Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

IT Technical Support
For WAPA Attendees – WITCC@wapa.gov or 720-962-7111 or 720-962-7066
For Non-WAPA Attendees – Tony Henriquez at 801-524-6388
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 – 11:05</td>
<td>Welcome and Introductions</td>
<td>Steve Johnson, Senior Vice President and CRSP Manager</td>
</tr>
<tr>
<td>11:05 – 11:30</td>
<td>Adjusting, Responding, Serving</td>
<td>Mark Gabriel, Administrator and Chief Executive Officer</td>
</tr>
<tr>
<td>11:30 – 12:00</td>
<td>Information Technology Update</td>
<td>Mike Montoya, Senior Vice President and WAPA CIO</td>
</tr>
<tr>
<td>12:00 – 12:20</td>
<td>CRSP &amp; DSW One Transmission Rate Exploration</td>
<td>Brent Osiek, Program and Regulatory Advisor</td>
</tr>
<tr>
<td>12:20 – 12:40</td>
<td>Western Energy Imbalance Service Update</td>
<td>Amy Cutler, WEIS Project Manager</td>
</tr>
<tr>
<td>12:40 – 1:00</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>1:00 – 1:20</td>
<td>Fish Biology Update</td>
<td>Derek Fryer, Fish Biologist</td>
</tr>
<tr>
<td>1:20 – 1:45</td>
<td>CRSP Financial Update</td>
<td>Lisa O’Brien, Financial Program Analyst</td>
</tr>
<tr>
<td>1:45 – 2:30</td>
<td>Contracts and Rates Update</td>
<td>Timothy Kutz, Contracts Specialist, Thomas Hackett, CRSP Rates Manager</td>
</tr>
<tr>
<td>2:30 – 3:00</td>
<td>Questions and Closing</td>
<td>Tim Vigil, Vice President of Power Marketing</td>
</tr>
</tbody>
</table>
Engaging in a World of Change
2020 Accomplishments

- Common SCADA platform
- Integrated Communications Group
- State fact sheets and stat appendix
- Workplace violence prevention training
- WEIS/EIM on track
- Top safety performance
- Progress on workload planning
- Transmission vision moving ahead
- Exploring battery storage with BOR
- New Leadership Development Program
- Fiber report finished
- Four new Asset Management categories
- T-line and substation projects on track
- Received a clean audit
- Joined NWPP Reserve Sharing Agreement
- Leading DSW markets study
Mt. Lemmon Fire
Common SCADA System

- Does not equal one SCADA across WAPA
- OSI vendor selected
- Expected benefits
  - Improve operational flexibility
  - Increase reliability
  - Avoid future support and administrative costs due to cross training and supporting multiple contracts

**Project timeline**

<table>
<thead>
<tr>
<th>Year</th>
<th>Evaluation of products</th>
<th>Selection and procurement of product</th>
<th>Sierra Nevada implementation</th>
<th>Upper Great Plains implementation</th>
<th>Desert Southwest and Rocky Mountain implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2020-21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2021-22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2023-24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Continuous Process Improvement

CPI projects: $3,386,760
ex: DSW Purchase Power and Transmission Invoicing

WAPA Strategic Initiatives: $46,564,812
ex: OCF0 Automated Self-Service Invoicing Tool

Just Do It projects: $60,189,838
ex: CRSP North Fork to Rifle Steel Lattice Structure Repair

Operational Effectiveness Improvements
ex: Power System Change Management

WAPA cost savings and avoidance: $110,141,410 as of March 31, 2020
Combined Transmission Service Rate

• Includes CRSP & DSW transmission projects
• Beginning of collaborative process with customers
• Part of continuous improvement and increasing efficiency
BPS Executive Order

Prohibitions against certain equipment suppliers
Pre-qualify equipment suppliers
Evaluate current equipment
Establish procurement policy taskforce
Coronavirus Response

- Objective: Ensure continued mission success and protect employees
- Maximized telework
- Social distancing plans in place for Ops & Maintenance
- Collaborating with federal, state & local entities
- No visitors to WAPA facilities
- Starting Responsible Workplace Re-entry
  - Mission-critical travel & training only
  - Potential sequestration of operators in Phoenix
DSW COVID-19 Cases

• As of June 26, 2020
  – 2 positive cases
  – 2 active quarantine cases
  – 8 completed quarantine
Facility Testing Dashboard

- WAPA-wide Approvals:
  - 47 Updates in Progress
  - 2 WAPA Administrator Approval
  - 1 In New Phase
  - 1 Local Official Approval

- Upcoming Re-Evaluation: 4
- Upcoming Planning Change: 0
- Upcoming Phase Change: 2

- CRSP Approvals:
  - Updates in Progress: 2 (100%)
  - Updated by State

- DSW Approvals:
  - Updates in Progress: 7 (100%)
  - Updated by State

- HQ Approvals:
  - Updates in Progress: 2 (100%)
  - Updated by State

- RMR Approvals:
  - In New Phase: 1 (33.33%)
  - Updated by State

- SNR Approvals:
  - WAPA Administrator Approved: 1 (100%)
  - Updated by State

- UGP Approvals:
  - Updates in Progress: 22 (100%)
  - Updated by State
New Cyber Challenges

• Increased phishing and spam attempts
• Availability, speed and security of employees’ internet
• VPN reliability (10x increase in use)
• Doubled help desk tickets
• Third-party video conferencing software (e.g., Zoom)
Employee Well-being Survey

- 792 respondents
- ~83% able to fulfill work responsibilities
- Return to work
  - 46% not ready
  - 26.7% uncertain
  - 27% ready
- Major concerns on return to work
  - Exposure to virus/other people’s actions
  - Wearing masks for extended periods of time
Why are we joining EIS/EIM

- Change in generation mix
- Shortage of electric capacity
- Reduced bilateral trading partners
- Price volatility
- Increasingly dynamic system
WAPA’s Position on Markets

• No “one-size-fits-all” solution
• Stay strategic, proactive and aligned with our mission
• Create best possible outcome for our customers and WAPA
AM Almanac

• Protecting Assets in World of Change
• Support informed and strategic decision making
• Provides info on WAPA’s assets, performance data and trends
**WARE RESULTS: POSSIBLE FUTURE INVESTMENT NEEDS**

