WESTERN ENERGY IMBALANCE MARKET BENEFITS REPORT

First Quarter 2026

Prepared by: Market Performance and Advanced Analytics

April 27, 2026

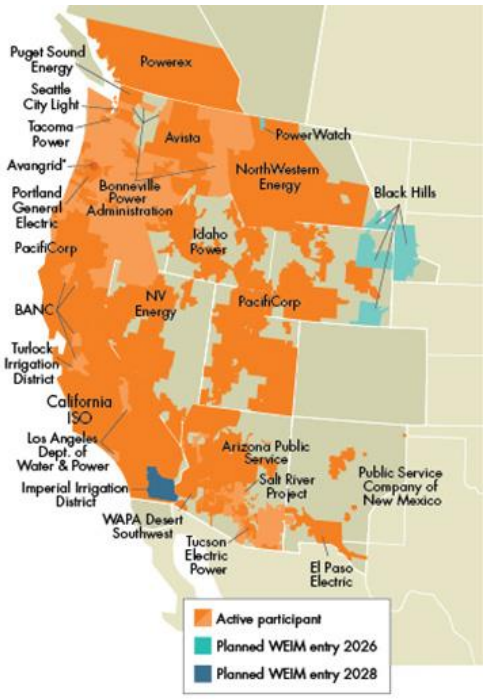
CONTENTS

EXECUTIVE SUMMARY

Gross benefits from WEIM since November 2014

$8.62 billion

This report presents the benefits associated with participation in the Western Energy Imbalance Market (WEIM). The measured benefits of participation in the WEIM include cost savings, increased integration of renewable energy, and improved operational efficiencies including the reduction of the need for real-time flexible reserves. The WEIM also provides significant reliability benefits by enhancing situational awareness and supporting access to surplus renewable energy across a broader western footprint.



*Avangrid office; generation only BAA with distribution across multiple states. Map boundaries are approximate and for illustrative purposes only. Copyright © 2025 California ISO

Q1 2026 Gross Benefits by Participant (entry year)

($ millions)

Arizona Public Service (2016)	$7.93
AVANGRID (2023)	$16.26
Avista (2022)	$4.95
Balancing Authority of Northern California (2019)	$36.79
Bonneville Power Administration (2022)	$5.63
California ISO (2014)	$10.69
El Paso Electric (2023)	$2.39
Idaho Power Company (2018)	$9.83
Los Angeles Dept. of Water & Power (2021)	$52.72
NV Energy (2015)	$50.65
NorthWestern Energy (2021)	$21.16
PacifiCorp (2014)	$60.48
Portland General Electric (2017)	$11.70
Public Service Company New Mexico (2021)	$25.24
Puget Sound Energy (2016)	$14.99
Powerex (2018)	$3.61
Seattle City Light (2020)	$13.59
Salt River Project (2020)	$13.36
Tacoma Power (2022)	$2.29
Tucson Electric Power (2022)	$5.25
Turlock Irrigation District (2021)	$0.80
WAPA Desert Southwest Region (2023)	$11.81
Total	$382.12

2026 Q1 BENEFITS

ECONOMICAL

$382.12 M

Gross benefits realized due to more efficient inter- and intra-regional dispatch in the Fifteen-Minute Market (FMM) and Real-Time Dispatch (RTD)*

ENVIRONMENTAL

34,596

Metric tons of CO_2** avoided curtailments

OPERATIONAL

57%

Average reduction in flexibility reserves across the footprint

This analysis demonstrates the benefit of economic dispatch in the real time market across a larger WEIM footprint with diverse resources and geography.

*WEIM Quarterly Benefit Report Methodology: https://www.westerneim.com/Documents/EIM-BenefitMethodology.pdf.

**The GHG emission reduction reported is associated with the avoided curtailment only. The current market process and counterfactual methodology cannot differentiate the GHG emissions resulting from serving ISO load via the WEIM versus dispatch that would have occurred external to the ISO without the WEIM. For more details, see http://www.caiso.com/Documents/GreenhouseGasEmissionsTrackingReport-FrequentlyAskedQuestions.pdf

*** In this report, California ISO is the balancing area and not a market participant. The benefits estimated for the California ISO balancing area in this report are realized to its market participants instead of the California ISO Corporation.

BACKGROUND

The WEIM began financially binding operation on November 1, 2014, by optimizing resources across the ISO and PacifiCorp Balancing Authority Areas (BAAs). Since then, the WEIM has continued to grow and now includes 22 market participants and represents nearly 80% of the demand for electricity in the Western interconnection. Today, the WEIM footprint includes portions of Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, Texas and extends to the border with Canada.

WEIM ECONOMIC BENEFITS IN Q1 2026

Table 2 shows the estimated WEIM gross benefits by each region per month[1]. The monthly savings presented show $126.91 million for January, $102.04 million for February and $153.17 million for March with a total estimated benefit of $382.12 million for this quarter[2]. This level of WEIM benefits accrued from having additional WEIM areas participating in the market and economical transfers displacing more expensive generation.

[1] The WEIM benefits reported here are calculated based on available data. Intervals without complete data are excluded in the calculation. The intervals excluded due to unavailable data are normally within a few percent points of the total intervals.
[2] For several quarterly estimates, CAISO benefits were calculated on a variation of the counterfactual methodology. For CAISO only the logic had considered offline resources as part of the bid stack in the counterfactual. In Q4 2021, CAISO identified some questionable results that drove persistent negative benefits for CAISO when considering offline resources. Since Q4 2021, the benefit calculation for CAISO area follows the same methodology applicable to all WEIM entities in which only online resources are used.

Region	January	February	March	Total
APS	$2.44	$1.70	$3.79	$7.93
AVRN	$3.45	$4.34	$8.47	$16.26
AVA	$1.58	$1.11	$2.26	$4.95
BANC	$13.17	$8.95	$14.67	$36.79
BPA	$1.66	$1.10	$2.87	$5.63
CISO	$2.13	$3.28	$5.28	$10.69
EPE	$0.95	$0.63	$0.81	$2.39
IPCO	$2.50	$1.95	$5.38	$9.83
LADWP	$23.06	$11.94	$17.72	$52.72
NVE	$13.19	$15.74	$21.72	$50.65
NWMT	$6.91	$5.87	$8.38	$21.16
PAC	$21.92	$17.00	$21.56	$60.48
PGE	$3.49	$3.13	$5.08	$11.70
PNM	$9.11	$7.50	$8.63	$25.24
PSE	$5.42	$4.29	$5.28	$14.99
PWRX	$0.61	$0.71	$2.29	$3.61
SCL	$2.32	$4.80	$6.47	$13.59
SRP	$3.83	$3.22	$6.31	$13.36
TPWR	$0.86	$0.47	$0.96	$2.29
TEP	$2.46	$1.06	$1.73	$5.25
TID	$0.22	$0.16	$0.42	$0.80
WALC	$5.63	$3.09	$3.09	$11.81
Total	$126.91	$102.04	$153.17	$382.12

