



Western
Area Power
Administration

Customer Meeting

Colorado River Storage Project Management Center

May 23, 2018





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**Welcome to the
CRSP Annual Customer Meeting
May 23, 2018
11:00 am – 3:00 pm**

The meeting will begin at **11:00 am MDT**

We have logged on early for connectivity purposes

Please stand-by until the meeting begins.

Please remember to keep your **phone muted** unless you have a question or comment.

Handout Materials

<http://www.wapa.gov/crsp/ratescrsp/default.htm>

CRSP-MC Annual Customer Meeting
May 23, 2018
11:00 am – 3:00 pm

Welcome and Introductions

Agenda

- 11:00 - 11:05 Welcome and Introductions
- 11:05 - 11:30 Mark A. Gabriel, Administrator and CEO
- 11:30 - 11:45 Hydrology Update and MCG Implementation
Crystal Dean, CRSP Project Manager
- 11:45 - 12:15 Dawn Roth Lindell, WAPA Acting COO & Senior VP
- 12:15 - 12:25 Break
- 12:25 - 12:40 Environmental Updates (Bug Flows, ESA Activities)
Craig Ellsworth, Biologist
- 12:40 - 1:05 Dennis Sullivan, WAPA CFO and Senior VP
- 1:05 - 1:15 Olmsted Update
Lyle Johnson, CRSP Contracts

Agenda (continued)

- 1:15 - 1:30 Mountain West Update - Plan Moving Forward
Steve Johnson, Senior Vice President and CRSP Manager
- 1:30 - 1:40 Break
- 1:40 - 2:00 PRS Software Update and OAM Update
Amy Cutler, CRSP Project Manager
- 2:00 - 2:45 Rate Update
Thomas Hackett/Tony Henriquez - CRSP Rates
- 2:45 - 3:00 Questions and Closing
Brent Osiek, CRSP Power Marketing Manager

Providing value amid a changing energy industry

Colorado River Storage Project Management Center
Annual customer meeting

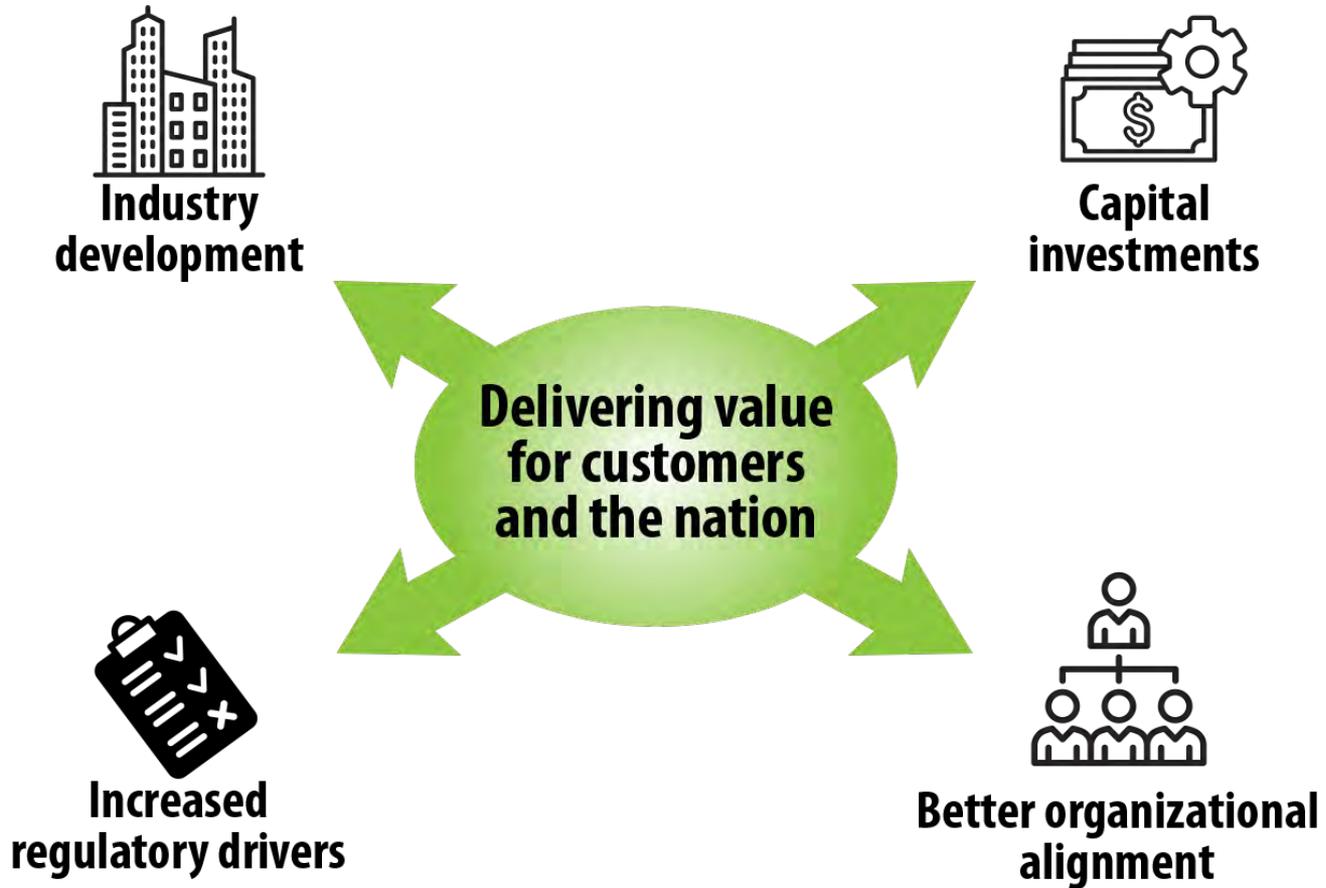
May 23, 2018 | Salt Lake City, UT

Mark A. Gabriel
Administrator and CEO

The value of WAPA



Value in all we do



Powerful partnerships

Transparency

Power
Repayment
Study

Markets

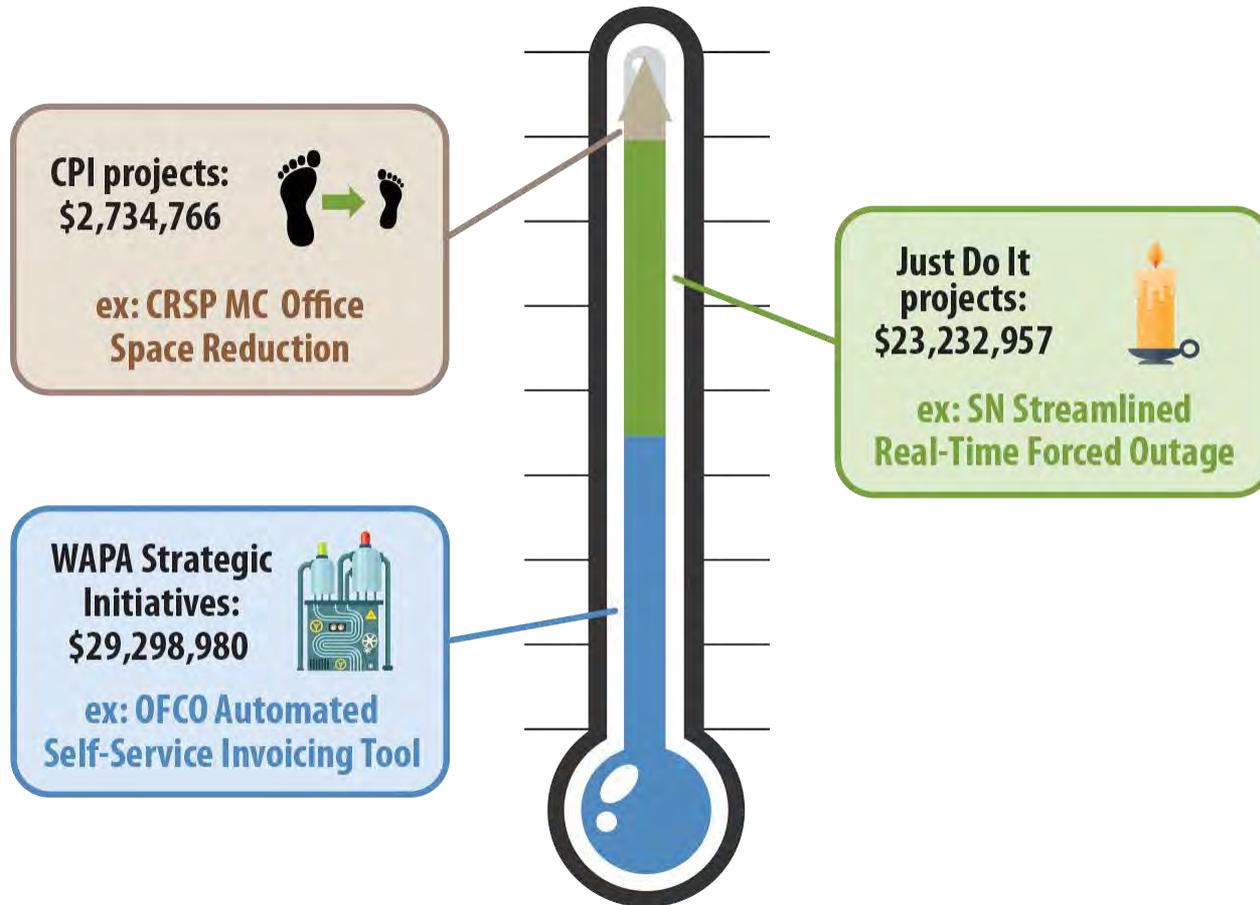


Rates as measure of success

- Over the past **two** years, rates have **decreased** for about **60%** of customers
 - Pick-Sloan Eastern Division
 - Loveland Area Projects
- After **nine** years of **flat** rates, we are considering a rate **decrease**
 - Salt Lake City Area/Integrated Projects



Cost containment



WAPA cost savings and avoidance: \$55,000,000+ as of March 31, 2018

Asset Management 2.0

Reliability Centered Maintenance

Maintenance established a process for collecting data points to monitor and report

As of March 31, 2018

Region	RCM %	2-Yr. Trend	RCM Ratio	2-Yr. Trend
WAPA	95.4%		10	
RMR	94.0%		9	
UGP	98.4%		13	
DSW	91.4%		7	
SNR	94.8%		24	

Physical security

- Continue to improve security posture
- 319/319 substation assessments completed FY 2017
- 75 second-round assessments to be completed in 2018
- 18 complete as of Q2 end



Core values

**Listen to understand,
speak with purpose**



Seek. Share. Partner.



**Be curious, learn more,
do better. Repeat.**



**Respect self, others
and environment.**



**Do what is right.
Do what is safe.**



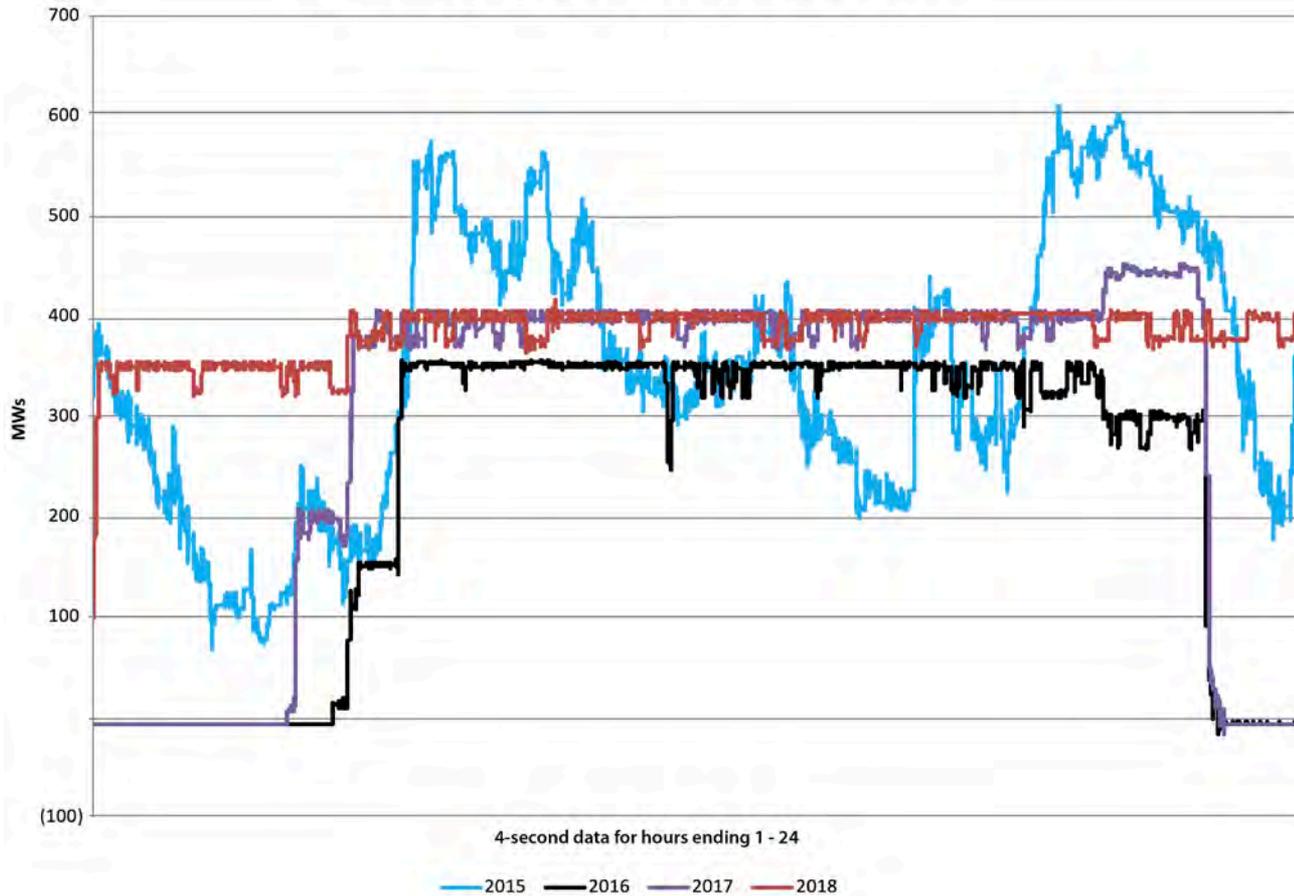
**Serve like your lights
depend on it.**

Change is upon us



Oahe generation

April 9th Comparison for Oahe Generation



Change brings challenges

- Intermittent resources
- Decreased hydro production
- More customer-side resources
- Changing markets



Economic challenge

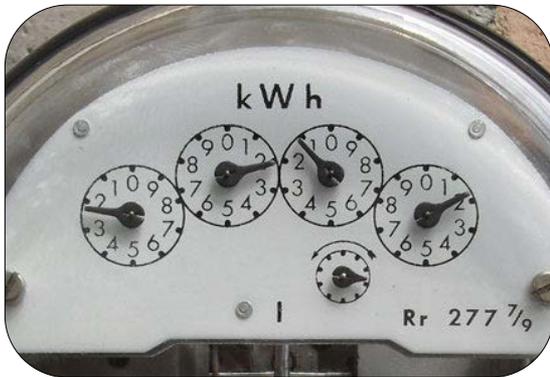
How can we manage in a
Twitter–centric world?



Societal changes



Radical thoughts



The kilowatt-hour
is dead

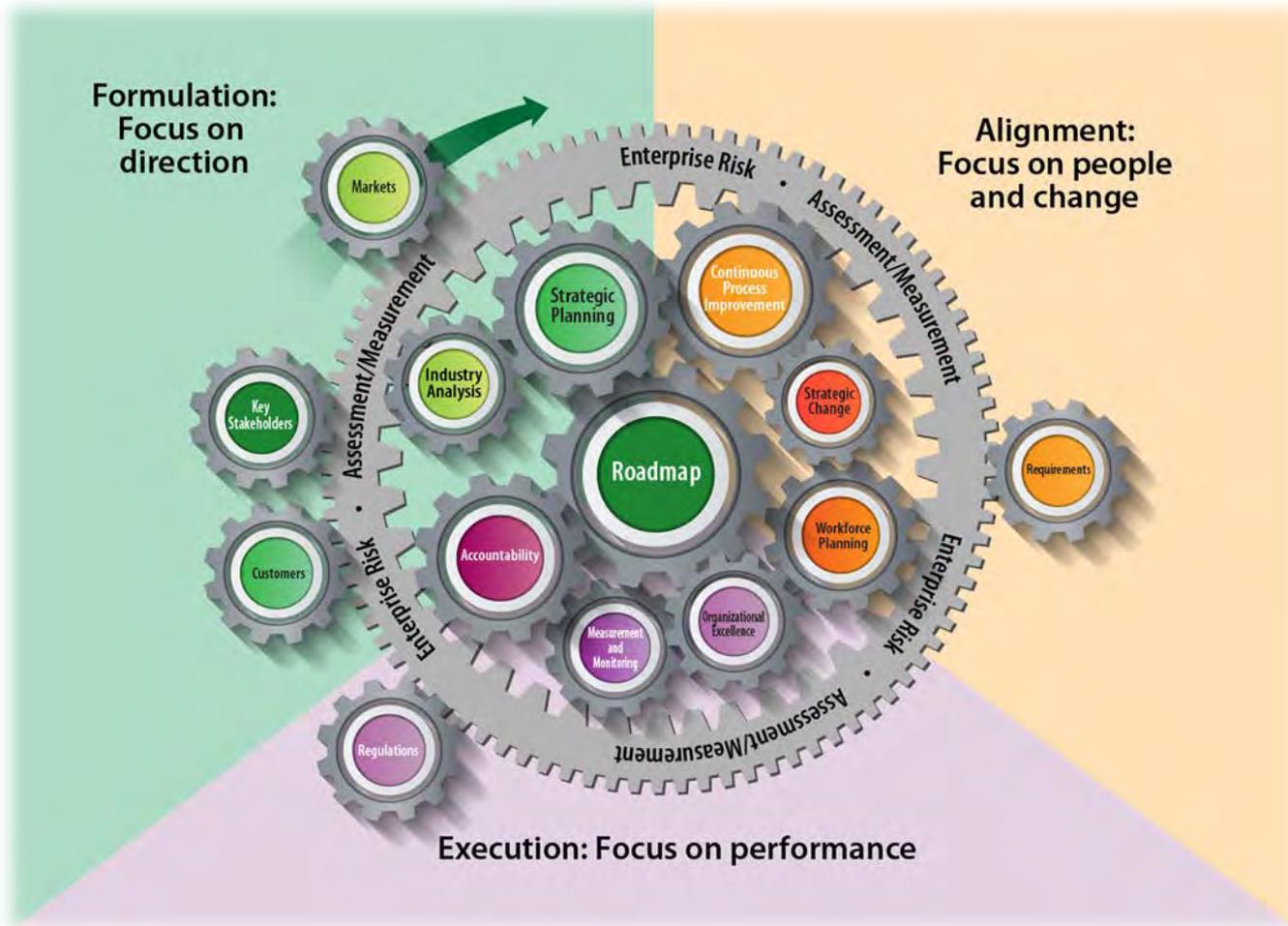


Time-of-purchase
vs. time-of-use



All-you-can-eat
energy

What are we doing about it?



Key takeaways

Focus on value and business excellence.
Be aware of industry trends and changes.
Continue delivering on mission.



Contact/follow me

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[@MarkAGabriel](https://twitter.com/MarkAGabriel)



[Mark Gabriel](https://www.linkedin.com/in/markgabriel)



[WesternAreaPower1](https://www.youtube.com/channel/UC...)



Hydrology and MCG Implementation



Chrystal Dean
CRSP-MC Project Manager

Hydrology by Project

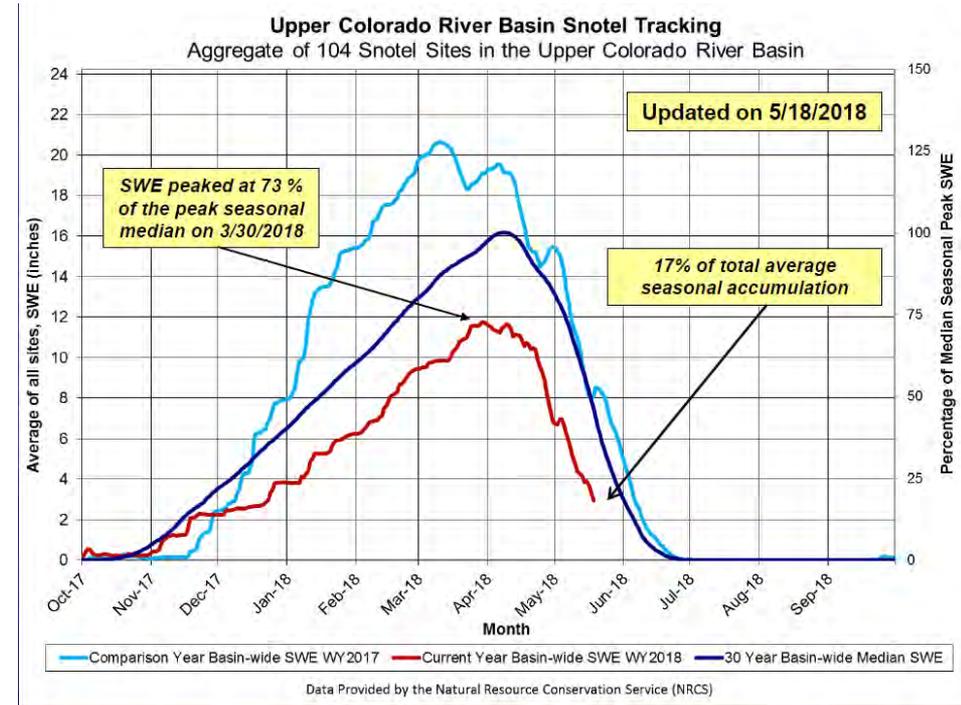
- Aspinall Unit
 - Blue Mesa April – July Official forecasted runoff 345,000 af which is 51% of average
 - Met Peak flow targets per the Black Canyon water right requirements on May 14th with a total release from Crystal powerplant of 2,050 cfs – no spill or bypass required
- Fontenelle
 - Above average snowpack in the basin resulted in an official runoff forecast of 980,000 af or 135% of average
 - Release expected to hit 6,000 cfs this week

Hydrology by Project

- Flaming Gorge
 - April – July Official runoff forecast 1.12 maf or 114% of average
 - On May 21st release from the dam began increasing to full powerplant capacity per the Larval Trigger Study Plan
 - Depending on Yampa river conditions, releases could increase to bypass

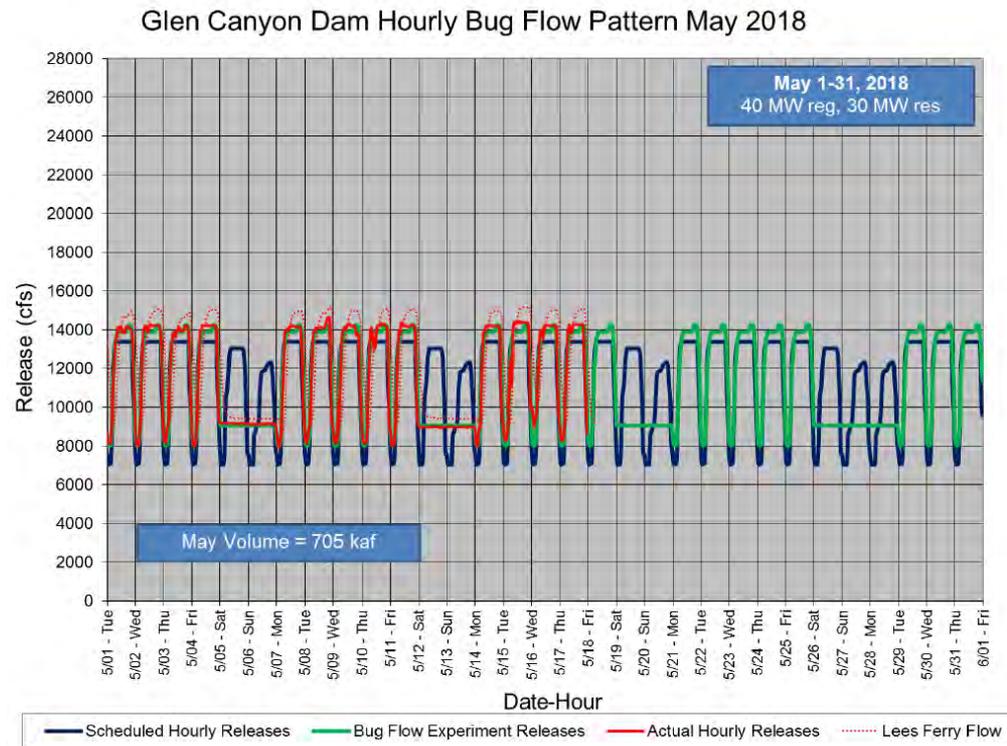
Hydrology by Project

- Glen Canyon
 - Most probable April-July runoff 3.0 maf or 35% of average
 - 9.0 maf releases projected for both WY18 and WY19
- End of CY18 Lake Powell elevation 3590.41' or 45%



Bug Flow Operations

- We've been operating under bug flow criteria since May 1st



MCG Software Project

- MCG selected as the software to replace TIGER
 - Currently used by UGP
- April 2018 On-site visit with MCG, WAPA IT and CRSP Staff
- Module development ongoing
- Begin copying MCG on e-tags so live data can begin pulling in to the new system
- Beginning November 2018 staged 'go live'

Questions?

Chrystal Dean
CRSP Project Manager

cdean@wapa.gov

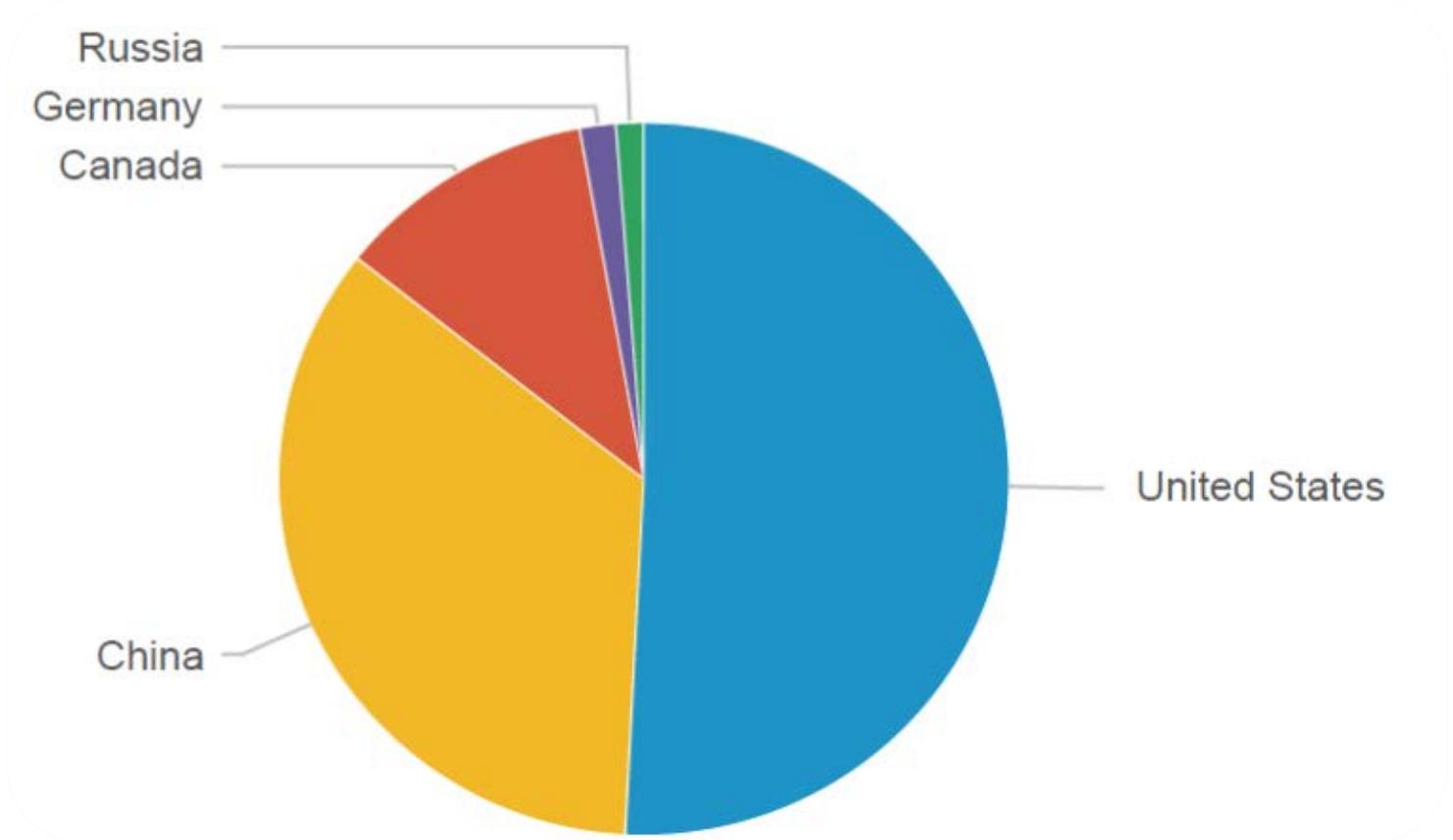
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Cyber Security update

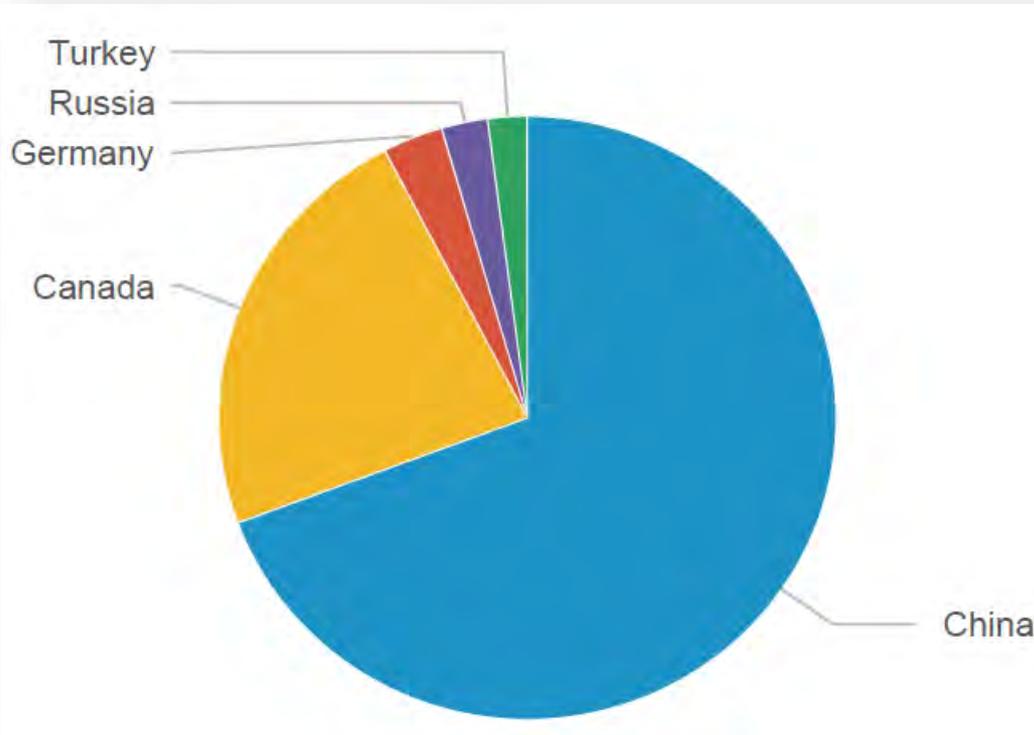


Dawn Roth-Lindell
WAPA's Acting COO and Senior VP

WAPA Blocks by Country for April 2018



WAPA Blocks by Country- April 2018 excluding U.S.



Source Geographic Country/Region	Count
United States	5,231,036
China	1,063,105
Canada	353,052
Germany	53,304
Russia	37,292
Turkey	31,696
United Kingdom	23,815
India	16,897
Netherlands	15,773
Republic of Korea	14,439
Republic of Lithuania	12,446
France	8,502
Hong Kong	7,222

Dragonfly 2.0



- What?
 - US cyber attack
 - Identified by DHS as Russian govt. hackers
 - Appear to be laying foundation for large scale US infrastructure attack
- How?
 - Since March 2016 – energy, nuclear, commercial, water, aviation, manufacturing
 - Accessed small commercial 3rd party networks that were less secure
 - Parts for generators, SW vendors
 - Spearphishing, Waterholing

- Source: "US accuses Russia of Cyber Attacks" reported on CNN.com on 3/17/2018

What can we learn?



- Stay abreast of these reports and run the released code to ensure you are not affected
- Limit user functions; limit number of administrator accounts
- Adopt multifactor authentication (implemented at WAPA 2015)
- Set a policy for complex passwords
- Anti-phishing campaign tool – continuous training –in place at WAPA since 2016

Source: Vox

What can we learn?

- Open attachments with extreme caution
 - Best not to trade Excel, Word documents
- Always think – this could happen to me.
- Be aware of social engineering – share or click with skepticism and caution
- Know before you open - Open attachments with extreme caution
 - Best not to trade Excel, Word documents
- Keep everything patched and updated
- Look for security indicators
 - https
 - Go directly to website – don't fill out email



ATT Cyber Aware

2017/18 Concerns- cyber



- Robert M Lee, CEO of Dragos
 - 5 dedicated teams targeting infrastructure in North America, 8 campaigns
 - ID'd malware targeting Schneider Electric's Triconex safety instrumented system
 - Estimated fewer than 500 people who are industrial control system cyber experts in US.

RT"Expert Sees 'Extreme Uptick" in Cyber Attacks on Utilities' by Rich Heidorn Jr. 2/19/2018

2017/18 Concerns - Cyber



- Social engineering – US election, media campaigns
- Internet of things - WAPA: 37 cameras with the default passwords
- Supply chain risk – WAPA – Cisco routers



2017/18 Concerns - cost

- Cost savings and cost avoidance post IT Evolution
- 2017: \$10,051,731.53 to Oct.
- 2016: \$18,099,621.36
- 2015: \$13,320,837
- Small and large
- Dollars spent on modernizing, cyber security tools, asset management tools, increasing compliance requirements



2017/18 Concerns - upgrades

- PRS
- Maximo
- Continued deployment of the Secure Enclave Support Center
- Asset management



Questions?



CRSP Environmental Projects Update



Craig Ellsworth
CRSP-MC Fisheries Biologist

Why are CRSP's Environmental and Resource Planning Programs so Important?

