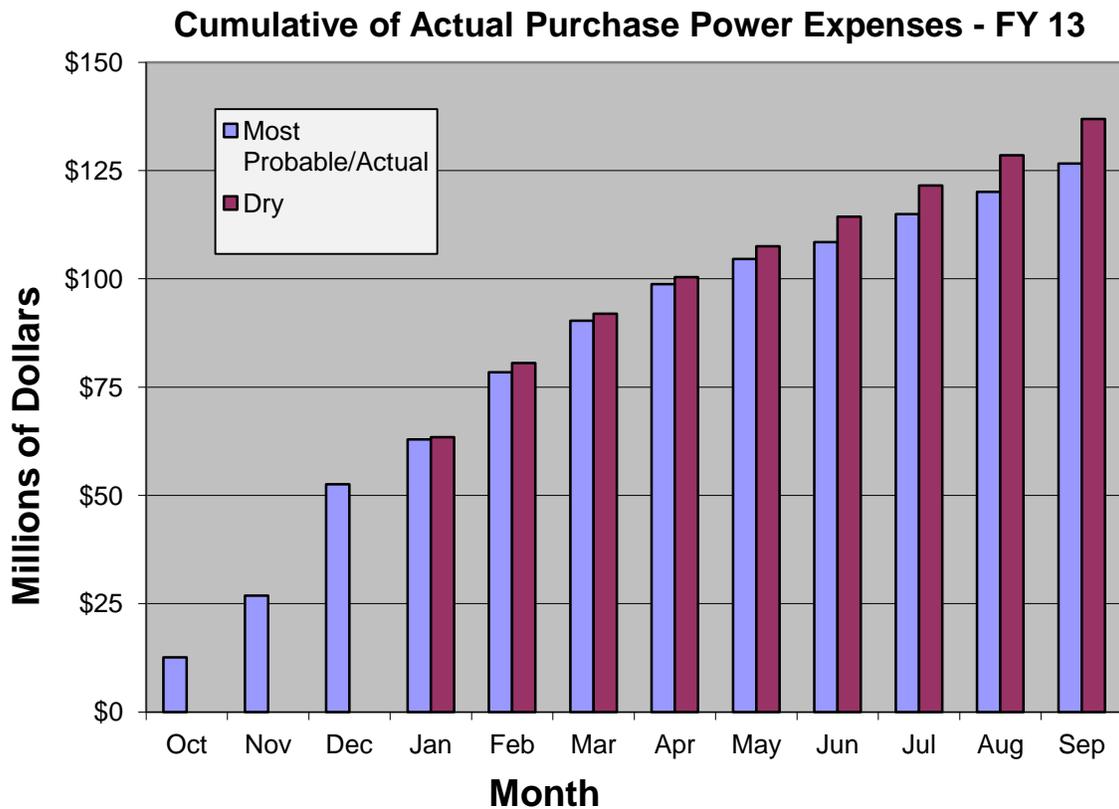


Hydro Conditions and Purchase Power Monthly Outlook January 31, 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 25,909 Gigawatthours (GWh) or 95 percent of average. October through December generation was 83 percent of average.
- The lower level forecast of generation for FY 2013 is 24,906 GWh or 92 percent of average.
- The amount of power purchased for FY 2013 is expected to range between 2,806 and 3,125 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$45/MWh. This price compares to \$47/MWh last year.
- Purchase power expenses for FY 2013 are forecast to range between \$127 and \$137 million – compared to \$100 million in FY 2012.
- October through December purchases totaled \$53 million – compared to \$25 million for the same period last year.



Upper Great Plains Region

Storage: Streamflows into Canyon Ferry improved to 91 percent of average during December. The January 1 water supply forecast indicates the runoff into Canyon Ferry during January will equal 186.0 acre-feet (85% of average). With storage in Canyon Ferry at about 95 percent of average and the anticipated inflows during the April through July period remaining slightly below average, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 4,300 cfs. Streamflows into Bighorn Lake during November continued to remain well below average at only 74% of average. Based on the January 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the December runoff into Bighorn Lake is expected to equal 812,000 acre-feet (69% of average).

As of January 21, 2013, the storage level at Canyon Ferry was 1,545,938 acre feet and the active conservation pool is 81.7% full. Storage at Yellowtail is 895,468 acre feet and the active conservation pool is 87.7% full.

COE Runoff: Total runoff for the year is estimated to be only 79% of normal at 19.7 MAF, normal being 24.8 MAF. This may result in lower generation in future months, especially if drought conditions remain.

Snow pack: As of January 1, 2013, the mountain snowpack in the reach above Fort Peck is 101% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 91% of the average snowpack for this date.

FY Generation: The six main stem power plants generated 568 million kilowatt hours of electricity in December. Total energy production for 2012 was earlier forecasted to reach 14.1 billion kWh, but has been reduced to around 10.3 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: With colder temperatures at this time of year, prices are at holding steady at lower 30s for on peak power and lower 20s for off peak power. Jan – Mar prices look to be in the high thirties for on peak power and mid to upper twenties for off 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 persist in the entire LAP area and range from moderate to exceptional. The reservoir inflow has been well below normal in all three LAP basins so far this year. The accumulated snowpack was below average at the beginning of the month ranging from well below average in the Colorado River headwaters to near average in the Bighorn Basin. The reservoir storage at the end of December was well below average and significantly less than it was at the end of last December. The latest National Weather Service forecast for the February through April period indicates temperatures and precipitation are just as likely to be above

average as below average in Wyoming. In Colorado the temperatures are more likely to be above average and the precipitation more likely below average. Reclamation is forecasting below average spring reservoir inflows based on snowpack and other factors.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Snowpack inches snow water equivalent			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of December	average	% of average	end of December	average	% of average	January forecast	average	% of average
CBT	473.7	661.1	72%	60.2	90.3	67%	480.9	618.3	78%
North Platte	1,149.0	1,394.5	82%	100.5	125.6	80%	490.0	714.0	69%
Bighorn	1,861.4	1,875.7	99%	128.8	131.5	98%	1,179.9	1,435.3	82%
TOTAL	3,484.1	3,931.3	89%	289.5	347.4	83%	2,150.8	2,767.6	78%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	January projection	average	% of average	January projection	average	% of average	January projection	average	% of average
Winter 12-13	486.7	724.0	67%	484.4	724.0	67%	498.8	724.0	69%
Summer 13	1,219.1	1,214.7	100%	1,002.1	1,214.7	82%	1,415.1	1,214.7	116%
TOTAL 2013	1,705.8	1,938.7	88%	1,486.5	1,938.7	77%	1,913.9	1,938.7	99%

LAP generation will be well below average this winter. An extended CBT outage restricted all CBT generation other than at Green Mountain in November and December. There are minimum releases from Seminoe and Pathfinder reservoirs this winter due to lower carryover storage in those reservoirs. The winter release from Bighorn Lake is higher than in other recent drought years but still below average. LAP generation is expected to be above average in the late spring and early summer, below average mid-summer, and near average later in the season. Reclamation is planning to limit Adams Tunnel imports to 250 cfs in July and August as a means to improve the water clarity of Grand Lake by reducing the introduction of suspended sediment and organic matter from Shadow Mountain Reservoir.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 16,970,000 acre feet, which is about 55 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (December, 2012) were about 58 percent of average. Lake Powell elevation currently is about 3,608 feet, 92 feet from maximum reservoir level. The elevation is projected to continue to drop over the winter months before bottoming out at about 3,599 feet next April. The January, 2013 inflow forecast for April through July, 2013 at Lake Powell is 61 percent of average.

SLCA/IP net generation for Fiscal Year 2013 is 4,209 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$34.6 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): 15.758 MAF (15.422 MAF Nov-2012), 20.918 MAF (73-Year Historical Avg).

The Lake Mead end of December 2012 elevation was 1,120.36 ft. (3.12 ft. higher than end of Nov 2012 elevation), or about 99.28 ft. below full storage elevation of 1,219.64 ft. and 70.36 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation is projected to peak at 1122.39 ft in January of WY 2013 (11.79 ft. below the WY 2012 peak elevation of 1134.18 ft.), and drop to a minimum elevation of 1104.36 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.03 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.466 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 4.4 MAF or 61% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 73% of average and the snowpack is 77% of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for December 2012 was 50 KAF. The projected side inflow into Lake Mead for WY2013 is 821 KAF which represents a 12% increase over last year's actual of 732 KAF, and represents 63% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5249 GWh compared to 5646 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 93% of the average historical generation.

Wholesale Power Market Conditions: The December market prices in the Desert Southwest averaged about \$30/MWh firm on-peak, \$25/MWh firm off-peak compared to \$29/MWh firm on-peak, \$26/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 7.536 million-acre-feet, compared to 7.414 MAF last year. Accumulated inflow for the water year-to-date is 115 percent of the 15-year average for Trinity, 108 percent for Shasta, 145 percent for Folsom and 94 percent for New Melones. None of the reservoirs is in flood control operations at this time.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January was looking very dry until just a few days ago when an inch of measurable precipitation was received. As of the 24th, January is at 1.26 inches or 14 percent of its average.

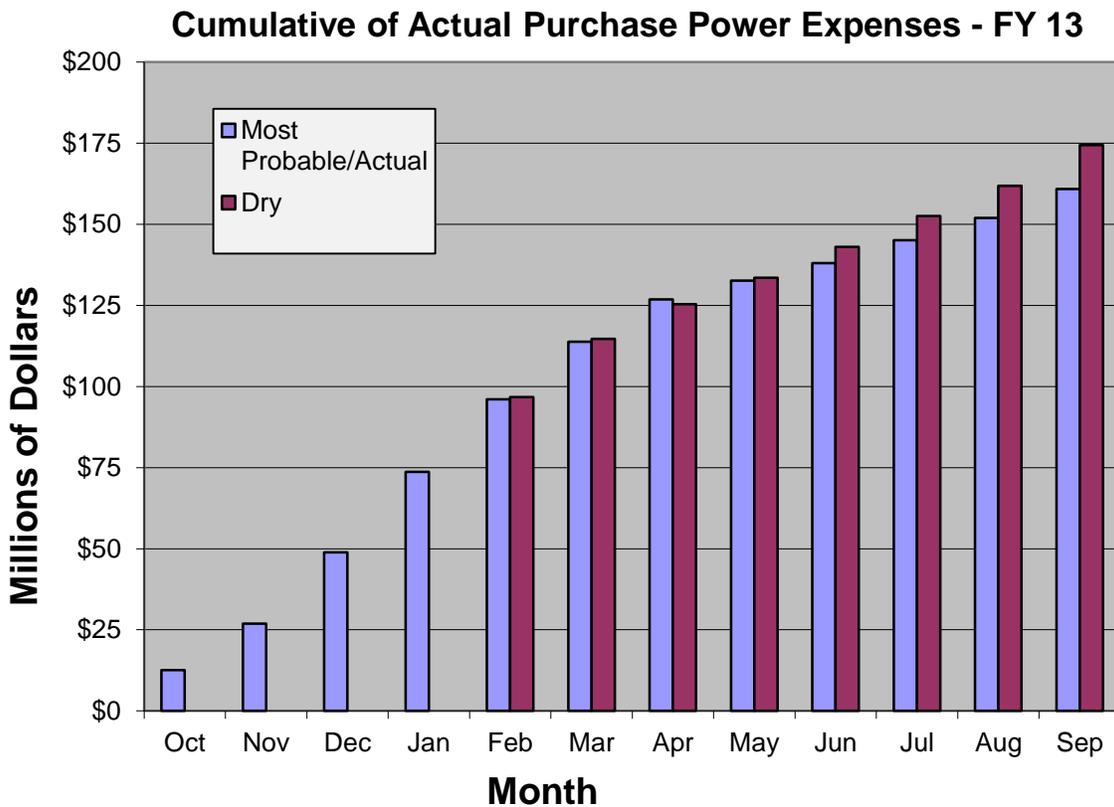
Water year type forecasting begins in December, but snow surveying doesn't begin until January. The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of January 24th, the North is at 58 percent, the Central is at 53 percent and the South is at 48 percent of this average. The Sacramento River Index forecast of water supply based upon January 1st conditions is "wet" for the 90 percent exceedence as well as the 50 percent case.

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 fiscal ended at 109 percent of that average. Reclamation forecasts are based upon December 1st conditions, which were based upon water supply forecast of "dry" for the 90 percent exceedence and "below normal" for the 50 percent exceedence. These forecasts would be 91 percent and 111 percent of this "Green Book" average net generation.

Hydro Conditions and Purchase Power Monthly Outlook February 28, 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 25,478 Gigawatthours (GWh) or 94 percent of average. October through January generation was 83 percent of average.
- The lower level forecast of generation for FY 2013 is 24,472 GWh or 90 percent of average.
- The amount of power purchased for FY 2013 is expected to range between 3,531 and 3,948 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$45/MWh. This price compares to \$47/MWh last year.
- Purchase power expenses for FY 2013 are forecast to range between \$161 and \$174 million – compared to \$100 million in FY 2012.
- October through January purchases totaled \$74 million – compared to \$33 million for the same period last year.



Upper Great Plains Region

Storage: Streamflows into Canyon Ferry was 92 percent of average during January. Storage in Canyon Ferry is at 98 percent of average and the anticipated inflows during the April through July period is 88 percent of average. Therefore, in preparation for the anticipated spring runoff, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 4,500 cfs. Streamflows into Bighorn Lake during January continued to remain well below average at only 71% of average. Based on the January 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the April through July runoff into Bighorn Lake is expected to equal 788,000 acre-feet (67% of average).

