

Boulder Canyon Project



Proposed Base Charge Fiscal Year 2021

(Revised February 10, 2020)



**Boulder Canyon Project
Summary**

(in thousands)			
	FY 2019 Actuals	Revised FY 2020 Budget	Proposed FY 2021 Base Charge
Reclamation			
Operations	\$ 8,147	\$ 8,695	\$ 7,877
Maintenance	19,617	17,358	18,520
A&GE	20,384	22,663	24,143
Extraordinary Maintenance	8,085	17,780	10,505
O&M	56,232	66,497	61,045
Replacements	11,812	6,536	6,036
OM&R	68,044	73,033	67,081
Post Retirement Benefits (PRB)	2,431	1,752	1,947
OM&R w/PRB	70,475	74,785	69,028
WAPA			
Facility Expenses	1,675	2,491	2,269
Systemwide Expenses	5,374	6,125	5,646
O&M	7,049	8,616	7,915
Replacements	333	408	203
OM&R	7,381	9,024	8,118
Post Retirement Benefits (PRB)	347	230	254
OM&R w/PRB	7,728	9,255	8,372
Total O&M	66,391	77,503	71,364
Total OM&R	78,203	84,040	77,400
Other Expense			
Visitor Services	12,483	9,787	9,570
Payments to States	600	600	600
Principal Payment - Flood Control	557	574	591
Interest - Flood Control	409	391	386
Interest - CME & Warehouse	32	25	28
Total Other Expense	14,080	11,377	11,176
Total Expense	92,283	95,417	88,576
Prior Year Carryover	9,361	16,380	4,144
Other Revenue			
Visitor Services - Reclamation	13,608	15,000	17,000
Ancillary Services - WAPA	1,345	1,211	1,276
Other Revenue	14,953	16,211	18,276
Water Sales Revenue	617	550	550
Base Charge	\$ 67,352	\$ 62,275	\$ 65,606

**Boulder Canyon Project
FY 2019 Base Charge vs. Actuals**

	FY 2019 Base Charge	FY 2019 Actuals	Change
Reclamation			
Operations	\$ 8,048,000	\$ 8,146,526	\$ 98,526
Maintenance	17,273,000	19,616,644	2,343,644
A&GE	20,789,000	20,384,154	(404,846)
Extraordinary Maintenance	10,712,000	8,084,992	(2,627,008)
O&M	56,822,000	56,232,316	(589,684)
Replacements	2,984,000	11,811,795	8,827,795
OM&R	59,806,000	68,044,111	8,238,111
Post Retirement Benefits (PRB)	1,581,283	2,431,028	849,745
OM&R w/PRB	61,387,283	70,475,139	9,087,856
WAPA			
Facility Expenses	2,395,875	1,674,741	(721,134)
Systemwide Expenses	6,362,118	5,373,952	(988,166)
O&M	8,757,993	7,048,693	(1,709,300)
Replacements	400,000	332,573	(67,427)
OM&R	9,157,993	7,381,266	(1,776,727)
Post Retirement Benefits (PRB)	200,455	346,577	146,122
OM&R w/PRB	9,358,448	7,727,843	(1,630,605)
Total O&M w/PRB	67,761,731	66,391,187	(1,370,544)
Total OM&R w/PRB	70,745,731	78,202,982	7,457,251
Other Expense			
Visitor Services - Reclamation	9,063,000	12,482,671	3,419,671
Payments to States - Reclamation	600,000	600,000	-
Principal Payment - Flood Control	557,482	557,482	-
Interest - Flood Control	420,066	408,657	(11,409)
Interest - CME & Warehouse	20,703	31,684	10,981
Other Expense	10,661,251	14,080,494	3,419,243
Total Expense	81,406,982	92,283,476	10,876,494
Prior Year Carryover	-	9,361,400	9,361,400
Other Revenue			
Visitor Services - Reclamation	10,000,000	13,608,422	3,608,422
Ancillary Services - WAPA	1,115,325	1,345,056	229,731
Other Revenue	11,115,325	14,953,478	3,838,153
Water Sales Revenue	550,000	616,559	66,559
Base Charge	\$ 69,741,657	\$ 67,352,039	\$ (2,389,618)
Cash Available	-	2,389,618	
Less Change in UDO - Reclamation	-	(13,735,645)	
Less Change in UDO - WAPA	-	(80,583)	
Less Change in Accts. Rec. - Reclamation	-	121,886	
Less Change in Accts. Rec. - WAPA	-	(296,059)	
FY 2019 Carryover		\$ 16,380,019	

