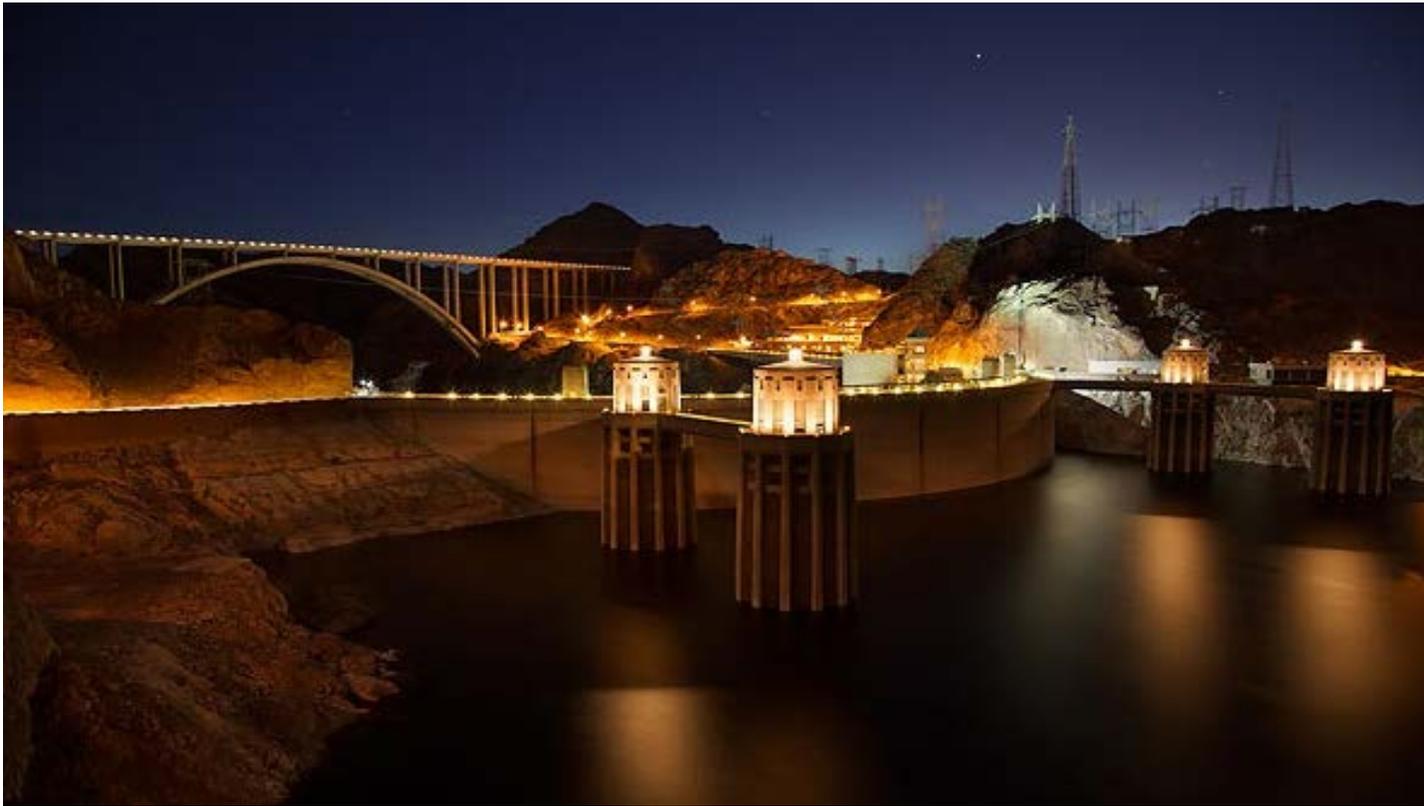


# Boulder Canyon Project



## Public Information Forum Handout

April 27, 2016



**Boulder Canyon Project  
Prior Year Impacts on FY 2017 Base Charge (in thousands)**

	FY 2015 Actuals	Revised FY 2016 Budget Est.	Proposed FY 2017 Base Charge
<b>Reclamation</b>			
Operations	\$6,283	\$6,801	\$6,819
Maintenance	16,297	17,201	16,504
A&GE	17,367	17,774	20,144
Extraordinary Maintenance	8,128	4,572	4,184
<b>O&amp;M</b>	<b>48,075</b>	<b>46,349</b>	<b>47,651</b>
Replacements	7,558	14,653	13,405
<b>OM&amp;R</b>	<b>55,633</b>	<b>61,002</b>	<b>61,056</b>
Post Civil Service Retirement/Life/Health	1,751	1,539	1,539
<b>OM&amp;R w/CSRS</b>	<b>57,384</b>	<b>62,541</b>	<b>62,595</b>
<b>Western</b>			
Facility Expenses	3,441	3,234	3,313
Systemwide Expenses	4,340	4,192	4,929
<b>O&amp;M</b>	<b>7,781</b>	<b>7,426</b>	<b>8,242</b>
Replacements	176	827	800
<b>OM&amp;R</b>	<b>7,957</b>	<b>8,253</b>	<b>9,042</b>
Post Civil Service Retirement/Life/Health	181	194	194
<b>OM&amp;R w/CSRS</b>	<b>8,137</b>	<b>8,447</b>	<b>9,236</b>
<b>Total O&amp;M</b>	<b>57,963</b>	<b>56,335</b>	<b>58,426</b>
