



— BUREAU OF —  
RECLAMATION



Western  
Area Power  
Administration

# Boulder Canyon Project

## Fiscal Year 2021 Base Charge and Rates Public Information Forum

May 6, 2020

Webex

# Participant Instructions

- For the courtesy of other participants and to facilitate transcription of the meeting, please save all questions and comments until the end of the presentation
- **Phones will be muted during the presentation**

# Agenda

- Regulations, Orders, and Procedures
- Formulas
- Base Charge and Rates Summary
- FY 2021 Proposed Base Charge
- Timeline
- Additional Resources

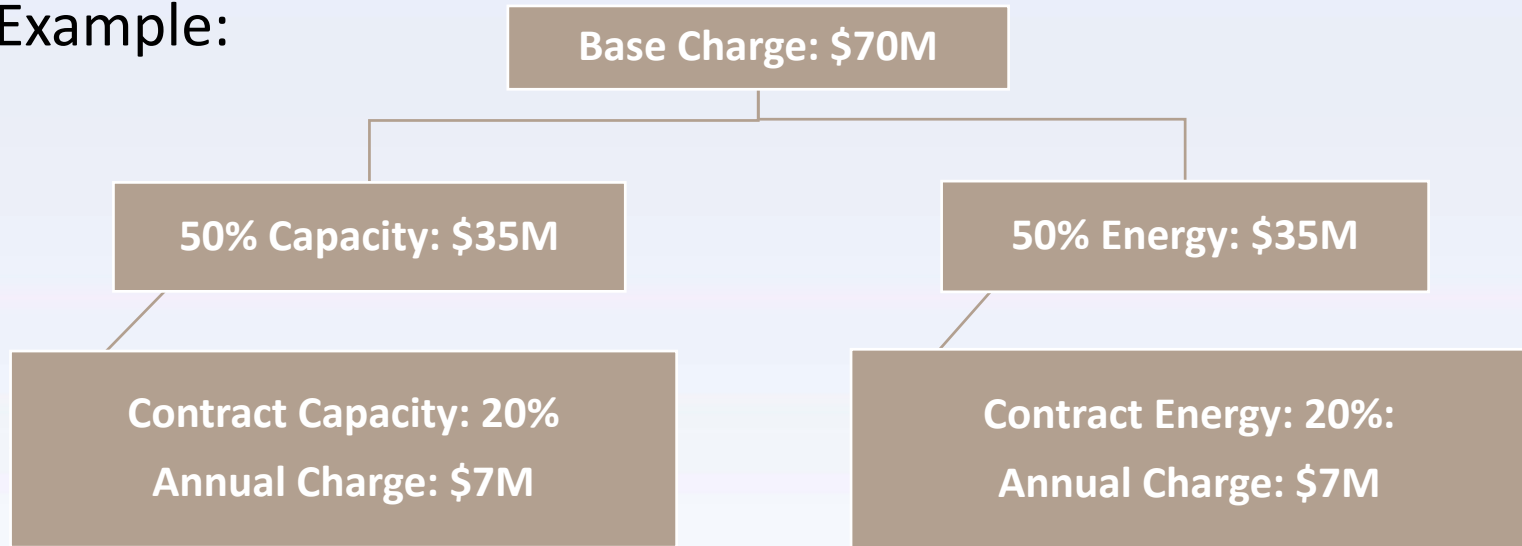
# Regulations, Orders, and Procedures

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**
- BCP Electric Service Contract and Amended and Restated Implementation Agreement

# Formulas

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



# Formulas

Base Charge = Expenses – Carryover – Non-power Revenue

Composite Rate = Base Charge / Energy Projection

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

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

- Rates are for informational purposes only

# Base Charge and Rates Summary

	FY 2020	FY 2021	Mid-Year	Change	%
	Base Charge	Proposed	Update		
Base Charge	\$66,419,402	\$65,443,472	\$ (162,608)	\$(975,930)	-1.47%
Energy Projection (MWh)	3,673,800	3,663,593	180,145	(10,207)	-0.28%
Composite Rate (Mills/kWh)	18.08	\$ 17.86	(0.97)	-0.22	-1.22%
Energy Rate (Mills/kWh)	9.04	8.93	(0.49)	-0.11	-1.22%
Capacity Projection (kW)	1,584,583	1,600,583	16,000	16,000	1.01%
Capacity Rate (\$/kW-Mo)	\$ 1.75	\$ 1.70	\$ (0.03)	\$ (0.05)	-2.86%

