

**Power & Water Resources Pooling
Authority**

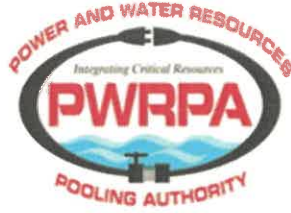
Information Packet

Wednesday, May 1, 2024

- 1. Treasurer's Report.**
- 2. Operations Report.**
- 3. GM Comments.**

Power & Water Resources Pooling Authority

1. Treasurer's Report for Month Ending March 31, 2024.



POWER AND WATER RESOURCES POOLING AUTHORITY

DISBURSEMENT LIST

April 2024

Check #	Vendor-name	Payment-description	Check-amount
3533	California Department of Tax and Fee	Electrical Energy Surcharge Return	\$ 8,649.00
3534	Advanced Data Storage	Document Storage - April 2024	44.50
3535	Arvin-Edison Water Storage District	Treasurer's Duties	8,539.96
3536	Barbich Hooper King	Audit Services	14,980.00
3537	Braun Blaising & Wynne, P.C.	Legal Services - March 2024	523.71
3538	Michael McCarty Law Office PLLC	Consultant	3,000.00
3539	Robertson Bryan Inc.	Consultant	66,171.48
3540	Walter Mortensen Insurance	Bond Insurance Premium	263.00
Sub-Total			<u>\$ 102,171.65</u>
Wire Transfers:			
Wire	Cameron-Daniel, P.C.	General Manager/General Council	\$ 37,489.00
Total			<u><u>\$ 139,660.65</u></u>

POWER AND WATER RESOURCES POOLING AUTHORITY
CASH ACTIVITY AND TREASURER'S REPORT
MONTH ENDING MARCH 31, 2024

CASH ACTIVITY:

BALANCE FEBRUARY 29, 2024 \$ 20,204,089.28

Increases:

Power Billing Invoices	\$	1,699,825.30	
GHG Auction		876,960.00	
CAISO		185,003.50	
NCPA - LEC		153,853.00	
TCB - Monthly Interest		24,794.67	
APX - Astoria Solar		7,388.18	
			2,947,824.65

Decreases:

FOD - WWD February 2024 PWRPA Invoice	\$	445,701.64	
CAISO		235,619.91	
WAPA - Power February 2024		194,750.75	
WAPA O&M		167,031.00	
Slate Solar - February 2024		155,472.20	
ACT Commodities Group - Bucket 3 RECs		130,175.00	
Canadian Solar - Astoria Solar - February 2024		87,635.59	
Robertson-Bryan, Inc		65,580.48	
NextEra Whitney Point Solar - February 2024		54,740.77	
Trimark - Cell, Meter Reading and T&M February 2024		52,439.46	
WAPA - Restoration February 2024		48,464.34	
PG&E - GCID, RD 108, SCVWD, Zone 7		45,544.06	
Cameron-Daniel, P.C.		39,750.50	
Aces - March 2024		32,916.67	
Arvin-Edison Water Storage District-Treasurer		7,234.71	
Holland and Knight		4,058.77	
Michael McCarty Law Office, PLLC		3,900.00	
White Pines Solar Santa Clara WD - February 2024		1,785.43	
Barbich Hooper King - 2023 Financial Audit		1,380.00	
Bank Fees		500.00	
Braun Blaising & Wynne, P.C.		309.24	
Advanced Data Storage		44.50	
			1,775,035.02

BALANCE MARCH 31, 2024 **\$ 21,376,878.91**

TREASURERS REPORT:

Operating Account:

Tri Counties Bank - General Operating Account #1031821, yield 5.004% \$ 6,586,718.41

Local Agency Investment Fund (LAIF) - Account # 90-39007, yield 4.232%

Reserve Funds	\$	4,762,990.45	
Cap & Trade Allowance Revenue		4,016,309.17	8,779,299.62

California Asset Management Program (CAMP) #6218-001, yield 5.44%

Funds on Deposit	\$	2,010,860.88	
Cap & Trade Allowance Revenue		4,000,000.00	6,010,860.88

TOTAL PWRPA FUNDS - MARCH 31, 2024 **\$ 21,376,878.91**

Public Purpose Program (P-3) Tri Counties Bank Account #1031856, yield 5.004% 3,243,377.29

TOTAL FUNDS ON DEPOSIT WITH PWRPA - MARCH 31, 2024 **\$ 24,620,256.20**

CAISO Collateral Deposit Account 2,297,634.87

Western Area Power Administration - PWRPA Trust Account 1,000.00

TOTAL FUNDS - PWRPA & OTHER AGENCIES - MARCH 31, 2024 **\$ 26,918,891.07**

Treasurer's Notes:

All investments are placed in accordance with PWRPA's Statement of Investment Policy and Guidelines. The Treasurer's Report is presented on a cash basis, effective yields are based on most recent published information. PWRPA has sufficient cash flow to meet its obligations next month. Included in the Operating Funds above is the Board approved \$10,000,000 Reserve and Funds on Deposit from the following Participants:

Participant	Amount	Participant	Amount
Banta Carbona	\$ 22,476.04	Sonoma	704,570.48
James	43,291.60	West Stan	282,746.34
Glen-Colusa ID	118,183.47	Westlands	127,894.17
RD108	60,000.00	West Side ID	57,887.44
Santa Clara	565,798.94	Zone 7	28,012.40