**Boulder Canyon Project
FY 2019 Base Charge vs. Actuals**

Reclamation's Narrative

Operations: Increase is due to higher than anticipated Water Scheduling costs in FY 2019

Maintenance: Increase is due to carryover of FY 2018 (Multi-year Project Funds or MYPF) and reprogramming from RAX items to complete O&M projects

A&GE: Reduction is due to staff vacancies

Extraordinary Maintenance: Reduction is primarily due to elimination of Cinninnati Boring Project and carryover of funds for the NV Checkpoint Structure to FY 2020

Replacements: Increase is due to carryover of FY 2018 MYPF needed to accomplish work in FY 2019 for several projects including but not limited to: PRV Modernization, Wicket Gates, 16.5kV Generator Breakers, and Elevator Motor and Controller

Visitor Services: Increase is primarily due to carryover of FY 2018 MYPF to complete the Visitor Center Renovation in FY 2019

WAPA's Narrative

Facility Expense: Reduction is primarily due to decreased transmission line maintenance expenses

Systemwide Expense: Reduction is primarily due to decreased power marketing expenses resulting from vacancies. Project funds were also carried over into FY 2020.

PRB: The budget is based on a 5-year average of incurrct expenses. Expenditures for FY 2019 were (\$146,123) higher than this average.

Ancillary Services: The budget is based on a 5-year average of collected revenues. Revenues for FY 2019 were (\$229,731) higher than this average.

**Boulder Canyon Project
FY 2020 Base Charge vs. Revised FY 2020 Budget**

	FY 2020 Base Charge	Revised FY 2020 Budget	Change
Reclamation			
Operations	\$ 8,425,000	\$ 8,695,371	\$ 270,371
Maintenance	17,278,000	17,358,262	80,262
A&GE	22,643,000	22,663,000	20,000
Extraordinary Maintenance	10,117,000	17,780,079	7,663,079
O&M	58,463,000	66,496,712	8,033,712
Replacements	4,384,000	6,536,409	2,152,409
OM&R	62,847,000	73,033,121	10,186,121
Post Retirement Benefits (PRB)	1,751,851	1,751,851	-
OM&R w/PRB	64,598,851	74,784,972	10,186,121
WAPA			
Facility Expenses	2,491,204	2,491,204	-
Systemwide Expenses	5,816,002	6,125,283	309,281
O&M	8,307,206	8,616,487	309,281
Replacements	208,000	408,000	200,000
OM&R	8,515,206	9,024,487	509,281
Post Retirement Benefits (PRB)	230,308	230,308	-
OM&R w/PRB	8,745,514	9,254,795	509,281
Total O&M w/PRB	68,960,365	77,503,358	8,542,993
Total OM&R w/PRB	73,344,365	84,039,767	10,695,402
Other Expense			
Visitor Services	9,529,000	9,787,000	258,000
Payments to States	600,000	600,000	-
Principal Payment - Flood Control	574,207	574,207	-
Interest - Flood Control	403,342	390,902	(12,440)
Interest - CME & Warehouse	24,922	24,922	-
Subtotal Other Annual Expense	11,131,470	11,377,030	245,560
Total Expense	84,475,835	95,416,797	10,940,962
Prior Year Carryover	1,295,141	16,380,019	15,084,878
Other Revenue			
Visitor Services	15,000,000	15,000,000	-
Ancillary Services	1,211,292	1,211,292	-
Other Revenue	16,211,292	16,211,292	-
Water Sales Revenue	550,000	550,000	-
Base Charge	\$ 66,419,402	\$ 62,275,486	\$ (4,143,916)
FY 2020 Carryover	\$ -	\$ 4,143,916	