**Possible Transformer Investment: 10-Year Outlook: 2019 – 2028**

- CRSP MC: $14.7M
- DSW: $8.4M
- RM: $5.3M
- SN: $8.7M
- UGP: $38.6M

**Possible Circuit Breaker Investment: 10-Year Outlook: 2019 – 2028**

- CRSP MC: $11.7M
- DSW: $5.5M
- RM: $6.8M
- SN: $16.4M
- UGP: $6.4M

**Commentary:** The WARE tool projects asset replacement using current health and risk data for the current year, but only uses age data to extrapolate to future years. Mitigation options for assets that fall outside thresholds may include asset investment, replacement, additional maintenance or accepting the risk.
Fiber Update

• Awaiting final DOE approval
• Pilot project with three customers
• 60 days to complete pilot project plan
WIRED Participation

• Western Interstate and Regional Electricity Dialogue
• Focused on electricity markets in the West
  – Consider state’s clean energy standards & GHG accounting
  – Develop transmission and resource planning
  – Understand reliability and resilience issues
Personnel Updates

• Senior VP & acting CFO is Jody Sundsted.
  – CFO selection announcement expected soon.

• Acting Senior VP & UGP Regional Manager Lloyd Linke began in June.

• Senior VP & DSW Regional Manager is Tracey LeBeau.

• CAO job vacancy announcement posted.
Key Takeaways

We are committed to delivering on our mission. Industry is changing at a rapid pace, and we must keep up. Focus on optimizing existing technologies & assets.
Contact/Follow Me

Mark Gabriel
720.962.7705
gabriel@wapa.gov

wapa.gov
@westernareapowr
Mark Gabriel
WesternAreaPower1
westernareapower
wapa.gov
Office of the Chief Information Officer Operating Principles

Innovation
We model an innovative spirit and leverage technology that enables mission delivery amid a changing industry.

- Keeps WAPA relevant, resilient, agile

Partnership
We partner with stakeholders to provide strategic and technology solutions that create business value across the organization.

- Keeps WAPA connected, engaged, responsive

Stewardship
We value operational excellence and cost management in all we do, as we provide secure and reliable services.

- Keeps WAPA efficient, focused, responsible

Transparency
We operate transparently and make information available to promote trust and maintain integrity with all stakeholders.

- Keeps WAPA accessible, open, trustworthy
Delivering Strategic Business Value

- Solve business problems
- Provide business value
- Help identify efficiencies
- Align with 11/14 TAP initiatives
IT Business Philosophy

• Adhere to lifecycle replacement schedule
• Stay within two versions of current
• Keep up with upgrades, patching
• Use common tools
• Use commercial-off-the-shelf when possible
IT Priority Projects - Completed

- Network Modernization
- Records Management
- Reliability Coordinator services
IT Priority Projects - Ongoing

- Common SCADA vendor
- Modern Workplace – O365
- WEIS / EIM
IT’s Response to COVID-19

WAPA was well prepared thanks to recent strategies and investments
  • Network Modernization
  • VPN infrastructure
  • Laptop deployment strategy
  • Video conferencing
  • Collaboration toolsets
  • Secure Enclave Support Center
  • High Impact Intermediate System
  • Cloud strategy
  • Office 365
  • Zero Trust Networking
COVID Response: Lessons Learned

- Job aids
- Home internet / Wi-Fi capabilities
- Collaboration tools
- Home peripherals
- Engineering studies
- Phone service
- Cybersecurity
Cyber Security Vigilance

- Cyber Security policy
- Incident response plan
- Hygiene
- User training
- Leadership support

- Trending topic:
  Supply chain risk management
Questions
Combined Transmission Service Rate

Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

Brent Osiek
Program and Regulatory Advisor
Overview

- WAPA is investigating combining the transmission rates of the DSW and CRSP transmission systems.
- DSW has been working on this effort recently and also in the past. Involvement of CRSP is new.
- This effort began with discussions at the staff level.
- There are multiple aspects to this issue. We are beginning with understanding how rates would be impacted.
Overview

Revenue Requirements Will Still Be Separate

Combined Rate

CRSP

ED5-PVH

Intertie

Parker-Davis

Revenue Received to Each

CAP

CRSP

ED5-PVH

Intertie

Parker-Davis
Overview

Customer Collaboration

• We are just starting this process

• Customer Presentation on April 27th

• Customer meetings beginning in September

• Decision to move ahead (or not) in Dec./Jan.
Overview

Rate Convergence 2011-2020

Rate (\$/kW-mo.)

Overview

- Large service territory
- Eliminates pancaking
- Overlapping customers of CRSP and DSW
- Overlapping customers across DSW systems
CRSP Transmission System
DSW Transmission Systems

NEVADA

MARKETPLACE MEAD 500
VICTORVILLE, LUGO McCULLOUGH 500
McCULLOUGH 230 DAVIS SOUTHPOINT TOPOCK
DAVIS McCONNICO BLACK MESA PARKER 230
PARKER 161 GENE EAGLE EYE SUNVALLEY 500
BLYTHE NORTH GILA SWAZSYS (115KV SCHEDULING POINT/BUCKET)
KNOB GILA

ARIZONA

COLORADO RIVER STORAGE PROJECT PROJECT (CRSP)
PACIFIC NORTHWEST/PACIFIC SOUTHWEST INTERTIE PROJECT
PARKER-DAVIS PROJECT
CENTRAL ARIZONA PROJECT
NON FEDERAL

CRSP MC Meeting | 42
Combined Rate Principles

• Equitable/Fair pricing and treatment for all transmission users
• Recognize and preserve the value of Firm Electric Service
• Transparency in our processes, methods, and materials
• Minimize administrative burden
• Produce measurable results
Approach and Process

Three-phased approach. So far this has been internal only with rates staff.