Total	\$ 2,010,860.88
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Power and Water Resources Pooling Authority
P-3 Remaining Funds By Year
as of March 31, 2024

Member Agency	2020	2021	2022	2023	2024	Total Available P-3 Funds	Expenditures	
	(a)	(b)	(c)	(d)	(e)	(f)	Total to Date	March-24
							(g)	(h)
Arvin-Edison WSD	\$0.00	\$0.00	\$0.00	\$363,832.60	\$22,083.03	\$385,915.63	\$5,570,834.85	\$0.00
Banta Carbona ID	28,418.11	49,489.90	69,174.18	46,980.83	3,564.70	197,627.72	404,708.20	0.00
Byron-Bethany ID	0.00	0.00	0.00	8,141.09	1,024.05	9,165.14	171,290.66	0.00
Cawelo WD	0.00	0.00	4,271.92	77,807.64	1,000.68	83,080.24	962,841.11	0.00
Glenn-Colusa ID	23,300.11	32,132.77	16,890.62	37,269.19	1,931.27	111,523.96	348,863.79	0.00
James ID	10,457.51	15,685.23	21,738.73	7,617.89	1,466.49	56,965.85	130,969.96	0.00
Lower Tule ID	0.00	0.00	34,283.20	42,122.57	1,417.15	77,822.92	331,806.44	0.00
Princeton ID	0.00	0.00	0.00	16,001.17	773.58	16,774.75	177,976.09	0.00
RD 108	13,564.87	16,362.76	12,132.54	13,840.26	829.92	56,730.35	213,468.71	0.00
Santa Clara Valley WD	0.00	0.00	0.00	54,969.15	10,509.85	65,479.00	901,682.87	0.00
Sonoma County WA	99,654.97	109,040.76	150,507.89	120,836.42	14,085.28	494,125.32	1,490,752.21	0.00
West Stanislaus ID	0.00	0.00	58,050.32	40,541.61	2,300.08	100,892.01	496,284.30	0.00
Westlands WD	0.00	102,451.51	1,100,668.62	243,316.28	23,958.02	1,470,394.43	5,531,125.34	0.00
Zone 7	9,318.79	25,493.12	42,082.23	35,062.39	4,816.38	116,772.91	71,833.02	0.00
Undesignated/Forfeited/Misc	0.00	0.00	0.00	0.00	0.00	107.06	35,133.04	0.00
Total	\$184,714.36	\$350,656.05	\$1,509,800.25	\$1,108,339.09	\$89,760.48	\$3,243,377.29	\$16,839,570.59	\$0.00
Exclusive access Date	08/03/24	08/02/25	08/01/26					

- (a) Three year exclusive access to these funds by agency begins on 8/04/21 and ends 08/03/24
- (b) Three year exclusive access to these funds by agency begins on 8/03/22 and ends 08/02/25
- (c) Three year exclusive access to these funds by agency begins on 8/02/23 and ends 08/01/26
- (d) 2023 P-3 collected through March 2024
- (e) 2024 P-3 collected through March 2024
- (f) Total available P-3 Funds
- (g) Total P-3 expenditures since inception of program
- (h) P-3 expenditures March 2024

Power and Water Resources Pooling Authority
 Cap and Trade Allowance Revenue
 Pursuant to Resolution 13-04-05 and Resolution 21-11-14
 As of March 31, 2024

District	Resolution 13-04-05		Resolution 21-11-14				Total Revenue	Expenditures	Balance
	Allocation	Revenue	2021	2022	2023	2024			
Arvin-Edison	37.478%	\$3,421,905.95	\$208,146.78	\$831,876.00	\$855,689.42	\$263,538.75	\$5,581,166.90	\$3,921,905.95	\$1,659,250.95
Banta-Carbona	3.115%	284,413.18	33,717.30	132,634.85	145,589.41	38,646.75	635,001.49	0.00	635,001.49
Byron-Bethany	0.708%	64,643.51	5,278.35	20,240.47	20,602.13	5,958.07	116,722.53	110,764.46	5,958.07
Cawelo	8.447%	771,248.19	32,760.55	115,918.41	94,183.35	30,868.99	1,044,979.49	1,014,110.50	30,868.99
Glenn-Colusa	2.849%	260,126.21	23,174.67	86,307.16	74,702.20	21,644.25	465,954.49	444,310.24	21,644.25
James	0.798%	72,860.90	5,746.23	23,359.47	28,943.78	7,241.06	138,151.44	0.00	138,151.44
Lower Tule	1.005%	91,760.91	20,089.23	76,569.91	67,661.73	20,588.39	276,670.17	256,081.78	20,588.39
Princeton	1.334%	121,800.06	7,684.74	25,968.74	20,055.39	6,026.47	181,535.40	97,711.01	83,824.39
RD 108	1.368%	124,904.41	10,013.47	35,342.29	29,148.43	7,757.59	207,166.19	199,408.60	7,757.59
Santa Clara	4.853%	443,100.21	45,211.76	169,068.24	166,942.93	49,473.70	873,796.84	726,222.17	147,574.67
Sonoma	7.787%	710,987.29	71,470.54	275,734.34	277,421.66	79,962.97	1,415,576.80	196,000.00	1,219,576.80
West Stan	3.228%	294,730.57	31,345.36	119,698.69	134,401.03	37,248.00	617,423.65	150,789.15	466,634.50
Westlands	27.030%	2,467,957.68	202,357.42	796,569.54	1,084,844.98	291,472.56	4,843,202.18	1,390,020.65	3,453,181.63
Zone 7	0.000%	0.00	9,503.60	46,016.34	54,243.62	16,532.45	126,296.01	0.00	126,296.01
Total	100.000%	\$9,130,439.07	\$706,500.00	\$2,755,304.45	\$3,054,430.06	\$876,980.00	\$16,523,633.58	\$ 8,507,324.41	\$ 8,016,309.17