- Commitment to make data-driven decisions, lower the cost of environmental compliance
- Look for win-win situations
- 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 load follow out of Flaming Gorge during the winter months
 - LTEMP EIS alternative development

Green River

- Projects are focused on dam operations and their effects on habitat
 - Flow and temperature recommendations
 - Backwaters
 - Floodplains
 - Smallmouth bass control flows



Flaming Gorge

- Focus on trout fishery below Flaming Gorge
 - Trout IBM
 - Biannual trout monitoring
 - Food base monitoring
 - UDWR angler survey*



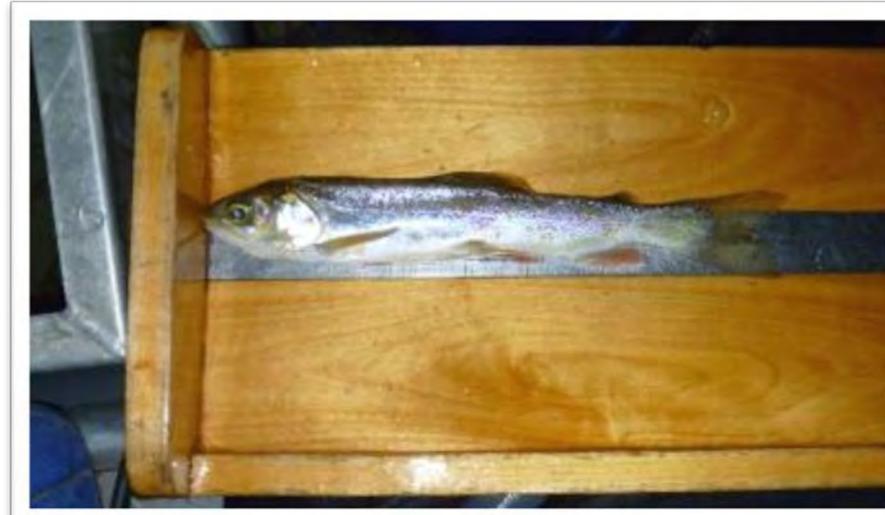
Glen Canyon

- LTEMP Experiments
 - Bugflow Experiment
 - Trout Management Flows
- Mechanical beach augmentation
 - Researching possible non-flow actions to stabilize campgrounds in Glen Canyon NRA
- Foodbase studies
 - (next slide)



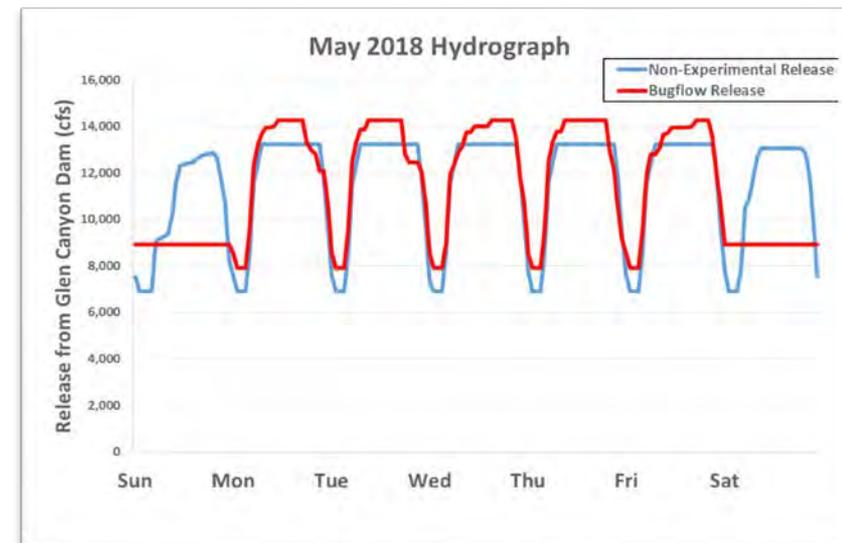
Foodbase studies

- Question: Do fluctuating flows limit foodbase production?
- Encourage a broader examination of what is affecting foodbase
 - Oviposition and desiccation study
 - Habitat availability studies
 - Workshop at Davis Dam-caddisfly (Laughlin, NV)



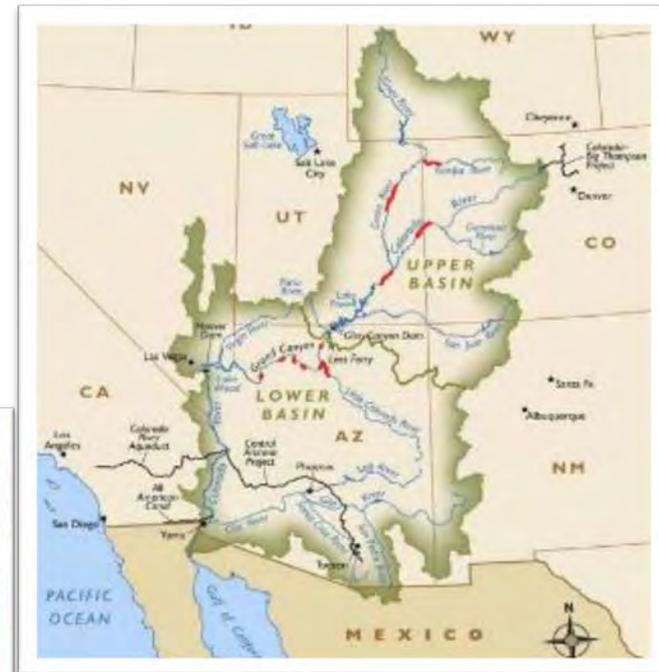
Bugflow Experiment

- Experiment
 - Lower steady flows on weekends will increase insect production.
 - Increased water volume for weekday releases
- Estimated cost FY18: \$335,000
- No capacity benefit in 2018



Humpback chub downlisting

- Species Status Assessment (SSA) and review
 - Near term extirpation risk of multiple populations is low
 - Populations in Grand Canyon are doing well
 - Most populations in Upper Basin steady
 - Downlist to threatened
- Moving forward:
 - Revise Recovery Plan
 - Translocations to Yampa



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CRSP-MC Customer meeting

Financial Update



Dennis R. Sullivan
WAPA CFO and Senior VP

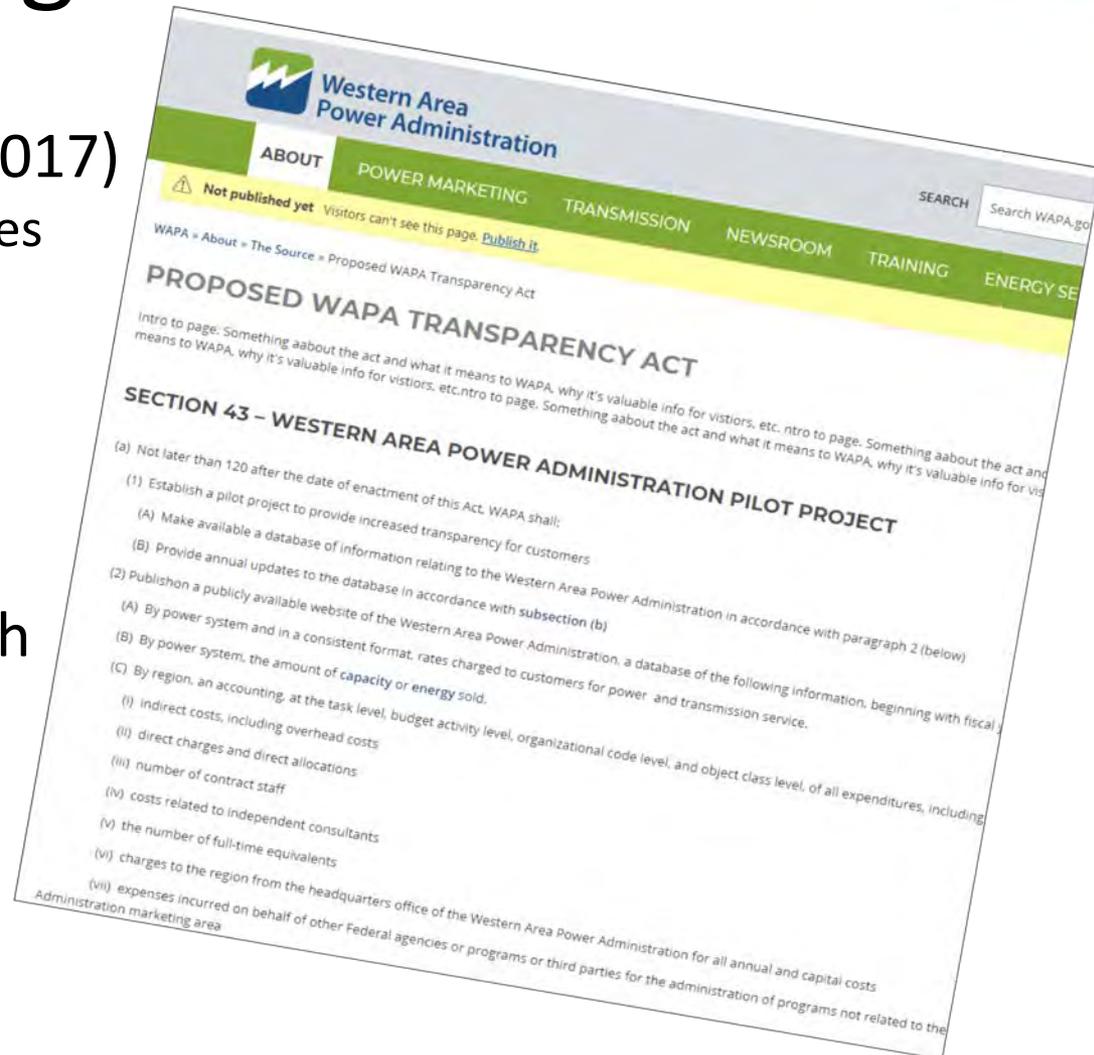
Transparency

- Created “The Source” in 2016
- Expanded financial data in May 2018
- Ongoing enhancements to capital and annual “work plan” reviews
- Programmatic insight



Expanding “The Source”

- What’s available (2008 – 2017)
 - Power and transmission rates
 - Energy sold
 - Expenditure detail
 - Unobligated balances
 - Annual summary report
 - “How-to” guide
- Worked in partnership with stakeholders
- Submit questions to TheSource@wapa.gov



Other hot topics

- Basin Fund environmental activities fund transfer
- FY 2019 House & Senate budget mark-up
- Inland Waterways Trust Fun



FY18 Budget Execution Pressures

- Administrator's budget guidance called for flat budget including no inflation
- Capital & Annual expense execution challenges
 - “Tiger” system replacement accelerated to support potential for MWTG/SPP implementation
 - Engineer retention incentives (now permanent pay increase)
 - NARA Records Management mandates and efficiencies
 - Cybersecurity/Network investments
 - IT support services contract consolidation and anticipated bill rates
 - Miscellaneous
- Mitigating through various mechanisms including
 - Reduced capital investment needs
 - Incremental funding of cross-FY contracts
 - Delayed hiring
 - Annual expense dollars under-executed in FY 2017
- Through April projecting ~\$3M over-execution in annual program direction by FYE compared to initial work plans

Contact/follow me

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SUPER BOWL LII



U.S. BANK STADIUM



41

PHILADELPHIA
Eagles

NICK FOLE:

28/43, 373 PASS YDS, 3 TD, INT

LeGARRETTE BLOUNT:

14 RUSH, 90 RUSH YDS, TD



33

NEW ENGLAND
Patriots

TOM BRADY:

28/48, 505 PASS YDS, 3 TD, FUM

CHRIS HOGAN:

6 REC, 128 YARDS, TD

FINAL



Olmsted Update



Lyle Johnson
CRSP-MC Contracts







Olmsted Power Marketing Plan

- Marketing Plan published October 11, 2017
- The Department of Interior will own the replacement Olmsted Powerplant.
- Central Utah Water Conservancy District operates
- WAPA is responsible for marketing the energy from the replacement Olmsted Powerplant, which should begin operation August 2018.
- Energy production will average 27,000 MWh/year.

Marketing Plan cont'd

- Marketing Area encompasses the following counties in Utah:
 - Davis, Morgan, Salt Lake, Summit, Utah, Wasatch, and Weber.
- Priority will be given to the Central Utah Water Conservancy District as the operator of the Olmsted Powerplant.
- WAPA will take into consideration all existing federal hydropower allocations
- Customers receive a percentage of annual production

Allocations

- FRN will be published soon
- 30 day comment period
- Final percentage allocations announced
- Contracts signed

Olmsted Rate Methodology

- Rate Order published May 7, 2018
- Olmsted Rate Meeting June 25, 2018
- Formula Rate methodology
 - Customers pay proportional share of the Project's allocable investment and total annual OM&R expenses in return for a proportional share of yearly marketable energy production.



Questions?

Lyle Johnson

CRSP-MC Contracts

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Mountain West Transmission Group Update

Steve Johnson – Senior Vice President
and CRSP Manager

What has happened?

- On April 20, 2018 Xcel Energy announced PSCo was no longer participating in the Mountain West Transmission Group and pursuing membership in SPP
- Since Xcel's announcement the other participants have been evaluating the impact of Xcel's departure
- No other entity has given formal notice of withdrawal
- WAPA and the remaining entities continue to evaluate their options and are working to determine if joining SPP without PSCo remains viable

What is next?

- WAPA and the remaining Parties continue to discuss the path forward
- Cost shifts and market benefits will be evaluated in more depth once footprint is known
- WAPA is committed to remaining a Mountain West Participant
- Will provide additional updates as analysis continues

Questions?

OAM Update



Amy Cutler – CRSP-MC Project Manager

What is OAM?

- OAM: WAPA's Organizational Approach to Markets
 - **An internal initiative**
 - Evaluates improvements to support operation in different markets
 - Increases our efficiency in serving our customers
- Why?
 - Markets are continuing to evolve – think RTOs and EIM
 - WAPA must be prepared to carry out its mission in the changing utility landscape

Note: This internal effort is separate from any WAPA market-related decisions.

Progress in 2017

WAPA's internal team:

- Developed a comprehensive internal recommendations report for 3 areas:
 - Operations
 - Energy Management and Marketing
 - Settlements Groups
- Decided to implement recommendations in two phases:
 - 12 actions for immediately implementation (within the next two years)
 - 10 actions to review later, depending on market participation

In the Coming Year - 2018

WAPA's internal team will work through the 12 actions, centered around:

- Organizational alignment
- Task alignment
- Better Knowledge Management for WAPA's Operation, Marketing, and Settlements functions

PRS Update

Power System Analysis (PSA) Software Interface

POWER REPAIRMENT STUDY
Western Area Power Administration
DOK CREEK PROJECT

Year	Flow Year	Total Revenue	Expenses					Capitalized Debt					Replacement					
			Operation & Maintenance Expense	Purchased Power/Net Expense	Provision for Depreciation	Other Expense	Interest Expense	Total Expense	Flow Year Add	Revenue Less Annual Expenses	Principal Payment	Unpaid Balance	Monthly Payment	Computed Balance	Principal Payment	Unpaid Balance	Monthly Payment	
2010	2010	1,210,972	443,524	0	0	2,818,302	2,818,302	0	506,268	0	0	0	0	0	0	0	0	0
2011	2011	1,180,946	460,046	0	0	2,808,808	2,808,808	0	483,044	0	0	0	0	0	0	0	0	0
2012	2012	1,220,971	429,971	0	0	2,799,310	2,799,310	0	1,048,295	0	0	0	0	0	0	0	0	0
2013	2013	1,241,441	462,740	0	0	2,789,812	2,789,812	0	1,048,295	0	0	0	0	0	0	0	0	0
2014	2014	1,261,911	495,509	0	0	2,780,314	2,780,314	0	1,048,295	0	0	0	0	0	0	0	0	0
2015	2015	1,282,381	528,278	0	0	2,770,816	2,770,816	0	1,048,295	0	0	0	0	0	0	0	0	0
2016	2016	1,302,851	561,047	0	0	2,761,318	2,761,318	0	1,048,295	0	0	0	0	0	0	0	0	0
2017	2017	1,323,321	593,816	0	0	2,751,820	2,751,820	0	1,048,295	0	0	0	0	0	0	0	0	0
2018	2018	1,343,791	626,585	0	0	2,742,322	2,742,322	0	1,048,295	0	0	0	0	0	0	0	0	0
2019	2019	1,364,261	659,354	0	0	2,732,824	2,732,824	0	1,048,295	0	0	0	0	0	0	0	0	0
2020	2020	1,384,731	692,123	0	0	2,723,326	2,723,326	0	1,048,295	0	0	0	0	0	0	0	0	0
2021	2021	1,405,201	724,892	0	0	2,713,828	2,713,828	0	1,048,295	0	0	0	0	0	0	0	0	0
2022	2022	1,425,671	757,661	0	0	2,704,330	2,704,330	0	1,048,295	0	0	0	0	0	0	0	0	0
2023	2023	1,446,141	790,430	0	0	2,694,832	2,694,832	0	1,048,295	0	0	0	0	0	0	0	0	0
2024	2024	1,466,611	823,199	0	0	2,685,334	2,685,334	0	1,048,295	0	0	0	0	0	0	0	0	0
2025	2025	1,487,081	855,968	0	0	2,675,836	2,675,836	0	1,048,295	0	0	0	0	0	0	0	0	0
2026	2026	1,507,551	888,737	0	0	2,666,338	2,666,338	0	1,048,295	0	0	0	0	0	0	0	0	0
2027	2027	1,528,021	921,506	0	0	2,656,840	2,656,840	0	1,048,295	0	0	0	0	0	0	0	0	0
2028	2028	1,548,491	954,275	0	0	2,647,342	2,647,342	0	1,048,295	0	0	0	0	0	0	0	0	0
2029	2029	1,568,961	987,044	0	0	2,637,844	2,637,844	0	1,048,295	0	0	0	0	0	0	0	0	0
2030	2030	1,589,431	1,019,813	0	0	2,628,346	2,628,346	0	1,048,295	0	0	0	0	0	0	0	0	0
2031	2031	1,609,901	1,052,582	0	0	2,618,848	2,618,848	0	1,048,295	0	0	0	0	0	0	0	0	0
2032	2032	1,630,371	1,085,351	0	0	2,609,350	2,609,350	0	1,048,295	0	0	0	0	0	0	0	0	0
2033	2033	1,650,841	1,118,120	0	0	2,600,852	2,600,852	0	1,048,295	0	0	0	0	0	0	0	0	0
2034	2034	1,671,311	1,150,889	0	0	2,591,354	2,591,354	0	1,048,295	0	0	0	0	0	0	0	0	0
2035	2035	1,691,781	1,183,658	0	0	2,581,856	2,581,856	0	1,048,295	0	0	0	0	0	0	0	0	0
2036	2036	1,712,251	1,216,427	0	0	2,572,358	2,572,358	0	1,048,295	0	0	0	0	0	0	0	0	0
2037	2037	1,732,721	1,249,196	0	0	2,562,860	2,562,860	0	1,048,295	0	0	0	0	0	0	0	0	0
2038	2038	1,753,191	1,281,965	0	0	2,553,362	2,553,362	0	1,048,295	0	0	0	0	0	0	0	0	0
2039	2039	1,773,661	1,314,734	0	0	2,543,864	2,543,864	0	1,048,295	0	0	0	0	0	0	0	0	0
2040	2040	1,794,131	1,347,503	0	0	2,534,366	2,534,366	0	1,048,295	0	0	0	0	0	0	0	0	0
2041	2041	1,814,601	1,380,272	0	0	2,524,868	2,524,868	0	1,048,295	0	0	0	0	0	0	0	0	0
2042	2042	1,835,071	1,413,041	0	0	2,515,370	2,515,370	0	1,048,295	0	0	0	0	0	0	0	0	0
2043	2043	1,855,541	1,445,810	0	0	2,505,872	2,505,872	0	1,048,295	0	0	0	0	0	0	0	0	0
2044	2044	1,876,011	1,478,579	0	0	2,496,374	2,496,374	0	1,048,295	0	0	0	0	0	0	0	0	0
2045	2045	1,896,481	1,511,348	0	0	2,486,876	2,486,876	0	1,048,295	0	0	0	0	0	0	0	0	0
2046	2046	1,916,951	1,544,117	0	0	2,477,378	2,477,378	0	1,048,295	0	0	0	0	0	0	0	0	0
2047	2047	1,937,421	1,576,886	0	0	2,467,880	2,467,880	0	1,048,295	0	0	0	0	0	0	0	0	0
2048	2048	1,957,891	1,609,655	0	0	2,458,382	2,458,382	0	1,048,295	0	0	0	0	0	0	0	0	0
2049	2049	1,978,361	1,642,424	0	0	2,448,884	2,448,884	0	1,048,295	0	0	0	0	0	0	0	0	0
2050	2050	1,998,831	1,675,193	0	0	2,439,386	2,439,386	0	1,048,295	0	0	0	0	0	0	0	0	0

Amy Cutler – CRSP-MC Project Manager

Project Completed!

Background

- For many years, WAPA maintained 2 different PRS platforms (Macro-driven & formula-driven)
- These two platforms, some studies are very time consuming on rates staff, such as data verification
- With less time to focus on the analysis
- The goal of this replacement is to develop a reliable WAPA-wide PRS platform that makes verified information readily available

Over the Past Year

2017
to
2018

April 2017- Award

April to July 2017 – Design

August 2017 to January 2018 – Build

January to March 2018 - User Testing and Training

April 2018 – In Production

Project Close out

Project Goals Met

- WAPA-wide single platform
- Compliant with DOE security policies and WAPA PRS practices
- Transparent and auditable (no black-box)
- User-friendly
- Flexible for modeling capability with data-validation

Questions? Thank you!

Amy Cutler
CRSP-MC Project Manager

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Rates Update



Thomas Hackett and Tony Henriquez
CRSP-MC Rates

SLCA/IP Rate

1. Transmission Rate
2. Status of Repayment
3. Current SLCA/IP Firm Power Rate (SLIP-F10)
4. SLCA/IP Annual Revenue Requirement & Firm Power Rates Comparison

Transmission Rate

5 Year Historical

Fiscal Year	kW-month	
2015	\$1.11	
2016	\$1.28	
2017	\$1.48	
2018	\$1.45	
2019	\$1.67	Projected, pending final

General Western Allocation (GWA)

As GWA/ITA is phased out, those same costs will roll into the A rate or “AGE” object classes.

			Balance as of 09/30/16	Balance as of 09/30/15	Change
General Western Allocation	1441	GWA-CSO	2,292,346.36	3,776,211.29	(1,483,864.93)
	1442	GWA-Regions	580,744.83	1,072,456.97	(491,712.14)
	1443	ITA - CSO	2,878,759.12	0.00	2,878,759.12
	1444	ITA - Regions	1,345,312.70	0.00	1,345,312.70
	1446	PMM - Regions	5,251.90	0.00	5,251.90
Total			7,102,414.91	4,848,668.26	2,253,746.65

			Balance as of 09/30/17	Balance as of 09/30/16	Change
General Western Allocation	1441	GWA-CSO	2,328,217.78	2,292,346.36	35,871.42
	1442	GWA-Regions	595,207.13	580,744.83	14,462.30
	1443	ITA - CSO	3,292,454.75	2,878,759.12	413,695.63
	1444	ITA - Regions	2,044,017.93	1,345,312.70	698,705.23
	1446	PMM - Regions	0.00	5,251.90	(5,251.90)
Total			8,259,897.59	7,102,414.91	1,157,482.68

Calculate True-Up FY2019 Transmission Rate

	<u>Projected</u>	<u>Actual</u>	<u>Difference</u>
Plant	\$672,453,398	\$675,124,653	\$2,671,255
O&M Expense	\$2,873,091	\$7,102,412	<u>\$4,229,324</u>
Total			\$6,900,579
After Calculations			\$4,189,072

FY2019 Transmission Rate

Annual Transmission Revenue Requirement (ATRR)	\$85,370,476
<u>True-Up</u>	<u>\$4,189,072</u>
Updated ATRR	\$89,559,548

Pending Rate (kW-month)	\$1.583
<u>w/True-Up</u>	<u>\$1.671</u>
	\$0.077

Annual Change	\$1.448
<u></u>	<u>\$1.671</u>
	\$0.223

SLCA/IP Rate

SLCA/IP Rate

SLCA/IP Status of Repayment As of September 30, 2017 (tab 2)

Project	Investment (\$million)	Investment Repaid		
		Amount (\$million)	Percent	Payoff
CRSP (Power Only)	1,331.257	1,171.180	87.98%	2026
CRSP Irrigation/Aid	1,149.888	197.810	17.20%	2057
Collbran	27.087	23.191	85.62%	2065
Dolores	38.390	13.219	34.43%	2057
Rio Grande	25.506	24.758	97.07%	2022
Seedskadee	10.429	9.699	93.00%	2021

SLCA/IP Firm Power Rate

- Current Firm Power Rate (SLIP-F10, Tab 3)
 - Effective Oct. 1, 2015
 - Energy: 12.19 mills/kWh
 - Capacity: \$5.18 kW/month
 - Composite Rate: 29.42 mills/kWh
- Expires September 30, 2020
- Cost Recovery Charge – (Tab 17)
 - 0.00 mills/kWh

History of SLIP Rates

Effective	Capacity	Energy	Composite
<u>Date (CY)</u>	<u>\$/kW</u>	<u>mills/kWh</u>	<u>mills/kWh</u>
1993	3.54	8.40	18.70
1995	3.83	8.90	20.17
1998	3.44	8.10	17.57
2002	4.04	9.50	20.72
2005	4.43	10.43	25.28
Step 1 { 2008	4.70	11.06	26.80
Step 2 { 2009 (FY10)	5.18	12.19	29.62
2015	5.18	12.19	29.42

SLCA/IP Energy Generated

Percentages Based on FY 2017 Data

	Generated - GWh	% of Generation
CRSP	5,459,474	97.53%

Glen Canyon	3,969,625	70.92%
Flaming Gorge	781,596	13.96%
Aspinall	708,253	12.65%

Participating / Integrated Projects

Dolores	23,200	0.41%
Seedskadee	31,918	0.57%
Collbran	37,760	0.67%
Rio Grande	45,218	0.81%

Total Generation: 5,597,570 100.00%

SLCA/IP Energy Generated

5 Year Average per Project

	Generated - MWh					5yr Average
	2013	2014	2015	2016	2017	
CRSP	4,244,867	4,059,817	5,089,414	5,266,922	5,459,474	4,824,099

Glen Canyon	3,507,375	3,109,906	3,863,803	4,016,226	3,969,625	3,693,387
Flaming Gorge	307,251	361,789	504,135	495,226	781,596	489,999
Aspinall						
Blue Mesa	134,026	197,981	243,311	252,915	262,064	218,059
Crystal	102,498	122,581	155,784	175,780	138,179	138,965
Morrow Point	193,717	267,561	322,379	326,775	308,009	283,688

Participating / Integrated Projects

Dolores	10,047	21,365	21,119	22,923	23,200	19,731
Seedskaadee	35,222	58,588	75,559	51,886	31,918	50,635
Collbran	13,850	43,754	39,248	41,069	37,760	35,136
Rio Grande	9,377	12,768	37,642	43,433	45,218	29,688

Total Generation:	4,313,363	4,196,292	5,262,981	5,426,234	5,597,570	4,959,288
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Aid to Participating Projects

May 2018 Update

Values in 1,000's

Colorado River Storage Project

Aid to Participating Projects Irrigation Repayment Obligations and Apportioned Revenues Applied

FY 2018 Preliminary PRS

Unit: \$ 1,000

year	Colorado 46% Incremental		New Mexico 17% Incremental		Utah 21.5% Incremental		Wyoming 15.5% Incremental		Total Incremental		Cumulative		Payments to date 147,279
	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	
2015	-	-	-	-	-	-	-	-	-	-	-	-	
2016	-	3,961	-	1,464	8,610	1,851	-	1,335	8,610	8,610	8,610	8,610	Repaid
2017	3,192	1,886	-	697	-	881	907	635	4,099	4,099	12,709	12,709	Repaid
2018	-	-	-	-	-	-	-	-	-	-	12,709	12,709	
2019	-	-	-	-	-	-	-	-	-	-	12,709	12,709	
2020	-	2,941	-	1,087	6,393	1,374	-	991	6,393	6,393	19,102	19,102	Repaid
2021	13,585	6,249	-	2,309	-	2,921	-	2,106	13,585	13,585	32,687	32,687	Repaid
2022	-	-	-	-	-	-	-	-	-	-	32,687	32,687	
2023	-	10,886	23,666	4,023	-	5,088	-	3,668	23,666	23,666	56,353	56,353	Repaid
2024	-	-	-	-	-	-	-	-	-	-	56,353	56,353	
2025	-	46,426	-	17,157	100,925	21,699	-	15,643	100,925	100,925	157,278	157,278	9,999
2029	5,483	37,756	-	13,953	-	17,647	12,722	12,722	18,205	82,077	175,483	239,355	
2032	Bostwick Park	-	7,658	-	-	-	Eden	-	7,658	-	183,141	239,355	
2034	-	-	-	-	4,979	-	-	-	4,979	-	188,120	239,355	
2035	-	70,416	-	26,023	-	32,912	23,727	23,727	23,727	153,077	211,847	392,433	
2038	50,595	-	-	-	-	-	-	-	50,595	-	262,442	392,433	
2040	5,249	-	-	-	-	-	-	-	5,249	-	267,691	392,433	
2042	2,704	-	-	-	-	-	-	-	2,704	-	270,395	392,433	
2045	102,091	57,951	-	21,417	-	27,086	-	19,527	102,091	125,980	372,486	518,413	
2048	78,740	78,695	-	29,083	-	36,781	-	26,517	78,740	171,076	451,226	689,489	
2049	23,329	23,316	-	8,617	-	10,898	-	7,856	23,329	50,687	474,555	740,176	
2050	-	-	-	-	71,213	-	-	-	71,213	-	545,768	740,176	
2052	80,945	80,899	-	29,897	-	37,811	-	27,259	80,945	175,867	626,713	916,043	
2054	-	15,789	-	5,835	94,322	7,379	-	5,320	94,322	34,323	721,035	950,366	
2055	-	30,270	-	11,187	14,148	14,148	-	10,200	14,148	65,805	735,183	1,016,171	
2057	22,703	25,225	-	9,322	11,790	11,790	-	8,500	34,493	54,837	769,676	1,071,008	Balance
Total	388,616	492,664	31,324	182,071	312,380	230,267	37,356	166,006	769,676	1,071,008			923,729

Note: Boxed yellow amounts trigger apportionment. Boxed green amounts indicate total available with apportionment. Boxed blue amounts indicate apportionment. **301,332**





Annual Revenue Requirements

Comparison Table (Tab 5)

Values in 1,000's

Item	Unit	WAPA 169	FY 2018	Change	
		2017 Workplan	2020 Workplan	Amount	Percent
Rate Setting Period:					
Beginning year	FY	2016	2020		
Pinchpoint year	FY	2025	2029		
Number of rate setting years	Years	10	10		
Annual Revenue Requirements:					
<u>Expenses</u>					
Operation and Maintenance:					
WAPA	1,000	\$52,630	\$57,145	\$4,515	9%
Reclamation	1,000	\$34,535	\$33,719	(\$816)	-2%
Total O&M	1,000	\$87,165	\$90,864	\$3,699	4%
Purchased Power 1/	1,000	\$10,280	\$6,662	(\$3,618)	-35%
Transmission	1,000	\$10,421	\$8,416	(\$2,005)	-19%
Integrated Projects requirements	1,000	\$8,610	\$8,110	(\$500)	-6%
Interest	1,000	\$4,706	\$5,286	\$1,157	25%
Other 2/	1,000	\$14,587	\$9,701	(\$4,886)	-33%
Total Expenses	1,000	\$135,769	\$129,039	(\$6,730)	-5%
<u>Principal payments</u>					
Deficits	1,000	\$0	\$0	\$0	0%
Replacements	1,000	\$30,037	\$31,173	\$1,136	4%
Original Project and Additions	1,000	\$3,937	\$3,721	(\$216)	-5%
Irrigation 3/	1,000	\$14,130	\$7,245	(\$6,885)	-49%
Total principal payments	1,000	\$48,104	\$42,139	(\$5,965)	-12%
Total Annual Revenue Requirements	1,000	\$183,873	\$171,178	(\$12,695)	-7%
(Less Offsetting Annual Revenue:)					
Transmission (firm and non-firm)	1,000	\$19,640	\$22,283	\$2,643	13%
Merchant Function 4/	1,000	\$9,918	\$8,636	(\$1,282)	-13%
Other 5/	1,000	\$5,118	\$4,938	(\$180)	-4%
Total Offsetting Annual Revenue	1,000	\$34,676	\$35,857	\$1,181	3%
Net Annual Revenue Requirements	1,000	\$149,197	\$135,321	(\$13,876)	-9%
Energy Sales 6/	MWH	5,071,804	5,204,150	132,346	3%
Capacity Sales	kW	1,407,920	1,422,090	14,170	1%
Composite Rate	mills/kWh	29.42	26.00	-3.42	-11.6%



Expenses

May 2018 Update
Values in 1,000's

	2017 Workplan	2020 Workplan	Amount	Percent
<u>Expenses</u>				
Operation and Maintenance: (tab 6)				
WAPA	\$52,630	\$57,145	\$4,515	9%
Reclamation	\$34,535	\$33,719	(\$816)	-2%
Total O&M	\$87,165	\$90,864	\$3,699	4%
Purchased Power (tab 7)	\$10,280	\$6,662	(\$3,618)	-35%
Transmission (tab 9)	\$10,421	\$8,416	(\$2,005)	-19%
Integrated Projects requirements (tab 10)	\$8,610	\$8,110	(\$500)	-6%
Interest	\$4,706	\$5,286	\$1,157	25%
Other (tab 11)	\$14,587	\$9,701	(\$4,886)	-33%
Total Expenses	\$135,769	\$129,039	(\$6,730)	-5%



Repayment

May 2018 Update
 Values in 1,000's

	2017 Workplan	2019 Workplan	Amount	Percent
<u>Principal payments</u>				
Deficits	\$0	\$0	\$0	0%
Replacements	\$30,037	\$31,173	\$1,136	4%
Original Project and Additions	\$3,937	\$3,721	(\$216)	-5%
Irrigation (tab 12)	<u>\$14,130</u>	<u>\$7,245</u>	<u>(\$6,885)</u>	<u>-49%</u>
Total Principal Payments	\$48,104	\$42,139	(\$5,965)	-12%



Offsetting Revenues

May 2018 Update

Values in 1,000's

	2017 Workplan	2019 Workplan	Amount	Percent
(Less Offsetting Annual Revenue:)				
Transmission (firm and non-firm, tab 13)	\$19,640	\$22,283	\$2,643	13%
Merchant Function (tab 14)	\$9,918	\$8,636	(\$1,282)	-13%
Other (tab 14)	\$5,118	\$4,938	(\$180)	-4%
Total Offsetting Annual Revenue	\$34,676	\$35,857	\$1,181	3%



Revenue Requirements

May 2018 Update

Values in 1,000's

Item	WAPA 169	FY 2018	Change	
	2017 Workplan	2020 Workplan	Amount	Percent
Rate Setting Period:				
Beginning year	2016	2020		
Pinchpoint year	2025	2029		
Number of rate setting years	10	10		
Total Expenses :	\$135,769	\$129,039	(\$6,730)	-5%
Total principal payments :	\$48,104	\$42,139	(\$5,965)	-12%
Total Annual Revenue Requirements :	\$183,873	\$171,178	(\$12,695)	-7%
Less Total Offsetting Annual Revenue:	\$34,676	\$35,857	\$1,181	3%
Net Annual Revenue Requirements:	\$149,197	\$135,321	(\$13,876)	-9%
Energy Sales	5,071,804	5,204,150	132,346	3%
Capacity Sales	1,407,920	1,422,090	14,170	1%
Composite Rate	29.42	26.00	-3.42	-11.6%

Next Steps

- Consideration of SLCA/IP Rate Action
 - Compare parallel Preliminary PRS in new system
 - Identify impacts and if procedural changes are necessary
 - CRC
 - Purchase Power Projections
 - Transmission Rate (Forward looking O&M)
 - Long Term Repayment Strategy
 - Basin Fund Balance
- Engage customers on proposed changes
- If Rate Action initiated, proposal FRN in fall of 2018
 - Incorporate FY 2018 actual financial data in Final Rate
 - New Rate October 1, 2019 (FY2020)
 - Current Rate Expires September 30, 2020

Next Steps

- Provo River FY 2019 Installment NLT June 13
- Olmsted Rate Meeting June 25
 - FY 2018 (2 Months)
 - FY 2019
- Survey Monkey

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Discussion & Comments

SLCA/IP Repayment Milestones
as of September 30, 2017
units: \$1,000

Project	Replacements		Original Projects and Additions		Main Stem Irrigation Assistance		Participating Projects Irrigation Assistance		Total Unpaid Balance
	Year Paid Off	Currently Unpaid	Year Paid Off	Currently Unpaid	Year Paid Off	Currently Unpaid	Year Paid Off	Currently Unpaid	
Collbran	2003	\$ -	2064	\$ 3,896	2011	\$ -	N/A	N/A	\$ 3,896
CRSP	2026	\$ 108,222	2023	\$ 43,264	2024	\$ 28,349	2041	\$ 923,729	\$ 1,103,564
Dolores	2056	\$ 9	2053	\$ 25,161	N/A	N/A	N/A	N/A	\$ 25,170
Rio Grande	2012	\$ -	2064	\$ 749	1997	\$ -	N/A	N/A	\$ 749
Seedskadee	2015	\$ -	2021	\$ 730	N/A	N/A	N/A	N/A	\$ 730

FINAL STATUS OF REPAYMENT

COLLBRAN PROJECT

(Dollars in thousands)

	Cumulative 2016 ¹	Adjustment	Annual 2017 ²	Cumulative 2017
Revenue:				
Gross Operating Revenue	68,778.940	0.000	1,752.551	70,531.491
Income transfers (net)	35.916	0.000	0.000	35.916
Total Operating Revenue (A)	68,814.856	0.000	1,752.551	70,567.407
Expenses:				
O & M and other	33,578.898	0.000	1,313.142	34,892.040
Purchase power and other	0.000	0.000	0.000	0.000
Interest				
Federally financed	12,367.696	0.000	116.623	12,484.319
Non-Federally financed	0.000	0.000	0.000	0.000
Total Interest	12,367.696	0.000	116.623	12,484.319
Total Expense (B)	45,946.594	0.000	1,429.765	47,376.359
(Deficit)/Surplus revenue (C)	0.001	0.000	0.000	0.001
Investment:				
Federally financed power	22,029.466	0.000	(1.629)	22,027.837
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	5,059.020	0.000	0.000	5,059.020
Total Investment (D)	27,088.486	0.000	(1.629)	27,086.857
Investment repaid:				
Federally financed power	17,809.242	0.000	322.786	18,132.028
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	5,059.020	0.000	0.000	5,059.020
Total Investment repaid (E)	22,868.262	0.000	322.786	23,191.048
Investment unpaid:				
Federally financed power	4,220.224	0.000	(324.415)	3,895.809
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment unpaid (F)	4,220.224	0.000	(324.415)	3,895.809
Fund Balances:				
Colorado River Development (G)	0.000	0.000	0.000	0.000
Working capital (H)	0.000	0.000	0.000	0.000
Percent of investment repaid to date:				
Federal	80.84%			82.31%
Non-Federal	N/A			N/A
Nonpower	0.00%			100.00%

¹ This column ties to the cumulative FY 2016 numbers on page 122 of the FY 2016 Annual Report Statistical Appendix.