<b>Total OM&amp;R</b>	<b>65,521</b>	<b>70,988</b>	<b>71,831</b>
<b>Other Expense</b>			
Visitor Center	7,306	9,310	8,356
Payments to States - Reclamation	600	600	600
Upgrading Payments - Interest	2,828	2,596	815
Upgrading Payments - Principal	12,008	12,396	7,377
Debt Service Investments - Interest	593	532	469
Other Interest (CME and Warehouse)	23	10	11
Debt Service Investments - Principle Pmt.	2,124	2,242	2,368
<b>Total Other Expense</b>	<b>25,482</b>	<b>27,687</b>	<b>19,996</b>
<b>Total Expense</b>	<b>91,003</b>	<b>98,675</b>	<b>91,827</b>
<b>Prior Year Carryover</b>	<b>30,966</b>	<b>23,507</b>	<b>5,398</b>
<b>Other Revenue</b>			
Reclamation	15,774	15,000	12,000
Western	1,160	1,300	1,300
<b>Other Revenue</b>	<b>16,934</b>	<b>16,300</b>	<b>13,300</b>
<b>Water Sales Revenue</b>	<b>677</b>	<b>530</b>	<b>580</b>
<b>Base Charge / Revenue Requirement</b>	<b>\$42,425</b>	<b>\$58,338</b>	<b>\$72,549</b>
Subtotal - Cash Available	18,583	5,398	
Less Change in UDOs	(3,863)		
Less Net Change in AR	(1,061)		
<b>Carryover</b>	<b>\$23,507</b>	<b>\$5,398</b>	<b>-</b>