(a) Transferred as a Payment to power cost to help meet RPS

(b) GCID \$65,084.88 in approved projects remaining revenue transferred as a payment to power cost to help meet RPS

District	Exhibit B Allocation			
	2021	2022	2023	2024
Arvin	29.4617%	30.1918%	28.0147%	30.0514%
Banta Carbona	4.7724%	4.8138%	4.7665%	4.4069%
Byron Bethany	0.7471%	0.7346%	0.6745%	0.6794%
Cawelo	4.6370%	4.2071%	3.0835%	3.5200%
Glenn-Colusa	3.2802%	3.1324%	2.4457%	2.4681%
James	0.8133%	0.8478%	0.9476%	0.8257%
Lower Tule	2.8435%	2.7790%	2.2152%	2.3477%
Princeton	1.0877%	0.9425%	0.6566%	0.6872%
RD 108	1.4173%	1.2827%	0.9543%	0.8846%
Santa Clara	6.3994%	6.1361%	5.4656%	5.6415%
Sonoma	10.1161%	10.0074%	9.0826%	9.1182%
West Stan	4.4367%	4.3443%	4.4002%	4.2474%
Westlands	28.6422%	28.9104%	35.5171%	33.2367%
Zone 7	1.3452%	1.6701%	1.7759%	1.8852%
Total	100.0000%	100.0000%	100.0000%	100.0000%

Sale of Freely Allocated Allowances

Year	March	June	September	December	Total
2012				\$ 216,935.00	\$ 216,935.00
2013	136,200.00			370,080.76	506,280.76
2014		379,500.00	184,000.00	192,511.00	756,011.00
2015	195,360.00	196,640.00	200,320.00	212,934.71	805,254.71
2016	212,158.18	89,530.09	249,317.05	296,303.48	847,308.80
2017	115,168.59	371,399.40	265,500.00	260,748.84	1,012,816.83
2018	262,980.00	263,700.00	258,408.50	264,250.60	1,049,339.10
2019	283,140.00		446,160.00	461,227.00	1,190,527.00
2020	321,660.00		500,400.00	415,783.87	1,237,843.87
2021	445,000.00	480,622.00	582,500.00	706,500.00	2,214,622.00
2022	583,000.00	827,304.45	675,000.00	670,000.00	2,755,304.45
2023	501,300.00	758,250.00	880,000.00	914,880.06	3,054,430.06
2024	876,960.00	-	-	-	876,960.00
Total					\$ 16,523,633.58

Resolution 13-04-05	\$9,130,439.07
Resolution 21-11-14	7,393,194.51
	<u>\$16,523,633.58</u>

POWER & WATER RESOURCES POOLING AUTHORITY

WIRE TRANSFERS

March 1 - 31, 2024

Transaction Number	Beneficiary Name	Credit Amount	Value Date
217115	ACES Power Marketing	\$32,916.67	3/4/2024
217410	Cameron-Daniel, P.C.	\$39,750.50	3/6/2024
217411	Holland & Knight	\$4,058.77	3/6/2024
218251	Pacific Gas and Electric	\$43,738.55	3/13/2024
218252	WAPA O M	\$167,031.00	3/13/2024
218253	Western Area Power Administration	\$48,464.34	3/13/2024
218863	Pacific Gas and Electric	\$1,805.51	3/18/2024
218864	CAISO Market Clearing	\$235,619.91	3/18/2024
218865	Garlock Energy, LLC	\$1,785.43	3/18/2024
218866	ACT Commodities	\$130,175.00	3/18/2024
219760	Slate 1 (Canadian Solar)	\$155,472.20	3/25/2024
219761	Western Area Power Administration	\$194,750.75	3/25/2024
219762	Trimark Associates, Inc.	\$52,439.46	3/25/2024
219763	Whitney Point Solar LLC	\$54,740.77	3/25/2024
219764	Astoria 2 Operating	\$87,598.04	3/25/2024
219776	APX, Inc	\$37.55	3/25/2024
Total		1,250,384.45	

Power & Water Resources Pooling Authority

2. Operations Report – May 2024 update.

Power and Water Resources Pooling Authority

May 2024 Update

Operations Manager Report



Possible Action

n/a



Operations Staff Overview

1. May planned activity
 - a) LTRID Hydro: go live (for real)
 - b) Task team participation
 - c) REC purchase/selling, forward power evaluation
 - d) 2023 reconciliation prep
 - e) DSGS 2024 setup
2. April recap
 - a) CP4: REC accounting, procurement strategy
 - b) LTRID Hydro onboarding
 - c) 2023 audit
 - d) Strategic Team coordination

Operations Report:

1. Pre-Reconciliation
 - a) Actual data for Jan-Mar, April-December estimates.
 - b) Updates include REC procurement volumes and costs. Rate sufficiency will be evaluated at the June meeting.

