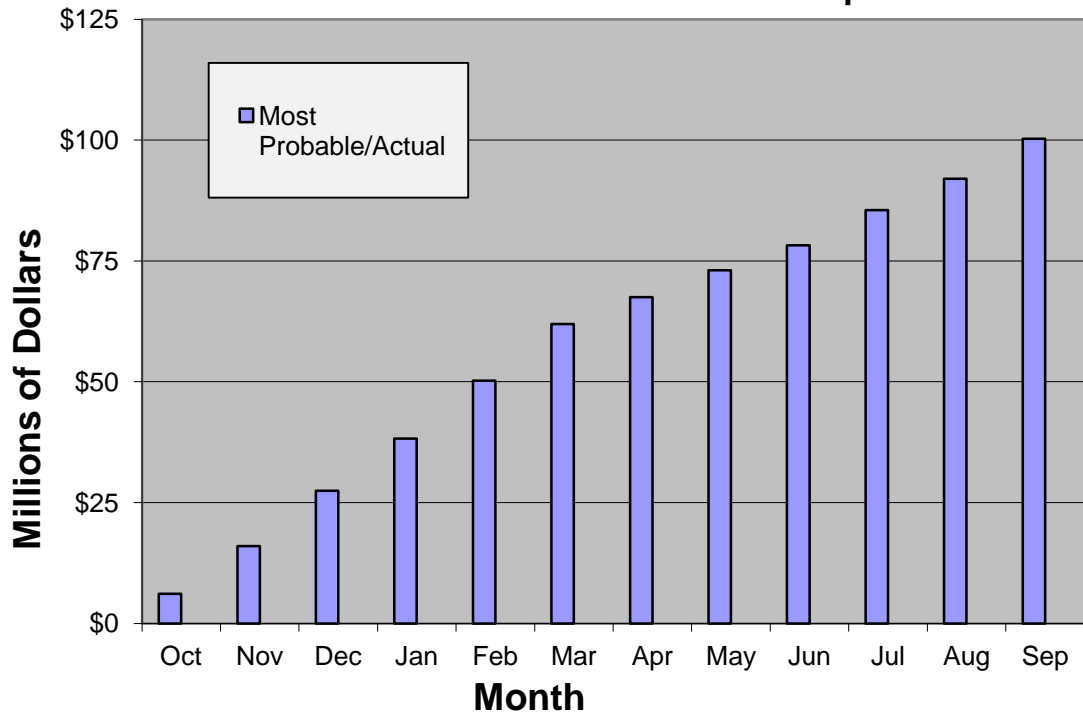


Hydro Conditions and Purchase Power FY11 Summary November 8, 2012

Western Summary

- Most of Western’s Hydro Projects ended the year with significantly below average inflows and reservoir storage levels. Drought conditions have been declared in the Missouri River basin as well as within the Loveland Area Projects (LAP). The SLCA/IP net generation ended the FY12 fiscal year at 95% of average, which is a sharp decline from 125% in 2011.
- FY 2012 ended with net generation of 27,388 Gigawatthours (GWh) or 99 percent of average.
- The amount of power purchased for FY 2012 was 2,112 GWh compared to FY 2011 purchases of 1,803 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods was \$47/MWh. This price compares to \$61/MWh last year.
- Purchase power expenses for FY 2012 were \$100.3 million, compared to \$110.3 million for FY 2011. The breakdown for the FY 2012 purchases, in millions, is: UGPR - \$8.6, RMR - \$16.8, CRSP - \$22.8, DSW - \$2.6, and SNR – \$49.5.

Cumulative of Actual Purchase Power Expenses - FY 12



Upper Great Plains Region

Storage: Due to the lack of average precipitation, streamflows into Canyon Ferry continued to remain well below average with only 55 percent of average during September. The October 1st water supply forecast indicated the runoff into Canyon Ferry during October will equal 181,200 acre-feet (65% of average). With storage in Canyon Ferry at about 91 percent of average and inflows expected to remain well below average, releases out of Canyon Ferry to the Missouri River below Holter Dam are being maintained near 3,400 cfs. Streamflows into Bighorn Lake during September improved slightly but continued to remain at only 69% of average. Based on the October 1st water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the October runoff into Bighorn Lake is expected to equal 119,200 acre-feet (68% of average).

As of October 18, 2012, the storage level at [Canyon Ferry](#) was 1,536,947 acre feet and the active conservation pool is 81.2% full. Storage at [Yellowtail](#) is 909,507 acre feet and the active conservation pool is 89.1% full.

COE Runoff: Drought conditions have been declared by the COE. The Missouri River had record low inflows for the month of September. Forecast run-off for the year is 77% of normal which is down 5% from last month. The dry conditions in the lower basin have caused the COE to release more water than in normal years in an effort to keep the lower Missouri River levels up for navigation. Releases continue to be above the capability of Ft Randall and they began spilling to keep reservoir levels back on September 9th.

[Snow pack](#) Snow pack is not an issue at this time.

FY Generation: The six main stem power plants generated 1,037 million kilowatt hours of electricity in August. Total energy production for 2012 was earlier forecasted to reach 14.1 billion kWh, but has been reduced to around 11.1 billion kWh. The long-term average is approximately 10 billion kWh.

Purchase Power: Prices are holding steady at the lower teens for off peak and lower twenties for on peak power.

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.