- Fiscal Year (FY) 2021 Proposed includes the Final Ten Year Operating Plan (TYOP) and mid-year review updates
- Mid-year update includes changes since the TYOP
- Composite, energy, and capacity projections are from the second draft of the Master Schedule. Finalized projections are updated on June 1st
- Rates are for informational purposes only

# Ongoing Updates

- Due to the COVID-19 pandemic, the Hoover Dam Visitor Center was closed. This is adversely affecting non-power revenue projections for FY 2020 and FY 2021.
- In response, Bureau of Reclamation (Reclamation) plans to reduce their FY 2020 budget equal to the loss in non-power revenue. This is currently estimated to be \$8M.
- For FY 2021, non-power revenue is decreasing by \$4M due to expected reductions in visitor services revenue. Reclamation reduced their budget by \$4M to account for the loss in revenue.
- Prior year carryover increased \$163K; FY 2019 non-power revenue was not previously included



# FY 2021 Updated Base Charge

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Updates	Change	%
<b>Bureau of Reclamation</b>					
O&M	\$ 58,463,000	\$ 55,290,000	\$ (5,754,500)	\$ (3,173,000)	
Replacements	4,384,000	7,790,500	1,754,500	3,406,500	
Visitor Services	9,529,000	9,570,000	-	41,000	
Payments to States	600,000	600,000	-	-	
Principal and Interest	977,548	977,548	-	-	
Post-Retirement Benefits	1,751,851	1,947,257	-	195,406	
	<b>75,705,399</b>	<b>76,175,305</b>	<b>(4,000,000)</b>	<b>469,906</b>	<b>1%</b>
<b>Western Area Power Administration</b>					
O&M	8,307,206	7,915,289	-	(391,917)	
Replacements	208,000	202,584	-	(5,416)	
Post Retirement Benefits	230,308	254,455	-	24,147	
Interest	24,922	28,441	-	3,519	
	<b>8,770,436</b>	<b>8,400,769</b>	<b>-</b>	<b>(369,667)</b>	<b>-4%</b>
<b>Total Expense</b>	<b>84,475,835</b>	<b>84,576,074</b>	<b>(4,000,000)</b>	<b>100,239</b>	<b>0%</b>
<b>Prior Year Carryover</b>	<b>1,295,141</b>	<b>4,306,524</b>	<b>162,608</b>	<b>3,011,383</b>	<b>233%</b>
<b>Non-power Revenue</b>	<b>16,761,292</b>	<b>14,826,078</b>	<b>(4,000,000)</b>	<b>(1,935,214)</b>	<b>-12%</b>
<b>Base Charge</b>	<b>\$ 66,419,402</b>	<b>\$ 65,443,472</b>	<b>\$ (162,608)</b>	<b>\$ (975,930)</b>	<b>-1%</b>

# Reclamation O&M

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Updates	Change	%
<b>Bureau of Reclamation</b>					
Operations	\$ 8,425,000	\$ 7,877,000	\$ -	\$ (548,000)	-7%
Maintenance	17,278,000	18,520,000	-	\$ 1,242,000	7%
A&GE	22,643,000	24,143,000	-	\$ 1,500,000	7%
Extraordinary Maintenance	10,117,000	4,750,000	(5,754,500)	\$ (5,367,000)	-53%
<b>O&amp;M</b>	<b>\$ 58,463,000</b>	<b>\$ 55,290,000</b>	<b>\$ (5,754,500)</b>	<b>\$ (3,173,000)</b>	<b>-5%</b>

- Reclamation's operations costs are decreasing \$548K for FY 2021
  - Determined Hoover Operation Controllers support Parker/Davis Dams; budget was reduced by \$700K
  - Increases in salaries cost, water scheduling, and regional support partially offset budget decreases

# FY 2021 Proposed

- Reclamation's maintenance budget is increasing \$1.2M
  - Salaries increase account for approximately \$750K
  - Maintenance staff charging towards maintenance accounts for \$530K increase
    - Reduced support towards extraordinary maintenance and replacement projects
- Reclamation's A&GE budget is increasing \$1.5M
  - A&GE includes area manager, compliance and regulatory, engineering, management services, and security budgets
  - Salaries increase account for approximately \$900K
  - Services costs are increasing by \$380K primarily due to the K-9 explosive services contract