² Based on FY 2017 audited financial statements.

FINAL STATUS OF REPAYMENT
COLORADO RIVER STORAGE PROJECT
(Dollars in thousands)

	Cumulative 2016 ¹	Adjustment	Annual 2017 ²	Cumulative 2017
Revenue:				
Gross Operating Revenue	5,901,792.144	(1,100.819) ³	240,525.595	6,141,216.920
Income transfers (net)	(48,335.875)	0.000	(8,921.816)	(57,257.691)
Total Operating Revenue (A)	5,853,456.269	(1,100.819)	231,603.779	6,083,959.229
Expenses:				
O & M and other	2,023,620.874	(11,378.402) ⁴	95,693.250	2,107,935.722
Purchase power and Wheeling	1,775,275.222	2,113.000 ⁵	41,670.647	1,819,058.869
Interest				
Federally financed	763,231.733	598.371 ⁶	8,604.269	772,434.373
Non-Federally financed	6,391.615	0.000	558.421	6,950.036
Total Interest	769,623.348	598.371	9,162.690	779,384.409
Total Expense (B)	4,568,519.444	(8,667.031)	146,526.587	4,706,379.000
(Deficit)/Surplus revenue (C)	(0.001)	7,566.212	(7,566.211)	0.000
Investment:				
Federally financed power	1,304,526.502	0.000	26,730.225	1,331,256.727
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	1,153,695.109	0.000	(3,807.520)	1,149,887.589
Total Investment (D)	2,458,221.611	0.000	22,922.705	2,481,144.316
Investment repaid: ⁴				
Federally financed power	1,174,380.717	0.000	5,389.974	1,179,770.691
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	110,556.109	0.000	87,253.429	197,809.538
Total Investment repaid (E)	1,284,936.826	0.000	92,643.403	1,377,580.229
Investment unpaid:				
Federally financed power	130,145.785	0.000	21,340.251	151,486.036
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	1,043,139.000	0.000	(91,060.949)	952,078.051
Total Investment unpaid (F)	1,173,284.785	0.000	(69,720.698)	1,103,564.087
Fund Balances:				
Colorado River Development (G)	0.000	0.000	0.000	0.000
Working capital (H)	0.000	0.000	0.000	0.000
Percent of investment repaid to date:				
Federal	90.02%			88.62%
Non-Federal	N/A			N/A
Nonpower	9.58%			17.20%

¹ This column ties to the cumulative FY 2016 numbers on page 122 of the FY 2016 Annual Report Statistical Appendix

² Based on FY 2017 audited financial statements.

³ Unexpended Revenues from Seedskaadee & additional transfer to Rio Grande

⁴ Gains & Losses for 2017 (CRSP Losses on Disposition of Assets) /Unexpended MOA Revenue

⁵ Purchase Power not reclassified as non reimbursable before closeout

⁶ Resolution of Poncha Substation Interest

FINAL STATUS OF REPAYMENT

DOLORES PROJECT

(Dollars in thousands)

	Cumulative 2016 ¹	Adjustment	Annual 2017 ²	Cumulative 2017
Revenue:				
Gross Operating Revenue	64,851.581	0.000	2,932.971	67,784.552
Income transfers (net)	6,658.596	0.000	1,000.411	7,659.007
Total Operating Revenue (A)	71,510.177	0.000	3,933.382	75,443.559
Expenses:				
O & M and other	12,951.645	112.180 ³	1,216.087	14,279.912
Purchase power and other	0.000	0.000	0.000	0.000
Interest				
Federally financed	46,424.798	0.000	1,519.735	47,944.533
Non-Federally financed	0.000	0.000	0.000	0.000
Total Interest	46,424.798	0.000	1,519.735	47,944.533
Total Expense (B)	59,376.443	112.180	2,735.822	62,224.445
(Deficit)/Surplus revenue (C)	0.000	(112.180)	112.180	0.000
Investment:				
Federally financed power	38,386.100	(182.927) ⁴	186.399	38,389.572
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment (D)	38,386.100	(182.927)	186.399	38,389.572
Investment repaid:				
Federally financed power	12,133.734	0.000	1,085.380	13,219.114
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment repaid (E)	12,133.734	0.000	1,085.380	13,219.114
Investment unpaid:				
Federally financed power	26,252.366	(182.927)	(898.981)	25,170.458
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment unpaid (F)	26,252.366	(182.927)	(898.981)	25,170.458
Fund Balances:				
Colorado River Development (G)	0.000	0.000	0.000	0.000
Working capital (H)	0.000	0.000	0.000	0.000
Percent of investment repaid to date:				
Federal	31.61%			34.43%
Non-Federal	N/A			N/A
Nonpower	N/A			N/A

¹ This column ties to the cumulative FY 2016 numbers on page 123 of the FY 2016 Annual Report Statistical Appendix.

² Based on the FY 2017 audited financial statements.

³ MOA

⁴ BOR/WAPA Reconciliation

FINAL STATUS OF REPAYMENT

Rio Grande Project (Dollars in thousands)

	Cumulative 2016 ¹	Adjustment	Annual 2017 ²	Cumulative 2017
Revenue:				
Gross Operating Revenue	114,139.412	2,900.000 ¹	2,096.329	119,135.741
Income transfers (net)	0.026	0.000	0.000	0.026
Total Operating Revenue (A)	114,139.438	2,900.000	2,096.329	119,135.767
Expenses:				
O & M and other	69,603.011	2,372.204 ³	2,572.683	74,547.898
Purchase power and other	4,774.405	0.000	0.000	4,774.405
Interest				
Federally financed	15,024.842	0.000	30.993	15,055.835
Non-Federally financed	0.000	0.000	0.000	0.000
Total Interest	15,024.842	0.000	30.993	15,055.835
Total Expense (B)	89,402.258	2,372.204	2,603.676	94,378.138
(Deficit)/Surplus revenue (C)	0.001	527.796	(527.796)	0.001
Investment:				
Federally financed power	19,967.227	0.000	(262.695)	19,704.532
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	5,801.911	0.000	0.000	5,801.911
Total Investment (D)	25,769.138	0.000	(262.695)	25,506.443
Investment repaid:				
Federally financed power	18,935.268	0.000	20.449	18,955.717
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	5,801.911	0.000	0.000	5,801.911
Total Investment repaid (E)	24,737.179	0.000	20.449	24,757.628
Investment unpaid:				
Federally financed power	1,031.959	0.000	(283.144)	748.815
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment unpaid (F)	1,031.959	0.000	(283.144)	748.815
Fund Balances:				
Colorado River Development (G)	0.000	0.000	0.000	0.000
Working capital (H)	0.000	0.000	0.000	0.000
Percent of investment repaid to date:				
Federal	94.83%			96.20%
Non-Federal	N/A			N/A
Nonpower	100.00%			100.00%

¹ This column ties to the cumulative FY 2016 numbers on page 123 of the FY 2016 Annual Report Statistical Appendix.

² Based on the FY 2017 audited financial statements.

³ Reversal of BOR Gains/Losses on Retirements Adjustment

FINAL STATUS OF REPAYMENT

SEEDSKADEE PROJECT

(Dollars in thousands)

	Cumulative 2016 ¹	Adjustment	Annual 2017 ²	Cumulative 2017
Revenue:				
Gross Operating Revenue	25,889.012	(1,799.181) ³	(3,519.633)	20,570.198
Income transfers (net)	8,851.637	0.000	7,008.405	15,860.042
Total Operating Revenue (A)	34,740.649	(1,799.181)	3,488.772	36,430.240
Expenses:				
O & M and other	19,335.774	(7.266)	959.670	20,288.178
Purchase power and other	0.000	0.000	0.000	0.000
Interest				
Federally financed	5,729.028	717.870 ⁴	(3.949)	6,442.949
Non-Federally financed	0.000	0.000	0.000	0.000
Total Interest	5,729.028	717.870	(3.949)	6,442.949
Total Expense (B)	25,064.802	710.604	955.721	26,731.127
(Deficit)/Surplus revenue (C)	0.000	(2,509.785)	2,509.785	0.000
Investment:				
Federally financed power	9,675.847	0.000	753.254	10,429.101
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment (D)	9,675.847	0.000	753.254	10,429.101
Investment repaid:				
Federally financed power	9,675.847	0.000	23.266	9,699.113
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment repaid (E)	9,675.847	0.000	23.266	9,699.113
Investment unpaid:				
Federally financed power	0.000	0.000	729.988	729.988
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	0.000	0.000	0.000	0.000
Total Investment unpaid (F)	0.000	0.000	729.988	729.988
Fund Balances:				
Colorado River Development (G)	0.000	0.000	0.000	0.000
Working capital (H)	0.000	0.000	0.000	0.000
Percent of investment repaid to date:				
Federal	100.00%			93.00%
Non-Federal	N/A			N/A
Nonpower	N/A			N/A

¹ This column ties to the cumulative FY 2016 numbers on page 124 of the FY 2016 Annual Report Statistical Appendix.

² Based on the FY 2017 audited financial statements.

³ Unexpended Revenue returned to CRSP

⁴ Interest Reconciliation Adjustment

FINAL STATUS OF REPAYMENT

SALT LAKE CITY AREA INTEGRATED PROJECTS

(Dollars in thousands)

FOR REFERENCE ONLY

	Cumulative 2016	Adjustment	Annual 2017	Cumulative 2017
Revenue:				
Gross Operating Revenue	6,175,451.089	0.000	243,787.813	6,419,238.902
Income transfers (net)	(32,789.700)	0.000	(913.000)	(33,702.700)
Total Operating Revenue (A)	6,142,661.389	0.000	242,874.813	6,385,536.202
Expenses:				
O & M and other	2,159,090.202	(8,901.284)	101,754.832	2,251,943.750
Purchase power and Wheeling	1,780,049.627	2,113.000	41,670.647	1,823,833.274
Interest				
Federally financed	842,778.097	1,316.241	10,267.671	854,362.009
Non-Federally financed	6,391.615	0.000	558.421	6,950.036
Total Interest	849,169.712	1,316.241	10,826.092	861,312.045
Total Expense (B)	4,788,309.541	(5,472.043)	154,251.571	4,937,089.069
(Deficit)/Surplus revenue (C)	0.001	5,472.043	(5,472.042)	0.002
Investment:				
Federally financed power	1,394,585.142	(182.927)	27,405.554	1,421,807.769
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	1,164,556.040	0.000	(3,807.520)	1,160,748.520
Total Investment (D)	2,559,141.182	(182.927)	23,598.034	2,582,556.289
Investment repaid: ⁴				
Federally financed power	1,232,934.808	0.000	6,841.855	1,239,776.663
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	121,417.040	0.000	87,253.429	208,670.469
Total Investment repaid (E)	1,354,351.848	0.000	94,095.284	1,448,447.132
Investment unpaid:				
Federally financed power	161,650.334	(182.927)	20,563.699	182,031.106
Non-Federally financed power	0.000	0.000	0.000	0.000
Nonpower	1,043,139.000	0.000	(91,060.949)	952,078.051
Total Investment unpaid (F)	1,204,789.334	(182.927)	(70,497.250)	1,134,109.157
Fund Balances:				
Colorado River Development (G)	0.000	0.000	0.000	0.000
Working capital (H)	0.000	0.000	0.000	0.000
Percent of investment repaid to date:				
Federal	88.41%			87.20%
Non-Federal	N/A			N/A
Nonpower	10.43%			17.98%

**Salt Lake City Area Integrated Projects Firm Power, Transmission & Ancillary Services
FY2018 Rate/Charges Summary**

	Provided By	Rate/Charges	Rate Schedules Effective Through (or until superceded)
Firm Power Service			
Firm Sales (SLIP-F10)	SLIP		9/30/2020
Composite:		29.42 mills/kWh	9/30/2020
Demand:		5.18 \$/kW-month	9/30/2020
Energy:		12.19 mills/kWh	9/30/2020
Transmission Service			
Firm Point-to-Point Transmission (SP-PTP-8)	CRSP	\$1.45kW-month	9/30/2020
Network Integration Transmission (SP-NW4)	CRSP	\$1.45kW-month	9/30/2020
Non-Firm Point-to-Point Transmission (SP-NFT7)	CRSP	\$1.45kW-month	9/30/2020
Unreserved Use Charge (SP-UU1)	CRSP	See Rate Schedule	9/30/2020
Ancillary Services (Provided by BA)			
Scheduling, System Control, & Dispatch (SP-SD4)	CRSP	See Rate Schedule	9/30/2020
Reactive Supply & Voltage Control (SP-RS4)	CRSP	See Rate Schedule	9/30/2020
Energy Imbalance (SP-EI4)	CRSP	See Rate Schedule	9/30/2020
Regulation & Frequency Response (SP-FR4)	CRSP	See Rate Schedule	9/30/2020
Spinning & Supplemental Reserves (SP-SSR4)	CRSP	See Rate Schedule	9/30/2020

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
SALT LAKE CITY AREA INTEGRATED PROJECTS**

**SCHEDULE OF RATES FOR FIRM POWER SERVICE
(Approved Under Rate Order No. WAPA-169)**

Effective:

Rate Schedule SLIP-F10 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Available:

In the area served by the Salt Lake City Area Integrated Projects.

Applicable:

To the wholesale power customer for firm power service supplied through one meter at one point of delivery or as otherwise established by contract.

Character:

Alternating current, 60 hertz, three-phase, delivered and metered at the voltages and points established by contract.

Monthly Rate:

DEMAND CHARGE: \$5.18 per kilowatt of billing demand.

ENERGY CHARGE: 12.19 mills per kilowatthour of use.

COST RECOVERY CHARGE:

To adequately recover and maintain a sufficient balance in the Basin Fund, Western uses a cost recovery mechanism, called a Cost Recovery Charge (CRC). The CRC is a charge on all SHP energy.

This charge will be recalculated before May 1 of each year, and Western will provide notification to the customers. The charge, if needed, will be placed into effect on the first day of the first full-billing period beginning on or after October 1, 2015, through September 30, 2020. If a Shortage Criteria is necessary, the CRC will be re-calculated at that time. (See Shortage Criteria Trigger explanation below.) The CRC will be calculated as follows:

**WESTERN HAS THE DISCRETION TO IMPLEMENT A CRC BASED ON
THE TIERS BELOW.**

TABLE: CRC Tiers

Tier	Criteria, If the BFBB is:	Review
i	Greater than \$150 million, with an expected decrease to below \$75 million	Annually
ii	Less than \$150 million but greater than \$120 million, with an expected 50-percent decrease in the next FY	
iii	Less than \$120 million but greater than \$90 million, with an expected 40-percent decrease in the next FY	
iv	Less than \$90 million but greater than \$60 million, with an expected 25-percent decrease in the next FY	Semi-Annual (May / November)
v	Less than \$60 million but greater than \$40 million with an expected decrease to below \$40 million in the next FY	Monthly

TABLE: SAMPLE CRC CALCULATION

		Description	Example	Formula
STEP ONE	Determine the Net Balance available in the Basin Fund.			
	BFBB	Basin Fund Beginning Balance (\$)	\$ 85,860,265	Financial forecast
	BFTB	Basin Fund Target Balance (\$)	\$ 64,395,199	BFBB – (Tier % *BFBB), or BFTB for Tier i and Tier v ¹
	PAR	Projected Annual Revenue (\$) w/o CRC	\$ 232,780,000	Financial forecast
	PAE	Projected Annual Expenses (\$)	\$ 226,649,066	Financial forecast
	NR	Net Revenue (\$)	\$ 6,130,934	PAR - PAE
	NB	Net Balance (\$)	\$ 91,991,199	BFBB + NR
STEP TWO	Determine the Forecasted Energy Purchase Expenses.			
	EA	SHP Energy Allocation (GWh)	4,952	Customer contracts
	HE	Forecasted Hydro Energy (GWh)	4,924	Hydrologic & generation forecast
	FE	Forecasted Energy Purchase (GWh)	504	EA – HE or anticipated
	FFC	Forecasted Average Energy Price per MWh (\$)	\$ 34.23	From commercially available price indices
	FX	Forecasted Energy Purchase Expense (\$)	\$ 17,262,512	FE * FFC *1000
STEP THREE	Determine the amount of Funds Available for firming energy purchases, and then determine additional revenue to be recovered. The following two formulas will be used to determine FA; the lesser of the two will be used.			
	FA1	Basin Fund Balance Factor (\$)	\$ 17,262,512	If (NB>BFBB,FX,FX -(BFTB - NB))
	FA2	Revenue Factor (\$)	\$ 17,262,512	If (NR>-(BFBB-BFTB), FX, FX+NR +(BFBB-BFTB))
	FA	Funds Available (\$)	\$ 17,262,512	Lesser of FA1 or FA2 (not less than \$0)
	FARR	Additional Revenue to be Recovered (\$)	\$ 0	FX - FA
STEP FOUR	Once the FA for purchases have been determined, the CRC can be calculated, and the WL can be determined.			
	WL	Waiver Level (GWh)	5428	If (EA<HE,EA,HE+(FE*(FA/FX))), but not less than HE
	WLP	Waiver Level Percentage of Full SHP	110%	WL/EA*100
	CRCE	CRC Energy (GWh)	0	EA - WL
	CRCEP	CRC Energy Percentage of Full SHP	0%	CRCE/EA*100
	CRC	Cost Recovery Charge (mills/kWh)	0	FARR/(EA*1,000)

Notes: 1- Use CRC Tiers Table to calculate applicable value

Narrative CRC Example

STEP ONE: Determine the net balance available in the Basin Fund.

BFBB – Western will forecast the Basin Fund Beginning Balance for the next FY.

$$\mathbf{BFBB = \$85,860,265}$$

BFTB – The Basin Fund Target Balance is based on the applicable tiered percentage, or minimum value, of the Basin Fund Beginning Balance derived from the **CRC Tiers** table with a minimum BFTB set at \$40 million.

$$\begin{aligned}\mathbf{BFTB} &= \text{BFBB less 25 percent, see Tier iv (BFBB < 90 million, BFBB > 60 million)} \\ &= \$85,860,265 - \$21,464,066 \\ &= \mathbf{\$64,395,199}\end{aligned}$$

PAR – Projected Annual Revenue is Western’s estimate of revenue for the next FY.

$$\mathbf{PAR= \$232,780,000}$$

PAE – Projected Annual Expenses is Western’s estimate of expenses for the next FY. The PAE includes all expenses plus non-reimbursable expenses, which are capped at \$27 million per year plus an inflation factor. **This limitation is for CRC formula calculation purposes only, and is not a cap on actual non-reimbursable expenses.**

$$\mathbf{PAE = \$226,649,066}$$

NR – Net Revenue equals revenues minus expenses.

$$\begin{aligned}\mathbf{NR} &= \text{PAR-PAE} \\ &= \$232,780,000 - \$226,649,066 \\ &= \mathbf{\$6,130,934}\end{aligned}$$

NB – Net Balance is the Basin Fund Beginning Balance plus net revenue.

$$\begin{aligned}\mathbf{NB} &= \mathbf{BFBB+NR} \\ &= \$85,860,265 + \$6,130,934 \\ &= \mathbf{\$91,991,199}\end{aligned}$$

STEP TWO: Determine the forecasted energy purchases expenses.

EA – The Sustainable Hydro Power Energy Allocation (from Customer contracts). This does not include Project Use customers.

$$\mathbf{EA = 4,952 (GWh)}$$

HE – Western’s forecast of Hydro Energy available during the next FY developed from Reclamation’s April, 24-month study.

$$\mathbf{HE = 4,924 (GWh)}$$

FE – Forecasted Energy purchases are the difference between the Sustainable Hydro Power allocation and the forecasted hydro energy available for the next FY or the anticipated firming purchases for the next year.

$$\begin{aligned}\mathbf{FE} &= \mathbf{EA-HE \text{ or anticipated purchases}} \\ &= \mathbf{504.33 (GWh, anticipated)}\end{aligned}$$

FFC - The forecasted energy price for the next FY per MWh.

$$\mathbf{FFC = \$34.23 \text{ per MWh}}$$

FX – Forecasted energy purchase power expenses based on the current year’s, April, 24-month study, representing an estimate of the total costs of firming purchases for the coming FY.

$$\begin{aligned}
\mathbf{FX} &= \mathbf{FE*FFC*1000} \\
&= 504.33 * \$34.23*1000 \\
&= \mathbf{\$17,263,215.90}
\end{aligned}$$

STEP THREE: Determine the amount of Funds Available (FA) to expend on firming energy purchases and then determine additional revenue to be recovered (FARR). The following two formulas will be used to determine FA; the lesser of the two will be used. Funds available shall not be less than zero.

A. Basin Fund Balance Factor (FA1)

If the Net Balance is greater than the Basin Fund Target Balance, use the value for forecasted energy purchase power expenses (FX). If the net balance is less than the Basin Fund Target Balance, reduce the value of the Forecasted Energy Purchase Power Expenses by the difference between the Basin Fund Target Balance and the Net Balance.

$$\begin{aligned}
\mathbf{FA1} &= \text{If } (\mathbf{NB} > \mathbf{BFTB}, \mathbf{FX}, \mathbf{FX} - (\mathbf{BFTB} - \mathbf{NB})) \\
&= \mathbf{\$91,991,199} \text{ (NB) is greater than } \mathbf{\$64,395,199} \text{ (BFTB) then:} \\
&= \mathbf{\$17,263,215.90} \text{ (FX)}
\end{aligned}$$

If the Net Balance is greater than the Basin Fund Target Balance, then **FA1=FX**.

If the Net Balance is less than the Basin Fund Target Balance, then **FA1=FX-(BFTB-NB)**.

B. Basin Fund Revenue Factor (FA2)

The second factor ensures that Western collects sufficient funds to meet the Basin Fund Target Balance so long as the amount needed does not exceed the forecasted purchase expense (FX):

In the situation when there is no projected revenue:

$$\mathbf{FA2} = \text{If } (NR > -(BFBB - BFTB)), \mathbf{FX}, \mathbf{FX} + \mathbf{NR} + (\mathbf{BFBB} - \mathbf{BFTB})$$

$$= \mathbf{\$6,130,934} (\mathbf{NR}) \text{ is greater than } (\mathbf{\$21,464,066}) \text{ then:}$$

$$= \mathbf{\$17,263,215.90} (\mathbf{FX})$$

If the Net Revenue (loss) value does not result in a loss that exceeds the allowable decrease value of the Basin Fund Beginning Balance $(-(BFBB - BFTB))$, then **FA2=FX**.

If the Net Revenue (loss) results in a loss that exceeds the allowable decrease value of the Basin Fund Beginning Balance $(-(BFBB - BFTB))$, then **FX + NR + (BFBB - BFTB)**.

FA – Determine the funds available for purchasing firming energy by using the lesser of FA1 and FA2.

FA1 and FA2 are equal, so:

$$\mathbf{FA} = \mathbf{\$17,263,215.90} (\mathbf{FX})$$

FARR – Calculate the additional revenue to be recovered by subtracting the Funds Available from the forecasted energy purchase power expenses.

$$\mathbf{FARR} = \mathbf{FX} - \mathbf{FA}$$

$$= \mathbf{\$17,263,215.90} (\mathbf{FX}) - \mathbf{\$17,263,215.90} (\mathbf{FA})$$

$$= \mathbf{\$ 0.00}$$

STEP FOUR: Once the funds available for purchases have been determined, the CRC can be calculated and the Waiver Level (WL) can be determined.

A. Cost Recovery Charge: The CRC will be a charge to recover the additional revenue required as calculated in Step 3. The CRC will apply to all customers who choose not to request a

waiver of the CRC, as discussed below. The CRC equals the additional revenue to be recovered divided by the total energy allocation to all customers for the FY.

$$\text{CRC} = \text{FARR} / (\text{EA} * 1,000)$$

$$= \$ 0.00 \text{ charge}$$

B. Waiver Level (WL): Western will establish an energy WL that provides Western the ability to reduce purchase power expenses by scheduling less energy than what is contractually required. Therefore, for those customers who voluntarily schedule no more energy than their proportionate share of the WL, Western will waive the CRC for that year.

After the Funds Available has been determined, the WL will be set at the sum of the energy that can be provided through hydro generation and purchased with Funds Available. The WL will not be less than the forecasted Hydro Energy.

$$\text{WL} = \text{If } (\text{EA} < \text{HE}, \text{EA}, \text{HE} + (\text{FE} * (\text{FA} / \text{FX})))$$

$$= 4,952 \text{ (EA) is not less than } 4,924 \text{ (HE) then:}$$

$$= 4,924 \text{ (HE)} + (504.33 \text{ (FE)} * (\$17,263,215.90 \text{ (FA)} / \$17,263,215.90 \text{ (FX)}))$$

$$= \mathbf{5,428 \text{ (GWh) is the Waiver Level}}$$

If SHP Energy Allocation is less than forecasted Hydro Energy available, then **WL=EA**

If SHP Energy Allocation is greater than the forecasted Hydro Energy available, then

$$\mathbf{WL=HE+(FE *(FA/FX))}$$

PRIOR YEAR ADJUSTMENT:

The CRC PYA for subsequent years will be determined by comparing the prior year’s estimated firming-energy cost to the prior year’s actual firming-energy cost for the energy provided above the WL. The PYA will result in an increase or decrease to a customer’s firm energy costs over the course of the following year. The table below is the calculation of a PYA.

PYA CALCULATION			
		Description	Formula
STEP ONE	Determine actual expenses and purchases for previous year’s firming. This data will be obtained from Western’s financial statements at the end of the FY.		
	PFX	Prior Year Actual Firming Expenses (\$)	Financial Statements
	PFE	Prior Year Actual Firming Energy (GWh)	Financial Statements
STEP TWO	Determine the actual firming cost for the CRC portion.		
	EAC	Sum of the energy allocations of customers subject to the PYA (GWh)	
	FFC	Forecasted Firming Energy Cost – (\$/MWh)	From CRC Calculation
	AFC	Actual Firming Energy Cost – (\$/MWh)	PFX/PFE
	CRCEP	CRC Energy Percentage	From CRC Calculation
	CRCE	Purchased Energy for the CRC (GWh)	EAC*CRCEP
STEP THREE	Determine Revenue Adjustment (RA) and PYA.		
	RA	Revenue Adjustment (\$)	(AFC-FFC)*CRCE*1,000
	PYA	Prior Year Adjustment (mills/kWh)	(RA/EAC)/1,000

Narrative PYA Calculation

STEP ONE: Determine actual expenses and purchases for previous year’s firming. This data will be obtained from Western’s financial statements at end of FY.

PFX - Prior year actual firming expense

PFE - Prior year actual firming energy

STEP TWO: Determine the actual firming cost for the CRC portion.

EAC - Sum of the energy allocations of customers subject to the PYA

CRCE - The amount of CRC Energy needed

AFC - The Actual Firming Energy Cost are the PFX divided by the PFE

$$AFC = (PFX/PFE)/1,000$$

STEP THREE: Determine Revenue Adjustment (RA) and Prior Year Adjustment (PYA).

RA - The Revenue Adjustment is AFC less FFC times CRCE

$$RA = (AFC-FFC)*CRCE*1,000$$

PYA = The PYA is the RA divided by the EAC for the CRC customers only.

$$PYA = (RA/EAC)/1,000$$

The customer's PYA will be based on its prior year's energy multiplied by the resulting mills/kWh to determine the dollar amount that will be assessed. The customers will be charged or credited for this dollar amount equally in the remaining months of the next year's billing cycle. Western will attempt to complete this calculation by December of each year. Therefore, if the PYA is calculated in December, the charge/credit will be spread over the remaining 9 months of the FY (January through September).

Shortage Criteria Trigger:

In the event that Reclamation's 24-month study projects that Glen Canyon Dam water releases will drop below 8.23 MAF in a water year (October through September), Western will recalculate the CRC to include those lower estimates of hydropower generation and the estimated costs for the additional purchase power necessary. Western, as in the yearly projection for the CRC, will give the customers a 45-day notice to request a waiver of the CRC, if they do not want to have the CRC charge added to their energy bill. This recalculation will remain in effect for the remainder of the current FY.

In the event that hydropower generation returns to an 8.23 MAF or higher during the trigger implementation, a new CRC will be calculated for the next month, and the customers will be notified.

CRC Schedule for customers

Consistent with the procedures at 10 CFR 903, Western will provide its customers with information concerning the anticipated CRC for the upcoming FY in May. The established CRC will be in effect for the entire FY. The table below displays the time frame for determining the amount of purchases needed, developing customers’ load schedules, and making purchases.

CRC Schedule

Task	Respective Dates Under Table CRC Tiers¹		
	i, ii, and iii	iv²	v³
24-Month Study (Forecast to Model Projections)	April 1	April 1 October 1	Monthly Study
CRC Notice to Customers	May 1	May 1 November 1	Monthly
Waiver Request Submitted by Customers	June 15	Within 45 days	Within 30 days
CRC Effective	October 1	August 1 February 1	Updated Monthly

Notes:

¹ This schedule does not apply if the CRC is triggered by the Glen Canyon Dam annual releases dropping below 8.23 MAF.

² If it is determined during the additional reviews, under tier **iv**, that a CRC is necessary, customers will be notified that a CRC will be implemented in 90 days. Western will provide its customers with information concerning the anticipated CRC and give them 45 days to request a waiver or accept the CRC. The established CRC will be in effect for 12 months from the date implemented unless superseded by another CRC.

³ If it is determined during the additional reviews, under tier **v**, that a CRC is necessary, customers will be notified that a CRC will be implemented in 60 days. Western will provide its customers with information concerning the anticipated CRC and give them 30 days to request a waiver or accept the CRC. The established CRC will be in effect for 12 months from the date implemented unless superseded by another CRC.

Billing Demand:

The billing demand will be the greater of:

1. The highest 30-minute integrated demand measured during the month up to, but not more than, the delivery obligation under the power sales contract, or
2. The Contract Rate of Delivery.

Billing Energy:

The billing energy will be the energy measured during the month up to, but not more than, the delivery obligation under the power sales contract.

Adjustment for Waiver:

Customers can choose not to take the full SHP energy supplied as determined in the attached formulas for CRC and will be billed the Energy and Capacity rates listed above, but not the CRC.

Adjustment for Transformer Losses:

If delivery is made at transmission voltage but metered on the low-voltage side of the substation, the meter readings will be increased to compensate for transformer losses as provided in the contract.

Adjustment for Power Factor:

The customer will be required to maintain a power factor at all points of measurement between 95 percent lagging and 95 percent leading.

Adjustment for Western Replacement Power:

Pursuant to the contractor's Firm Electric Service Contract, as amended, Western will bill the contractor for its proportionate share of the costs of Western Replacement Power (WRP) within a given time period. Western will include in the contractor's monthly power bill the cost of the WRP and the incremental administrative costs associated with WRP.

Adjustment for Customer Displacement Power Administrative Charges:

Western will include in the contractor's regular monthly power bill the incremental administrative costs associated with Customer Displacement Power.

Rate Schedule SP-EI4

SCHEDULE 4 to Tariff
(Supersedes Schedule SP-EI3)

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

ENERGY IMBALANCE SERVICE
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-EI4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

To all CRSP transmission customers receiving this service.

Formula Rates:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS4, or as superseded.

Rate Schedule SP-FR4

SCHEDULE 3 to Tariff
(Supersedes Schedule SP-FR3)

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

REGULATION AND FREQUENCY RESPONSE SERVICE
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-FR4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

To all CRSP customers receiving this service.

Formula Rate:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS3 or as superseded. If the CRSP MC has regulation available for sale from Salt Lake City Area Integrated Projects resources, the rate will be calculated using the formula below.

$$\begin{array}{l} \text{Regulation} \\ \text{Service} \\ \text{Rate} \end{array} = \frac{\text{Total Annual Revenue Requirement for Regulation Service}}{\text{Regulating Plant Capacity}}$$

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

NON-FIRM POINT-TO-POINT TRANSMISSION SERVICE
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-NFT7 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

The transmission customer will compensate the Colorado River Storage Project each month for Non-Firm, Point-to-Point Transmission Service under the applicable Non-Firm, Point-to-Point Transmission Service Agreement and the formula rate described herein.

Formula Rate:

$$\begin{array}{l} \text{Maximum Non-Firm Point-To-Point} \\ \text{Transmission Rate} \end{array} = \begin{array}{l} \text{Firm Point-To-Point} \\ \text{Transmission Rate} \end{array}$$

A recalculated rate will go into effect every October 1 based on the above formula and updated financial and load data. Western will notify the transmission customer annually of the recalculated rate on or before September 1. Discounts may be offered from time-to-time in accordance with Western's Open Access Transmission Tariff.

Billing:

The formula rate above applies to the maximum amount of capacity reserved for periods ranging from 1 hour to 1 month, payable whether used or not. Billing will occur monthly.

Adjustment for Losses:

Power and energy losses incurred in connection with the transmission and delivery of power and energy under this rate schedule shall be supplied by the customer in accordance with the service contract. If losses are not fully provided by a transmission customer, charges for financial compensation may apply.

