

# ***HOOVER DAM - LAKE MEAD***



## ***Boulder Canyon Project Informal Customer Rate Meeting Project Costs and Revenues***



**BCProject - Comparison of Three (3) Fiscal Years Impacting FY 2016 Base Charge**

	<b>FY 2014 Actuals \$</b>	<b>Revised FY 2015 Budget Estimates \$</b>	<b>Proposed FY 2016 Budget Estimates \$</b>
<b>Reclamation's O&amp;M Program</b>			
Operations	5,550,556	6,753,000	6,801,000
Maintenance	13,108,387	16,215,000	17,069,000
A&GE	14,264,987	17,630,000	17,974,000
Extraordinary Maintenance	4,223,949	6,090,435	3,217,000
Subtotal O&M	37,147,879	46,688,435	45,061,000
Replacements	7,207,058	12,573,647	11,504,000
Subtotal OM&R Program	44,354,937	59,262,082	56,565,000
Post Civil Service Retirement/Life/Health	1,453,998	1,518,340	1,518,340
Reclamation Total OM&R	45,808,935	60,780,422	58,083,340
<b>Western's O&amp;M Program:</b>			
Facility Expenses	2,433,936	2,721,267	3,233,691
Systemwide Expenses	3,778,303	4,159,391	4,192,291
Subtotal	6,212,239	6,880,658	7,425,982
Replacements	418,072	1,202,129	60,000
Western Subtotal OM&R	6,630,312	8,082,787	7,485,982
Post Civil Service Retirement/Life/Health	225,846	187,660	187,660
Western's Total OM&R Program	6,856,158	8,270,447	7,673,642
Total - BCProject O&M Program	45,458,035	56,477,222	54,252,982
Total - BCProject OM&R	52,665,093	69,050,869	65,756,982
<b>Other Expenses</b>			
Visitor Center	6,342,643	8,023,000	8,834,000
Payments to States - Reclamation	600,000	600,000	600,000
Upgrading Payments - Interest	3,375,635	2,656,920	2,029,217
Upgrading Payments - Principal	11,348,748	12,007,899	12,766,452
Debt Service Investments - Interest	5,149,273	635,653	571,944
Other Interest (CME and Warehouse)	14,090	12,000	10,000
Debt Service Investments - Principal Payments	2,013,335	2,123,637	2,241,595
<b>Payoff of Visitor Facilities &amp; Air Slots Prin Payts</b>	<b>123,970,868</b>	<b>0</b>	<b>0</b>
Subtotal Other Annual Expenses	152,814,592	26,059,109	27,053,208
Total BCProject Expenses - Without Payoff	81,508,817	95,109,978	92,810,190
<b>Total BCProject Expenses - With Payoff</b>	<b>205,479,685</b>	<b>95,109,978</b>	<b>92,810,190</b>
<b>Prior Year end Carryover</b>	<b>18,691,070</b>	<b>30,965,794</b>	<b>10,844,334</b>
<b>Other Revenues</b>			
Reclamation Visitor Center	14,645,896	12,000,000	12,000,000
Reclamation - Miscellaneous	142,533	0	0
Western - Ancillary Services	1,021,127	1,450,000	1,200,000
Western - Miscellaneous	88,157	0	0
Subtotal Other Revenues - W/O Payoff	15,897,713	13,450,000	13,200,000
<b>Visitor Facilities &amp; Air Slots Revenues</b>	<b>123,970,868</b>	<b>0</b>	<b>0</b>
Subtotal Other Revenues - With Payoff	<b>139,868,581</b>	<b>13,450,000</b>	<b>13,200,000</b>
<b>Water Sales Revenues</b>	<b>661,259</b>	<b>530,000</b>	<b>530,000</b>
<b>Adjusted Base Charge/Revenue Requirement</b>	<b>46,258,774</b>	<b>50,164,184</b>	<b>68,235,856</b>
<b>Subtotal - Cash Available</b>	<b>29,849,245</b>	<b>10,844,334</b>	<b>0</b>
<b>Less Change in UDO's</b>	<b>(574,565)</b>	<b>0</b>	<b>0</b>
<b>Less Net Change in AR</b>	<b>(541,984)</b>	<b>0</b>	<b>0</b>
<b>FY 2014 Cash Available for Yearend Carryover</b>	<b>30,965,794</b>	<b>10,844,334</b>	<b>0</b>

