Age of Infrastructure

Colorado River Energy Distributors Association Board meeting
Aug. 26, 2021 | Virtual meeting

Tracey LeBeau
Administrator and CEO
Agenda for Requested Briefing Topics

Administrator's Update 10 minutes
• Tracey A. LeBeau – Administrator & Chief Executive Officer

Market Update 10 minutes
• J. Adam Arellano – VP of Power Marketing for CRSP MC

Budget Update 10 minutes
• Michael D. Peterson – Senior VP & Chief Financial Officer

Questions & Answers 15 minutes
Administrator’s Update

Tracey LeBeau
Administrator & Chief Executive Officer
August 26th, 2021
Meet with the Administrator customer meeting

Sept. 15, 2021

Time TBD

Format: WebEx

More information coming soon
Legislation updates

• Active discussions continuing with Administration, Congress, DOE & DOI leadership.

• Focus on infrastructure

• Infrastructure Investment and Jobs Act contains $500 million for PPW.

• No mention of selling PMAs or moving to market-based rates.
Drought

• Extreme drought affecting multiple projects across WAPA.

• Exceptionally bad water year.

• Internal meetings discussing PPW, rates & contract challenges & opportunities.

Lake Powell
Photo courtesy of AP
Purchase Power and Wheeling

• Source of funds to purchase power when hydropower cannot meet contractual power commitments.

• Use varies each year based on multiple factors.

• Receipts can be used for reserves up to amount specified by Congress in budget process.

• Constrained due to budget process decisions, high PPW costs and other reasons.

• Exploring short- and long-term alternatives.
Markets update

- SPP RTO expansion terms and conditions approved by SPP Board.
- Continuing negotiations on DC ties and federal participation.
- DSW expected to announce next steps soon.
Coronavirus response

• Responding to surge in delta variant.

• Mask mandate in federal facilities.

• Mission-essential travel only.

• Evaluating re-entry and post-pandemic workplace.
Leadership updates

• Lloyd Linke is Senior VP and UGP Regional Manager as of July 18.

• New Senior VP and RM Regional Manager Bart Barnhart started Aug. 1.

• Chief Strategy Officer position closed Aug. 11.

• TIP Manager position closed Aug. 13.

• DSW acting manager detail open.
Contact/follow me

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Glen Canyon Dam, BOR
Market Update

J. Adam Arellano
VP of Power Marketing for CRSP MC
August 26th, 2021
Rates

- WEIS FRN on track to be published by September 1, 2021.
  - $0.00/MWh for both on-peak and off-peak hours
- Working on WRP/CDP Seasonal Letter and FY 2022 Transmission Rates Letter. All Letters will be sent by the end of August.
WAPA-199

- Customer Comment Period closes August 31, 2021.
- Second Comment Period will begin when we have CRSS traces data and post the update to the web-site. Expected to be the first week in September, may not happen until after Labor Day. Comments submitted after August 31, 2021, that do not apply to purchased power/generation, may be deemed out of scope.
- We are looking at changes to scheduling WRF based on Customer Comment. If they are announced in the email notice for the second comment period, they can be commented on.
- Still on track for December 1, 2021, effective date.
Post WAPA-199

- Because there are so many variables (hydrology, purchase power, discussions with our customers) there is a likelihood of another rate action in the near future.
- We would fast track it and focus only on the changes to generation/purchased power and use the FY 2023 workplans.
- It would likely be a 2-year rate.
Markets update – timing and decision process

• SPP RTO - Next Steps

  Final approval from SPP Board in October 2021.
  • Terms and Conditions approved by Board in July, but some issues still tentative and being resolved.

  Planned Federal Register Notice in late 2021 on Decision Process and Proposal to Join.
  • Administrator will make decision to move forward.
  • Public Process to seek comments. Likely longer comment period that will extend over holiday season.