As of February 18, 2013, the storage level at [Canyon Ferry](#) was 1,523,975 acre feet and the active conservation pool is 80.6% full. Storage at [Yellowtail](#) is 885,660 acre feet and the active conservation pool is 86.8% full.

COE: Total runoff for the year is estimated to be only 80% of normal at 19.9 MAF, normal being 24.8 MAF. This may result in lower generation in future months, especially if drought conditions remain.

Snow Pack: As of February 1, 2013, the mountain snowpack in the reach above Fort Peck is 92% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 84% of the average snowpack for this date.

FY Generation: The six main stem power plants generated 634 million kilowatt hours of electricity in January. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Generally prices are staying within the mid twenties for off peak power and mid thirties 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 persist in the entire LAP area and range from moderate to exceptional with conditions worsening farther east. The reservoir inflow has been well below normal in all three LAP basins so far this year. The accumulated snowpack at the beginning of the month was below average in the Bighorn Basin and well below average in the North Platte Basin and the Colorado River headwaters. The reservoir storage at the end of January was near average in the Bighorn Basin and below average in the North Platte Basin and the Colorado-Big Thompson Project (CBT). The reservoir storage was less than it was at the end of last January in all three basins. The latest National Weather Service forecast for the March through May period indicates temperatures are just as likely to be above average as below average in Wyoming while precipitation is more likely to be below average. In Colorado the temperatures are more likely to be above average and precipitation

is more likely to be below average. Reclamation is forecasting well below average spring reservoir inflows based on snowpack and other factors.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Snowpack inches snow water equivalent			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of January	average	% of average	end of January	average	% of average	February forecast	average	% of average
CBT	466.5	649.9	72%	158.8	246.2	65%	423.0	590.0	72%
North Platte	1,174.8	1,432.5	82%	167.0	231.7	72%	260.0	750.0	35%
Bighorn	1,840.5	1,800.3	102%	215.8	244.1	88%	1,112.4	1,435.3	78%
TOTAL	3,481.8	3,882.7	90%	541.6	722.0	75%	1,795.4	2,775.3	65%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	February projection	average	% of average	February projection	average	% of average	February projection	average	% of average
Winter 12-13	487.8	724.0	67%	484.3	724.0	67%	500.6	724.0	69%
Summer 13	981.0	1,214.7	81%	716.9	1,214.7	59%	1,357.5	1,214.7	112%
TOTAL 2013	1,468.8	1,938.7	76%	1,201.2	1,938.7	62%	1,858.1	1,938.7	96%

LAP generation will be well below average for the entire winter. An extended CBT outage restricted all CBT generation other than at Green Mountain in November and December. There are minimum releases from Seminoe and Pathfinder reservoirs due to lower carryover storage in those reservoirs and low spring inflow forecasts. The winter release from Bighorn Lake is higher than in other recent drought years but still below average. LAP generation is now expected to be below average through the end of the year. Reclamation is planning to limit Adams Tunnel imports to a constant 250 cfs in July and August as a means to improve the water clarity of Grand Lake by minimizing the mixing of introduced suspended sediment and organic matter from Shadow Mountain Reservoir with the clearer Grand Lake waters.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 16,491,000 acre feet, which is about 53 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (January, 2013) were about 52 percent of average. Lake Powell elevation currently is about 3,603 feet, 97 feet from maximum reservoir level. The elevation is projected to continue to drop over the winter months before bottoming out at about 3,598 feet next April. The February, 2013 inflow forecast for April through July, 2013 at Lake Powell is 54 percent of average.

SLCA/IP net generation for Fiscal Year 2013 is 4,227 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$36 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 for this time of year.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 16.058 MAF (15.758 MAF Dec-2012), 21.059 MAF (73-Year Historical Avg).

The Lake Mead end of January 2013 elevation was 1,122.32 ft. (1.96 ft. higher than end of Dec 2012 elevation), or about 97.32 ft. below full storage elevation of 1,219.64 ft. and 72.32 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation is projected to peak at 1122.52 ft in February of WY 2013 (11.66 ft. below the WY 2012 peak elevation of 1134.18 ft.), and drop to a minimum elevation of 1104.14 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.38 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.466 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 3.85 MAF or 54% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 76% of average and the snowpack is 78% of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for January 2013 was 56 KAF. The projected side inflow into Lake Mead for WY2013 is 799 KAF which represents a 9% increase over last year's actual of 732 KAF, and represents 61% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5275 GWh compared to 5644 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 93% of the average historical generation.

Wholesale Power Market Conditions: The January market prices in the Desert Southwest averaged about \$32/MWh firm on-peak, \$25/MWh firm off-peak compared to \$30/MWh firm on-peak, \$25/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 7.706 million-acre-feet, compared to 7.483 MAF last year. Accumulated inflow for the water year-to-date is 106 percent of the 15-year average for Trinity, 99 percent for Shasta, 125 percent for Folsom and 91 percent for New Melones. None of the reservoirs is in flood control operations at this time.

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 2.70 inches,

which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. As of the 14th, February is at 0.34 inches or 14 percent of its average.

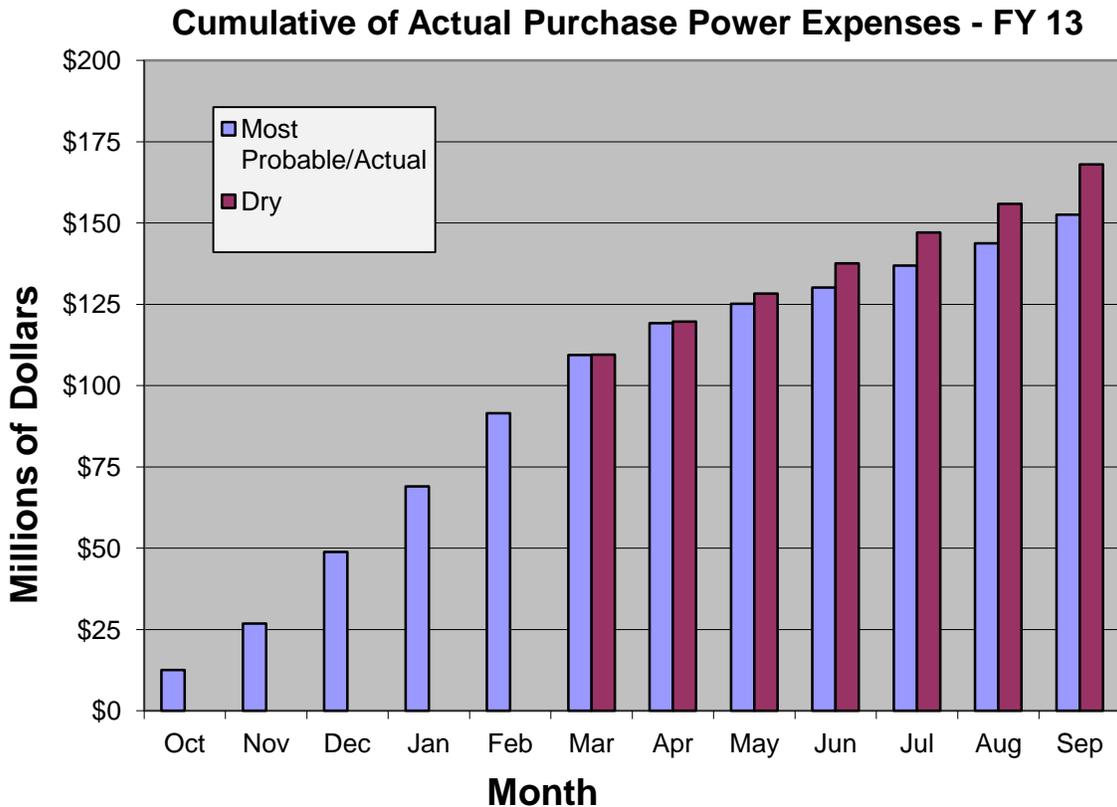
Water year type forecasting begins in December, but snow surveying doesn't begin until January. The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of February 14th, the North is at 60 percent, the Central is at 57 percent and the South is at 51 percent of this average. The Sacramento River Index forecast of water supply based upon February 1st conditions is "below normal" for the 90 percent exceedence case and "above normal" for the 50 percent case, reflecting the poor January, which has the highest average of the winter months.

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 fiscal ended at 109 percent of that average. Reclamation forecasts are based upon December 1st conditions, which were based upon water supply forecast of "dry" for the 90 percent exceedence and "below normal" for the 50 percent exceedence. These forecasts would be 91 percent and 111 percent of this "Green Book" average net generation. No update is available at this time.

Hydro Conditions and Purchase Power Monthly Outlook March 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 23,887 Gigawatthours (GWh) or 88 percent of average. October through February generation was 82 percent of average.
- The lower level forecast of generation for FY 2013 is 22,605 GWh or 83 percent of average.
- The amount of power purchased for FY 2013 is expected to range between 3,610 and 4,056 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$42/MWh. This price compares to \$52/MWh last year.
- Purchase power expenses for FY 2013 are forecast to range between \$153 and \$168 million – compared to \$100 million in FY 2012.
- October through February purchases totaled \$92 million – compared to \$44 million for the same period last year.



Upper Great Plains Region

Storage: Based upon a 30 year average, streamflows into Canyon Ferry was 100 percent of average during February. Storage in Canyon Ferry is at 103 percent of average and the anticipated inflows during the April through July period is 89 percent of average. Therefore, based upon the current water supply forecast releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 4,700 cfs. Streamflows into Bighorn Lake during February continued to remain below average at only 78% of average. Based on the March 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the April through July runoff into Bighorn Lake is expected to equal 688,000 acre-feet (63% of average).

As of March 18, 2013, the storage level at [Canyon Ferry](#) was 1,471,193 acre feet and the active conservation pool is 77.8% full. Storage at [Yellowtail](#) is 885,746 acre feet and the active conservation pool is 86.8% full.

COE: Total runoff for the year is estimated to be only 80% of normal at 19.9 MAF, normal being 24.8 MAF. This may result in lower generation in future months, especially if drought conditions remain. The COE continues to operate in drought mode.

Snow pack: The March 1 forecasted runoff for calendar year 2013 is 20.0 MAF. This runoff would be 81% of normal runoff. As of March 1, 2013, the mountain snowpack in the reach above Fort Peck is 93% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 86% of the average snowpack for this date.

FY Generation: The six main stem power plants generated 601 million kilowatt hours of electricity in January. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Generally prices are staying within the mid twenties for off peak power and mid thirties 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 persist in the entire LAP area and range from moderate to exceptional with conditions worsening farther east. The reservoir inflow has been well below normal in all three LAP basins so far this year. The accumulated snowpack at the beginning of the month was below average in the Bighorn Basin and well below average in the North Platte Basin and the Colorado River headwaters. The reservoir storage at the end of February was near average in the Bighorn Basin and below average in the North Platte Basin and the Colorado-Big Thompson Project (CBT). The reservoir storage was less than it was at the end of last February in all three basins. The latest National Weather Service forecast for the April through June period indicates temperatures are more likely to be above average in Wyoming and Colorado. Precipitation is just as likely to be above as below average in the LAP area. Reclamation is forecasting well below average spring

reservoir inflows based on snowpack and other factors with the inflow to Seminole Reservoir forecast to be especially low.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Snowpack inches snow water equivalent			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of February	average	% of average	end of February	average	% of average	March forecast	average	% of average
CBT	461.9	607.3	76%	213.5	319.1	67%	418.0	590.0	71%
North Platte	1,205.5	1,470.2	82%	237.6	305.7	78%	260.0	750.0	35%
Bighorn	1,830.6	1,777.3	103%	266.9	301.3	89%	1,010.0	1,435.3	70%
TOTAL	3,498.0	3,854.8	91%	718.0	926.1	78%	1,688.0	2,775.3	61%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	March projection	average	% of average	March projection	average	% of average	March projection	average	% of average
Winter 12-13	504.1	724.0	70%	504.0	724.0	70%	513.1	724.0	71%
Summer 13	973.0	1,214.7	80%	722.6	1,214.7	59%	1,374.6	1,214.7	113%
TOTAL 2013	1,477.1	1,938.7	76%	1,226.6	1,938.7	63%	1,887.7	1,938.7	97%

LAP generation will end up well below average for the entire winter. LAP generation is now expected to be below average through the end of the year. Based on reservoir inflow forecasts and an expected low water quota declaration, Reclamation is now considering a four to six week curtailment of Adams Tunnel imports and associated CBT generation this summer as a means to improve the water clarity of Grand Lake by minimizing the introduction of suspended sediment and organic matter from Shadow Mountain Reservoir to the clearer Grand Lake waters.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 16,185,000 acre feet, which is about 52 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (February, 2013) were about 67 percent of average. Lake Powell elevation currently is about 3,601 feet, 99 feet from maximum reservoir level. The elevation is projected to continue to drop over the winter months before bottoming out at about 3,598 feet next April. The March, 2013 inflow forecast for April through July, 2013 at Lake Powell is 47 percent of average.

SLCA/IP net generation for Fiscal Year 2013 is 4,216 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$40 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 for this time of year.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 16.058 MAF (16.058 MAF Jan-2013), 21.086 MAF (73-Year Historical Avg).