**BCProject - Comparison of FY 2014 Actual and Approved**

	<b>Approved FY 2014 Budget Estimates \$</b>	<b>FY 2014 Actuals \$</b>	<b>Changes \$</b>
<b>Reclamation's O&amp;M Program</b>			
Operations	6,374,000	5,550,556	(823,444)
Maintenance	16,161,000	13,108,387	(3,052,613)
A&GE	17,869,000	14,722,206	(3,146,794)
A&GE Adjusted for Refund	(300,000)	(457,219)	(157,219)
Subtotal	17,569,000	14,264,987	(3,304,013)
Extraordinary Maintenance	6,192,000	4,223,949	(1,968,051)
Subtotal O&M	46,296,000	37,147,879	(9,148,121)
Replacements	8,354,000	7,207,058	(1,146,942)
Subtotal OM&R Program	54,650,000	44,354,937	(10,295,063)
Post Civil Service Retirement/Life/Health	1,805,810	1,453,998	(351,812)
Reclamation Total OM&R	56,455,810	45,808,935	(10,646,875)
<b>Western's O&amp;M Program</b>			
Facility Expenses	2,341,743	2,433,936	92,193
Systemwide Expenses	3,820,303	3,778,303	(42,000)
Subtotal	6,162,046	6,212,239	50,193
Replacements	400,000	418,072	18,072
Western Subtotal OM&R	6,562,046	6,630,312	68,265
Post Civil Service Retirement/Life/Health	223,190	225,846	2,656
Western's Total OM&R Program	6,785,236	6,856,158	70,921
Total - BCProject O&M Program	54,887,046	45,458,035	(9,429,012)
Total - BCProject OM&R	63,241,046	52,665,093	(10,575,954)
<b>Other Expenses</b>			
Visitor Center	7,156,000	6,342,643	(813,357)
Payments to States - Reclamation	600,000	600,000	0
Uprating Payments - Interest	3,381,326	3,375,635	(5,691)
Uprating Payments - Principal	11,642,301	11,348,748	(293,553)
Debt Service Investments - Interest	10,806,037	5,149,273	(5,656,764)
Other Interest (CME and Warehouse)	12,000	14,090	2,090
Debt Service Investments - Principal Payments	2,013,335	2,013,335	0
<b>Payoff of Visitor Facilities &amp; Air Slots Prin Payts</b>	0	<b>123,970,868</b>	<b>123,970,868</b>
Subtotal Other Annual Expenses	35,610,999	152,814,592	117,203,593
<b>Total BCProject Expenses - W/O Payoff</b>	<b>98,852,044</b>	<b>81,508,817</b>	<b>(17,343,229)</b>
<b>Total BCProject Expenses - With Payoff</b>	<b>98,852,044</b>	<b>205,479,684</b>	<b>106,627,638</b>
<b>Prior Yearend Carryover - from FY 2013</b>	<b>8,764,025</b>	<b>18,691,070</b>	<b>9,927,045</b>
<b>Other Revenues</b>			
<b>Reclamation - Visitor Center</b>	<b>12,000,000</b>	<b>14,645,896</b>	<b>2,645,896</b>
<b>Reclamation - Miscellaneous</b>	<b>0</b>	<b>142,533</b>	<b>142,533</b>
<b>Western - Ancillary Services</b>	<b>1,450,000</b>	<b>1,021,127</b>	<b>(428,873)</b>
<b>Western - Miscellaneous</b>	<b>0</b>	<b>88,157</b>	<b>88,157</b>
Subtotal Other Revenues - W/O Payoff	13,450,000	15,897,713	2,447,713
<b>Visitor Facilities &amp; Air Slots Revenues</b>	<b>0</b>	<b>123,970,868</b>	<b>123,970,868</b>
Subtotal Other Revenues - With Payoff	13,450,000	139,868,581	126,418,581
<b>Water Sales Revenues</b>	<b>530,000</b>	<b>661,259</b>	<b>131,259</b>
<b>Base Charge/Revenue Requirement</b>	<b>76,108,019</b>	<b>46,258,774</b>	<b>(29,849,245)</b>
<b>Subtotal - Cash Available</b>		<b>29,849,245</b>	<b>29,849,245</b>
<b>Less Change in UDO's</b>		<b>(574,565)</b>	<b>(574,565)</b>
<b>Less Net Change in AR</b>		<b>(541,984)</b>	<b>(541,984)</b>
<b>Cash Available for Yearend Carryover</b>		<b>\$30,965,794</b>	<b>\$30,965,794</b>

**Bureau of Reclamation FY 2014 Explanations:**

Operations: Decreased expenditures primarily due to lower than anticipated costs for Salaries/Benefits/Overhead, Overtime, Region/Denver/Other charges, and Joint Use System Interagency Agreement Expenditures.

