capacity (MW)	Downward Capacity (MW)	Upward Capacity (MW)	Downward Capacity (MW)	Upward Capacity (MW)	Downward Capacity (MW)
AVA	20	20	20	20	20	20
AVRN	--	--	--	--	--	--
AZPS	19.96	20	20	19.96	19.94	20
BANC	13.53	38.83	13.7	33.99	14.96	26.66
BCHA	596.79	299.78	597.4	299.73	594.97	300
BPA	156.53	165.42	154.57	164.57	155.22	165.5
EPE	--	--	--	--	--	--
IPCO	--	--	--	--	--	--
LADWP	58.21	--	59.91	--	60.09	50
NEVP	33.95	33	40.11	31.97	37.22	35.11
NWMT	5	5	5	5	5	5
PACE	31.4	52.73	29.52	52.06	30.19	46.51
PACW	69	74.32	--	--	31.1	31.73
PGE	31.52	--	30.17	--	29.84	--
PNM	70	31.24	--	25.6	--	43.24
PSEI	--	--	--	--	--	--
SCL	40.19	--	--	--	--	--
SRP	26.95	25.48	22.55	27.32	26.26	23.33
TEP	19.46	22.47	11.62	22.03	18.97	24.43
TIDC	14.99	5	15	5	14.97	5
TPWR	1.14	2.24	1	2.14	1	1.16
WALC	17.48	17.11	17.47	17.36	17.45	17.39

Table 3 below show the maximum ABC capacity, in MW, which each WEIM entity submitted to the WEIM for each month within the quarter. The highest ABC bid was submitted by BCHA in the upward direction for 1000 MW, which was consistent across all three months of the quarter.

Table 3: Maximum ABC Capacity Submitted to the WEIM

BAA	January 2024		February 2024		March 2024	
	Upward Capacity (MW)	Downward Capacity (MW)	Upward Capacity (MW)	Downward Capacity (MW)	Upward Capacity (MW)	Downward Capacity (MW)
AVA	20	20	20	20	20	20
AVRN	--	--	--	--	--	--
AZPS	20	20	20	20	20	20
BANC	103	100	65	100	76	99
BCHA	1000	500	1000	500	1000	500
BPA	305	439	566	679	318	280
EPE	--	--	--	--	--	--
IPCO	--	--	--	--	--	--
LADWP	75	--	60	--	75	50
NEVP	70	50	50	80	95	64
NWMT	5	5	5	5	5	5
PACE	80	100	34	90	60	270
PACW	100	100	--	--	180	55
PGE	165	--	60	--	30	--
PNM	70	110	--	75	--	80
PSEI	--	--	--	--	--	--
SCL	100	--	--	--	--	--
SRP	100	100	100	50	100	50
TEP	145	44	35	40	33	45
TIDC	15	5	15	5	15	5
TPWR	2	3.6	1	3.6	1	3
WALC	20	20	20	20	20	20

Table 4 below shows the number of different resources supporting the ABC that the WEIM entities bid into the WEIM in both the upward and downward directions, for each month within the quarter. A maximum of 18 resources supported upward ABC capacity bids submitted by SRP. Some entities used as few as one resource to support their ABC bids.

Table 4: Number of Resources Supporting ABC

BAA	January 2024		February 2024		March 2024	
	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity
AVA	6	6	5	5	5	5
AVRN	--	--	--	--	--	--
AZPS	4	4	7	8	7	8
BANC	12	9	12	13	11	13
BCHA	2	2	2	2	2	2
BPA	2	3	3	3	3	2
EPE	--	--	--	--	--	--

IPCO	--	--	--	--	--	--
LADWP	2	--	3	--	4	1
NEVP	10	11	9	10	7	7
NWMT	3	3	3	3	2	2
PACE	5	5	5	6	5	5
PACW	1	1	--	--	2	3
PGE	4	--	2	--	3	--
PNM	1	7	--	3	--	8
PSEI	--	--	--	--	--	--
SCL	3	--	--	--	--	--
SRP	18	13	16	15	15	12
TEP	16	12	17	10	14	5
TIDC	1	1	1	1	1	1
TPWR	3	4	3	4	1	4
WALC	3	4	3	3	2	4

B. ABC Awarded by the Market

Table 5 below shows the frequency of each WEIM entities' dispatched ABC for the FMM market, when the WEIM entities made ABC available, for each month within the quarter. Overall, the market dispatched ABC quite infrequently throughout the quarter. The highest frequency of ABC dispatch in FMM occurred in February 2024 for PNM's bid-in downward ABC capacity. Often, the market dispatched ABC around or less than 1 percent of the time during the quarter.