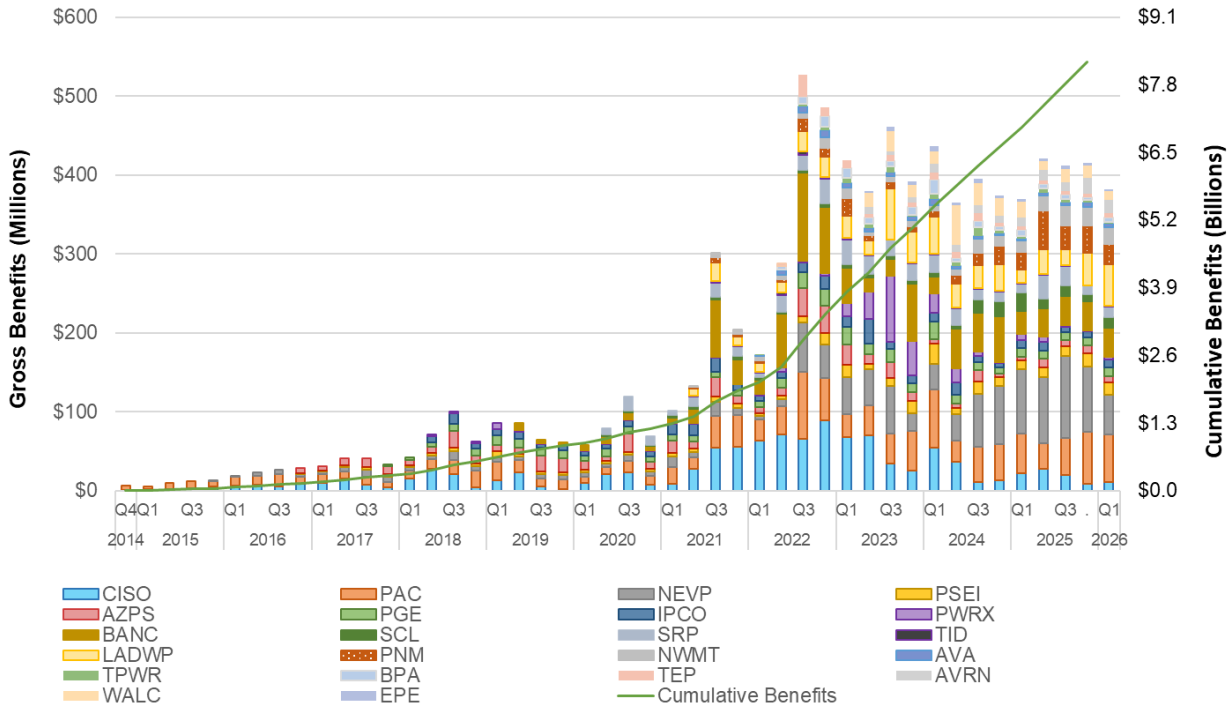
TABLE 1: Q1 2026 benefits in millions USD

CUMULATIVE ECONOMIC BENEFITS SINCE INCEPTION

Since the start of the WEIM in November 2014, the cumulative economic benefits of the market have totaled $8.62 billion. The quarterly benefits have grown over time as a result of the participation of new BAAs, which results in benefits for both the individual BAA but also compounds the benefits to adjacent BAAs through additional transfers. The ISO began publishing quarterly WEIM benefit reports in April 2015.[3]

Graph 1 illustrates the gross economic benefits of the WEIM by quarter for each participating BAA.

[3] Prior reports are available at https://www.westerneim.com/Pages/About/QuarterlyBenefits.aspx



GRAPH 1: Cumulative economic benefits for each quarter by BAA

INTER-REGIONAL TRANSFERS

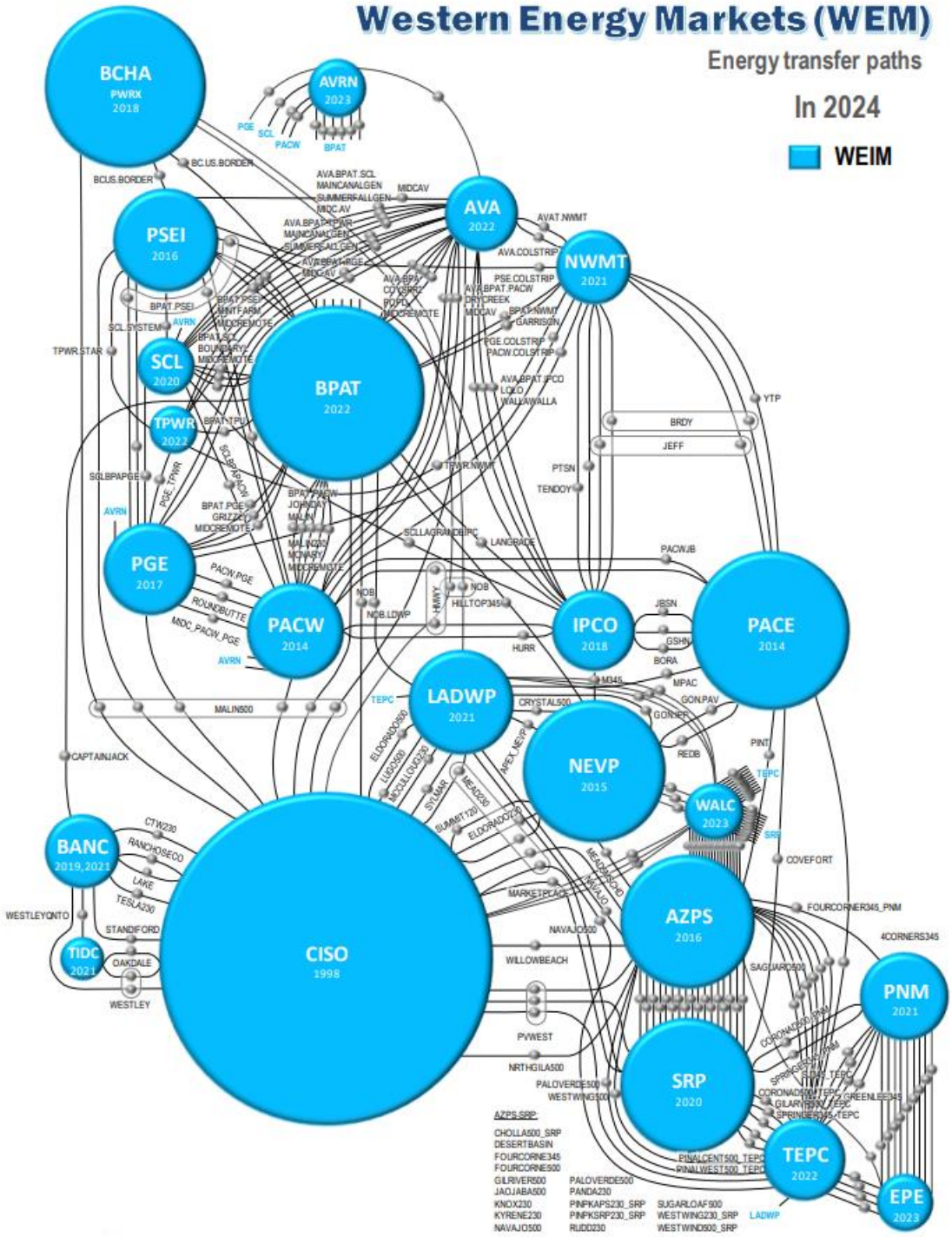
A significant contributor to WEIM benefits is transfers across balancing areas, providing access to lower cost supply, while factoring in the cost of compliance with greenhouse gas (GHG) emissions regulations when energy is transferred into the ISO. As such, the transfer volumes are a good indicator of a portion of the benefits attributed to the WEIM. Transfers can take place in both the 15-Minute Market and Real-Time Dispatch (RTD).

Generally, transfer limits are based on transmission and interchange rights that participating balancing authority areas make available to the WEIM, with the exception of the PacifiCorp West (PACW) -ISO transfer limit and the Portland General Electric (PGE) -ISO transfer limit in RTD. These RTD transfer capacities between PACW/PGE and the ISO are determined based on the allocated dynamic transfer capability driven by system operating conditions. This report does not quantify a BAA's opportunity cost that the utility considered when using its transfer rights for the WEIM. Graph 2 illustrates the WEIM ETSR (Energy Transfer System Resource).

Appendix 2 provides the 15-minute and 5-minute WEIM transfer volumes with base schedule transfers excluded. The WEIM entities submit inter-BAA transfers in their base schedules. The benefits quantified in this report are only attributable to the transfers that occurred through the WEIM. The benefits do not include any transfers attributed to transfers submitted in the base schedules that are scheduled prior to the start of the WEIM.

The transfer from BAA_x to BAA_y and the transfer from BAA_y to BAA_x are separately reported. For example, if there is a 100 Megawatt-Hour (MWh) transfer during a 5-minute interval, in addition to a base transfer from ISO to NVE, it will be reported as 100 MWh from_BAA ISO to_BAA NEVP, and 0 MWh from_BAA NEVP to_BAA ISO in the opposite

direction. The 15-minute transfer volume is the result of optimization in the 15-minute market using all bids and base schedules submitted into the WEIM. The 5-minute transfer volume is the result of optimization using all bids and base schedules submitted into WEIM, based on unit commitments determined in the 15-minute market optimization.