1. Educate
   • Learn about the systems involved
   • Understand our collective needs/use

2. Explore
   • Identify issues, both positive and negative

3. Formulate
   • Develop, analyze, and assess combined rate designs
Education Phase

Currently capturing similarities/differences:

• Rate Setting Methodologies
  • Balloon, Fixed-Charge, Compound Interest
• Stated vs. Formula Rates
• Treatment of Depreciation
• Fiscal Year/Calendar Year
• Financial Data Sources
Tentative Timeline

May – August 2020
Preparations
• CRSP/DSW Education
• Create meeting materials
• Develop ratemaking tools
• Explore initial issues

September – January 2020/2021
Work Group Meetings
• Educate
• Explore
• Formulate

January – March 2021
Proposal
• Document Costs and Benefits
• Identify Options
• Seek Input
• Decide

March – October 2021
Formal Public Process
• Federal Register Notices
• Comment Period
• Public Forums
Resources

• Briefings, FAQ, notes, presentations, and other information is available at:
  https://www.wapa.gov/regions/DSW/Rates/Pages/CombinedTransRate.aspx

• FAQ will be updated throughout the process and we will keep you appraised of progress through periodic emails/contact

• Continue preparations for work group meetings later this year
Contact Information

onereate@wapa.gov

602-605-2442
801-524-5495

wapa.gov

@westernareapowr

WesternAreaPower1
Questions
WAPA Western Energy Imbalance Service (WEIS) Implementation
Project Update

Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

Amy Cutler
WEIS Project Manager
Purpose of Presentation

- Case for Change

- Timeline of the Project

- Current Status

- Upcoming Efforts
The Project Case for Change

• Our industry is going through massive change. There is a cost to WAPA and our customers if we fall behind.

• The operational assumptions WAPA uses to meet reliability needs and ancillary service requirements in some cases are no longer viable.

• Renewable generation in the United States is outgrowing coal-fired generation.

• We want to stay ahead of the curve in addressing energy imbalance requirements with a broader scope of available resources, respond to the changing electricity industry.

• If we do not, we won’t have the experience of our neighbors to explore options for a fully integrated market in the Western Interconnection in the future.

• With coal-fired generation being shut down, and a rise in renewable generation, WAPA will be in a difficult place if we do nothing.
What initial actions have been taken?

- Decision to join WEIS was made September 2019
- Project planning completed January 2020
- Protocols development with SPP completed March 2020
- Asset registration April 2020
- Onboarding May 2020
Project Timeline

October 2019 to April 2020

- Planning (Oct 2019)
- Asset Registration I (Oct 2019)
- WEIS Charter (Nov 2019)
- WEIS Tariff (Dec 2019)
- SPP WEIS training (Dec 2019)
- WJDA (Jan 2020)
- Asset Registration II and MMU data (Feb 2020)
- Protocols (March 2020)
- BA Service Agreement I (March 2020)
- OATT I (Mar 2020)
- AE Webinar (Mar 2020)
- Onboarding (April 2020)

May 2020 to February 2021

- Meter Agent (May 2020)
- WAPA OATT (May 2020)
- Software (June 2020)
- Model Review/ICCP (June 2020)
- Training (July 2020)
- BA Service Agreement (July 2020)
- WACM Rate (August 2020)
- Connection Test (Aug 20)
- More Training (Sept 20)
- Parallel testing (Nov 20)
- More Training (Dec 2020)
- WEIS goes live (Feb 21)
Customer Engagements

• BA service Agreement
  • 1\textsuperscript{st} customer meeting – April 15
  • 2\textsuperscript{nd} customer meeting – May 28
  • 3\textsuperscript{rd} customer meeting – July 8
  • Finalize Agreement – end of July

• OATT revision
  • OATT Revision notification of OATT Revision 20-02 posting June 1
  • Stakeholder meeting materials posting June 16
  • Stakeholder meeting June 22
  • Stakeholder comments due July 16

• Rate Schedule
  • Short-term rate schedules approved by January 1\textsuperscript{st} – bridge until completing formal public processes to update WACM, LAP, and CRSP rates to reflect WEIS participation

• Data exchange requirements
  • Information sessions after each BAs service Agreement meeting
Training

• Internal WAPA training
  • Phase I – short e-learning modules – June
  • Phase II – A day in the life of all functional areas - August
  • Phase III – Task based training – November

• SPP Training
  • WEIS UP – Past April
  • WEIS a day in the life of - July
  • Cutover training - November
Questions?

Amy Cutler 801-524-3386
CRSP Environmental Projects Update

Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

Derek Fryer
Fisheries Biologist
CRSP’s Environmental Programs
Upper Colorado River Basin

- Represent WAPA in the Upper Basin Recovery Program

- Coordinate fish flows with power marketing staff to ensure we plan and utilize hydropower efficiently

- Commitment to make data-driven decisions that lower the cost of environmental compliance
CRSP’s Environmental Programs
Upper Colorado River Basin

- Flaming Gorge Trout Fishery
  - Trout Electrofishing Surveys
  - Trout food base monitoring
  - UDWR Angler Survey

- Larval Razorback Sucker Study Plan Implementation

- New Flow and Temperature Recommendations (aka GREAT)
Flaming Gorge Trout Fishery

Develop and Maintain Relationships with fishing and recreational communities – Meet Spring and Fall

Developed research to better understand the effects of winter double peaking on trout and the aquatic insect community

Developed tools to assess changes – Trout Individual Based Model
Flaming Gorge Trout Fishery

Fish Population Trends - 2019

- 38% Rainbow Trout / 62% Brown Trout
- Fish densities have decreased, but size and condition has increased
- Brown Trout condition is up 20% and average length is up from 14.5 to 15.6 inches
Aquatic Insect Population Trends:

Annual densities in 2019 were the third highest measured in 26 years.

Mayflies and true flies have increased from the previous 2 years.

Invasive New Zealand Mud Snails have increased 10-fold over previous densities.
Flaming Gorge Angler Survey

UDWR 2018 Angler Survey

- Mar-Sept & Dec
- 3,100 Interviews
- Overall, Anglers were satisfied and likely to return

![Graph showing December catch rates and satisfaction ratings]
Green River – Larval Trigger Study
Plan Operations

Release flows from Flaming Gorge Dam of sufficient magnitude and duration fill wetland and floodplain habitats

• Hydrologic based (dry to wet years)

• Timed to match when larval fish are newly emerged and drifting – Light trapping

• Wetlands provide warmer water and rich food base to grow and survive
Green River – Larval Trigger Study Plan Operations (cont.)