Table 5: Frequency of ABC Dispatched by WEIM in the FMM

BAA	January 2024		February 2024		March 2024	
	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity
AVA	0.30%	--	--	--	0.03%	--
AVRN	--	--	--	--	--	--
AZPS	--	--	0.18%	--	0.20%	--
BANC	--	--	--	0.11%	--	0.07%
BCHA	--	0.07%	--	--	--	--
BPA	1.14%	0.03%	--	--	0.07%	0.07%
EPE	--	--	--	--	--	--
IPCO	--	--	--	--	--	--
LADWP	0.20%	--	0.07%	--	0.07%	--
NEVP	0.07%	0.57%	0.07%	0.07%	--	0.07%
NWMT	0.20%	--	--	--	--	--
PACE	--	--	--	--	--	--
PACW	0.03%	--	--	--	--	0.07%
PGE	--	--	--	--	--	--

PNM	--	1.14%	--	1.55%	--	1.35%
PSEI	--	--	--	--	--	--
SCL	0.17%	--	--	--	--	--
SRP	0.40%	0.24%	0.32%	0.14%	0.77%	0.30%
TEP	0.03%	--	0.40%	--	0.14%	--
TIDC	--	--	--	--	--	--
TPWR	--	--	0.04%	0.04%	0.10%	--
WALC	0.24%	0.13%	0.29%	0.07%	0.24%	0.03%

Table 6 below shows the frequency of each WEIM entities' dispatched ABC for the RTD market, when the WEIM entities made ABC available, for each month within the quarter. Overall, the market dispatched ABC infrequently throughout the quarter. The highest frequency of ABC dispatch in RTD occurred in March 2024 on BANC's bid-in upward ABC capacity. Often, the market dispatched ABC less than or around 1 percent of the time during the month.

Table 6: Frequency of ABC Dispatched by WEIM in the RTD

BAA	January 2024		February 2024		March 2024	
	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity	Upward Capacity	Downward Capacity
AVA	0.59%	--	--	0.01%	0.03%	--
AVRN	--	--	--	--	--	--
AZPS	0.08%	0.01%	0.02%	--	0.03%	0.08%
BANC	--	0.30%	0.75%	0.11%	2.39%	0.05%
BCHA	0.13%	0.59%	--	1.14%	--	0.53%
BPA	2.21%	--	--	--	0.02%	0.11%
EPE	--	--	--	--	--	--
IPCO	--	--	--	--	--	--
LADWP	0.30%	--	0.19%	--	0.20%	--
NEVP	0.20%	0.21%	0.04%	0.16%	0.22%	0.08%
NWMT	0.86%	--	0.10%	--	0.02%	--
PACE	--	0.01%	--	0.11%	--	1.58%
PACW	--	--	--	--	0.01%	--
PGE	0.08%	--	--	--	--	--
PNM	--	0.31%	--	0.29%	--	0.99%
PSEI	--	--	--	--	--	--
SCL	0.18%	--	--	--	--	--
SRP	0.69%	0.25%	0.29%	0.20%	2.42%	0.26%
TEP	0.17%	0.11%	0.61%	0.13%	0.21%	0.17%
TIDC	--	--	--	--	--	--
TPWR	0.12%	--	0.01%	--	0.10%	--
WALC	0.13%	0.05%	0.25%	--	0.08%	0.06%

C. ABC and Power Balance Constraint Infeasibilities

The purpose of the ABC enhancement is to make capacity available that otherwise would not be visible to the WEIM. The primary objective in making such capacity available is that the WEIM can recognize and access that capacity when the conditions warrant its use, namely when the WEIM is running out of capacity made available through economic bids. The ABC is capacity stacked above economic bids, but below the power balance constraint relaxation penalty price. When the market is tight in supply and it has exhausted all effective economic bids, the market clearing process will access the ABC. If there is sufficient ABC, the WEIM will relax the power balance constraint to clear the market. As such, the market clearing process uses the ABC to resolve the power balance infeasibility. If instead the ABC identified is not sufficient to cure the infeasibility, the ABC may be exhausted and there may still be the need to relax the power balance constraint in order to clear the WEIM.

Table 7 below shows the frequency of intervals in which the WEIM entities did not make any ABC available to the WEIM, when there was a power balance infeasibility for each month within the quarter, in the FMM. Specifically, the data in the table below provides the percentage amount of over-supply infeasibilities where downward ABC was needed, and under-supply infeasibilities where upward ABC was needed. No data indicates that there were no infeasibilities during the period. A metric of 0 percent indicates that in all intervals when there was an infeasibility observed, the WEIM entity did submit ABC to the WEIM. A metric of 100 percent indicates that in all intervals when there was an infeasibility observed, the WEIM entity did not submit any ABC to the WEIM.