GRAPH 2: WEIM transfer

WHEEL-THROUGH TRANSFERS

As the footprint of the WEIM grows, wheel-through transfers may become more common. In order to derive the wheel-through transfers for each WEIM BAA, the ISO uses the following calculation for every real-time interval dispatch:

- *Total import*: summation of transfers above base transfers coming into the WEIM BAA under analysis
- *Total export*: summation of all transfers above base transfers going out of the WEIM BAA under analysis
- *Net import*: the maximum of zero or the difference between total imports and total exports
- *Net export*: the maximum of zero or the difference between total exports and total imports
- *Wheel-through*: the minimum of the WEIM transfers into (total import) or WEIM transfer out (total export) of a BAA for a given interval

All wheel-through transfers are summed over both the month and the quarter.

Currently, a WEIM entity facilitating a wheel through receives no direct financial benefit for facilitating the wheel; only the sink and source directly benefit. As part of the WEIM Consolidated Initiatives stakeholder process, the ISO committed to monitoring the wheel through volumes to assess whether, after the addition of new WEIM entities, there is a potential future need to pursue a market solution to address the equitable sharing of wheeling benefits.

The ISO will continue to track the volume of wheel-through transfers in the WEIM market in the quarterly reports.

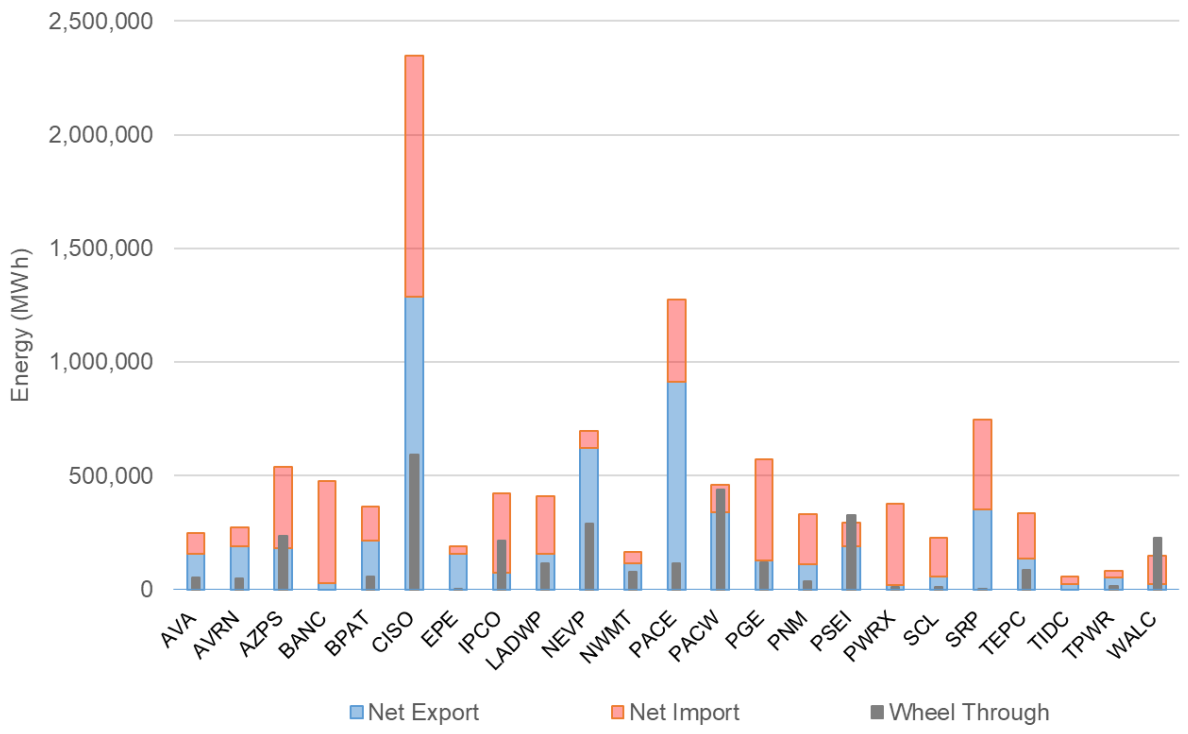
This volume reflects the total wheel-through transfers for each WEIM BAA, regardless of the potential paths used to wheel through. The net imports and exports estimated in this section reflect the overall volume of net imports and exports; in contrast, the imports and exports provided in Table 2 reflect the gross transfers between two WEIM BAAs.

The metric is measured as energy in MWh for each month and the corresponding calendar quarter, as shown in Tables 2 through 5 and Graphs 3 through 6.

BAA	Net Export	Net Import	Wheel Through
AVA	158,212	89,258	54,396
AVRN	190,760	83,675	48,293
AZPS	181,266	359,329	236,599
BANC	26,499	449,420	-
BPAT	213,000	151,374	55,567
CISO	1,285,675	1,063,024	591,454
EPE	156,779	34,085	273
IPCO	71,227	350,885	216,010
LADWP	155,017	253,895	113,669

NEVP	623,313	73,424	288,889
NWMT	115,283	48,062	75,414
PACE	913,152	363,104	116,590
PACW	340,134	118,150	439,769
PGE	126,950	445,391	120,417
PNM	111,693	219,665	33,783
PSEI	190,569	104,595	327,750
PWRX	17,159	360,355	12,057
SCL	56,094	169,274	11,750
SRP	351,867	395,750	2,686
TEPC	134,165	199,145	86,484
TIDC	24,551	32,922	-
TPWR	51,275	28,438	16,215
WALC	23,956	125,378	226,867

TABLE 2: Estimated wheel-through transfers in Q1 2026

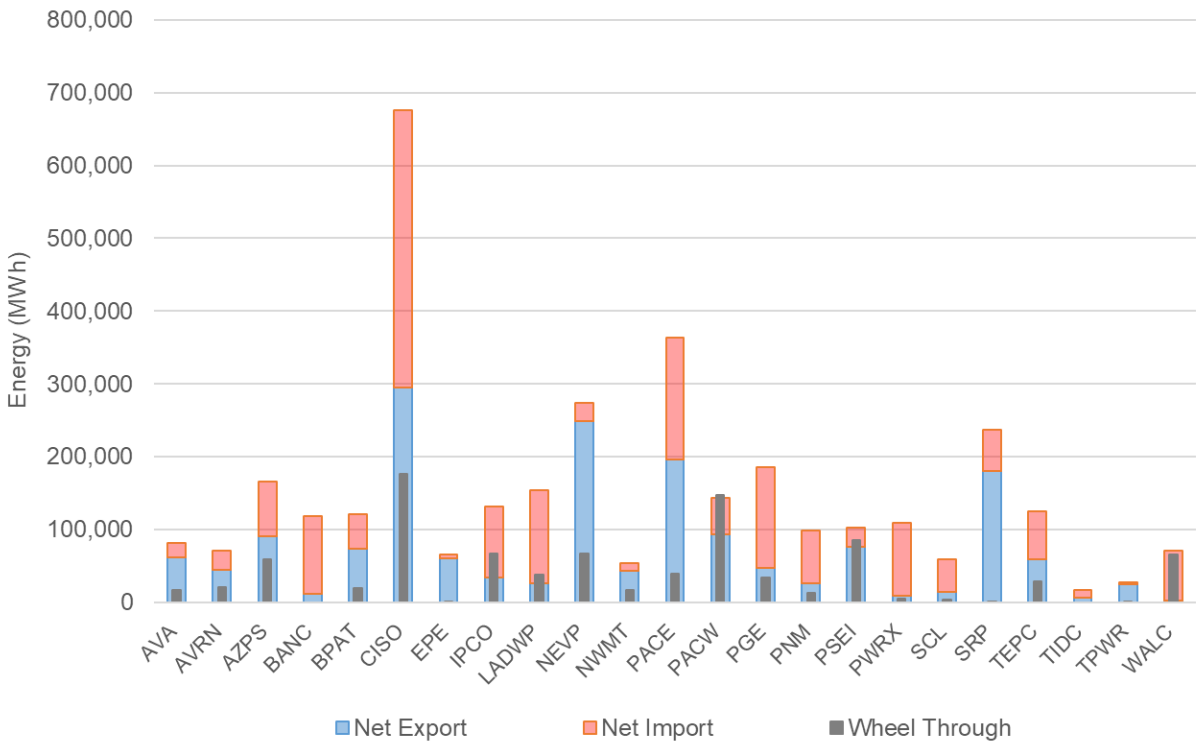


GRAPH 3: Estimated wheel-through transfers in Q1 2026

BAA	Net Export	Net Import	Wheel Through
AVA	61,478	19,797	16,288
AVRN	45,063	25,995	20,761
AZPS	90,336	75,012	59,433
BANC	12,098	105,706	-