Boulder Canyon Project
FY 2020 Base Charge vs. Revised FY 2020 Budget

Reclamation's Narrative

Operations: Increase due to the carryover of FY 2019 unobligated funds (Multi-year Project Funds or MYPF) needed for Joint Use System in FY 2020

Maintenance: Increase due to the elimination of the Cinninnati Boring Project resulting in force account adjustments

A&GE: Increase due to the elimination of the Cinninnati Boring Project resulting in force account adjustments

Extraordinary Maintenance: Increase due to the carryover of FY 2019 MYPF needed to accomplish work in FY 2020 for several projects including but not limited to: Crane Inspection and Repair, Turbine Pipe Area Machining, Erosion Repair, N3 rotor repair, and NV Checkpoint Structure

Replacements: Increase due to the carryover of FY 2019 MYPF needed to accomplish work in FY 2020 for several projects including but not limited to: Cylinder Gate Stems, Fiber Optic Cable Paths, 480 Volt Switchgear, and Public Safety Antenna

Visitor Services: Increase primarily due to the carryover of FY 2019 MYPF that are needed to continue work on Hoover Visitor Exhibit Level and Monument Plaza projects

WAPA's Narrative

Systemwide Expense: Increase due to the carryover of FY 2019 MYPF needed for power marketing (\$129,000), multi-project cost (\$100,000), and depreciation (\$80,000). Power marketing MYPF funding is for the Hoover Tool and Markets Gap Analysis study.

Replacements: Increase due to the carryover of FY 2019 MYPF needed for the 69kV Bus Differential Relay Replacement project (\$200,000)

Boulder Canyon Project
FY 2020 Base Charge vs. Proposed FY 2021 Base Charge

	FY 2020 Base Charge	Proposed FY 2021 Base Charge	Change
Reclamation			
Operations	\$ 8,425,000	\$ 7,877,000	\$ (548,000)
Maintenance	17,278,000	18,520,000	1,242,000
A&GE	22,643,000	24,143,000	1,500,000
Extraordinary Maintenance	10,117,000	10,504,500	387,500
O&M	58,463,000	61,044,500	2,581,500
Replacements	4,384,000	6,036,000	1,652,000
OM&R	62,847,000	67,080,500	4,233,500
Post Retirement Benefits (PRB)	1,751,851	1,947,257	195,406
OM&R w/PRB	64,598,851	69,027,757	4,428,906
WAPA			
Facility Expenses	2,491,204	2,268,969	(222,235)
Systemwide Expenses	5,816,002	5,646,320	(169,682)
O&M	8,307,206	7,915,289	(391,917)
Replacements	208,000	202,584	(5,416)
OM&R	8,515,206	8,117,873	(397,333)
Post Retirement Benefits (PRB)	230,308	254,455	24,147
OM&R w/PRB	8,745,514	8,372,328	(373,186)
Total O&M w/PRB	68,960,365	71,364,085	2,403,720
Total OM&R w/PRB	73,344,365	77,400,085	4,055,720
Other Expense			
Visitor Services	9,529,000	9,570,000	41,000
Payments to States	600,000	600,000	-
Principal Payment - Flood Control	574,207	591,433	17,226
Interest - Flood Control	403,342	386,115	(17,226)
Interest - CME & Warehouse	24,922	28,441	3,519
Other Expense	11,131,470	11,175,989	44,519
Total Expense	84,475,835	88,576,074	4,100,239
Prior Year Carryover	1,295,141	4,143,916	2,848,775
Other Revenue			
Visitor Services	15,000,000	17,000,000	2,000,000
Ancillary Services	1,211,292	1,276,078	64,786
Other Revenue	16,211,292	18,276,078	2,064,786
Water Sales Revenue	550,000	550,000	-
Base Charge	\$ 66,419,402	\$ 65,606,080	\$ (813,322)

Boulder Canyon Project
FY 2020 Base Charge vs. Proposed FY 2021 Base Charge

Reclamation's Narrative

Operations: Decrease is primarily attributed to reduction in Operations staff salary who support Parker/Davis Dams and decrease for SCADA Cisco IE Replacement. These are offset by overall adjustments in salary/benefits/overhead, as well as various increases in Water Scheduling, Region/Denver/Other, and increases in Overtime/Awards/Training & Travel.

