



— BUREAU OF —
RECLAMATION



Western
Area Power
Administration

Boulder Canyon Project

Fiscal Year 2022 Informal Base Charge Meeting

March 3, 2021

Webex

Webex Housekeeping

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Agenda

- Regulations, Orders, and Procedures
- Formulas
- FY 2020 Actuals
- FY 2021 Revised Budget
- FY 2022 Proposed Base Charge and Rates
- Tentative Rate Timeline
- Additional Resources

Regulations, Orders and Procedures

Regulations, orders, and procedures for rate development:

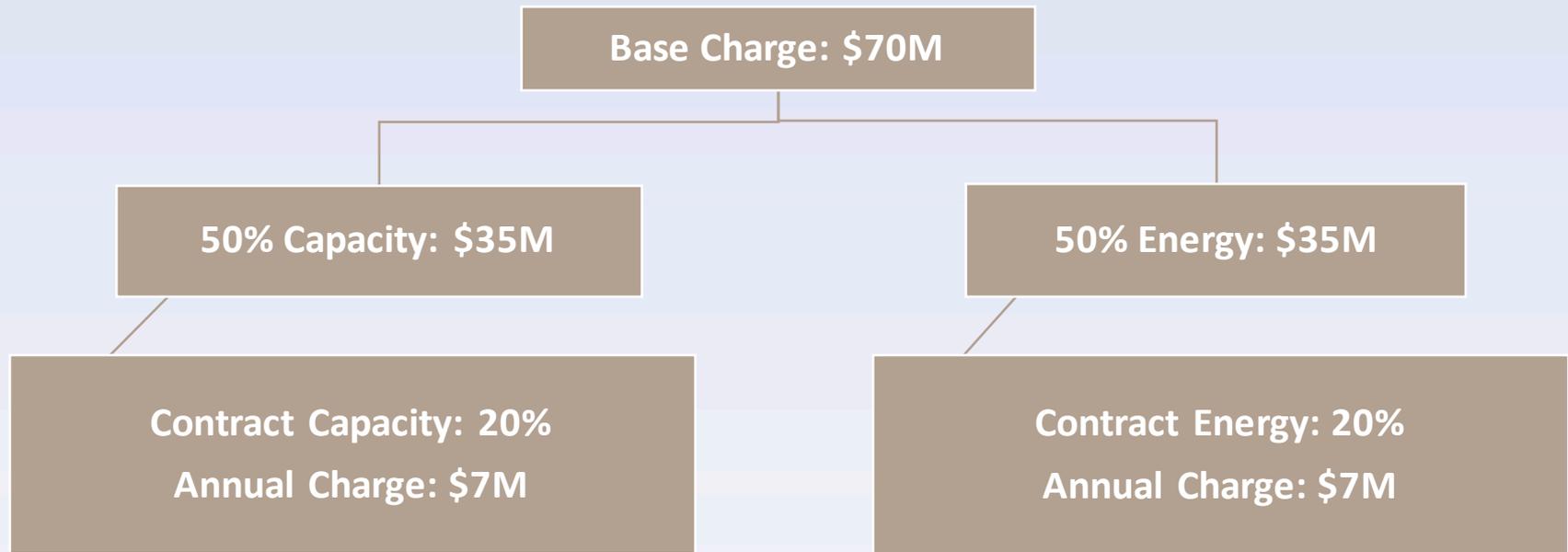
- 10 CFR 903 - describes public participation in power and transmission rate adjustments and extensions
- DOE Order RA 6120.2 - establishes financial reporting policies, procedures, and methodology for all Power Marketing Administrations ---- **Outlines Power Repayment Study Requirements**
- 10 CFR 904 - applies specifically to the Boulder Canyon Project's (BCP) charges for sales of power ---- **Outlines the Base Charge and Rates**
- Boulder Canyon Project Electric Service Contract and Amended and Restated Implementation Agreement

Formulas

$$\text{Expenses} - \text{Carryover} - \text{Non-power} = \text{Base} \\ \text{Revenue} \qquad \qquad \text{Charge}$$