**Boulder Canyon Project  
FY 2015 Base Charge vs. Actuals**

	FY 2015 Base Charge	FY 2015 Actuals	Change
<b>Reclamation</b>			
Operations	\$ 6,753,000	\$ 6,282,572	\$ (470,428)
Maintenance	16,215,000	16,296,836	81,836
A&GE	17,930,000	17,760,334	(169,666)
A&GE Refund Adjustment (Security)	(300,000)	(392,988)	(92,988)
<b>Subtotal A&amp;GE</b>	<b>17,630,000</b>	<b>17,367,346</b>	<b>(262,654)</b>
Extraordinary Maintenance	5,015,000	8,128,411	3,113,411
<b>O&amp;M</b>	<b>45,613,000</b>	<b>48,075,165</b>	<b>2,462,165</b>
Replacements	10,245,000	7,558,159	(2,686,841)
<b>OM&amp;R</b>	<b>55,858,000</b>	<b>55,633,324</b>	<b>(224,676)</b>
Post Civil Service Retirement/Life/Health	1,518,340	1,750,556	232,216
<b>OM&amp;R w/CSRS</b>	<b>57,376,340</b>	<b>57,383,880</b>	<b>7,540</b>
<b>Western</b>			
Facility Expenses	2,364,991	3,440,648	1,075,657
Systemwide Expenses	4,125,829	4,340,237	214,408
<b>O&amp;M</b>	<b>6,490,820</b>	<b>7,780,885</b>	<b>1,290,065</b>
Replacements	777,500	175,632	(601,868)
<b>OM&amp;R</b>	<b>7,268,320</b>	<b>7,956,517</b>	<b>688,197</b>
Post Civil Service Retirement/Life/Health	187,660	180,917	(6,743)
<b>OM&amp;R w/CSRS</b>	<b>7,455,980</b>	<b>8,137,434</b>	<b>681,454</b>
<b>Total O&amp;M</b>	<b>54,587,320</b>	<b>57,963,155</b>	<b>3,375,835</b>
<b>Total OM&amp;R</b>	<b>64,832,320</b>	<b>65,521,314</b>	<b>688,994</b>
<b>Other Expense</b>			
Visitor Center	8,023,000	7,306,122	(716,878)
Payments to States - Reclamation	600,000	600,000	-
Upgrading Payments - Interest	2,636,723	2,827,588	190,865
Upgrading Payments - Principal	12,008,240	12,007,899	(341)
Debt Service Investments - Interest	635,653	593,239	(42,414)
Other Interest (CME and Warehouse)	12,000	23,270	11,270
Debt Service Investments - Principal Pmt.	2,123,637	2,123,637	-
<b>Other Expense</b>	<b>26,039,253</b>	<b>25,481,755</b>	<b>(557,498)</b>
<b>Total Expense</b>	<b>90,871,573</b>	<b>91,003,069</b>	<b>131,496</b>
<b>Prior Year Carryover</b>	<b>15,883,054</b>	<b>30,965,794</b>	<b>15,082,740</b>
<b>Other Revenue</b>			
Reclamation	12,000,000	15,774,087	3,774,087
Western	1,450,000	1,160,214	(289,786)
<b>Other Revenue</b>	<b>13,450,000</b>	<b>16,934,301</b>	<b>3,484,301</b>
<b>Water Sales Revenue</b>	<b>530,000</b>	<b>677,492</b>	<b>147,492</b>
<b>Base Charge / Revenue Requirement</b>	<b>\$ 61,008,519</b>	<b>\$ 42,425,482</b>	<b>\$ (18,583,037)</b>
<b>Cash Available</b>	-	18,583,037	18,583,037
Less Change in UDO's	-	(3,863,318)	(3,863,318)
Less Net Change in AR	-	(1,060,718)	(1,060,718)
<b>FY 2015 Carryover</b>	<b>\$ -</b>	<b>\$ 23,507,072</b>	<b>\$ 23,507,072</b>

**Boulder Canyon Project**  
**FY 2015 Base Charge vs. Actuals**

**Reclamation's Narrative**

Operations: Decreased expenditures primarily due to lower than anticipated costs for Salaries/Benefits/Overhead, Services, and Equipment.

Maintenance: Increased expenditures primarily due to unanticipated costs for the N6 Stator Repair.

A&GE: Decreased expenditures primarily due to lower than anticipated costs for Salaries/Benefits/Overhead that were reprogrammed to Maintenance.

Extraordinary Maintenance: Increased expenditures primarily due to the expenditure of prior-year undelivered orders.

Replacements: Decreased expenditures primarily due to the Elevator Motor & Controller Replacement and the A2/A4/A7 PRV Modernization being pushed into FY2016.

Visitor Center: Decreased expenditures primarily due to lower than anticipated costs for Salaries/Benefits/Overhead and Contract Services.

FY 2015 Reduction in FY 2016 PRS: The FY 2015 Base Charge was reduced by a total of \$3.5M for an immediate impact to the FY 2016 Base Charge. This included a \$3M reduction in OM&R budget, a \$1.5M increase in budget for the BCP audit, and a \$2M increase in projected revenue.

