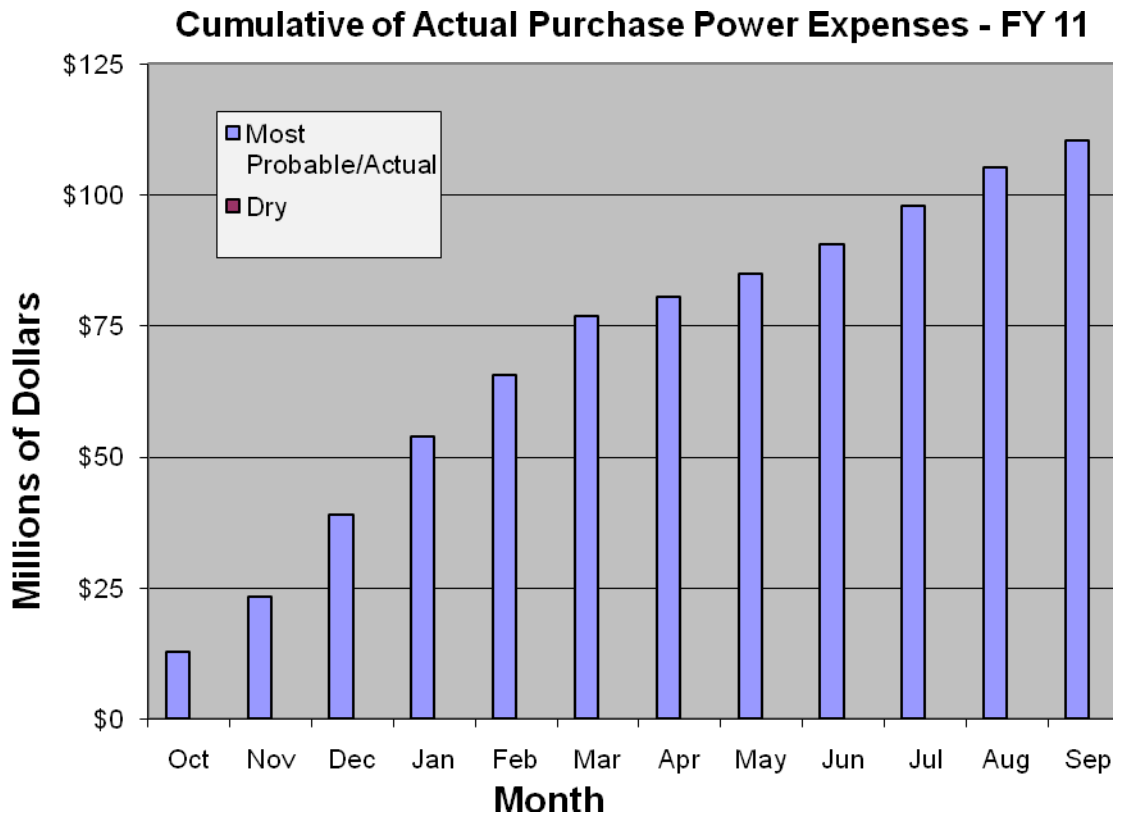


Hydro Conditions and Purchase Power FY11 Summary November 7, 2011

Western Summary

- Loveland Area Projects (LAP) and Central Valley Projects (CVP) both ended the year with above average inflows and reservoir storage levels. The SLCA/IP net generation ended the fiscal year at 125% of average. Lake Mead ended the 2011 water year at an elevation of 66.04 feet above the minimum generation elevation which is a 32.23 foot increase from water year 2010. Estimated COE annual runoff in the UGP area is estimated to be at a record high of 61.8 MAF, which is 249% of normal.
- FY 2011 ended with net generation of 30,872 Gigawatthours (GWh) or 112 percent of average.
- The amount of power purchased for FY 2011 was 1,803 GWh compared to FY 2010 purchases of 3,862 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods was \$61/MWh. This price compares to \$48/MWh last year.
- Purchase power expenses for FY 2011 were \$110.3 million, compared to \$186.6 million for FY 2010. The breakdown for the FY 2011 purchases, in millions, is: UGPR - \$19.8, RMR - \$22.1, CRSP - \$11.6, DSW - \$5.9 and SNR – \$50.9



Upper Great Plains Region

Storage: Streamflows into Canyon Ferry during September were 106% of average. Current hydrologic and climatic conditions indicate the forecasted runoff into Canyon Ferry during October is expected to be about 234,200 acre-feet (82% of average). Based on the current water supply outlook and storage conditions in Canyon Ferry at 103% of average, releases out of Canyon Ferry to the Missouri are expected to be maintained above 4,100 cfs below Holter Dam during the remainder of the year. Based on current hydrologic and climatic conditions and the planned releases out of Boysen and Buffalo Bill Reservoirs, the October runoff into Bighorn Lake is estimated to be about 139.2 acre-feet (76% of average).

