



## 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 18	1.30	1.50	514.42	351.00	15.01	10.86	321,546	322,388	382,430	350,253	85,231	\$2,864,090	\$2,837,493	\$2,445,254
Nov 18	4.80	5.20	474.23	254.00	14.91	10.51	303,372	316,406	388,155	298,876	162,992	\$3,956,202	\$3,856,748	\$5,385,266
Dec 18	8.10	7.60	362.96	228.00	14.86	10.10	355,598	375,353	437,962	376,666	115,368	\$4,457,663	\$5,908,583	\$4,564,811
Jan 19														
Feb 19														
Mar 19														
Apr 19														
May 19														
Jun 19														
Jul 19														
Aug 19														
Sep 19														
<b>Total</b>							980,516	1,014,147	1,208,547	1,025,795	363,591	\$11,277,955	\$12,602,824	\$12,395,331

Actual generation as a percentage of average: 84.9%

Cost per MWh: \$34.09

### Lake/Reservoir Levels

Lake Powell's elevation was 3,582 feet at the end of December, about 118 feet below the maximum reservoir level and about 86 feet above the minimum generation level. The storage volume for Lake Powell was 10.10 million acre-feet at the end of December, or about 42 percent of capacity.

### Weather and Other Conditions

Snowpack in the Upper Colorado River Basin is near average, but current inflow forecasts are well below average due to dry soil conditions. However, there is much uncertainty with these forecasts as we are still early in the snow accumulation period.



## 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 18	1.30	1.50	93.71	101.00	20.03	12.01	351,400	351,315	377,868	339,511	11,000	\$308,000	\$400,000	\$409,640
Nov 18	4.80	5.20	54.08	68.00	20.08	12.03	367,050	357,160	363,617	357,474	11,001	\$435,640	\$435,640	\$435,640
Dec 18	8.10	7.60	72.32	52.00	20.21	12.32	247,750	244,540	369,749	233,300	30,582	\$1,258,177	\$1,258,177	\$1,549,896
Jan 19														
Feb 19														
Mar 19														
Apr 19														
May 19														
Jun 19														
Jul 19														
Aug 19														
Sep 19														
<b>Total</b>							966,200	953,015	1,111,234	930,284	52,583	\$2,001,817	\$2,093,817	\$2,395,176

Actual generation as a percentage of average: 83.7%

Cost per MWh: \$45.55

### Lake/Reservoir Levels

Lake Mead's elevation was 1,081 feet at the end of December, about 138 feet below the full storage level and about 131 feet above the minimum generation level. Lake Mead's elevation is projected to peak at 1,086 feet in February and then drop to a minimum elevation of 1,069 feet in July.

### Weather and Other Conditions

The Desert Southwest Region's (DSWR) hydrology is mostly dependent on the Colorado River Basin snowpack and precipitation above Lake Powell. The precipitation is currently 105 percent of average.

*Note: DSWR's projected dry and most probable generation data are reported from studies conducted by the U.S. Bureau of Reclamation.*



## 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 18	0.00	0.00	145.00	123.30	3.87	4.16	126,310	140,345	96,983	105,818	73,854	\$1,010,520	\$617,540	\$1,700,855
Nov 18	3.80	3.00	121.90	114.40	3.83	4.15	53,631	59,591	109,895	64,731	69,165	\$3,039,932	\$2,873,052	\$1,670,392
Dec 18	11.70	14.60	100.60	98.60	3.79	4.10	88,802	98,669	123,353	93,787	79,107	\$2,472,344	\$2,196,068	\$1,944,026
Jan 19														
Feb 19														
Mar 19														
Apr 19														
May 19														
Jun 19														
Jul 19														
Aug 19														
Sep 19														
<b>Total</b>							268,743	298,605	330,231	264,336	222,126	\$6,522,796	\$5,686,660	\$5,315,273

Actual generation as a percentage of average: 80.0%

Cost per MWh: \$23.93

### Lake/Reservoir Content

Reservoir inflows were 98 percent of average at the end of December.