# Reclamation O&M

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Update	Change	%
<b>Bureau of Reclamation</b>					
Hoover Facilities Fire Code Compliance Upgrades	\$ 100,000	\$ -	\$ -		
N1 Turbine Pit Area Machining	325,000	-	-		
Erosion Repair	480,000	250,000	250,000		
Paradox Valve Repair	925,000	-	-		
Generator Life Extension	3,357,000	-	-		
Visitor Center - Exhibit Level Refurbishment*	150,000	20,000	-		
Monument Plaza Restoration*	150,000	20,000	-		
N3 Rotor Repair	250,000	-	(857,000)		
Tail Bays Stop Loss Coating	270,000	160,000	(160,000)		
Crane Inspection and Repair	650,000	250,000	(400,000)		
Fire Piping Plan	760,000	100,000	(400,000)		
Power Plant Piping Management Plan	950,000	400,000	(400,000)		
Generator Step-Up Transformers Maintenance	1,750,000	-	(500,000)		
Butterfly Valve Recoating	-	-	(187,500)		
Partial Discharge Monitors	-	-	(500,000)		
N3 Stator Re-wedge	-	800,000	-		
Rock Fall Mitigation	-	-	(500,000)		
Penstock Lateral Tunnels - Safety Doors Refurbishment	-	200,000	(550,000)		
Penstocks and Lateral Spot Coating	-	2,100,000	(2,000,000)		
N7 Break Ring	-	450,000	450,000		
<b>Extraordinary Maintenance</b>	<b>\$ 10,117,000</b>	<b>\$ 4,750,000</b>	<b>\$ (5,754,500)</b>	<b>\$ (5,367,000)</b>	<b>-53%</b>

# Reclamation O&M

- Reclamation's TYOP extraordinary maintenance (RAX) budget was \$10.5M; a \$388K increase over FY 2020
- In response to the pandemic, Reclamation reduced their RAX budget to \$4.8M by moving \$5.8M in project costs to future years

# Reclamation Replacements

	FY 2020 Base Charge	FY 2021 Update	Mid-Year Update	Change	%
<b>Bureau of Reclamation</b>					
Elevator Motor and Controller Replacement	\$ 100,000	\$ -	\$ -		
Governor Oil Pump Replacement	120,000	-	-		
Replacement Wastewater Treatment Facility	170,000	-	-		
Segmented Girdle Bridge Joint Replacement	350,000	-	-		
Rebuild and Replace Generator Coolers	528,000	454,000	(100,000)		
A9 Wicket Gates and Facing Plates	750,000	1,550,000	-		
Cylinder Gate Stem Evaluation and Replacement	1,750,000	3,650,000	3,150,000		
480-Volt Switchgear Replacement	250,000	1,804,500	(515,500)		
Flow Meter Replacement	172,000	172,000	-		
UCM Life Cycle Replacement	30,000	30,000	(30,000)		
Hazardous Noise Abatement Plan	164,000	50,000	-		
Central Section HVAC Replacement	-	80,000	-		
Water Plant and Waste Water Plant Controls	-	-	(250,000)		
Control Center Renovation	-	-	(500,000)		
<b>Replacements</b>	<b>\$ 4,384,000</b>	<b>\$ 7,790,500</b>	<b>\$ 1,754,500</b>	<b>\$ 3,406,500</b>	<b>78%</b>

# Reclamation Replacements

- Reclamation's replacements budget in the TYOP was \$6M; a \$1.6M increase over FY 2020
- In response to the pandemic, Reclamation reduced its RAX budget and increased its replacements budget an additional \$1.8M to \$7.8M

# Reclamation Other Expenses

	FY 2020 Base Charge	FY 2021 Update	Mid-Year Update	Change	%
<b>Bureau of Reclamation</b>					
Visitor Services	\$ 9,529,000	\$ 9,570,000	\$ -	\$ 41,000	0.4%
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 is remaining relatively steady
- Payment to States is static from year-to-year
- Principal and Interest is remaining unchanged as well – payoff in 2037