Table 1: 2024 Cash Flow

Cashflow Summary: January - December 2024							
Participant	Power Invoice	Power & Ops Costs	P3	Direct Consulting + Prior Period	Change in Reserve Estimate	Total Costs	Over/(Under) Funded
Arvin-Edison	\$ 13,245,635	\$ 13,069,598	\$ 372,484	\$ -	\$ 79,341	\$ 13,521,422	\$ (275,788)
Banta-Carbona	\$ 1,814,849	\$ 1,824,585	\$ 52,001	\$ -	\$ (9,680)	\$ 1,866,906	\$ (52,057)
Byron-Bethany	\$ 382,336	\$ 380,593	\$ 10,847	\$ (5,958)	\$ (223)	\$ 385,258	\$ (2,922)
Cawelo	\$ 2,314,675	\$ 2,335,220	\$ 66,554	\$ -	\$ (3,560)	\$ 2,398,214	\$ (83,539)
Glenn-Colusa	\$ 1,219,349	\$ 1,204,414	\$ 34,326	\$ (21,644)	\$ (6,037)	\$ 1,211,058	\$ 8,290
James	\$ 479,601	\$ 445,411	\$ 12,694	\$ -	\$ (139)	\$ 457,967	\$ 21,634
Lower Tule	\$ 1,216,681	\$ 1,185,248	\$ 33,780	\$ -	\$ (11,451)	\$ 1,207,577	\$ 9,103
Princeton	\$ 521,820	\$ 527,450	\$ 15,032	\$ -	\$ 2,569	\$ 545,051	\$ (23,231)
RD108	\$ 483,627	\$ 459,802	\$ 13,104	\$ (7,645)	\$ (14,879)	\$ 450,382	\$ 33,244
Santa Clara	\$ 2,737,012	\$ 2,693,345	\$ 76,760	\$ 4,725	\$ (23,353)	\$ 2,751,477	\$ (14,466)
Sonoma	\$ 4,080,574	\$ 3,194,526	\$ 91,044	\$ -	\$ (30,047)	\$ 3,255,523	\$ 825,050
West Stan	\$ 1,510,223	\$ 1,405,088	\$ 40,045	\$ -	\$ (19,510)	\$ 1,425,623	\$ 84,600
Westlands	\$ 11,319,999	\$ 10,678,405	\$ 304,335	\$ -	\$ 53,273	\$ 11,036,012	\$ 283,987
Zone 7	\$ 1,052,750	\$ 937,376	\$ 26,715	\$ 1,609	\$ (16,303)	\$ 949,398	\$ 103,352
PWRPA	\$ 42,379,130	\$ 40,341,062	\$ 1,149,720	\$ (28,913)	\$ (0)	\$ 41,461,869	\$ 917,261

** Some districts transfer C&T revenue to help meet power & RPS needs.

Power and Water Resources Pooling Authority
May 2024 Update
Operations Manager Report

Table 2: 2024 Cost of Service

Cost of Service Summary: January - December 2024					
Participant	Metered Energy (kWh)	Power & Ops Costs	Cap & Trade Revenue	Net Cost of Service	Composite Rate, (cent/kWh)
Arvin-Edison	110,760,503	\$ 13,069,598	\$ (263,539)	\$ 12,806,059	\$ 11.56
Banta-Carbona	16,252,960	\$ 1,824,585	\$ (38,647)	\$ 1,785,939	\$ 10.99
Byron-Bethany	2,601,111	\$ 380,593	\$ (5,958)	\$ 374,635	\$ 14.40
Cawelo	19,357,557	\$ 2,335,220	\$ (30,869)	\$ 2,304,351	\$ 11.90
Glenn-Colusa	11,050,209	\$ 1,204,414	\$ (21,644)	\$ 1,182,770	\$ 10.70
James	3,306,117	\$ 445,411	\$ (7,241)	\$ 438,170	\$ 13.25
Lower Tule	9,769,156	\$ 1,185,248	\$ (20,588)	\$ 1,164,660	\$ 11.92
Princeton	4,075,644	\$ 527,450	\$ (6,026)	\$ 521,424	\$ 12.79
RD108	3,043,962	\$ 459,802	\$ (7,758)	\$ 452,045	\$ 14.85
Santa Clara	20,479,656	\$ 2,693,345	\$ (49,474)	\$ 2,643,871	\$ 12.91
Sonoma	33,703,755	\$ 3,194,526	\$ (79,963)	\$ 3,114,563	\$ 9.24
West Stan	13,581,661	\$ 1,405,088	\$ (37,248)	\$ 1,367,840	\$ 10.07
Westlands	69,126,966	\$ 10,678,405	\$ (291,473)	\$ 10,386,932	\$ 15.03
Zone 7	6,471,446	\$ 937,376	\$ (16,532)	\$ 920,843	\$ 14.23
TOTAL	323,580,703	\$ 40,341,062	\$ (876,960)	\$ 39,464,102	\$ 12.20

2. March operations
 - a) Energy is 41 percent of budget
 - b) Load averaged 15MW, 2MW above last month
 - c) Average schedule deviation of 2MW for an estimated cost of 300.
3. Pricing
 - a) Average monthly prices:

Table 3: Average monthly cost and ISO revenue rates

	Cost	Revenue
BR	\$ 21.27	\$ (30.00)
Displacement	\$ 21.27	\$ (20.36)
WWD BOR	\$ -	\$ (16.00)
Whitney Point	\$ 58.75	\$ (14.33)
Astoria	\$ 63.00	\$ (1.31)
Slate	\$ 26.81	\$ (21.25)
*Lodi	\$ 234.00	\$ (54.40)
Market		

