

**WESTERN AREA POWER ADMINISTRATION
HYDRO CONDITIONS AND PURCHASE POWER REPORT
February 2025**

	Generation (Megawatt-Hours [MWh])				Purchase Power (MWh)	Purchase Power Expenses (Dollars)		
	Projected Dry	Most Probable	Average	Actual	Actual	Projected Dry	Most Probable	Actual
	Oct 24	1,685,365	1,672,223	1,817,896	1,661,055	239,935	\$ 8,680,694	\$ 8,076,594
Nov 24	1,322,001	1,273,313	1,658,059	1,296,251	261,741	\$ 9,992,784	\$ 9,490,566	\$ 10,234,234
Dec 24	1,070,717	1,121,484	1,593,354	1,140,780	517,762	\$ 19,333,121	\$ 18,317,155	\$ 19,447,220
Jan 25	1,148,964	1,380,755	1,703,965	1,512,697				
Feb 25								
Mar 25								
Apr 25								
May 25								
Jun 25								
Jul 25								
Aug 25								
Sep 25								
Total	5,227,047	5,447,776	6,773,275	5,610,783	1,019,438	\$ 38,006,599	\$ 35,884,315	\$ 43,009,773
	Actual generation as a percentage of average: 82.8%					Cost per MWh: \$42.19		

Western Area Power Administration (WAPA) generated a total of 5,610 gigawatt-hours (GWh) from October through January of fiscal year 2025, or 82.8 percent of average. Actual purchase power data is currently available from October through December for all of WAPA’s regions, and during this period total purchase power was 1,019 GWh and total purchase power expenses were \$43,009,773, which equates to \$42.19 per MWh overall.

The following pages indicate WAPA’s regional snowpack, lake/reservoir inflow and storage, generation, and purchase power expenses. Snowpack is reported as snow water equivalent, which is the depth of water that theoretically would result if the entire snowpack melted instantaneously.

The monthly purchase power numbers in this report are used by WAPA’s regions as a forecasting tool; therefore, they do not reflect energy imbalance transactions and other such information that cannot be forecasted. Furthermore, the purchase power numbers have not been verified for financial auditing purposes. Consequently, these numbers will vary from those reported in WAPA’s year-end financial statements, and the latter should be considered the definitive source for WAPA’s purchase power data.



Colorado River Storage Project

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (MWh)				Purchase Power (MWh)	Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Actual	Projected Dry	Most Probable	Actual
Oct 24	0.66	0.97	452.55	290.80	15.55	9.05	250,893	268,988	289,123	209,549	81,609	\$ 0	\$ 0	\$ 4,826,726
Nov 24	3.37	3.84	418.30	388.77	15.35	8.92	248,267	250,204	299,814	224,598	14,779	\$ 0	\$ 0	\$ 527,405
Dec 24	6.48	6.28	320.64	299.28	15.03	8.67	273,091	306,034	357,619	296,850	-5,099	\$ 0	\$ 0	\$ (214,819)
Jan 25	9.60	8.06	336.18	235.00	14.62	8.28	252,878	354,112	367,311	348,994	-1,768	\$ 0	\$ 0	\$ (69,449)
Feb 25														
Mar 25														
Apr 25														
May 25														
Jun 25														
Jul 25														
Aug 25														
Sep 25														
Total							1,025,129	1,179,339	1,313,867	1,079,990	89,521	\$ 0	\$ 0	\$ 5,069,864

Actual generation as a percentage of average: 82.2%

Cost per MWh: \$56.63

Lake/Reservoir Levels

End of January storage volume for Lake Powell was 8.27 million acre-feet (MAF) or about 35.4 percent of capacity. Lake Powell reservoir inflow for January was 235,000 acre-feet or 70 percent of average. Lake Powell elevation at the end of January was about 3,567 feet, or about 133 feet from maximum reservoir level and 77 feet from the minimum generation level.

Weather and Other Conditions

The forecasted release volume from Glen Canyon Dam for water year 2025 is 7.48 million acre-feet. Purchase power in the region was available and prices in January have averaged in the low \$50s on-peak and high \$40s off-peak. The higher-than-normal purchased power expense was due to the bypass experiment to cool the waters downstream from Glen Canyon dam thereby disadvantaging spawning of the Small Mouth Bass (SMB), an invasive species. The SMB bypass experiment ended November 19, 2024.