Flaming Gorge Dam releases are coordinated to maximize larval razorback sucker entrainment – 2006 Record of Decision

Green River – Larval Trigger Study Plan Operations (cont.)

July 1, 2012 - fish mortality due to insufficient filling under extremely dry hydrologic conditions
Green River – Larval Razorback Sucker Operations
Green River – Larval Razorback Sucker Operations (cont.)
Green River – Larval Razorback Sucker Operations (cont.)

Results and Success

Wild age-1 suckers are being detected in managed wetlands indicating success from 2019

Wild age-0 larvae detected in wetland sites filled this spring

Many of managed and unmanaged wetland habitats were filled with water this spring
Green River – Larval Razorback Sucker Operations (cont.)

Green River Flows - Daily Average

LTSP Flow Objective:
14,000 CFS for 7 -14 days
18,600 CFS for 1 day

Razorback Sucker Larvae
First Detected 19 May
Report took many years to develop and includes a synthesis of all available information

Proposed Experiments
- LTSP Flows
- Elevated Summer Base Flows
- Smallmouth Bass Spike Flows
- *Changes in ramp down rates spring peak to base flow

*Non-Experimental change
Important elements:

- CRSS modeling of future scenarios 15-20 years (BOR) across a range of hydrologic conditions
- WAPA modeling (GT Max) and analysis of CRSS results
- Ability to evaluate experiments and the cost or benefit to hydropower
- Allows us to have input into implementation
- May allow an analysis of the probability of having extra water in the winter
CRSP’s Environmental Programs
Upper Colorado River Basin

• Look for win-win situations fish and hydropower
• Examples of success
  • Development of GT Max SuperLite model allows for more robust hydropower analyses and improved productivity of CRSP system operators
  • Preserved the ability to double peak out of Flaming Gorge during the winter months
  • Positive results from LTSP Operations
  • Continued relationship with river users and stakeholders
  • Positive Angler Survey, Trout Fishery and Food base
Reintroducing Humpback Chub Into Yampa River

• Proposed Downlisting and Species Status Assessment (SSA)
  • Near term extirpation risk of multiple populations is low
  • Populations in Grand Canyon are doing well
  • Most populations in Upper Basin steady
  • USFWS currently in the process to downlist

• Moving forward:
  • Reintroducing Chub to the Yampa River
  • Participating in Ad hoc team to determine recommendations of source populations and methods for reintroduction
Questions / Contact

Derek Fryer
Fryer@wapa.gov
(O) 970-252-3032
(M) 970-708-0591

https://www.coloradoriverrecovery.org/
https://www.usu.edu/buglab/
CRSP Finance Update

Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

Lisa O’Brien
Financial Program Analyst
CRSP Act and the Basin Fund

• Sec. 5(a) “There is hereby authorized a separate fund in the Treasury...”

• Sec. 5(c) "All revenues collected in connection with the operation of the Colorado River storage project and participating projects shall be credited to the Basin Fund, and shall be available, without further appropriation, for (1) defraying the costs of operation, maintenance, and replacements of, and emergency expenditures for, all facilities of the Colorado River storage project and participating projects...”

• Sec. 5(d) "Revenues in the Basin Fund in excess of operating needs shall be paid annually to the general fund of the Treasury..."
Basin Fund Cash Flow

Revenue comes in over time

- Power Rates
- Power Revenues

CRSP Basin Fund

Cash outlays are immediate

- BOR & WAPA O&M and RRAD's Funding
- MOA Funding
- Purchase Power for Firm Contracts
- Non-reimbursable activities
- Principal & interest repayment of Investment to the U.S. Treasury

Constructive Repayment
CRSP Operations, Operating Needs, and Cash Outlays

1. Annual Operations & Maintenance (O&M)
2. Replacement, Retirements, Additions, and Deletions (RRAD’s) – Capital projects (Amortized)
3. Memorandum of Agreement (MOA)
4. Purchase Power and Wheeling (PPW)
5. Emergency Expenditures
6. Returns to Treasury
Emergency Expenditures/Reserve Balance Strategy

• CRSP has a Reserve Balance Strategy for the Basin Fund to help ensure its financial stability

• It is to help mitigate the unique risks associated with a revolving fund, including, but not limited to:
  • Drought
  • Equipment failures
  • Unplanned and catastrophic events
  • Purchased power uncertainty

• Posted on WAPA’s “The Source” website
Returns to Treasury/Constructive Returns

![Graph showing returns over time](image-url)

- **Y-axis:** Millions
- **X-axis:** Years (2010 to 2019)

Legend:
- **Cash Return**
- **Constructive Return**
Basin Fund Hot Topics

• Expenses for environmental programs, booked as constructive returns, have increased over time, while repayment obligations have decreased.
  • Potential risk of draining the Basin Fund
  • This creates funding pressures for the non-reimbursable environmental programs

• Legislation and Administrative Guidance – WAPA works with and adheres to Legislation and Administrative guidance from Congress, Office of Management and Budget (OMB), and Department of Energy (DOE)
Basin Fund Balance

• Basin Fund Reserve Target Balance for FY2020
  • $174M

• Basin Fund Balance as of 6/29/2020
  • $130.7M

• End of Year Projected Balance with following assumptions
  • $134M
    • $21.4M transfer to Reclamation for non-reimbursable Environmental Programs (FEB)
    • $20.7M transfer from Reclamation for historical miscellaneous revenues (AUG)
    • $21.4M transfer to General Fund of the Treasury (SEP)

• $40M below target balance
Questions / Contacts

Tyler Nelson
Nelson@wapa.gov

Lisa O’Brien
Obrien@wapa.gov
CRSP Contracts

Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

Timothy Kutz
Contracts Specialist
2025 Firm Electric Service Contracts

• All Contracts have been sent out
• Have received 80 signed Contracts back
• 56 Contracts still outstanding
• Approximately 80% of resource under contract
• If you have not received your contract, or need us to send it again, please contact me
• New contracts take effect Oct. 1, 2024
• Effective through September 30, 2057
Benefit Crediting Program

- Designed to maximize the benefit to tribal customers of federal hydropower
- Agreements are between the tribe, the utility and WAPA
- Amounts are based on difference between the cost of WAPA power and the utility’s other power supplies
- Tribe’s allocation is then taken by the utility, who then pays the difference in order to benefit entire tribe
- Some of our tribal customers have established their own utilities, and take direct delivery of their CRSP allocation
Benefit Crediting Program (cont.)