Maintenance: Increase is primarily due to salary/benefits/overhead. Overtime increase attributed to various projects, including supporting unit outages during maintenance season. Services increase primarily attributed to vault toilet maintenance, increased service to aging Sullair compressors, and new contract for generator service. Hoover Force Account Labor Adjustment credit decrease due to less maintenance support towards RAX items. Increases are slightly offset by decrease in equipment purchases in FY 2021.

A&GE: Increase is primarily due to the following but not limited to: BCPIA Audit (every three years starting in FY 2021), adjustment for salaries/benefits/overhead increases, additional FTE's in Compliance (Wastewater Group and IT), increase in equipment to purchase Fork Lift. Overtime increase attributed to anticipated increases in special projects and events. Training increase attributed to trainings for apprentice group. Services increase attributed to converting K-9 explosive detection services from force account to contract, and increase in Region/Denver/Other services for BCP support.

Extraordinary Maintenance: Increase is to accomplish work in FY 2021 for several projects including but not limited to: Penstock and Lateral Coating, Penstock Lateral Tunnel Safety Doors, Rockfall Mitigation, N3 Stator Re-Wedge, and Partial Discharge Monitoring. Increases are offset by decrease budget request for several projects including but not limited to: Paradox Valve Repairs, N1 Turbine Pit Machining, Erosion Repair, Generator Life Extension, and Generator Step-Up Transformer Maintenance.

Replacements: Increase is to accomplish work in FY 2021 for several projects including but not limited to: A9 Wicket Gate & Facing Plates, 480 Volt Switchgear Replacement, and Control Center Renovation. Increases are offset by decrease budget request for several projects including but not limited to: Cylinder Gate Stem Evaluation and Replacement, Segmented Girder Bridge Joint Replacement, and Wastewater Treatment Facility Replacement.

Visitor Services: Increase is primarily due to salary/benefits/overhead and services for Elevator & Escalator Repairs

Other Revenue: Visitor Services increased revenue estimate due to the implementation of the Commercial Use Authorizations for Road-Based Tours fees

WAPA's Narrative

Facility Expense: Reduction is primarily due to decreased transmission line maintenance expenses (\$125,751) and substation maintenance (\$102,226) resulting from cyclical work required on other power systems

Systemwide Expense: Reduction is primarily due to decreased power marketing expenses (\$192,765) resulting from work required on other power systems

PRB: The projected increase (\$24,147) is based on a 5-year average of incorrect expenses. Higher FY 2018 and FY 2019 expenditures are increasing this average.

Ancillary Services: The projected increase (\$64,786) is based on a 5-year average of actual revenue. Higher FY 2018 and FY 2019 revenue are increasing this average.

**Boulder Canyon Project
Proposed Base Charge Comparison**

	Measure	FY 2020 Base Charge	Proposed FY 2021 Base Charge	Change	
				Amount	%
Base Charge		\$66,419,402	\$65,606,080	-\$813,322	-1.2%
Energy Projection	MWh	3,673,800	3,483,448	(190,352)	-5.2%
Composite Rate	Mills/kWh	18.08	18.83	0.75	4.1%
Energy Rate	Mills/kWh	9.04	9.42	0.38	4.2%
Capacity Projection	kW	1,584,583	1,584,583	-	0.00%
Capacity Rate	(\$/kW-Mo)	\$1.75	\$1.73	-\$0.02	-1.1%

- Energy projection based on FY 2021 Ten Year Operating Plan hydrology forecast
- Capacity projection based on Final FY 2020 Master Schedule
- Energy and capacity projections will be updated June 1, 2020 using the Final FY 2021 Master Schedule