These instances occurred relatively infrequently throughout the quarter, indicating that the WEIM entities typically had submitted ABC bids during instances when infeasibilities were observed.

Table 7: Frequency of Power Balance Infeasibilities When ABC was not Submitted in FMM

BAA	January 2024		February 2024		March 2024	
	Over-supply	Under-supply	Over-supply	Under-supply	Over-supply	Under-supply
AVA	--	0.00%	--	--	--	--
AVRN	--	100.00%	--	--	--	--
AZPS	--	--	--	0.00%	--	46.67%
BANC	--	--	--	--	--	--
BCHA	0.00%	--	--	--	--	--
BPA	--	--	--	--	--	0.00%
EPE	100.00%	100.00%	100.00%	--	100.00%	100.00%

IPCO	--	100.00%	--	--	--	--
LADWP	--	--	--	--	--	--
NEVP	--	--	--	--	0.00%	--
NWMT	--	--	--	--	100.00%	--
PACE	--	--	--	--	--	--
PACW	--	93.75%	--	--	--	--
PGE	--	--	--	--	--	--
PNM	100.00%	100.00%	--	100.00%	--	100.00%
PSEI	--	100.00%	--	--	--	--
SCL	100.00%	75.00%	--	--	100.00%	100.00%
SRP	0.00%	0.00%	0.00%	--	14.29%	0.00%
TEP	--	0.00%	--	0.00%	--	--
TIDC	--	--	--	--	--	--
TPWR	--	--	--	0.00%	--	0.00%
WALC	--	0.00%	--	0.00%	--	0.00%

Table 8 below shows the frequency of intervals in which the WEIM entities did not make any ABC available to the WEIM, when there was a power balance infeasibility for each month within the quarter, in the RTD. Instances of observed infeasibilities with no submitted ABC occurred more frequently in RTD than FMM.

Table 8: Frequency of Power Balance Infeasibilities When ABC was not Submitted in RTD

BAA	January 2024		February 2024		March 2024	
	Over-supply	Under-supply	Over-supply	Under-supply	Over-supply	Under-supply
AVA	--	0.00%	--	--	--	0.00%
AVRN	--	100.00%	--	--	--	--
AZPS	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%
BANC	--	--	--	0.00%	--	--
BCHA	0.00%	--	--	--	--	--
BPA	--	0.00%	--	--	0.00%	0.00%
EPE	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
IPCO	--	100.00%	--	--	--	100.00%
LADWP	--	--	--	0.00%	--	0.00%
NEVP	--	--	--	--	0.00%	0.00%
NWMT	--	0.00%	--	0.00%	--	0.00%
PACE	--	--	100.00%	--	--	--
PACW	--	100.00%	--	--	--	--
PGE	--	0.00%	--	--	--	--
PNM	100.00%	100.00%	66.67%	100.00%	100.00%	100.00%
PSEI	--	100.00%	--	--	--	100.00%
SCL	100.00%	100.00%	100.00%	--	100.00%	100.00%
SRP	0.00%	0.00%	7.14%	0.00%	26.67%	0.00%

TEP	--	0.00%	--	0.00%	--	0.00%
TIDC	--	--	--	--	0.00%	--
TPWR	--	0.00%	0.00%	0.00%	--	0.00%
WALC	--	0.00%	--	0.00%	0.00%	0.00%

III. WEIM Performance

This section provides the information the CAISO previously provided in its monthly transition period report submitted during a WEIM entity's first six-month transition period.

A. ELAP Prices

The figures in this section show the WEIM load aggregation point (ELAP) prices[5] for the FMM and RTD in each WEIM BAA. In prior reports, the CAISO provided these factual prices in comparison to counterfactual prices in order to show the effect of using the pricing waiver of the price discovery mechanism.[6]

The CAISO may correct prices posted on its Open Access Same-time Information System (OASIS) pursuant to the CAISO's price correction authority in section 35 of the CAISO tariff, if it finds: (1) that the prices were the product of an invalid market solution; or (2) the market solution produced an invalid price due to data input failures, hardware or software failures; or (3) a result that is inconsistent with the CAISO Tariff.

The prices presented in the figures below include all prices produced by the CAISO consistent with the CAISO tariff requirements. That is, the trends below represent: (1) prices as produced in the market for which the CAISO deemed valid; (2) prices that the CAISO could and did correct pursuant to section 35; and (3) any prices the CAISO adjusted pursuant to transition period pricing reflected in section 29.27 of the CAISO tariff.