The Lake Mead end of February 2013 elevation was 1,122.14 ft. (.18 ft. lower than end of Jan 2013 elevation), or about 97.5 ft. below full storage elevation of 1,219.64 ft. and 72.14 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1104.18 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.14 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 3.4 MAF or 47% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 75% of average and the snowpack is 78% of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for February 2013 was 70 KAF. The projected side inflow into Lake Mead for WY2013 is 786 KAF which represents a 7% increase over last year's actual of 732 KAF, and represents 60% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5246 GWh compared to 5643 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 93% of the average historical generation.

Wholesale Power Market Conditions: The February market prices in the Desert Southwest averaged about \$32/MWh firm on-peak, \$27/MWh firm off-peak compared to \$32/MWh firm on-peak, \$25/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 7.889 million-acre-feet, compared to 8.073 MAF last year. Accumulated inflow for the water year-to-date is 87 percent of the 15-year average for Trinity, 81 percent for Shasta, 94 percent for Folsom and 79 percent for New Melones. Reservoir releases are being cut to conserve storage.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. At this point in March, we are

only at 3.30 inches of 49 percent of its average. The cumulative total at this time is 38,50 inches or 77 percent of the total average of 50.30 inches.

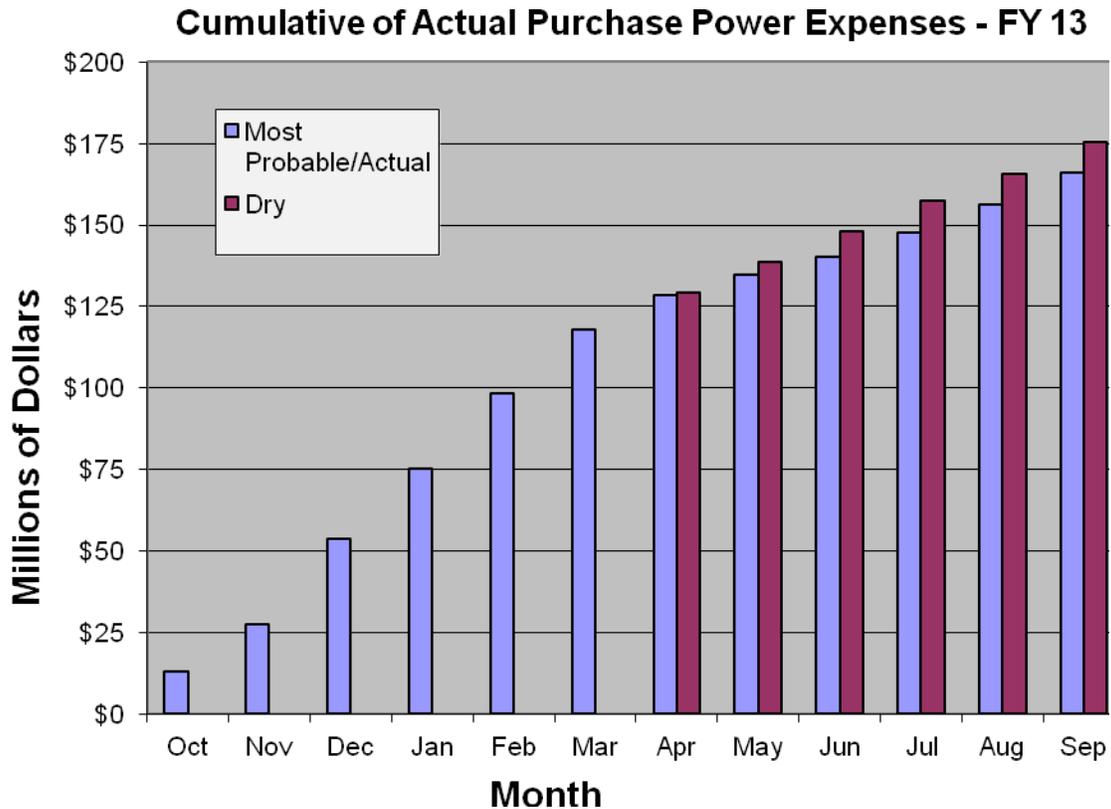
Water year type forecasting begins in December, but snow surveying doesn't begin until January. The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of March 21st, the North is at 60 percent, the Central is at 60 percent and the South is at 46 percent of this average. The Sacramento River Index forecast of water supply based upon March 1st conditions is "below normal" for the 90 percent exceedence case and "below normal" for the 50 percent case, reflecting the poor January and February, which have highest averages of the winter months.

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 fiscal ended at 109 percent of that average. Reclamation forecasts are based upon December 1st conditions, which were based upon water supply forecast of "dry" for the 90 percent exceedence and "below normal" for the 50 percent exceedence. These forecasts would be 89 percent and 104 percent of this "Green Book" average net generation. Subsequent forecasts appear to be overly optimistic near term based upon current daily allocations of base resource.

Hydro Conditions and Purchase Power Monthly Outlook April 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 23,327 gigawatt-hours (GWh) or 85 percent of average. October through March generation was 83 percent of average.
- The lower level forecast of generation for FY 2013 is 22,309 GWh or 81 percent of average.
- The purchased power for FY 2013 is expected to range between 3,669 and 3,924 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$45/MWh. This price compares to \$50/MWh last year.
- Purchase power expenses for FY 2013 are forecast to range between \$166 and \$175 million.
- October through March purchases totaled over \$117 million – compared to \$56 million for the same period last year.



Upper Great Plains Region

Storage: Based upon a 30 year average, streamflows into Canyon Ferry were 92 percent of average during March. Storage in Canyon Ferry is at 102 percent of average and the anticipated inflows during the April through July period is forecast to be 77 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 4,000 cfs to assure the reservoir of filling to the top of the joint-use pool by the end of June. Streamflows into Bighorn Lake during March continued to remain below average at only 74% of average. Based on the April 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the April through July runoff into Bighorn Lake is expected to equal 661,000 acre-feet (60% of average).

As of April, 2013, the storage level at [Canyon Ferry](#) was 1,451,689 acre feet and the active conservation pool is 76.7% full. Storage at [Yellowtail](#) is 847,181 acre feet and the active conservation pool is 85.7% full.

COE: Total runoff for the year is estimated to be only 80% of normal at 19.9 MAF, normal being 24.8 MAF. This may result in lower generation in future months, especially if drought conditions remain. The COE continues to operate in drought mode.

Snow pack: The April 1 forecasted runoff for calendar year 2013 is 20.5 MAF. This runoff would be 81% of normal runoff. As of April 1, 2013, the mountain snowpack in the reach above Fort Peck is 90% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 84% of the average snowpack for this date.

FY Generation: The six main stem power plants generated 557 million kilowatt hours of electricity in February. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Generally prices are staying within the mid twenties for off peak power and mid-to upper-thirties 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 have improved somewhat in the LAP area with recent spring storms but still range from moderate to extreme. The reservoir inflow has been well below normal in all three LAP basins so far this year. The accumulated snowpack at the beginning of the month was below average in the Bighorn Basin and well below average in the North Platte Basin and the Colorado River headwaters. The reservoir storage at the end of March was above average in the Bighorn Basin, below average in the North Platte Basin, and well below average for the Colorado-Big Thompson Project (CBT). The reservoir storage was less than it was at the end of last March in all three basins. The latest National Weather Service forecast for the May through July period indicates temperatures are more likely to be above average and precipitation more likely to be

below average in Wyoming and Colorado. Reclamation is forecasting well below average spring reservoir inflows based on snowpack and other factors with the inflow to Seminole Reservoir forecast to be especially low.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Snowpack inches snow water equivalent			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of March	average	% of average	end of March	average	% of average	April forecast	average	% of average
CBT	458.5	599.1	77%	312.2	403.3	77%	399.0	590.0	68%
North Platte	1,248.6	1,523.6	82%	295.6	375.9	79%	210.0	750.0	28%
Bighorn	1,840.3	1,713.5	107%	309.6	359.8	86%	908.0	1,435.3	63%
TOTAL	3,547.4	3,836.2	92%	917.4	1,139.0	81%	1,517.0	2,775.3	55%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	April projection	average	% of average	April projection	average	% of average	April projection	average	% of average
Winter 12-13	512.8	724.0	71%	512.8	724.0	71%	512.8	724.0	71%
Summer 13	910.0	1,214.7	75%	720.7	1,214.7	59%	1,252.5	1,214.7	103%
TOTAL 2013	1,422.8	1,938.7	73%	1,233.5	1,938.7	64%	1,765.3	1,938.7	91%

LAP generation was well below average over the winter. LAP generation is now expected to be below average through the end of the year. Based on reservoir inflow forecasts and an expected low water quota declaration, Reclamation is now considering a four to six week curtailment of Adams Tunnel imports and associated CBT generation this summer as a means to improve the water clarity of Grand Lake by minimizing the introduction of suspended sediment and organic matter from Shadow Mountain Reservoir to the clearer Grand Lake waters.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 15,975,000 acre feet, which is about 52 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (March 2013) were about 55 percent of average. Lake Powell elevation currently is about 3,598 feet, 102 feet from maximum reservoir level, and about 108 feet from the minimum generation level. The elevation is projected to level out at about 3,598 feet in April, before increasing slightly due to spring runoff. The April, 2013 inflow forecast for April through July, 2013 at Lake Powell is 38 percent of average at 2.7 million acre feet.

Consistent with Section 6.C.1 of the Interim Guidelines, if the August 24-Month study projects the January 1, 2014, Lake Powell elevation to be less than 3,575.0 feet and at or above 3,525.0 feet and the Lake Mead elevation to be at or above 1,025.0 feet, the operational tier for Lake Powell in water year 2014 will be the Mid-Elevation Release Tier and the water year release volume from Lake Powell will be 7.48 maf. This April 2013 24-Month study projects that, with an 8.23 maf annual release pattern in water year 2014, the January 1, 2014, Lake Powell elevation would be 3,573.66

feet and the Lake Mead elevation would be 1,107.60 feet. Therefore, the 2014 Lake Powell operational tier is currently projected to be the Mid-Elevation Release Tier with an annual release volume of 7.48 maf. Based on analysis of a range of inflow scenarios, the current probability of realizing an inflow volume that would result in the Mid-Elevation Release Tier and a 7.48 maf annual release from Lake Powell in 2014 is approximately 65 percent.

SLCA/IP net generation for Fiscal Year 2013 is 4,208 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$44 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 for this time of year. Firming purchases for the last couple of months have been in the lower \$30's on peak and upper \$20's off peak. On peak prices are projected to rise into the \$40's as temperatures increase later in the year.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 15.710 MAF (16.058 MAF Feb-2013), 20.894 MAF (73-Year Historical Avg).

The Lake Mead end of March 2013 elevation was 1,118.59 ft. (3.55 ft. lower than end of Feb 2013 elevation), or about 101.05 ft. below full storage elevation of 1,219.64 ft. and 68.59 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1104.18 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.14 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 2.7 MAF or 38% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 82% of average and the snowpack is 92% of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for March 2013 was 67 KAF. The projected side inflow into Lake Mead for WY2013 is 775 KAF which represents a 6% increase over last year's actual of 732 KAF, and represents 60% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5202 GWh compared to 5644 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 92% of the average historical generation.

Wholesale Power Market Conditions: The March market prices in the Desert Southwest averaged about \$33/MWh firm on-peak, \$27/MWh firm off-peak compared to \$32/MWh firm on-peak, \$27/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 8.228 million-acre-feet, compared to 9.286 MAF last year. Accumulated inflow for the water year-to-date is 86 percent of the 15-year average for Trinity, 78 percent for Shasta, 83 percent for Folsom and 72 percent for New Melones. Reservoir releases have increased to meet instream flow requirements.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only 4.38 inches of 65 percent of its average. The cumulative total at this time is 41.10 inches or 82 percent of the total average of 50.30 inches.

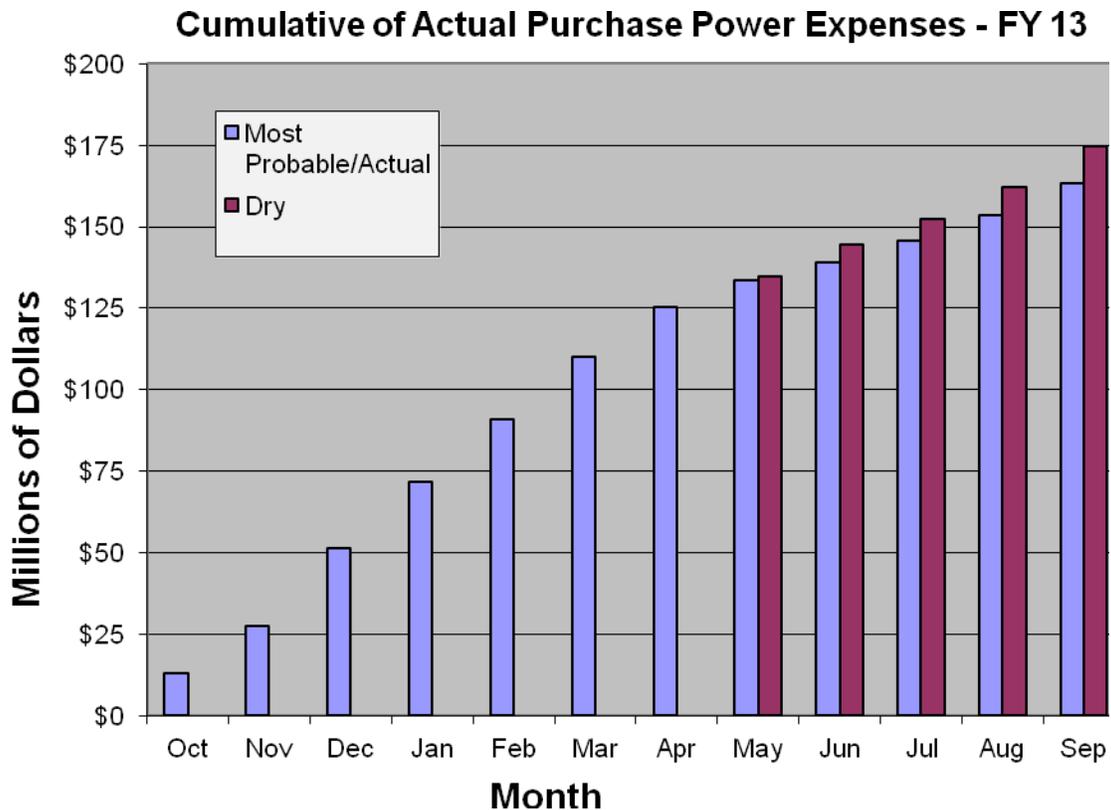
Water year type forecasting begins in December, but snow surveying doesn't begin until January. The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of April 18th, the North is at 35 percent, the Central is at 46 percent and the South is at 22 percent of this average. The Sacramento River Index forecast of water supply based upon April 1st conditions is "dry" (close to critical) for the 90 percent exceedence case and "dry" for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State's final yeartype declaration is based upon May 1st conditions at the 50 percent exceedence level.