BPAT	73,296	48,167	19,210
CISO	295,136	381,007	176,409
EPE	60,663	4,684 10	
IPCO	34,293	97,323	67,351
LADWP	25,957	127,691	37,876
NEVP	248,851	24,943	67,060
NWMT	43,138	10,953	17,330
PACE	196,449	167,190	39,458
PACW	93,660	50,384	147,610
PGE	46,959	138,662	33,948
PNM	25,520	72,886	12,954
PSEI	76,096	25,982	85,283
PWRX	8,860	99,760	5,256
SCL	14,616	44,820	4,076
SRP	180,562	56,708	487
TEPC	59,514	65,551	28,523
TIDC	6,920	10,467	-
TPWR	24,765	3,375	1,476
WALC	2,095	69,262	65,623

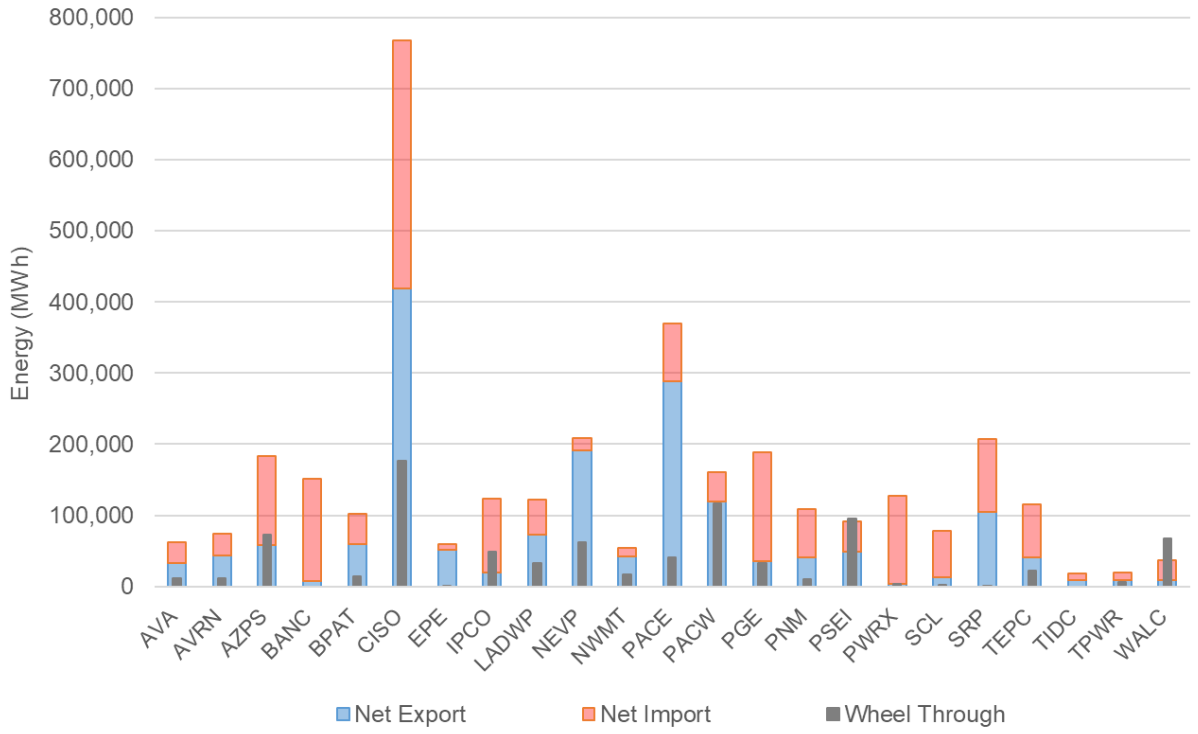
TABLE 3: Estimated wheel-through transfers in January 2026



GRAPH 4: Estimated wheel-through transfers in January 2026

BAA	Net Export	Net Import	Wheel Through
AVA	33,000	29,698	12,055
AVRN	43,151	30,905	12,079
AZPS	57,625	125,590	73,180
BANC	6,881	144,237	-
BPAT	58,907	43,771	14,703
CISO	418,709	348,676	177,095
EPE	51,074	8,605	172
IPCO	19,220	104,061	48,668
LADWP	72,828	48,800	33,287
NEVP	191,702	17,263	62,299
NWMT	41,827	11,867	17,363
PACE	288,073	81,636	40,693
PACW	118,881	41,308	116,070
PGE	35,832	153,200	32,739
PNM	40,824	67,720	9,945
PSEI	48,537	42,933	96,043
PWRX	3,160	124,840	3,077
SCL	12,325	65,117	2,799
SRP	104,609	102,657	234
TEPC	40,262	75,754	22,151
TIDC	9,067	8,643	-
TPWR	9,132	10,306	6,764
WALC	9,259	27,298	67,912

TABLE 4: Estimated wheel-through transfers in February 2026

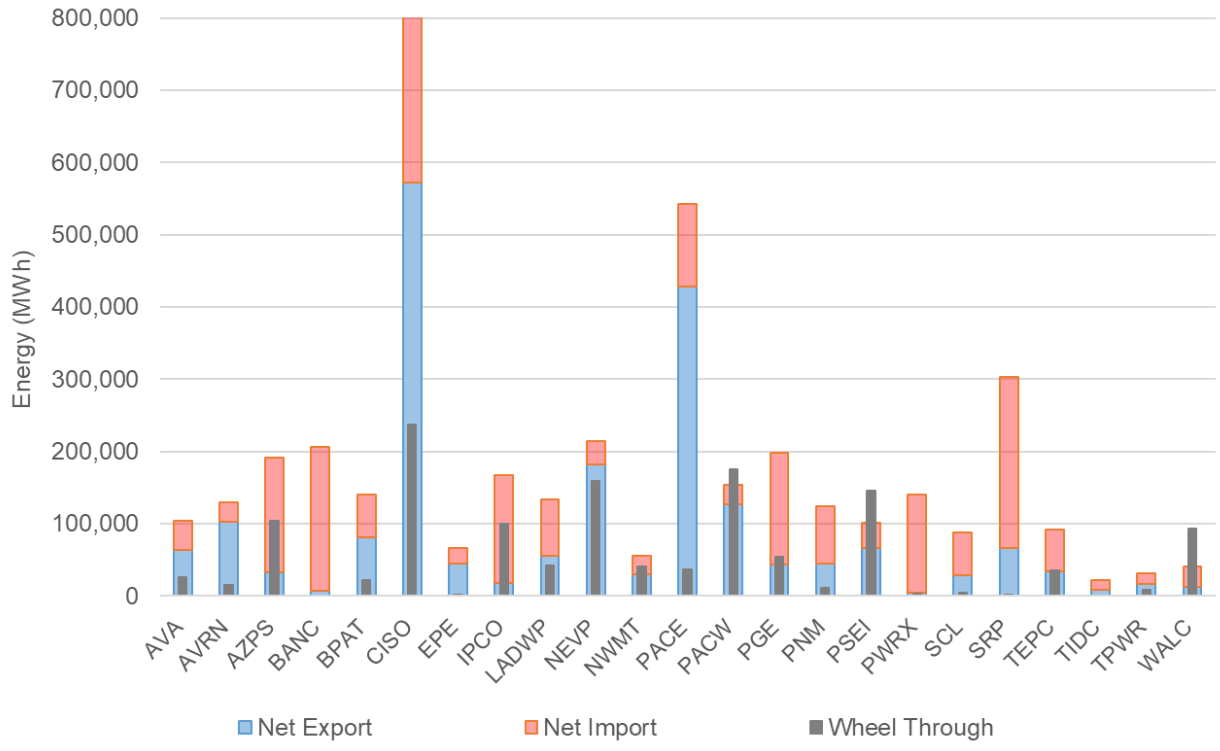


GRAPH 5: Estimated wheel-through transfers in February 2026

BAA	Net Export	Net Import	Wheel Through
AVA	63,734	39,763	26,054
AVRN	102,546	26,775	15,453
AZPS	33,304	158,727	103,986
BANC	7,520	199,477	-
BPAT	80,797	59,437	21,654
CISO	571,830	333,340	237,951
EPE	45,042	20,796	90
IPCO	17,714	149,500	99,991
LADWP	56,232	77,404	42,506
NEVP	182,760	31,218	159,530
NWMT	30,318	25,243	40,721
PACE	428,629	114,278	36,440
PACW	127,593	26,458	176,089
PGE	44,158	153,529	53,731
PNM	45,349	79,058	10,884
PSEI	65,936	35,680	146,425
PWRX	5,138	135,754	3,724
SCL	29,154	59,337	4,875
SRP	66,696	236,385	1,965
TEPC	34,389	57,840	35,810
TIDC	8,564	13,812	-