**Western's Narrative**

Facility Expenses: Actuals were higher predominantly due to increased General Western Allocation, Information Services Support, Communications System Support, Safety and Security and Transmission Line and Substation Maintenance costs.

Systemwide Expenses: Actuals were higher predominantly due to Systems Operations & Load Dispatching, Power Marketing (post 2017 re-marketing) and Multi-Project costs.

Replacements: Actuals were lower due to the delay of the Hoover-Mead 1-8 jumper replacement project.

**Boulder Canyon Project  
FY 2016 Base Charge vs. Revised Budget**

	FY 2016 Base Charge	Revised FY 2016 Budget Est.	Change
<b>Reclamation</b>			
Operations	\$ 6,801,000	\$ 6,801,000	\$ -
Maintenance	17,069,000	17,201,413	132,413
A&GE	18,274,000	18,074,000	(200,000)
A&GE Refund Adjustment (Security)	(300,000)	(300,000)	-
<b>Subtotal A&amp;GE</b>	<b>17,974,000</b>	<b>17,774,000</b>	<b>(200,000)</b>
Extraordinary Maintenance	3,217,000	4,572,286	1,355,286
<b>O&amp;M</b>	<b>45,061,000</b>	<b>46,348,699</b>	<b>1,287,699</b>
Replacements	11,504,000	14,653,383	3,149,383
<b>OM&amp;R</b>	<b>56,565,000</b>	<b>61,002,082</b>	<b>4,437,082</b>
Post Civil Service Retirement/Life/Health	1,518,340	1,539,142	20,802
<b>OM&amp;R w/CSRS</b>	<b>58,083,340</b>	<b>62,541,224</b>	<b>4,457,884</b>
<b>Western</b>			
Facility Expenses	3,233,691	3,233,691	-
Systemwide Expenses	4,192,291	4,192,291	-
<b>O&amp;M</b>	<b>7,425,982</b>	<b>7,425,982</b>	<b>-</b>
Replacements	60,000	827,039	767,039
<b>OM&amp;R</b>	<b>7,485,982</b>	<b>8,253,021</b>	<b>767,039</b>
Post Civil Service Retirement/Life/Health	187,660	194,071	6,411
<b>OM&amp;R w/CSRS</b>	<b>7,673,642</b>	<b>8,447,092</b>	<b>773,450</b>
<b>Total O&amp;M</b>	<b>54,252,982</b>	<b>56,334,933</b>	<b>2,081,951</b>
<b>Total OM&amp;R</b>	<b>65,756,982</b>	<b>70,988,316</b>	<b>5,231,334</b>
<b>Other Expense</b>			
Visitor Center	8,834,000	9,310,386	476,386
Payments to States - Reclamation	600,000	600,000	-
Upgrading Payments - Interest	2,029,217	2,596,094	566,877
Upgrading Payments - Principal	12,766,452	12,396,477	(369,975)
Debt Service Investments - Interest	571,944	532,370	(39,574)
Other Interest (CME and Warehouse)	10,000	10,000	-
Debt Service Investments - Principal Pmt.	2,241,595	2,241,595	-
<b>Subtotal Other Annual Expense</b>	<b>27,053,208</b>	<b>27,686,922</b>	<b>633,714</b>
<b>Total Expense</b>	<b>92,810,190</b>	<b>98,675,238</b>	<b>5,865,048</b>
<b>Prior Year Carryover</b>	<b>14,344,334</b>	<b>23,507,072</b>	<b>9,162,738</b>
<b>Other Revenue</b>			
Reclamation	13,000,000	15,000,000	2,000,000
Western	1,200,000	1,300,000	100,000
<b>Other Revenue</b>	<b>14,200,000</b>	<b>16,300,000</b>	<b>2,100,000</b>
<b>Water Sales Revenue</b>	<b>530,000</b>	<b>530,000</b>	<b>-</b>
<b>Base Charge / Revenue Requirement</b>	<b>\$ 63,735,856</b>	<b>\$ 58,338,167</b>	<b>\$ (5,397,689)</b>
<b>FY 2016 Carryover</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,397,689</b>

**Boulder Canyon Project**  
**FY 2016 Base Charge vs. Revised Budget**

**Reclamation's Narrative**

Maintenance: Increased expenditures due to FY 2015 unobligated funds (MYPF) that are needed to accomplish work required in FY 2016.