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 fiscal ended at 109 percent of that average. Reclamation forecasts are based upon March 1st conditions, which were based upon water supply forecast of "below normal" (close to dry) for the 90 percent exceedence and "below normal" for the 50 percent exceedence. These forecasts would be 91 percent and 85 percent of this "Green Book" average net generation. The forecasts sometimes "flip" because during drier conditions, more reservoir releases must be made to meet instream flow while under the "less dry" case, some instream flow requirements could conceivably be met via side flows. Project use pumping remains low due to Vernalis Adaptive Management Plan (VAMP) actions and with increased releases on the Sacramento and Stanislaus rivers to meet instream flow requirements, base resource is quite high at this time, but not as high as the forecasted amounts.

Hydro Conditions and Purchase Power Monthly Outlook May 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 22,820 gigawatt-hours (GWh) or 84 percent of average. October through April generation was 85 percent of average.
- The lower level forecast of generation for FY 2013 is 22,476 GWh or 83 percent of average.
- The purchased power for FY 2013 is expected to range between 3,809 and 4,058 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$43/MWh. This price compares to \$51/MWh last year.
- Purchase power expenses for FY 2013 are forecast to range between \$163 and \$175 million.
- October through April purchases totaled over \$125 million – compared to \$66 million for the same period last year.



Upper Great Plains Region

Storage: April brought increased precipitation in the mountains, while streamflows into Canyon Ferry were 73 percent of average due to cooler temperatures. Storage in Canyon Ferry is at 98 percent of average and the anticipated inflows during the May through July period is forecast to be 79 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 4,000 cfs to assure the reservoir of filling to the top of the joint-use pool by the end of June. Streamflows into Bighorn Lake during April continued to remain below average at only 67% of average. Based on the May 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the May through July runoff into Bighorn Lake is expected to equal 579,000 acre-feet (61% of average).

As of June 2, 2013, the storage level at [Canyon Ferry](#) was 1,516,893 acre feet and the active conservation pool is 80.2% full. Storage at [Yellowtail](#) is 933,412 acre feet and the active conservation pool is 91.5% full.

COE: Total runoff for the year is estimated to be only 80% of normal at 19.9 MAF, normal being 24.8 MAF. This may result in lower generation in future months, especially if drought conditions remain. The COE continues to operate in drought mode.

Snow pack: The June 1 forecasted runoff for calendar year 2013 is 20.5 MAF. This runoff would be 81% of normal runoff. As of June 1, 2013, the mountain snowpack in the reach above Fort Peck is 93% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 92% of the average snowpack for this date.

FY Generation: The six main stem power plants generated 608 million kilowatt hours of electricity in April. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Generally prices are staying within the mid twenties for off peak power and mid-to upper-thirties 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 have improved somewhat in the LAP area with recent spring storms but still range from moderate to extreme. The reservoir inflow has been well below normal in all three LAP basins so far this year. In a dramatic reversal since last month, the accumulated snowpack at the beginning of this month was near average in the Bighorn Basin and the Colorado River headwaters. It was still below average in the North Platte Basin but well above last year's level. The reservoir storage at the end of April was still above average in the Bighorn Basin but well below average in the North Platte Basin and for the Colorado-Big Thompson Project (CBT). The snow melt runoff is just beginning. The latest National Weather Service forecast for the May through July period indicates temperatures are more likely to be above average and precipitation more likely to be

below average in Wyoming and Colorado. Reclamation is still forecasting well below average spring reservoir inflows but those forecasts are significantly higher than they were last month.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Snowpack inches snow water equivalent			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of April	average	% of average	end of April	average	% of average	May forecast	average	% of average
CBT	467.2	599.6	78%	364.1	369.5	99%	525.5	590.0	89%
North Platte	1,287.3	1,592.9	81%	359.6	393.5	91%	450.0	750.0	60%
Bighorn	1,824.2	1,668.4	109%	352.8	334.9	105%	998.0	1,435.3	70%
TOTAL	3,578.7	3,860.9	93%	1,076.5	1,097.9	98%	1,973.5	2,775.3	71%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	May projection	average	% of average	May projection	average	% of average	May projection	average	% of average
Winter 12-13	512.8	724.0	71%	512.8	724.0	71%	512.8	724.0	71%
Summer 13	1,088.9	1,214.7	90%	904.7	1,214.7	74%	1,299.0	1,214.7	107%
TOTAL 2013	1,601.7	1,938.7	83%	1,417.5	1,938.7	73%	1,811.8	1,938.7	93%

LAP generation was well below average over the winter and in April. LAP generation is still expected to be below average for the upcoming summer season as a whole but much closer to average than was forecast last month. Generation is projected to be above average in June and near average in July and August. The August projection even includes the likely cessation of CBT Adams Tunnel imports to improve water clarity in Grand Lake by minimizing the introduction of organic and non-organic particulates from Shadow Mountain Reservoir.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 15,790,000 acre feet, which is about 51 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (April, 2013) were about 38 percent of average. Lake Powell elevation currently is about 3,596 feet, 104 feet from maximum reservoir level, and about 106 feet from the minimum generation level. The elevation is projected to increase about 5 feet to 3600 by June, then resume declining. The April, 2013 inflow forecast for April through July, 2013 at Lake Powell is 42 percent of average at 3.0 million acre feet.

Consistent with Section 6.C.1 of the Interim Guidelines, if the August 2013 24-Month study projects the January 1, 2014, Lake Powell elevation to be at or above 3,575.00 feet and below the equalization level of 3648.00 feet and the Lake Mead elevation to be at or above 1,075.00 feet, the operational tier for Lake Powell in water year 2014 will be the Upper Elevation Balancing Tier and the water year release volume from Lake Powell will be 8.23 maf. This May 2013 24-Month study projects that, with an 8.23 maf annual release pattern in water year 2014, the January 1, 2014 Lake Powell elevation would be 3,577.27 feet and the Lake Mead elevation would be 1,107.47 feet.

Therefore, the 2014 Lake Powell operational tier is currently projected to be the Upper Elevation Balancing Tier with an annual release volume of 8.23 maf and no projected shift in April to the Equalization Tier.

However, if hydrology should become slightly drier than is currently projected and the August 24-Month Study projects the January 1, 2013 Lake Powell elevation to be less than 3,575.00 feet, the Mid-Elevation Release Tier will govern and the annual release volume from Lake Powell will be 7.48 maf. Based on analysis of a range of inflow scenarios, the current probability of realizing an inflow volume that would result in the Upper Elevation Balancing Tier and an 8.23 maf annual release is approximately 55 percent and the probability for the Mid-Elevation Release Tier and a 7.48 maf annual release is approximately 45 percent.

SLCA/IP net generation for Fiscal Year 2013 is 4,233 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$46 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 for this time of year. Firming purchases for the last couple of months have been in the lower \$30's on peak and upper \$20's off peak. On peak prices are projected to rise into the \$40-50 range as temperatures increase this summer.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 15.231 MAF (15.710 MAF Mar-2013), 20.734 MAF (73-Year Historical Avg).

The Lake Mead end of April 2013 elevation was 1,112.91 ft. (5.68 ft. lower than end of Mar 2013 elevation), or about 106.73 ft. below full storage elevation of 1,219.64 ft. and 62.91 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1104.23 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.09 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 3.0 MAF or 42% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 80% of average and the snowpack is 56% of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for March 2013 was 38 KAF. The projected side inflow into Lake Mead for WY2013 is 735 KAF which represents a 0.7% increase over last year's actual of 730 KAF, and represents 56% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5189 GWh compared to 5644 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 92% of the average historical generation.

Wholesale Power Market Conditions: The April market prices in the Desert Southwest averaged about \$37/MWh firm on-peak, \$29/MWh firm off-peak compared to \$33/MWh firm on-peak, \$27/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 7.590 million-acre-feet, compared to 9.515 MAF last year. Accumulated inflow for the water year-to-date is 72 percent of the 15-year average for Trinity, 72 percent for Shasta, 73 percent for Folsom and 62 percent for New Melones. Reservoir releases have increased to meet Delta needs.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only at 4.38 inches or 65 percent of its average. April ended at 1.52 inches or 41 percent of its average. The cumulative total at this time is 42.00 inches or 83 percent of the total average of 50.30 inches.

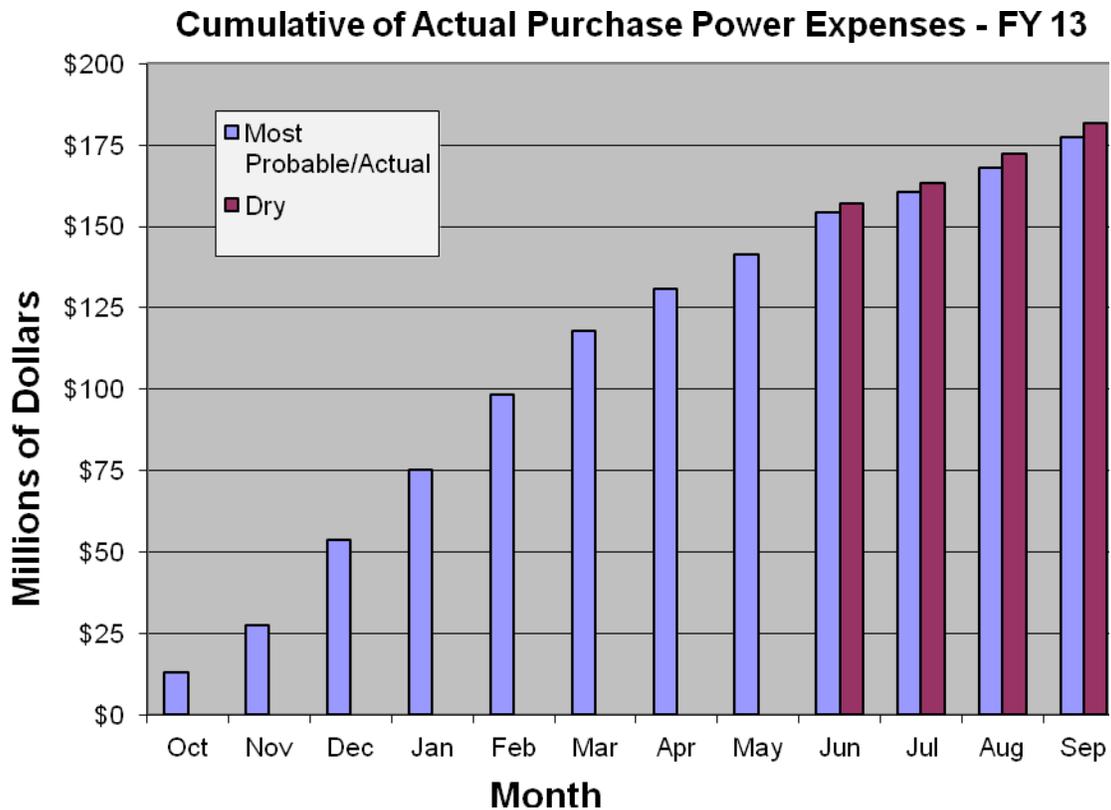
The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of May 23rd, the North is at 2 percent, the Central is at 2 percent and the South is at 1 percent of this average. The Sacramento River Index forecast of water supply based upon May 1st conditions is “dry” (close to critical) for the 90 percent exceedence case and “dry” for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State’s final year type declaration is based upon May 1st conditions at the 50 percent exceedence level. This year is officially “dry.”

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 fiscal year ended at 109 percent of that average. Reclamation forecasts are based upon April 1st conditions, which were based upon water supply forecast of “dry” for the 90 percent exceedence and “dry” for the 50 percent exceedence. These forecasts would be 93 percent and 84 percent of this “Green Book” average net generation. The forecasts sometimes “flip” because during drier conditions, more reservoir releases must be made to meet instream flow while under the “less dry” case, some instream flow requirements could conceivably be met via side flows. Project use pumping remains low due to Delta water quality concerns and with increased releases on the Sacramento to meet Delta needs and increased Trinity River Diversions to support the Sacramento, base resource remains quite high.