### Weather and Other Conditions

Hydrologic conditions for the Loveland Area Projects (LAP) area can vary from one river basin and watershed to another. LAP is currently drought free. The latest National Weather Service forecast indicates February through April temperatures will most likely to be at or below average in Colorado and Wyoming. The same forecast indicates precipitation will be average for all of LAP. Winter generation in the Colorado River Basin is forecasted to be average due to decent storage, and is also forecasted to be average in the Bighorn and North Platte River Basins.

*Note: The Rocky Mountain Region's (RMR) most recent reported actual generation and purchase power data are provisional values.*



## 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 18	N/A	N/A	337.00	267.00	5.33	5.81	66,000	71,000	163,000	122,451	54,606	\$519,480	\$519,480	\$1,136,470
Nov 18	26.67	4.00	413.00	329.00	5.30	5.72	14,000	0	104,000	118,897	50,948	\$499,500	\$499,500	\$1,039,392
Dec 18	28.00	7.00	934.00	489.00	5.69	5.83	39,000	0	143,000	105,005	64,085	\$499,500	\$499,500	\$1,342,138
Jan 19														
Feb 19														
Mar 19														
Apr 19														
May 19														
Jun 19														
Jul 19														
Aug 19														
Sep 19														
<b>Total</b>							119,000	71,000	410,000	346,353	169,639	\$1,518,480	\$1,518,480	\$3,518,000

Actual generation as a percentage of average: 84.5%

Cost per MWh: \$20.74

### Lake/Reservoir Content

As of December 31, reservoir storage for the water year was 104 percent of the 15-year average for Trinity, 89 percent for Shasta, 81 percent for Folsom, and 132 percent for New Melones. Accumulated inflow for the same date was 41 percent of the 15-year average for Trinity, 72 percent for Shasta, 53 percent for Folsom, and 70 percent for New Melones.

### Weather and Other Conditions

October had only 33 percent of average precipitation, November had 109 percent of average, and December had 57 percent of average. The Bureau of Reclamation has been pumping at maximum in the Delta and into the San Luis Reservoir, and has minimized reservoir releases due to instream flow requirements being met by side flows. The Sacramento River Index forecast for 50 percent exceedence is "below normal" and the 90 percent exceedence is "critical."

*Note: The Sierra Nevada Region's (SNR) average generation is based upon long-term modeling done for its "Green Book." SNR 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 18	1.20	0.60	7,972.00	12,743.92	56.14	61.29	1,325,941	1,406,667	756,334	1,248,178	531	\$0	\$0	\$6,478
Nov 18	3.80	3.49	7,334.00	12,156.48	55.06	58.80	1,209,552	1,316,760	709,613	1,173,480	2,149	\$18,782	\$3,900	\$83,100
Dec 18	7.10	5.70	6,422.00	7,619.10	54.46	58.43	915,072	894,801	630,628	818,157	*			*
Jan 19														
Feb 19														
Mar 19														
Apr 19														
May 19														
Jun 19														
Jul 19														
Aug 19														
Sep 19														
<b>Total</b>							3,450,565	3,618,228	2,096,576	3,239,815	2,680	\$18,782	\$3,900	\$89,578

Actual generation as a percentage of average: 154.5%

Cost per MWh: \$33.42

### Lake/Reservoir Content

As of January 15, the active conservation pools for the Canyon Ferry and Yellowtail Dams were 83.2 percent and 84.2 percent full, respectively.

### Weather and Other Conditions

The December runoff was 213 percent of normal. Runoff was above average at Fort Peck, Fort Randall, Garrison, Gavins Point and Oahe. Snow pack reports show 76 percent of average above Fort Peck and 79 percent of average in the Fort Peck to Garrison reach. The U.S. Drought Monitor shows that portions of the upper Missouri River Basin continue to be impacted by drought. Abnormally dry (D0) and moderate (D1) drought conditions are present in North Dakota and there is a small area that is abnormally dry in central South Dakota.

*Note: The Upper Great Plains Region reports its 50 percent share of generation from Yellowtail Dam, and RMR reports the snowpack, inflow, content, and remaining share of generation. Asterisks indicate that actual purchase power data is not available for the month, and so the projected dry and most probable purchase power expenses are not included for that month in order to allow for a meaningful comparison between the total amounts.*