A&GE: Decreased expenditures due to identified projected surplus.

Extraordinary Maintenance: Increased expenditures due to FY 2015 unobligated funds (MYPF) that are needed to accomplish work required in FY 2016.

Replacements: Increased expenditures due to FY 2015 unobligated funds (MYPF) that are needed to accomplish work required in FY 2016. Increase is partially offset by identified projected surplus.

Visitor Center: Increased expenditures due to FY 2015 unobligated funds (MYPF) that are needed to accomplish work required in FY 2016.

Other Revenue: Increased estimate due to projected revenues based on FY 2016 actuals through February 2016.

**Western's Narrative**

Replacement: HVRMED Transmission Line Hardware funds carried over from FY 2015.

Revenue: Increased forecast based on 5-year average.

**Boulder Canyon Project**  
**FY 2016 Base Charge vs. Proposed FY 2017 Base Charge**

	FY 2016 Base Charge	Proposed FY 2017 Base Charge	Change
<b>Reclamation</b>			
Operations	\$ 6,801,000	\$ 6,819,000	\$ 18,000
Maintenance	17,069,000	16,504,000	(565,000)
A&GE	18,274,000	20,444,000	2,170,000
A&GE Refund Adjustment (Security)	(300,000)	(300,000)	-
<b>Subtotal A&amp;GE</b>	<b>17,974,000</b>	<b>20,144,000</b>	<b>2,170,000</b>
Extraordinary Maintenance	3,217,000	4,184,000	967,000
<b>O&amp;M</b>	<b>45,061,000</b>	<b>47,651,000</b>	<b>2,590,000</b>
Replacements	11,504,000	13,405,000	1,901,000
<b>OM&amp;R</b>	<b>56,565,000</b>	<b>61,056,000</b>	<b>4,491,000</b>
Post Civil Service Retirement/Life/Health	1,518,340	1,539,142	20,802
<b>OM&amp;R w/CSRS</b>	<b>58,083,340</b>	<b>62,595,142</b>	<b>4,511,802</b>
<b>Western</b>			
Facility Expenses	3,233,691	3,312,879	79,188
Systemwide Expenses	4,192,291	4,928,984	736,693
<b>O&amp;M</b>	<b>7,425,982</b>	<b>8,241,863</b>	<b>815,881</b>
Replacements	60,000	800,000	740,000
<b>OM&amp;R</b>	<b>7,485,982</b>	<b>9,041,863</b>	<b>1,555,881</b>
Post Civil Service Retirement/Life/Health	187,660	194,071	6,411
<b>OM&amp;R w/CSRS</b>	<b>7,673,642</b>	<b>9,235,934</b>	<b>1,562,292</b>
<b>Total O&amp;M</b>	<b>54,252,982</b>	<b>58,426,076</b>	<b>4,173,094</b>
<b>Total OM&amp;R</b>	<b>65,756,982</b>	<b>71,831,076</b>	<b>6,074,094</b>
<b>Other Expense</b>			
Visitor Center	8,834,000	8,356,000	(478,000)
Payments to States - Reclamation	600,000	600,000	-
Upgrading Payments - Interest	2,029,217	814,783	(1,214,434)
Upgrading Payments - Principal	12,766,452	7,377,166	(5,389,287)
Debt Service Investments - Interest	571,944	469,081	(102,863)
Other Interest (CME and Warehouse)	10,000	11,000	1,000
Debt Service Investments - Principal Pmt.	2,241,595	2,367,858	126,263
<b>Other Expense</b>	<b>27,053,208</b>	<b>19,995,888</b>	<b>(7,057,321)</b>
<b>Total Expense</b>	<b>92,810,190</b>	<b>91,826,964</b>	<b>(983,227)</b>
<b>Prior Year Carryover</b>	<b>14,344,334</b>	<b>5,397,689</b>	<b>(8,946,645)</b>
<b>Other Revenue</b>			
Reclamation	13,000,000	12,000,000	(1,000,000)
Western	1,200,000	1,300,000	100,000
<b>Other Revenue</b>	<b>14,200,000</b>	<b>13,300,000</b>	<b>(900,000)</b>
<b>Water Sales Revenue</b>	<b>530,000</b>	<b>580,000</b>	<b>50,000</b>
<b>Base Charge / Revenue Requirement</b>	<b>\$ 63,735,856</b>	<b>\$ 72,549,275</b>	<b>\$ 8,813,419</b>