Table 9 below shows the average ELAP prices for all WEIM entities for each month within the quarter. Average prices were higher in January 2024 corresponding on the mid-month cold snap over the MLK holiday weekend. For the other months in the quarter, prices stayed lower on average.

[5] The ELAP provides aggregate prices that are representative of pricing in the overall BAA.

[6] In Docket ER15-402, the CAISO reported on prices based on the price discovery mechanism in effect during the term of the Commission's waiver granted in that docket and the prices as they would be if the waiver was not in effect, *i.e.*, what prices would have been had they been on the penalty prices in the CAISO tariff. Because pricing under the waiver pricing is based on the last economic bid price signal, these prices are a proxy of what the prices would have been absent the seven category of learning curve type issues experience in that market. The difference between the counterfactual pricing and the price in effect during the term of the reports in that docket illustrated the market impact of the waiver pricing.

Table 9: Average FMM and RTD ELAP Prices

BAA	January 2024		February 2024		March 2024	
	FMM ($/MWh)	RTD ($/MWh)	FMM ($/MWh)	RTD ($/MWh)	FMM ($/MWh)	RTD ($/MWh)
AVA	154.47	163.64	38.44	37.24	30.4	29.34
AVRN	164.22	167.72	38.07	37.37	30.59	28.93
AZPS	58.84	58.61	27.58	26.3	18.16	17.05
BANC	77.47	79.25	40.78	39.05	31.36	29.97
BCHA	72.11	72.45	53.99	52.59	48.77	47.89
BPA	182.23	183.77	39.05	37.44	30.21	28.32
EPE	53.32	51.71	24.47	23.66	15.33	14.82
IPCO	111.77	118.59	34.94	33.92	26.81	25.44
LADWP	67.92	66.29	31.83	30.14	18.35	17.19
NEVP	65	64.49	30.49	29.19	19.17	19.48
NWMT	150.43	160.59	37.85	37.43	29.31	28.39
PACE	75.67	72.67	31.2	29.74	22.38	21.08
PACW	169.42	170.81	37.81	37.03	30.15	28.46
PGE	165	169.22	37.65	36.96	31.72	29.27
PNM	69.15	70.1	34.56	34.07	17.91	17.74
PSEI	166.64	175.02	39.22	37.49	30.65	29.06
SCL	167	171.26	39.84	37.49	30.36	28.37
SRP	54.34	53.31	25.47	24.1	14.47	16.66
TEP	58.47	57.84	27.21	27.64	14.56	16.06
TIDC	77.88	79.43	41.48	39.58	33.37	31.42
TPWR	165.03	169.63	38.52	37.37	30.99	29.21
WALC	60.2	58.89	29.4	27.88	14.43	13.89

B. Balancing Test Failures

The CAISO performs the balancing test pursuant to Section 29.34(k) of the CAISO tariff. Powerex (BCHA) is not subject to the balancing test.

Table 10 below shows the frequency that each WEIM entity passed the balancing test, as well as what percentage of balancing test failures were due to under-scheduling and over-scheduling, for each month within the quarter. Overall, the entities passed the balancing test at high frequencies throughout the quarter.

Table 10: Frequency of Passing Balancing Test

BAA	January 2024	February 2024	March 2024
AVA	99.19%	99.57%	99.19%
AVRN	99.19%	99.86%	99.60%
AZPS	98.52%	99.14%	97.71%
BANC	99.87%	99.86%	99.33%

BCHA	--	--	--
BPA	98.52%	99.57%	99.06%
EPE	99.60%	99.28%	100.00%
IPCO	99.60%	100.00%	99.46%
LADWP	99.19%	99.14%	99.73%
NEVP	94.35%	96.55%	95.15%
NWMT	99.06%	99.28%	99.33%
PACE	97.72%	97.99%	98.12%
PACW	97.72%	98.99%	96.50%
PGE	99.60%	99.28%	98.12%
PNM	95.56%	94.83%	95.15%
PSEI	98.25%	98.85%	98.92%
SCL	99.87%	99.86%	99.87%
SRP	97.45%	98.71%	98.92%
TEP	98.79%	97.99%	99.46%
TIDC	99.60%	99.71%	99.06%
TPWR	99.73%	100.00%	99.60%
WALC	98.92%	98.85%	99.87%

Table 11 below shows the frequency of balancing test failures due to over-scheduling and under-scheduling respectively, for each month of the quarter. Overall, balancing test failures were due more to under-scheduling than over-scheduling conditions.