Drought conditions returned to the entire LAP area this year and now range from moderate to exceptional. The reservoir inflow was well below normal in all three LAP basins this year following some record high inflows last year. Snowpack accumulation was sparse over the winter and an early and light spring runoff was followed by high temperatures, scant precipitation, and heavy water demands this summer. The resulting reservoir storage at the end of September was well below average and significantly less

than it was at the end of last September. The latest National Weather Service forecast indicates temperatures will more likely be above average in the November through January period. Precipitation is just as likely to be above average as below average in that same period.

	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			FY2012 Actual Generation FY2013 Winter Projection			
	end of September	average	% of average	annual FY2012	average	% of average		average	% of average	
CBT	521.5	699.9	75%	459.8	808.1	57%	Winter 11-12	583.8	724.0	81%
North Platte	1,065.8	1,255.6	85%	600.6	1,157.9	52%	Summer 12	1,141.0	1,214.7	94%
Bighorn	1,855.8	2,014.6	92%	1,339.8	1,815.9	74%	TOTAL FY12	1,724.8	1,938.7	89%
TOTAL	3,443.1	3,970.1	87%	2,400.2	3,781.9	63%	Winter 12-13	478.5	724.0	66%

LAP generation was below average for FY2012 with the winter generation well below average. The summer generation was moderately below average overall and actually above average in some months as water carried over in reservoir storage from last year was delivered to satisfy heavy water demands. No surplus firm generation was sold to LAP customers at the regular LAP energy rate as it was last year. The Adams Tunnel imports and associated CBT generation was not curtailed in August to accommodate Grand Lake water clarity tests to ensure that Carter Lake and Horsetooth Reservoir elevations remained above minimum levels and that water deliveries were not restricted. The majority of LAP purchases were made in the winter months this last year. The upcoming winter season generation is expected to be about 66% 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 to the reservoir storage situation. The release from Big Horn Lake via the Yellowtail power plant will be below 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 18,450,000 acre feet, which is about 60 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (September, 2012) were about 30 percent of average. Lake Powell elevation currently is about 3,621 feet, 79 feet from maximum reservoir level. The elevation is projected to continue to drop over the fall and winter months before bottoming out at about 3,600 feet next April. Reclamation is planning for a High Flow Event (HFE) at Glen Canyon beginning on November 18, 2012 and extending for about a week.

SLCA/IP net generation for Fiscal Year 2012 is 5,642 GWh as compared to 5,937 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2012 are about \$22.8 million as compared to about \$14.5 million based on long-term median historical releases. Purchase power availability in the region is abundant and prices are reasonable.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 15.301 MAF (15.572 MAF Aug-2012), 20.850 MAF (61-Year Historical Avg).

The Lake Mead end of September 2012 elevation was 1,115.16 ft. (1.4 ft. lower than end of Aug 2012 elevation), or about 104.48 ft. below full storage elevation of 1,219.64 ft. and 65.16 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1,134.18 ft in January of WY 2012 (18.14 ft. above the WY2011 peak elevation of 1,116.04 ft.), and dropped to a minimum elevation of 1,115.16 ft. in September of WY 2012, a maximum fluctuation in lake elevation of 19.02 ft.

The Lake Powell operational tier for WY 2012 was the Equalization Tier. Total releases from Lake Powell were 9.466 MAF for WY 2012 (actual of 12.518 MAF for WY 2011). The observed 2012 April – July unregulated inflow into Lake Powell was 29% of average (actual of 162% of average for 2011).

Basin Snow Pack and Rainfall: See CRSP Data*

Actual Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for September 2012 was 96 KAF. The actual side inflow into Lake Mead for WY2012 was 732 KAF which represents a 37% decrease from last year's actual of 1,157 KAF, and represents 56% of the normal annual side inflow of 1.3 MAF.

Actual WY 2012 Generation: 5,369 GWh compared to 5,648 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2012 is 95% of the average historical generation.

Wholesale Power Market Conditions: The September market prices in the Desert Southwest averaged about \$31/MWh firm on-peak, \$22/MWh firm off-peak compared to \$42/MWh firm on-peak, \$21/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 at the end of the water year was 6.355 million-acre-feet, compared to 8.300 MAF last year. Accumulated inflow at the end of the water year was 70 percent of the 15-year average for Trinity, 67 percent for Shasta, 65 percent for Folsom and 55 percent for Melones.

The Northern Sierra Eight Station index averages slightly more than 50 inches of precipitation per water year. This water year started out with October recorded precipitation totaling 3.91 inches, which is above average for that month. November recorded precipitation totaled 2.69 inches, or less than 50 percent of average. December came in at 0.32 inches, making it one of the fifth worst since 1921. January ended at 85

percent of its monthly average. February ended at 3.0 inches, which is only 36 percent of average. March ended at 235 percent of its monthly average. April ended at 165 percent of its monthly average, while May ended at 23 percent. June averages nearly 1 inch and we ended at 114 percent of average. July ended at 0.20 inches or 116 percent of average. August ended at 0.10 inches. No measurable precipitation for September which averages 0.79 inches. The water year ended at 41.60 inches or 83 percent of the annual average of 50 inches.

The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of April 1st, the North was at 77 percent, the Central at 51 percent and the South at 38 percent of this average. As of June 14th, there is no snowpack left. The Sacramento River Index (SRI) forecast of water supply based upon May 1st conditions is “critical” for the 90 percent exceedence and “dry” for the 50 percent exceedence case. The State of California bases water year type declarations on May 1st conditions at the 50 percent exceedence level of the Sacramento Valley 40-30-30 (SVI) which at 6.9 makes this year is “below normal.” This index takes carryover storage into account unlike the SRI.

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. Last fiscal year ended at 109 percent of that average. This year ended at 98 percent of average.