**Lodi is energy only (no debt)*

Power and Water Resources Pooling Authority
May 2024 Update
Operations Manager Report

Generator Reports

1. Astoria Solar
 - a) Generation
 - 813 MWh, 11% capacity factor
 - Net cost \$57,000 or \$70 /MWh
 - Higher negative pricing than last year

Table 4: Astoria pricing summary

March 2024 - Pricing Analysis, Rates in \$/MWh		2024	2023
Negatively Priced Intervals (5min) w/ Generation	Count	1,098	1,382
	Total MWh	445	897
	Average LMP	\$ (16.24)	\$ (12.72)
	Maximum LMP	\$ (0.00)	\$ (0.00)
	Minimum LMP	\$ (70.58)	\$ (78.10)
Positively Priced Intervals (5min) w/ Generation	Count	1,561	2,891
	Total MWh	405	1,124
	Average LMP	\$ 30.88	\$ 50.42
	Maximum LMP	\$ 1,014.86	\$ 780.48
	Minimum LMP	\$ 0.01	\$ 0.00

2. Whitney Point Solar
 - a) Generation
 - 690 MWh, 8% capacity factor
 - Net cost \$86,000, or \$124 /MWh
 - Negative Pricing:

Table 5: Whitney Point pricing summary

March 2024 - Pricing Analysis, Rates in \$		2024	2023
Negatively Priced Intervals (5min) w/ Generation	Count	2,772	1,273
	Total MWh	301	447
	Average LMP	\$ (39.56)	\$ (16.47)
	Maximum LMP	\$ (0.08)	\$ (0.01)
	Minimum LMP	\$ (112.21)	\$ (66.43)
Positively Priced Intervals (5min) w/ Generation	Count	1,593	2,968
	Total MWh	388	1,192
	Average LMP	\$ 32.91	\$ 66.19
	Maximum LMP	\$ 95.52	\$ 273.68
	Minimum LMP	\$ 0.01	\$ 0.01

Power and Water Resources Pooling Authority
May 2024 Update
Operations Manager Report

- 3. Slate Solar + Battery
 - a) Generation
 - 3,028 MWh, 16% capacity factor
 - Net credit of \$46,000, or \$15 /MWh
 - Pricing review:

Table 6: Slate pricing summary

March 2024 - Pricing Analysis, Rates in \$/MWh		2024	2023
Negatively Priced Intervals (5min) w/ Generation	Count	2,306	1,547
	Total MWh	1,230	1,173
	Average LMP	\$ (38.23)	\$ (17.71)
	Maximum LMP	\$ (0.10)	\$ (0.10)
	Minimum LMP	\$ (113.20)	\$ (81.80)
Positively Priced Intervals (5min) w/ Generation	Count	2,684	3,521
	Total MWh	1,798	2,397
	Average LMP	\$ 36.11	\$ 66.71
	Maximum LMP	\$ 917.80	\$ 772.10
	Minimum LMP	\$ 0.10	\$ 0.10

- 4. Lodi Energy Center
 - Operations:
 - 308 MWh, or 5% capacity factor
 - Ran 12 of 29 days, 17 days uneconomic
 - \$2,000 net credit, \$1 benefit (includes debt)
 - Hydrogen decisions delayed:
 - Grant funding uncertain and could delay until after the November election.

Power and Water Resources Pooling Authority
May 2024 Update
Operations Manager Report

Power Planning & Regulatory

1. Power Net Short
 - a) WAPA’s current forecast is April 1, 2024.
 - b) Staff looking at the reduction of forward power prices and could consider purchasing off-peak power for 2025.