Hydro Conditions and Purchase Power Monthly Outlook June 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 22,949 gigawatt-hours (GWh) or 84 percent of average. October through May generation was 85 percent of average.
- The lower level forecast of generation for FY 2013 is 22,658 GWh or 83 percent of average.
- The purchased power for FY 2013 is expected to range between 3,909 and 4,023 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$45/MWh. This price compares to \$49/MWh last year.
- Purchase power expenses for FY 2013 are forecast to range between \$177 and \$182 million.
- October through May purchases totaled over \$141 million – compared to \$72 million for the same period last year.



Upper Great Plains Region

Storage: May inflows resulted in 65 percent of average and the anticipated inflow during the June through July period is forecast to be 52 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 3,000 cfs to conserve storage. Streamflows into Bighorn Lake during May 1 continued to remain below average at only 68% of average. Based on the June 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the June through July runoff into Bighorn Lake is expected to equal 350,000 acre-feet (51% of average).

As of June 23, 2013, the storage level at [Canyon Ferry](#) was 1,649,904 acre feet and the active conservation pool is 87.2% full. Storage at [Yellowtail](#) is 993,286 acre feet and the active conservation pool is 97.3% full.

COE: Total runoff for the year is estimated to be only 85% of normal at 21.2 MAF, normal being 25.2 MAF. Forecasted energy production for the calendar year decreased from last month's forecast by 135 GWh to 7,607 GWh. The COE continues to operate in drought mode.

Snow pack: The June 1 forecasted runoff for calendar year 2013 is 21.2 MAF. This runoff would be 84% of normal runoff. As of June 1, 2013, the mountain snowpack in the reach above Fort Peck is 26% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 24% of the normal April 15 peak snowpack.

FY Generation: The six main stem power plants generated 608 million kilowatt hours of electricity in May. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Generally prices are staying within the mid twenties for off peak power and mid-to upper-thirties 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 still range from moderate to extreme in the LAP area. The reservoir inflow has been below normal in all three LAP basins so far this year. Due to early melting brought about by high temperatures in late May, the majority of the snowpack had melted by the beginning of June with the remaining snowpack well below average in the Bighorn Basin and the North Platte Basin while still above average in the Colorado River headwaters. The reservoir storage at the end of May remained above average in the Bighorn Basin but well below average in the North Platte Basin and for the Colorado-Big Thompson Project (CBT). The latest National Weather Service forecast for the June through August period indicates temperatures are more likely to be above average in Wyoming and Colorado while precipitation is just as likely to be above average as below average. Midway through the spring runoff period, Reclamation is forecasting well below average spring reservoir inflows except for the CBT where near average inflows are forecast.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Snowpack inches snow water equivalent			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of May	average	% of average	end of May	average	% of average	June forecast	average	% of average
CBT	590.8	688.6	86%	62.6	56.4	111%	563.5	590.0	96%
North Platte	1,412.9	1,754.7	81%	92.6	122.9	75%	350.0	750.0	47%
Bighorn	1,999.2	1,792.3	112%	65.2	112.6	58%	830.7	1,435.3	58%
TOTAL	4,002.9	4,235.6	95%	220.4	291.9	76%	1,744.2	2,775.3	63%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	June projection	average	% of average	June projection	average	% of average	June projection	average	% of average
Winter 12-13	512.8	724.0	71%	512.8	724.0	71%	512.8	724.0	71%
Summer 13	1,000.5	1,214.7	82%	936.4	1,214.7	77%	1,131.4	1,214.7	93%
TOTAL 2013	1,513.3	1,938.7	78%	1,449.2	1,938.7	75%	1,644.2	1,938.7	85%

LAP generation has been well below average since October. With the June reservoir inflow forecasts lower than May forecasts, LAP generation is now expected to be near average from mid-June through mid-July and then be below average for the remainder of the year. The projected generation includes the planned cessation of CBT Adams Tunnel imports and associated generation for a six week period from late July through early August to improve water clarity in Grand Lake by minimizing the introduction of organic and non-organic particulates from Shadow Mountain Reservoir.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 16,344,000 acre feet, which is about 53 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (May, 2013) were about 51 percent of average. Lake Powell elevation currently is about 3,600 feet, 100 feet from maximum reservoir level, and about 110 feet from the minimum generation level. The June, 2013 inflow forecast for April through July 2013 at Lake Powell is 40 percent of average at 2.9 million acre feet.

Consistent with Section 6.C.1 of the Interim Guidelines, if the August 24-Month study projects the January 1, 2014, Lake Powell elevation to be less than 3,575.0 feet and at or above 3,525.0 feet and the Lake Mead elevation to be at or above 1,025.0 feet, the operational tier for Lake Powell in water year 2014 would be the Mid-Elevation Release Tier and the water year release volume from Lake Powell would be 7.48 maf. This June 2013 24-Month study projects that, with an 8.23 maf annual release pattern in water year 2014, the January 1, 2014, Lake Powell elevation would be 3,577.05 feet and the Lake Mead elevation would be 1,105.27 feet. Therefore, the 2014 Lake Powell operational tier is currently projected to be the Upper Elevation Balancing Tier. However, based on analysis of a range of inflow scenarios, the

current probability of realizing an inflow volume that would result in the Mid-Elevation Release Tier in 2014 is approximately 45 percent.

SLCA/IP net generation for Fiscal Year 2013 is 4,260 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$46.5 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 for this time of year. Firming purchases for the last couple of months have been in the upper \$30's on peak and upper \$20's off peak. On peak prices are projected to rise into the \$40-50 range as temperatures increase this summer.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 14.823 MAF (15.231 MAF Apr-2013), 20.867 MAF (73-Year Historical Avg).

The Lake Mead end of May 2013 elevation was 1,108.36 ft. (4.55 ft. lower than end of Apr 2013 elevation), or about 111.28 ft. below full storage elevation of 1,219.64 ft. and 58.36 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1103.92 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.4 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 3.0 MAF or 42% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 78% of average and the snowpack is 33% of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for April 2013 was 29 KAF. The projected side inflow into Lake Mead for WY2013 is 700 KAF which represents a 4.1% decrease over last year's actual of 730 KAF, and represents 54% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5179 GWh compared to 5652 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 92% of the average historical generation.

Wholesale Power Market Conditions: The May market prices in the Desert Southwest averaged about \$38/MWh firm on-peak, \$26/MWh firm off-peak compared to \$37/MWh firm on-peak, \$29/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 6.842 million-acre-feet, compared to 8.870 MAF last year. Accumulated inflow for the water year-to-date is 63 percent of the 15-year average for Trinity, 71 percent for Shasta, 68 percent for Folsom and 55 percent for New Melones. Reservoir releases have increased to meet Delta needs. This past weekend, there was a real-time cut to Federal pumping taking it to zero for 24 hours to meet required Delta outflow.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only at 4.38 inches or 65 percent of its average. April ended at 1.52 inches or 41 percent of its average. May ended at 1.30 inches or 59 percent of its average. The cumulative total at this time is 42.40 inches or 83 percent of the total average of 50.30 inches. There has been no measurable precipitation for June at this time, but some has been forecast.

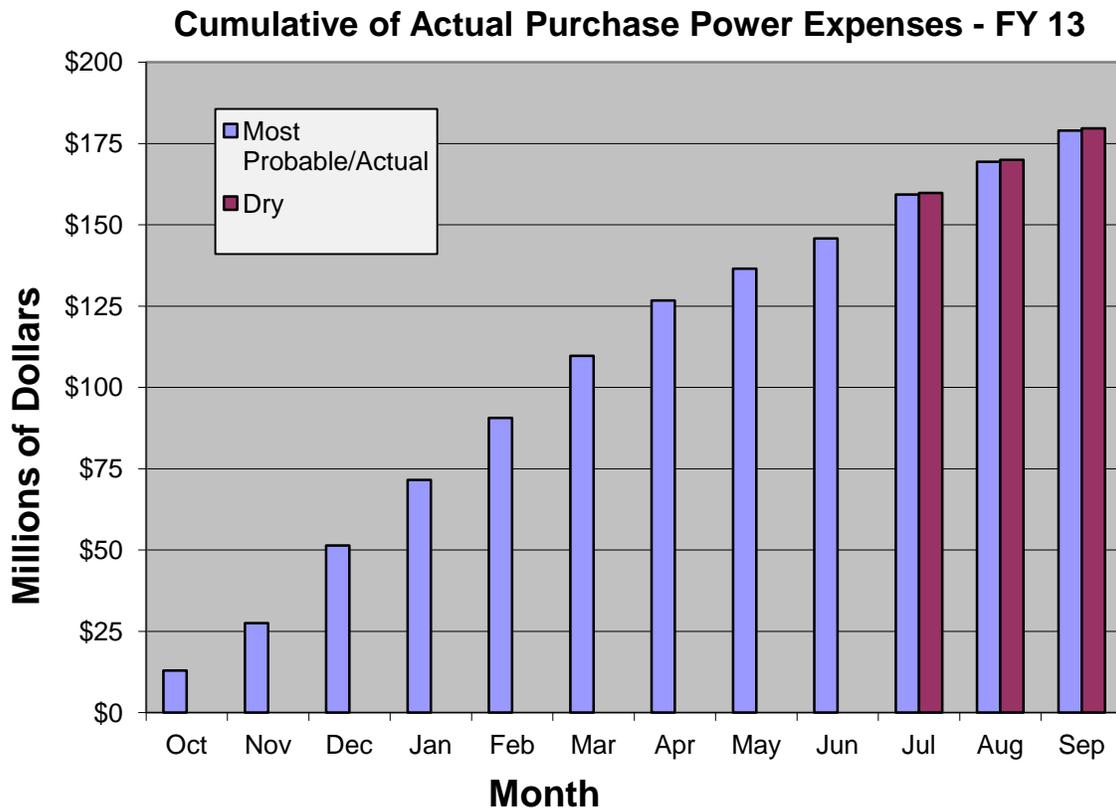
The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of May 23rd, the North is at 2 percent, the Central is at 2 percent and the South is at 1 percent of this average. The Sacramento River Index forecast of water supply based upon May 1st conditions is “dry” (close to critical) for the 90 percent exceedence case and “dry” for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State’s final yeartype declaration is based upon May 1st conditions at the 50 percent exceedence level. This year is officially “dry.”

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 fiscal year ended at 109 percent of that average. Reclamation forecasts are based upon April 1st conditions, which were based upon water supply forecast of “dry” for the 90 percent exceedence and “dry” for the 50 percent exceedence. These forecasts would be 93 percent and 90 percent of this “Green Book” average net generation. The forecasts sometimes “flip” because during drier conditions, more reservoir releases must be made to meet instream flow while under the “less dry” case, some instream flow requirements could conceivably be met via side flows. Project use pumping remains low due to Delta water quality concerns and with increased releases on the Sacramento to meet Delta needs and increased Trinity River Diversions to support the Sacramento, base resource remains quite high.

Hydro Conditions and Purchase Power Monthly Outlook July 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 22,718 gigawatt-hours (GWh) or 84 percent of average. October through June generation was 85 percent of average.
- The lower level forecast of generation for FY 2013 is 22,651 GWh or 83 percent of average.
- The purchased power for FY 2013 is expected to be approximately 4,126 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$43/MWh. This price compares to \$49/MWh last year.
- Purchase power expenses for FY 2013 are forecast to be approximately \$179 million.
- October through June purchases totaled over \$146 million – compared to \$78 million for the same period last year.



Upper Great Plains Region

Storage: June inflows resulted in 50 percent of average and the anticipated inflow for July is forecast to be 40 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 3,000 cfs to conserve storage. Streamflows into Bighorn Lake during June continued to remain below average at only 51% of average. Based on the July 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the July runoff into Bighorn Lake is expected to equal 116,000 acre-feet (44% of average).

As of July 17, 2013, the storage level at [Canyon Ferry](#) was 1,654,682 acre feet and the active conservation pool is 87.5% full. Storage at [Yellowtail](#) is 1,014,440 acre feet and the active conservation pool is 99.4% full.

COE: Total runoff for the year is estimated to be only 85% of normal at 21.2 MAF, normal being 25.2 MAF. Forecasted energy production for the calendar year decreased from last month's forecast by 135 GWh to 7,607 GWh. The COE continues to operate in drought mode.

Snow pack: The July 1 forecasted runoff for calendar year 2013 is 22.3 MAF. This runoff would be 88% of normal runoff. As of July 1, 2013, the mountain snowpack in the reach above Fort Peck is 24% of the average snowpack for this date. Mountain snowpack in the reach between Fort Peck and Garrison is 24% of the normal April 15 peak snowpack.

FY Generation: The six main stem power plants generated 608 million kilowatt hours of electricity in June. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: With the advent of warmer weather, on peak prices are starting to get to \$50 and off peak power holds in the mid to upper twenties.

