Western Area Power Administration (WAPA) generated a total of 27,308 gigawatt-hours (GWh) during October through September of fiscal year 2018, or 106.7 percent of the average. For the same period, total purchase power was 1,982 GWh and total purchase power expenses were $53,834,864, which equates to $27.16 per MWh.

The following pages indicate WAPA’s Regional snowpack, lake/reservoir inflow and content, generation, and purchase power expenses, among other things. Snowpack is reported as snow water equivalent, which is the depth of water that theoretically would result if the entire snowpack is melted instantaneously.
Colorado River Storage Project

Lake/Reservoir Levels
Lake Powell’s elevation was 3,592 feet at the end of September, about 108 feet below the maximum reservoir level and about 96 feet above the minimum generation level. The storage volume for Lake Powell was 11.03 million acre-feet at the end of September, or about 45 percent of capacity.

Weather and Other Conditions
Hydrologic conditions in the Upper Colorado River Basin continue to be very dry. Consequently, releases from Lake Powell could be reduced from 9.0 million acre-feet to as low as 8.23 million acre-feet in water year 2019. If that were to occur, purchase power costs would increase about $10 million in water year 2019.
Desert Southwest Region

Lake/Reservoir Levels
Lake Mead’s elevation was 1,078 feet at the end of September, about 141 feet below the full storage level and about 128 feet above the minimum generation level. Lake Mead reached an annual peak elevation of 1,088 feet in February and a minimum elevation of 1,077 feet in June.

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 was 65 percent of average at the end of September.

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

Lake/Reservoir Content

Reservoir inflows were at or above average for the majority of this water year for all of the Loveland Area Projects (LAP). However, the July, August, and September the inflows dropped to below average and were only 47 percent of average at the end of September.

Weather and Other Conditions

Hydrologic conditions for the LAP area can vary from one river basin and watershed to another. LAP is currently drought free from a water perspective due to storage. The latest National Weather Service forecast indicates November through January temperatures are more likely to be at or above normal in the LAP area. For LAP as a whole, November generation is expected to be below the marketed amount due to maintenance on hydro units and the end of the irrigation season. November through January generation in the Bighorn, Colorado, and North Platte River Basins is forecasted to be average for this time of year as winter flow rates are set.

Note: The Rocky Mountain Region’s (RMR) most recent reported actual generation and purchase power data are provisional values. RMR previously reported snowpack data as a total for all reservoirs throughout LAP, but is now reporting that data as an average value.
Sierra Nevada Region

Lake/Reservoir Content
As of September 30, accumulated inflow for the water year was 45 percent of the 15-year average for Trinity, 69 percent for Shasta, 95 percent for Folsom, and 85 percent for New Melones. Reservoir storage as of the same date was 107 percent of the 15-year average for Trinity, 100 percent for Shasta, 103 percent for Folsom, and 136 percent for New Melones.

Weather and Other Conditions
As of September 30, cumulative precipitation of the Northern Sierra Eight Station Index was at 81 percent of average for the date. August had no measurable precipitation while September had 0.05 inches. The Sacramento River Index forecast for the 50 percent exceedence case is "below normal" and the 90 percent exceedence case is "dry."

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 October 10, the active conservation pools for the Canyon Ferry and Yellowtail Dams were 86.4 percent and 93.2 percent full, respectively.

Weather and Other Conditions
The September runoff was 151 percent of normal. Runoff was above average at Gavins Point and below average in the Fort Peck, Fort Randall, Garrison, and Oahe reaches. 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 much of North Dakota and north-central and central South Dakota, with some areas experiencing severe (D2) and extreme (D3) drought. In addition, abnormally dry and moderate drought conditions are present in northern and western Montana.

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 data is not available for the month.