As of October 17, 2010, the storage level at [Canyon Ferry](#) was 1,746,980 acre feet and the active conservation pool is 92.3% full. Storage at [Yellowtail](#) is 942,202 acre feet and the active conservation pool is 88.1% full.

COE Runoff: The COE reports that the projects are all back to normal with the exception of Ft. Randall and Gavins Point dams. Ft. Randall continues to spill because three of the units are out for maintenance and the Missouri continues to be at a higher level. Gavins Point is scheduled to spill the remainder of the year and possibly into next calendar year. In general, with the water levels lowering as normal, the COE has revised their annual forecast down to 11,273 GWh for the year, down from 11,769. Even with the revised number, the total generation is higher than the yearly average. It looks to be higher in calendar year 2012 also.

Snow pack The forecasted runoff for 2011 continues to be 61.8 MAF, 249% of normal, as forecasted earlier. This would be a record inflow runoff, exceeding the previous record inflow of 49.0 MAF in 1997. Mountain snow-pack in the reach above Ft Peck and Garrison peaked on May 2 at 136% of average April peak. The North Platte peaked on May 3 at 156% of the normal April 15 peak, and the South Platte River peaked on May 21 at 150% of the normal April 15 peak. Missouri River basin mountain snow-pack normally peaks near April 15.

FY Generation: The six main stem power plants generated 1,027 million kilowatt hours of electricity in September. Total energy production for 2011 is forecast to reach 14.1 billion kWh. The long-term average is approximately 10 billion kWh.

Purchase Power: We are in the shoulder months as far as temperature goes, and prices are reflecting the lack of demand and adequate generation. As the weather continues to turn cooler, prices for energy will start to creep upward in anticipation of the winter season. Depending on the day, prices are in the mid teens and upper 20s.

Rocky Mountain Region

The Loveland Area Projects (LAP) reside in both the Upper Missouri and Upper Colorado basins. Hydrologic conditions can vary from one river basin and watershed to another. The three LAP watersheds are the Bighorn River Basin in Wyoming, the North Platte River Basin in Colorado and Wyoming, and the headwaters of the Colorado River Basin in Colorado.

The LAP area is drought free. Drought conditions persist in the Lower Arkansas River basin in Colorado but that is outside of the LAP area. The reservoir inflow was well above normal in all three LAP basins this year. A heavy spring runoff was followed by low early season water demands and the resulting reservoir storage at the end of September was above average in all three basins and more than it was at the end of last September. The latest National Weather Service forecast indicates temperatures will more likely be above average in Colorado for the November through January period. Precipitation, however, will more likely be above average in Wyoming.

	LAP Water Conditions At-A-Glance						Net At Plant LAP Generation (GWh)			
	Reservoir Storage 1,000 acre-feet			Actual Reservoir Inflow 1,000 acre-feet			FY2011 Actual Generation FY2012 Winter Projection			
	end of September	average	% of average	annual FY2011	average	% of average		average	% of average	
CBT	818.8	699.9	117%	1,393.1	808.1	172%	Winter 10-11	614.2	726.9	84%
North Platte	1,815.4	1,228.6	148%	2,401.5	1,097.4	219%	Summer 11	1,709.4	1,211.0	141%
Bighorn	2,199.2	2,009.2	109%	2,826.0	1,777.3	159%	TOTAL FY11	2,323.6	1,937.9	120%
TOTAL	4,833.4	3,937.7	123%	6,620.6	3,682.8	180%	Winter 11-12	580.0	726.9	80%