# Reclamation PRB

		FY 2020 Base Charge	FY 2021 Update	Mid-Year Update	Change	%
<b>Bureau of Reclamation</b>						
Actual - 2014	\$	1,453,998	\$ -	\$ -		
Actual - 2015		1,750,556	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	-		
<b>Post-Retirement Benefits (PRB)</b>	<b>\$</b>	<b>1,751,851</b>	<b>\$ 1,947,257</b>	<b>\$ -</b>	<b>\$ 195,406</b>	<b>11%</b>

- PRB are imputed retirement, health insurance, and life insurance costs
- Forecasted PRB are based on a 5-year average of recent actuals
- FY 2021 PRB increased by \$195K due to higher FY 2018 and FY 2019 actuals

# WAPA O&M

	FY 2020 Base Charge	FY 2021 Update	Mid-Year Update	Change	%
<b>Western Area Power Administration</b>					
Transmission Line Maintenance	\$ 305,287	\$ 179,536	\$ -		
Communication Systems Support	308,873	396,653	-		
Safety Costs	141,527	226,848	-		
Phoenix Service Center Costs	548,479	481,120	-		
Substation Maintenance	1,187,038	984,812	-		
<b>Facility Expense</b>	<b>2,491,204</b>	<b>2,268,969</b>	-	<b>(222,235)</b>	<b>-9%</b>
Power Billing/Collecting	217,564	258,495	-		
System Operations and Load Dispatching	2,892,526	2,832,401	-		
Transmission/Engineering Studies	91,824	146,363	-		
Conservation and Renewable Energy	52,085	22,619	-		
Financial Management Costs	136,235	75,529	-		
Power Marketing Costs	1,769,989	1,577,224	-		
Multiproject Costs	560,931	638,841	-		
Depreciation	94,848	94,848	-		
<b>Systemwide Expense</b>	<b>5,816,002</b>	<b>5,646,320</b>	-	<b>(169,682)</b>	<b>-3%</b>
<b>O&amp;M</b>	<b>\$ 8,307,206</b>	<b>\$ 7,915,289</b>	-	<b>\$ (391,917)</b>	<b>-5%</b>

# WAPA O&M

- WAPA's O&M budget is decreasing by \$392K
  - Facility expenses decreased \$222K
    - Transmission line maintenance decreased \$126K due to cyclical work requirements being performed on other power systems
    - Annual contingency funds of \$100K were eliminated starting in FY 2021
  - Systemwide expenses decreased primarily in the power marketing budget activity by \$193K
    - Cyclical work requirements are being performed on other power systems

# WAPA Replacements

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Update	Change	%
<b>Western Area Power Administration</b>					
Hoover Channel Bank Equipment Replacement	\$ 208,000	\$ -	\$ -		
DACS Replacement	-	202,584	-		
<b>Replacements</b>	<b>\$ 208,000</b>	<b>\$ 202,584</b>	<b>\$ -</b>	<b>\$ (5,416)</b>	<b>-3%</b>

- WAPA’s replacement budget varies based on the cost of each project
  - The budget has historically been \$400K
  - FY 2021 budget is decreasing by \$5K

# WAPA Other Expenses

		FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Update	Change	%
<b>Western Area Power Administration</b>						
Actual - 2014	\$	225,846	\$ -	\$ -		
Actual - 2015		180,918	180,918	-		
Actual - 2016		237,811	237,811	-		
Actual - 2017		196,001	196,001	-		
Actual - 2018		310,966	310,966	-		
Actual - 2019		-	346,577	-		
<b>Post-Retirement Benefits (PRB)</b>	<b>\$</b>	<b>230,308</b>	<b>\$ 254,455</b>	<b>\$ -</b>	<b>\$ 24,146</b>	<b>10%</b>

- PRB are imputed retirement, health insurance, and life insurance costs
- Forecasted PRB are based on a 5-year average of recent actuals
- FY 2021 PRB are increasing \$24K due to higher FY 2018 and FY 2019 actuals

# WAPA PRB

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Update	Change	%
<b>Western Area Power Administration</b>					
Actual - 2014	\$ 14,090	\$ -	\$ -		
Actual - 2015	23,270	23,270	-		
Actual - 2016	27,421	27,421	-		
Actual - 2017	28,549	28,549	-		
Actual - 2018	31,281	31,281	-		
Actual - 2019	-	31,684	-		
<b>Interest - CME &amp; Warehouse</b>	<b>\$ 24,922</b>	<b>\$ 28,441</b>	<b>\$ -</b>	<b>\$ 3,519</b>	<b>14%</b>