Maintenance: Decreased expenditures primarily due to lower than anticipated costs for Salaries/Benefits/Overhead, Overtime, Materials & Supplies, Quagga Mussel Management, and funds reprogrammed to various RAX projects and OSHA findings resolution.

A&GE: Decreased expenditures primarily due to lower than anticipated costs for Salaries/Benefits/Overhead, Region/Denver/Other charges, Reclamation Enterprise Management System, OWCP costs, and additional reimbursed security funds, and funds reprogrammed to various RAX projects.

Extraordinary Maintenance: Decreased expenditures primarily due to obligated and Multi-Year Project funds scheduled in FY 2015 expenditure.

Replacements: Decreased expenditures primarily due to the Elevator Motor and Controller Replacement being moved to FY2015 as well as Multi-year Project funds..

Visitor Center: Decreased expenditures primarily due to lower than anticipated costs for Contract Services.

**Western's FY 2014 Explanations:**

Facility Expenses: \$92,193 increase due to GWA allocations and substation maintenance (Hoover Rooftop Instrument transformer).

Systemwide Expenses: \$(42,000) decrease due to lower anticipated costs.

Replacements: \$18,072 increase due to costs associated with projects not accomplished in FY 2013 that were continued in FY 2014.

Uprating Program Interest & Principal: \$(299,244) decrease. Any Changes to the Uprating Payments are related to the true up to actuals at year end with Statement of Credit Differences and when the new Uprating Schedules are submitted annually in August of each year.

Debt Service Investment Interest: \$(5,656,764) decrease is related to the pay off of the Visitor Facilities and Air Slots.

Western's Ancillary Services Revenue: \$(428,873) decrease is due to the Regulation Rate decreasing for FY 2014.

<b>BCProject - Comparison of FY 2015 Estimates</b>			
	<b>Approved FY 2015 Budget Estimates \$</b>	<b>Revised FY 2015 Budget Estimates \$</b>	<b>Changes \$</b>
<b>Reclamation's O&amp;M Program</b>			
Operations	6,753,000	6,753,000	0
Maintenance	16,215,000	16,215,000	0
A&GE	17,930,000	17,930,000	0
A&GE - Adjusted for Refund	(300,000)	(300,000)	0
Subtotal	17,630,000	17,630,000	0
Extraordinary Maintenance	5,015,000	6,090,435	1,075,435
Subtotal O&M	45,613,000	46,688,435	1,075,435
Replacements	10,245,000	12,573,647	2,328,647
Subtotal OM&R Program	55,858,000	59,262,082	3,404,082
Post Civil Service Retirement/Life/Health	1,518,340	1,518,340	0
Reclamation Total OM&R	57,376,340	60,780,422	3,404,082
<b>Western's O&amp;M Program</b>			
Facility Expenses	2,364,991	2,721,267	356,276
Systemwide Expenses	4,125,829	4,159,391	33,562
Subtotal	6,490,820	6,880,658	389,838
Replacements	777,500	1,202,129	424,629
Western Subtotal OM&R	7,268,320	8,082,787	814,467
Post Civil Service Retirement/Life/Health	187,660	187,660	0
Western's Total OM&R Program	7,455,980	8,270,447	814,467
Total BCProject O&M Program	54,587,320	56,477,222	1,889,902
Total BCProject OM&R	64,832,320	69,050,869	4,218,549
<b>Other Expenses</b>			
Visitor Center	8,023,000	8,023,000	0
Payments to States - Reclamation	600,000	600,000	0
Upgrading Payments - Interest	2,636,723	2,656,920	20,197
Upgrading Payments - Principal	12,008,240	12,007,899	(341)
Debt Service Investments - Interest	635,653	635,653	0
Other Interest (CME and Warehouse)	12,000	12,000	0
Debt Service Investments - Principal Payments	2,123,637	2,123,637	0
Subtotal Other Annual Expenses	26,039,253	26,059,109	19,856
<b>Total BCProject Expenses</b>	<b>90,871,573</b>	<b>95,109,978</b>	<b>4,238,405</b>
<b>Prior Yearend Carryover - from FY 2014</b>	<b>15,883,055</b>	<b>30,965,794</b>	<b>15,082,739</b>
<b>Other Revenues</b>			
Reclamation	12,000,000	12,000,000	0
Western	1,450,000	1,450,000	0
Subtotal Other Revenues	13,450,000	13,450,000	0
Water Sales Revenues	530,000	530,000	0
<b>Base Charge/Revenue Requirement</b>	<b>61,008,518</b>	<b>50,164,184</b>	<b>(10,844,334)</b>
<b>FY 2015 Cash Available for Yearend Carryover</b>			<b>10,844,334</b>