- Some of our tribal customers have established their own utilities, and take direct delivery of their CRSP allocation
- The current agreements will expire with the Firm Electric Service Contracts at the end of FY2024
- We are preparing to discuss and work through the replacement agreements as the new 2025 FES Contracts are signed
Questions / Contacts

Adam Arellano
JArellano@wapa.gov

Tim Kutz
Kutz@WAPA.GOV
This is not a Public Information Forum

- Information mentioned that is tied to the current rate is already public and posted to the rate action website
- Extended Comment Period through July 10th
  - Email comments to: CRSPMC-rate-adj@wapa.gov
- Purchase Power and Cost Recovery Charge webinars should have been considered Public Meetings and announced by FRN
Rates Agenda

• Generation
• Status of Repayment
• Transmission Rate
• SLCA/IP Rates
• Future Rate Actions
• Next Steps
• Questions
Generation
SLCA/IP Energy Generated
Percentages Based on FY 2019 Data

<table>
<thead>
<tr>
<th>Generated - GWh</th>
<th>% of Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRSP</td>
<td>4,924,692</td>
</tr>
<tr>
<td>Glen Canyon</td>
<td>3,823,966</td>
</tr>
<tr>
<td>Flaming Gorge</td>
<td>504,190</td>
</tr>
<tr>
<td>Aspinall</td>
<td>596,537</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participating / Integrated Projects:</th>
<th>170,956</th>
<th>3.35%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolores</td>
<td>21,385</td>
<td>0.42%</td>
</tr>
<tr>
<td>Seedskadee</td>
<td>56,862</td>
<td>1.12%</td>
</tr>
<tr>
<td>Collbran</td>
<td>45,007</td>
<td>0.88%</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>47,702</td>
<td>0.94%</td>
</tr>
</tbody>
</table>

Total Generation: 5,095,648 100.00%
### SLCA/IP Energy Generated

#### 5 Year Average per Project

<table>
<thead>
<tr>
<th>Project</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>5yr Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glen Canyon</td>
<td>3,863,803</td>
<td>4,016,226</td>
<td>3,969,625</td>
<td>4,050,661</td>
<td>3,823,966</td>
<td>3,944,856</td>
</tr>
<tr>
<td>Flaming Gorge</td>
<td>504,135</td>
<td>495,226</td>
<td>781,596</td>
<td>628,820</td>
<td>504,190</td>
<td>582,793</td>
</tr>
<tr>
<td>Aspinall</td>
<td>721,475</td>
<td>755,470</td>
<td>708,253</td>
<td>868,491</td>
<td>596,537</td>
<td>730,045</td>
</tr>
<tr>
<td>CRSP:</td>
<td>5,089,414</td>
<td>5,266,922</td>
<td>5,459,474</td>
<td>5,547,972</td>
<td>4,924,692</td>
<td>5,257,695</td>
</tr>
<tr>
<td>Dolores</td>
<td>21,119</td>
<td>22,923</td>
<td>23,200</td>
<td>13,875</td>
<td>21,385</td>
<td>20,501</td>
</tr>
<tr>
<td>Seedskadee</td>
<td>75,559</td>
<td>51,886</td>
<td>31,918</td>
<td>66,662</td>
<td>56,862</td>
<td>56,577</td>
</tr>
<tr>
<td>Collbran</td>
<td>39,248</td>
<td>41,069</td>
<td>37,760</td>
<td>22,796</td>
<td>45,007</td>
<td>37,176</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>37,642</td>
<td>43,433</td>
<td>45,218</td>
<td>39,524</td>
<td>47,702</td>
<td>42,704</td>
</tr>
<tr>
<td>Total Generation:</td>
<td>5,262,981</td>
<td>5,426,234</td>
<td>5,597,570</td>
<td>5,690,830</td>
<td>5,095,648</td>
<td>5,414,653</td>
</tr>
</tbody>
</table>

**Percent of 5 Yr Avg:**

- 2015: 97.20%
- 2016: 100.21%
- 2017: 103.38%
- 2018: 105.10%
- 2019: 94.11%
- 2020: 99.54%

**Note:** Current year estimate based on monthly year to date generation comparison to 5yr averages
## SLCA/IP Energy Generated

### 10 Year Historical (GWh)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Collbran</th>
<th>CRSP</th>
<th>Dolores</th>
<th>Rio Grande</th>
<th>Seedskadee</th>
<th>Grand Total</th>
<th>Percent of Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>39,254</td>
<td>4,796,914</td>
<td>19,461</td>
<td>67,489</td>
<td>36,347</td>
<td>4,959,466</td>
<td>92.6%</td>
</tr>
<tr>
<td>2011</td>
<td>49,599</td>
<td>7,223,614</td>
<td>22,242</td>
<td>33,883</td>
<td>55,107</td>
<td>7,384,445</td>
<td>137.9%</td>
</tr>
<tr>
<td>2012</td>
<td>37,227</td>
<td>5,495,989</td>
<td>20,804</td>
<td>28,861</td>
<td>56,818</td>
<td>5,639,699</td>
<td>105.3%</td>
</tr>
<tr>
<td>2013</td>
<td>13,850</td>
<td>4,244,867</td>
<td>10,047</td>
<td>9,377</td>
<td>35,222</td>
<td>4,313,363</td>
<td>80.5%</td>
</tr>
<tr>
<td>2014</td>
<td>43,754</td>
<td>4,059,817</td>
<td>21,365</td>
<td>12,768</td>
<td>58,588</td>
<td>4,196,292</td>
<td>78.3%</td>
</tr>
<tr>
<td>2015</td>
<td>39,248</td>
<td>5,089,414</td>
<td>21,119</td>
<td>37,642</td>
<td>75,559</td>
<td>5,262,981</td>
<td>98.3%</td>
</tr>
<tr>
<td>2016</td>
<td>41,069</td>
<td>5,266,922</td>
<td>22,923</td>
<td>43,433</td>
<td>51,886</td>
<td>5,426,234</td>
<td>101.3%</td>
</tr>
<tr>
<td>2017</td>
<td>37,760</td>
<td>5,459,474</td>
<td>23,200</td>
<td>45,218</td>
<td>31,918</td>
<td>5,597,570</td>
<td>104.5%</td>
</tr>
<tr>
<td>2018</td>
<td>22,796</td>
<td>5,547,972</td>
<td>13,875</td>
<td>39,524</td>
<td>66,662</td>
<td>5,690,830</td>
<td>106.2%</td>
</tr>
<tr>
<td>2019</td>
<td>45,007</td>
<td>4,924,692</td>
<td>21,385</td>
<td>47,702</td>
<td>56,862</td>
<td>5,095,648</td>
<td>95.1%</td>
</tr>
<tr>
<td><strong>10 Yr Average:</strong></td>
<td><strong>36,956</strong></td>
<td><strong>5,210,968</strong></td>
<td><strong>19,642</strong></td>
<td><strong>36,590</strong></td>
<td><strong>52,497</strong></td>
<td><strong>5,356,653</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**Western Area Power Administration**