- Contractors are charged a proportionate share of the annual base charge divided between capacity and energy – not a rate

Formulas



Rates

Composite Rate = Base Charge / Energy Projections

Energy Rate = (50% of Base Charge) / Energy Projections

Capacity Rate = (50% of Base Charge) / Capacity Projections

Rates calculated for informational purposes

FY 2020 Actuals

	FY 2020 Base Charge	FY 2020 Actuals	Change	%
Bureau of Reclamation				
O&M	58,463,000	47,816,580	(10,646,420)	
Replacements	4,384,000	6,264,539	1,880,539	
Visitor Services	9,529,000	6,814,639	(2,714,361)	
Payments to States	600,000	600,000	-	
Principal and Interest	977,548	965,108	(12,440)	
Post-Retirement Benefits	1,751,851	1,972,181	220,330	
	75,705,399	64,433,047	(11,272,352)	-15%
Western Area Power Administration				
O&M	8,307,206	8,014,719	(292,487)	
Replacements	208,000	63,293	(144,707)	
Post Retirement Benefits	230,308	149,649	(80,659)	
Interest	24,922	26,511	1,589	
	8,770,436	8,254,172	(516,264)	-6%
Total Expense	84,475,835	72,687,219	(11,788,616)	-14%
Prior Year Carryover	1,295,141	16,542,637	15,247,496	
Non-power Revenue	16,761,292	8,571,117	(8,190,175)	-49%
Total	\$ 66,419,402	\$ 47,573,465	\$ (18,845,937)	-28%
		Cash Available	18,845,936	
		Less Change in UDO & AR	(2,709,047)	
Carryover into FY 2021	\$ -	\$ 21,554,983		

FY 2020 Actuals

- Reclamation's execution decreased in O&M and Visitor Services expenses
 - Costs lower than anticipated due to the COVID-19 pandemic
- Reclamation's execution increased in replacements
 - Stainless-Steel Wicket Gates

FY 2020 Actuals

- WAPA's O&M expenses decreased
 - Due to COVID-19 pandemic line patrol delays, vacancies, and the focus on other capital projects
- Non-power revenues were \$8.2M lower than budgeted
 - Visitor services revenues decreased due to the COVID-19 pandemic and the closure of the Visitor Center

FY 2021 Revised

	FY 2021 Base Charge	FY 2021 Revised	Change	%
Bureau of Reclamation				
O&M	61,044,500	67,872,267	6,827,767	
Replacements	6,036,000	11,129,450	5,093,450	
Visitor Services	9,570,000	10,019,953	449,953	
Payments to States	600,000	600,000	-	
Principal and Interest	977,548	963,889	(13,660)	
Post-Retirement Benefits	1,947,257	1,947,257	-	
	80,175,305	92,532,816	12,357,510	15%
Western Area Power Administration				
O&M	7,915,289	8,125,289	210,000	
Replacements	202,584	200,000	(2,584)	
Post Retirement Benefits	254,455	254,455	-	
Interest	28,441	28,441	-	
	8,400,769	8,608,185	207,416	2%
Total Expense	88,576,074	101,141,001	12,564,926	14%
Prior Year Carryover	4,306,534	21,554,983	17,248,449	401%
Non-power Revenue	18,826,078	14,826,078	(4,000,000)	-21%
Total	\$ 65,443,462	\$64,759,940	\$ (683,523)	-1%
Carryover into FY 2022		\$ 683,523		

FY 2021 Revised

- Reclamation's budget update includes \$12.4M in unobligated funds from FY 2020 projects
 - O&M and extraordinary maintenance (\$6.8M)
 - FY 2020 Multi-year Project Funds carryover
 - Replacements (\$5.1M)
 - A9 Wicket Gates & Facing Plates
 - Cylinder Gate Stems
 - 480 Volt Switchgear
 - Visitor Services (\$450K)
 - FY 2020 Multi-year Project Funds carryover