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

NETWORK INTEGRATION TRANSMISSION SERVICE
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-NW4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

The transmission customer will compensate the Colorado River Storage Project Management Center each month for Network Integration Transmission Service under the applicable Network Integration Transmission Service Agreement and the formula rate described herein.

Formula Rate:

$$\text{Monthly Charge} = \frac{\text{Annual Transmission Revenue Requirement for Network Integration Transmission Service}}{12} \times \text{Transmission Customer's Load-Ratio Share}$$

A recalculated Annual Transmission Revenue Requirement for Network Integration Transmission Service will go into effect every October 1 based on the above formula and updated financial and operational data. Western will notify the transmission customer annually of the recalculated annual revenue requirement on or before September 1.

Billing:

Billing determinants for the formula rate above will be as specified in the service agreement.

Billing will occur monthly under the formula rate.

Adjustment for Losses:

Losses incurred for service under this rate schedule will be accounted as agreed to by the parties in accordance with the service agreement. If losses are not fully provided by a transmission customer, charges for financial compensation may apply.

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

FIRM POINT-TO-POINT TRANSMISSION SERVICE
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-PTP8 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

The transmission customer will compensate the Colorado River Storage Project each month for Reserved Capacity under the applicable Firm Point-To-Point Transmission Service Agreement and the formula rate described herein.

Formula Rate:

$$\text{Firm Point-To-Point Transmission Rate} = \frac{\text{Annual Transmission Revenue Requirement (\$)}}{\text{Firm Transmission Capacity Reservations} + \text{Network Integration Transmission Service Capacity (kW)}}$$

A recalculated rate will go into effect every October 1 based on the above formula and updated financial and operational data. Western will notify the transmission customer annually of the recalculated rate on or before September 1. Discounts may be offered from time-to-time in accordance with Western's Open Access Transmission Tariff.

Billing:

The formula rate above applies to the maximum amount of capacity reserved for periods ranging from 1 hour to 1 month, payable whether used or not. Billing will occur monthly.

Adjustment for Losses:

Losses incurred for service under this rate schedule will be accounted for as agreed to by the parties in accordance with the service agreement. If losses are not fully provided by a transmission customer, charges for financial compensation may apply.

Rate Schedule SP-RS4

SCHEDULE 2 to Tariff
(Supersedes Schedule SP-RS3)

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

**REACTIVE SUPPLY AND VOLTAGE CONTROL FROM GENERATION AND
OTHER SOURCES SERVICE**
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-RS4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

To all CRSP transmission customers receiving this service.

Formula Rate:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS2, or as superseded.

Rate Schedule SP-SD4

SCHEDULE 1 to Tariff
(Supersedes Schedule SP-SD3)

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

SCHEDULING, SYSTEM CONTROL, AND DISPATCH SERVICE
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-SD4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

Scheduling, System Control, and Dispatch service is required to schedule the movement of power through, out of, within, or into a control area. The transmission customer must purchase this service from the transmission provider. The charges for this service will be included in the CRSP transmission service rates.

Formula Rate:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS1, or as superseded.

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

**OPERATING RESERVES - SPINNING AND
SUPPLEMENTAL RESERVE SERVICES**
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-SSR4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

To all CRSP transmission customers receiving this service.

Character of Service:

Spinning Reserve is defined in Schedule 5 of Western Area Power Administration's Open Access Transmission Tariff.

Supplemental Reserve is defined in Schedule 6 of Western Area Power Administration's Open Access Transmission Tariff.

Formula Rate:

The transmission customer serving loads within the transmission provider's balancing authority must acquire Spinning and Supplemental Reserve services from CRSP, from a third party, or by self-supply.

**UNITED STATES DEPARTMENT OF ENERGY
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER
COLORADO RIVER STORAGE PROJECT**

UNRESERVED USE PENALTIES
(Approved Under Rate Order No. WAPA-169)

Effective:

Rate Schedule SP-UU1 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

The transmission customer shall compensate the Colorado River Storage Project (CRSP) each month for any unreserved use of the transmission system (Unreserved Use) under the applicable transmission service rates as outlined herein. Unreserved Use occurs when an eligible customer uses transmission service that it has not reserved or a transmission customer uses transmission service in excess of its reserved capacity. Unreserved Use may also include a customer's failure to curtail transmission when requested.

Penalty Rate:

The penalty rate for a transmission customer that engages in Unreserved Use is 200 percent of CRSP's approved transmission service rate for point-to-point (PTP) transmission service assessed as follows:

- (i) The Unreserved Use Penalty for a single hour of Unreserved Use is based upon the rate for daily firm PTP service.
- (ii) The Unreserved Use Penalty for more than one assessment for a given duration (e.g., daily) increases to the next longest duration (e.g., weekly).
- (iii) The Unreserved Use Penalty for multiple instances of Unreserved Use (e.g., more than 1 hour) within a day is based on the rate for daily firm PTP service. The Unreserved Use Penalty charge for multiple instances of Unreserved Use isolated to 1 calendar week would result in a penalty based on the rate for weekly firm PTP service. The Unreserved Use Penalty charge for multiple instances of Unreserved Use during more than 1 week in a calendar month will be based on the rate for monthly firm PTP service.

A transmission customer that exceeds its firm reserved capacity at any point of receipt or point of delivery or an eligible customer that uses transmission service at a point of receipt or point of delivery that it has not reserved is required to pay for all ancillary services identified in Western's Open Access Transmission Tariff that were provided by the CRSP and associated with the Unreserved Use. The customer will pay for ancillary services based on the amount of transmission service it used and did not reserve.

Rate:

The rate for Unreserved Use Penalties is 200 percent of Western's approved rate for firm point-to-point transmission service assessed as described above. Any change to the rate for Unreserved Use Penalties will be listed in a revision to this rate schedule issued under applicable Federal laws and policies and made part of the applicable service agreement.



Energy:	10.86	mills/kWh
Cap/Year:	\$55.37	\$/kW/Yr
Cap/Month:	\$4.61	\$/kW/Mo
Composite:	26.00	mills/kWh

POWER REPAYMENT STUDY
CRSP Preliminary FY2018 PRS
CRSP

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Expenses										
Fiscal Year	Total Revenue	Operations & Maintenance Expense	Reimb Environmental Costs	Purchased Power/Wheel Expense	Trans Service	Integrated Projects Req	Provision for Depreciation	Other Expense	Interest Expense	Total Expenses
1963	0	0	0	0	0	0	0	0	0	0
1964	502,389	282,944	0	35,982	47,088	0	0	0	0	366,014
1965	6,809,318	1,630,257	0	6,565,185	303,635	0	563,591	(267,812)	1,648,599	10,443,455
1966	12,404,568	2,735,020	0	3,029,057	594,741	0	718,437	(533,581)	7,147,834	13,691,508
1967	15,937,160	3,644,625	0	2,168,409	794,445	0	1,045,571	490,824	10,038,142	18,182,016
1968	20,549,155	4,719,416	0	3,250,857	874,559	0	1,136,520	0	10,435,006	20,416,358
1969	21,850,630	4,450,471	0	3,657,815	1,035,086	0	1,328,351	(1,211,156)	11,556,749	20,817,316
1970	26,939,069	5,282,781	0	2,292,900	1,062,155	0	1,419,030	765,389	11,735,308	22,557,563
1971	30,028,502	5,803,696	0	2,983,857	1,138,520	0	1,411,645	116,524	11,599,679	23,053,921
1972	32,905,707	5,961,964	0	2,616,071	1,282,777	0	1,592,016	(610,917)	12,672,263	23,514,174
1972 Acct Change	0	0	0	0	0	0	0	0	0	0
1973	37,754,545	6,284,812	0	3,899,893	1,475,779	0	0	(318,951)	12,443,502	23,785,035
1974	39,763,221	6,938,788	0	8,335,947	1,778,772	0	0	701,367	12,105,330	29,860,204
1975	48,747,091	8,326,417	0	9,239,437	1,986,312	0	0	(79,916)	11,788,584	31,260,834
1976	60,694,140	8,521,105	0	17,467,467	2,051,052	0	0	(1,454,330)	11,344,562	37,929,856
1977	53,355,083	11,515,395	0	24,933,660	2,608,917	0	0	754,061	13,001,086	52,813,119
1978	48,750,354	9,111,992	0	23,553,171	2,553,109	0	0	(4,832,105)	10,812,434	41,198,601
1979	54,338,817	13,348,016	0	25,911,544	2,305,636	0	0	2,840,330	12,131,498	56,537,024
1980	77,381,160	14,257,769	0	12,332,688	3,079,667	0	0	1,377,372	12,191,477	43,238,973
1981	73,772,955	15,733,048	0	33,631,729	2,132,104	0	0	(2,074,618)	11,693,161	61,115,424
1982	77,794,133	15,536,976	0	28,975,286	2,893,097	0	0	1,763,190	11,145,115	60,313,664
1983	107,591,915	19,773,666	0	15,357,614	1,962,809	0	0	113,191	11,695,337	48,902,617
1984	121,229,658	18,635,601	441,734	7,694,276	1,912,684	0	0	232,035	11,247,994	40,164,324
1985	137,190,303	21,711,726	877,815	11,340,212	3,907,383	0	0	0	8,864,714	46,701,850
1986	123,316,125	26,032,650	2,211,616	10,850,203	512,286	0	0	5,492	8,029,092	47,641,339
1987	109,289,435	25,878,672	2,912,557	8,819,484	3,770,005	0	0	477,601	5,151,186	47,009,505
1988	88,423,442	26,292,634	2,782,501	19,957,005	4,333,004	0	0	1,718,334	3,668,766	58,752,244
1989	85,736,026	33,585,416	2,926,481	35,308,667	5,769,558	0	0	1,796,214	6,848,150	86,234,486
1990	72,692,102	31,899,373	8,059,600	24,199,992	5,641,275	0	0	3,959,516	13,875,319	87,635,075
1991	110,274,885	35,482,743	28,551,929	15,634,456	6,000,587	0	0	3,316,480	19,864,455	108,650,650
1992	105,888,635	34,445,992	24,704,234	20,970,129	7,259,000	0	0	4,541,390	25,276,213	117,196,958
1993	111,049,653	39,435,687	3,943,043	21,753,908	8,051,866	0	0	8,007,536	40,576,000	121,768,040
1994	113,320,463	42,890,878	1,181,032	19,539,560	6,729,489	0	0	0	77,418,372	147,759,331
1995	123,565,864	43,638,911	0	14,475,684	7,339,947	0	0	0	43,184,664	108,639,206
1996	131,836,473	43,434,092	0	675,492	7,521,014	0	0	0	49,408,316	101,038,916
1997	149,655,702	42,756,767	0	5,629,383	7,684,662	0	0	0	41,813,173	97,883,985
1998	158,621,654	53,844,753	0	5,785,184	4,591,079	0	0	0	43,840,994	108,062,010
1999	141,042,798	55,386,127	0	17,602,411	8,186,655	0	0	7,667,098	24,116,666	112,958,957
2000	185,763,637	53,264,508	0	95,122,439	8,284,150	0	0	1,352,000	33,661,904	191,685,001
2001	292,456,458	54,475,072	0	182,746,641	12,894,421	0	0	8,292,377	27,013,879	285,422,390
2002	132,848,806	54,144,044	0	34,804,388	7,806,788	0	0	1,814,000	27,483,022	126,052,242
2003	173,509,323	54,783,663	0	80,854,603	13,458,463	0	0	1,932,000	26,317,579	177,346,308
2004	201,287,909	56,340,466	0	73,469,887	12,579,366	0	0	2,161,000	23,777,621	168,328,340
2005	152,279,594	56,680,653	0	62,639,687	10,391,094	0	0	2,161,000	21,211,910	153,084,344
2006	163,046,955	52,738,961	0	63,083,598	13,773,791	0	0	2,099,000	31,166,268	162,861,618
2007	160,644,551	65,720,837	0	47,715,657	14,586,310	0	0	0	22,567,767	150,590,571
2008	180,784,575	64,055,868	0	44,106,672	10,624,909	0	0	3,053,434	22,888,389	144,729,272
2009	166,710,021	64,775,812	0	32,090,240	11,454,441	0	0	2,701,000	19,601,598	130,623,091
2010	179,735,095	71,843,691	0	26,420,413	10,446,428	0	0	1,902,218	18,749,874	129,362,624
2011	212,284,161	74,390,212	0	37,376,035	9,996,428	0	0	(17,660,129)	13,578,117	117,680,663
2012	188,808,679	77,648,355	0	32,782,870	9,979,334	0	0	11,013,043	5,782,591	137,206,193
2013	191,574,640	69,639,970	0	66,289,501	9,115,093	0	0	(1,670,409)	(131,604,376)	11,769,779
2014	188,218,733	74,159,845	0	78,036,697	6,333,111	0	0	26,676,754	235,403	185,441,810
2015	194,499,726	78,354,197	0	37,659,105	9,276,728	0	0	6,311,790	2,872,355	134,474,175
2016	177,295,409	78,792,765	0	19,644,620	7,264,215	0	0	11,530,600	3,971,586	121,203,246
2017	230,502,960	93,997,154	0	34,312,501	9,471,146	0	0	(9,682,306)	9,761,061	137,859,556
2018	185,580,113	82,116,064	886,000	9,725,269	8,749,745	8,272,847	0	13,361,273	11,621,057	134,732,255
PRIOR YEAR ADJ.	(19,295,130)	47,471,461	(36,392,944)	(9,478,220)	(50)	(9,215,161)	0	(30,021,879)	(37,636,773)	
HISTORICAL SUBTOTAL	6,269,539,344	2,064,604,798	43,085,598	1,519,877,218	317,656,665	8,272,847	0	96,608,664	791,005,466	4,841,111,256
2019	185,423,694	83,715,343	886,000	15,909,693	8,376,923	8,215,485	0	13,321,893	8,973,147	139,398,484
2020	169,709,608	87,962,399	886,000	15,181,461	8,415,923	8,216,720	0	13,368,718	8,399,501	142,430,722
2021	169,792,752	86,876,646	886,000	14,281,805	8,415,923	8,209,018	0	13,224,528	8,376,248	140,270,167
2022	169,792,752	91,765,747	886,000	9,157,931	8,415,923	7,997,375	0	13,324,528	7,911,268	139,458,772
2023	169,948,313	91,719,406	886,000	4,000,000	8,415,923	8,001,558	0	13,324,528	7,349,195	133,696,610
2024	171,486,262	91,719,406	886,000	4,000,000	8,415,923	8,134,001	0	13,324,528	6,683,357	133,163,215
2025	171,915,375	91,719,406	886,000	4,000,000	8,415,923	8,133,211	0	13,324,528	5,869,391	132,348,459
2026	172,120,747	91,719,406	886,000	4,000,000	8,415,923	8,135,451	0	3,120,842	4,546,629	120,824,251
2027	172,120,747	91,719,406	886,000	4,000,000	8,415,923	8,093,513	0	1,711,528	2,524,039	117,350,409
2028	172,415,424	91,719,406	886,000	4,000,000	8,415,923	8,124,502	0	1,711,528	733,388	115,590,747
2029	172,476,222	91,719,406	886,000	4,000,000	8,415,923	8,061,084	0	1,711,528	462,613	115,256,564
2030	172,476,222	91,719,406	886,000	4,000,000	8,415,923	8,070,404	0	1,711,528	460,523	115,263,784
2031	172,503,906	91,719,406	886,000	4,000,000	8,415,923	8,074,499	0	1,686,528	0	114,782,356
2032	172,503,906	91,719,406	886,000	4,000,000	8,415,923	6,934,183	0	1,686,528	0	113,642,040
2033	172,503,906	91,719,406	886,000	4,000,000	8,415,923	6,983,085	0	1,686,528	0	113,690,942
2034	172,503,906	91,719,406	886,000	4,000,000	8,415,923	6,997,665	0	1,661,528	0	113,680,522
2035	172,503,906	91,719,406	886,000	4,000,000	8,415,923	6,914,862	0	1,661,528	0	113,597,719
2036	172,503,906	91,719,406	886,000	4,000,000	8,415,923	6,917,313	0	1,661,528	0	113,600,170
2037	172,503,906	91,719,406	886,000	4,000,000	8,415,923	6,914,369	0	1,611,528	0	113,547,226
2038	172,503,906	91,719,406	886,000	4,000,000	8,415,923	7,103,478	0	1,611,528	0	113,736,335
2039	172,503,906	91,719,406	886,000	4,000,000	8,415,923	7,103,769	0	4,811,536	0	116,936,634
2040	172,503,906	91,719,406	886,000	4,000,000	8,415,923	7,105,214	0	1,576,275	0	113,702,818
2041	172,503,906	91,719,406	886,000	4,000,000	8,415,923	7,126,588	0	1,511,528	0	113,659,445
2042	172,503,906	91,719,406	0	4,000,000	8,415,923	7,563,416	0	1,859,133	0	113,557,878
2043	172,503,906	91,719,406	0	4,000,000	8,415,923	7,046,639	0	1,669,982	0	112,851,950
2044	172,503,906	91,719,406	0	4,000,000	8,415,923	7,149,272	0	1,511,528	0	112,796,129
2045	172,503,906	91,719,406	0	4,000,000	8,415,923	6,908,550	0	1,511,528	0	



POWER REPAYMENT STUDY
CRSP Preliminary FY2018 PRS
CRSP

(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
				Capitalized Deficits				Replacements			
Fiscal Year	Prior Year Adj	Credit Reserve for Depreciation	Revenue After Annual Expenses	Principal Payment	Unpaid Balance	Allowable Unpaid Balance	Cumulative Balance	Principal Payment	Unpaid Balance	Allowable Unpaid Balance	Cumulative Balance
1963	0	0	0	0	0	0	0	0	0	0	0
1964	26,308	10,845	173,528	0	0	0	0	0	0	0	0
1965	118,903	274,463	(2,630,213)	0	0	0	0	0	0	0	0
1966	510,773	154,484	(497,746)	0	0	0	0	0	0	0	0
1967	22,698	92,764	(1,242,759)	0	0	0	0	0	0	0	0
1968	(200,660)	102,374	832,923	0	0	0	0	0	0	0	0
1969	(380)	104,726	2,338,109	0	0	0	0	0	0	0	0
1970	0	108,999	5,857,170	0	0	0	0	0	0	0	0
1971	0	115,103	8,424,873	0	0	0	0	0	0	0	0
1972	37,174	116,331	10,973,715	0	0	0	0	0	0	0	0
1972 Acct Change	(384,550)	(1,080,099)	0	0	0	0	0	0	0	0	0
1973	(663,716)	0	13,305,794	0	0	0	0	66,000	0	66,000	66,000
1974	(41,322)	0	9,861,695	0	0	0	0	38,000	0	104,000	104,000
1975	(88,762)	0	17,397,492	0	0	0	0	13,000	0	117,000	117,000
1976	(180,060)	0	22,584,224	0	0	0	0	37,623	0	154,623	154,623
1977	(360,642)	0	181,322	0	0	0	0	181,322	322,567	658,512	658,512
1978	(506,131)	0	7,045,622	0	0	0	0	939,055	0	1,275,000	1,275,000
1979	(342,160)	0	(2,540,367)	0	0	0	0	0	234,851	1,509,851	1,509,851
1980	1,418,395	0	35,560,582	0	0	0	0	1,457,310	0	2,732,310	2,732,310
1981	(2,982,764)	0	9,674,767	0	0	0	0	9,674,767	3,813,037	16,220,114	16,220,114
1982	(7,446,257)	0	10,034,212	0	0	0	0	6,710,990	0	19,118,067	19,118,067
1983	0	0	58,689,298	0	0	0	0	10,010,974	0	29,129,041	29,129,041
1984	0	0	81,065,353	0	0	0	0	9,222,171	0	38,351,212	38,351,212
1985	0	0	90,488,453	0	0	0	0	3,582,980	0	41,934,192	41,934,192
1986	3,814,865	0	79,489,651	0	0	0	0	(4,609,381)	0	37,324,811	37,324,811
1987	0	0	62,279,930	0	0	0	0	3,758,229	0	41,083,040	41,083,040
1988	0	0	31,275,867	0	0	0	0	9,109,651	0	50,192,691	50,192,691
1989	(18,771,799)	0	(17,665,590)	0	17,623,413	17,623,413	17,623,413	0	6,808,088	57,000,779	57,000,779
1990	5,390,261	0	(5,878,956)	0	23,502,370	23,502,370	23,502,370	0	9,411,020	59,603,711	59,603,711
1991	(34,281,734)	0	(30,870,261)	0	41,894,528	54,372,631	54,372,631	0	48,462,134	72,622,832	72,622,832
1992	(13,828,389)	0	(21,366,372)	0	73,266,763	75,739,003	75,739,003	0	51,176,406	75,017,104	75,336,773
1993	64,540,416	0	61,500,905	1,848,096	11,765,858	75,739,003	75,739,003	0	52,114,143	75,954,841	76,274,510
1994	(14,823,982)	0	(49,262,850)	0	61,028,712	125,001,857	125,001,857	0	64,661,883	89,462,988	88,822,250
1995	(7,919,020)	0	7,007,635	7,007,635	54,021,077	125,001,857	125,001,857	0	47,157,342	91,720,767	92,043,657
1996	0	0	30,797,559	30,797,559	23,223,518	125,001,857	125,001,857	0	50,144,236	93,954,038	95,030,551
1997	(138,018)	0	51,633,699	12,996,038	10,227,480	125,001,857	125,001,857	138,154	55,695,161	99,354,941	100,587,336
1998	929,356	0	51,489,000	0	10,227,480	125,001,857	125,001,857	20,729,720	33,291,559	101,420,191	102,652,586
1999	(325,843)	0	27,757,998	0	10,227,480	125,001,857	125,001,857	214,873	35,013,208	102,536,685	104,589,108
2000	2,658,406	0	(3,262,958)	3,471,093	10,227,480	128,472,950	128,472,950	208,135	48,359,879	115,222,019	118,143,914
2001	729,968	0	7,764,036	0	10,227,480	128,472,950	128,472,950	168,956	51,763,438	118,672,604	121,716,429
2002	0	0	6,796,564	0	10,227,480	128,472,950	128,472,950	2,403,429	57,440,640	126,890,179	129,797,060
2003	69,767	0	(3,767,218)	0	13,994,699	132,240,169	132,240,169	22,228,409	140,848,924	136,920,711	136,920,711
2004	0	0	32,959,569	3,767,219	10,227,480	132,240,169	132,240,169	7,192,105	138,899,023	119,329,296	142,162,916
2005	(4,111,062)	0	(804,750)	0	11,310,818	133,323,507	133,323,507	278,587	140,889,688	121,397,431	144,432,168
2006	7,139,016	0	7,324,353	1,083,338	10,227,480	133,323,507	133,323,507	2,394,523	146,163,747	128,702,518	152,100,750
2007	0	0	10,053,980	0	10,227,480	133,323,507	133,323,507	5,382,373	147,649,549	133,983,199	158,968,925
2008	0	0	36,055,303	0	10,227,480	18,549,130	133,323,507	16,420,981	143,894,883	147,027,734	171,635,240
2009	0	0	36,086,930	0	10,227,480	18,549,130	133,323,507	9,661,349	138,069,643	149,689,941	175,564,329
2010	0	0	50,372,471	0	10,227,480	15,078,037	133,323,507	31,103,305	116,624,596	157,555,602	185,222,587
2011	0	0	94,603,498	0	10,227,480	15,078,037	133,323,507	43,211,877	83,220,674	167,104,618	195,030,542
2012	0	0	51,602,486	0	10,227,480	15,078,037	133,323,507	32,667,008	59,584,841	120,107,034	204,061,716
2013	0	0	179,804,861	0	10,227,480	11,310,818	133,323,507	11,696,965	57,998,177	116,605,784	214,172,017
2014	0	0	2,776,923	0	10,227,480	11,310,818	133,323,507	(471,107)	60,048,671	113,291,730	215,751,404
2015	0	0	60,025,551	0	10,227,480	10,227,480	133,323,507	698,562	70,581,673	122,052,325	226,982,968
2016	0	0	56,092,163	0	10,227,480	10,227,480	133,323,507	0	144,943,531	206,225,199	301,344,826
2017	0	0	92,643,404	0	10,227,480	10,227,480	133,323,507	0	166,220,184	226,589,135	322,621,479
2018	0	0	50,847,858	0	10,227,480	10,227,480	133,323,507	50,372,476	197,498,610	305,306,341	404,272,380
PRIOR YEAR ADJ.	19,990,945	0	4,686,822	62,125,049	(10,227,480)	(10,227,480)	(10,227,480)	15,876,754	(57,998,177)	57,998,177	57,998,177
HISTORICAL SUBTOTAL	0	(10)	1,428,428,029	123,096,027	0	0	123,096,027	322,770,124	139,500,433	363,304,518	462,270,557
2019	0	0	46,025,210	0	0	0	123,096,027	33,609,679	147,847,014	401,969,941	504,226,817
2020	0	0	27,278,886	0	0	0	123,096,027	20,354,655	167,004,599	438,434,871	543,739,057
2021	0	0	29,522,585	0	0	0	123,096,027	10,874,805	183,893,874	457,797,737	571,503,137
2022	0	0	30,333,980	0	0	0	123,096,027	26,400,304	173,782,350	470,431,399	587,791,917
2023	0	0	36,251,703	0	0	0	123,096,027	35,116,045	164,149,685	492,263,125	613,275,297
2024	0	0	38,323,047	0	0	0	123,096,027	37,557,698	143,003,138	506,667,863	629,686,448
2025	0	0	39,566,916	0	0	0	123,096,027	32,921,386	125,634,092	514,906,718	645,238,788
2026	0	0	51,296,496	0	0	0	123,096,027	51,296,496	79,421,808	514,575,653	650,322,999
2027	0	0	54,770,338	0	0	0	123,096,027	54,770,338	29,860,163	517,452,296	655,631,693
2028	0	0	56,824,677	0	0	0	123,096,027	37,329,836	(0)	519,656,985	663,001,365
2029	0	0	57,219,668	0	0	0	123,096,027	5,103,546	21,887,986	536,746,919	689,992,898
2030	0	0	57,212,438	0	0	0	123,096,027	39,536,503	(0)	543,823,773	707,641,415
2031	0	0	57,721,550	0	0	0	123,096,027	22,331,283	(0)	555,376,843	729,972,698
2032	0	0	58,861,866	0	0	0	123,096,027	17,568,859	(0)	565,839,761	747,541,557
2033	0	0	58,812,965	0	0	0	123,096,027	10,452,101	(0)	568,999,063	757,993,659
2034	0	0	58,823,384	0	0	0	123,096,027	5,748,008	(0)	570,598,497	763,741,667
2035	0	0	58,906,187	0	0	0	123,096,027	9,328,488	(0)	570,974,566	773,070,155
2036	0	0	58,903,736	0	0	0	123,096,027	12,610,349	(0)	566,194,274	785,680,504
2037	0	0	58,956,680	0	0	0	123,096,027	12,881,541	(0)	559,802,173	798,562,044
2038	0	0	58,767,571	0	0	0	123,096,027	7,639,385	(0)	560,444,987	806,201,429
2039	0	0	55,567,272	0	0	0	123,096,027	4,605,031	(0)	556,336,841	810,806,460
2040	0	0	58,801,088	0	0	0	123,096,027	6,774,808	(0)	552,229,164	817,581,268
2041	0	0	58,844,462	0	0	0	123,096,027	14,583,083	(0)	552,083,391	832,164,351
2042	0	0	58,946,029	0	0	0	123,096,027	12,592,145	(0)	553,589,827	844,756,496
2043	0	0	59,651,956	0	0	0	123,096,027	21,931,658	(0)	557,356,861	866,688,154
2044	0	0	59,707,777	0	0	0	123,096,027	15,157,707	(0)	568,728,482	881,845,862
2045	0	0	59,948,499	0	0	0	123,096,027	13,491,370	(0)	570,315,922	895,337,232
2046	0	0	58,679,911	0	0	0	123,096,027	189,147	(0)	550,411,726	895,526,379
2047	0	0	57,538,344	0	0	0	123,096,027	10,777,614	(0)	546,391,187	906,303,993
2048	0	0	59,949,233	0	0	0	123,096,027	6,889,602	(0)	533,632,359	913,193,594
2049	0	0	59,874,777	0	0	0					



(1)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
	Project and Additions					Aid to Irrigation			
Fiscal Year	Principal Payment	Unpaid Balance	Allowable Unpaid Balance	Cumulative Balance	Annual Surplus M&I Revenue	Principal Payment	Unpaid Balance	Allowable Unpaid Balance	Cumulative Balance
1963	0	0	0	0	0	0	30,789,858	30,789,858	30,789,858
1964	173,528	56,741,704	56,915,232	56,915,232	0	0	40,108,372	40,108,372	40,108,372
1965	(2,630,213)	248,620,315	246,163,630	246,163,630	0	0	72,387,918	72,387,918	72,387,918
1966	(497,746)	349,129,698	346,175,267	346,175,267	0	0	87,823,331	87,823,331	87,823,331
1967	(1,242,759)	362,843,669	358,646,479	358,646,479	0	0	89,055,148	89,055,148	89,055,148
1968	832,923	405,605,462	402,241,195	402,241,195	0	0	93,063,136	93,063,136	93,063,136
1969	2,338,109	411,820,133	410,793,975	410,793,975	0	0	94,145,102	94,145,102	94,145,102
1970	5,857,170	407,106,213	411,937,225	411,937,225	0	0	94,015,426	94,015,426	94,015,426
1971	8,424,873	448,261,415	461,517,300	461,517,300	0	0	104,239,552	104,239,552	104,239,552
1972	10,973,715	440,185,928	464,415,528	464,415,528	0	0	101,226,606	101,226,606	101,226,606
1972 Acct Change	0	0	0	0	0	0	0	0	0
1973	13,239,794	428,008,841	465,478,235	465,478,235	0	0	100,470,395	100,470,395	100,470,395
1974	9,823,695	420,100,546	467,393,635	467,393,635	0	0	99,635,617	99,635,617	99,635,617
1975	17,384,492	400,732,286	465,409,867	465,409,867	0	0	98,115,974	98,115,974	98,115,974
1976	22,546,601	377,689,784	464,913,966	464,913,966	0	0	98,650,431	98,650,431	98,650,431
1977	0	391,003,844	478,228,026	478,228,026	0	0	98,822,190	98,822,190	98,822,190
1978	6,106,567	446,408,907	539,739,656	539,739,656	0	0	98,652,940	98,652,940	98,652,940
1979	(2,540,367)	463,328,075	554,118,457	554,118,457	0	0	99,543,876	99,543,876	99,543,876
1980	34,103,272	425,654,284	550,547,938	550,547,938	0	0	99,504,775	99,504,775	99,504,775
1981	0	410,122,036	535,015,690	535,015,690	0	0	99,206,939	99,206,939	99,206,939
1982	3,323,222	412,940,674	541,157,550	541,157,550	0	0	100,060,762	100,060,762	100,060,762
1983	48,678,324	371,211,583	548,106,783	548,106,783	0	0	100,492,579	100,492,579	100,492,579
1984	72,246,558	456,552,417	585,636,294	585,636,294	550,000	550,000	99,942,579	100,492,579	100,492,579
1985	86,905,473	376,630,917	592,620,267	592,620,267	765,000	765,000	99,177,579	100,492,579	100,492,579
1986	144,300,440	199,952,864	620,444,062	620,444,062	1,086,000	1,086,000	109,817,050	112,218,050	112,218,050
1987	58,521,701	141,208,968	620,221,867	620,221,867	1,089,200	1,089,200	108,727,850	112,218,050	112,218,050
1988	22,171,349	170,076,921	671,271,435	671,266,302	1,088,600	1,088,600	107,639,250	112,218,050	112,218,050
1989	0	223,981,290	722,726,021	722,726,021	1,094,500	1,094,500	106,544,750	112,218,050	112,218,050
1990	0	271,545,922	770,290,653	770,290,653	1,098,200	1,098,200	105,446,550	112,218,050	112,218,050
1991	3,590,282	242,286,331	785,718,225	785,718,225	1,099,100	1,099,100	110,221,428	118,092,028	118,092,028
1992	0	301,695,580	961,215,570	961,215,570	1,421,300	1,421,300	109,032,440	118,324,340	118,324,340
1993	0	284,916,663	1,066,436,653	1,066,436,653	1,555,100	1,555,100	112,959,985	123,806,985	123,806,985
1994	0	196,255,057	1,066,508,945	1,066,508,945	1,557,100	1,557,100	111,402,885	123,806,985	123,806,985
1995	0	302,786,818	1,112,971,954	1,112,971,954	115,392	115,392	114,215,508	126,735,000	126,735,000
1996	0	276,909,065	1,121,686,591	1,121,686,591	0	0	114,517,508	127,037,000	127,037,000
1997	38,499,505	246,680,908	1,124,354,469	1,124,354,469	0	0	96,677,839	109,197,331	109,197,331
1998	39,651,390	196,851,376	1,124,354,417	1,124,354,417	0	0	97,675,178	110,194,670	110,194,670
1999	27,543,125	182,993,525	1,138,039,690	1,138,039,690	0	0	97,052,598	109,572,090	109,572,090
2000	(3,471,093)	162,139,932	1,113,715,004	1,113,715,004	347,764	347,764	98,478,301	111,345,557	111,345,557
2001	7,595,080	164,406,525	1,123,576,677	1,123,576,677	307,600	307,600	98,344,181	111,519,037	111,519,037
2002	13,191,008	105,500,632	1,148,979,232	1,148,979,232	490,100	490,100	97,854,081	111,519,037	111,519,037
2003	(22,228,409)	47,341,479	1,180,973,336	1,180,973,336	304,040	304,040	95,956,703	109,925,699	109,925,699
2004	22,000,244	30,171,241	1,185,803,342	1,185,803,342	504,400	504,400	95,452,303	109,925,699	109,925,699
2005	0	35,287,203	1,186,808,242	1,186,808,242	552,131	552,131	96,464,470	111,489,997	111,489,997
2006	3,846,494	34,529,851	1,189,897,384	1,189,897,384	440,300	440,300	96,024,170	111,489,997	111,489,997
2007	4,671,607	33,921,050	1,193,960,190	1,193,960,190	(219,514)	(219,514)	95,782,422	111,028,735	111,028,735
2008	19,356,260	16,177,873	1,198,642,168	1,195,573,273	435,436	0	95,682,176	110,928,489	110,928,489
2009	26,425,581	(4,796,091)	1,184,069,995	1,201,209,987	0	0	95,246,740	110,928,489	110,928,489
2010	19,269,168	(19,866,531)	1,207,832,475	1,205,408,716	216,385	216,385	96,355,025	112,253,159	112,253,159
2011	51,391,621	(64,933,021)	1,214,157,606	1,211,733,847	382,949	382,949	96,185,655	112,466,738	112,466,738
2012	18,935,478	(81,212,893)	1,217,568,322	1,214,389,453	257,421	257,421	95,928,234	112,466,738	112,466,738
2013	120,354,257	(225,822,853)	1,190,133,750	1,190,133,750	245,929	47,999,565	46,393,186	80,141,397	110,931,255
2014	471,107	(218,083,615)	1,158,516,648	1,198,344,095	349,906	3,126,828	39,924,891	96,393,435	107,589,788
2015	(698,562)	(208,421,278)	1,167,480,423	1,207,307,870	2,628,796	2,628,796	37,979,538	69,910,991	107,273,321
2016	56,092,163	(241,718,691)	1,190,989,172	1,230,102,619	3,457,105	3,457,105	33,838,598	53,791,743	107,589,396
2017	5,389,974	(241,655,093)	1,196,442,744	1,235,556,191	5,489,717	5,489,717	28,348,798	52,559,843	107,589,313
2018	183,118	(240,636,558)	1,196,844,668	1,236,757,844	3,532,701	3,532,701	24,816,097	48,551,855	107,589,313
PRIOR YEAR ADJ.	(105,543,960)	284,919,122	(284,919,122)	(284,919,122)	0	435,436	0	0	0
HISTORICAL SUBTOTAL	907,556,159	44,282,564	911,925,546	951,838,722	32,242,658	82,773,216	24,816,097	48,551,855	107,589,313
2019	12,415,531	32,632,382	912,638,154	952,604,071	3,604,102	3,604,102	21,211,995	47,469,889	107,589,313
2020	6,924,231	26,473,501	913,361,928	953,369,421	3,698,042	3,698,042	17,513,953	47,469,889	107,589,313
2021	18,647,780	8,591,070	870,796,653	954,134,770	3,780,792	3,780,792	13,733,161	37,245,763	107,589,313
2022	3,933,676	5,422,743	869,352,170	954,900,119	3,856,793	3,856,793	9,876,368	37,245,763	107,589,313
2023	1,135,658	5,052,434	869,876,968	955,665,469	3,930,262	3,930,262	5,946,106	37,245,763	107,589,313
2024	765,349	5,052,434	869,794,172	956,430,818	4,006,385	4,006,385	1,939,721	37,245,763	107,589,313
2025	755,211	5,052,434	870,519,858	957,186,029	4,108,701	0	1,939,721	37,245,763	107,589,313
2026	0	5,052,434	870,512,263	957,186,029	4,240,663	1,939,721	0	36,711,306	107,589,313
2027	0	5,052,434	870,459,872	957,186,029	4,321,564	0	0	36,539,547	107,589,313
2028	5,052,435	(1)	812,690,763	957,186,029	4,405,782	0	0	36,539,547	107,589,313
2029	0	(1)	812,028,181	957,186,029	4,490,604	0	0	35,648,611	107,589,313
2030	0	(1)	811,914,380	957,186,029	4,607,946	0	0	35,648,611	107,589,313
2031	0	(1)	811,914,380	957,186,029	4,733,040	0	0	35,648,611	107,589,313
2032	0	(1)	811,909,084	957,186,029	4,825,427	0	0	35,648,611	107,589,313
2033	0	(1)	811,452,363	957,186,029	4,919,702	0	0	35,216,794	107,589,313
2034	0	(1)	811,452,363	957,186,029	5,015,860	0	0	35,216,794	107,589,313
2035	0	(1)	811,260,036	957,186,029	460,429	0	0	35,216,794	107,589,313
2036	0	(1)	776,067,561	957,186,029	490,255	0	0	23,491,323	107,589,313
2037	0	(1)	775,390,881	957,186,029	497,526	0	0	23,491,323	107,589,313
2038	0	(1)	783,575,902	957,186,029	504,995	0	0	23,491,323	107,589,313
2039	0	(1)	736,066,311	957,186,029	512,669	0	0	23,491,323	107,589,313
2040	0	(1)	742,447,990	957,186,029	563,297	0	0	23,491,323	107,589,313
2041	0	(1)	423,090,816	957,186,029	571,396	0	0	17,617,345	107,589,313
2042	0	(1)	386,562,781	957,186,029	607,141	0	0	17,385,033	107,589,313
2043	0	(1)	396,076,405	957,186,029	616,537	0	0	11,902,388	107,589,313
2044	0	(1)	396,076,113	957,186,029	624,246	0	0	11,902,388	107,589,313
2045	0	(1)	350,370,475	957,186,029	683,167	0	0	8,974,373	107,589,313
2046	0	(1)	356,252,063	957,186,029	631,364	0	0	6,046,358	107,589,313
2047	0	(1)	353,046,280	957,186,029	657,978	0	0	6,046,358	107,589,313
2048	0	(1)	357,611,546	957,186,029	668,090	0	0	5,049,019	107,589,313
2049	0	(1)	356,963,373	957,186,029	677,321	0	0	5,	