**Boulder Canyon Project**  
**FY 2016 Base Charge vs. Proposed FY 2017 Base Charge**

**Reclamation's Narrative**

Operations: Increased estimate primarily due to indexed Salaries, Benefits, and Overhead.

Maintenance: Decreased estimate primarily due to reduced Supply and Equipment needs. Salaries, Benefits, and Overhead were reduced for 4 FTE and moved into A&GE for Hoover's reorganization.

A&GE: Increased estimate primarily due to increased Region/Denver/Other costs and increased Salaries, Benefits, and OH attributed to Hoover's reorganization. Approximately \$760,000 of the increased Salaries from the reorganization were previously budgeted and reduced in Maintenance and Visitor Services.

Extraordinary Maintenance: Increased estimate primarily due to the following projects' increased or new contract work: Penstock Spot Coating, Power Plant Piping Management Plan, Fire Piping Plan, Paradox Valve Repairs, Highway Maintenance, Lower Portal Road Bridge, Cell Tower Corrosion, and Tail Bay Stop Logs. Increase partially offset by the following projects' decreased or no contract work: PRV Overhauls, Generator Life Extension, and Turbine Shift Ring Refurbishment.

Replacements: Increased estimate primarily due to the following projects' increase or new contract work: Stainless Steel Wicket Gates, Cylinder Gate Stem Evaluation, A2/A4/A7 PRV Modernization, Flow Meter, 16.5 KV Generator Breaker, Elevator Motor & Controller, and Governor Oil Pump. Increase partially offset by the following projects' reduced or no contract work: Drum Gate Repair, Escalator Replacement, Wide Head Range Turbine, 7th Floor Central HVAC, PRV Modernization, and 480 Volt Switchgear.

Visitor Center: Decreased estimate primarily due to the completed funding of the Visitor Center Renovation. Salaries, Benefits, and Overhead were reduced for 2 FTE and moved into A&GE for Hoover's reorganization.

Revenue: Reduced to account for Visitor Center renovation.

**Western's Narrative**

Facility Expenses: FY17 base charge is higher predominantly due to increased General Western Allocation, Information Services Support, Communications System Support and Safety and Security costs.

Systemwide Expenses: FY17 base charge is higher predominantly due to Systems Operations & Load Dispatching, Power Marketing (post 2017 re-marketing) and Multi-Project costs.

Replacements: FY17 base charge is higher due to the delay of the Hoover-Mead 1-8 jumper replacement project.

Revenue: Increased forecast based on 5-year average.

**Boulder Canyon Project  
Proposed Base Charge Comparison**

	Measure	FY 2016 Base Charge	Proposed FY 2017 Base Charge	Change	
				Amount	%
Base Charge		\$63,735,856	\$72,549,275	\$8,813,419	13.83%
Composite Rates	Mills/kWh	18.33	20.47	2.14	11.66%
Energy Rate	Mills/kWh	9.17	10.23	1.07	11.66%
Energy Sales	mWh	3,476,763	3,544,363	67,600	1.94%
Capacity Rate	(\$/kW-Mo)	\$1.72	\$2.00	\$0.28	16.27%
Capacity Sales		1,541,500	1,509,083	(32,417)	-2.10%

**Note:**

- Energy and Capacity Sales are based on the second draft of the FY 2017 Master Study.