Table 7: On- and Off-peak Power Net Short

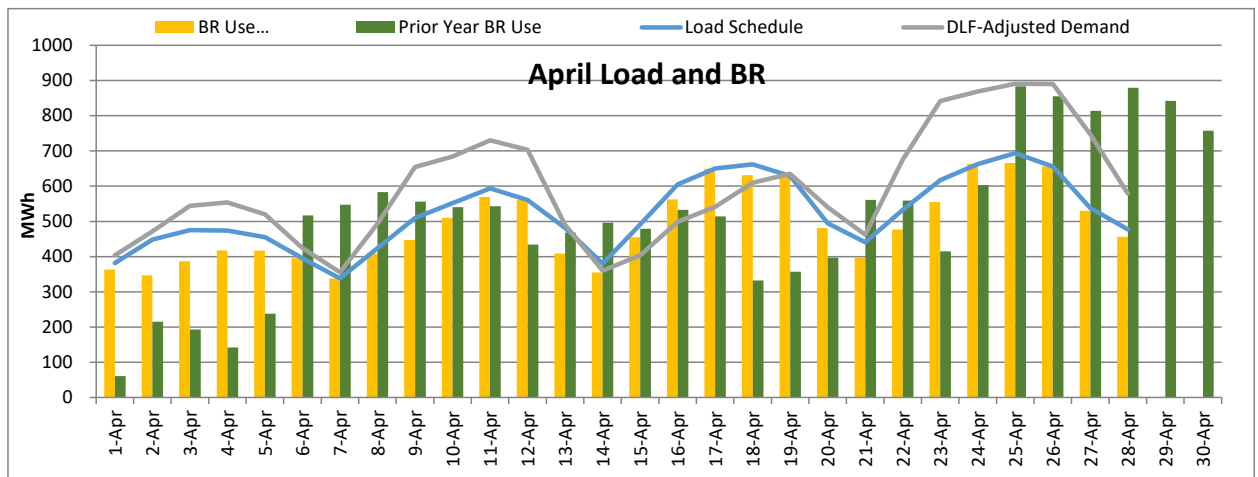
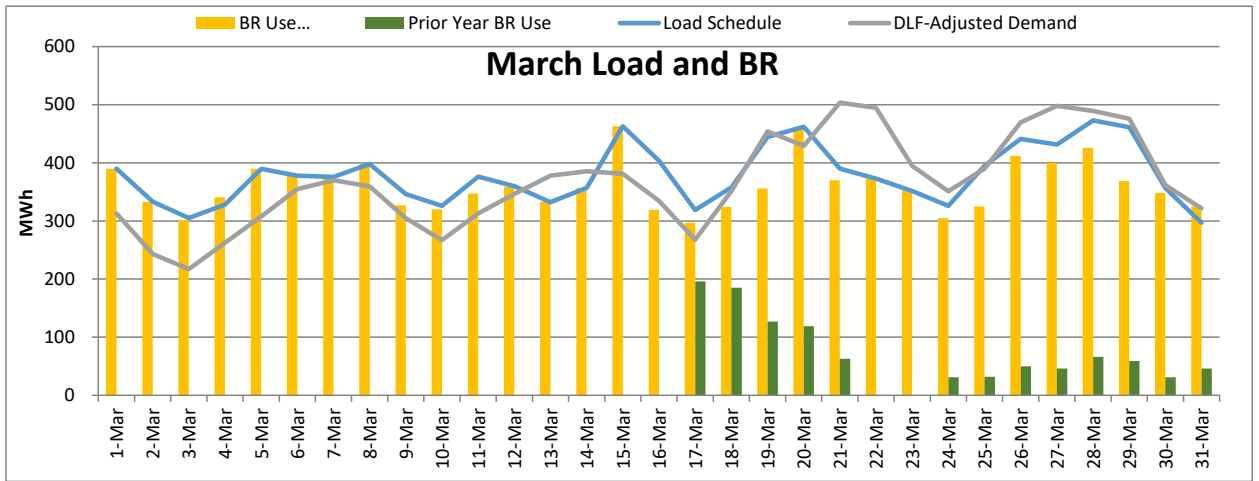
ON-PEAK	On Peak												4/1/2024 Forward Mkt	Change from last NSP	
	Demand, MW			Resources, MW			Net Long/(Short), MW			RMP	Net (Short)/Long based on RMP				
	Wet	Average	Dry	Wet	Average	Dry	Wet	Average	Dry		Wet	Average			Dry
4/1/2024	27.4	38.5	62.6	51.8	56.5	49.3	24.4	18.0	(13.3)	100%	24.4	18.0	(13.3)	\$ 31.87	\$ (4.23)
5/1/2024	45.4	70.2	91.0	63.5	70.5	65.4	18.1	0.3	(25.6)	100%	18.1	0.3	(25.6)	\$ 25.38	\$ (5.90)
6/1/2024	60.4	77.8	95.2	59.5	62.8	63.2	(0.9)	(15.0)	(32.1)	90%	5.2	(7.2)	(22.5)	\$ 34.63	\$ (4.93)
7/1/2024	59.3	74.0	83.9	69.3	74.8	77.1	10.0	0.9	(6.8)	90%	15.9	8.2	1.6	\$ 60.20	\$ (4.77)
8/1/2024	52.1	64.3	71.8	74.8	70.5	68.9	22.8	6.2	(2.9)	70%	38.4	25.5	18.7	\$ 81.88	\$ (3.32)
9/1/2024	39.4	48.5	55.1	65.6	51.8	45.5	26.2	3.3	(9.6)	70%	38.0	17.8	6.9	\$ 73.00	\$ (4.65)
10/1/2024	31.5	40.1	48.3	59.3	37.7	30.9	27.7	(2.4)	(17.4)	70%	37.2	9.7	(2.9)	\$ 55.78	\$ (4.18)
11/1/2024	20.8	26.8	25.1	68.1	23.1	23.1	47.3	(3.7)	(2.0)	50%	57.7	9.7	10.5	\$ 63.05	\$ 0.38
12/1/2024	12.7	13.6	16.1	70.1	15.9	14.6	57.4	2.3	(1.5)	50%	63.8	9.1	6.5	\$ 91.48	\$ 1.20
1/1/2025	15.6	16.5	17.5	63.6	20.4	20.4	48.1	4.0	2.9	50%	55.9	12.2	11.7	\$ 97.03	\$ 4.50
2/1/2025	21.9	29.5	32.5	60.9	36.3	33.8	39.0	6.8	1.3	50%	50.0	21.6	17.6	\$ 63.93	\$ 1.25
3/1/2025	25.3	33.4	43.1	61.0	68.5	68.0	35.7	35.1	24.9	50%	48.4	51.8	46.4	\$ 44.50	\$ (2.98)
4/1/2025	35.7	53.7	67.3	61.6	59.9	54.1	25.9	6.1	(13.2)	50%	43.7	33.0	20.5	\$ 39.15	\$ (0.55)
5/1/2025	50.0	79.9	100.1	84.8	75.9	64.6	34.8	(4.0)	(35.5)	50%	59.8	36.0	14.6	\$ 37.08	\$ (3.10)
6/1/2025	63.3	87.6	106.3	75.1	70.6	67.6	11.8	(17.0)	(38.7)	50%	43.5	26.8	14.4	\$ 47.37	\$ (1.45)
7/1/2025	60.2	79.8	96.7	86.8	82.1	81.6	26.6	2.3	(15.1)	50%	56.7	42.2	33.2	\$ 73.59	\$ (2.16)
8/1/2025	51.5	67.3	81.3	82.5	76.4	73.6	31.1	9.1	(7.7)	30%	67.1	56.2	49.2	\$ 91.28	\$ (2.52)
9/1/2025	38.0	51.1	64.4	75.8	62.1	49.2	37.8	11.0	(15.1)	30%	64.4	46.8	29.9	\$ 79.34	\$ (2.30)
10/1/2025	30.8	43.2	55.4	44.9	41.0	36.1	14.1	(2.2)	(19.4)	30%	35.7	28.0	19.4	\$ 57.38	\$ 0.57
11/1/2025	19.2	23.3	25.8	37.2	32.4	29.8	18.0	9.1	4.0	30%	31.4	25.4	22.1	\$ 62.30	\$ 0.46
12/1/2025	12.2	14.0	16.2	54.7	32.5	17.1	42.5	18.5	0.9	30%	51.0	28.3	12.2	\$ 95.56	\$ 0.49