  If SPP RTO West parties determine to financially commit to the integration.
  • Execute a commitment agreement before April 15, 2022.
  • Estimated go-live date March 1, 2024.
Drought planning

- Colorado River experiencing 20+ years of drought
- Affecting multiple projects across WAPA
- February began DOI and UCRC meetings and coordination per CRSP & BOR Interagency Agreement
- August WAPA kicked off for regular internal meetings to discuss WAPA-wide drought discussions focusing on:
  - Purchase Power and Wheeling
  - Rate Impacts
  - Contract challenges
  - Messaging
  - Coordination with BOR as well
Purchase Power and Wheeling

- BOR began increasing releases under an emergency provision for Drought Operations in July 2021 and will continue through December 2021;

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- WAPA estimates these increased releases particularly in high load and energy price months, avoided $6.6 million in purchase power and wheeling expenses for WY21 and WY22
  - Of that - $700,000 is directly tied to an increase in power efficiency at Glen Canyon powerplant relative to the 3’ gain in storage at Lake Powell
<table>
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<th>Fiscal Year</th>
<th>Purchase Power Estimates</th>
<th>Basin Fund Projections</th>
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<tbody>
<tr>
<td>FY2021</td>
<td>$62.9M</td>
<td>FY21 EOY Balance - $82.6M</td>
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<td>FY2022</td>
<td>$103.8M</td>
<td>FY22 EOY Balance - $12.9M</td>
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<td>FY2023</td>
<td>$67.8M</td>
<td>FY23 EOY Balance - $(36.9M)</td>
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*With no CRC, Misc. Revenues, or Rate action*
Agenda for Requested Briefing Topics

Purchase Power & Wheeling
  • Overview & Financing Authorities
  • Funding Issues
  • Budget Actions & Progress

Infrastructure Investment & Jobs Act
  • 3 Forms of support sought: Drought Relief, Structural Resolution, Near-term Funding
  • FAQ’s regarding WAPA’s $500M reimbursable funding in Senate approved draft, House action pending

Environmental program funding

Targeted reserve balances strategy
  • Review Methodology
  • Update Calculation
Purchase Power & Wheeling (PPW) Overview

Essential to WAPA’s mission to market and deliver power

- Enables WAPA to meet its contractual obligations whenever real-time generation is insufficient
- Financed through Use of Receipt Authority and/or alternative financing
- All PPW costs incurred must be recovered with interest
- PPW program funds may only be used for PPW activities
- Reimbursability establishes net zero budget scoring
- [2019 DOE report to Congress](#)
PPW Financing Authorities

A. Use of Receipt Authority
   • Credited as offsetting collections

B. Alternative Financing
   • Net Billing and reimbursable

C. Revolving Fund (CRSP & Ft. Peck)
   • Up to $500k without OMB approval
   • Unlimited with OMB approval
   • Recovered from the Reclamation Fund
   • Repayment by customers within one year from when costs are incurred

D. Emergency Fund
   • Up to $500k without OMB approval
   • Unlimited with OMB approval
   • Recovered from the Reclamation Fund
   • Repayment by customers within one year from when costs are incurred
PPW Funding Issues

- Congress has been limiting PPW funding levels due to CBO scoring
- PPW Reserves at 53%
- Direction to transfer cash from revolving fund
- Drought and other supply/demand impacts

*2022 Enacted based on HEWD markup and recent CBO scoring*
Budget Actions & Progress

FY 2022 Budget
• WAPA appealed for an incremental $93M in PPW receipt authority due to Polar Vortex and extreme conditions
• Appeal was denied, Appropriators directed WAPA to seek funding from Infrastructure Investment & Jobs Act
• PPW Receipt Authority Markup ($170M House vs $316M Senate)

Infrastructure Investment & Jobs Act
• WAPA engaged Congressional Offices seeking drought relief, structural resolution and or near-term funding
  • Drought Relief
  • Authority to Capitalize PPW Costs Incurred, payable to Treasury over 10-years
  • PPW funding for FY 2022 and 2023
• WAPA was advised near-term funding was the only suitable request for the legislative vehicle
• $500M in reimbursable funding for WAPA’s PPW program was included in the Senate approved bill

FY 2023 Budget
• WAPA submitted FY 2023 budget request which included funding for all of WAPA’s operations
• By policy, specifics of the submission remain embargoed until DOE and Congress have approved WAPA’s budget levels

Future Legislative Requests
• Drought relief
• Pending items requiring funding/resolution
Infrastructure Investment & Jobs Act

What it does:
• Provides $500M in reimbursable appropriations for PPW costs incurred
• Provides immediate build up of depleted PPW reserves
• Provides funding for CROM and CRBPMF
• Reduces emphasis on receipt authority in the near-term
• Buys WAPA time to manage through drought and/or other adverse conditions

What it doesn’t do:
• Provide long-term, sustainable funding source for PPW
• Provide drought relief on a non-reimbursable basis
Frequently Asked Questions:

1. What is Purchase Power & Wheeling?
The Purchase Power & Wheeling program (PPW) enables WAPA to fulfill contractual obligations to customers whenever the generation output from the 57 hydroelectric plants for which WAPA markets and delivers power is insufficient. Without the PPW Program, WAPA could not fulfill all contractual power delivery requirements, placing power grid reliability, the recovery of annual costs and repayment of the Federal investment at risk.