CRSP MC Meeting | 99
SLCA/IP Energy Generated

10 Year Historical (GWh)
Status of Repayment
Rates Revenue vs Basin Fund Cash

- Return to Treasury
- Non Reimbursables
- Capital Purchases
- Capital Repayment
- Purchase Power
- Transmission Expenses
- Interest
- O & M
## Status of Repayment

### SLCA/IP Status of Repayment

**As of September 30, 2019**

<table>
<thead>
<tr>
<th>Project</th>
<th>FY2019 Investment ($thousand)</th>
<th>FY2019 Repaid ($thousand)</th>
<th>FY2019 % Repaid</th>
<th>FY2018 Investment ($thousand)</th>
<th>FY2018 Repaid ($thousand)</th>
<th>FY2018 % Repaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRSP (Power Only)</td>
<td>1,394,434</td>
<td>1,243,975</td>
<td>89.21%</td>
<td>1,374,515</td>
<td>1,205,178</td>
<td>87.68%</td>
</tr>
<tr>
<td>CRSP Irrigation/Aid</td>
<td>1,211,564</td>
<td>241,500</td>
<td>19.93%</td>
<td>1,174,515</td>
<td>208,792</td>
<td>17.78%</td>
</tr>
<tr>
<td>Collbran</td>
<td>27,463</td>
<td>23,320</td>
<td>84.91%</td>
<td>27,023</td>
<td>23,191</td>
<td>85.82%</td>
</tr>
<tr>
<td>Dolores</td>
<td>39,851</td>
<td>38,410</td>
<td>96.38%</td>
<td>38,986</td>
<td>38,167</td>
<td>97.90%</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>29,678</td>
<td>24,758</td>
<td>83.42%</td>
<td>29,651</td>
<td>24,758</td>
<td>83.50%</td>
</tr>
<tr>
<td>Seedskadee</td>
<td>12,398</td>
<td>9,882</td>
<td>79.71%</td>
<td>12,527</td>
<td>9,699</td>
<td>77.42%</td>
</tr>
</tbody>
</table>
Transmission Rate
Transmission Rates History

TRANSMISSION RATE

$/kW-mo

0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80

FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18 FY19 FY20 FY21

1.48 1.48 1.40 1.20 1.14 1.11 1.28 1.48 1.45 1.63 1.55 1.69

Fiscal Year

CRSP MC Meeting | 105
## FY2021 Transmission Update

### Firm Transmission Reservations (kW)

<table>
<thead>
<tr>
<th>Item</th>
<th>FY21 Rate</th>
<th>PY True-Up</th>
<th>FY21 Final Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Transmission Revenue Requirement</td>
<td>$86,894,976</td>
<td>$2,710,252</td>
<td>$89,605,228</td>
</tr>
<tr>
<td><strong>Transmission Revenue Credits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Firm/Short-Term Point-to-Point Service</td>
<td>$387,303</td>
<td>$187,181</td>
<td>$574,484</td>
</tr>
<tr>
<td>Scheduling and Dispatch Ancillary Service</td>
<td>$502,161</td>
<td>-</td>
<td>$502,161</td>
</tr>
<tr>
<td>Miscellaneous Revenue</td>
<td>$20,587</td>
<td>-</td>
<td>$20,587</td>
</tr>
<tr>
<td>Phase Shifter Revenue</td>
<td>$723,379</td>
<td>$(344,123)</td>
<td>$379,256</td>
</tr>
<tr>
<td>Provo River Project</td>
<td>$29,788</td>
<td>$(12)</td>
<td>$29,776</td>
</tr>
<tr>
<td>Exchange Contracts</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transformation</td>
<td>$197,500</td>
<td>-</td>
<td>$197,500</td>
</tr>
<tr>
<td><strong>Total Transmission Rev Credits</strong></td>
<td>$(1,860,718)</td>
<td>156,954</td>
<td>$(1,703,764)</td>
</tr>
<tr>
<td><strong>Net Annual Transmission Revenue Requirement</strong></td>
<td>$85,034,259</td>
<td>2,867,206</td>
<td>$87,901,465</td>
</tr>
</tbody>
</table>
FY2021 Transmission Update

<table>
<thead>
<tr>
<th>Item</th>
<th>FY21 Rate</th>
<th>PY True-Up</th>
<th>FY21 Final Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Annual Transmission Revenue Requirement</td>
<td>$85,034,259</td>
<td>$2,867,206</td>
<td>$87,901,465</td>
</tr>
<tr>
<td>Transmission System Load:</td>
<td>4,333,197</td>
<td>-</td>
<td>4,333,197</td>
</tr>
<tr>
<td>Firm Point-to-Point Transmission Rate in $/kW:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kW-year</td>
<td>$19.62</td>
<td>$20.29</td>
<td></td>
</tr>
<tr>
<td>kW-month</td>
<td>$1.635</td>
<td>$1.690</td>
<td></td>
</tr>
</tbody>
</table>

Primary Drivers of True-Up

- Increased Actual O&M cost led to higher percentage of fixed charge rate.
- Reduction in Transmission Credits, Primarily Phase Shifter Revenue & Non-Firm Transmission