LAP generation was above average for FY2011 with the winter generation well below average and the summer generation well above average. Generation surplus to contractual commitments was sold to LAP customers at the regular LAP energy rate in May, June, and July. The Adams Tunnel imports and associated CBT generation were curtailed in August to accommodate Grand Lake water clarity tests but the overall LAP generation still exceeded contractual commitments during the curtailment. The majority of LAP purchases were made in the winter months this last year. The upcoming winter season generation is expected to be about 80% of average and seasonal energy purchases have been arranged to support LAP firm electric service commitments. There will be an extended CBT maintenance outage starting in November and extending into mid-December. There will also be minimum reservoir releases and associated generation in the North Platte Basin due, in part, to the downstream Glendo Reservoir storage ending the year well above normal. The release from Big Horn Lake via the Yellowtail power plant will be above minimum levels this winter per the interim Bighorn Lake Operating Criteria.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 23,726,000 acre feet, which is about 77 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (September, 2011) were about 105 percent of average. Lake Powell elevation currently is about 3,654 feet, 46 feet from maximum reservoir level. Reservoir releases and elevations were high in September, and high releases from Glen Canyon are projected to continue through mid-December when all of the WY2011 equalization releases are completed.

Projected SLCA/IP net generation for Fiscal Year 2011 is 7,385 GWh as compared to 5,888 GWh based on the long-term historical average generation. The CRSP MC extended additional hydro power (AHP) to customers during the winter season 2011/2012.

Estimated purchase power expenses for firming during the fiscal year 2011 are about \$11.6 million as compared to about \$17 million based on long-term median historical releases. Purchase power availability in the region is abundant and purchase prices are moderate.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 15.172 MAF (14.995 MAF Aug-2011), 20.941 MAF (61-Year Historical Avg).

The Lake Mead end of September 2011 elevation was 1,116.04 ft. (2.59 ft. higher than end of August 2011 elevation), or about 103.57 ft. below full storage elevation of 1,219.61 ft. and 66.04 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1116.04 ft in September of WY 2011 (12.83 ft. above the WY 2010 peak elevation of 1103.21 ft.), and dropped to a minimum elevation of 1081.89 ft. in November of WY 2011 (the lowest elevation since Lake Mead began filling in the late 1930's), *a maximum fluctuation in lake elevation of 34.2 ft.*

In accordance with the Equalization Tier, total releases from Lake Powell were 12.518 MAF for WY 2011. The actual 2011 April – July unregulated inflow into Lake Powell was 162% of average.

Basin Snow Pack and Rainfall: See CRSP Data*

Actual Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for September 2011 was 95 KAF. The actual side inflow into Lake Mead for WY2011 was 1161 KAF which represents a 25.1 % increase from last year's actual of 928 KAF, and represents 89.3 % of the normal annual side inflow of 1.3 MAF.

Actual Net FY11 Generation: 5,271 GWh compared to 5,699 GWh (Historical Average). The actual Hoover and Parker-Davis generation for FY11 was 92.5% of the average historical generation.

Wholesale Power Market Conditions: The September market prices in the Desert Southwest averaged about \$40/MWh firm on-peak, \$25/MWh firm off-peak compared to \$43/MWh firm on-peak, \$25/MWh firm off-peak for the previous month.

*Note: The DSW hydrology is actually dependent on the Upper Basin snow pack/runoff (little of the inflow is from the Lower Basin).

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 7.899 million acre-feet, compared to 6.645 last year. We are entering the new water year with 1.2 MAF more than this time last year. Accumulated inflow for the water year-to-date is 196 percent of the 15-year average for Trinity, 98 percent for Shasta, 125 percent for Folsom and 130 percent for Melones.

The end of water year recorded cumulative precipitation for the CVP was 72.73 inches or 144 percent of the Water Year average of 50 inches. This water year is starting with October recorded precipitation totaling 3.89 inches, or 125 percent of that month's average.

The Sierra snow pack is assumed to reach its peak by April 1st. Water year type forecasting begins in December, but snow surveying doesn't begin until January or February. Satellite data for snow water equivalency is used before that point. Forecast is for a "La Nina."

The average projection of net generation is again taken from the latest modeling using the update to our customers' "Green Book." This average, at 3.34 GWh, is less than the 3.63 GWh from the CVPIA PEIS planning studies. Under the Post 2004 Marketing Plan, net generation, after Project Use load, First Preference Customer load and sub-control area reserve requirement, becomes the Base Resource which is allocated among the Base Resource, Variable Resource and Full Load Service Customers. This past water year ended at 109 percent of that average. Daily Base Resource has been steadily falling as Project Use pumping increases while generation decreases.