**Reclamation's FY 2015 Explanations:** The \$3,404,082 increase in Budget is due to FY 2014 unobligated funds that are needed to accomplish the work required in FY 2015.

**Western's FY 2015 Explanations:**

**Facility Expenses:** \$356,276 increase due to higher than anticipated costs for General Western Allocations and Phoenix Service Center (Security Contract) as well as Mead Common Facilities work that was not accomplished in FY 2014 but is expected to be completed in FY 2015.

**Systemwide Expenses:** \$33,562 increase due to higher than anticipated multi-project costs.

**Replacements:** \$424,629 increase due to projects not accomplished in FY 2014 that are expected to be completed in FY 2015 (RTU at HVRMED6, HVRMED TLine Hardware, and the Mead Bus CCVT/CT Foundation).

**Upgrading Program Interest & Principal:** \$19,856 Increase. Any changes in the Upgrading Payments is related to the true up at year end with actuals with the Statement of Credit Differences and when the new Upgrading Schedules are submitted annually in August of each year.

**BCProject - Comparison of FY 2016 Estimates**

	<b>Approved FY 2015 Budget Estimates \$</b>	<b>Proposed FY 2016 Budget Estimates \$</b>	<b>Changes \$</b>
<b>Reclamation's O&amp;M Program</b>			
Operations	6,753,000	6,801,000	48,000
Maintenance	16,215,000	17,069,000	854,000
A&GE	17,930,000	18,274,000	344,000
A&GE Adjusted for Refund	(300,000)	(300,000)	0
Subtotal	17,630,000	17,974,000	344,000
Extraordinary Maintenance	5,015,000	3,217,000	(1,798,000)
Subtotal O&M	45,613,000	45,061,000	(552,000)
Replacements	10,245,000	11,504,000	1,259,000
Subtotal OM&R Program	55,858,000	56,565,000	707,000
Post Civil Service Retirement/Life/Health	1,518,340	1,518,340	0
Reclamation Total OM&R	57,376,340	58,083,340	707,000
<b>Western's O&amp;M Program</b>			
Facility Expenses	2,364,991	3,233,691	868,700
Systemwide Expenses	4,125,829	4,192,291	66,462
Subtotal	6,490,820	7,425,982	935,162
Replacements	777,500	60,000	(717,500)
Western Subtotal OM&R	7,268,320	7,485,982	217,662
Post Civil Service Retirement/Life/Health	187,660	187,660	0
Western's Total OM&R Program	7,455,980	7,673,642	217,662
Total - BCProject O&M Program	54,587,320	54,252,982	(334,338)
Total - BCProject OM&R	64,832,320	65,756,982	924,662
<b>Other Expenses</b>			
Visitor Center	8,023,000	8,834,000	811,000
Payments to States - Reclamation	600,000	600,000	0
Upgrading Payments - Interest	2,636,723	2,029,217	(607,506)
Upgrading Payments - Principal	12,008,240	12,766,452	758,212
Debt Service Investments - Interest	635,653	571,944	(63,709)
Other Interest (CME and Warehouse)	12,000	10,000	(2,000)
Debt Service Investments - Principal Payments	2,123,637	2,241,595	117,958
Subtotal Other Annual Expenses	26,039,253	27,053,208	1,013,955
<b>Total BCProject Expenses</b>	<b>90,871,573</b>	<b>92,810,190</b>	<b>1,938,617</b>
<b>Prior Yearend Carryover</b>	<b>15,883,055</b>	<b>10,844,334</b>	<b>(5,038,721)</b>
<b>Other Revenues</b>			
<b>Reclamation</b>	<b>12,000,000</b>	<b>12,000,000</b>	<b>0</b>
<b>Western</b>	<b>1,450,000</b>	<b>1,200,000</b>	<b>(250,000)</b>
<b>Subtotal Other Revenues</b>	<b>13,450,000</b>	<b>13,200,000</b>	<b>(250,000)</b>
<b>Water Sales Revenues</b>	<b>530,000</b>	<b>530,000</b>	<b>0</b>
<b>Base Charge/Revenue Requirement</b>	<b>61,008,518</b>	<b>68,235,856</b>	<b>7,227,338</b>