FY 2021 Revised

- WAPA's budget update includes a \$210K increase in unobligated funds from FY 2020
 - Increase in O&M for the Southern California Edison line lease

FY 2022 Proposed Base Charge and Rates

	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Base Charge	\$65,443,462	\$71,315,922	\$5,872,460	9.0%
Energy Projection (MWh)	3,615,770	3,615,770	-	0.0%
Composite Rate (Mills/kWh)	18.10	19.72	1.62	9.0%
Energy Rate (Mills/kWh)	9.05	9.86	0.81	9.0%
Capacity Projection (kW)	1,611,083	1,611,083	-	0.0%
Capacity Rate (\$/kW-Mo)	\$1.69	\$1.84	\$0.15	8.9%

- Derived from Final Ten-Year Operating Plan published January 27, 2021
- Energy, and capacity projections will be finalized annually by June 1st
- Rates are calculated for informational purposes only

FY 2022 Proposed

	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Bureau of Reclamation				
O&M	61,044,500	57,727,500	(3,317,000)	
Replacements	6,036,000	11,358,500	5,322,500	
Visitor Services	9,570,000	11,082,000	1,512,000	
Payments to States	600,000	600,000	-	
Principal and Interest	977,548	977,548	-	
Post-Retirement Benefits	1,947,257	1,991,582	44,325	
	80,175,305	83,737,130	3,561,825	4%
Western Area Power Administration				
O&M	7,915,289	8,435,714	520,425	
Replacements	202,584	450,000	247,416	
Post Retirement Benefits	254,455	248,201	(6,254)	
Interest	28,441	29,089	648	
	8,400,769	9,163,004	762,235	9%
Total Expense	88,576,074	92,900,134	4,324,060	5%
Prior Year Carryover	4,306,534	683,523	(3,623,011)	-84%
Non-power Revenue	18,826,078	20,900,689	2,074,611	11%
Base Charge	\$ 65,443,462	\$ 71,315,922	\$ 5,872,460	9%

FY 2022 Proposed

O&M		FY 2021 Base Charge	FY 2022 Proposed	Change	%
Bureau of Reclamation					
	Operations	7,877,000	8,023,000	146,000	2%
	Maintenance	18,520,000	17,594,500	(925,500)	-5%
	A&GE	24,143,000	23,113,000	(1,030,000)	-4%
	Extraordinary Maintenance	10,504,500	8,997,000	(1,507,500)	-14%
O&M		\$ 61,044,500	\$ 57,727,500	\$ (3,317,000)	-5%

- Reclamation's operations increased (\$146K)
 - Increases in salaries, regional support, services, training and materials partially offset by a decrease in equipment

FY 2022 Proposed

- Reclamation's maintenance decreased (\$926K)
 - Maintenance staff charging to RAX projects
 - Decrease in services and regional support
- Reclamation's A&GE budget decreased (\$1M)
 - A&GE includes area manager, compliance and regulatory, engineering, management services, and security budgets
 - Decrease due to the allocation of costs from Compliance to Visitor Services

FY 2022 Proposed

Line #		FY 2021 Base Charge	FY 2022 Proposed	Change	%
Bureau of Reclamation					
17	Visitor Center - Exhibit Level Refurbishment*	\$ 20,000	\$ -		
20	N3 Stator Re-wedge	800,000	-		
18	Monument Plaza Restoration*	20,000	-		
1	Power Plant Piping Management Plan	800,000	950,000		
2	Fire Piping Plan	500,000	600,000		
3	Crane Inspection and Repair	650,000	750,000		
4	Tail Bay Stop Logs Coating	320,000	320,000		
5	Penstocks and Lateral Spot Coating	4,100,000	2,000,000		
8	Penstock Lateral Tunnels - Safety Doors Refurbishment	750,000	300,000		
6	Butterfly Valve Recoating	187,500	220,000		
10	Rock Fall Mitigation	500,000	600,000		
19	N3 Rotor Repair	857,000	857,000		
23	Partial Discharge Monitors	500,000	500,000		
24	Generator Step-Up Transformers Maintenance	500,000	500,000		
11	Erosion Repair		800,000		
22	A2 Stator Epoxy Steel Laminate	-	600,000		
Extraordinary Maintenance		\$ 10,504,500	\$ 8,997,000	\$ (1,507,500)	-14%