2. What authorities govern WAPA’s PPW program?
As one of the nation’s four Power Marketing Administrations, WAPA’s mandate is to market and deliver power across 15 Western states. To support this mandate, WAPA has long term power marketing plans and power sale contracts with customers. These contracts obligate the WAPA to deliver power, and obligate WAPA’s customers to pay for that power. The revenue from the power sales provide for repayment of:
- Annual costs, and
- Federal capital investment with interest.

3. When did the PPW program begin?
2001. Prior to FY 2001, WAPA financed the majority expenses and investments through annual direct appropriations, including PPW expenses. Beginning with FY 2001, authority to utilize receipts credited as offsetting collections for PPW was provided to WAPA in lieu of annual direct appropriations.

4. How are WAPA’s PPW activities funded?
Beginning in 2001, the Congressional Budget Office (CBO), the Office of Management and Budget (OMB), and the House and Senate Budget Committees agreed to the principle that receipts for PPW are linked to expenditures for PPW in the budget. Subsequent to that agreement, the 2001 President’s Budget requested language and scoring to reflect that principle.

Public Law 106-377 provided flexibility to meet the highly variable PPW requirements by allowing WAPA to fund its PPW program through offsetting collections. As a result, receipts for PPW activities were reclassified as discretionary offsetting collections and were allowed to be spent on PPW activities, thereby reflecting the fact that PPW expenditures incur no net cost to the Federal Government and the authority provided for PPW would not score.

5. Is the $500 million of PPW funding from the Infrastructure Investment & Jobs Act different from PPW funding from receipt authority?
No. The $500 million of PPW funding from the Infrastructure Investment & Jobs Act provides WAPA reimbursable funding from the Treasury to cover PPW costs incurred. WAPA’s authority to hold in reserve power sales receipts that would otherwise be delivered to Treasury are by statute, reimbursable and may only be used for PPW costs incurred.
6. **What are PPW Reserves?**

During times of drought, the PPW program is relied upon and used more heavily. Because the PPW program is highly variable and subject to a number of factors beyond WAPA’s control, WAPA adopted a strategy to accumulate unobligated reserve balances (PPW Reserves) for its PPW programs to strengthen the ability to deliver on contractual power commitments to customers during unanticipated adverse conditions.

WAPA’s PPW Reserves strategy sets targets for PPW funding on hand to provide contingency capability. Without this contingency reserve, under adverse conditions WAPA would have to activate the Continuing Fund/Emergency Fund or request emergency supplemental appropriations to meet customer contractual obligations. Based on an Office of Management and Budget (OMB) policy, which has remained in effect since 2008, WAPA must recover from ratepayers all PPW costs funded through the Continuing Fund/Emergency Fund within one year from the time costs are incurred. Use of these funds would result in significant rate spikes for WAPA’s customers.

7. **What are the benefits of PPW Reserves?**

Consistent with legislative authorities, WAPA’s PPW Reserves provide substantial benefits to DOE and WAPA’s mission, WAPA’s customers, and the reliability and capability of the highly integrated wholesale power transmission grid as a whole. Key benefits include:

- Supports reliable power delivery during adverse energy markets and constrained hydropower generation conditions
- Bolsters long term capital repayment certainty by strengthening WAPA’s ability to fulfill contractual power delivery commitments to customers
- Provides improved rate stability for WAPA customers
- Reduces potential for litigation associated with breach of long-term power sales contracts
- Supports continuation of critical WAPA and generating agency capital projects that rely on alternative financing. Absent PPW Reserves, during periods of drought or other adverse conditions, the ability of the customers to advance additional funds for critical capital projects will be constrained by an immediate need to address the volatile PPW funding needs.