				
(1)	(32)	(33)	(34)	(35)
Aid to Participating Projects				
Fiscal Year	Principal Payment	Unpaid Balance	Allowable Unpaid Balance	Cumulative Balance
1963	0	0	0	0
1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0
1969	0	0	0	0
1970	0	0	0	0
1971	0	0	0	0
1972	0	0	0	0
1972 Acct Change	0	0	0	0
1973	0	0	0	0
1974	0	0	0	0
1975	0	0	0	0
1976	0	0	0	0
1977	0	0	0	0
1978	0	0	0	0
1979	0	0	0	0
1980	0	0	0	0
1981	0	0	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	0	0	0	0
1985	0	0	0	0
1986	0	0	0	0
1987	0	0	0	0
1988	0	0	0	0
1989	0	0	0	0
1990	0	0	0	0
1991	0	0	0	0
1992	0	0	0	0
1993	0	0	0	0
1994	0	725,102,000	725,102,000	725,102,000
1995	0	637,143,000	637,143,000	637,143,000
1996	0	689,514,000	689,514,000	689,514,000
1997	0	2,620,167,300	2,620,167,300	2,620,167,300
1998	0	2,186,693,798	2,186,693,798	2,186,693,798
1999	0	2,568,537,549	2,568,537,549	2,568,537,549
2000	0	2,588,172,000	2,588,172,000	2,588,172,000
2001	0	2,588,172,000	2,588,172,000	2,588,172,000
2002	0	2,588,172,000	2,588,172,000	2,588,172,000
2003	0	2,588,148,837	2,588,148,837	2,588,148,837
2004	0	1,406,613,953	1,406,613,953	1,406,613,953
2005	0	1,406,613,953	1,406,613,953	1,406,613,953
2006	0	1,384,632,558	1,384,632,558	1,384,632,558
2007	0	1,402,762,791	1,402,762,791	1,402,762,791
2008	0	1,427,437,021	1,427,437,209	1,427,437,021
2009	0	1,426,855,814	1,426,855,814	1,426,855,814
2010	0	1,455,921,000	1,455,921,000	1,455,921,000
2011	0	1,077,948,000	1,077,948,047	1,077,948,000
2012	0	1,088,388,000	1,088,388,907	1,088,388,000
2013	0	1,093,183,000	1,093,183,000	1,093,183,000
2014	0	1,095,061,070	1,095,061,070	1,095,061,070
2015	60,025,551	1,007,896,263	1,067,921,814	1,067,921,814
2016	0	1,009,300,402	1,060,715,953	1,069,325,953
2017	87,253,429	923,729,253	1,058,299,233	1,071,008,233
2018	0	923,729,253	1,058,299,233	1,071,008,233
PRIOR YEAR ADJ.	0	0	0	0
HISTORICAL SUBTOTAL	147,278,980	923,729,253	1,058,299,233	1,071,008,233
2019	0	923,729,253	1,058,299,233	1,071,008,233
2020	0	923,729,253	1,051,906,233	1,071,008,233
2021	0	923,729,253	1,038,321,233	1,071,008,233
2022	0	923,729,253	1,038,321,233	1,071,008,233
2023	0	923,729,253	1,014,655,233	1,071,008,233
2024	0	923,729,253	1,014,655,233	1,071,008,233
2025	9,999,020	913,730,233	913,730,233	1,071,008,233
2026	2,300,942	911,429,291	913,730,233	1,071,008,233
2027	4,321,564	907,107,727	913,730,233	1,071,008,233
2028	18,848,187	888,259,539	913,730,233	1,071,008,233
2029	56,606,726	831,652,813	831,652,813	1,071,008,233
2030	22,283,881	809,368,933	831,652,813	1,071,008,233
2031	40,123,306	769,245,626	831,652,813	1,071,008,233
2032	46,118,434	723,127,193	831,652,813	1,071,008,233
2033	53,280,565	669,846,628	831,652,813	1,071,008,233
2034	58,091,236	611,755,392	831,652,813	1,071,008,233
2035	50,038,128	561,717,263	678,575,394	1,071,008,233
2036	46,783,642	514,933,622	678,575,394	1,071,008,233
2037	46,572,666	468,360,956	678,575,394	1,071,008,233
2038	51,633,181	416,727,775	678,575,394	1,071,008,233
2039	51,474,910	365,252,865	678,575,394	1,071,008,233
2040	52,589,577	312,663,287	678,575,394	1,071,008,233
2041	44,832,775	267,830,512	678,575,394	1,071,008,233
2042	46,961,024	220,869,488	678,575,394	1,071,008,233
2043	38,336,835	182,532,653	678,575,394	1,071,008,233
2044	45,174,316	137,358,338	678,575,394	1,071,008,233
2045	47,140,296	90,218,042	552,595,450	1,071,008,233
2046	59,122,128	31,095,914	552,595,450	1,071,008,233
2047	31,095,914	0	552,595,450	1,071,008,233
2048	0	0	381,421,537	1,071,008,233
2049	0	0	330,706,320	1,071,008,233
2050	0	0	330,706,320	1,071,008,233

**Salt Lake City Area Integrated Projects
Annual Revenue Requirements and Firm Power Rates Comparison Table**

Item	Unit	WAPA 169	FY 2018	Change	
		2017 Workplan	2020 Workplan	Amount	Percent
Rate Setting Period:					
Beginning year	FY	2016	2020		
Pinchpoint year	FY	2025	2029		
Number of rate setting years	Years	10	10		
Annual Revenue Requirements:					
<i>Expenses</i>					
Operation and Maintenance:					
WAPA	1,000	\$52,630	\$57,145	\$4,515	9%
Reclamation	1,000	\$34,535	\$33,719	(\$816)	-2%
Total O&M	1,000	\$87,165	\$90,864	\$3,699	4%
Purchased Power 1/	1,000	\$10,280	\$6,662	(\$3,618)	-35%
Transmission	1,000	\$10,421	\$8,416	(\$2,005)	-19%
Integrated Projects requirements	1,000	\$8,610	\$8,110	(\$500)	-6%
Interest	1,000	\$4,706	\$5,286	\$580	12%
Other 2/	1,000	\$14,587	\$9,701	(\$4,886)	-33%
Total Expenses	1,000	\$135,769	\$129,039	(\$6,730)	-5%
<i>Principal payments</i>					
Deficits	1,000	\$0	\$0	\$0	0%
Replacements	1,000	\$30,037	\$31,173	\$1,136	4%
Original Project and Additions	1,000	\$3,937	\$3,721	(\$216)	-5%
Irrigation 3/	1,000	\$14,130	\$7,245	(\$6,885)	-49%
Total principal payments	1,000	\$48,104	\$42,139	(\$5,965)	-12%
Total Annual Revenue Requirements	1,000	\$183,873	\$171,178	(\$12,695)	-7%
(Less Offsetting Annual Revenue:)					
Transmission (firm and non-firm)	1,000	\$19,640	\$22,283	\$2,643	13%
Merchant Function 4/	1,000	\$9,918	\$8,636	(\$1,282)	-13%
Other 5/	1,000	\$5,118	\$4,938	(\$180)	-4%
Total Offsetting Annual Revenue	1,000	\$34,676	\$35,857	\$1,181	3%
Net Annual Revenue Requirements	1,000	\$149,197	\$135,321	(\$13,876)	-9%
Energy Sales 6/	MWH	5,071,804	5,204,150	132,346	3%
Capacity Sales	kW	1,407,920	1,422,090	14,170	1%
		0	0		
Composite Rate	mills/kWh	29.42	26.00	-3.42	-11.6%

1/ FY 2020-22 are projected costs using the April 2018 24-month study.

\$4 million in purchase power will be projected annually for the administrative merchant function activities

2/ Includes the cost of salinity, federal benefits costs, CME interest, reimbursable environmental costs, and MOA costs.

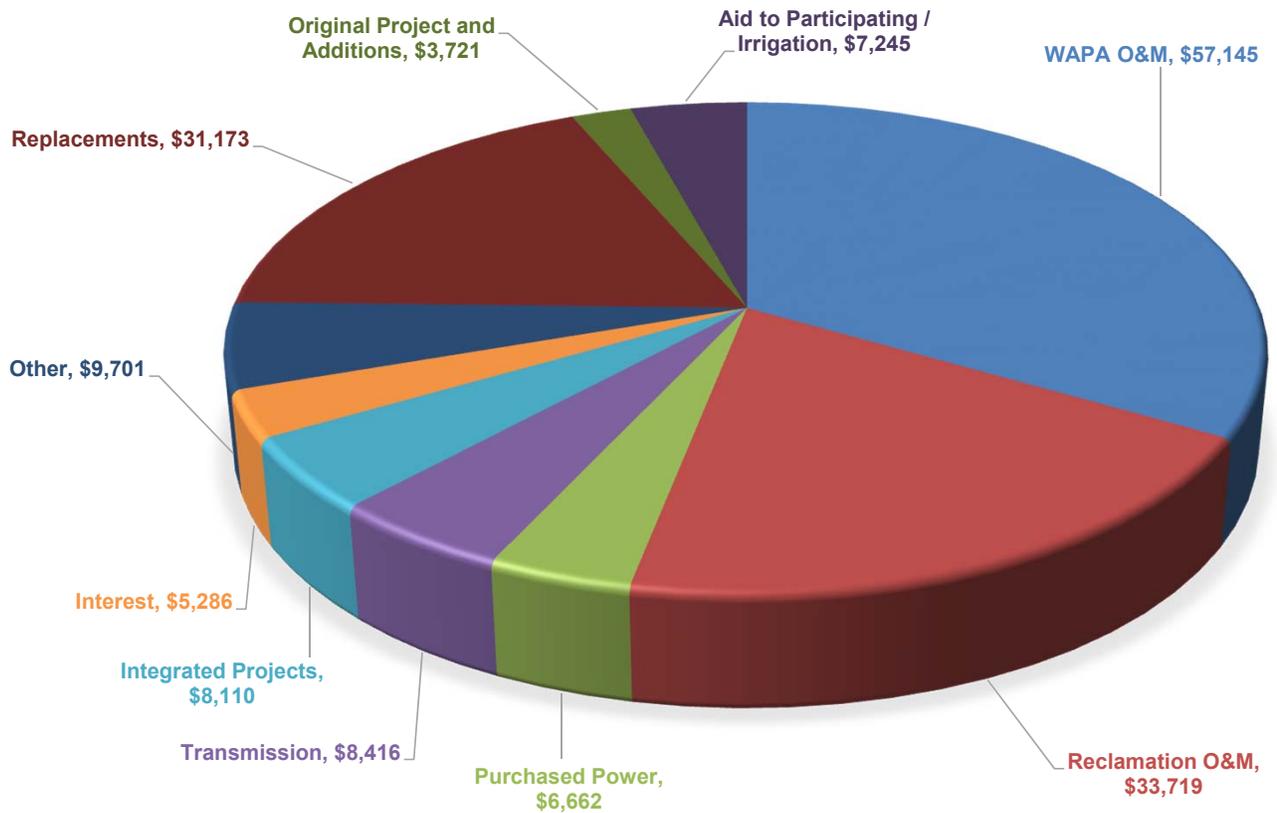
3/ Aid to Irrigation plus Aid to Participating Projects minus Annual Surplus M&I

4/ Includes transaction fees and resale energy.

5/ Other revenues include ancillary services such as spinning reserves, facility use charges, and other misc. service charges

6/ April 2018 project use estimates from Reclamation. (Average MWH Annual Sales for 2018 - 2029 minus Other Energy Sales)

**COMPARISON OF THE REVENUE REQUIREMENTS FOR THE SALT LAKE CITY
AREA INTEGRATED PROJECTS
UNIT 1000'S**



Expense Category	1000's
WAPA O&M	\$57,145
Reclamation O&M	\$33,719
Purchased Power	\$6,662
Transmission	\$8,416
Integrated Projects	\$8,110
Interest	\$5,286
Other	\$9,701
Replacements	\$31,173
Original Project and Additions	\$3,721
Aid to Participating / Irrigation	\$7,245
Total Revenue Requirement:	\$171,178

COLORADO RIVER STORAGE PROJECT
AVERAGE O&M BUDGET PROJECTIONS COMPARISONS

FY 2018 PRS (FY 2020 Work Plans) v. WAPA 169 (FY 2017 Work Plans)

ITEM	TYPE	WAPA 169 2016-2025	FY2020 Workplans 2019-2029	Average per year Increase	Percent Increase
WESTERN *					
DESERT SOUTHWEST					
GWA	O&M	\$1,162,134	\$0	(\$1,162,134)	-100%
O&M TRANSMISSION LINES	O&M	\$1,914,732	\$1,029,422	(\$885,310)	-46%
O&M SUBSTATIONS	O&M	\$4,857,405	\$6,462,759	\$1,605,354	33%
OTHER EXP (except int)	O&M	\$457,698	\$268,310	(\$189,389)	-41%
DEPRECIATION	Other	\$80,417	\$142,867	\$62,450	
RETIRE, REPLACE, ADDITIONS	Other	\$2,826,000	\$4,186,273	\$1,360,273	
POWER BILLING	O&M	\$140,198	\$22,935	(\$117,263)	-84%
C&RE	O&M	\$4,282	\$1,300	(\$2,982)	-70%
POWER MARKETING	O&M	\$14,281	\$0	(\$14,281)	-100%
SYSTEM OPERATION & LOAD DISP	O&M	\$410,863	\$270,557	(\$140,306)	-34%
DSW TOTAL BUDGET		\$11,868,009	\$12,384,421	\$516,412	
DSW PRS O&M		\$8,961,593	\$8,055,282	(\$906,311)	-10%
ROCKY MOUNTAIN					
GWA	O&M	\$3,098,324	\$0	(\$3,098,324)	-100%
O&M TRANSMISSION LINES	O&M	\$5,687,098	\$7,317,193	\$1,630,094	29%
O&M SUBSTATIONS	O&M	\$13,270,951	\$15,241,163	\$1,970,213	15%
OTHER EXP (except int)	O&M	\$1,821,081	\$1,699,572	(\$121,509)	-7%
DEPRECIATION	Other	\$266,182	\$602,400	\$336,218	
RETIRE, REPLACE, ADDITIONS	Other	\$4,802,045	\$6,714,746	\$1,912,701	
PURCHASED POWER & WHEELING	Other	\$0	\$0	\$0	
POWER BILLING	O&M	\$148,162	\$212,201	\$64,039	43%
C&RE	O&M	\$5,324	\$0	(\$5,324)	-100%
POWER MARKETING	O&M	\$1,029,001	\$813,039	(\$215,962)	-21%
SYSTEM OPERATION & LOAD DISP	O&M	\$7,855,834	\$9,171,223	\$1,315,389	17%
RM TOTAL BUDGET		\$37,984,001	\$41,771,536	\$3,787,535	
RM PRS O&M		\$32,915,775	\$34,454,390	\$1,538,615	5%
CRSP MC					
GWA	O&M	\$1,559,444	\$0	(\$1,559,444)	-100%
O&M TRANSMISSION LINES	O&M	\$0	\$0	\$0	0%
O&M SUBSTATIONS	O&M	\$0	\$0	\$0	0%
OTHER EXP (except int)	O&M	\$46,363	\$39,098	(\$7,265)	-16%
INTEREST	Other	\$4,552,693	\$3,272,727	(\$1,279,966)	
PURCHASED POWER & WHEELING	Other	\$92,816,206	\$93,129,200	\$312,995	
RETIRE, REPLACE, ADDITIONS	Other	\$13,600	\$136,364	\$122,764	
DEPRECIATION	Other	\$82,935	\$252,449	\$169,514	
POWER BILLING	O&M	\$0	\$0	\$0	
C&RE	O&M	\$199,112	\$127,444	(\$71,668)	-36%
POWER MARKETING	O&M	\$9,089,249	\$13,463,098	\$4,373,849	48%
Grand Canyon Protection Act (Non-reimb)	Environ	\$0	\$0	\$0	
Recovery Implementation Program (Non-reimb)	Environ	\$1,869,719	\$3,743,510	\$1,873,791	
SYSTEM OPERATION & LOAD DISP	O&M	\$0	\$0	\$0	\$0
STATE OF COLORADO (RIP) LOAN	O&M	(\$886,000)	\$0	\$886,000	\$0
CRSP MC TOTAL BUDGET		\$109,343,321	\$114,163,890	\$4,820,569	
CRSP MC PRS O&M		\$10,008,167	\$13,629,640	\$3,621,472	36%

ITEM	TYPE	WAPA 169 2016-2025	FY2020 Workplans 2019-2029	Average per year Increase	Percent Increase
TOTAL WESTERN					
GWA	O&M	\$5,819,902	\$0	(\$5,819,902)	-100%
O&M TRANSMISSION LINES	O&M	\$7,601,830	\$8,346,615	\$744,785	10%
O&M SUBSTATIONS	O&M	\$18,128,356	\$21,703,922	\$3,575,566	20%
OTHER EXPENSES	O&M	\$2,325,142	\$2,006,979	(\$318,163)	-14%
INTEREST	Other	\$4,552,693	\$3,272,727	(\$1,279,966)	
PURCHASED POWER & WHEELING	Other	\$92,816,206	\$93,129,200	\$312,995	
Depreciation	Other	\$429,534	\$997,716	\$568,182	
RETIRE, REPLACE, ADDITIONS	Other	\$7,641,645	\$11,037,383	\$3,395,738	
POWER BILLING	O&M	\$288,360	\$235,136	(\$53,224)	-18%
C&RE	O&M	\$208,717	\$128,744	(\$79,973)	-38%
POWER MARKETING	O&M	\$10,132,531	\$14,276,137	\$4,143,605	41%
GCPA(Non-reimb)	Environ	\$0	\$0	\$0	
RIP (Non-reimb)	Environ	\$1,869,719	\$3,743,510	\$1,873,791	
SYSTEM OPERATION & LOAD DISP	O&M	\$8,266,697	\$9,441,779	(\$230,244)	-3%
STATE OF COLORADO (RIP) LOAN	O&M	(\$886,000)	\$0	\$886,000	0%
Western Budget		\$159,195,332	\$168,319,848	\$9,124,516	
WESTERN TOTAL O&M		\$51,885,535	\$56,139,311	\$4,253,776	8%
CME DEPRECIATION		\$745,000	\$560,000	(\$185,000)	-25%
WESTERN PRS O&M		\$52,630,535	\$56,699,311	\$4,068,776	8%
BUREAU OF RECLAMATION **	% Allocated to Power				
Water and Energy Mgmt and Dvlp	0.00%	\$1,987,771	\$1,965,909	(\$21,862)	
Land Mgmt and Dvlp	0.00%	\$659,035	\$656,216	(\$2,819)	
Fish and Wildlife Mgmt and Dvlp:		\$0	\$0		
GC Adaptive Mtmt Prg	0.00%	\$12,115,234	\$12,600,757	\$485,523	
Endangered fish (RIP) base funding	0.00%	\$9,205,899	\$9,574,830	\$368,931	
Endangered fish (RIP) capital	0.00%	\$0	\$0	\$0	
Flaming Gorge studies	90.00%	\$0	\$0	\$0	
Glen Canyon Studies	0.00%	\$0	\$0	\$0	
Navajo studies	83.00%	\$0	\$0	\$0	0%
Aspinall studies	97.00%	\$0	\$0	\$0	0%
Subtotal Bureau Budget		\$23,967,939	\$24,797,712	\$829,773	3%
Total PRS O&M		\$0	\$0	\$0	#DIV/0!
Water Operations:					
Subtotal Bureau Budget	0.00%	\$7,864,683	\$10,390,861	\$2,526,178	32%
Total PRS O&M		\$6,168,097	\$8,710,635	\$2,542,538	41%
Power Operations:					
Subtotal Bureau Budget		\$23,201,415	\$20,499,737	(\$2,701,678)	-12%
Total PRS O&M		\$23,201,415	\$20,499,737	(\$2,701,678)	-12%
Miscellaneous:	100.00%	\$736,588	\$840,238	\$103,649	14%
Security:	70.00%	\$2,775,699	\$2,962,173	\$186,474	7%
Extraordinary Maintenance Expensed:					
Navajo	83.00%	\$132,667	\$158,636	\$25,970	20%
Blue Mesa	97.00%	\$147,764	\$36,364	(\$111,400)	-75%
Morrow Point	100.00%	\$128,917	\$77,273	(\$51,644)	-40%
Crystal	100.00%	\$150,083	\$187,273	\$37,189	25%
Flaming Gorge	90.00%	\$132,667	\$77,273	(\$55,394)	-42%
Glen Canyon	100.00%	\$1,222,917	\$563,636	(\$659,280)	-54%
Denver	97.00%	\$0	\$0	\$0	0%
Subtotal Bureau Budget		\$1,915,014	\$1,100,455	(\$814,560)	-43%
Total PRS O&M		\$1,874,761	\$1,064,668	(\$810,093)	-43%

ITEM	TYPE	WAPA 169 2016-2025	FY2020 Workplans 2019-2029	Average per year Increase	Percent Increase
Replacements Expensed:	% Allocated to Power	This section expanded in FY15			
Blue Mesa	97.00%	\$0	\$0	\$0	0%
Morrow Point	100.00%	\$82,500	\$22,727	\$0	0%
Crystal	100.00%	\$0	\$0	\$0	0%
Curecanti	100.00%	\$27,500	\$0	\$0	0%
Flaming Gorge	100.00%	\$114,583	\$28,636	\$0	0%
Glen Canyon	62.20%	\$28,500	\$0	\$0	0%
Denver	50.00%	\$0	\$0	\$0	0%
Subtotal Bureau Budget		\$253,083	\$51,364	(\$201,720)	-80%
Total PRS O&M		\$238,875	\$49,091	(\$189,784)	-79%
Total Reclamation Budget		\$61,425,825	\$60,642,539	(\$783,286)	-1%
Reclamation CME DEPRECIATION		\$0	\$0	\$0	0%
Reclamation Reimbursable by power		\$34,535,277	\$33,514,869	(\$1,020,408)	-3%
Total PRS O&M		\$87,165,811	\$90,214,180	\$3,048,368	3%
Environmental Costs:					
Western					
GCPA (Non-reimb)	Environ	\$0	\$0	\$0	
RIP (Non-reimb)	Environ	\$1,869,719	\$3,743,510	\$1,873,791	
USBR					
Fish and Wildlife Mgmt and Dvlp:					
Nonreimbursable					
GC Adaptive Mgmt Prg	0.00%	\$12,115,234	\$12,600,757	\$485,523	
Endangered fish (RIP) base funding	0.00%	\$9,205,899	\$9,574,830	\$368,931	
Glen Canyon Studies	0.00%	\$0	\$0	\$0	
Total non-reimbursable		\$23,190,853	\$25,919,097	\$854,454	
Reimbursable					
Flaming Gorge studies	100.00%	\$0	\$0	\$0	0%
Navajo studies	100.00%	\$0	\$0	\$0	0%
Aspinall studies	100.00%	\$0	\$0	\$0	0%
Endangered fish (RIP) capital	0.00%	\$0	\$0	\$0	0%
Total reimbursable		\$0	\$0	\$0	0%

**COLORADO RIVER STORAGE PROJECT
O&M BUDGET PROJECTIONS
FY 2020 Work Plan**

* Western budget data from FY 2020 Work Plan dated 5/7/2018

** Bureau budget data from FY 2020 Preliminary Work Program Schedules dated 4/25/2018

ITEM	TYPE	Current Year					For Future 6 Year Average 2024-2029	11 Year Annual Average 2019-2029	10 Year Annual Average 2020-2029	
		2018	2019	2020	2021	2022				2023
WESTERN *										
DESERT SOUTHWEST										
GWA	O&M	\$ 540,515	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0
O&M TRANSMISSION LINES	O&M	\$ 1,588,735	\$ 1,438,398	\$ 942,452	\$ 961,301	\$ 980,527	\$ 1,000,138	\$1,000,138	\$1,029,422	\$988,524
O&M SUBSTATIONS	O&M	\$ 5,146,817	\$ 6,044,633	\$ 6,212,319	\$ 6,324,267	\$ 6,450,753	\$ 6,579,768	\$6,579,768	\$6,462,759	\$6,504,571
OTHER EXPENSES	O&M	\$ 219,439	\$ 227,410	\$ 259,704	\$ 264,898	\$ 270,196	\$ 275,600	\$275,600	\$268,310	\$272,400
DEPRECIATION	Excluded	\$ 100,708	\$ 187,198	\$ 131,982	\$ 134,622	\$ 137,314	\$ 140,060	\$140,060	\$142,867	\$138,434
RETIRE, REPLACE, ADDITIONS	Excluded	\$ 2,715,000	\$ 7,980,000	\$ 6,570,000	\$ 6,609,000	\$ 4,275,000	\$ 2,945,000	\$2,945,000	\$4,186,273	\$3,806,900
POWER BILLING	O&M	\$ 8,759	\$ 11,320	\$ 22,973	\$ 23,432	\$ 23,901	\$ 24,379	\$24,379	\$22,935	\$24,096
C&RE	O&M	\$ 2,557	\$ 2,763	\$ 1,100	\$ 1,122	\$ 1,144	\$ 1,167	\$1,167	\$1,300	\$1,154
POWER MARKETING	O&M	\$ 14,871	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
SYSTEM OPERATION & LOAD DISP	O&M	\$ 301,339	\$ 385,374	\$ 247,000	\$ 251,940	\$ 256,979	\$ 262,118	\$262,118	\$270,557	\$259,075
DSW TOTAL BUDGET		\$10,638,740	\$16,277,096	\$14,387,530	\$14,570,582	\$12,395,814	\$11,228,230	\$11,228,230	\$12,384,421	\$11,995,154
DSW PRS O&M		\$7,823,032	\$8,109,898	\$7,685,548	\$7,826,961	\$7,983,500	\$8,143,170	\$8,143,170	\$8,055,282	\$8,049,820
ROCKY MOUNTAIN										
GWA	O&M	\$ 2,946,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
O&M TRANSMISSION LINES	O&M	\$ 5,843,028	\$ 6,707,191	\$ 7,035,174	\$ 7,175,878	\$ 7,310,395	\$ 7,465,783	\$7,465,783	\$7,317,193	\$7,378,193
O&M SUBSTATIONS	O&M	\$ 13,135,640	\$ 14,337,433	\$ 14,616,976	\$ 14,909,316	\$ 15,207,504	\$ 15,511,652	\$15,511,652	\$15,241,163	\$15,331,536
OTHER EXPENSES	O&M	\$ 1,336,441	\$ 1,527,802	\$ 1,636,736	\$ 1,669,471	\$ 1,702,860	\$ 1,736,917	\$1,736,917	\$1,699,572	\$1,716,749
DEPRECIATION	Excluded	\$ 250,000	\$ 602,400	\$ 602,400	\$ 602,400	\$ 602,400	\$ 602,400	\$602,400	\$602,400	\$602,400
RETIRE, REPLACE, ADDITIONS	Excluded	\$ 6,636,857	\$ 6,633,872	\$ 7,854,338	\$ 6,863,000	\$ 6,808,000	\$ 6,529,000	\$6,529,000	\$6,714,746	\$6,722,834
PURCHASED POWER & WHEELING	Excluded	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
POWER BILLING	O&M	\$ 84,907	\$ 208,338	\$ 202,679	\$ 206,733	\$ 210,868	\$ 215,085	\$215,085	\$212,201	\$212,588
C&RE	O&M	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
POWER MARKETING	O&M	\$ 588,732	\$ 755,637	\$ 780,618	\$ 796,230	\$ 812,155	\$ 828,398	\$828,398	\$813,039	\$818,779
SYSTEM OPERATION & LOAD DISP	O&M	\$ 7,640,277	\$ 8,680,553	\$ 8,793,181	\$ 8,966,087	\$ 9,145,409	\$ 9,328,317	\$9,328,317	\$9,171,223	\$9,220,290
RM TOTAL BUDGET		\$38,466,881	\$39,453,226	\$41,522,102	\$41,189,115	\$41,799,591	\$42,217,552	\$42,217,552	\$41,771,536	\$42,003,367
RM PRS O&M		\$31,580,025	\$32,216,954	\$33,065,364	\$33,723,715	\$34,389,191	\$35,086,152	\$35,086,152	\$34,454,390	\$34,678,133
CRSP MC										
GWA	O&M	\$ 1,004,524	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
O&M TRANSMISSION LINES	O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
O&M SUBSTATIONS	O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
OTHER EXPENSES	O&M	\$ 38,565	\$ 49,960	\$ 35,580	\$ 34,982	\$ 58,891	\$ 35,809	\$35,809	\$39,098	\$38,012
INTEREST	Excluded	\$ 4,000,000	\$ 5,000,000	\$ 5,500,000	\$ 4,500,000	\$ 3,500,000	\$ 2,500,000	\$2,500,000	\$3,272,727	\$3,100,000
PURCHASED POWER & WHEELING	Excluded	\$ 80,418,996	\$ 95,940,000	\$ 86,075,454	\$ 98,178,613	\$ 108,773,038	\$ 90,779,157	\$90,779,157	\$93,129,200	\$92,848,120
RETIRE, REPLACE, ADDITIONS	Excluded	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$0	\$136,364	\$0
Depreciation	Excluded	\$ 246,584	\$ 241,565	\$ 241,721	\$ 246,555	\$ 251,487	\$ 256,516	\$256,516	\$252,449	\$253,538
POWER BILLING	O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
C&RE	O&M	\$ 184,678	\$ 103,641	\$ 125,414	\$ 127,218	\$ 129,059	\$ 130,936	\$130,936	\$127,444	\$129,824
POWER MARKETING	O&M	\$ 9,947,108	\$ 11,197,959	\$ 13,064,543	\$ 13,417,240	\$ 13,542,566	\$ 13,838,824	\$13,838,824	\$13,463,098	\$13,689,612
GCPA(Non-reimb)	Environ	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
RIP (Non-reimb)	Environ	\$ 3,819,166	\$ 4,320,177	\$ 3,584,098	\$ 3,625,724	\$ 3,668,182	\$ 3,711,490	\$3,711,490	\$3,743,510	\$3,685,843
SYSTEM OPERATION & LOAD DISP	O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
STATE OF COLORADO LOAN	O&M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0	\$0	\$0
MC TOTAL BUDGET		\$99,659,623	\$118,353,302	\$108,626,810	\$120,130,332	\$129,923,223	\$111,252,732	\$111,252,732	\$114,163,890	\$113,744,949
MC PRS O&M		\$11,174,876	\$11,351,560	\$13,225,537	\$13,579,440	\$13,730,516	\$14,005,569	\$14,005,569	\$13,629,640	\$13,857,448