Desert Southwest Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (MWh)				Purchase Power (MWh)	Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Actual	Projected Dry	Most Probable	Actual
Oct 24	0.66	0.97	59.90	47.00	19.90	10.66	326,150	347,395	373,076	345,042	17,147	\$ 618,750	\$ 618,750	\$ 1,258,884
Nov 24	3.37	3.84	53.86	42.00	19.85	10.65	257,750	263,510	359,135	264,795	15,607	\$ 882,323	\$ 882,323	\$ 575,942
Dec 24	6.48	6.28	72.49	64.00	19.86	10.83	203,500	206,920	358,368	212,387	43,769	\$ 1,935,480	\$ 1,935,480	\$ 1,935,480
Jan 25	9.60	8.06	90.90	37.00	19.93	11.13	215,750	233,705	381,653	238,824	28,192	\$ 2,408,580	\$ 2,408,580	\$ 1,863,773
Feb 25														
Mar 25														
Apr 25														
May 25														
Jun 25														
Jul 25														
Aug 25														
Sep 25														
Total							1,003,150	1,051,530	1,472,232	1,061,048	104,715	\$ 5,845,133	\$ 5,845,133	\$ 5,634,079

Actual generation as a percentage of average: 72.1%

Cost per MWh: \$53.80

Lake/Reservoir Levels

Aggregate system storage for the Lower Colorado River Basin, or Lakes Mead, Mohave, and Havasu, was 11.13 MAF at the end of January, or 39 percent of the Lower Basin capacity. The Lower Basin tributary inflow into Lake Mead for January was 37,000 acre-feet, or about 46 percent of the five-year average for the month. The total side inflow into Lake Mead for WY 2025 is projected to be 811,000 acre-feet, which represents a 23 percent increase compared to 2024 and represents 62 percent of the normal annual side inflow. Lake Mead's elevation at the end of January was 1,068.68 feet, or 153.4 feet below full storage elevation and 116.4 feet above the minimum generation elevation for Hoover Dam. The Lake Powell operational tier for WY 2025 is the Mid-Elevation Release Tier with an initial projected water year release to Lake Mead of 7.48 million acre-feet. Between April and July 2025, the projected unregulated inflow into Lake Powell is 4.3 MAF or 67 percent average. The projected Hoover and Parker-Davis generation for WY 2025 is 77 percent of average.

Weather and Other Conditions

The Desert Southwest Region's hydrology, or the Lower Colorado River Basin, is mostly dependent on the Colorado River Basin snowpack and precipitation above Lake Powell. The precipitation is currently 94 percent of average and the snowpack is 92 percent of median. The January 2024 market prices averaged about \$44/MWh for firm on-peak and \$47/MWh for firm off-peak.



Rocky Mountain Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (MWh)				Purchase Power (MWh)	Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Actual	Projected Dry	Most Probable	Actual
Oct 24	0.00	0.00	145.00	86.80	3.74	3.80	78,422	90,140	97,400	63,139	95,025	\$ 4,923,266	\$ 4,313,920	\$ 4,130,822
Nov 24	3.70	2.60	117.10	92.90	3.98	3.80	56,984	65,499	110,000	68,102	89,607	\$ 4,176,425	\$ 3,733,652	\$ 3,716,837
Dec 24	11.70	10.90	102.30	90.20	3.82	3.79	78,326	90,030	123,500	112,107	53,371	\$ 3,706,243	\$ 3,097,640	\$ 2,540,653
Jan 25	20.40	17.80	102.50	77.40	3.92	3.75	84,336	96,938	122,100	116,717	51,320	\$ 4,553,325	\$ 3,898,024	\$ 3,760,870
Feb 25														
Mar 25														
Apr 25														
May 25														
Jun 25														
Jul 25														
Aug 25														
Sep 25														
Total							298,068	342,607	453,000	360,065	289,323	\$ 17,359,259	\$ 15,043,236	\$ 14,149,182

Actual generation as a percentage of average: 79.5%

Cost per MWh: \$48.90

Lake/Reservoir Content

At the end of January reservoir inflows were at 76 percent of average, and storage is at 96 percent of average. Hoping for more spring snowstorms in the upcoming months.

Weather and Other Conditions

LAP's hydrologic conditions can vary from one river basin and watershed to another. Looking at the end of February, the snowpack is just below average for both the Wyoming area and the Colorado East Slope area. The hope is there will be more snowstorms in the upcoming months. The latest National Weather Service forecast indicates February through April temperatures will have equal probability for above and below average. The same forecast indicates precipitation will be below average for the Wyoming area and Colorado area. Spring generation in the Colorado River Basin, North Platte Basin, and Big Horn Basin is forecasted to be average.

Note: The Rocky Mountain Region's most recent reported actual generation is an estimated value.