*SNPLMA Projects

FY 2022 Proposed

- Reclamation's extraordinary maintenance decreased (\$1.5M)
 - Continued effort to stabilize budgets

FY 2022 Proposed

Line #		FY 2021 Base Charge	FY 2022 Proposed	Change	%
#	Bureau of Reclamation				
14	Hazardous Noise Abatement Plan	50,000	-		
16	Central Section HVAC Replacement	80,000	330,000		
17	Control Center Renovation	500,000	500,000		
1	Rebuild and Replace Generator Coolers	554,000	581,000		
2	A9 Wicket Gates and Facing Plates	1,550,000	2,000,000		
4	Cylinder Gate Stem Evaluation and Replacement	500,000	2,750,000		
5	480-Volt Switchgear Replacement	2,320,000	2,835,500		
6	Flow Meter Replacement	172,000	172,000		
7	UCM Life Cycle Replacement	60,000	60,000		
8	Water Plant and Waste Water Plant Controls	250,000	400,000		
9	Replacement Wastewater Treatment Facility	-	100,000		
12	Escalator Replacement	-	1,150,000		
15	Additional Tail Bay Stop Log	-	110,000		
19	Upgrade CISCO ONS 15454	-	310,000		
20	N7 Unit Oil System Replacement	-	60,000		
	Replacements	\$ 6,036,000	\$ 11,358,500	\$ 5,322,500	88%

FY 2022 Proposed

- Reclamation's replacements increased (\$5.3M)
 - Includes projects deferred in FY 2020 and FY 2021 due to COVID-19 pandemic

FY 2022 Proposed

Other Expenses	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Bureau of Reclamation				
Visitor Services	9,570,000	11,082,000	1,512,000	15.8%
Payments to States	600,000	600,000	-	0.0%
Principal and Interest - Flood Control	977,548	977,548	-	0.0%

- Hoover Dam Visitor Services budget increased (\$1.5M)
 - Higher labor projections in salaries, overtime, overhead and benefits, due to allocation of costs between departments
- Payment to States is static from year-to-year
- Flood Control P&I is remaining unchanged as well – payoff in 2037

FY 2022 Proposed

Post-Retirement Benefits (PRB)	FY 2021	FY 2022	Change	%
	Base Charge	Proposed		
Bureau of Reclamation				
Actual - 2015	1,750,556	-		
Actual - 2016	1,790,540	1,790,540		
Actual - 2017	1,533,544	1,533,544		
Actual - 2018	2,230,616	2,230,616		
Actual - 2019	2,431,028	2,431,028		
Actual - 2020	-	1,972,181		
PRBs	\$ 1,947,257	\$ 1,991,582	\$ 44,325	2%

- Imputed retirement, health insurance, and life insurance costs
- Based on 5-year average of most recent actuals

FY 2022 Proposed

	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Western Area Power Administration				
Transmission Line Maintenance	179,536	210,717		
Communication Systems Support	396,653	424,899		
Safety Costs	226,848	291,961		
Phoenix Service Center Costs	481,120	250,558		
Substation Maintenance	984,812	796,413		
Facility Expense	2,268,969	1,974,548	(294,421)	-13%
Power Billing/Collecting	258,495	157,000		
System Operations and Load Dispatching	2,832,401	3,295,923		
Transmission/Engineering Studies	146,363	154,669		
Conservation and Renewable Energy	22,619	14,125		
Financial Management Costs	75,529	81,651		
Power Marketing Costs	1,577,224	1,991,039		
Multiproject Costs	638,841	671,758		
Depreciation	94,848	95,002		
Systemwide Expense	5,646,320	6,461,167	814,847	14%
O&M	\$ 7,915,289	\$ 8,435,715	\$ 520,426	7%