ITEM	TYPE	Current Year	1	2	3	4	5	For Future	11 Year	10 Year
		2018	2019	2020	2021	2022	2023	Average 2024-2029	Average 2019-2029	Average 2020-2029
TOTAL WESTERN										
GWA	O&M	\$4,491,039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
O&M TRANSMISSION LINES	O&M	\$7,431,763	\$8,145,589	\$7,977,626	\$8,137,179	\$8,290,922	\$8,465,921	\$8,465,921	\$8,346,615	\$8,366,717
O&M SUBSTATIONS	O&M	\$18,282,457	\$20,382,066	\$20,829,295	\$21,233,583	\$21,658,257	\$22,091,420	\$22,091,420	\$21,703,922	\$21,836,107
OTHER EXPENSES	O&M	\$1,594,445	\$1,805,172	\$1,932,020	\$1,969,351	\$2,031,947	\$2,048,326	\$2,048,326	\$2,006,979	\$2,027,160
INTEREST	Exclude	\$4,000,000	\$5,000,000	\$5,500,000	\$4,500,000	\$3,500,000	\$2,500,000	\$2,500,000	\$3,272,727	\$3,100,000
PURCHASED POWER & WHEELING	Exclude	\$80,418,996	\$95,940,000	\$86,075,454	\$98,178,613	\$108,773,038	\$90,779,157	\$90,779,157	\$93,129,200	\$92,848,120
Depreciation	Exclude	\$597,292	\$1,031,163	\$976,103	\$983,577	\$991,201	\$998,977	\$998,977	\$997,716	\$994,372
RETIRE, REPLACE, ADDITIONS	Exclude	\$9,351,857	\$16,113,872	\$14,424,338	\$13,472,000	\$11,083,000	\$9,474,000	\$9,474,000	\$11,037,383	\$10,529,734
POWER BILLING	O&M	\$93,665	\$219,658	\$225,652	\$230,165	\$234,769	\$239,464	\$239,464	\$235,136	\$236,684
C&RE	O&M	\$192,235	\$106,404	\$126,514	\$128,340	\$130,203	\$132,103	\$132,103	\$128,744	\$130,978
POWER MARKETING	O&M	\$10,550,711	\$11,953,596	\$13,845,161	\$14,213,470	\$14,354,721	\$14,667,222	\$14,667,222	\$14,276,137	\$14,508,391
GCPA(Non-reimb)	Environ	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RIP (Non-reimb)	Environ	\$3,819,166	\$4,320,177	\$3,584,098	\$3,625,724	\$3,668,182	\$3,711,490	\$3,711,490	\$3,743,510	\$3,685,843
SYSTEM OPERATION & LOAD DISP	O&M	\$7,941,617	\$9,065,927	\$9,040,181	\$9,218,027	\$9,402,388	\$9,590,435	\$9,590,435	\$9,441,779	\$9,479,364
STATE OF COLORADO LOAN	O&M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Western Budget		\$148,765,244	\$174,083,624	\$164,536,442	\$175,890,030	\$184,118,628	\$164,698,515	\$164,698,515	\$168,319,848	\$167,743,470
PRS O&M		\$50,577,933	\$51,678,412	\$53,976,449	\$55,130,116	\$56,103,207	\$57,234,891	\$57,234,891	\$56,139,311	\$56,585,401
CME Depreciation		\$560,000								
Total WESTERN PRS O&M		\$51,137,933	\$52,238,412	\$54,536,449	\$55,690,116	\$56,663,207	\$57,794,891	\$57,794,891	\$56,699,311	\$57,145,401

ITEM	TYPE	Current Year	1	2	3	4	5	For Future	11 Year	10 Year
		2018	2019	2020	2021	2022	2023	Average 2024-2029	Average 2019-2029	Average 2020-2029
BUREAU OF RECLAMATION **										
Water and Egy Mgmt and Dvlp	0.00%	1,783,000	1,811,000	1,981,400	1,981,400	1,981,400	1,981,400	\$1,981,400	\$1,965,909	\$1,981,400
Land Mgmt and Dvlp	0.00%	581,000	598,430	616,383	634,874	653,921	673,538	\$673,538	\$656,216	\$661,995
Fish and WL Mgmt and Dvlp:								\$0	\$0	\$0
GC Adaptive Mtmt Prg	0.00%	11,156,449	11,491,142	11,835,877	12,190,953	12,556,682	12,933,382	\$12,933,382	\$12,600,757	\$12,711,719
Endangered fish (RIP) base funding	0.00%	8,477,356	8,731,677	8,993,627	9,263,436	9,541,339	9,827,579	\$9,827,579	\$9,574,830	\$9,659,145
Endangered fish (RIP) capital	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Flaming Gorge studies	90.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Glen Canyon Studies	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Navajo studies	83.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Aspinall studies	97.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Budget		\$21,997,805	\$22,632,249	\$23,427,287	\$24,070,663	\$24,733,341	\$25,415,899	\$25,415,899	\$24,797,712	\$25,014,259
Total PRS O&M		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Operations:										
Navajo	83.00%	1,672,181	1,722,346	1,774,017	1,827,237	1,882,054	1,938,516	\$1,938,516	\$1,888,661	\$1,905,292
Blue Mesa	97.00%	1,476,421	1,520,714	1,566,335	1,613,325	1,661,725	1,711,577	\$1,711,577	\$1,667,558	\$1,682,242
Crystal	100.00%	767,453	790,477	814,191	838,617	863,775	889,688	\$889,688	\$866,807	\$874,440
Morrow Point	100.00%	897,012	923,922	951,640	980,189	1,009,595	1,039,883	\$1,039,883	\$1,013,139	\$1,022,060
Flaming Gorge	90.00%	1,795,435	1,849,298	1,904,777	1,961,920	2,020,778	2,081,401	\$2,081,401	\$2,027,871	\$2,045,728
Glen Canyon	62.20%	2,591,351	2,669,092	2,749,164	2,831,639	2,916,588	3,004,086	\$3,004,086	\$2,926,826	\$2,952,599
Subtotal Budget		\$9,199,853	\$9,475,849	\$9,760,124	\$10,052,928	\$10,354,516	\$10,665,151	\$10,665,151	\$10,390,861	\$10,482,362
Total PRS O&M (88%)		\$7,712,215	\$7,943,582	\$8,181,889	\$8,427,346	\$8,680,166	\$8,940,571	\$8,940,571	\$8,710,635	\$8,787,340
Power Operations:										
Subtotal Budget		18,150,042	18,694,543	19,255,380	19,833,041	20,428,032	21,040,873	\$21,040,873	\$20,499,737	\$20,680,256
Total PRS O&M		\$18,150,042	\$18,694,543	\$19,255,380	\$19,833,041	\$20,428,032	\$21,040,873	\$21,040,873	\$20,296,811	\$20,680,256
Miscellaneous:										
	100.00%	720,902	738,909	791,780	815,533	839,999	865,199	\$865,199	\$840,238	\$850,371
Security:										
Reimbursable	70.00%	3,777,316	3,870,925	3,983,002	4,098,442	4,217,346	4,339,816	\$4,339,816	\$4,231,675	\$4,267,750
		\$2,644,121	\$2,709,647	\$2,788,102	\$2,868,910	\$2,952,142	\$3,037,871	\$3,037,871	\$2,962,173	\$2,987,425
Additional OM&R (MOA Revenue)	0.00%	\$11,500,000	\$11,500,000	\$11,500,000	\$11,500,000	\$11,500,000	\$11,500,000	\$11,500,000	\$7,318,182	\$6,900,000
Total PRS O&M (Already in as Misc)	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Extraordinary Maintenance:										
Expensed										
Navajo	83.00%	0	115,000	80,000	150,000	0	200,000	\$200,000	\$158,636	\$163,000
Blue Mesa	97.00%	45,000	0	400,000	0	0	0	\$0	\$36,364	\$40,000
Morrow Point	100.00%	0	30,000	165,000	0	200,000	65,000	\$65,000	\$77,273	\$82,000
Crystal	100.00%	35,000	0	1,565,000	0	40,000	65,000	\$65,000	\$187,273	\$206,000
Flaming Gorge	90% / 100%	50,000	850,000	0	0	0	0	\$0	\$77,273	\$0
Glen Canyon	62.2% / 100%	100.00%	800,000	300,000	300,000	100,000	2,000,000	\$500,000	\$563,636	\$590,000
Denver	97.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Budget		\$930,000	\$1,295,000	\$2,510,000	\$250,000	\$2,240,000	\$830,000	\$830,000	\$1,100,455	\$1,081,000
Total PRS O&M		\$890,850	\$850,250	\$2,408,800	(\$758,300)	\$2,202,200	\$40,000	\$40,000	\$452,995	\$413,270

ITEM	TYPE	Current Year					For Future 6 Year Average 2024-2029	11 Year Annual Average 2019-2029	10 Year Annual Average 2020-2029	
		2018	2019	2020	2021	2022				2023
Capitalized										
Navajo	83.00%	953,000	100,000	0	0	450,000	900,000	\$900,000	\$622,727	\$675,000
Blue Mesa	97.00%	0	0	0	0	0	0	\$0	\$0	\$0
Morrow Point	100.00%	0	342,000	0	0	0	0	\$0	\$31,091	\$0
Crystal	100.00%	0	0	0	0	0	0	\$0	\$0	\$0
Flaming Gorge	90% / 100%	90.00%	500,000	0	0	0	0	\$0	\$0	\$0
Glen Canyon	62.2% / 100%	100.00%	1,200,000	100,000	500,000	4,550,000	1,600,000	1,200,000	\$1,377,273	\$1,505,000
Denver	97.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Budget		\$2,653,000	\$542,000	\$500,000	\$4,550,000	\$2,050,000	\$2,100,000	\$2,100,000	\$2,031,091	\$2,180,000
Total PRS O&M		\$2,490,990	\$575,000	\$462,200	\$4,493,300	\$1,463,200	\$1,947,000	\$1,947,000	\$1,874,791	\$2,004,770
Replacements:										
Expensed										
Blue Mesa	97.00%	0	0	0	0	0	0	\$0	\$0	\$0
Morrow Point	100.00%	300,000	250,000	0	0	0	0	\$0	\$22,727	\$0
Crystal	100.00%	75,000	0	0	0	0	0	\$0	\$0	\$0
Curecanti	100.00%	350,000	0	0	0	0	0	\$0	\$0	\$0
Flaming Gorge	90% / 100%	100.00%	135,000	315,000	0	0	0	\$0	\$28,636	\$0
Glen Canyon	62.20%	0	0	0	0	0	0	\$0	\$0	\$0
Denver	50.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Budget		\$860,000	\$565,000	\$0	\$0	\$0	\$0	\$0	\$51,364	\$0
Total PRS O&M		\$860,000	\$540,000	\$0	\$0	\$0	\$0	\$0	\$49,091	\$0
Capitalized										
Blue Mesa	100.00%	4,020,000	3,850,000	2,480,000	3,600,000	375,000	2,000,000	\$2,720,833	\$2,602,727	\$2,478,000
Morrow Point	100.00%	1,414,125	3,380,000	3,020,000	4,010,000	75,000	2,680,000	\$2,429,854	\$2,522,193	\$2,436,413
Crystal	100.00%	72,000	255,000	855,000	0	75,000	2,000,000	\$542,833	\$585,636	\$618,700
Curecanti	100.00%	81,000	75,000	290,000	265,000	50,000	270,000	\$171,833	\$180,091	\$190,600
Flaming Gorge	90% / 100%	100.00%	595,000	385,000	420,000	2,185,000	3,490,000	3,450,000	\$1,754,167	\$1,859,545
Glen Canyon	62.2% / 100%	100.00%	7,745,000	15,355,000	15,620,000	1,890,000	2,740,000	8,490,000	\$8,640,000	\$8,721,364
Denver	50.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
UCPO Modernize Plant Controls	100.00%	\$9,500,000	\$3,550,000	\$3,350,000	\$0	\$0	\$0	\$4,100,000	\$2,863,636	\$2,795,000
Subtotal Budget		\$23,427,125	\$26,850,000	\$26,035,000	\$11,950,000	\$6,805,000	\$18,890,000	\$20,359,521	\$19,335,193	\$18,583,713
Total PRS O&M		\$22,052,615	\$24,009,060	\$25,872,250	\$11,262,380	\$5,765,280	\$17,646,380	\$17,767,994	\$17,378,483	\$16,715,426
Total Reclamation Budget		\$81,716,043	\$84,664,474	\$86,262,572	\$75,620,608	\$71,668,234	\$84,146,939	\$85,616,460	\$83,278,326	\$83,139,711
Reclamation CME DEPRECIATION		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total USBR O&M Reimbursable by power		\$30,978,131	\$31,476,931	\$33,425,950	\$31,186,530	\$35,102,540	\$33,924,515	\$33,924,515	\$33,514,869	\$33,718,662
Total WAPA and USBR PRS O&M		\$82,116,064	\$83,715,343	\$87,962,399	\$86,876,646	\$91,765,747	\$91,719,406	\$91,719,406	\$90,214,180	\$90,864,063
Environmental Costs:										
Western										
GCPA (Non-reimb)	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RIP(Non-reimb)	0.00%	\$3,819,166	\$4,320,177	\$3,584,098	\$3,625,724	\$3,668,182	\$3,711,490	\$3,711,490	\$3,743,510	\$3,685,843
USBR										
Fish and Wildlife Mgmt and Dvlp:										
Nonreimbursable										
GC Adaptive Mgmt Prg	0.00%	\$11,156,449	\$11,491,142	\$11,835,877	\$12,190,953	\$12,556,682	\$12,933,382	\$12,933,382	\$12,600,757	\$12,711,719
Endangered fish (RIP) base funding	0.00%	\$8,477,356	\$8,731,677	\$8,993,627	\$9,263,436	\$9,541,339	\$9,827,579	\$9,827,579	\$9,574,830	\$9,659,145
Glen Canyon Studies	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total non-reimbursable		\$23,452,971	\$24,542,996	\$24,413,602	\$25,080,113	\$25,766,203	\$26,472,451	\$26,472,451	\$25,919,097	\$26,056,707
Reimbursable										
Flaming Gorge studies	90.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Navajo studies	97.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Aspinall studies	83.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Endangered fish (RIP) capital	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total reimbursable as O&M		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Note: Gray Shaded amounts are not included in PRS O&M.

O&M Budget Projections For Smaller Projects (BFIT Inputs)

Row Labels	FUND	Budget Activity	Sum of FY18	Sum of FY19	Sum of FY20	Sum of Out Yr 1	Sum of Out Yr 2	Sum of Out Yr 3
LLCO	WMA	N/FLCO GWAMM	\$ 1,194	\$ (112)	\$ -	\$ -	\$ -	\$ -
		N/FLCO LINSM	\$ 30,666	\$ 66,634	\$ 103,130	\$ 104,863	\$ 106,630	\$ 108,432
		N/FLCO MRKTM	\$ 7,882	\$ 6,594	\$ 12,137	\$ 12,372	\$ 12,611	\$ 12,855
		N/FLCO NDUE1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		N/FLCO SUBSM	\$ 42,498	\$ 14,677	\$ 16,970	\$ 17,189	\$ 17,413	\$ 17,641
	WMA Total		\$ 82,241	\$ 87,792	\$ 132,237	\$ 134,424	\$ 136,654	\$ 138,929
LLCO Total		\$ 82,241	\$ 87,792	\$ 132,237	\$ 134,424	\$ 136,654	\$ 138,929	
LLDO	VMF	N/FLDO DEPRM	\$ -	\$ -	\$ 16,371	\$ 16,698	\$ -	\$ -
		N/FLDO GWAMM	\$ 1,194	\$ (172)	\$ -	\$ -	\$ -	\$ -
		N/FLDO LINSM	\$ 148,574	\$ 101,596	\$ 89,393	\$ 91,061	\$ 92,762	\$ 94,497
		N/FLDO MNSUB	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		N/FLDO MRKTM	\$ 7,882	\$ 6,594	\$ 12,391	\$ 12,628	\$ 10,740	\$ 10,945
		N/FLDO NDUE1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		N/FLDO SUBSM	\$ 27,400	\$ 17,200	\$ 50,000	\$ 50,400	\$ 50,808	\$ 51,224
	VMF Total		\$ 185,051	\$ 125,218	\$ 168,155	\$ 170,787	\$ 154,310	\$ 156,666
LLDO Total		\$ 185,051	\$ 125,218	\$ 168,155	\$ 170,787	\$ 154,310	\$ 156,666	
LLRG	WMA	N/FLRG GWAMM	\$ 1,194	\$ (45)	\$ -	\$ -	\$ -	\$ -
		N/FLRG MRKTM	\$ 7,882	\$ 6,594	\$ 12,184	\$ 12,420	\$ 10,597	\$ 10,802
		N/FLRG NDUE1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		N/FLRG SUBSM	\$ 18,487	\$ 20,383	\$ 28,694	\$ 19,068	\$ 19,449	\$ 29,838
	WMA Total		\$ 27,563	\$ 26,932	\$ 40,878	\$ 31,488	\$ 30,047	\$ 40,640
LLRG Total		\$ 27,563	\$ 26,932	\$ 40,878	\$ 31,488	\$ 30,047	\$ 40,640	
LLSE	VMF	N/FLSE COMMM	\$ -	\$ -	\$ 24,925	\$ 25,424	\$ 25,932	\$ 26,451
		N/FLSE DEPRM	\$ -	\$ -	\$ 15,816	\$ 16,132	\$ -	\$ -
		N/FLSE GWAMM	\$ 1,779	\$ (96)	\$ -	\$ -	\$ -	\$ -
		N/FLSE MRKTM	\$ 10,983	\$ 9,363	\$ 15,733	\$ 16,037	\$ 14,206	\$ 14,479
		N/FLSE NDUE1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		N/FLSE SUBSM	\$ 43,438	\$ 52,894	\$ 27,425	\$ 27,964	\$ 28,513	\$ 29,073
	VMF Total		\$ 56,200	\$ 62,161	\$ 83,899	\$ 85,556	\$ 68,651	\$ 70,003
LLSE Total		\$ 56,200	\$ 62,161	\$ 83,899	\$ 85,556	\$ 68,651	\$ 70,003	
Grand Total		\$ 351,055	\$ 302,102	\$ 425,169	\$ 422,255	\$ 389,662	\$ 406,238	

Salt Lake City Area Integrated Projects

Purchased Power Comparisons

FY	WAPA-169 1/			FY 2018 Preliminary 2/			Expense Difference (\$1,000)
	Purchases (MWH)	Price (\$/MWH)	Expense (\$1,000)	Purchases (MWH)	Price (\$/MWH)	Expense 3/ (\$1,000)	
2016	1,030,922	\$ 27.59	\$ 28,440				
2017	609,284	\$ 29.54	\$ 18,000				
2018	518,408	\$ 31.13	\$ 16,140	334,809	\$ 29.05	\$ 9,726	\$ (6,414)
2019	490,748	\$ 33.03	\$ 16,210	625,537	\$ 25.43	\$ 15,910	\$ (300)
2020	N/A	N/A	\$ 4,000	560,155	\$ 27.10	\$ 15,180	\$ 11,180
2021	N/A	N/A	\$ 4,000	461,511	\$ 30.95	\$ 14,282	\$ 10,282
2022	N/A	N/A	\$ 4,000	271,034	\$ 33.79	\$ 9,158	\$ 5,158
2023	N/A	N/A	\$ 4,000	N/A	N/A	\$ 4,000	\$ -
2024	N/A	N/A	\$ 4,000	N/A	N/A	\$ 4,000	\$ -
2025	N/A	N/A	\$ 4,001	N/A	N/A	\$ 4,000	\$ (1)
Average 2016-2025			\$ 10,279	Average 2018-2025		\$ 9,532	\$ (747)

1/ 2016-2019 projections based on Reclamation's 2015 median hydrology.

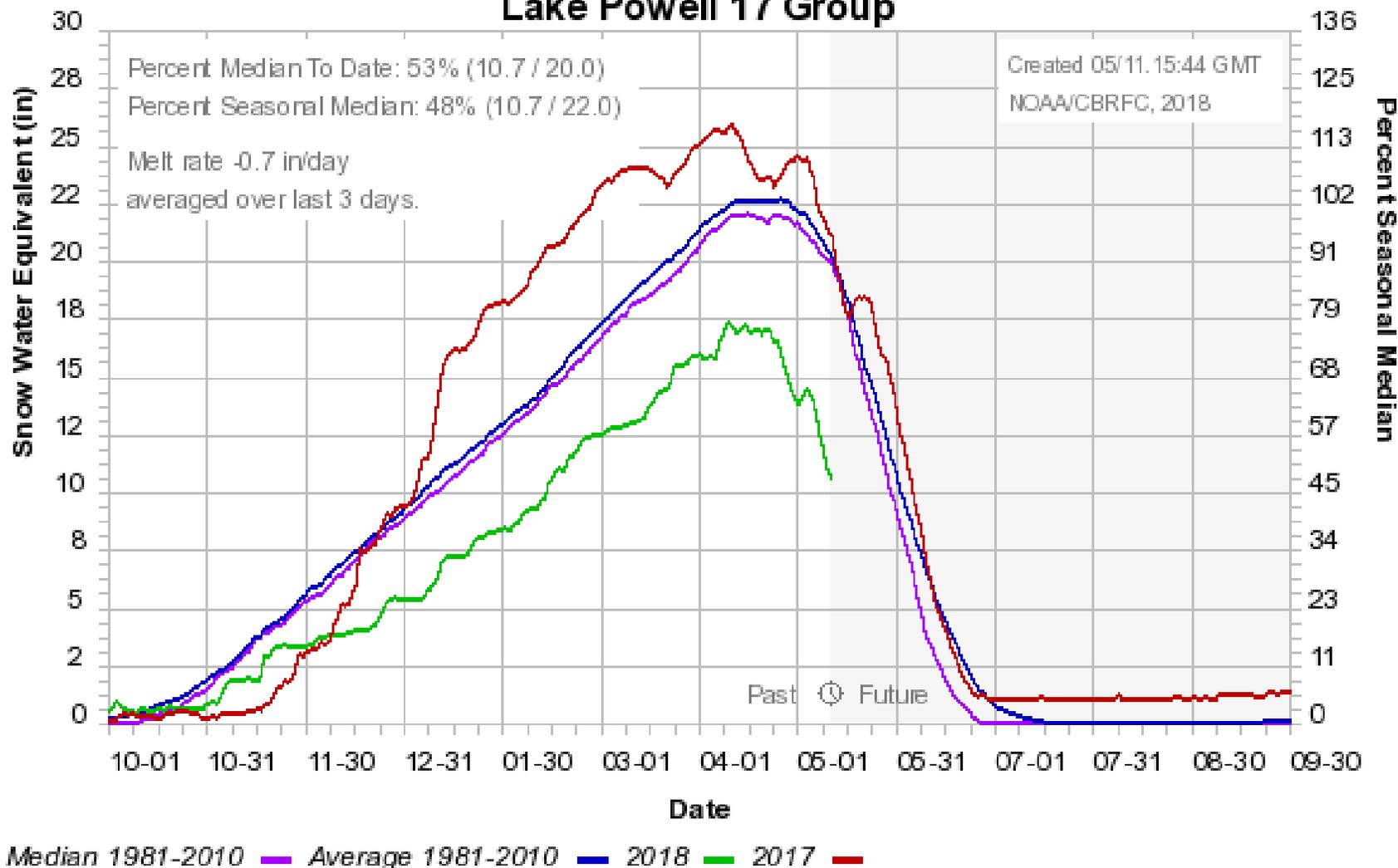
2/ 2018-2022 Winter Season based on projected costs using the April 2018 24-month study.

2019 Summer Season - 2022 based on 50% Exceedance

2023 on included \$4 million for administrative merchant function activities.

3/ Expenses based on Gross Purchase Costs

Colorado Basin River Forecast Center Lake Powell 17 Group



Salt Lake City Integrated Projects

unit: 1,000

Average Annual Transmission Expense Comparison

Item	WAPA-169 / SLIP-F10	FY 2018 Preliminary	Difference
Total Transmission Expense	\$ 10,421	\$ 8,412	\$ (2,009)

Integrated Projects

Year UNIT---->	Collbran							RGP						
	Sales MWH	Revenues \$	Expenses \$	Interest \$	Repayment \$	RR \$	Surplus \$	Sales MWH	Revenues \$	Expenses \$	Interest \$	Repayment \$	RR \$	Surplus \$
1995	49,418	1,619,956	979,296	320,192	257,963	1,557,451	62,505	144,598	2,807,736	1,429,510	76,916	1,316,297	2,822,723	-14,987
1996	47,255	1,822,698	833,478	326,890	666,447	1,826,815	-4,117	97,292	2,730,425	1,370,024	6,346	1,354,054	2,730,424	1
1997	51,515	2,184,703	714,133	286,148	1,173,331	2,173,612	11,091	116,457	2,469,771	51,853	(17,773)	1,831,944	1,866,018	603,753
1998	64,534	2,122,891	773,033	48,886	1,347,654	2,169,573	-46,682	115,861	1,780,683	2,457,506	5,767	0	2,463,273	-682,590
1999	48,599	2,521,388	763,164	176,089	1,582,135	2,521,388	0	102,195	2,110,804	1,782,481	19,555	304,316	2,106,352	4,452
2000	38,889	2,361,787	921,524	146,797	1,293,457	2,361,778	9	91,607	1,710,559	1,858,839	22,026	(106,285)	1,774,580	-64,021
2001	31,196	1,846,106	978,267	110,536	757,303	1,846,106	0	96,851	1,443,003	1,163,199	16,752	299,145	1,479,096	-36,093
2002	27,246	1,364,587	1,087,012	90,374	187,201	1,364,587	0	83,625	1,797,329	1,739,513	55,269	70,281	1,865,063	-67,734
2003	26,439	1,614,561	1,081,057	95,878	437,703	1,614,638	-77	31,935	2,032,800	1,721,227	36,717	278,182	2,036,126	-3,326
2004	40,404	2,136,600	874,673	80,550	1,181,745	2,136,968	-368	27,631	2,045,939	1,611,105	57,455	109,698	1,778,258	267,681
2005	53,054	2,119,102	1,039,370	51,770	1,028,034	2,119,174	-72	45,957	1,862,960	1,998,228	(23,511)	155,925	2,130,642	-267,682
2006	48,100	2,349,819	917,640	31,200	1,400,979	2,349,819	0	33,856	1,921,691	1,906,946	86,768	0	1,993,714	-72,023
2007	44,339	2,335,119	1,029,796	10,129	1,295,194	2,335,119	0	56,003	2,700,055	1,581,069	61,000	1,002,971	2,645,040	55,015
2008	45,007	1,953,509	1,012,119	9,129	466,750	1,487,998	465,511	62,980	2,006,292	1,919,414	35,790	51,088	2,006,292	0
2009	32,000	1,567,035	909,015	(194)	1,123,724	2,032,545	-465,509	55,539	2,666,287	1,840,081	47,002	779,204	2,666,287	0
2010	37,095	2,685,104	1,006,212	9	1,678,883	2,685,104	0	67,489	1,813,739	2,204,217	7,971	(398,449)	1,813,739	0
2011	46,871	1,672,016	1,231,060	24,072	321,944	1,577,076	94,940	33,883	2,718,866	3,401,171	49,999	398,449	3,849,619	-1,130,753
2012	35,180	1,478,448	1,123,375	(1,534)	451,547	1,573,388	-94,940	28,861	4,021,042	2,548,637	76,118	1,808,321	4,433,076	-412,034
2013	13,158	1,590,619	1,040,305	(6,735)	(409,169)	624,401	966,218	9,377,318	2,341,428	2,589,615	16,190	(0)	2,605,805	-264,377
2014	41,566	960,953	1,606,925	6,257	313,989	1,927,171	-966,218	12,768	2,526,616	2,080,496	116,193	329,927	2,526,616	0
2015	37,286	1,911,997	1,074,102	158,205	679,690	1,911,997	0	37,642	2,753,699	2,901,600	108,678	0	3,010,278	-256,579
2016	38,042	1,926,715	1,259,278	131,562	535,875	1,926,715	0	42,834	2,791,767	(120,688)	119,764	2,792,668	2,791,767	0
2017	35,872	1,752,551	1,313,142	116,623	322,786	1,752,551	0	45,218	4,996,329	4,944,887	30,993	20,449	4,996,329	0
2018	59,130	1,320,373	947,373	121,058	251,942	1,320,373	0	122,640	2,035,824	1,826,717	22,473	186,634	2,035,824	0
2019	59,130	1,320,373	1,027,924	117,666	174,783	1,320,373	0	122,640	2,035,824	1,826,085	16,865	192,873	2,035,824	0
2020	59,130	1,320,373	1,085,369	112,422	122,582	1,320,373	0	122,640	2,035,824	1,838,032	11,079	186,713	2,035,824	0
2021	59,130	1,320,373	1,098,556	108,745	113,072	1,320,373	0	122,640	2,035,824	1,828,641	5,478	182,594	2,016,713	19,111
2022	59,130	1,320,373	1,111,786	105,353	103,234	1,320,373	0	122,640	2,035,824	1,827,200	0	0	1,827,200	208,624
2023	59,130	1,320,373	1,116,061	102,256	102,056	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2024	59,130	1,320,373	1,116,061	99,194	105,118	1,320,373	0	122,640	2,035,824	1,837,793	79	5,276	1,843,149	192,675
2025	59,130	1,320,373	1,116,061	96,040	108,272	1,320,373	0	122,640	2,035,824	1,837,793	87	5,816	1,843,696	192,128
2026	59,130	1,320,373	1,116,061	92,792	111,520	1,320,373	0	122,640	2,035,824	1,837,793	134	8,908	1,846,835	188,989
2027	59,130	1,320,373	1,116,061	89,447	114,865	1,320,373	0	122,640	2,035,824	1,837,793	46	3,086	1,840,926	194,898
2028	59,130	1,320,373	1,116,061	86,011	118,301	1,320,373	0	122,640	2,035,824	1,837,793	919	61,251	1,899,963	135,861
2029	59,130	1,320,373	1,116,061	82,493	121,819	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2030	59,130	1,320,373	1,116,061	79,171	125,141	1,320,373	0	122,640	2,035,824	1,837,793	73	4,883	1,842,750	193,074
2031	59,130	1,320,373	1,116,061	75,835	128,477	1,320,373	0	122,640	2,035,824	1,837,793	65	4,312	1,842,170	193,654
2032	59,130	1,320,373	1,116,061	72,086	132,226	1,320,373	0	122,640	2,035,824	1,837,793	44	2,967	1,840,805	195,019
2033	59,130	1,320,373	1,116,061	68,119	136,193	1,320,373	0	122,640	2,035,824	1,837,793	15	1,019	1,838,827	196,997
2034	59,130	1,320,373	1,116,061	64,033	140,279	1,320,373	0	122,640	2,035,824	1,837,793	1,165	77,640	1,916,598	119,226
2035	59,130	1,320,373	1,116,061	59,834	144,478	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2036	59,130	1,320,373	1,116,061	55,509	148,803	1,320,373	0	122,640	2,035,824	1,837,793	10	655	1,838,459	197,365
2037	59,130	1,320,373	1,116,061	51,045	153,267	1,320,373	0	122,640	2,035,824	1,837,793	124	8,249	1,846,166	189,658
2038	59,130	1,320,373	1,116,061	46,558	157,753	1,320,373	0	122,640	2,035,824	1,837,793	11,038	186,993	2,035,824	0
2039	59,130	1,320,373	1,116,061	41,937	162,375	1,320,373	0	122,640	2,035,824	1,837,793	16,708	181,322	2,035,824	0
2040	59,130	1,320,373	1,116,061	37,066	167,246	1,320,373	0	122,640	2,035,824	1,837,793	12,565	185,466	2,035,824	0
2041	59,130	1,320,373	1,116,061	32,048	172,264	1,320,373	0	122,640	2,035,824	1,837,793	8,054	189,976	2,035,824	0
2042	59,130	1,320,373	1,116,061	29,912	174,400	1,320,373	0	122,640	2,035,824	1,837,793	2,355	78,498	1,918,647	117,177
2043	59,130	1,320,373	1,116,061	55,076	149,236	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2044	59,130	1,320,373	1,116,061	77,964	126,348	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2045	59,130	1,320,373	1,116,061	76,665	127,647	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2046	59,130	1,320,373	1,116,061	75,326	128,986	1,320,373	0	122,640	2,035,824	1,837,793	3,570	194,461	2,035,824	0
2047	59,130	1,320,373	1,116,061	74,317	129,995	1,320,373	0	122,640	2,035,824	1,837,793	1,306	43,518	1,882,617	153,207
2048	59,130	1,320,373	1,116,061	73,277	131,035	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2049	59,130	1,320,373	1,116,061	69,346	134,966	1,320,373	0	122,640	2,035,824	1,837,793	474	31,631	1,869,899	165,925
2050	59,130	1,320,373	1,116,061	65,297	139,015	1,320,373	0	122,640	2,035,824	1,837,793	8,322	189,709	2,035,824	0
2051	59,130	1,320,373	1,116,061	61,127	143,185	1,320,373	0	122,640	2,035,824	1,837,793	10,952	187,078	2,035,824	0
2052	59,130	1,320,373	1,116,061	56,831	147,481	1,320,373	0	122,640	2,035,824	1,837,793	5,340	178,005	2,021,138	14,686
2053	59,130	1,320,373	1,116,061	52,407	151,905	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2054	59,130	1,320,373	1,116,061	47,850	156,462	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2055	59,130	1,320,373	1,116,061	43,156	161,156	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2056	59,130	1,320,373	1,116,061	43,095	161,217	1,320,373	0	122,640	2,035,824	1,837,793	0	15	1,837,809	198,015
2057	59,130	1,320,373	1,116,061	43,032	161,279	1,320,373	0	122,640	2,035,824	1,837,793	12	819	1,838,625	197,199
2058	59,130	1,320,373	1,116,061	38,194	166,118	1,320,373	0	122,640	2,035,824	1,837,793	1,340	89,358	1,928,492	107,332
2059	59,130	1,320,373	1,116,061	33,211	171,101	1,320,373	0	122,640	2,035,824	1,837,793	76	5,062	1,842,931	192,893
2060	59,130	1,320,373	1,116,061	28,077	176,234	1,320,373	0	122,640	2,035,824	1,837,793	26	1,753	1,839,573	196,251
2061	59,130	1,320,373	1,116,061	22,781	181,530	1,320,373	0	122,640	2,035,824	1,837,793	0	0	1,837,793	198,031
2062	59,130	1,320,373	1,											