Primary Drivers of Rate Increase

- Reduction in Transmission Load (APS/Pacificorp, Mean)
- Reduction in Transmission Credits, Primarily Phase Shifter Revenue & Non-Firm Transmission
SLCA/IP Rates
## History of SLIP Rates

<table>
<thead>
<tr>
<th>Date (CY)</th>
<th>Capacity $/kW</th>
<th>Energy mills/kWh</th>
<th>Composite mills/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>3.54</td>
<td>8.40</td>
<td>18.70</td>
</tr>
<tr>
<td>1995</td>
<td>3.83</td>
<td>8.90</td>
<td>20.17</td>
</tr>
<tr>
<td>1998</td>
<td>3.44</td>
<td>8.10</td>
<td>17.57</td>
</tr>
<tr>
<td>2002</td>
<td>4.04</td>
<td>9.50</td>
<td>20.72</td>
</tr>
<tr>
<td>2005</td>
<td>4.43</td>
<td>10.43</td>
<td>25.28</td>
</tr>
<tr>
<td><strong>Step 1</strong></td>
<td><strong>2008</strong></td>
<td><strong>11.06</strong></td>
<td><strong>26.80</strong></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td><strong>2009 (FY10)</strong></td>
<td><strong>12.19</strong></td>
<td><strong>29.62</strong></td>
</tr>
<tr>
<td>2015</td>
<td>5.18</td>
<td>12.19</td>
<td>29.42</td>
</tr>
</tbody>
</table>
Original Investments

• Repaid Original Investment on Aspinall FY2016

• Repaid Original Investment on Dolores FY2017
Glen Canyon Cost Reallocation

- Glen Canyon Cost Reallocation
  - Grand Canyon Protection Act of 1992
  - Cost Reallocation entered in FY2013 PRS
  - $25,775,772 Glen Canyon Dam multipurpose capital costs
  - $10,144,413 (37.8%) reduction in annual multipurpose OM&R FY 1999 – FY 2012
  - $136,000,000 in Interest recouped and applied to repayment of capital costs
## Original Apportionment

<table>
<thead>
<tr>
<th></th>
<th>Colorado</th>
<th>New Mexico</th>
<th>Utah</th>
<th>Wyoming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>46.0</td>
<td>17.0</td>
<td>21.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Values</td>
<td>$0.46</td>
<td>$0.17</td>
<td>$0.215</td>
<td>$0.155</td>
</tr>
<tr>
<td>Total</td>
<td>$2.17</td>
<td>$5.88</td>
<td>$4.65</td>
<td>$6.45</td>
</tr>
</tbody>
</table>

For every dollar spent out of Basin Fund:

|             | $0.46 | $0.17 | $0.215 | $0.155 |

Cost for every dollar spent in each state:

|             | $2.17 | $5.88 | $4.65  | $6.45  |

Vernal Unit Sample: $8,610,000  
Total: $40,046,512

Apportioned Amount to each State:

|             | $18,421,395 | $6,807,907 | $8,610,000 | $6,207,209 |
MOA 1

- Agreement between CREDA, Upper Basin States, Reclamation & WAPA to reduce Apportionment
- Revenues so apportioned to each State shall be used only for the repayment of construction costs of participating projects or parts of such projects in the State to which such revenues are apportioned and shall not be used for such purpose in any other State without the consent, as expressed through its legally constituted authority, of the State to which such revenues are apportioned.
- Further the purposes of CRSPA through application of those revenues to the costs of implementation of Projects recommended by the Upper Division States
  - $390M in Apportionment removed from PRS
  - $161M provided to Upper Basin States for projects
  - 2012-2025 average $11.5M per year
### Shared Apportionment

<table>
<thead>
<tr>
<th>State</th>
<th>Apportioned Amount to each State</th>
<th>For every dollar spent out of Basin Fund</th>
<th>Cost for every dollar spent in each state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>46.0</td>
<td>$0.46 (46.0%)</td>
<td>$1.00 (100%)</td>
</tr>
<tr>
<td>New Mexico</td>
<td>17.0</td>
<td>$0.17 (17.0%)</td>
<td>$1.00 (100%)</td>
</tr>
<tr>
<td>Utah</td>
<td>21.5</td>
<td>$0.215 (21.5%)</td>
<td>$1.00 (100%)</td>
</tr>
<tr>
<td>Wyoming</td>
<td>15.5</td>
<td>$0.155 (15.5%)</td>
<td>$1.00 (100%)</td>
</tr>
</tbody>
</table>

Vernal Unit Sample: $8,610,000

Total: $8,610,000

Apportioned Amount to each State

<table>
<thead>
<tr>
<th>State</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>$3,960,600</td>
</tr>
<tr>
<td>New Mexico</td>
<td>$1,463,700</td>
</tr>
<tr>
<td>Utah</td>
<td>$1,851,150</td>
</tr>
<tr>
<td>Wyoming</td>
<td>$1,334,550</td>
</tr>
</tbody>
</table>
MOA 2

- Reduces remaining apportionment
  - $323M in Apportionment removed from PRS
  - $187M provided to Upper Basin States for projects
  - $249M ($57.5M from MOA 1) to collect
  - 2021 -2037 average $14.4M per year
## Aid to Participating Projects Irrigation Repayment Obligations