Off-Peak	Off Peak												4/1/2024 Forward Mkt	Change from last NSP	
	Demand, MW			Resources, MW			Net Long/(Short), MW			RMP	Net (Short)/Long based on RMP				
	Wet	Average	Dry	Wet	Average	Dry	Wet	Average	Dry		Wet	Average			Dry
4/1/2024	25.0	35.2	56.8	37.4	42.8	34.5	12.4	7.7	(22.3)	100%	12.4	7.7	(22.3)	\$ 36.48	\$ (1.04)
5/1/2024	35.8	54.1	69.0	44.1	51.1	46.0	8.2	(3.0)	(23.0)	100%	8.2	(3.0)	(23.0)	\$ 28.20	\$ (4.63)
6/1/2024	50.7	64.5	78.2	52.2	56.9	57.5	1.5	(7.6)	(20.7)	90%	6.5	(1.1)	(12.9)	\$ 33.68	\$ (4.03)
7/1/2024	53.0	65.2	72.7	48.0	53.8	56.2	(5.0)	(11.4)	(16.5)	90%	0.3	(4.9)	(9.3)	\$ 48.00	\$ (3.63)
8/1/2024	46.2	55.9	61.5	40.9	37.5	36.3	(5.3)	(18.4)	(25.2)	70%	8.6	(1.6)	(6.7)	\$ 57.80	\$ (1.98)
9/1/2024	34.8	42.0	46.6	41.8	30.4	25.2	7.0	(11.6)	(21.4)	70%	17.4	1.0	(7.4)	\$ 56.90	\$ (3.45)
10/1/2024	26.1	32.0	36.9	45.8	23.0	15.8	19.7	(9.1)	(21.2)	70%	27.5	0.5	(10.1)	\$ 50.93	\$ (4.98)
11/1/2024	18.1	22.6	20.6	31.5	7.6	7.6	13.4	(15.0)	(13.0)	50%	22.4	(3.7)	(2.7)	\$ 66.00	\$ 3.00
12/1/2024	12.6	13.5	15.8	22.4	4.9	4.5	9.8	(8.6)	(11.3)	50%	16.1	(1.8)	(3.4)	\$ 81.15	\$ (1.05)
1/1/2025	13.4	14.1	14.9	33.9	9.3	9.3	20.6	(4.8)	(5.7)	50%	27.3	2.2	1.8	\$ 86.70	\$ 0.23
2/1/2025	18.9	26.1	29.3	42.3	20.3	18.0	23.5	(5.8)	(11.3)	50%	32.9	7.2	3.3	\$ 71.85	\$ 1.50
3/1/2025	20.6	27.8	36.0	38.8	45.4	44.9	18.2	17.5	8.9	50%	28.5	31.5	26.9	\$ 48.78	\$ (2.10)
4/1/2025	32.1	48.8	61.2	46.1	44.1	37.4	14.0	(4.6)	(23.8)	50%	30.1	19.8	6.8	\$ 46.55	\$ (1.43)
5/1/2025	39.5	61.2	75.7	65.4	56.5	45.1	26.0	(4.7)	(30.6)	50%	45.7	25.9	7.2	\$ 36.70	\$ (2.83)
6/1/2025	53.2	72.4	87.1	72.0	65.4	61.1	18.8	(7.0)	(26.0)	50%	45.4	29.2	17.5	\$ 49.19	\$ (1.61)
7/1/2025	54.0	69.9	83.6	67.6	62.7	62.1	13.6	(7.2)	(21.4)	50%	40.6	27.8	20.4	\$ 62.73	\$ (1.35)
8/1/2025	45.9	58.4	69.5	51.5	46.8	44.6	5.7	(11.6)	(24.9)	30%	37.8	29.3	23.8	\$ 69.74	\$ (1.83)
9/1/2025	33.9	43.9	54.2	46.6	35.3	24.7	12.7	(8.6)	(29.5)	30%	36.4	22.1	8.4	\$ 67.92	\$ (1.47)
10/1/2025	25.6	33.7	41.7	30.4	26.3	21.1	4.8	(7.4)	(20.6)	30%	22.8	16.2	8.6	\$ 56.69	\$ (1.15)
11/1/2025	17.1	19.7	21.2	15.3	12.7	11.3	(1.8)	(7.0)	(9.8)	30%	10.2	6.8	5.0	\$ 66.62	\$ (1.02)
12/1/2025	12.3	14.0	16.0	18.9	11.7	6.8	6.6	(2.2)	(9.2)	30%	15.2	7.6	2.0	\$ 94.86	\$ (1.09)