Participating Integrated Projects

Year UNIT---->	Dolores							Seedskadee						
	Sales MWH	Revenues \$	Expenses \$	Interest \$	Repayment \$	RR \$	Surplus \$	Sales MWH	Revenues \$	Expenses \$	Interest \$	Repayment \$	RR \$	Surplus \$
1995	11,950	1,876,736	347,666	1,340,258	188,813	1,876,737	-1	52,322	1,424,991	504,249	(438,442)	1,360,841	1,426,648	-1,657
1996	18,923	2,920,220	426,124	2,297,879	196,217	2,920,220	0	66,451	1,217,656	394,596	538,407	13,857	946,860	270,796
1997	9,052	3,084,638	426,973	2,210,948	446,717	3,084,638	0	66,024	1,206,283	392,247	536,887	277,982	1,207,116	-833
1998	17,337	2,911,559	262,491	2,484,812	164,256	2,911,559	0	74,063	2,248,405	384,985	470,580	1,392,442	2,248,007	398
1999	21,373	3,235,465	238,424	2,360,057	636,984	3,235,465	0	70,862	1,510,537	303,630	234,116	887,112	1,424,858	85,679
2000	28,127	2,894,923	269,973	2,269,738	355,212	2,894,923	0	59,144	1,384,025	413,142	236,187	767,744	1,417,073	-33,048
2001	23,456	2,766,549	432,606	2,449,206	0	2,881,812	-115,263	27,335	937,996	445,909	188,663	402,868	1,037,440	-99,444
2002	5,959	2,948,763	335,235	2,306,448	307,080	2,948,763	0	22,579	1,301,665	398,287	153,559	778,599	1,330,445	-28,780
2003	6,294	2,874,934	392,962	2,260,611	221,246	2,874,819	115	38,252	1,124,598	463,975	33,965	626,659	1,124,599	-1
2004	17,885	2,988,795	251,627	2,237,649	499,634	2,988,910	-115	42,331	1,014,123	639,547	1,378	373,199	1,014,124	-1
2005	20,005	2,921,844	399,570	2,179,516	342,758	2,921,844	0	63,356	1,154,975	621,122	9,269	510,308	1,140,699	14,276
2006	15,431	2,845,475	213,197	2,151,507	480,771	2,845,475	0	47,027	1,705,213	674,556	(6,636)	307,231	975,151	730,062
2007	8,249	2,959,291	207,826	2,096,781	654,684	2,959,291	0	37,494	1,082,246	702,400	(3,969)	(292,000)	406,431	675,815
2008	24,028	2,784,627	539,065	2,025,898	219,664	2,784,627	0	45,688	1,184,425	680,755	3,870	26,155	710,780	473,645
2009	19,152	3,214,372	446,834	2,169,152	598,386	3,214,372	0	55,245	(408,852)	601,098	(319)	(12,790)	587,989	-996,841
2010	18,391	3,850,995	800,106	2,090,005	960,884	3,850,995	0	34,348	929,572	673,746	187	1,152,596	1,826,529	-896,957
2011	21,019	3,158,541	1,010,691	2,189,874	0	3,200,565	-42,024	52,076	1,389,147	999,594	(31,308)	41,816	1,010,102	379,045
2012	19,660	3,328,365	2,355	2,019,915	1,304,912	3,327,182	1,183	53,693	455,410	918,833	(3,399)	(80,979)	834,455	-379,045
2013	9,545	3,047,401	862,788	1,829,803	333,875	3,026,466	20,935	33,461	3,002,908	931,825	2,673	318,497	1,252,995	1,749,913
2014	20,297	3,067,909	416,411	1,930,353	701,239	3,048,003	19,906	55,659	1,136,350	934,423	184,921	0	1,119,344	17,006
2015	20,253	8,061,201	4,989,415	1,798,702	1,273,084	8,061,201	0	71,781	1,384,595	920,683	(11,758)	368,989	1,277,913	106,682
2016	22,923	3,767,574	(320,694)	1,725,686	2,362,582	3,767,574	0	53,409	(1,372,042)	1,013,445	(731,968)	220,082	501,559	-1,873,600
2017	22,040	3,933,382	1,328,267	1,519,735	1,085,379	3,933,382	0	30,322	1,689,591	952,404	713,921	23,266	1,689,592	-1
2018	20,826	2,597,002	765,204	1,491,607	340,191	2,597,002	0	43,800	2,319,648	1,255,001	48,315	1,016,332	2,319,648	0
2019	20,366	2,539,640	722,771	1,496,176	320,693	2,539,640	0	43,800	2,319,648	1,178,754	121,059	1,019,835	2,319,648	0
2020	20,376	2,540,875	767,260	1,480,164	293,451	2,540,875	0	43,800	2,319,648	1,115,858	205,823	997,967	2,319,648	0
2021	20,467	2,552,284	788,024	1,462,116	302,143	2,552,284	0	43,800	2,319,648	1,166,691	169,107	983,850	2,319,648	0
2022	20,290	2,530,154	807,259	1,444,496	278,399	2,530,154	0	43,800	2,319,648	1,117,049	257,611	944,988	2,319,648	0
2023	20,239	2,523,744	829,199	1,427,965	266,580	2,523,744	0	43,800	2,319,648	1,149,849	347,312	822,487	2,319,648	0
2024	21,258	2,650,832	829,199	1,407,459	414,174	2,650,832	0	43,800	2,319,648	1,149,849	313,704	856,095	2,319,648	0
2025	21,247	2,649,494	829,199	1,407,800	412,495	2,649,494	0	43,800	2,319,648	1,149,849	277,935	891,864	2,319,648	0
2026	21,240	2,648,595	829,199	1,408,231	411,165	2,648,595	0	43,800	2,319,648	1,149,849	239,616	930,183	2,319,648	0
2027	20,951	2,612,566	829,199	1,383,639	399,728	2,612,566	0	43,800	2,319,648	1,149,849	199,673	970,126	2,319,648	0
2028	20,726	2,584,518	829,199	1,359,519	395,800	2,584,518	0	43,800	2,319,648	1,149,849	157,719	1,012,080	2,319,648	0
2029	20,716	2,583,270	829,199	1,334,832	419,239	2,583,270	0	43,800	2,319,648	1,149,849	115,600	1,054,199	2,319,648	0
2030	20,751	2,587,633	829,199	1,309,930	448,504	2,587,633	0	43,800	2,319,648	1,149,849	72,140	1,097,659	2,319,648	0
2031	20,788	2,592,309	829,199	1,283,191	479,919	2,592,309	0	43,800	2,319,648	1,149,849	25,192	1,144,607	2,319,648	0
2032	20,820	2,596,312	829,199	1,253,090	514,023	2,596,312	0	43,800	2,319,648	1,149,849	553	26,292	1,176,695	1,142,953
2033	20,874	2,602,927	829,199	1,220,779	552,949	2,602,927	0	43,800	2,319,648	1,149,849	0	71,108	1,220,957	1,098,691
2034	20,937	2,610,846	829,199	1,185,998	595,649	2,610,846	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2035	20,905	2,606,847	829,199	1,148,910	628,738	2,606,847	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2036	20,871	2,602,582	829,199	1,109,763	663,620	2,602,582	0	43,800	2,319,648	1,149,849	0	6,051	1,155,900	1,163,748
2037	20,834	2,597,981	829,199	1,071,663	697,119	2,597,981	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2038	20,822	2,596,523	829,199	1,031,592	735,731	2,596,523	0	43,800	2,319,648	1,149,849	0	910	1,150,759	1,168,889
2039	20,832	2,597,723	829,199	985,620	782,904	2,597,723	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2040	20,843	2,599,168	829,199	936,669	833,300	2,599,168	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2041	20,853	2,600,322	829,199	916,495	854,628	2,600,322	0	43,800	2,319,648	1,149,849	0	20,220	1,170,069	1,149,579
2042	20,859	2,601,123	829,199	896,701	875,223	2,601,123	0	43,800	2,319,648	1,149,849	0	573,424	1,723,273	596,375
2043	20,863	2,601,604	829,199	843,730	928,675	2,601,604	0	43,800	2,319,648	1,149,849	0	137,020	1,286,869	1,032,779
2044	20,862	2,601,472	829,199	787,039	985,234	2,601,472	0	43,800	2,319,648	1,149,849	0	239,785	1,389,634	930,014
2045	20,854	2,600,534	829,199	725,970	1,045,365	2,600,534	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2046	20,849	2,599,903	829,199	661,400	1,109,304	2,599,903	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2047	20,847	2,599,635	829,199	599,352	1,171,085	2,599,635	0	43,800	2,319,648	1,149,849	0	446,647	1,596,496	723,152
2048	20,848	2,599,801	829,199	536,575	1,234,027	2,599,801	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2049	20,851	2,600,129	829,199	464,096	1,306,834	2,600,129	0	43,800	2,319,648	1,149,849	0	42,023	1,191,872	1,127,776
2050	20,853	2,600,369	829,199	384,971	1,386,199	2,600,369	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2051	20,854	2,600,489	829,199	299,266	1,472,024	2,600,489	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2052	20,854	2,600,506	829,199	207,311	1,563,996	2,600,506	0	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2053	20,854	2,600,444	829,199	121,953	1,649,292	2,600,444	0	43,800	2,319,648	1,149,849	0	1,244	1,151,093	1,168,555
2054	20,853	2,600,328	829,199	72,477	1,698,652	2,600,328	0	43,800	2,319,648	1,149,849	0	31,918	1,181,767	1,137,881
2055	20,852	2,600,214	829,199	29,586	1,406,174	2,264,959	335,255	43,800	2,319,648	1,149,849	0	177,342	1,327,191	992,457
2056	20,851	2,600,182	829,199	0	0	829,199	1,770,983	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2057	20,852	2,600,210	829,199	0	0	829,199	1,771,011	43,800	2,319,648	1,149,849	0	346,941	1,496,790	822,858
2058	20,852	2,600,267	829,199	0	0	829,199	1,771,068	43,800	2,319,648	1,149,849	0	0	1,149,849	1,169,799
2059	20,853	2,600,314	829,199	0	23,921	853,120	1,747,194	43,800	2,319,648	1,149,849	0	47,185	1,197,034	1,122,615
2060	20,853	2,600,332	829,199	(750)	58,811	887,260	1,713,073	43,800	2,319,648	1,149,849	0	5,388	1,155,237	1,164,411
2061	20,853	2,600,329	829,199	0	106,045	935,244	1,665,084	43,800	2,319,648	1,149,849	(0)	17,960	1,167,809	1,151,839
2062	20,853	2,600,313	829,199	(851)	28,0									

COLORADO RIVER BASIN SALINITY CONTROL PROGRAM TITLE II

Upper Colorado River Basin Fund

As of 9/30/2017

A	B	C	D	E	F	G	H	I		
Fiscal Year	Up-front Cost Sharing								Total Repayme Transfer Treasury	Total Annual Require
	Paradox Valley O&M	Grand Valley O&M	McElmo Creek (Dolores) O&M	Lower Gunnison O&M	Basinwide SCP		USDA NRCS BSP	Total Transfer UC		
1987									6,918	6,918
1988									90,088	90,088
1989									110,531	110,531
1990									156,936	156,936
1991									200,047	200,047
1992									301,475	301,475
1993									451,325	451,325
1994									357,687	357,687
1995									1,934,454	1,934,454
1996									2,750,148	2,750,148
1997					222,505	(254,648)	-		285,643	285,643
1998	65,752	126,103	26,036	25,622	487,341	131,146	862,000		135,666	997,666
1999	80,561	50,013	21,423	17,195	803,533	244,275	1,217,000		87,604	1,304,604
2000	122,523	42,997	17,817	20,513	773,201	1,611,949	2,589,000			2,589,000
2001	104,192	25,425	19,707	20,202	693,579	(863,105)	-			-
2002	97,249	49,402	14,879	11,045	738,660	318,765	1,230,000			1,230,000
2003	73,375	42,882	23,278	(161)	549,268	271,358	960,000			960,000
2004	88,788	37,100	21,859	(89)	613,687	1,200,655	1,962,000			1,962,000
2005	95,089	32,359	27,996		529,948	1,256,756	1,942,148			1,942,148
2006	90,822	45,863	33,206		544,650	1,469,355	2,183,896			2,183,896
2007	98,721	50,252	18,809		574,676 1/	3,274,556	4,017,014 2/			4,017,014
2008	135,786	42,183	25,118		513,236	(2,541,323)	(1,825,000)			(1,825,000)
2009	117,029	65,919	27,105		1,110,870	4,725,077	6,046,000			6,046,000
2010	141,167	38,278	30,396		430,984	1,289,302	1,930,127			1,930,127
2011	137,250	51,500	22,114		545,989	801,982	1,558,835			1,558,835
2012	121,350	48,336	21,592		533,448	861,682	1,586,408			1,586,408
2013	117,199	56,644	25,341		557,908	930,508	1,687,600			1,687,600
2014	131,600	70,700	21,536		450,964	1,603,400	2,278,200			2,278,200
2015	212,622	94,100	44,293		639,793	1,009,181	1,999,989			1,999,989
2016	188,820	119,230	31,050		583,265	1,005,454	1,927,819			1,927,819
2017	166,450	73,831	27,964		650,274	777,577	1,696,096			1,696,096
Subtotal	2,386,345	1,163,116	501,519	94,327	12,547,779	19,123,902	35,816,988		6,868,522	42,685,510
2018	166,050	98,700	38,350		418,700	697,445	1,419,245			1,419,245
2019	215,650	126,000	25,000		350,000	663,215	1,379,865			1,379,865
2020	298,400	120,875	25,000		350,000	632,415	1,426,690			1,426,690
2021	200,000	82,500	25,000		350,000	625,000	1,282,500			1,282,500
2022	300,000	82,500	25,000		350,000	625,000	1,382,500			1,382,500
2023	300,000	82,500	25,000		350,000	625,000	1,382,500			1,382,500
2024	300,000	82,500	25,000		350,000	625,000	1,382,500			1,382,500
2025	300,000	82,500	25,000		350,000	625,000	1,382,500			1,382,500
2026	212,000	82,500	25,000		350,000	625,000	1,294,500	1,384,314		2,678,814
2027	212,000	82,500	25,000		350,000	600,000	1,269,500			1,269,500
2028	212,000	82,500	25,000		350,000	600,000	1,269,500			1,269,500
2029	212,000	82,500	25,000		350,000	600,000	1,269,500			1,269,500
2030	212,000	82,500	25,000		350,000	600,000	1,269,500			1,269,500
2031	212,000	82,500	25,000		350,000	575,000	1,244,500			1,244,500
2032	212,000	82,500	25,000		350,000	575,000	1,244,500			1,244,500
2033	212,000	82,500	25,000		350,000	575,000	1,244,500			1,244,500
2034	212,000	82,500	25,000		350,000	550,000	1,219,500			1,219,500
2035	212,000	82,500	25,000		350,000	550,000	1,219,500			1,219,500
2036	212,000	82,500	25,000		350,000	550,000	1,219,500			1,219,500
2037	212,000	82,500	25,000		350,000	500,000	1,169,500			1,169,500
2038	212,000	82,500	25,000		350,000	500,000	1,169,500			1,169,500
2039	212,000	82,500	25,000		350,000	500,000	1,169,500	3,200,008		4,369,508
2040	212,000	82,500	25,000		350,000	400,000	1,069,500	64,747		1,134,247
2041	212,000	82,500	25,000		350,000	400,000	1,069,500			1,069,500
2042	212,000	82,500	25,000		350,000	400,000	1,069,500	347,605		1,417,105
2043	212,000	82,500	25,000		350,000	400,000	1,069,500	158,454		1,227,954
2044	212,000	82,500	25,000		350,000	400,000	1,069,500			1,069,500
2045	212,000	82,500	25,000		350,000	400,000	1,069,500			1,069,500
2046	212,000	82,500	25,000		350,000	400,000	1,069,500	1,071,189		2,140,689
2047	212,000	82,500	25,000		350,000	400,000	1,069,500	1,919,584		2,989,084
2048	212,000	82,500	25,000		350,000	400,000	1,069,500			1,069,500
Total	9,508,895	3,892,522	1,317,833	94,327	24,116,753	4,453,000	4,453,000		15,014,423	88,768,211

1/ In FY2003 \$1,103,000 was transferred from the Upper Basin Fund, but was not transferred into the Salinity Program until FY 2007.

The total amount was accounted for in the Basinwide Program portion.

2/ The actual amount transferred from the Upper Basin Fund to the UC Region for the Salinity Program was \$2,038,000, of which \$573,000 was for the Basinwide Program. Please see footnote 1/ for the explanation of the difference.

FY 2017 Unfunded Benefits

CRSP

	FERS			FERS TOTAL	CSRS			CSRS TOTAL	TOTAL (FERS+CSRS)
	JJCR	GGCR	LLCR		JJCR	GGCR	LLCR		
2013	99,807	44,369	39,062	183,238	179,272	82,306	104,690	366,268	549,506
2014	180,385	61,364	70,598	312,347	132,029	46,837	77,101	255,967	568,314
2015	130,280	42,348	45,152	217,780	156,931	46,568	100,329	303,828	521,608
2016	65,415	14,792	25,762	105,969	171,926	28,787	58,161	258,873	364,843
2017	10,377	2,287	3,805	16,469	131,144	19,872	38,387	189,403	205,872
5YR AVG	97,253	33,032	36,876	167,161	154,260	44,874	75,734	274,868	442,028

Other Integrated and Participating Projects

	Collbran (LLCO)			Dolores (LLDO)			Rio Grande (LLRG)			Seedskadee (LLSE)		
	FERS	CSRS	Total	FERS	CSRS	Total	FERS	CSRS	Total	FERS	CSRS	Total
2013	45.78	122.70	168.48	45.78	122.70	168.48	45.78	122.70	168.48	64.10	171.78	235.88
2014	82.74	90.37	173.11	82.74	90.37	173.11	82.74	90.37	173.11	115.84	126.51	242.35
2015	52.91	117.56	170.47	52.91	117.56	170.47	52.91	117.56	170.47	21.16	47.03	68.19
2016	30.24	68.28	98.52	36.29	81.94	118.23	36.29	81.94	118.23	36.29	81.94	118.23
2017	4.47	45.07	49.54	5.36	54.08	59.44	5.36	54.08	59.44	5.36	54.08	59.44
5YR AVG	43.23	88.80	132.02	44.62	93.33	137.95	44.62	93.33	137.95	48.55	96.27	144.82

Aid to Irrigation data for the FY 2017 CRSP PRS

Aid to irrigation 1/		
Irrigation allocation		107,965,997
Less other credits:		
Contributions		258,419
CRDF		118,265
Non-reimbursable		
Due from surplus power & M&I for 2017		<u>107,589,313</u>
Due from surplus power & M&I for 2016		<u>107,589,396</u>
Increase for FY 2017 (goes in PRS IFI)		<u>(83)</u>
M&I payments through 2017		28,709,957
M&I payments through 2016		23,220,240
FY17 Increase to Surplus M&I Revenues for PRS		<u>5,489,717</u>
Anticipated power repayment		<u>78,879,356</u>

Aid to Part Proj Irr		
Construction	2/	769,676,000
Apportionment	3/	<u>301,332,233</u>
Total	FY 2017	<u>1,071,008,233</u>
	FY 2016 increase for PRS	1,069,325,953
	FY 2017 increase for PRS	<u>1,682,280</u>

Total Non-power (2017) for SOR

2017	1,149,887,589
2016 /4	1,153,695,109
Increase	<u>(3,807,520)</u>

1/ Based on the 2015 SPCCR.

2/ Based on the USBR FY 2016 (60th Annual Report) revenues required by Basin States for irrigation assistance. From Val Deppe

3/ Based on the apportionment table.

4/ Based on the 2016 SOR.

ENTERED IN PRS

ENTERED IN SOR

Colorado River Storage Project (Initial Units) Irrigation

SPCCR for FY 2016

	Schedule	0622 Aspinall	0591 Flaming	0557 Glen	0594 O&M	0711 Navajo	0864 Trans	Total
<u>Costs</u>								
Multipurpose Land and Rights (SGL 1711)	A	1,415,126	2,730,057	2,940,104		3,856,246		10,941,533
Plant in Service (SGL 1740)	A	1,744,469	13,283,899	49,620,899		26,691,559		91,340,826
Property Transfers Expensed	B	18,779	1,728,356	2,249,103				3,996,238
Non-reimbursable	B					52,429		52,429
Retirements and Abandoned Plant	B		18,510	1,599,722		16,739		1,634,971
Transfer to Western	B							-
IDC Multipurpose	D							-
IDC Power	D							-
IDC Transferred to Western	D							-
Total Costs		3,178,374	17,760,822	56,409,828	-	30,616,973	-	107,965,997
<u>Repayment</u>								
Contributions	E	3,451	142,562	111,678		728		258,419
CRDF	E	9,305	34,398	18,842		55,720		118,265
Western	E							-
Surplus M&I Applied to Repayment	E		18,287,424	10,422,533				28,709,957
Future Power Repayment	F	3,188,772	-	33,991,461		30,836,028		68,016,261
Total Repayment		3,201,528	18,464,384	44,544,514	-	30,892,476	-	97,102,902

Salt Lake City Area Integrated Projects

Irrigation Cumulative Repayment Obligations Comparisons

Unit: \$1,000

Item	WAPA-169	FY 2017 Preliminary	2/	Difference
Aid to Main-stem Irrigation	107,590	107,589	2/	(1)
Aid to Participating Projects Irrigation: 1/				
Construction	778,431	769,676		(8,755)
Apportionment	316,630	301,332		(15,298)
Total Aid to Participating Projects	1,095,061	1,071,008	2/	(24,053)

1/ Includes only projects meeting the criteria of the 1983 CREDA agreement. Increase in construction mostly due to revision to cost allocations for Utah's Bonneville Unit. Decrease in apportionment due to MOA between BOR, WAPA, Upper Basin States & CREDA.

2/ Totals are equal to Historical Subtotals for Principle Payment plus Unpaid Balance in the Executive Summary

**Colorado River Storage Project
Aid to Participating Projects Irrigation Repayment Obligations and Apportioned Revenues Applied
FY 2018 Preliminary PRS**

Unit: \$ 1,000

year	Colorado 46%				New Mexico 17%				Utah 21.5%				Wyoming 15.5%				Total			
	Incremental		Cumulative		Incremental		Cumulative		Incremental		Cumulative		Incremental		Cumulative		Incremental		Cumulative	
	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor	Obligation	Available W/Appor
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2016	-	3,961	-	3,961	-	1,464	-	1,464	8,610	1,851	8,610	1,851	-	1,335	-	1,335	8,610	8,610	8,610	8,610
2017	3,192	1,886	3,192	5,846	-	697	-	2,161	-	881	8,610	2,732	907	635	907	1,970	4,099	4,099	12,709	12,709
2018	-	-	3,192	5,846	-	-	-	2,161	-	-	8,610	2,732	-	-	907	1,970	-	-	12,709	12,709
2019	-	-	3,192	5,846	-	-	-	2,161	-	-	8,610	2,732	-	-	907	1,970	-	-	12,709	12,709
2020	-	2,941	3,192	8,787	-	1,087	-	3,247	6,393	1,374	15,003	4,107	-	991	907	2,961	6,393	6,393	19,102	19,102
2021	13,585	6,249	16,777	15,036	-	2,309	-	5,557	-	2,921	15,003	7,028	-	2,106	907	5,066	13,585	13,585	32,687	32,687
2022	-	-	16,777	15,036	-	-	-	5,557	-	-	15,003	7,028	-	-	907	5,066	-	-	32,687	32,687
2023	-	10,886	16,777	25,922	23,666	4,023	23,666	9,580	-	5,088	15,003	12,116	-	3,668	907	8,735	23,666	23,666	56,353	56,353
2024	-	-	16,777	25,922	-	-	23,666	9,580	-	-	15,003	12,116	-	-	907	8,735	-	-	56,353	56,353
2025	-	46,426	16,777	72,348	-	17,157	23,666	26,737	100,925	21,699	115,928	33,815	-	15,643	907	24,378	100,925	100,925	157,278	157,278
2026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	157,278	157,278
2027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	157,278	157,278
2028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	157,278	157,278
2029	5,483	37,756	5,483	37,756	-	13,953	-	13,953	-	17,647	-	17,647	12,722	12,722	12,722	12,722	18,205	82,077	175,483	239,355
2030	-	-	5,483	37,756	-	-	-	13,953	-	-	-	17,647	-	-	12,722	12,722	-	-	175,483	239,355
2031	-	-	5,483	37,756	-	-	-	13,953	-	-	-	17,647	-	-	12,722	12,722	-	-	175,483	239,355
2032	-	-	5,483	37,756	7,658	-	7,658	13,953	-	-	-	17,647	-	-	12,722	12,722	7,658	-	183,141	239,355
2033	-	-	5,483	37,756	-	-	7,658	13,953	-	-	-	17,647	-	-	12,722	12,722	-	-	183,141	239,355
2034	-	-	5,483	37,756	-	-	7,658	13,953	4,979	-	4,979	17,647	-	-	12,722	12,722	4,979	-	188,120	239,355
2035	-	70,416	5,483	108,171	-	26,023	7,658	39,976	-	32,912	4,979	50,558	23,727	23,727	36,449	36,449	23,727	153,077	211,847	392,433
2036	-	-	5,483	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	-	-	211,847	392,433
2037	-	-	5,483	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	-	-	211,847	392,433
2038	50,595	-	56,078	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	50,595	-	262,442	392,433
2039	-	-	56,078	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	-	-	262,442	392,433
2040	5,249	-	61,327	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	5,249	-	267,691	392,433
2041	-	-	61,327	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	-	-	267,691	392,433
2042	2,704	-	64,031	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	2,704	-	270,395	392,433
2043	-	-	64,031	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	-	-	270,395	392,433
2044	-	-	64,031	108,171	-	-	7,658	39,976	-	-	4,979	50,558	-	-	36,449	36,449	-	-	270,395	392,433
2045	102,091	57,951	166,122	166,122	-	21,417	7,658	61,393	-	27,086	4,979	77,644	-	19,527	36,449	55,976	102,091	125,980	372,486	518,413
2046	-	-	166,122	166,122	-	-	7,658	61,393	-	-	4,979	77,644	-	-	36,449	55,976	-	-	372,486	518,413
2047	-	-	166,122	166,122	-	-	7,658	61,393	-	-	4,979	77,644	-	-	36,449	55,976	-	-	372,486	518,413
2048	78,740	78,695	244,862	244,817	-	29,083	7,658	90,476	-	36,781	4,979	114,425	-	26,517	36,449	82,493	78,740	171,076	451,226	689,489
2049	23,329	23,316	268,191	268,133	-	8,617	7,658	99,093	-	10,898	4,979	125,323	-	7,856	36,449	90,349	23,329	50,687	474,555	740,176
2050	-	-	268,191	268,133	-	-	7,658	99,093	71,213	-	76,192	125,323	-	-	36,449	90,349	71,213	-	545,768	740,176
2051	-	-	268,191	268,133	-	-	7,658	99,093	-	-	76,192	125,323	-	-	36,449	90,349	-	-	545,768	740,176
2052	80,945	80,899	349,136	349,032	-	29,897	7,658	128,990	-	37,811	76,192	163,135	-	27,259	36,449	117,609	80,945	175,867	626,713	916,043
2053	-	-	349,136	349,032	-	-	7,658	128,990	-	-	76,192	163,135	-	-	36,449	117,609	-	-	626,713	916,043
2054	-	15,789	349,136	364,821	-	5,835	7,658	134,825	94,322	7,379	170,514	170,514	-	5,320	36,449	122,929	94,322	34,323	721,035	950,366
2055	-	30,270	349,136	395,091	-	11,187	7,658	146,012	14,148	14,148	184,662	184,662	-	10,200	36,449	133,128	14,148	65,805	735,183	1,016,171
2056	-	-	349,136	395,091	-	-	7,658	146,012	-	-	184,662	184,662	-	-	36,449	133,128	-	-	735,183	1,016,171
2057	22,703	25,225	371,839	420,316	-	9,322	7,658	155,334	11,790	11,790	196,452	196,452	-	8,500	36,449	141,628	34,493	54,837	769,676	1,071,008
2058	-	-	371,839	420,316	-	-	7,658	155,334	-	-	196,452	196,452	-	-	36,449	141,628	-	-	769,676	1,071,008
2059	-	-	371,839	420,316	-	-	7,658	155,334	-	-	196,452	196,452	-	-	36,449	141,628	-	-	769,676	1,071,008
2060	-	-	371,839	420,316	-	-	7,658	155,334	-	-	196,452	196,452	-	-	36,449	141,628	-	-	769,676	1,071,008
Total	388,616	492,664			31,324	182,071			312,380	230,267			37,356	166,006			769,676	1,071,008		

Note: Boxed yellow amounts trigger apportionment. Boxed green amounts indicate total available with apportionment. Boxed blue amounts indicate apportionment under MOA agreement

Apportionment 301,332

REVENUES REQUIRED BY THE UPPER COLORADO RIVER BASIN STATES
FOR IRRIGATION ASSISTANCE OF PARTICIPATING PROJECTS
USING FULL 50-YEAR REPAYMENT PERIOD FOR EACH BLOCK

Fiscal Year 2016 -60th Annual Report
(Units = \$1,000)

Fiscal Year	Colorado		New Mexico		Utah		Wyoming		Total of Four States
	Project or Block	Amount Required	Project or Block	Amount Required	Project or Block	Amount Required	Project or Block	Amount Required	
2016					Vernal Unit	8,610			8,610
2017	Smith Fork	3,192					Seedskadee	907	4,099
2020					Emery County	6,393			6,393
2021	Florida	7,644							7,644
2021	Silt	5,941							5,941
2023			San Juan-Chama 1	23,666					23,666
2025					Duchesne	100,925			100,925
2029	Bostwick Park	5,483					Eden	12,722	18,205
2032			San Juan-Chama 2	1,021					1,021
2032			Hammond	6,637					6,637
2034					Jensen Unit	4,979			4,979
2035							Lyman	23,727	23,727
2038	Dolores 1	50,595							50,595
2040	Paonia	5,249							5,249
2042	Dallas Creek	2,704							2,704
2045	Dolores 4	102,091							102,091
2048	Dolores 6	78,740							78,740
2049	Dolores 7	23,329							23,329
2050					Heber-Francis	71,213			71,213
2052	Dolores 8	80,945							80,945
2054					Utah County	94,322			94,322
2055					Starvation Reservoir	14,148			14,148
2057	Animas-La Plata 1/	22,703			UBRP	11,790			34,493
SUBTOTAL:		388,616		31,324		312,380		37,356	769,676
2110	Fruitland Mesa				Uintah Unit		Savery-Pot Hook		
2110	West Divide				Upalco Unit		LaBarge		
2110	San Miguel								
2110	Savery-Pot Hook								
SUBTOTAL: 2/		0		0		0		0	0
TOTAL:		388,616		31,324		312,380		37,356	769,676

1/ Legal waiver of assistance for irrigation investigation costs still not available. Timing dated 50 years from construction completion estimated at year 2007.

2/ Apportioned revenues associated with those projects indefinitely deferred pursuant to the 1983 CREDA Agreement.

Salt Lake City Integrated Projects

unit: 1,000

Average Annual Transmission Revenue Comparison

Item	WAPA-169 / SLIP-F10	FY 2018 Preliminary	Difference
Total Transmission Revenue	\$ 19,640	\$ 19,080	\$ (560)

PROJECTED CRSP FIRM AND NON-FIRM WHEELING AND EXCHANGE REVENUE

Table consistently reviewed and updated. Last review May 2018

Customer	Contract Number	Contract Expiration Date	Rate Unit	\$1.671	2019	2020	2021	2022	2023
CRSP Energy Mngt. & Mktg Office (EMMO)									
FES Transmission Reservation	11-SLC-0659		kW		1,435,886	1,435,886	1,435,886	1,435,886	1,435,886
Total Merchant Service Agreements	07-SLC-0610	9/30/2024	kW		1,507,000	1,507,000	1,507,000	1,507,000	1,507,000
			\$	1.67	\$ -	\$ -	\$ -	\$ -	\$ -
	98-SLC-0372		kW		130,000	130,000	130,000	130,000	130,000
			\$	0.00	\$ -	\$ -	\$ -	\$ -	\$ -
	00-SLC-0439				440,000	440,000	440,000	440,000	440,000
			\$	0.00	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CRSP EMMO			kW		3,512,886	3,512,886	3,512,886	3,512,886	3,512,886
			\$		\$ -	\$ -	\$ -	\$ -	\$ -
Exchange Contracts									
APS		6/1/2046	kW		150,000	150,000	150,000	150,000	150,000
	14-06-400-3654		\$		\$ -	\$ -	\$ -	\$ -	\$ -
Salt River Project	14-06-400-2468	9/30/2024	kW		250,000	250,000	250,000	250,000	250,000
			\$	Set	\$ 4,432,500	\$ 4,432,500	\$ 4,432,500	\$ 4,432,500	\$ 4,432,500
Salt River Project 25MW Provided to SRP from Merchant Reservation	08-SLC-0615	6/30/2018	kW		0	0	0	0	0
			\$		\$ -	\$ -	\$ -	\$ -	\$ -
Public Service Company of New Mexico NO BILL - EXCHANGE (Add to 14-06-400-2425 Load for TransRate)	14-06-400-2425	6/1/2047	kW		84,000	84,000	84,000	84,000	84,000
	8-07-40-P0695		kW		50,000	50,000	50,000	50,000	50,000
			\$		\$ -	\$ -	\$ -	\$ -	\$ -
Tri-State G&T (Colorado-Ute) 16-SLC-0731, 0732, 0733 (50MW+15MW + 35MW)	91-SLC-0178	9/30/2053	kW		100,000	100,000	100,000	100,000	100,000
			\$	1.67	\$ 2,005,200	\$ 1,911,600	\$ 1,911,600	\$ 1,911,600	\$ 1,911,600
Total Exchange Contracts			kW		634,000	634,000	634,000	634,000	634,000
			\$		\$ 6,437,700	\$ 6,344,100	\$ 6,344,100	\$ 6,344,100	\$ 6,344,100

PROJECTED CRSP FIRM AND NON-FIRM WHEELING AND EXCHANGE REVENUE

Table consistently reviewed and updated. Last review May 2018

Customer	Contract Number	Contract Expiration Date	Rate Unit	\$1.671	2019	2020	2021	2022	2023
Firm Wheeling Contracts									
Basin Electric	17-SLC-0936	10/31/2027	kW		12,000	12,000	12,000	12,000	12,000
			\$	1.67	\$ 240,624	\$ 229,392	\$ 229,392	\$ 229,392	\$ 229,392
Delta Montrose Electric Assoc.	99-SLC-0407	3/31/2008	kW		20	20	20	20	20
			\$	1.67	\$ 401	\$ 382	\$ 382	\$ 382	\$ 382
Los Alamos County	14-RMR-2495	9/30/2024	kW		10,000	10,000	10,000	10,000	10,000
			\$	1.67	\$ 200,520	\$ 191,160	\$ 191,160	\$ 191,160	\$ 191,160
Municipal Energy Agency of NE	13-RMR-2411	5/1/2019	kW		2,000	2,000	2,000	2,000	2,000
			\$	1.67	\$ 40,104	\$ 38,232	\$ 38,232	\$ 38,232	\$ 38,232
	15-RMR-2636	4/30/2020	kW		5,000	5,000	5,000	5,000	5,000
			\$	1.67	\$ 100,260	\$ 95,580	\$ 95,580	\$ 95,580	\$ 95,580
Navajo Tribal Utility Authority 4/	14-06-400-4537	6/1/2023	kW		30,000	30,000	30,000	30,000	30,000
			\$	1.67	\$ -	\$ -	\$ -	\$ -	\$ -
PacifiCorp/APS	94-SLC-0276	5/31/2022 EXPIRES IN JAN 21	kW		250,000	250,000	250,000		
			\$	1.67	\$ 5,013,000	\$ 5,013,000	\$ 1,593,000		
Salt River Project (OATT)	15-SLC-0712	12/31/2020	kW		9,000	9,000	9,000	9,000	9,000
			\$	1.67	\$ 180,468	\$ 172,044	\$ 172,044	\$ 172,044	\$ 172,044
Tri-State G&T	03-SLC-0503	10/28/2037	kW		100,000	100,000	100,000	100,000	100,000
			\$	1.67	\$ 2,005,200	\$ 1,911,600	\$ 1,911,600	\$ 1,911,600	\$ 1,911,600
Total Firm Wheeling			kW		418,020	418,020	418,020	168,020	168,020
			\$		\$ 7,780,577	\$ 7,417,390	\$ 4,231,390	\$ 2,638,390	\$ 2,638,390

PROJECTED CRSP FIRM AND NON-FIRM WHEELING AND EXCHANGE REVENUE

Table consistently reviewed and updated. Last review May 2018

Customer	Contract Number	Contract Expiration Date	Rate Unit	\$1.671	2019	2020	2021	2022	2023
Network Contracts									
Aztec, City of Network contract	16-RMR-2760	6/30/20203	kW \$	1.67	\$ 4,157 \$ 83,356	\$ 4,157 \$ 79,465	\$ 4,157 \$ 79,465	\$ 4,157 \$ 79,465	\$ 4,157 \$ 79,465
APS Network contract	09-SLC-0628	12/31/2020	kW \$	1.67	\$ 76,757 \$ 1,539,131	\$ 76,757 \$ 1,467,287	\$ 76,757 \$ 1,467,287	\$ 76,757 \$ 1,467,287	\$ 76,757 \$ 1,467,287
Black Hills/Colorado Electric Utility Company, LP Network contract	11-SLC-0661	12/31/2022	kW \$	1.67	\$ 14,420 \$ -				
Deseret (Garkane South) 17-RMR-2832 (28MW) Network contract	17-RMR-2832	8/1/2020	kW \$	1.67	\$ 6,000 \$ 120,312	\$ 6,000 \$ 114,696	\$ 6,000 \$ 114,696	\$ 6,000 \$ 114,696	\$ 6,000 \$ 114,696
Fredonia, AZ 3/ Network contract	08-SLC-0620	9/30/2028 Can terminate w/5yrs notice	kW \$	1.67	\$ 1,740 \$ 34,890	\$ 1,740 \$ 33,262	\$ 1,740 \$ 33,262	\$ 1,740 \$ 33,262	\$ 1,740 \$ 33,262
Municipal Energy Agency of NE 3/ Network contract	12-RMR-2321	9/30/2022	kW \$	1.67	\$ 5,631 \$ 112,913	\$ 5,631 \$ 107,642	\$ 5,631 \$ 107,642	\$ 5,631 \$ 107,642	\$ 5,631 \$ 107,642
Page, City of 3/ Network contract	12-DSR-12368	12/31/2022	kW \$	1.67	\$ 6,167 \$ 123,661	\$ 6,167 \$ 117,888	\$ 6,167 \$ 117,888	\$ 6,167 \$ 117,888	\$ 6,167 \$ 117,888
Total Network Contracts			kW \$		\$ 114,872 \$ 2,014,264	\$ 108,872 \$ 1,805,544	\$ 108,872 \$ 1,805,544	\$ 108,872 \$ 1,805,544	\$ 108,872 \$ 1,805,544
TRANSFORMATION									
Farmington, NM			kW Per Yr Charg		100,000	100,000	100,000	100,000	100,000
	3-07-40-P0715	6/30/2022		1.975	\$ 197,500	\$ 197,500	\$ 197,500	\$ 197,500	\$ 197,500
Navajo Tribal Utility Authority	14-06-400-4537	6/1/2023	kW \$		\$ 50,000 \$ -				
Total Transformation			kW \$		\$ 150,000 \$ 197,500				

PROJECTED CRSP FIRM AND NON-FIRM WHEELING AND EXCHANGE REVENUE									
Table consistently reviewed and updated. Last review May 2018									
Customer	Contract Number	Contract Expiration Date	Rate Unit	\$1.671	2019	2020	2021	2022	2023
PASS THRU - NO REVENUE - NOT A LOAD									
Holloman Air Force Base 2/	05-SLC-0578	9/30/2024	kW		2,000	2,000	2,000	2,000	2,000
			\$	-	\$ -	\$ -	\$ -	\$ -	\$ -
OFFSETTING REVENUES									
Palo Verde Nuclear Generating Station Shutdown Power & Blackstart Services									
	09-DSR-12008	12/31/2018	\$	\$	534,230	\$ 534,230	\$ 534,230	\$ 534,230	\$ 534,230
Provo River Project (UAMPS, UMPA & Heber)*	94-SLC-0253 & 0254, 07-SLC-0601	9/30/2024	\$	\$	29,788	\$ 29,788	\$ 29,788	\$ 29,788	\$ 29,788
Western Systems Coordination Council			\$	\$	1,003,765	\$ 1,003,765	\$ 1,003,765	\$ 1,003,765	\$ 1,003,765
*This is phase shifter revenue, 5 year average									
Total Offsetting Revenues			\$	\$	1,567,783	\$ 1,567,783	\$ 1,567,783	\$ 1,567,783	\$ 1,567,783
Total Transmission System Load			kW		4,381,358	4,381,358	4,381,358	4,131,358	4,131,358
Total Transmission Revenue			\$	\$	21,510,709	\$ 20,845,204	\$ 17,659,204	\$ 16,066,204	\$ 16,066,204
ATRR to be redistributed in outyear rates						\$ 3,186,000	\$ 4,779,000	\$ 4,779,000	\$ 4,779,000
Total for PRS				\$	19,745,427	\$ 19,079,921	\$ 19,079,921	\$ 19,079,921	\$ 19,079,921

Salt Lake City Area Integrated Projects

Offsetting Revenues Projections Comparisons

Unit: \$1,000

Revenue	WAPA-169 3/		FY 2018 Preliminary	Difference
Firm Transmission	\$	16,400	\$ 19,080	\$ 2,680
Non-firm Transmission	\$	3,240	\$ 3,203	\$ (37)
Resale Energy 1/	\$	7,737	\$ 6,250	\$ (1,487)
Transaction fees 1/	\$	2,181	\$ 2,386	\$ 205
Other 2/	\$	5,118	\$ 4,938	\$ (180)
Total	\$	34,676	\$ 35,857	\$ 1,181

1/ Merchant function.