TPWR	17,378	14,757	7,975
WALC	12,602	28,817	93,331

TABLE 5: Estimated wheel-through transfers in March 2026



GRAPH 6: Estimated wheel-through transfers in March 2026

REDUCED RENEWABLE CURTAILMENT AND GHG REDUCTIONS

The WEIM benefit calculation includes the economic benefits that can be attributed to avoided renewable curtailment within the ISO footprint. If not for energy transfers facilitated by the WEIM, some renewable generation located within the ISO would have been curtailed via either economic or exceptional dispatch. The total avoided renewable curtailment volume in MWh for Q1 2026 was calculated to be 14,042 MWh (January) + 25,902 MWh (February) + 40,887 MWh (March) = 80,832 MWh total.

There are environmental benefits of avoided renewable curtailment as well. Under the assumption that avoided renewable curtailments displace production from other resources at a default emission rate of 0.428 metric tons CO_2/MWh, avoided curtailments displaced an estimated 34,596 metric tons of CO_2 for Q1 2026. Avoided renewable curtailments also may have contributed to an increased volume of renewable credits that would otherwise have been unavailable. This report does not quantify the additional value in dollars associated with this

benefit. Total estimated reductions in the curtailment of renewable energy in the ISO footprint, along with the associated reductions in CO_2, are shown in Table 6.

Year	Quarter	MWh	Eq. Tons CO_2
2015	1	8,860	3,792
	2	3,629	1,553
	3	828	354
	4	17,765	7,521
2016	1	112,948	48,342
	2	158,806	67,969
	3	33,094	14,164
	4	23,390	10,011
2017	1	52,651	22,535
	2	67,055	28,700
	3	23,331	9,986
	4	18,060	7,730
2018	1	65,860	28,188
	2	129,128	55,267
	3	19,032	8,146
	4	23,425	10,026
2019	1	52,254	22,365
	2	132,937	56,897
	3	33,843	14,485
	4	35,254	15,089
2020	1	86,740	37,125
	2	147,514	63,136
	3	37,548	16,071
	4	39,956	17,101
2021	1	76,147	32,591
	2	109,059	46,677
	3	23,042	9,862
	4	38,044	16,283
2022	1	94,168	40,304
	2	118,352	50,655
	3	42,468	18,176

	4	25,609	10,960
2023	1	53,002	22,685
	2	148,938	63,745
	3	60,113	25,728
	4	49,880	21,349
2024	1	60,285	25,802
	2	130,656	55,921
	3	53,049	22,705
	4	30,462	13,038
2025	1	76,015	32,534
	2	112,712	48,241
	3	33,227	14,221
	4	36,261	15,520
2026	1	80,832	34,596
Total		2,776,229	1,188,146

TABLE 6: Total reduction in curtailment of renewable energy and associated reductions in CO_2

FLEXIBLE RAMPING PROCUREMENT DIVERSITY SAVINGS

The WEIM facilitates procurement of flexible ramping capacity in the FMM to address variability that may occur in the RTD. Because variability across different BAAs may happen in opposite directions, the flexible ramping requirement for the entire WEIM footprint can be less than the sum of individual BAA's requirements. This difference is known as flexible ramping procurement diversity savings.

Starting in 2016, the ISO replaced the flexible ramping constraint with flexible ramping products that provide both upward and downward ramping. The minimum and maximum flexible ramping requirements for each BAA and for each direction are listed in Appendix 3: Minimum & Maximum Ramping Requirements.

The flexible ramping procurement diversity savings for all the intervals averaged over the month are shown in Table 7. The percentage savings is the average MW savings divided by the sum of the individual BAA requirements.

	January		**February**		**March**	
Direction	Up	Down	Up	Down	Up	Down
Average MW saving	1,981	2,161	2,171	2,338	2,440	2,470
Sum of BAA requirements	3,689	3,668	3,961	3,934	4,312	4,103
Percentage savings	54%	59%	55%	59%	57%	60%

Table 7: Flexible ramping procurement diversity savings in Q1 2026

Flexible ramping capacity may be used in RTD to handle uncertainties in the future interval. The RTD flexible ramping capacity is prorated to each BAA. Flexible ramping surplus MW is defined as the awarded flexible ramping capacity in RTD minus its share, and the flexible ramping surplus cost is defined as the flexible ramping surplus MW multiplied by the flexible ramping WEIM-wide marginal price. A positive flexible ramping surplus MW is the capacity that a BAA provided to help other BAAs, and a negative flexible ramping surplus MW is the capacity that a BAA received from other BAAs.

The WEIM dispatch cost for a BAA with positive flexible ramping surplus MW is increased because some capacities are used to help other BAAs. The flexible ramping surplus cost is subtracted from the BAA's WEIM dispatch cost to reflect the true dispatch cost of a BAA. Please see the Benefit Report Methodology for more details.

CONCLUSION

Using state-of-the-art technology to find and deliver low-cost energy to meet real-time demand, the WEIM demonstrates that utilities can realize financial and operational benefits through increased coordination and optimization. The WEIM provides significant reliability benefits by enhancing situational awareness and supporting access to surplus energy across a broader western footprint. In addition to these benefits, the WEIM provides significant environmental benefits through the reduction of renewable curtailments during periods of oversupply.

Sharing resources across a larger geographic area reduces greenhouse gas emissions by using renewable generation that otherwise would have been turned off. The quantified environmental benefits from avoided curtailments of renewable generation from 2015 to-date reached 1,188,146 metric tons of CO_2, roughly the equivalent of avoiding the emissions from 249,802 passenger cars driven for one year.

APPENDIX 1: GLOSSARY OF ABBREVIATIONS

Abbreviation	Description
APS	Arizona Public Service
AVA	Avista Utilities
AVRN	Avangrid
BAA	Balancing Authority Area
BANC	Balancing Authority of Northern California
BPA	Bonneville Power Administration
CISO, ISO	California ISO
EIM	Energy Imbalance Market
EPE	El Paso Electric
FMM	Fifteen Minute Market
GHG	Greenhouse Gas
IPCO	Idaho Power
LADWP	Los Angeles Department of Water and Power
MW	Megawatt
MWh	Megawatt-Hour
NVE	NV Energy
NWMT	NorthWestern Energy
PAC	PacifiCorp
PACE	PacifiCorp East
PACW	PacifiCorp West
PGE	Portland General Electric
PNM	Public Service Company of New Mexico
PSE	Puget Sound Energy
PWRX	Powerex
RTD	Real Time Dispatch
SCL	Seattle City Light
SRP	Salt River Project
TEP	Tucson Electric Power
TID	Turlock Irrigation District
TPWR	Tacoma Power
WALC	Western Area Power Administration Desert Southwest
WEIM	Western Energy Imbalance Market

APPENDIX 2: WEIM Transfer Volume (MWh)