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 still range from moderate to extreme in the LAP area. The reservoir inflow has been below normal in all three LAP basins so far this year. The snow pack has now melted at all but the highest elevations. The reservoir storage at the end of June was near average in the Bighorn Basin and well below average in the North Platte Basin and for the Colorado-Big Thompson Project (CBT). The latest National Weather Service forecast for the August through October period indicates temperatures are more likely to be above average in Wyoming and Colorado while precipitation is just as likely to be above average as below average. Due to a lack of precipitation in May and June, the spring runoff will end up below average for the CBT and well below average for the North Platte and Bighorn basins.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Actual Reservoir Inflow To-Date 1,000 acre-feet			Most Probable Reservoir Inflow 1,000 acre-feet (April - July)		
	end of June	average	% of average	October - June	average	% of average	July forecast	average	% of average
CBT	708.6	797.5	89%	531.1	569.1	93%	540.8	590.0	92%
North Platte	1,335.2	1,886.9	71%	475.7	948.3	50%	328.4	750.0	44%
Bighorn	2,178.3	2,139.1	102%	939.5	1,310.7	72%	729.4	1,435.3	51%
TOTAL	4,222.1	4,823.5	88%	1,946.3	2,828.1	69%	1,598.6	2,775.3	58%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	July projection	average	% of average	July projection	average	% of average	July projection	average	% of average
Winter 12-13	512.8	724.0	71%	512.8	724.0	71%	512.8	724.0	71%
Summer 13	939.2	1,214.7	77%	911.0	1,214.7	75%	999.8	1,214.7	82%
TOTAL 2013	1,452.0	1,938.7	75%	1,423.8	1,938.7	73%	1,512.6	1,938.7	78%

LAP generation has been well below average since October. With the July reservoir inflow forecasts lower than June forecasts, LAP generation is now expected to be below average for the remainder of the year. The projected generation includes the planned cessation of CBT Adams Tunnel imports and associated generation for a six week period from July 23rd through August 3rd to improve water clarity in Grand Lake by minimizing the introduction of organic and non-organic particulates from Shadow Mountain Reservoir. The Park Service has determined that recent fires near Grand Lake will not impact the water clarity.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 16,144,000 acre feet, which is about 52 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (June, 2013) were about 34 percent of average. Lake Powell elevation currently is about 3,599 feet, 101 feet from maximum reservoir level, and about 109 feet from the minimum generation level. The July, 2013 inflow forecast for April through July, 2013 at Lake Powell is 37 percent of average at 2.67 million acre feet.

Consistent with Section 6.C.1 of the Interim Guidelines, if the August 24-Month study projects the January 1, 2014, Lake Powell elevation to be less than 3,575.0 feet and at or above 3,525.0 feet and the Lake Mead elevation to be at or above 1,025.0 feet, the operational tier for Lake Powell in water year 2014 will be the Mid-Elevation Release Tier and the water year release volume from Lake Powell will be 7.48 maf. This July 2013 24-Month study projects that, with an 8.23 maf annual release pattern in water year 2014, the January 1, 2014, Lake Powell elevation would be 3,574.97 feet and the Lake Mead elevation would be 1,105.73 feet. Therefore, the 2014 Lake Powell operational tier is currently projected to be the Mid-Elevation Release Tier with an annual release volume of 7.48 maf. Based on analysis of a range of inflow scenarios, the current probability of

realizing an inflow volume that would result in the Mid-Elevation Release Tier in 2014 is slightly greater than 50 percent.

SLCA/IP net generation for Fiscal Year 2013 is 4,294 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$47.6 million as compared to about \$14.8 million based on long-term median historical releases. Purchase power availability in the region is abundant and prices are typical for this time of year. Firming purchases for the last couple of months have been in the upper \$30's to low \$40's on-peak and upper \$20's to low \$30's off-peak. Spot Market prices spiked to over \$100/MWh on-peak during a particularly hot period at the end of June.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 14.576 MAF (14.823 MAF May-2013), 21.099 MAF (73-Year Historical Avg).

The Lake Mead end of June 2013 elevation was 1,105.98 ft. (2.38 ft. lower than end of May 2013 elevation), or about 113.66 ft. below full storage elevation of 1,219.64 ft. and 55.98 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1103.84 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.48 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The projected 2013 April – July unregulated inflow into Lake Powell is 2.67 MAF or 37% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 77% of average and the snowpack is gone.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for May 2013 was 2 KAF. The projected side inflow into Lake Mead for WY2013 is 669 KAF which represents a 8.4% decrease over last year's actual of 730 KAF, and represents 51% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5201 GWh compared to 5644 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 92% of the average historical generation.

Wholesale Power Market Conditions: The June market prices in the Desert Southwest averaged about \$38/MWh firm on-peak, \$26/MWh firm off-peak compared to \$38/MWh firm on-peak, \$26/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 5.382 million-acre-feet, compared to 7.887 MAF last year. Accumulated inflow for the water year-to-date is 61 percent of the 15-year average for Trinity, 71 percent for Shasta, 68 percent for Folsom and 53 percent for New Melones. Folsom Reservoir releases are being cut to conserve storage.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only at 4.38 inches or 65 percent of its average. April ended at 1.52 inches or 41 percent of its average. May ended at 1.30 inches or 59 percent of its average. June ended at 1.80 inches or 186 percent of its average. The cumulative total at this time is 44.20 inches or 88 percent of the total average of 50.30 inches. There has been no measurable precipitation for July at this time.

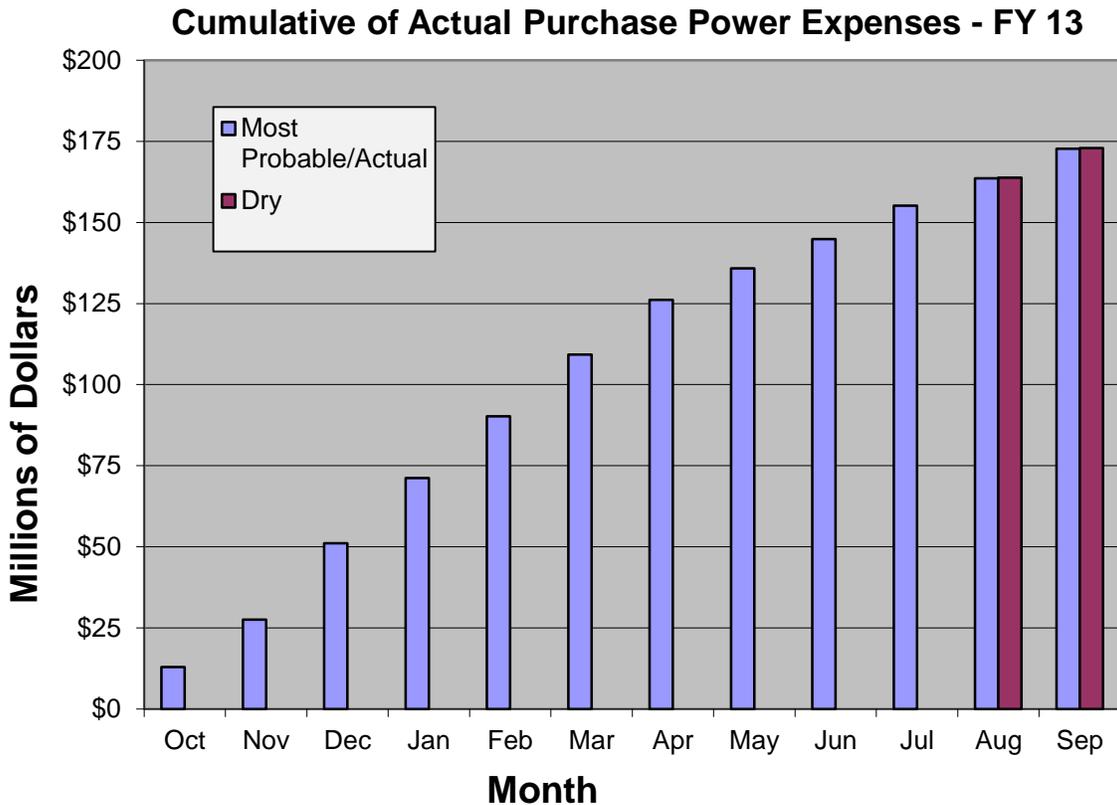
The snowpack is assumed to reach its peak April 1st. Therefore, snow water equivalents are reported as a percentage of this average. As of May 23rd, the North is at 2 percent, the Central is at 2 percent and the South is at 1 percent of this average. The Sacramento River Index forecast of water supply based upon May 1st conditions is “dry” (close to critical) for the 90 percent exceedence case and “dry” for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State’s final yeartype declaration is based upon May 1st conditions at the 50 percent exceedence level. This year is officially “dry.”

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 fiscal year ended at 109 percent of that average. Reclamation forecasts are based upon April 1st conditions, which were based upon water supply forecast of “dry” for the 90 percent exceedence and “dry” for the 50 percent exceedence. These forecasts would be 93 percent and 94 percent of this “Green Book” average net generation. Forecasts sometimes “flip” because during drier conditions, more reservoir releases must be made to meet demands while under the “less dry” case, some flow requirements could conceivably be met via side flow. Project use pumping is now at maximum to meet South of Delta water demands.

**Hydro Conditions
and
Purchase Power Monthly Outlook
August 2013**

Western Summary

- The most probable forecast of net generation for FY 2013 is 22,722 gigawatt-hours (GWh) or 85 percent of average. October through July generation was 86 percent of average.
- The lower level forecast of generation for FY 2013 is 22,686 GWh or 85 percent of average.
- The purchased power for FY 2013 is expected to be approximately 4,161 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$42/MWh. This price compares to \$48/MWh last year.
- Purchase power expenses for FY 2013 are forecast to be approximately \$173 million.
- October through July purchases totaled over \$155 million – compared to \$84 million for the same period last year.



Upper Great Plains Region

Storage: July inflows resulted in 42 percent of average and the anticipated inflow for August is forecast to be 52 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 3,000 cfs to conserve storage. Streamflows into Bighorn Lake during July continued to remain below average at only 50 percent of average. Based on the August 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the August runoff into Bighorn Lake is expected to equal 100,300 acre-feet (66 percent of average).

As of August 19, 2013, the storage level at [Canyon Ferry](#) was 1,541,288 acre feet and the active conservation pool is 81.5 percent full. Storage at [Yellowtail](#) is 959,760 acre feet and the active conservation pool is 94.0 percent full.

COE: Total runoff for the year is estimated to be 90 percent of normal at 22.7 MAF, due to above normal rains in the Missouri Basin. Up 2 percent from last month. Normal runoff is 25.2 MAF. The COE remains in conservation mode and recent rains below Gavins Point have allowed the COE to lower releases from the system and still keep navigation elevations at usable levels. Forecasted energy production for the calendar year is up slightly from last month's forecast by 97 GWh.

Snow pack: The August 1 forecasted runoff for calendar year 2013 is 22.7 MAF. This runoff would be 90 percent of normal runoff.

FY Generation: The six main stem power plants generated 726 million kilowatt hours of electricity in July. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.8 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: The expected hot weather did not come and cooler temperatures kept the prices in the lower 20s for off peak power and upper 30s 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 still range from moderate to extreme in the LAP area. The reservoir inflow has been below normal in all three LAP basins so far this year. The reservoir storage at the end of July was near average in the Bighorn Basin, below average for the Colorado-Big Thompson Project (CBT), and well below average in the North Platte Basin. The latest National Weather Service forecast for the September through November period indicates temperatures and precipitation are just as likely to be above average as below average. The spring runoff ended up below average for the CBT and well below average for the North Platte and Bighorn basins.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Actual Reservoir Inflow To-Date 1,000 acre-feet			Spring Reservoir Inflow 1,000 acre-feet (April - July)		
	end of July	average	% of average	October - July	average	% of average	actual	average	% of average
CBT	696.1	776.4	90%	611.5	697.0	88%	526.1	590.0	89%
North Platte	1,036.8	1,636.5	63%	501.8	1,067.7	47%	356.4	750.0	48%
Bighorn	2,081.6	2,124.4	98%	1,069.7	1,613.0	66%	792.8	1,435.3	55%
TOTAL	3,814.5	4,537.3	84%	2,183.0	3,377.7	65%	1,675.3	2,775.3	60%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	August projection	average	% of average	August projection	average	% of average	August projection	average	% of average
Winter 12-13	512.8	724.0	71%	512.8	724.0	71%	512.8	724.0	71%
Summer 13	922.2	1,214.7	76%	916.1	1,214.7	75%	942.5	1,214.7	78%
TOTAL 2013	1,435.0	1,938.7	74%	1,428.9	1,938.7	74%	1,455.3	1,938.7	75%
Winter 13-14	482.1	724.0	67%	464.8	724.0	64%	548.5	724.0	76%

LAP generation has been well below average since October and is expected to be below average through September. The low generation reflects hydrologic conditions, significant plant bypasses for maintenance, and the six week cessation of CBT Adams Tunnel imports and associated generation to improve Grand Lake water clarity that started on July 23. The upcoming winter generation is projected to be well between 64 percent and 76 percent of average depending on the level of late season water demand.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 15,408,000 acre feet, which is about 50 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (July 2013) were about 19 percent of average. Lake Powell elevation currently is about 3,593 feet, 107 feet from maximum reservoir level, and about 103 feet from the minimum generation level. Based on observed inflows and current forecasts, water year 2013 unregulated inflow is expected to be 4.33 MAF (40 percent of average), which would be the second significantly below-average year in a row.

The August 2013 24-Month study projects that, with an 8.23 MAF annual release pattern in water year 2014, the January 1, 2014, Lake Powell elevation would be 3,573.69 feet and the Lake Mead elevation would be 1,107.39 feet. Therefore, consistent with Section 6.C.1 of the Interim Guidelines for the operation of Lake Powell and Lake Mead, the Lake Powell operational tier for water year 2014 is the Mid-Elevation Release Tier with an annual release volume of 7.48 MAF.

Estimated SLCA/IP net generation for Fiscal Year 2013 is 4.29 GWh as compared to 5.61 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$49.8 million as compared to about \$14.8 million based on long-term median historical releases. Purchase power availability in the region is abundant and prices are typical for this time of year. Firming purchases for the last couple of months have been in the upper \$30's to low \$40's on-peak and upper \$20's to low \$30's off-peak.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 14.577 MAF (14.576 MAF June 2013), 20.995 MAF (63-Year Historical Avg).

