Western Area Power Administration (WAPA) generated a total of 22,549* gigawatt-hours (GWh) during October through July of fiscal year 2020, or 103.6 percent of the average. Actual purchase power data is currently available from October through June for all of WAPA’s regions, and during this period total purchase power was 1,572 GWh and total purchase power expenses were $39,915,828, which equates to $25.40 per MWh. *CRSP gen. is Most Probable.

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 is melted instantaneously.

The monthly purchase power numbers indicated herein are used by WAPA’s Regions as a forecasting tool, and 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

Lake/Reservoir Levels
Lake Powell’s elevation was 3,606 feet at the end of June, about 94 feet below the maximum reservoir level and about 104 feet above the minimum generation level. The storage volume for Lake Powell was 12.4 million acre-feet (MAF) at the end of May, or about 51 percent of capacity.

Weather and Other Conditions
Hydrologic conditions continue to be dry in the Upper Colorado River Basin with only 59 percent of average inflow forecasted for Lake Powell in WY 2020. The official WY 2020 annual release for Lake Powell will be 8.23 MAF, and current forecasts predict a 9.0 MAF annual release for WY 2021.

Note: Actual generation for July was not provided by BOR in time for the release of this report. “Most Probable” generation was used in place of actual generation (highlighted) to provide a more accurate calculation of Actual generation as a percentage of average for purposes of this report. This amount will be updated for the September hydro report.
### Desert Southwest Region

#### Lake/Reservoir Levels
Lake Mead’s elevation was 1084 feet at the end of July, about 135 feet below the full storage level and about 135 feet above the minimum generation level. Lake Mead’s elevation started WY 2020 at a minimum elevation of 1,083 feet in October and its elevation peaked at 1,099 feet in March.

#### 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 80 percent of average and the snowpack is gone.

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

### 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 | Published | Most Probable | Average | Actual | Actual | Projected Dry | Most Probable | Actual |
| Oct 19 | 1.90 | 1.30 | 60.21 | 34.00 | 19.92 | 12.38 | 327,200 | 329,395 | 377,088 | 330,202 | 15,083 | $294,158 | $294,158 | $447,125 |
| Nov 19 | 4.80 | 4.70 | 55.46 | 116.00 | 19.97 | 12.61 | 296,000 | 290,135 | 362,492 | 287,607 | 18,264 | $427,033 | $427,033 | $949,591 |
| Dec 19 | 8.10 | 8.40 | 73.34 | 117.00 | 20.11 | 13.12 | 184,850 | 116,990 | 366,538 | 116,854 | 55,017 | $2,216,576 | $2,216,576 | $2,834,831 |
| Jan 20 | 11.50 | 12.10 | 93.42 | 75.00 | 20.27 | 13.47 | 207,550 | 159,910 | 389,375 | 220,912 | 37,881 | $1,705,683 | $1,705,683 | $1,656,511 |
| Feb 20 | 15.10 | 15.70 | 108.62 | 67.00 | 20.31 | 13.66 | 273,750 | 394,620 | 387,932 | 305,060 | 15,958 | $653,885 | $653,885 | $631,359 |
| Mar 20 | 18.90 | 19.50 | 105.22 | 150.00 | 20.12 | 13.86 | 542,600 | 319,525 | 526,478 | 319,340 | 66,858 | $3,428,841 | $3,428,841 | $2,973,584 |
| Apr 20 | 19.40 | 17.30 | 84.70 | 84.00 | 19.94 | 13.68 | 492,750 | 480,530 | 569,428 | 482,984 | 22,734 | $873,879 | $873,879 | $706,345 |
| May 20 | 7.90 | 4.80 | 59.04 | 33.00 | 20.03 | 13.25 | 560,900 | 575,115 | 570,839 | 578,772 | 10,286 | $335,328 | $335,328 | $283,025 |
| Jun 20 | 0.00 | 0.10 | 27.15 | 19.00 | 20.22 | 12.89 | 518,100 | 526,020 | 536,369 | 525,069 | 34,548 | $470,235 | $470,235 | $989,291 |
| Jul 20 | 0.00 | 0.10 | 65.69 | 35.00 | 20.12 | 12.67 | 474,100 | 481,175 | 546,249 | 487,899 | 40,695 | $2,246,069 | $2,246,069 | $2,109,078 |
| Aug 20 | | | | | | | | | | | |
| Sep 20 | | | | | | | | | | | |
| **Total** | | | | | | | 3,877,800 | 3,673,415 | 4,632,788 | 3,654,727 | 317,324 | $12,651,687 | $12,651,687 | $13,580,740 |

Actual generation as a percentage of average: 78.9%

Cost per MWh: $42.80
Rocky Mountain Region

Lake/Reservoir Content
Reservoir inflows were 66 percent of average at the end of July, which is a large decrease from the 117 percent reported at the end of June. Storage is 116 percent of average.

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 from a water perspective and the snowpack has all melted. The latest National Weather Service forecast indicates September through October temperatures are more likely to be above average and the precipitation is likely to be just slightly below normal. September generation is expected to be below the marketed amount. Fall generation in the Colorado River Basin, the North Platte Basin and the Big Horn Basin is forecasted to be below average due to unit maintenance needs which had been delayed due to Covid-19.

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

Lake/Reservoir Content
As of July 31, reservoir storage for the water year was 100 percent of the 15-year average for Trinity, 89 percent for Shasta, 91 percent for Folsom, and 111 percent for New Melones. Accumulated inflow for the same date was 40 percent of the 15-year average for Trinity, 61 percent for Shasta, 53 percent for Folsom, and 58 percent for New Melones.

Weather and Other Conditions
February only had 0.02 inches of precipitation for the month, which is the driest February on the index going back to 1921. March precipitation was 90 percent of average, April was 71 percent, and May was 200 percent. June and July were 39 percent and 53 percent of average, respectively. The water year total remains 63 percent of average. Based upon May 1 conditions, the Sacramento River Index forecast for 50 percent exceedance at 9.2 is "critical" and the 90 percent exceedance at 8.5 is also "critical." This is a dry year.

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

Lake/Reservoir Content
As of Aug. 20, the active conservation pools for the Canyon Ferry and Yellowtail Dams were 94.1 percent and 95.6 percent full, respectively.

Weather and Other Conditions
The snowpack melt for the year is complete, with the last recorded mountain Snow Water Equivalent (SWE) in the “Total above Fort Peck” reach on July 5, which was less than an inch, 81% of the July 5 average. The mountain SWE in the “Total Fort Peck to Garrison” reach has melted. The U.S. Drought Monitor shows larger areas of the upper Basin being impacted by abnormally dry conditions, primarily in the north-central and eastern regions of Montana, largely the western half of North Dakota and most of South Dakota with moderate drought in areas of North Dakota and South Dakota. The 90- to 180- day precipitation outlook are normal to slightly below normal.

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.