**FY 2019 PRS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Colorado 46% Obligation W/Appor</th>
<th>New Mexico 17% Obligation W/Appor</th>
<th>Utah 21.5% Obligation W/Appor</th>
<th>Wyoming 15.5% Obligation W/Appor</th>
<th>Annual Obligation</th>
<th>Cumulative Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2,030</td>
<td>1,988</td>
<td>1,224</td>
<td>684</td>
<td>8,781</td>
<td>8,781</td>
</tr>
<tr>
<td>2020</td>
<td>3,190</td>
<td>1,086</td>
<td>6,391</td>
<td>991</td>
<td>19,586</td>
<td>13,195</td>
</tr>
<tr>
<td>2021</td>
<td>13,684</td>
<td>2,326</td>
<td>2,942</td>
<td>2,121</td>
<td>33,270</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33,270</td>
</tr>
<tr>
<td>2023</td>
<td>10,027</td>
<td>21,797</td>
<td>4,686</td>
<td>3,379</td>
<td>55,067</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55,067</td>
</tr>
<tr>
<td>2025</td>
<td>47,726</td>
<td>17,638</td>
<td>103,753</td>
<td>22,307</td>
<td>158,820</td>
<td></td>
</tr>
<tr>
<td>2029</td>
<td>5,482</td>
<td>3,038</td>
<td>3,842</td>
<td>12,387</td>
<td>17,869</td>
<td></td>
</tr>
<tr>
<td>2031</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>176,689</td>
</tr>
<tr>
<td>2032</td>
<td>3,486</td>
<td>7,578</td>
<td>1,288</td>
<td>1,629</td>
<td>7,578</td>
<td></td>
</tr>
<tr>
<td>2033</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>184,267</td>
</tr>
<tr>
<td>2034</td>
<td>2,289</td>
<td>846</td>
<td>4,977</td>
<td>1,070</td>
<td>4,977</td>
<td></td>
</tr>
<tr>
<td>2035</td>
<td>10,954</td>
<td>4,048</td>
<td>5,120</td>
<td>23,812</td>
<td>23,812</td>
<td></td>
</tr>
<tr>
<td>2036</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>213,056</td>
</tr>
<tr>
<td>2037</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>213,056</td>
</tr>
<tr>
<td>2038</td>
<td>50,454</td>
<td>23,209</td>
<td>8,577</td>
<td>10,848</td>
<td>50,454</td>
<td></td>
</tr>
<tr>
<td>2039</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>263,510</td>
</tr>
<tr>
<td>2040</td>
<td>5,146</td>
<td>875</td>
<td>1,106</td>
<td>798</td>
<td>5,146</td>
<td></td>
</tr>
<tr>
<td>2041</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>268,656</td>
</tr>
<tr>
<td>2042</td>
<td>1,905</td>
<td>324</td>
<td>410</td>
<td>295</td>
<td>1,905</td>
<td></td>
</tr>
<tr>
<td>2044</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>270,561</td>
</tr>
<tr>
<td>2045</td>
<td>101,807</td>
<td>46,831</td>
<td>17,307</td>
<td>21,889</td>
<td>101,807</td>
<td></td>
</tr>
<tr>
<td>2047</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>372,368</td>
</tr>
<tr>
<td>2048</td>
<td>78,521</td>
<td>36,120</td>
<td>13,349</td>
<td>16,882</td>
<td>78,521</td>
<td></td>
</tr>
<tr>
<td>2049</td>
<td>23,264</td>
<td>10,701</td>
<td>3,955</td>
<td>5,002</td>
<td>23,264</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>33,676</td>
<td>12,446</td>
<td>73,209</td>
<td>15,740</td>
<td>73,209</td>
<td></td>
</tr>
<tr>
<td>2051</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>547,362</td>
</tr>
<tr>
<td>2052</td>
<td>80,719</td>
<td>37,131</td>
<td>13,722</td>
<td>17,355</td>
<td>80,719</td>
<td></td>
</tr>
<tr>
<td>2053</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>628,081</td>
</tr>
<tr>
<td>2054</td>
<td>44,604</td>
<td>16,484</td>
<td>96,966</td>
<td>20,848</td>
<td>96,966</td>
<td></td>
</tr>
<tr>
<td>2055</td>
<td>6,691</td>
<td>2,473</td>
<td>14,545</td>
<td>3,127</td>
<td>14,545</td>
<td></td>
</tr>
<tr>
<td>2056</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>739,592</td>
</tr>
<tr>
<td>2057</td>
<td>22,703</td>
<td>16,019</td>
<td>5,920</td>
<td>12,121</td>
<td>34,824</td>
<td></td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th>Colorado Obligation</th>
<th>New Mexico Obligation</th>
<th>Utah Obligation</th>
<th>Wyoming Obligation</th>
<th>Annual Obligation</th>
<th>Cumulative Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>386,875</td>
<td>356,231</td>
<td>29,375</td>
<td>131,651</td>
<td>320,743</td>
<td>774,416</td>
</tr>
</tbody>
</table>
### Tentative Firm Power Rates (WAPA 190)

<table>
<thead>
<tr>
<th>Without MOA 2</th>
<th>With MOA 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective Oct. 1, 2020</strong></td>
<td><strong>Effective Oct. 1, 2020</strong></td>
</tr>
<tr>
<td><strong>Energy:</strong> 12.29 mills/kWh</td>
<td><strong>Energy:</strong> 11.43 mills/kWh</td>
</tr>
<tr>
<td><strong>Capacity:</strong> $5.22 kW/month</td>
<td><strong>Capacity:</strong> $4.85 kW/month</td>
</tr>
<tr>
<td><strong>Composite Rate:</strong> 29.37 mills/kWh</td>
<td><strong>Composite Rate:</strong> 27.46 mills/kWh</td>
</tr>
<tr>
<td><strong>Expires September 30, 2020</strong></td>
<td><strong>Expires September 30, 2020</strong></td>
</tr>
<tr>
<td><strong>Pinch Point Year 2029</strong></td>
<td><strong>Pinch Point Year 2038</strong></td>
</tr>
</tbody>
</table>
Future SLCA/IP FRNs
Future Rate Actions

• Moving to a calendar year implementation
  • Publish Proposal FRN in April instead of January
  • 90-day Customer Comment Period April – July instead of January – April
  • Provides sufficient time to complete Work Plan reviews pursuant to the 92 Agreement
  • Improves timing in relation to August CRSS Traces
CRSP Rates Next Steps

- Continue to post information to Rate Adjustment website. (CRC table with Real Customers)
- Review comments after closeout of extended comment period on July 10
- Notify customers of new rates by end of August
- FRNs for WEIS
  - Short-term Rate
  - Joint Dispatch Transmission Service
- Continue collaboration on DSW/WAPA OneRate
- Get some sleep then start building for Halloween
Questions / Contact

Thomas Hackett
Hackett@wapa.gov
Questions and Closing

Colorado River Storage Project Management Center
Annual Customer Meeting
June 30, 2020 | Virtual meeting

Tim Vigil
Vice President of Power Marketing