Month	From BAA	To BAA	15min WEIM transfer (15m – base)	5min WEIM transfer (5m – base)
January	AVA	AVRN	4,072	4,169
	AVA	BPAT	6,929	5,772
	AVA	CISO	0	0
	AVA	IPCO	34,253	42,528
	AVA	NWMT	13,413	14,895
	AVA	PACW	8,672	10,403
	AVA	PGE	0	0
	AVA	PSEI	0	0
	AVA	SCL	0	0
	AVA	TPWR	0	0
	AVRN	AVA	7,464	7,005
	AVRN	BPAT	15,403	10,931
	AVRN	PACW	32,273	36,276
	AVRN	PGE	12,172	8,548
	AVRN	SCL	4,240	3,065
	AZPS	CISO	54,621	55,528
	AZPS	EPE	3,477	0
	AZPS	LADWP	12,313	12,836
	AZPS	NEVP	0	0
	AZPS	PACE	37,386	36,161
	AZPS	PNM	26,654	26,360
	AZPS	SRP	10,585	10,664
	AZPS	TEPC	884	1,047
	AZPS	WALC	9,361	7,173
	BANC	BPAT	0	0
	BANC	CISO	9,955	12,098
	BANC	TIDC	47	0
	BPAT	AVA	1,839	2,129

	BPAT	AVRN	14,756	18,010
January	BPAT	BANC	0	0
	BPAT	CISO	2,451	10,506
	BPAT	IPCO	1,154	19
	BPAT	LADWP	0	0
	BPAT	NEVP	0	0
	BPAT	NWMT	4,629	276
	BPAT	PACW	1,865	113
	BPAT	PGE	36,167	35,801
	BPAT	PSEI	23,196	24,363
	BPAT	PWRX	4,725	0
	BPAT	SCL	1,284	556
	BPAT	TPWR	1,323	733
	CISO	AVA	0	0
	CISO	AZPS	31,444	31,743
	CISO	BANC	109,128	105,706
	CISO	BPAT	1,712	5,648
	CISO	LADWP	25,181	28,655
	CISO	NEVP	23,326	22,092
	CISO	PACW	12,088	34,325
	CISO	PGE	53,406	67,183
	CISO	PSEI	14,607	14,563
	CISO	PWRX	80,685	91,414
January	CISO	SRP	37,285	36,472
	CISO	TEPC	0	0
	CISO	TIDC	11,056	10,467
	CISO	WALC	10,315	10,817
	EPE	AZPS	91	0
	EPE	PNM	21,747	20,087
	EPE	TEPC	40,640	40,586
	IPCO	AVA	3,542	2,824
	IPCO	BPAT	1,319	0

	IPCO	NEVP	18,726	24,293
	IPCO	NWMT	1,889	1,586
January	IPCO	PACE	36,081	39,885
	IPCO	PACW	27,927	21,139
	IPCO	PSEI	9,642	5,926
	IPCO	SCL	7,541	5,991
	LADWP	AZPS	5,174	7,716
	LADWP	BPAT	0	0
	LADWP	CISO	48,776	41,280
	LADWP	NEVP	6,402	6,936
	LADWP	PACE	3,965	4,726
	LADWP	TEPC	0	0
	LADWP	WALC	4,438	3,174
	NEVP	AZPS	0	0
	NEVP	BPAT	0	0
	NEVP	CISO	109,839	107,663
	NEVP	IPCO	59,479	48,570
	NEVP	LADWP	52,671	46,918
	NEVP	PACE	69,707	78,011
January	NEVP	WALC	36,557	34,749
	NWMT	AVA	23,565	17,125
	NWMT	BPAT	4,030	0
	NWMT	IPCO	8,101	8,752
	NWMT	PACE	31,431	34,590
	NWMT	PACW	35	0
	NWMT	PGE	821	0
	NWMT	PSEI	0	0
	NWMT	TPWR	0	0
	PACE	AZPS	35,939	42,588
	PACE	IPCO	40,111	36,092
	PACE	LADWP	78,773	65,801
	PACE	NEVP	28,114	28,929

	PACE	NWMT	16,842	11,526
	PACE	PACW	37,916	32,425
January	PACE	SRP	0	0
	PACE	TEPC	0	0
	PACW	AVA	5,522	7,001
	PACW	AVRN	12,696	16,864
	PACW	BPAT	2,520	247
	PACW	CISO	78,269	132,399
	PACW	IPCO	9,770	7,727
	PACW	NWMT	9	0
	PACW	PGE	62,068	54,772
	PACW	PSEI	23,476	21,349
	PACW	SCL	1,209	908
	PGE	AVA	0	0
	PGE	AVRN	3,242	4,223
	PGE	BPAT	14,721	14,161
	PGE	CISO	27,412	25,900
	PGE	NWMT	622	0
	PGE	PACW	19,908	32,904
January	PGE	PSEI	3,158	2,811
	PGE	SCL	1,042	908
	PGE	TPWR	0	0
	PNM	AZPS	8,856	15,129
	PNM	EPE	432	380
	PNM	SRP	1,331	1,793
	PNM	TEPC	11,214	8,669
	PSEI	AVA	0	0
	PSEI	BPAT	20,003	20,258
	PSEI	CISO	43,382	43,080
	PSEI	IPCO	18,487	20,985
	PSEI	NWMT	0	0
	PSEI	PACW	16,455	29,314

	PSEI	PGE	3,911	5,012
January	PSEI	PWRX	14,728	13,602
	PSEI	SCL	28,114	25,010
	PSEI	TPWR	3,462	4,118
	PWRX	BPAT	3,376	0
	PWRX	CISO	0	0
	PWRX	PSEI	11,486	14,116
	SCL	AVA	0	0
	SCL	AVRN	2,020	3,490
	SCL	BPAT	139	8
	SCL	IPCO	0	0
	SCL	PACW	647	1,095
	SCL	PGE	1,046	1,295
	SCL	PSEI	8,004	12,248
	SRP	AZPS	22,045	31,074
	SRP	CISO	109,435	99,911
	SRP	PACE	0	0
	SRP	PNM	2,841	2,831
	SRP	TEPC	25,614	27,653
	SRP	WALC	20,664	19,580
	TEPC	AZPS	440	0
	TEPC	CISO	75	110
	TEPC	EPE	5,248	4,314
January	TEPC	LADWP	0	0
	TEPC	PACE	627	770
	TEPC	PNM	19,637	18,016
	TEPC	SRP	5,948	5,434
	TEPC	WALC	57,729	59,393
	TIDC	BANC	44	0
	TIDC	CISO	6,766	6,920
	TPWR	AVA	0	0
	TPWR	BPAT	9,011	10,352

	TPWR	NWMT	0	0
January	TPWR	PGE	0	0
	TPWR	PSEI	14,698	15,889
	WALC	AZPS	5,888	6,195
	WALC	CISO	19,892	21,462
	WALC	LADWP	14,208	11,356
	WALC	NEVP	9,775	9,752
	WALC	SRP	4,313	2,832
	WALC	TEPC	16,327	16,120
February	AVA	AVRN	3,565	3,861
	AVA	BPAT	6,834	6,766
	AVA	CISO	0	0
	AVA	IPCO	13,483	21,699
	AVA	NWMT	4,709	6,435
	AVA	PACW	5,408	6,294
	AVA	PGE	0	0
	AVA	PSEI	0	0
	AVA	SCL	0	0
	AVA	TPWR	0	0
	AVRN	AVA	2,968	3,036
	AVRN	BPAT	16,994	14,082
	AVRN	PACW	21,602	28,070
	AVRN	PGE	7,941	6,521
	AVRN	SCL	4,273	3,522
	AZPS	CISO	50,112	56,584
	AZPS	EPE	1,779	0
	AZPS	LADWP	2,159	4,313
	AZPS	NEVP	0	0
	AZPS	PACE	22,224	21,612
	AZPS	PNM	25,989	24,993
	AZPS	SRP	12,788	18,106
	AZPS	TEPC	572	1,738

	AZPS	WALC	3,513	3,459
February	BANC	BPAT	0	0
	BANC	CISO	6,390	6,881
	BANC	TIDC	36	0
	BPAT	AVA	2,284	2,564
	BPAT	AVRN	7,169	9,134
	BPAT	BANC	0	0
	BPAT	CISO	2,184	11,924
	BPAT	IPCO	491	32
	BPAT	LADWP	0	0
	BPAT	NEVP	0	0
	BPAT	NWMT	5,087	66
	BPAT	PACW	1,713	70
	BPAT	PGE	23,579	22,888
	BPAT	PSEI	12,634	16,053
	BPAT	PWRX	2,814	0
	BPAT	SCL	2,910	2,910
	BPAT	TPWR	6,960	7,968
	CISO	AVA	0	0
	CISO	AZPS	42,782	35,693
	CISO	BANC	143,817	144,237
	CISO	BPAT	1,064	2,968
	CISO	LADWP	9,223	9,614
February	CISO	NEVP	14,713	14,082
	CISO	PACW	12,673	34,753
	CISO	PGE	80,791	93,929
	CISO	PSEI	51,264	50,970
	CISO	PWRX	101,278	113,844
	CISO	SRP	71,617	61,694
	CISO	TEPC	296	24
	CISO	TIDC	8,796	8,643
	CISO	WALC	14,676	9,819