Sierra Nevada Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (MWh)				Purchase Power (MWh)	Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Actual	Projected Dry	Most Probable	Actual
Oct 24	N/A	N/A	314.00	256.00	5.30	6.41	204,000	144,000	163,000	207,803	38,107	\$ 2,604,688	\$ 2,604,688	\$ 2,665,364
Nov 24	27.37	5.20	413.00	595.00	5.29	6.58	66,000	6,000	104,000	55,786	45,990	\$ 2,524,038	\$ 2,524,038	\$ 2,969,744
Dec 24	26.67	10.40	890.00	1,312.00	5.68	7.51	0	0	143,000	41,926	47,977	\$ 3,092,938	\$ 3,092,938	\$ 3,253,697
Jan 25	26.25	10.50	1,103.00	944.00	6.17	7.63	0	108,000	163,000	214,570	35,560	\$ 2,909,960	\$ 2,909,960	\$ 2,909,840
Feb 25														
Mar 25														
Apr 25														
May 25														
Jun 25														
Jul 25														
Aug 25														
Sep 25														
Total							270,000	258,000	573,000	520,085	167,634	\$ 11,131,624	\$ 11,131,624	\$ 11,798,645

Actual generation as a percentage of average: 90.8%

Cost per MWh: \$70.38

Lake/Reservoir Content

As of January 31, reservoir storage was 133 percent of the 15-year average for Trinity, 122 percent for Shasta, 79 percent for Folsom, and 131 percent for New Melones. Accumulated inflow was 175 percent of the 15-year average for Trinity, 139 percent for Shasta, 54 percent for Folsom, and 59 percent for New Melones.

Weather and Other Conditions

November had 13.49 inches or 23 percent of average for the month, December had 11.2 inches or 127 percent of average for the month, then January saw only 1.12 inches or 13 percent of average. February is beginning to see more precipitation. The statewide snowpack is assumed to reach its peak on April 1, and while November and December conditions looked good, January has been cold and clear for the most part. The Sacramento Valley 40-30-30 index at the 50 percent exceedance level is "above normal," while the 90 percent exceedance level is "below normal."

Note: The Sierra Nevada Region's average generation is based upon long-term modeling done for its "Green Book." The region does not project purchase power expenses for dry conditions, and its most probable expenses are based upon term purchases of 35 to 65 percent of projected power needs, with the difference being left to day-ahead markets after project pumping and generation have been scheduled.



Upper Great Plains Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (MWh)				Purchase Power (MWh)	Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Actual	Projected Dry	Most Probable	Actual
Oct 24	0.00	0.40	8,188.00	7,410.13	0.00	53.06	825,900	821,700	895,297	835,523	8,047	\$ 533,990	\$ 539,236	\$ 446,523
Nov 24	0.00	2.90	7,527.00	6,363.32	0.00	51.87	693,000	688,100	785,110	682,970	95,758	\$ 2,409,998	\$ 2,350,553	\$ 2,444,306
Dec 24	0.00	5.40	6,425.00	4,407.80	0.00	51.73	515,800	518,500	610,868	477,510	377,744	\$ 10,598,460	\$ 10,191,097	\$ 11,932,209
Jan 25	0.00	7.90	6,664.00	5,223.19	0.00	51.30	596,000	588,000	669,901	593,592	*	\$ 9,526,401	\$ 10,327,480	*
Feb 25														
Mar 25														
Apr 25														
May 25														
Jun 25														
Jul 25														
Aug 25														
Sep 25														
Total							2,630,700	2,616,300	2,961,176	2,589,595	481,549	\$ 23,068,848	\$ 23,408,366	\$ 14,823,038

Actual generation as a percentage of average: 87.5%

Cost per MWh: \$30.78

Lake/Reservoir Content

The yearly runoff forecast for the Missouri River Basin as of February 1 was 20.6 million acre-feet or 80 percent of average. Runoff above Sioux City for January was 71,900 acre-feet or 92 percent of average. System storage as of February 18 was 49.8 MAF.

Weather and Other Conditions

On February 19, the mountain snow water equivalent (SWE) in the total above Fort Peck reach was 10.8 inches or 93 percent of average, and the mountain SWE in the Fort Peck to Garrison reach was 10.2 inches or 97 percent of average. The normal peak for both reaches occurs on or around April 17. Eastern Colorado into western Kansas and most of Nebraska measured over 200 percent of normal precipitation during the week of February 20. Other parts of the region were drier, including North Dakota and South Dakota, as well as in southern Kansas. The week of February 20 was a cold week for the region, with almost all of the High Plains experiencing temperatures at least 15 degrees below normal. Only a few slight changes occurred, with far southeast Nebraska and far northeast improvements to Kansas' abnormally dry and moderate drought conditions and abnormally dry conditions removed from northeast Colorado along the Kansas and Nebraska borders. The 90- to 180-day averages outlook shows equal chances for above or below normal temperatures and precipitation for the region.

Note: The Upper Great Plains Region reports 50 percent share of Yellowtail Dam generation while Rocky Mountain Region reports the snowpack, inflow, content, and remaining share of generation. Asterisks indicate that actual purchase power data is not available for the month.