8. **What can PPW funding be used for?**

The authority to use offsetting collections in annual appropriation language provides for PPW funding up to a capped amount at no cost to the Federal Government by crediting collections to WAPA’s expenditure accounts. The appropriation language:

- Limits the purpose of the PPW offsetting collections to fund only PPW costs incurred
- Limits the amount of the offsetting collections available for PPW (i.e., up to)
- Provides that the spending authority from PPW offsetting collections do not expire (i.e., to remain available until expended). Receipt authority for offsetting collections in excess of amounts matched with cash remains unused and expires at the end of the fiscal year.

9. **Are PPW costs incurred reimbursable or non-reimbursable?**

Since inception, the full cost of the PPW program has been and continues to be included in WAPA’s rate-setting process. All costs of the PPW program, including interest, are borne by the power customers, at no long-term cost to the Federal Government.
Issue: Uncertain Funding for Purchase Power and Wheeling (PPW)

• PPW reserves at 53% of target and declining due to drought conditions
• Inability to fully restore reserves under existing authorities
  • FY 2023 PPW receipt authority limitations prevents replenishment
  • Emergency funding mechanism not a solution due to limited capital access ($500K) and maximum 1 year repayment term
• CBO will likely score FY 2023 PPW request by $100M
  • FY 2023 request is insufficient to rebuild reserve at requested level
  • May also be insufficient to cover PPW needs during drought
• Drought in the West threatens the majority of WAPA’s footprint
  • Colorado River Storage Project currently running deficit as drought persists
  • Fund will be depleted by end of FY 2023
• WAPA has the support of its customers to secure a sustainable funding source to meet its PPW needs, but currently lacks sufficient authority

Solution Requested: Authority to Capitalize PPW costs incurred over 10 years:

• Sustainable funding for PPW expenses, which have historically averaged $250M per year, to ensure reliability during adverse conditions
• Moderates financial volatility of rate spikes to non-profit customers and communities
• Avoids annual PPW scoring challenges which increase likelihood of underfunding
• Delivers net-zero budget impact to Treasury – all amounts expended will be recovered from ratepayers within the current year, or capitalized and recovered within 10 years with interest (no change from existing full-cost recovery mandate for PPW)
$21.4M Transfer to Treasury Request

Issue: Operating Conditions do not Support Mandated $21.4M Transfer to Treasury by Colorado River Basin Power Marketing Fund (CRBPMF)

• Colorado River in “continuing drought” since 2000
• CRBPMF reserves at 40% of target and declining due to challenged hydrology
• Lake Powell levels triggered drought ops, nearing minimum power pool elevation
• BOR estimates 10% probability of Lake Powell “Dead Pool” in FY 2022, 30% in FY 2023
• From current elevation, it would take ~20 years of average inflow to return to ~full
• Revolving fund (CRBPMF) self-contained and limited to internally generated cash flow

Solution Requested: Lift the Mandated $21.4M Transfer to Treasury

• Consistent with the FY 2023 column of the President’s FY 2022 Budget, no transfer is included in WAPAs FY 2023 request
• Until normal hydro conditions return, and Colorado River Basin Fund reserves are restored, positive net revenues are not projected to be available to facilitate near-term returns to Treasury
Reserve Balances Strategy

PPW Program is highly variable
- Energy market conditions
- Generation and transmission system constraints
- Reservoir storage levels and drought conditions
- Downstream flow restrictions (flooding, environmental activities, health/safety, irrigation, recreation, navigation)

Balances provide sufficient cash on hand to respond to adverse conditions
- PPW strategy – retain 3 years estimated funding during drought
- CROM Target - $393M
- CRBPMF Target - $85M
Targeted Reserve Balances Methodology

Formula established in 2016

- Highest 3-year cumulative actual amount of net energy needed to meet Pick-Sloan Program’s contractual energy obligations
- Net energy price/MWh set at a mid-point energy price between the price of energy paid for purchasing energy during the actual drought period, and the current on-peak energy prices.
- Included an estimated offset for the Pick-Sloan drought rate adder
- Total calculation provides for all WAPA CROM

Refresh options/considerations

- Updating market price point
  - Does not require update to Strategy
  - Adds between $41M (FY 2020) to $522M (FY 2021) to reserve
  - Subject to change
- Revisiting shortfall estimates
- Stacking CROM systems onto Pick-Sloan
  - Requires update to Strategy
  - Adds $123M to reserve ($393M vs $516M)

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Thank you for your time.