	EPE	AZPS	1,509	0
February	EPE	PNM	18,106	12,630
	EPE	TEPC	38,387	38,617
	IPCO	AVA	10,293	10,210
	IPCO	BPAT	1,465	0
	IPCO	NEVP	7,097	14,781
	IPCO	NWMT	563	1,209
	IPCO	PACE	11,176	16,970
	IPCO	PACW	13,221	11,046
	IPCO	PSEI	8,157	7,132
	IPCO	SCL	7,906	6,540
	LADWP	AZPS	15,567	19,270
	LADWP	BPAT	0	0
	LADWP	CISO	80,897	67,657
	LADWP	NEVP	5,752	5,677
	LADWP	PACE	8,146	6,364
	LADWP	TEPC	0	0
	LADWP	WALC	7,131	7,148
	NEVP	AZPS	0	0
	NEVP	BPAT	0	0
	NEVP	CISO	102,144	112,422
	NEVP	IPCO	51,372	42,360
	NEVP	LADWP	18,948	20,641
	NEVP	PACE	39,888	41,747
	NEVP	WALC	30,523	36,831
	NWMT	AVA	23,636	19,411
	NWMT	BPAT	3,901	410
	NWMT	IPCO	14,028	14,396
	NWMT	PACE	21,581	24,973
February	NWMT	PACW	75	0
	NWMT	PGE	1,416	0
	NWMT	PSEI	0	0

	NWMT	TPWR	0	0
February	PACE	AZPS	84,027	103,574
	PACE	IPCO	57,394	51,112
	PACE	LADWP	60,466	45,577
	PACE	NEVP	22,419	40,717
	PACE	NWMT	25,075	21,520
	PACE	PACW	44,569	41,469
	PACE	SRP	0	0
	PACE	TEPC	0	0
	PACW	AVA	4,872	6,532
	PACW	AVRN	14,054	22,213
	PACW	BPAT	1,512	56
	PACW	CISO	56,754	95,796
	PACW	IPCO	13,341	13,521
	PACW	NWMT	0	0
	PACW	PGE	66,739	60,238
	PACW	PSEI	37,934	35,387
	PACW	SCL	1,486	1,208
	PGE	AVA	0	0
	PGE	AVRN	3,100	4,774
	PGE	BPAT	14,534	14,822
	PGE	CISO	26,307	25,056
	PGE	NWMT	525	0
	PGE	PACW	15,917	21,388
	PGE	PSEI	1,580	1,551
	PGE	SCL	1,050	980
	PGE	TPWR	0	0
	PNM	AZPS	8,948	17,599
February	PNM	EPE	4,474	3,916
	PNM	SRP	2,496	4,758
	PNM	TEPC	10,262	14,438
	PSEI	AVA	0	0

	PSEI	BPAT	17,717	14,529
February	PSEI	CISO	45,203	44,924
	PSEI	IPCO	7,078	9,610
	PSEI	NWMT	0	0
	PSEI	PACW	8,358	13,674
	PSEI	PGE	1,099	1,446
	PSEI	PWRX	15,119	14,074
	PSEI	SCL	40,839	37,222
	PSEI	TPWR	8,402	9,101
	PWRX	BPAT	3,392	0
	PWRX	CISO	0	0
	PWRX	PSEI	3,413	6,237
	SCL	AVA	0	0
	SCL	AVRN	1,695	3,001
	SCL	BPAT	145	0
	SCL	IPCO	0	0
	SCL	PACW	305	615
	SCL	PGE	701	917
	SCL	PSEI	5,419	10,591
	SRP	AZPS	14,171	14,827
	SRP	CISO	77,124	72,986
	SRP	PACE	0	0
	SRP	PNM	1,646	1,171
	SRP	TEPC	12,344	13,061
	SRP	WALC	3,847	2,799
	TEPC	AZPS	365	0
February	TEPC	CISO	29	129
	TEPC	EPE	6,184	4,861
	TEPC	LADWP	0	0
	TEPC	PACE	841	604
	TEPC	PNM	22,112	14,075
	TEPC	SRP	8,359	7,590

	TEPC	WALC	36,313	35,155
February	TIDC	BANC	16	0
	TIDC	CISO	9,043	9,067
	TPWR	AVA	0	0
	TPWR	BPAT	4,043	4,841
	TPWR	NWMT	0	0
	TPWR	PGE	0	0
	TPWR	PSEI	9,973	11,055
	WALC	AZPS	8,143	7,808
	WALC	CISO	22,137	22,344
	WALC	LADWP	2,109	1,943
	WALC	NEVP	3,919	4,304
	WALC	SRP	7,593	10,744
	WALC	TEPC	30,369	30,028
March	AVA	AVRN	3,138	2,919
	AVA	BPAT	6,198	6,928
	AVA	CISO	0	0
	AVA	IPCO	46,623	53,929
	AVA	NWMT	12,932	15,212
	AVA	PACW	6,832	10,799
	AVA	PGE	0	0
	AVA	PSEI	4	0
	AVA	SCL	0	0
	AVA	TPWR	0	0
	AVRN	AVA	4,491	4,912
	AVRN	BPAT	20,075	18,109
	AVRN	PACW	72,278	81,916
	AVRN	PGE	11,855	10,425
	AVRN	SCL	2,830	2,636
	AZPS	CISO	38,432	38,679
	AZPS	EPE	1,087	0
	AZPS	LADWP	4,336	4,268

	AZPS	NEVP	0	0
March	AZPS	PACE	35,312	27,021
	AZPS	PNM	37,770	28,575
	AZPS	SRP	30,604	36,899
	AZPS	TEPC	704	339
	AZPS	WALC	2,066	1,509
	BANC	BPAT	0	0
	BANC	CISO	7,460	7,520
	BANC	TIDC	38	0
	BPAT	AVA	3,414	3,602
	BPAT	AVRN	12,887	14,634
	BPAT	BANC	0	0
	BPAT	CISO	1,237	4,813
	BPAT	IPCO	1,106	0
	BPAT	LADWP	0	0
	BPAT	NEVP	0	0
	BPAT	NWMT	6,070	93
	BPAT	PACW	1,925	49
	BPAT	PGE	44,914	45,209
	BPAT	PSEI	18,488	21,282
	BPAT	PWRX	5,562	0
	BPAT	SCL	7,422	4,526
	BPAT	TPWR	7,684	8,243
	CISO	AVA	0	0
	CISO	AZPS	78,403	64,749
March	CISO	BANC	208,923	199,477
	CISO	BPAT	146	2,514
	CISO	LADWP	25,483	21,140
	CISO	NEVP	41,072	36,958
	CISO	PACW	11,307	29,701
	CISO	PGE	64,918	79,981
	CISO	PSEI	43,063	40,296

	CISO	PWRX	110,965	125,077
March	CISO	SRP	183,435	166,810
	CISO	TEPC	9	36
	CISO	TIDC	15,222	13,812
	CISO	WALC	24,659	19,359
	EPE	AZPS	1,008	0
	EPE	PNM	15,875	12,272
	EPE	TEPC	35,137	32,860
	IPCO	AVA	27,329	22,250
	IPCO	BPAT	1,953	93
	IPCO	NEVP	33,908	43,881
	IPCO	NWMT	878	582
	IPCO	PACE	19,283	24,341
	IPCO	PACW	7,175	5,715
	IPCO	PSEI	13,728	13,241
	IPCO	SCL	7,638	7,603
	LADWP	AZPS	14,111	18,978
	LADWP	BPAT	0	0
	LADWP	CISO	50,868	49,517
	LADWP	NEVP	12,208	11,213
	LADWP	PACE	15,116	9,141
	LADWP	TEPC	0	0
	LADWP	WALC	11,504	9,890
	NEVP	AZPS	0	0
	NEVP	BPAT	0	0
March	NEVP	CISO	129,300	147,780
	NEVP	IPCO	54,616	40,896
	NEVP	LADWP	34,263	36,290
	NEVP	PACE	61,303	56,325
	NEVP	WALC	58,220	60,999
	NWMT	AVA	28,931	27,937
	NWMT	BPAT	6,954	2,824