- Forecasted Capitalized Moveable Equipment (CME) and Warehouse Interest is based on a 5-year average of recent actuals
- FY 2021 interest is increasing \$4K due to higher FY 2018 and FY 2019 actuals

# Carryover and Revenue

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Update	Change	%
<b>Prior Year Carryover</b>	<b>\$ 1,295,141</b>	<b>\$ 4,306,524</b>	<b>\$ 162,608</b>	<b>\$ 3,011,383</b>	<b>233%</b>
Visitor Services	15,000,000	13,000,000	(4,000,000)	(2,000,000)	
Ancillary Services	1,211,292	1,276,078	-	64,786	
Water Sales Revenue	550,000	550,000	-	-	
<b>Non-power Revenue</b>	<b>\$ 16,761,292</b>	<b>\$ 14,826,078</b>	<b>\$ (4,000,000)</b>	<b>\$ (1,935,214)</b>	<b>-12%</b>

- Prior year carryover increased in FY 2021 and will offset expenses by \$4.3M
  - This increased \$163K to account for FY 2019 non-power revenue not previously included
- Non-power revenue decreased by \$2M from FY 2020
  - Visitor Services expected to increase \$2M due to the added commercial use authorization for road-based tours
  - Visitor services was reduced by \$4M due to projected decreases in tourism
  - WAPA ancillary services projections increased by \$64K due to higher historical averages

# FY 2021 Proposed Base Charge

	FY 2020 Base Charge	FY 2021 Proposed	Mid-Year Updates	Change	%
<b>Bureau of Reclamation</b>					
O&M	\$ 58,463,000	\$ 55,290,000	\$ (5,754,500)	\$ (3,173,000)	
Replacements	4,384,000	7,790,500	1,754,500	3,406,500	
Visitor Services	9,529,000	9,570,000	-	41,000	
Payments to States	600,000	600,000	-	-	
Principal and Interest	977,548	977,548	-	-	
Post-Retirement Benefits	1,751,851	1,947,257	-	195,406	
	<b>75,705,399</b>	<b>76,175,305</b>	<b>(4,000,000)</b>	<b>469,906</b>	<b>1%</b>
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	<b>8,770,436</b>	<b>8,400,769</b>	<b>-</b>	<b>(369,667)</b>	<b>-4%</b>
<b>Total Expense</b>	<b>84,475,835</b>	<b>84,576,074</b>	<b>(4,000,000)</b>	<b>100,239</b>	<b>0%</b>
<b>Prior Year Carryover</b>	<b>1,295,141</b>	<b>4,306,524</b>	<b>162,608</b>	<b>3,011,383</b>	<b>233%</b>
<b>Non-power Revenue</b>	<b>16,761,292</b>	<b>14,826,078</b>	<b>(4,000,000)</b>	<b>(1,935,214)</b>	<b>-12%</b>
<b>Base Charge</b>	<b>\$ 66,419,402</b>	<b>\$ 65,443,472</b>	<b>\$ (162,608)</b>	<b>\$ (975,930)</b>	<b>-1%</b>



# Timeline

April 6, 2020

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

May 6, 2020

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

June 5, 2020

**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

July 6, 2020

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

August 2020

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

October 1, 2020

Effective date of base charge and rates

# Additional Resources

## Western Area Power Administration

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## Bureau of Reclamation

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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>

# Additional Resources

Please send written comments for the official record to:

Tracey A. LeBeau

Senior Vice President and Desert Southwest Regional Manager

Mail: P.O. Box 6457, Phoenix, Arizona 85005

Email: [dswpwrmrk@wapa.gov](mailto:dswpwrmrk@wapa.gov)

# For Questions/Comments Today

## For those utilizing Webex:

- Click the hand icon to the right of your name in the participant window – this will alert us that you have a question and you will be recognized. After your question has been addressed, click the hand icon again to lower your hand.



- Type “question” or your specific question in the chat window. You will be recognized and can ask your question.

## For those calling in by phone:

- Unmute your phone by pressing \*6
- After your question has been addressed, mute your phone by pressing \*6