The Lake Mead end of July 2013 elevation was 1,105.92 ft. (0.06 ft. lower than end of June 2013 elevation), or about 113.72 ft. below full storage elevation of 1,219.64 ft. and 55.92 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1104.29 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 18.03 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The preliminary observed 2013 April – July unregulated inflow into Lake Powell is 2.56 MAF or 36 percent of average (actual of 2.06 MAF or 29 percent of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 81 percent of average and the snowpack is non-existent.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for June 2013 was 115 KAF. The projected side inflow into Lake Mead for WY2013 is 728 KAF which represents a 0.3 percent decrease over last year's actual of 730 KAF, and represents 56 percent of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5163 GWh compared to 5643 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 91 percent of the average historical generation.

Wholesale Power Market Conditions: The July market prices in the Desert Southwest averaged about \$44/MWh firm on-peak, \$26/MWh firm off-peak compared to \$38/MWh firm on-peak, \$26/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 5.192 MAF, compared to 6.979 MAF last year. Accumulated inflow for the water year-to-date is 61 percent of the 15-year average for Trinity, 72 percent for Shasta, 68 percent for Folsom and 54 percent for New Melones. Reclamation announced on August 7 that water from the Trinity Reservoir will go to supplement

flows in the Lower Klamath River in an effort to help protect an expected large returning run of adult Chinook salmon from a disease outbreak and mortality.

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 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only at 4.38 inches or 65 percent of its average. April ended at 1.52 inches or 41 percent of its average. May ended at 1.30 inches or 59 percent of its average. June ended at 1.80 inches or 186 percent of its average. July ended at zero inches. The cumulative total at this time is 44.30 inches or 88 percent of the total average of 50.30 inches. There has been no measurable precipitation for August.

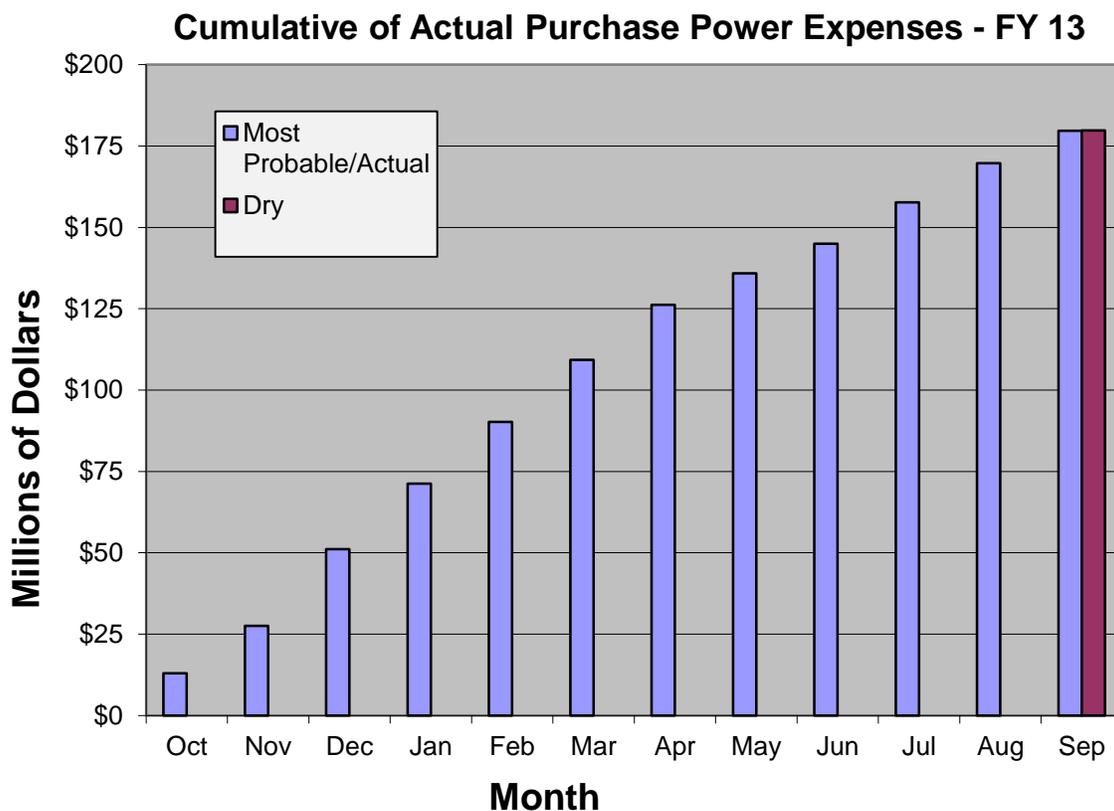
The snowpack is assumed to reach its peak April 1. Therefore, snow water equivalents are reported as a percentage of this average. As of May 23, the North is at 2 percent, the Central is at 2 percent and the South is at 1 percent of this average. The Sacramento River Index forecast of water supply based upon May 1 conditions is “dry” (close to critical) for the 90 percent exceedence case and “dry” for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State’s final yeartype declaration is based upon May 1 conditions at the 50 percent exceedence level. This year is officially “dry.”

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 fiscal year ended at 109 percent of that average. Reclamation forecasts are based upon April 1 conditions, which were based upon water supply forecast of “dry” for the 90 percent exceedence and “dry” for the 50 percent exceedence. These forecasts would both be 93 percent of this “Green Book” average net generation. Project use pumping is now at maximum to meet South of Delta water demands. And operations at San Luis Reservoir have changed from generation to pumping.

Hydro Conditions and Purchase Power Monthly Outlook September 2013

Western Summary

- The most probable forecast of net generation for FY 2013 is 22,590 gigawatt-hours (GWh) or 83 percent of average. October through August generation was 83 percent of average.
- The lower level forecast of generation for FY 2013 is 22,558 GWh or 83 percent of average.
- The purchased power for FY 2013 is expected to be approximately 4,338 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods is expected to be \$41/MWh. This price compares to \$48/MWh last year.
- Purchase power expenses for FY 2013 are forecast to be approximately \$179.7 million.
- October through August purchases totaled over \$169 million – compared to \$91 million for the same period last year.



Upper Great Plains Region

Storage: August inflows resulted in 51 percent of average and the anticipated inflow for September is forecast to be 57 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 3,000 cfs to conserve storage. Streamflows into Bighorn Lake during August continued to remain below average at only 64% of average. Based on the September 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the September runoff into Bighorn Lake is expected to equal 122,700 acre-feet (66% of average).

As of September 22, 2013, the storage level at [Canyon Ferry](#) was 1,451,091 acre feet and the active conservation pool is 76.7% full. Storage at [Yellowtail](#) is 946,501 acre feet and the active conservation pool is 92.7% full.

COE: Total runoff for the year is estimated to be 90% of normal at 22.7 million acre-feet (MAF), due to above normal rains in the Missouri Basin. Up 2% from last month. Normal runoff is 25.2 MAF. The COE remains in conservation mode and recent rains below Gavins Point have allowed the COE to lower releases from the system and still keep navigation elevations at usable levels. Forecasted energy production for the calendar year is up slightly from last month's forecast by 97 GWh.

Snow pack: The September 1 forecasted runoff for calendar year 2013 is 22.7 MAF. This runoff would be 90% of normal runoff.

FY Generation: The six main stem power plants generated 726 million kilowatt hours of electricity in July. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.6 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Surplus energy and cooler fall temperatures depressed the market prices to low to mid-teens for off peak power and low to mid-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 still range from moderate to extreme in most of the LAP area. Parts of the South Platte, North Platte, and Upper Colorado rivers are no longer in drought status due to record precipitation that caused September flooding. The reservoir inflow has been well below normal in all three LAP basins so far this year. The reservoir storage at the end of August was near average in the Bighorn Basin, below average for the Colorado-Big Thompson Project (CBT), and well below average in the North Platte Basin. The latest National Weather Service forecast for the October through December period indicates temperatures are more likely to be above normal in southwest Colorado and southwest Wyoming and just as likely to be above normal as below normal elsewhere. Precipitation is just as likely to be above normal as below normal throughout the LAP area.

LAP Water Conditions At-A-Glance									
	Reservoir Storage 1,000 acre-feet			Actual Reservoir Inflow To-Date 1,000 acre-feet			Spring Reservoir Inflow 1,000 acre-feet (April - July)		
	end of August	average	% of average	October - August	average	% of average	actual	average	% of average
CBT	628.5	718.9	87%	648.7	754.6	86%	526.1	590.0	89%
North Platte	781.2	1,343.7	58%	519.6	1,110.0	47%	356.4	750.0	48%
Bighorn	1,912.4	1,988.1	96%	1,122.7	1,712.5	66%	792.8	1,435.3	55%
TOTAL	3,322.1	4,050.7	82%	2,291.0	3,577.1	64%	1,675.3	2,775.3	60%
Net At Plant Generation Projections (GWh)									
	Most Probable Case median inflow			Reasonable Minimum Case lower decile inflow			Reasonable Maximum Case upper decile inflow		
	September projection	average	% of average	September projection	average	% of average	September projection	average	% of average
Winter 12-13	512.8	724.0	71%	512.8	724.0	71%	512.8	724.0	71%
Summer 13	911.0	1,214.7	75%	909.0	1,214.7	75%	912.1	1,214.7	75%
TOTAL 2013	1,423.8	1,938.7	73%	1,421.8	1,938.7	73%	1,424.9	1,938.7	73%
Winter 13-14	483.3	724.0	67%	468.3	724.0	65%	515.0	724.0	71%

LAP generation has been well below average since October and is also expected to be below average in September. The low generation reflects hydrologic conditions, significant plant bypasses for maintenance, and the six week cessation of CBT Adams Tunnel imports and associated generation to improve Grand Lake water clarity that started on July 23 and ended on September 4. The upcoming winter generation is projected to be between 65% and 70% of average depending on the level of late season water demand.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 15,051,000 acre feet, which is about 49 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (August, 2013) were about 54 percent of average. Lake Powell elevation currently is about 3,590 feet, 110 feet from maximum reservoir level, and about 100 feet from the minimum generation level. Based on observed inflows and current forecasts, water year 2013 unregulated inflow is expected to be 4.46 MAF (41% of average), which would be the second significantly below-average year in a row.

The hydrologic forecast for water year 2014 for Lake Powell, issued by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume will be 8.41 MAF (78% of average based on the period 1981-2010). The Lake Powell operational tier for water year 2014 is the Mid-Elevation Release Tier with an annual release volume of 7.48 MAF.

Estimated SLCA/IP net generation for Fiscal Year 2013 is 4.28 GWh as compared to 5.61 GWh based on the long-term historical average generation.

Total purchase power expenses for firming during the fiscal year 2013 are about \$52.4 million as compared to about \$14.8 million based on long-term median historical releases. Purchase power availability in the region is abundant and prices are typical for this time of year. Firming purchases for the last couple of months have been in the upper \$30's to low \$40's on-peak and upper \$20's to low \$30's off-peak.

Desert Southwest Region

Current Aggregate Storage (Mead, Mohave & Havasu): 14.629 MAF (14.577 MAF July-2013), 20.860 MAF (63-Year Historical Avg).

The Lake Mead end of August 2013 elevation was 1,106.13 ft. (0.21 ft. higher than end of July 2013 elevation), or about 113.51 ft. below full storage elevation of 1,219.64 ft. and 56.13 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and is projected to drop to a minimum elevation of 1106.16 ft. in September of WY 2013, a maximum fluctuation in lake elevation of 16.16 ft.

The Lake Powell operational tier for WY 2013 is currently the Upper Elevation Balancing Tier. Total releases from Lake Powell are projected to be average at 8.23 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The observed 2013 April – July unregulated inflow into Lake Powell was 2.56 MAF or 36% of average (actual of 2.06 MAF or 29% of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The WY 2013 precipitation is currently 90% of average and the snowpack is non-existent.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for Aug 2013 was 129 KAF. The projected side inflow into Lake Mead for WY 2013 is 747 KAF which represents a 2.3% increase over last year's actual of 730 KAF, and represents 57% of the normal annual side inflow of 1.3 MAF.

Forecasted WY 2013 Generation: 5,076 GWh compared to 5,642 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 90% of the average historical generation.

Wholesale Power Market Conditions: The August market prices in the Desert Southwest averaged about \$37/MWh firm on-peak, \$26/MWh firm off-peak compared to \$44/MWh firm on-peak, \$26/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 4.684 MAF, compared to 6.426 MAF last year. Accumulated inflow for the water year-to-date is 61 percent of the 15-year average for Trinity, 72 percent for Shasta, 68 percent for Folsom and 55 percent for New 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 2.70 inches,

which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only at 4.38 inches or 65 percent of its average. April ended at 1.52 inches or 41 percent of its average. May ended at 1.30 inches or 59 percent of its average. June ended at 1.80 inches or 186 percent of its average. July ended at zero inches. August ended at zero inches. September has 1.24 inches of recorded precipitation which is 156 percent of its monthly average. The cumulative total at this time is 45.54 inches or 91 percent of the total average of 50.30 inches.