	NWMT	IPCO	14,408	15,010
March	NWMT	PACE	21,601	25,267
	NWMT	PACW	18	0
	NWMT	PGE	586	0
	NWMT	PSEI	0	0
	NWMT	TPWR	0	0
	PACE	AZPS	114,782	131,297
	PACE	IPCO	112,821	101,716
	PACE	LADWP	55,660	54,438
	PACE	NEVP	76,420	92,569
	PACE	NWMT	52,609	50,077
	PACE	PACW	9,619	8,953
	PACE	SRP	0	0
	PACE	TEPC	0	0
	PACW	AVA	4,178	7,116
	PACW	AVRN	8,762	17,058
	PACW	BPAT	3,497	41
	PACW	CISO	80,909	138,375
	PACW	IPCO	24,729	23,666
	PACW	NWMT	45	0
	PACW	PGE	66,847	65,408
	PACW	PSEI	54,516	51,023
	PACW	SCL	1,197	994
	PGE	AVA	0	0
March	PGE	AVRN	2,793	4,359
	PGE	BPAT	24,916	26,733
	PGE	CISO	26,026	23,564
	PGE	NWMT	746	0
	PGE	PACW	28,947	40,661
	PGE	PSEI	2,385	1,782
	PGE	SCL	908	790
	PGE	TPWR	0	0

	PNM	AZPS	9,466	19,568
March	PNM	EPE	9,176	9,291
	PNM	SRP	2,712	4,771
	PNM	TEPC	9,467	13,979
	PSEI	AVA	27	0
	PSEI	BPAT	18,999	14,960
	PSEI	CISO	88,133	87,077
	PSEI	IPCO	13,969	14,274
	PSEI	NWMT	0	0
	PSEI	PACW	13,671	23,617
	PSEI	PGE	3,975	5,753
	PSEI	PWRX	16,938	14,401
	PSEI	SCL	41,602	37,790
	PSEI	TPWR	11,916	14,489
	PWRX	BPAT	3,594	0
	PWRX	CISO	0	0
	PWRX	PSEI	6,518	8,863
	SCL	AVA	0	0
	SCL	AVRN	1,912	3,257
	SCL	BPAT	521	93
	SCL	IPCO	0	0
	SCL	PACW	680	1,135
	SCL	PGE	363	483
	SCL	PSEI	20,850	29,060
March	SRP	AZPS	13,614	17,762
	SRP	CISO	50,428	42,442
	SRP	PACE	0	0
	SRP	PNM	1,293	1,346
	SRP	TEPC	8,231	5,151
	SRP	WALC	3,825	1,961
	TEPC	AZPS	507	0
	TEPC	CISO	152	64

March	TEPC	EPE	19,584	11,595
	TEPC	LADWP	0	0
	TEPC	PACE	0	0
	TEPC	PNM	28,098	21,730
	TEPC	SRP	9,976	8,378
	TEPC	WALC	25,618	28,431
	TIDC	BANC	52	0
	TIDC	CISO	7,872	8,564
	TPWR	AVA	0	0
	TPWR	BPAT	6,322	8,796
	TPWR	NWMT	0	0
	TPWR	PGE	0	0
	TPWR	PSEI	15,499	16,557
	WALC	AZPS	8,313	10,359
	WALC	CISO	21,857	22,896
	WALC	LADWP	6,318	3,775
	WALC	NEVP	7,751	6,127
	WALC	SRP	18,974	21,492
	WALC	TEPC	47,254	41,284

APPENDIX 3: Minimum & Maximum Flexible Ramping Requirements

Month	BAA	Direction	Minimum requirement	Maximum requirement
January	*AVA*	up	5	82
	AVRN	up	2	370
	AZPS	up	32	547
	BANC	up	8	120
	BPAT	up	44	458
	CISO	up	187	3,315
	EPE	up	0	105
	IPCO	up	0	280
	LADWP	up	9	308
	NEVP	up	24	890
	NWMT	up	17	124
	PACE	up	6	782
	PACW	up	13	170
	PGE	up	17	200
	PNM	up	0	543
	PSEI	up	12	236
	PWRX	up	69	279
	SCL	up	8	24
	SRP	up	48	371
	TEPC	up	15	205
	TIDC	up	2	13
	TPWR	up	5	19
	WALC	up	0	102
	ALL EIM	**up**	**544**	**5,547**
January	*AVA*	down	4	105
	AVRN	down	0	362
	AZPS	down	0	456
	BANC	down	9	117
	BPAT	down	0	582
	CISO	down	0	1,542
	EPE	down	0	135
	IPCO	down	0	284

January	*LADWP*	down	9	324
	NEVP	down	7	679
	NWMT	down	0	127
	PACE	down	171	1,239
	PACW	down	22	216
	PGE	down	12	227
	PNM	down	2	621
	PSEI	down	40	249
	PWRX	down	26	288
	SCL	down	6	33
	SRP	down	29	338
	TEPC	down	0	201
	TIDC	down	1	19
	TPWR	down	3	23
	WALC	down	6	67
	ALL EIM	**down**	**0**	**2,606**
February	*AVA*	up	7	109
	AVRN	up	2	405
	AZPS	up	56	582
	BANC	up	7	133
	BPAT	up	36	453
	CISO	up	140	3,438
	EPE	up	6	169
	IPCO	up	18	299
	LADWP	up	10	358
	NEVP	up	23	904
	NWMT	up	14	150
	PACE	up	12	807
	PACW	up	12	170
	PGE	up	14	194
	PNM	up	23	615
	PSEI	up	25	236
	PWRX	up	0	286
	SCL	up	7	44
	SRP	up	43	376
	TEPC	up	0	262

	TIDC	up	2	19
	TPWR	up	5	24
February	*WALC*	up	0	107
	ALL WEIM	**up**	**316**	**4,788**
	AVA	down	6	114
	AVRN	down	0	377
	AZPS	down	0	498
	BANC	down	9	123
	BPAT	down	37	527
	CISO	down	42	1,953
	EPE	down	0	135
	IPCO	down	9	319
	LADWP	down	0	312
	NEVP	down	14	735
	NWMT	down	0	129
	PACE	down	80	1,272
	PACW	down	17	220
	PGE	down	20	220
	PNM	down	8	621
	PSEI	down	0	235
	PWRX	down	4	255
	SCL	down	4	39
	SRP	down	20	325
	TEPC	down	0	215
	TIDC	down	2	19
	TPWR	down	4	23
	WALC	down	0	88
	ALL EIM	**down**	**247**	**5,739**
March	*AVA*	up	18	125
	AVRN	up	4	405
	AZPS	up	36	638
	BANC	up	0	134
	BPAT	up	46	450
	CISO	up	184	3,405
	EPE	up	0	174

March	*IPCO*	up	0	299
	LADWP	up	18	309
	NEVP	up	0	904
	NWMT	up	13	150
	PACE	up	23	893
	PACW	up	17	157
	PGE	up	25	207
	PNM	up	13	615
	PSEI	up	50	235
	PWRX	up	55	295
	SCL	up	5	44
	SRP	up	43	355
	TEPC	up	10	279
	TIDC	up	0	19
	TPWR	up	5	25
	WALC	up	0	107
	ALL WEIM	**up**	**0**	**4,783**
	AVA	down	9	105
	AVRN	down	0	391
	AZPS	down	19	506
	BANC	down	5	129
	BPAT	down	32	537
	CISO	down	0	2,114
	EPE	down	3	143
	IPCO	down	0	319
	LADWP	down	0	310
	NEVP	down	15	749
	NWMT	down	20	125
	PACE	down	73	1,230
March	*PACW*	down	0	227
	PGE	down	0	194
	PNM	down	0	664
	PSEI	down	0	248
	PWRX	down	55	236
	SCL	down	6	42
	SRP	down	20	307

	TEPC	down	34	215
	TIDC	down	1	19
	TPWR	down	2	24
	WALC	down	0	88
	ALL WEIM	**down**	**440**	**3,372**