Power and Water Resources Pooling Authority
May 2024 Update
Operations Manager Report

- 2. BR output:
 - a. Covered 101% of load for March and 85% of April so far

Figure 1: Monthly BR and Load



- 3. Regulatory Items
 - a. Resource Adequacy: No updates from last month
 - b. Renewable Energy Certificates
 - i. Staff working on PCC2 and PCC3 transactions to ensure there is enough room in CP4.
 - ii. Staff completing a book and claim for extra revenue for the PCC3 RECs.

Power & Water Resources Pooling Authority

3. GM Comments.

Power and Water Resources Pooling Authority

May 1, 2024 Information Packet

GM Comments

SAVE-THE-DATE BOARD MEETING PLANNER

- **The Board Meeting on Wednesday, June 5, will be at Cawelo WD. The Auditors will attend to present the 2023 Audited Financials. Typically, we go out to the Brazilian BBQ on Tuesday night before the meeting, and then we have lunch after the meeting. I encourage in-person attendance if possible. Please let me know as far in advance as possible for planning purposes.**

- **We are planning to hold the August [Strategic] Board Meeting in Sonoma on Thursday, August 8 and Friday, August 9. The current plan is as follows:**
 - **Thursday will include a morning and an afternoon session. Subject matter will be the Regular Board Meeting and the work product of the Financial & Power and Business Continuity teams.**
 - **Thursday night dinner together.**
 - **Friday morning wrap-up from approx. 9:00-11:00.**
 - **We scheduled it this way to give folks an early start on their drive home or recreational time in the Napa Valley.**

GM Activities in April

- April Board Meeting at BCID.
- Strategy Team 1, Minutes available on www.pwrpa.org.
- Strategy Team 2, Minutes available on www.pwrpa.org.
- Discussions with Buena Vista WD and certain impacted PWRPA districts regarding the former's possible participation in PWRPA.
- Continuing work on metering and new POD matters with Trimark and PG&E.
- Negotiations and execution of agreement for Bucket 3 REC-LCFS credit exchange.
- 2023 Audit management discussion and analysis.
- Continuing work with WAPA and USBR meetings on cost allocations, research projects, advance O&M funding and developing the [CVP] Emission Footprint Methodology for the ROC on LTO.
- Compliance filings with ARB and the CEC.
- Engagement in ARB pre-rulemaking for allowance re-allocations.
- Legal research on PCC 2 options for CP4 RPS compliance.
- Continuing legal work on the Clearway Luna Project (2MW for WWD) and certain White Pine solar projects/proposals.
- Collaboration with Pacific Northwest National Lab to apply to the Water Power Technologies Office for grant funding:
"Insufficient energy storage and transmission in California are resulting in the curtailment of renewable generation. In particular, this adversely impacts solar generation within the San Joaquin Valley. The Central Valley Project (CVP) and State Water Project (SWP) are

Power and Water Resources Pooling Authority

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GM Comments

uniquely situated to alleviate this problem. These projects pump significant quantities of water out of the Sacramento-San Joaquin Delta through the California Aqueduct and the Delta-Mendota Canal. The modification of operations and addition of short and long duration energy storage within the CVP and SWP will have a significant impact on reducing renewable curtailments in the Balancing Authority of Northern California (BANC) and California Independent System Operator (CAISO) balancing authority.

The Power and Water Pooling Authority (PWRPA) operates as a publicly-owned electric utility and purchases CVP power marketed by the Western Area Power Administration (WAPA). PWRPA is the retail electricity provider to fifteen publicly-owned water utility customers of which the vast majority are agricultural water districts located in the San Joaquin Valley. Although, there is recent ongoing work to evaluate energy storage opportunities at the San Luis Reservoir through the Gianelli Powerhouse, additional unexamined opportunities exist within the CVP and SWP to increase energy storage (separate and in addition to the San Luis Reservoir). These consist of, but are not limited to:

- 1) Evaluation of Project Use schedules south of the Delta (Tracy, Banks, Dos Amigos, and others)
- 2) Identification of the value of pumped storage south of Dos Amigos pumping station
- 3) Identification of other constraints limiting the more economic scheduling of Project Use
- 4) Feasibility of using the Delta Mendota Canal, i.e., existing infrastructure, as the waterway or upper reservoir of a pumped storage system
- 5) Other potential pump storage opportunities (in addition to San Luis) south of the Delta

PWRPA is seeking technical assistance to evaluate five additional opportunities listed above, which are outside of the current San Luis Energy Storage project, for energy storage on the CVP and SWP south of the Sacramento-San Joaquin Delta. This work will be complementary to the ongoing analysis at San Luis Reservoir, however, it also involves a separate analysis addressing a distinctive problem that requires special attention.”