**Bureau of Reclamation Approved FY 2015 to Proposed FY 2016 Explanations:**

Operations: Increased estimate primarily due to the replacement of SCADA Cisco Switches.

Maintenance: Increased estimate primarily due to the additional salary for 5 Term Hydroelectric Mechanics.

A&GE: Increased estimate primarily due to increased Materials & Supplies; Contract Services for the wastewater treatment facility operations, the 5-year relay settings review, and CAD support services; and the purchase of EACSS equipment in order to meet physical security requirements.

Extraordinary Maintenance: Decreased estimate primarily due to the following projects' reduced or no contract work: PRV Overhauls, Penstock Spot Coating, Paradox Valve Repairs, Generator Life Extension, and Turbine Pit Area Machining. Decrease partially offset by the following projects' increased or new contract work: Power Plant Piping Management Plan, Fire Piping Plan, Crane Repair, and Turbine Shift Ring Refurbishment.

Replacements: Increased estimate primarily due to the following projects' increase or new contract work: Generator Coolers, Cylinder Gate Stems, A2/A4/A7 PRV Modernization, Escalator Replacement, 16.5 kV Generator Breaker, Elevator Motor and Controllers, 7th Floor HVAC, Governor Oil Pump, and 480 Volt Switchgear. Increase partially offset by the following projects' reduced or no contract work: Stainless Steel Wicket Gates, Telephone System, Wide Head Range Turbine, and PRV Modernization.

Visitor Center: Increased estimate primarily due to the Visitor Center Renovation and various Contract Services.

**Western's Approved FY 2015 to Proposed FY 2016 Explanations:**

Facility Expenses: \$868,700 increase due to anticipated costs in General Western Allocation, Phoenix Service Center and Substation Maintenance (security-related increases), and two new Mead Common Facilities projects (domestic water main replacement and substation road rebuild).

Systemwide Expenses: \$66,462 increase due to anticipated costs in the System Operations and Load Dispatching function and Power Marketing costs associated with the 2017 Boulder Canyon remarketing effort.

Replacements: \$(717,500) decrease due to fewer replacements projects. This decrease more than offsets the increase due to the Mead Common Facilities projects identified above.

Upgrading Program Interest & Principal: \$150,706 net increase. Any changes in the Upgrading Payments are related to the true up at year end with actuals through the Statement of Credit Differences and when the new Upgrading Schedules are submitted annually in August of each year.

Western's Regulation Revenue Projections are being reduced due to the Regulation Rate decreasing over the last couple years. Projections are based on 3 year average.

**Comparison of  
FY 2016 Proposed Base Charge  
and  
FY 2015 Approved Base Charge**

	Approved FY 2015 Budget/Estimates	Proposed FY 2016 Budget/Estimates	Changes	Changes %
<b>BASE CHARGE (REVENUE REQUIREMENTS)</b>	<b>\$61,008,518</b>	<b>\$68,235,856</b>	<b>\$7,227,338</b>	<b>11.85%</b>
<b>COMPOSITE RATE (Mills/kWh)</b>	<b>16.28</b>	<b>19.32</b>	<b>3.04</b>	<b>18.67%</b>
<b>ENERGY RATE (Mills/kWh)</b>	<b>8.14</b>	<b>9.66</b>	<b>1.52</b>	<b>18.67%</b>
<b>Energy Sales mWh</b>	<b>3,747,208</b>	<b>3,531,846</b>	<b>(215,362)</b>	<b>-5.75%</b>
<b>CAPACITY RATE (\$/kW/Month)</b>	<b>\$1.61</b>	<b>\$1.86</b>	<b>\$0.25</b>	<b>15.55%</b>
<b>Capacity Sales</b>	<b>1,581,750</b>	<b>1,531,083</b>	<b>-50,667</b>	<b>-3.20%</b>

**Note: Energy and Capacity Sales are taken from first draft of Western's Master Study.**