Table 11: Frequency of Balancing Test Failures due to Over-Scheduling and Under-Scheduling

BAA	January 2024		February 2024		March 2024	
	Over-scheduling	Under-Scheduling	Over-scheduling	Under-Scheduling	Over-scheduling	Under-Scheduling
AVA	16.67%	83.33%	100.00%	0.00%	33.33%	66.67%
AVRN	0.00%	100.00%	0.00%	100.00%	0.00%	100.00%
AZPS	36.36%	63.64%	83.33%	16.67%	52.94%	47.06%
BANC	100.00%	0.00%	100.00%	0.00%	20.00%	80.00%
BCHA	--	--	--	--	--	--
BPA	36.36%	63.64%	66.67%	33.33%	42.86%	57.14%
EPE	0.00%	100.00%	80.00%	20.00%	0.00%	0.00%
IPCO	33.33%	66.67%	0.00%	0.00%	50.00%	50.00%
LADWP	83.33%	16.67%	33.33%	66.67%	0.00%	100.00%
NEVP	42.86%	57.14%	62.50%	37.50%	63.89%	36.11%
NWMT	57.14%	42.86%	0.00%	100.00%	20.00%	80.00%
PACE	29.41%	70.59%	21.43%	78.57%	21.43%	78.57%
PACW	29.41%	70.59%	28.57%	71.43%	7.69%	92.31%
PGE	66.67%	33.33%	0.00%	100.00%	57.14%	42.86%
PNM	69.70%	30.30%	66.67%	33.33%	52.78%	47.22%
PSEI	46.15%	53.85%	25.00%	75.00%	12.50%	87.50%

SCL	100.00%	0.00%	0.00%	100.00%	100.00%	0.00%
SRP	42.11%	57.89%	22.22%	77.78%	75.00%	25.00%
TEP	44.44%	55.56%	64.29%	35.71%	50.00%	50.00%
TIDC	100.00%	0.00%	50.00%	50.00%	57.14%	42.86%
TPWR	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%
WALC	62.50%	37.50%	100.00%	0.00%	0.00%	100.00%

C. Flexible Ramp Sufficiency Test Failures

Table 12 below shows the frequency that each WEIM entity passed the flexible ramping sufficiency test in the upward and downward directions, for each month within the quarter. Generally, the entities passed the flexible ramp sufficiency test very frequently throughout the months in the quarter.

Table 12: Frequency of Passing Flexible Ramping Sufficiency Test

BAA	January 2024		February 2024		March 2024	
	Upward Direction	Downward Direction	Upward Direction	Downward Direction	Upward Direction	Downward Direction
AVA	99.87%	100.00%	100.00%	99.96%	99.90%	100.00%
AVRN	99.83%	99.90%	99.86%	100.00%	99.90%	100.00%
AZPS	99.83%	99.87%	99.89%	99.89%	99.53%	99.80%
BANC	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
BCHA	99.76%	100.00%	100.00%	99.93%	100.00%	99.56%
BPA	99.63%	99.56%	99.96%	99.86%	100.00%	100.00%
EPE	99.73%	99.66%	99.96%	99.78%	98.99%	99.60%
IPCO	98.89%	100.00%	100.00%	100.00%	99.87%	99.97%
LADWP	99.93%	100.00%	100.00%	100.00%	99.87%	100.00%
NEVP	100.00%	100.00%	99.93%	100.00%	99.97%	99.87%
NWMT	99.46%	99.83%	99.86%	100.00%	99.97%	99.90%
PACE	100.00%	100.00%	100.00%	99.78%	100.00%	99.97%
PACW	99.03%	100.00%	100.00%	100.00%	99.93%	99.80%
PGE	100.00%	100.00%	100.00%	100.00%	99.97%	100.00%
PNM	98.02%	99.09%	97.70%	99.07%	99.63%	99.56%
PSEI	99.19%	100.00%	99.93%	100.00%	99.76%	100.00%
SCL	99.73%	99.83%	100.00%	99.89%	99.93%	99.87%
SRP	99.83%	99.93%	99.93%	99.86%	99.33%	99.26%
TEP	99.97%	100.00%	99.78%	99.86%	100.00%	100.00%
TIDC	100.00%	100.00%	100.00%	99.96%	100.00%	100.00%
TPWR	99.93%	100.00%	99.96%	99.96%	99.60%	100.00%
WALC	98.89%	99.73%	97.52%	99.86%	96.53%	99.97%

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the above-referenced proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California, this 22nd day of April 2024.

/s/ Ariana Rebancos

Ariana Rebancos