FY 2022 Proposed

- WAPA's O&M budget is increasing (\$520K)
 - Hoover-Mead line lease costs, not budgeted in FY2021
 - Higher labor projections for salaries, overtime, overheads and benefits in power operations

FY 2022 Proposed

Replacements	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Western Area Power Administration				
Hoover Channel Bank Equipment Replacement	51,000	-		
69 kV Bus Differential Relay Replacement	149,000			
DACS Replacement	-	200,000		
Coupling Capacitor Voltage Transformer (CCVT) Replacement		250,000		
Replacements	\$ 200,000	\$ 450,000	\$ 250,000	125%

- Budget varies based on cost of projects
- FY 2022 replacement budget increased (\$250k)

FY 2022 Proposed

Post Retirement Benefits (PRB)	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Western Area Power Administration				
Actual - 2015	\$ 180,918	\$ -		
Actual - 2016	237,811	237,811		
Actual - 2017	196,001	196,001		
Actual - 2018	310,966	310,966		
Actual - 2019	346,577	346,577		
Actual - 2020	-	149,649		
PRBs	\$ 254,455	\$ 248,201	\$ (6,254)	-2%

- Imputed retirement, health insurance, and life insurance costs
- Based on 5-year average of most recent actuals

FY 2022 Proposed

		FY 2021	FY 2022		
Interest - CME & Warehouse	Base Charge	Proposed	Change	%	
Western Area Power Administration					
	Actual - 2015	\$ 23,270			
	Actual - 2016	27,421	27,421		
	Actual - 2017	28,549	28,549		
	Actual - 2018	31,281	31,281		
	Actual - 2019	31,684	31,684		
	Actual - 2020	-	26,511		
Interest - CME & Warehouse		\$ 28,441	\$ 29,089	\$ 648	2%

- Based on 5-year average of most recent actuals

FY 2022 Proposed

Non-Power Revenue	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Prior Year Carryover	4,306,534	683,523	(3,623,011)	-84%
Visitor Services	17,000,000	19,000,000	2,000,000	
Ancillary Services	1,276,078	1,350,689	74,611	
Water Sales Revenue	550,000	550,000	-	
Non-power Revenue \$	18,826,078	\$ 20,900,689	\$ 2,074,611	11%

- Prior year carryover decreased (\$3.6M)
- Non-power revenue increased (\$2.1M)
 - Implementation of commercial use authorizations for road-based tours
 - Ancillary Services based on 5-year average of most recent actuals

FY 2022 Proposed

	FY 2021 Base Charge	FY 2022 Proposed	Change	%
Bureau of Reclamation				
O&M	61,044,500	57,727,500	(3,317,000)	
Replacements	6,036,000	11,358,500	5,322,500	
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	80,175,305	83,737,130	3,561,825	4%
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Non-power Revenue	18,826,078	20,900,689	2,074,611	11%
Base Charge	\$ 65,443,462	\$ 71,315,922	\$ 5,872,460	9%

Timeline (Tentative)

March 2021

Notice is published in the *Federal Register* and emailed to contractors; 90-day public comment and consultation period begins

May 2021

Public Information Forum: The public is briefed on the base charge and rates; a recorder transcribes the forum and comments are part of public record

June 2021

Public Comment Forum: The public is provided the opportunity to make comments about the base charge and rates; a recorder transcribes the forum, comments are part of the official record, and responses are provided in the final *Federal Register* notice

Timeline (Tentative)

July 2021

Public Process: The 90-day public comment and consultation period concludes

August 2021

Final Rate Order: The final *Federal Register* notice is published

October 1, 2021

Effective date of base charge and rates

Timeline (Tentative)

- **Public Information Forum**

- 30 days after *Federal Register* notice publication
- May 2021, at 10:00 am
- Webex

- **Public Comment Forum**

- 60 days after *Federal Register* notice publication
- June 2021, at 10:00 am
- Webex

Additional Resources

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For further information as well as copies of this presentation, visit WAPA's website at <https://www.wapa.gov/regions/DSW/Rates/Pages/boulder-canyon-rates.aspx>