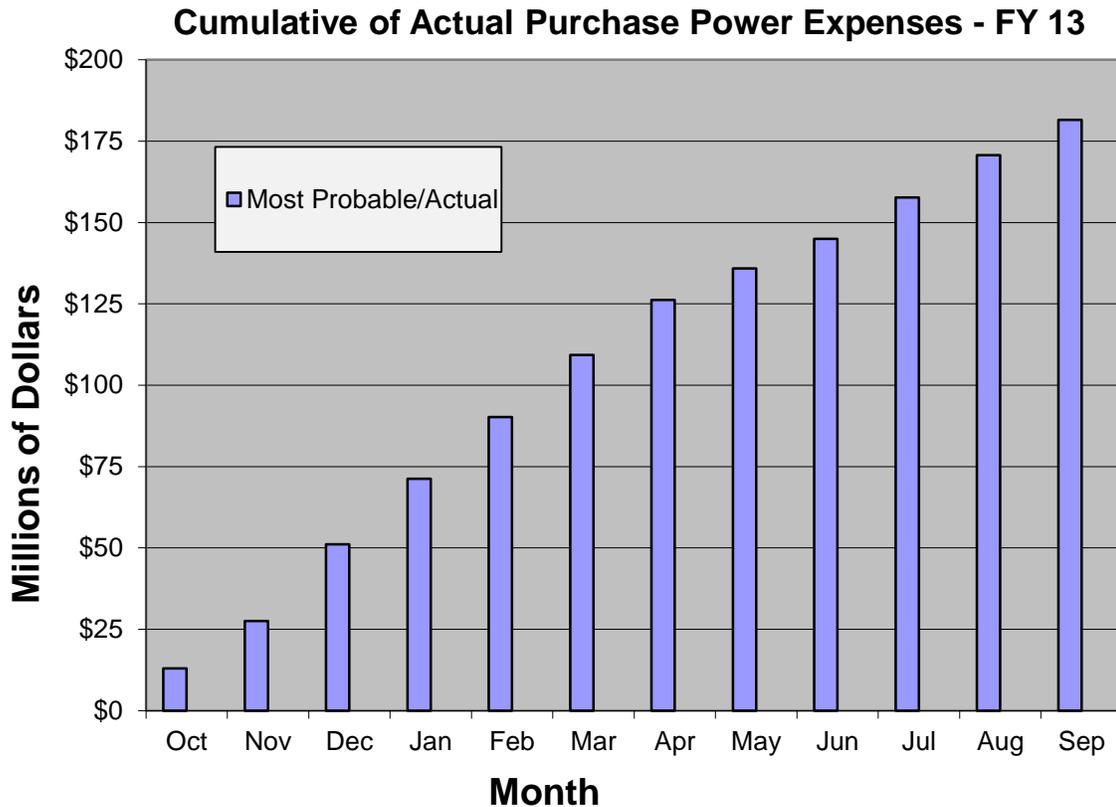
The snowpack is assumed to reach its peak April 1. Therefore, snow water equivalents are reported as a percentage of this average. As of May 23, the North is at 2 percent, the Central is at 2 percent and the South is at 1 percent of this average. The Sacramento River Index forecast of water supply based upon May 1 conditions is “dry” (close to critical) for the 90 percent exceedence case and “dry” for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State’s final yeartype declaration is based upon May 1 conditions at the 50 percent exceedence level. This year is officially “dry.”

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 fiscal year ended at 109 percent of that average. It seems likely that this year will come in at approximately 90 percent of that average. Delta Salinity has been an issue. As Reclamation has been cutting instream flows to conserve storage, they have had to cut Delta pumping as needed to manage salinity.

Hydro Conditions and Purchase Power Report October 2013

Western Summary

- Fiscal year (FY) 2013 ended with net generation of 22,511 gigawatt-hours (GWh) or 83 percent of average.
- The amount of power purchased for FY 2013 was 4,428 GWh compared to FY 2012 purchases of 2,112 GWh.
- The average price for purchase power across all hydro projects and off-peak and on-peak periods was \$41/megawatt-hour (MWh). This price compares to \$47/MWh last year.
- Purchase power expenses for FY 2013 were \$181.5 million, compared to \$100.3 million for FY 2012. The breakdown for the FY 2013 purchases, in millions, is: UGPR - \$47.8, RMR - \$27, CRSP - \$52.4, DSW - \$3.1, and SNR - \$51.2.



Upper Great Plains Region

Storage: September inflows resulted in 65 percent of average and the anticipated inflow for October is forecast to be 85 percent of average. Based upon the current water supply forecast, releases out of Canyon Ferry to the Missouri River below Holter Dam will be maintained near 2,900 cfs to conserve storage. Due to frequented precipitation events, streamflows into Bighorn Lake during September improved to 96 percent of average. Based on the October 1 water supply forecast and the planned releases out of Boysen and Buffalo Bill Reservoirs, the October runoff into Bighorn Lake is expected to equal 146,600 acre-feet (90 percent of average).

As of September 28, 2013, the storage level at [Canyon Ferry](#) was 1,471,193 acre feet and the active conservation pool is 77.8 percent full. Storage at [Yellowtail](#) is 1,023,225 acre feet and the active conservation pool is 100.0 percent full.

COE: Total runoff for the year is estimated to be 91 percent of normal at 23.1 MAF, due to above normal rains in the Missouri Basin. There has been very little change to the Missouri River system over the summer, up approximately one percent. The COE remains in conservation mode and are being determined by river levels for navigation in the Kansas City area. Dry conditions along the Missouri River are keeping releases at Gavins Point relatively high and steady, but has been as predicted by COE. Forecasted energy production for the calendar year remained unchanged.

Snow pack: The September 1 forecasted runoff for calendar year 2013 is 22.7 million acre-feet (MAF). This runoff would be 90 percent of normal runoff.

FY Generation: The six main stem power plants generated 812 million kilowatt-hours (kWh) of electricity in September. Total energy production for 2013 was earlier forecasted to reach 8.0 billion kWh, but has been reduced to around 7.6 billion kWh. The long-term average is approximately 10 billion kWh.

Purchased Power: Purchased power is holding steady at low \$20s for off-peak power and upper \$30s 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 remain in some of the LAP area this year but are much improved over this time last year. The snowpack peaked later than normal and the peaks were 98 percent of average in the Bighorn Basin, 92 percent in the North Platte, and 110 percent in the Upper Colorado headwaters of the Colorado-Big Thompson Project (CBT). Low soil moisture and stream bank storage carrying over from last year and hot and dry conditions immediately after the snowpack peaked resulted in reservoir inflows less than what just the snowpack peaks would indicate. The resulting overall LAP reservoir storage at the end of September was below average with gains in the CBT and significant losses in the North Platte Basin since last September. The latest

National Weather Service forecast indicates November through January temperatures will more likely be above average in Colorado with an equal chance of being above or below normal in Wyoming. The precipitation in that same period will more likely be above average in Wyoming with an equal chance of being above or below normal in Colorado.

	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			FY2013 Actual Generation FY2014 Winter Projection			
	end of September	average	% of average	annual FY2013	average	% of average		average	% of average	
CBT	622.5	672.1	93%	738.2	787.3	94%	Winter 12-13	512.8	724.0	71%
North Platte	773.8	1,246.2	62%	549.5	1,135.2	48%	Summer 13	875.6	1,214.7	72%
Bighorn	1,915.4	1,988.1	96%	1,219.9	1,785.8	68%	TOTAL FY13	1,388.4	1,938.7	72%
TOTAL	3,311.7	3,906.4	85%	2,507.6	3,708.3	68%	Winter 13-14	470.8	724.0	65%

LAP generation was below average in FY2013 with the winter generation well below average. Extended scheduled unit outages required some plant bypass releases in the North Platte Basin over the winter. LAP generation was below average all summer with significant shortfalls in August and September due to the Grand Lake water clarity operation and then the historic flooding in Colorado. The Adams Tunnel import and associated CBT generation was curtailed for a six week period starting on June 23 as a means to improve the water clarity in Grand Lake. Flooding along Colorado’s Front Range in mid-September forced Reclamation to again curtail Adams Tunnel imports and CBT generation to avoid adding West Slope water to damaging flows in the Big Thompson River. No surplus firm generation was available for LAP customers at the regular LAP energy rate.

The upcoming winter season generation is expected to be about 65 percent of average and seasonal energy purchases have been arranged to support LAP firm electric service commitments. There continues to be an extended CBT outage due the September flooding. Reclamation has drained Lake Estes and will import little if any water through Adams Tunnel through November to allow for the removal of sediment and debris washed into the Lake by the flood. Heavier Adams Tunnel imports later in the winter will shift normal October and November CBT generation into February and March. There will also be minimum reservoir releases and associated generation in the North Platte Basin due to the deteriorating reservoir storage situation.

Colorado River Storage Project Management Center

The total storage volume for the CRSP main stem reservoirs is 15,272,000 acre feet, which is about 49 percent of the total main stem reservoir storage capacity. Main stem reservoir inflows for the most recent historical month (September 2013) were about 200 percent of average. Lake Powell elevation currently is about 3,591 feet, 109 feet from maximum reservoir level, and about 101 feet from the minimum generation level. The strong runoff in September 2013 boosted water year (WY) 2013 unregulated inflow to 5.12 MAF or 47 percent of average. That is six percent higher than was projected last month.

The hydrologic forecast for WY 2014 for Lake Powell, issued by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume will be

9.65 MAF (89 percent of average based on the period 1981-2010). The Lake Powell operational tier for WY 2014 is the Mid-Elevation Release Tier with an annual release volume of 7.48 MAF.

Estimated SLCA/IP net generation for FY 2014 is 3,740 GWh as compared to 5,607 GWh based on the long-term historical average generation.

Estimated purchase power expenses for firming during the FY 2014 are about \$48.2 million as compared to about \$14.8 million based on long-term median historical releases. Purchase power availability in the region is abundant and prices are reasonable for this time of year. Firming purchases for the last month have been in the upper \$30s on-peak and upper \$20s to low \$30s off-peak.

Desert Southwest Region

End of September Aggregate Storage (Mead, Mohave & Havasu): 14.546 MAF (14.629 MAF Aug 2013), 20.750 MAF (63-Year Historical Avg).

The Lake Mead end of September 2013 elevation was 1,106.92 ft. (0.79 ft. higher than end of Aug 2013 elevation), or about 112.72 ft. below full storage elevation of 1,219.64 ft. and 56.92 ft. above the minimum generation elevation for Hoover of 1,050 ft.

Lake Mead's elevation peaked at 1122.32 ft. in January of WY 2013 (11.86 ft. below the WY 2012 peak elevation of 1134.18 ft.), and dropped to a minimum elevation of 1105.92 ft. in July of WY 2013, a maximum fluctuation in lake elevation of 16.4 ft.

The Lake Powell operational tier for WY 2013 was the Upper Elevation Balancing Tier. Total releases from Lake Powell were 8.232 MAF for WY 2013 (actual of 9.47 MAF for WY 2012). The observed 2013 April-July unregulated inflow into Lake Powell was 2.56 MAF or 36 percent of average (actual of 2.06 MAF or 29 percent of average for 2012).

Basin Snow Pack and Precipitation: DSW hydrology is mostly dependent on the Colorado River Basin snow pack and precipitation above Lake Powell. The end of year WY 2013 precipitation was 91 percent of average.

Lower Basin Runoff: The lower basin tributary inflow into Lake Mead for Sept 2013 was 155 thousand acre-feet (KAF). The actual side inflow into Lake Mead for WY2013 was 824 KAF which represents a 12.9 percent increase over last year's actual of 730 KAF, and represents 63.4 percent of the normal annual side inflow of 1.3 MAF.

Actual WY 2013 Generation: 5,082 GWh compared to 5,640 GWh (Historical Average). The projected Hoover and Parker-Davis generation for WY 2013 is 90 percent of the average historical generation.

Wholesale Power Market Conditions: The September market prices in the Desert Southwest averaged about \$35/MWh firm on-peak, \$27/MWh firm off-peak compared to \$37/MWh firm on-peak, \$26/MWh firm off-peak for the previous month.

Sierra Nevada Region

The total storage of the four major CVP reservoirs is 4.368 MAF, compared to 6.130 MAF last year. WY 2013 ended with 1.738 MAF less storage than last water year. Accumulated inflow for the water year ended at 61 percent for Trinity, 72 percent for Shasta, 68 percent for Folsom and 55 percent for New Melones.

The Northern Sierra Eight Station index averages slightly more than 50 inches of precipitation per water year. WY 2013 started out with October recorded precipitation totaling 2.70 inches, which is below average for this month. November recorded precipitation totaled 13.00 inches, which is more than 200 percent of average. December came in at 17.10 inches, or 193 percent of average. January came in at 1.50 inches or 17 percent of its average. It ranks as one of the sixth driest. February ended at 0.90 inches or 11 percent of its average. March ended at only at 4.38 inches or 65 percent of its average. April ended at 1.52 inches or 41 percent of its average. May ended at 1.30 inches or 59 percent of its average. June ended at 1.80 inches or 186 percent of its average. July ended at zero inches. August ended at zero inches. September ended at 1.90 inches of recorded precipitation which is 239 percent of its monthly average. The cumulative total at this time is 46.20 inches or 92 percent of the total average of 50.30 inches.

The snowpack is assumed to reach its peak April 1. Therefore, snow water equivalents are reported as a percentage of this average. As of May 23, the North is at two percent, the Central is at two percent and the South is at one percent of this average. The Sacramento River Index forecast of water supply based upon May 1 conditions is “dry” (close to critical) for the 90 percent exceedence case and “dry” for the 50 percent case, reflecting the poor January, February and March, which has set records, but not in a good way. The State’s final yeartype declaration is based upon May 1 conditions at the 50 percent exceedence level. This year is officially “dry.”

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 year ended at 91 percent of that average. Delta outflow is currently an issue. Reclamation has been working to conserve storage, so Delta pumping has been cut to meet this requirement.