2/ Includes revenues from ancillary services, auxiliary services, spinning reserves, admin charges for WRP and CDP transactions, facility use, energy imbalance, and other misc. revenues.

3/ From WAPA-169 Final FRN

CRSP Offsetting Revenues
as of May 2018

Year	Transmission Revenues			Merchant Function Revenue			Other Revenues 5/	Total Offsetting Revenues
	Firm 1/	Non-firm 2/	Total	Resale 3/	Transaction Fee 4/	Total		
2014		4,115,659		3,484,655	2,357,833	5,842,488	4,493,975	
2015		2,442,020		8,743,061	2,209,529	10,952,590	5,664,585	
2016		2,174,708		6,660,983	2,471,152	9,132,135	5,144,015	
2017		3,372,533		6,211,333	2,542,326	7,468,995	5,295,216	
2018		3,911,136		6,151,312	2,349,180	8,500,491	4,091,230	
5-yr AVG	19,079,921	3,203,211	22,283,132	6,250,269	2,386,004	8,636,273	4,937,804	35,857,209
		6/				7/	8/	

1/ Based on average-firm transmission contracts in the PRS, from 2018 through the "pinchpoint"

2/ Non-firm transmission revenues are taken off of the PO&M 60's

3/ Resale revenue is the difference between monthly sales and purchases. Does not include WRP sales or purchases.

4/ Transaction fees reflect the cost of real time merchant services, management and energy accounting support, and information technology costs.

5/ Includes revenues from ancillary services, auxiliary services, spinning reserves, admin charges for WRP and CDP transactions, facility use, energy imbalance, and other misc. revenues.

6/ Entered as Non-Firm Transmission column (S) in PRS

7/ Entered in Merchant Function column (U) in PRS

8/ Entered in Other Revs column (V) in PRS

CRSP STORAGE UNITS - HISTORIC AND PROJECT NET REVENUES FROM M&I WATER SALES - FY2015
(After Paying OM&R Costs -- Units = \$1,000)

Year	Blue Mesa Reservoir		Navajo Reservoir		Glen Canyon Reservoir		Flaming Gorge Reservoir		CRSP Total		Year
	Acre-Feet	Revenue	Acre-Feet	Revenue	Acre-Feet	Revenue	Acre-Feet	Revenue	Acre-Feet	Revenue	
2018	1,058	54.3	150	8.5	43,690	2,969.6	100	4.1	44,998	3,036.5	2018
2019	1,110	58.3	150	8.7	43,690	3,047.6	100	4.1	45,050	3,118.7	2019
2020	1,170	62.8	200	12.0	43,690	3,109.1	100	4.2	45,160	3,188.2	2020
2021	1,211	66.5	200	12.3	43,690	3,168.9	100	4.3	45,201	3,252.0	2021
2022	1,180	66.6	200	12.6	43,690	3,229.9	100	4.4	45,170	3,313.5	2022
2023	1,176	67.8	200	12.9	43,690	3,292.1	100	4.5	45,166	3,377.3	2023
2024	1,171	68.9	200	13.3	43,690	3,380.2	100	4.6	45,161	3,467.0	2024
2025	1,171	70.3	500	35.6	43,690	3,466.9	100	4.7	45,461	3,577.5	2025
2026	1,141	70.2	500	36.6	43,690	3,533.6	100	4.8	45,431	3,645.2	2026
2027	1,141	71.6	500	37.7	43,690	3,601.6	100	4.9	45,431	3,715.8	2027
2028	1,141	73.1	450	37.7	43,690	3,671.0	100	5.0	45,381	3,786.7	2028
2029	1,141	74.5	450	38.8	43,690	3,771.5	100	5.1	45,381	3,889.9	2029
2030	1,043	72.4	650	56.4	43,690	3,860.2	100	5.2	45,483	3,994.2	2030
2031	1,043	73.9	650	58.1	43,690	3,934.4	100	5.3	45,483	4,071.5	2031
2032	1,043	75.4	650	59.8	43,690	4,010.0	100	5.4	45,483	4,150.5	2032
2033	1,042	76.8	650	61.5	43,690	4,087.2	100	5.5	45,482	4,231.1	2033
2034	1,042	78.4	650	63.4	3,690	277.1	100	5.6	5,482	424.4	2034
2035	1,042	79.9	750	75.0	3,690	288.8	100	5.7	5,582	449.4	2035
2036	1,042	81.5	750	77.3	3,690	291.0	100	5.8	5,582	455.6	2036
2037	1,042	83.2	750	79.5	3,690	293.3	100	5.9	5,582	461.9	2037
2038	1,042	84.8	750	81.9	3,690	295.7	100	6.0	5,582	468.4	2038
2039	1,042	86.5	750	84.3	3,690	340.8	100	6.2	5,582	517.9	2039
2040	1,042	88.2	750	86.9	3,690	343.4	100	6.3	5,582	524.7	2040
2041	1,042	90.0	850	100.9	3,690	357.3	100	6.4	5,682	554.6	2041
2042	1,042	91.8	850	103.9	3,690	360.4	100	6.5	5,682	562.6	2042
2043	1,019	92.0	850	107.0	3,690	363.5	100	6.7	5,659	569.1	2043
2044	994	91.8	850	110.2	3,690	418.0	100	6.8	5,634	626.8	2044
2045	386	38.6	850	113.5	3,690	421.3	100	6.9	5,026	580.2	2045
2046	247	26.9	950	130.2	3,690	438.0	100	7.1	4,987	602.1	2046
2047	247	27.5	950	134.1	3,690	441.9	100	7.2	4,987	610.6	2047
2048	237	27.0	950	138.1	3,690	445.9	100	7.4	4,977	618.3	2048
2049	237	27.5	950	142.2	3,690	511.6	100	7.5	4,977	688.9	2049
2050	193	23.3	950	146.5	3,690	515.9	100	7.7	4,933	693.3	2050
2051	185	22.9	950	150.9	3,690	520.3	100	7.8	4,925	701.8	2051
2052	158	20.0	0	0.0	3,690	369.4	100	8.0	3,948	397.3	2052
2053	15	2.2	0	0.0	3,690	369.4	100	8.1	3,805	379.7	2053
2054	10	1.5	0	0.0	3,690	443.3	100	8.3	3,800	453.1	2054
2055	10	1.6	0	0.0	3,690	443.3	100	8.5	3,800	453.3	2055
2056	10	1.6	0	0.0	3,690	443.3	100	8.6	3,800	453.5	2056
2057	10	1.6	0	0.0	3,690	443.3	100	8.8	3,800	453.7	2057
2058	10	1.7	0	0.0	3,690	443.3	100	9.0	3,800	453.9	2058
2059	10	1.7	0	0.0	3,690	531.9	100	9.2	3,800	542.8	2059
2060	10	1.7	0	0.0	3,690	531.9	100	9.3	3,800	543.0	2060

2018 SLIP PRS Sales Projections

Year	Energy			Capacity			Rounded (MW)
	Proj Use-Energy /1	LT Firm Com (MWH) /2	Total (MWH)	Proj Use-Cap /3	LT Firm Com (MW) /4	Total (MW)	
2018	157,300	4,951,786	5,109,086	38,220	1,360,778	1,398,998	1,399,000
2019	183,520	4,951,786	5,135,306	41,720	1,360,780	1,402,500	1,402,500
2020	202,920	4,951,786	5,154,706	44,720	1,360,780	1,405,500	1,405,500
2021	204,920	4,951,786	5,156,706	45,860	1,360,780	1,406,640	1,406,600
2022	204,920	4,951,786	5,156,706	45,860	1,360,780	1,406,640	1,406,600
2023	192,520	4,951,786	5,144,306	51,110	1,360,780	1,411,890	1,411,900
2024	267,590	4,951,786	5,219,376	63,845	1,360,780	1,424,625	1,424,600
2025	279,790	4,951,786	5,231,576	69,120	1,360,780	1,429,900	1,429,900
2026	290,790	4,951,786	5,242,576	70,620	1,360,780	1,431,400	1,431,400
2027	290,790	4,951,786	5,242,576	70,620	1,360,780	1,431,400	1,431,400
2028	293,390	4,951,786	5,245,176	75,370	1,360,780	1,436,150	1,436,200
2029	295,870	4,951,786	5,247,656	76,040	1,360,780	1,436,820	1,436,800
2030	295,870	4,951,786	5,247,656	76,040	1,360,780	1,436,820	1,436,800
2031	295,870	4,951,786	5,247,656	76,540	1,360,780	1,437,320	1,437,300
2032	295,870	4,951,786	5,247,656	76,540	1,360,780	1,437,320	1,437,300
Avg, 2019-2029 (Pinchpoint)			5,197,879			1,420,315	

FY 2018 Project Use Summary

Year	<u>MW</u>						<u>GWH</u>				
	<u>Summer</u>			<u>Winter</u>			Average Used	Summer	Winter	Total	Total Used
	Total	Unassigned	Used	Total	Unassigned	Used					
2017	187	130.66	56.34	187	166.90	20.10	38,220	135.06	22.24	157.30	157,300
2018	187	127.16	59.84	187	163.40	23.60	41,720	148.48	35.04	183.52	183,520
2019	187	124.16	62.84	187	160.40	26.60	44,720	158.18	44.74	202.92	202,920
2020	187	122.58	64.42	187	159.70	27.30	45,860	159.38	45.54	204.92	204,920
2021	187	122.58	64.42	187	159.70	27.30	45,860	159.38	45.54	204.92	204,920
2022	187	117.33	69.67	187	154.45	32.55	51,110	162.18	30.34	192.52	192,520
2023	187	104.36	82.64	187	141.95	45.05	63,845	199.75	67.84	267.59	267,590
2024	187	98.81	88.19	187	136.95	50.05	69,120	206.55	73.24	279.79	279,790
2025	187	95.81	91.19	187	136.95	50.05	70,620	215.05	75.74	290.79	290,790
2026	187	95.81	91.19	187	136.95	50.05	70,620	215.05	75.74	290.79	290,790
2027	187	91.06	95.94	187	132.20	54.80	75,370	217.65	75.74	293.39	293,390
2028	187	90.10	96.90	187	131.82	55.18	76,040	219.64	76.23	295.87	295,870
2029	187	90.10	96.90	187	131.82	55.18	76,040	219.64	76.23	295.87	295,870
2030	187	90.10	96.90	187	130.82	56.18	76,540	219.64	76.23	295.87	295,870
2031	187	90.10	96.90	187	130.82	56.18	76,540	219.64	76.23	295.87	295,870

COLORADO RIVER STORAGE PROJECT
Participating Projects
Estimated Project Power Requirements (1)
Table 1

Summer Peak Demands (MW) typically from April to September (but may vary from contract to contract)

Year	Silt	(5)	Navajo/ Gallup	NTUA	Paradox	CUP Jensen	(4)	(3)	Dutch John	(2)	Unassigned Total (MW)	Total (MW)
		Navajo (NAPI/ NIIP)					CUP Bonneville	Dolores		Animas- LaPlata		
2018	0.6	27	0.5	12	0.93	3.24	10.00		0.2	1.87 (2)	130.66	187
2019	0.6	27	4	12	0.93	3.24	10.00		0.2	1.87 (2)	127.16	187
2020	0.6	27	7	12	0.93	3.24	10.00		0.2	1.87 (2)	124.16	187
2021	0.6	28	7	12	0.93	3.24	10.00		0.2	2.45 (2)	122.58	187
2022	0.6	28	7	12	0.93	3.24	10.00		0.2	2.45 (2)	122.58	187
2023	0.6	28	7.5	12	0.93	7.99	10.00		0.2	2.45 (2)	117.33	187
2024	0.6	28	20	12	1.40	7.99	10.00		0.2	2.45 (2)	104.36	187
2025	0.6	28	25	12	1.40	7.99	10.00		0.2	3.00 (2)	98.81	187
2026	0.6	30	26	12	1.40	7.99	10.00		0.2	3.00 (2)	95.81	187
2027	0.6	30	26	12	1.40	7.99	10.00		0.2	3.00 (2)	95.81	187
2028	0.6	30	26	12	1.40	12.74	10.00		0.2	3.00 (2)	91.06	187
2029	0.6	30	26	12	1.86	12.74	10.00		0.2	3.50 (2)	90.10	187
2030	0.6	30	26	12	1.86	12.74	10.00		0.2	3.50 (2)	90.10	187
2031	0.6	30	26	12	1.86	12.74	10.00		0.2	3.50 (2)	90.10	187
2032	0.6	30	26	12	1.86	12.74	10.00		0.2	3.50 (2)	90.10	187

Summer Energy Use (GWH)

Year	Silt	(5)	Navajo/ Gallup	NTUA	Paradox	CUP Jensen	(4)	Dolores	Dutch John	(2)	Total (GWH)
		Navajo (NAPI/ NIIP)					CUP Bonneville			Animas- LaPlata	
2018	0.2	56	2	42	1.26	13.6	15.9		0.1	4.00 (2)	135.06
2019	0.2	56	14.8	42	1.88	13.6	15.9		0.1	4.00 (2)	148.48
2020	0.2	56	24.5	42	1.88	13.6	15.9		0.1	4.00 (2)	158.18
2021	0.2	56	24.5	42	1.88	13.6	15.9		0.1	5.20 (2)	159.38
2022	0.2	56	24.5	42	1.88	13.6	15.9		0.1	5.20 (2)	159.38
2023	0.2	56	24.8	42	1.88	16.1	15.9		0.1	5.20 (2)	162.18
2024	0.2	56	62	42	2.25	16.1	15.9		0.1	5.20 (2)	199.75
2025	0.2	56	67.5	42	2.25	16.1	15.9		0.1	6.50 (2)	206.55
2026	0.2	62	70	42	2.25	16.1	15.9		0.1	6.50 (2)	215.05
2027	0.2	62	70	42	2.25	16.1	15.9		0.1	6.50 (2)	215.05
2028	0.2	62	70	42	2.25	18.7	15.9		0.1	6.50 (2)	217.65
2029	0.2	62	70	42	3.14	18.7	15.9		0.1	7.60 (2)	219.64
2030	0.2	62	70	42	3.14	18.7	15.9		0.1	7.60 (2)	219.64
2031	0.2	62	70	42	3.14	18.7	15.9		0.1	7.60 (2)	219.64
2032	0.2	62	70	42	3.14	18.7	15.9		0.1	7.60 (2)	219.64

(1) Estimates do not include losses.

(2) Power requirements will be updated as project proponents refine their water development. Current projections assume full non-Ute Indian development after 2030. Full project development would require a Summer Peak demand of 17.0 MW and a Summer use of 42.0 GWH. Summer season now at two months.

(3) The capacity for the Dolores Project includes 1.5 MW for the Ute Mt Utes. The normal Dolores summer demand is 8.6 mw and add the 1.5 mw for Mt Ute results in 10.1 mw forecasted above.

(4) The major projects for CUP's use of CRSP power are in the early planning stages. An

(5) energy for NTUA computed on bases of 8 months (March 1 to Oct 31) at 60% load factor.

COLORADO RIVER STORAGE PROJECT
Participating Projects
Estimated Project Power Requirements (1)
Table 2

Monthly Winter Peak Demands (MW), typically from October to March (but may vary from contract to contract)

Year	Silt	(5)			(4)		(3)	Dutch John	Animas LaPlata (Durango)	Unassigned (MW)	Total (MW)
		Navajo (NAPI/ NIIP)	Navajo/ Gallup	NTUA	CUP (Tyzak) Jensen	CUP Bonneville					
2018	0	10	0.5	0	0.09	5.71	3.40	0.2	0.20 (2)	166.90	187
2019	0	10	4	0	0.09	5.71	3.40	0.2	0.20 (2)	163.40	187
2020	0	10	7	0	0.09	5.71	3.40	0.2	0.20 (2)	160.40	187
2021	0	10	7	0	0.09	5.71	3.40	0.2	0.90 (2)	159.70	187
2022	0	10	7	0	0.09	5.71	3.40	0.2	0.90 (2)	159.70	187
2023	0	10	7.5	0	0.09	10.46	3.40	0.2	0.90 (2)	154.45	187
2024	0	10	20	0	0.09	10.46	3.40	0.2	0.90 (2)	141.95	187
2025	0	10	25	0	0.09	10.46	3.40	0.2	0.90 (2)	136.95	187
2026	0	10	25	0	0.09	10.46	3.40	0.2	0.90 (2)	136.95	187
2027	0	10	25	0	0.09	10.46	3.40	0.2	0.90 (2)	136.95	187
2028	0	10	25	0	0.09	15.21	3.40	0.2	0.90 (2)	132.20	187
2029	0	10	25	0	0.47	15.21	3.40	0.2	0.90 (2)	131.82	187
2030	0	10	25	0	0.47	15.21	3.40	0.2	0.90 (2)	131.82	187
2031	0	10	26	0	0.47	15.21	3.40	0.2	0.90 (2)	130.82	187
2032	0	10	26	0	0.47	15.21	3.40	0.2	0.90 (2)	130.82	187

Winter Energy Use (GWH) - Total Six Month Period

Year	Silt	(5)			(4)			Dutch John	(2) Animas LaPlata (Durango)	Total (GWH)
		Navajo (NAPI/ NIIP)	Navajo/ Gallup	NTUA	CUP Jensen	CUP Bonneville	Dolores			
2018	0	2.5	2.0	0.0	0.0	15.2	1.4	0.1	1.00 (2)	22.24
2019	0	2.5	14.8	0.0	0.0	15.2	1.4	0.1	1.00 (2)	35.04
2020	0	2.5	24.5	0.0	0.0	15.2	1.4	0.1	1.00 (2)	44.74
2021	0	2.5	24.5	0.0	0.0	15.2	1.4	0.1	1.80 (2)	45.54
2022	0	2.5	24.5	0.0	0.0	15.2	1.4	0.1	1.80 (2)	45.54
2023	0	2.5	24.5	0.0	0.0	17.7	1.4	0.1	1.80 (2)	30.34
2024	0	2.5	62.0	0.0	0.0	17.7	1.4	0.1	1.80 (2)	67.84
2025	0	2.5	67.5	0.0	0.0	17.7	1.4	0.1	1.70 (2)	73.24
2026	0	2.5	70.0	0.0	0.0	17.7	1.4	0.1	1.70 (2)	75.74
2027	0	2.5	70.0	0.0	0.0	17.7	1.4	0.1	1.70 (2)	75.74
2028	0	2.5	70.0	0.0	0.0	20.2	1.4	0.1	1.70 (2)	75.74
2029	0	2.5	70.0	0.0	0.6	20.2	1.4	0.1	1.60 (2)	76.23
2030	0	2.5	70.0	0.0	0.6	20.2	1.4	0.1	1.60 (2)	76.23
2031	0	2.5	70.0	0.0	0.6	20.2	1.4	0.1	1.60 (2)	76.23
2032	0	2.5	70.0	0.0	0.6	20.3	1.4	0.1	1.60 (2)	76.23

(1) Estimates do not include losses.

(2) Power requirements will be updated as project proponents refine their water development. Current projections assume full non-Ute Indian development after 2030. Full project development will require a Winter Peak Demand of 10.0 MW and a Winter use of 17.0 GWH. Winter season now at 10 months.

(3) The capacity for the Dolores Project includes 1.5 MW for the Ute Mt Utes. The normal Dolores winter demand is 2.0 mw and add the 1.5 mw for the Ute Mt Utes results in 3.5 mw forecasted above.

(4) The major projects for CUP's use of CRSP power are in the early planning stages. An additional 0.5MW is anticipated starting in the year 2025, to meet Mitigation and Conservation commitments associated with the Provo River Delta Restoration Project.

(5) 12 MW transferred from NIIP to Western for NTUA under amendment 5 to 87-SLC-0013 is only from March 1 to October 31 (an 8 month period), therefore 0 demand and 0 energy is shown here for the winter season.

Colorado River Storage Project
Bureau of Reclamation and Western Area Power Administration
Glen Canyon Environmental Studies and Other Environmental Costs

Last Revised: January 23, 2018

Year	Other Environmental Costs											Total in PRS		
	Glen Canyon Environmental Costs			Reclamation 1/						Western 2/				
				Environmental Studies			Recovery Implementation Program (RIP)		Consumptive Use 6/	Water Quality 6/	Misc Non-Reimbursable			
	Non-Reimbursable			Flaming Gorge	Aspinall	Navajo	Base Program	Capital 5/						Western
1983	-	876,950	876,950						-	-	-			
1984	-	1,013,434	1,013,434	-	-	-	142,781	-	103,593	250,085	-	-	1,509,893	1,509,893
1985	(94,762)	1,404,765	1,310,003	-	-	-	185,189	-	170,642	262,514	377	(94,385)	2,023,110	1,928,725
1986	390,789	2,385,455	2,776,244	-	-	-	246,606	-	108,981	232,844	609	391,398	2,973,886	3,365,284
1987	10,785	1,709,058	1,719,843	-	-	-	330,780	-	117,713	256,638	134,900	145,685	2,414,189	2,559,874
1988	-	966,780	966,780	-	-	-	400,959	-	99,160	330,562	171,435	171,435	1,797,461	1,968,896
1989	-	1,407,719	1,407,719	-	-	-	888,587	-	108,565	124,909	382,630	382,630	2,529,780	2,912,410
1990	1,885,019	4,632,949	6,517,968	-	-	-	(52,519)	-	201,295	173,458	681,645	2,566,664	4,955,184	7,521,848
1991	3,921,978	11,689,135	15,611,113	-	-	-	543,386	-	191,381	206,635	1,076,716	4,998,694	12,630,537	17,629,231
1992	4,245,939	13,043,929	17,289,868	-	-	-	1,235,641	-	160,351	204,299	655,849	4,901,788	14,644,220	19,546,008
3/	10,359,748	39,130,174	49,489,922	-	-	-	5,088,892	-	2,383,840	4,316,955	3,104,161	13,463,909	50,919,862	64,383,771
			4/											
1993	2,733,998	-	2,733,998	-	-	-	2,210,511	-	255,814	233,678	254,913	2,988,911	2,700,003	5,688,914
1994	6,292,442	12,392,105	18,684,547	209,483	149,335	-	5,663,621	-	301,640	161,975	523,401	6,815,843	18,519,341	25,335,184
1995	1,473,893	8,391,015	9,864,908	48,410	51,945	-	2,379,586	-	311,533	340,722	69,419	1,543,312	11,422,857	12,966,169
1996	3,155,770	13,032,177	16,187,947	28,157	64,982	-	(2,419,491)	-	281,453	179,236	112,444	3,268,214	11,073,375	14,341,589
1997	1,429,879	6,367,002	7,796,881	54,245	125,779	217,407	1,988,136	-	327,836	317,097	303,075	1,732,954	9,000,071	10,733,025
Sub	15,085,982	40,182,299	55,268,281	340,295	392,041	217,407	9,822,363	-	1,478,278	1,232,708	1,263,252	16,349,234	52,715,647	69,064,881
1998	130,000	4,352,747	4,482,747	122,000	171,764	535,508	2,259,778	-	243,970	252,856	201,199	331,199	7,109,351	7,440,550
1999	-	1,012,060	1,012,060	286,946	182,201	382,274	3,228,244	-	275,967	302,492	396,008	396,008	4,818,763	5,214,771
2000	-	4,939,719	4,939,719	618,257	213,726	663,719	2,056,559	-	265,736	546,476	508,440	508,440	7,808,491	8,316,931
2001	26,390,000	12,026,703	38,416,703	236,000	303,000	642,000	2,534,979	-	252,125	684,909	515,183	26,905,183	15,498,716	42,403,899
2002	30,000	13,431,462	13,461,462	-	-	-	4,555,228	-	266,796	667,745	603,073	633,073	18,921,232	19,554,305
2003	-	(1,033,336)	(1,033,336)	-	-	-	5,900,957	5,500,000	294,027	406,073	2,202,391	2,202,391	5,567,721	7,770,112
2004	-	10,790,208	10,790,208	30,000	344,000	120,000	6,322,649	-	151,389	994,295	756,803	756,803	18,258,541	19,015,344
2005	1,010,000	7,703,773	8,713,773	30,000	347,000	120,000	5,736,388	5,938,800	275,242	742,726	925,217	1,935,217	14,458,129	16,393,346
2006	-	9,072,369	9,072,369	-	327,000	64,000	7,820,465	-	(1,324,602)	737,622	734,361	734,361	16,305,855	17,040,216
2007	-	9,248,741	9,248,741	3,253	340,746	413	6,923,453	-	248,832	797,608	670,773	670,773	17,218,634	17,889,407
2008	3,830,000	8,831,479	12,661,479	-	767,721	-	7,667,499	-	308,443	599,174	1,673,955	5,503,955	17,406,595	22,910,550
2009	480,000	8,965,727	9,445,727	-	-	-	7,371,302	-	237,027	806,716	781,851	1,261,851	17,380,773	18,642,624
2010	510,000	10,010,181	10,520,181	-	-	-	7,260,131	-	222,256	848,399	1,039,791	1,549,791	18,340,967	19,890,758
2011	-	10,598,156	10,598,156	-	-	-	7,706,099	-	280,380	638,225	995,352	995,352	19,222,860	20,218,212
2012	622,000	4,236,682	4,858,682	-	-	-	10,579,096	-	201,572	846,893	1,741,284	2,363,284	15,864,243	18,227,527
2013	375,000	7,499,314	7,874,314	-	-	-	7,825,157	-	255,613	703,030	1,850,596	2,225,596	16,283,114	18,508,710
2014	1,918,000	13,137,932	15,055,932	-	-	-	7,887,889	-	305,788	755,340	3,529,837	5,447,837	22,086,949	27,534,786
2015	2,593,000	10,341,418	12,934,418	-	-	-	7,301,112	-	279,425	817,399	3,154,324	5,747,324	18,739,354	24,486,678
2016	2,113,000	9,527,614	11,640,614	-	-	-	8,642,859	-	305,048	552,195	2,390,553	4,503,553	19,027,716	23,531,269
2017	-	10,261,011	10,261,011	-	-	-	9,245,239	-	356,852	626,932	1,876,041	1,876,041	20,490,034	22,366,075
Sub	40,001,000	164,953,960	204,954,960	1,326,457	2,997,158	2,527,914	128,825,083	11,438,800	3,701,887	13,327,106	26,547,032	66,548,032	310,808,035	377,356,067
Total	65,446,730	244,266,433	309,713,163	1,666,752	3,389,199	2,745,321	143,736,338	11,438,800	7,564,004	18,876,769	30,914,445	96,361,175	414,443,544	510,804,719

- 1/ Costs of RIP program became non-reimbursable beginning in FY 1993 per memo from UC Regional Director on Feb 2, 1993, and further by PL 106-392--October 30, 2000. Environmental costs at Flaming Gorge, Aspinall, and Navajo are considered reimbursable but may be reclassified in the future.
- 2/ These costs are related to misc "non-compliance" environmental costs. Some costs are related to the Argonne contract for RIP and are considered non-reimbursable. Beginning in 2001 portions of Resources and Environmental staff hours were deemed non-reimbursable and included with Argonne in this column.
- 3/ Title 18, Section 1804, PL 102-575 declared all expenses incurred through FY 1992 as "non-reimbursable". Prior to the Act, Western had considered \$51,216,926 of the \$52,680,022 as reimbursable by power. This amount (\$51,216,926) was adjusted out of Western's power repayment study in 1993.
- 4/ For FY 1993-1997 as determined by the Commissioner's Office (USBR) and sent to Western on Feb 2, 2000. Costs were prorated to each agency based on each agency's proportionate share of total costs.
- 5/ RIP Loans thru the State of Colorado.
- 6/ Data for 1983 is the cumulative total for 1979-1983.



Department of Energy
Western Area Power Administration
150 East Social Hall Avenue, Suite 300
Salt Lake City, UT 84111-1580

APR 30 2018

Sent via E-mail

Dear Salt Lake City Area Integrated Projects Customer:

Under your firm electric service contract, Western Area Power Administration (WAPA) assesses energy and demand charges as set forth in Rate Schedule SLIP-F10. Additionally, under this rate schedule, a Cost Recovery Charge (CRC) may also be assessed if WAPA determines it is necessary.

WAPA is required to notify its customers by May 1, 2018, if a CRC is needed in the next fiscal year. We have reviewed our financial situation compared to the anticipated hydropower generation levels and determined there will be no CRC for FY 2019. Because there is no CRC, there is no need for action on your part.

Had the CRC been necessary, each customer would have been provided with two sets of energy numbers for the next fiscal year. One set would have shown the full Sustainable Hydropower (SHP) energy allocation, and the other set would have shown a lower SHP allocation. Under this scenario, each customer would then decide whether to accept or decline the CRC. Customers accepting the CRC would receive the full SHP allocation and be charged the additional expense of the CRC. Those customers declining the CRC would avoid the charge, but receive less energy from WAPA in the next fiscal year.

Since a CRC is not necessary for FY 2019, WAPA will not be providing alternative energy and capacity allocations. WAPA will proceed as normal and provide your Winter Season attachment later this summer.

If there are any questions, please contact Tony Henriquez at (801) 524-6388 or THenriquez@wapa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Brent C. Osiek".

Brent C. Osiek
Vice President of Power Marketing
CRSP Management Center

Enclosure

FY 2019 Cost Recovery Charge Calculation

In order to mitigate extraordinary financial conditions, the CRSP-MC has a cost recovery mechanism called the Cost Recovery Charge (CRC) that may be implemented to maintain a sufficient balance in the Basin Fund (BF). The need for a CRC is based on the BF Balance at the beginning of the fiscal year and the projected decrease in the Basin Fund balance throughout the FY. The table on page two shows the criteria used to set the BF floor.

WAPA monitors the Basin Fund throughout the FY and the factors (net revenues and Purchase Power expenses) that can trigger a CRC.

April 2018 projections for triggering a CRC in FY2019:

STEP 1: Compute the maximum available decrease in the basin fund

The projected FY2019 Basin Fund Beginning Balance:		\$ 108,991,000
*The FY19 Beginning Balance falls within tier iii in the CRC table, and the allowable Percent decrease is:	-40%	\$ (43,596,400)
**The FY19 minimum value for the Basin Fund is:		\$ 65,394,600

STEP 2: Compute the projected increase (or decrease) in the basin fund

Projected net revenue (projected FY revenues - projected FY expenses):	\$183,160,000 - \$205,878,000 =	\$ (22,718,000)
Projected Purchase Power Expense:	625,537MWh @ \$25.43 =	\$ (15,909,693)
Projected FY2019 projected increase (or decrease):		\$ (38,627,693)

STEP 3: Compare max allowable decrease to projected increase (or decrease)

*****Amount that we need to recover using the CRC: NONE**

This value is equal to \$0 because the projected decrease is less than allowable decrease:

If a CRC were to be implemented, WAPA would also implement a Waiver Level that would reduce purchase power expense by delivering less energy than contractually required. Customers that choose to voluntarily schedule their reduced allocation would be exempt from the CRC. The Waiver Level will be set at the sum of the energy that can be provided through hydro generation and power purchased with monies in the Basin Fund. The Waiver Level will not be less than the forecasted Hydro Energy.

Waiver Level (GWh) equals the lesser of SHP allocation or Forecasted Energy:	5,363
Waiver Level Percent:	103%
CRC Energy (GWh):	0.0
CRC level percentage of full SHP:	0.00%
Cost Recovery Charge (mills/kWh):	0.000

* See CRC tier criteria on Pg. 2: Under CRC Tier iii, the allowable decrease is 40%, where BFBB is less than \$120,000,000 but greater than \$90,000,000

** Also known as the Basin Fund Target Balance (BFTB)

*** The CRC formulas are set up so that the maximum amount recovered is never greater than the purchase power expense.

CRC Based on the Tiers Below

Tier	Criteria, if the BFBB is:	Review
i	Greater than \$150 million, with an expected decrease to below \$75 million	Annually
ii	Less than \$150 million but greater than \$120 million, with an expected 50-percent decrease in the next FY	
iii	Less than \$120 million but greater than \$90 million, with an expected 40-percent decrease in the next FY	
iv	Less than \$90 million but greater than \$60 million, with an expected 25-percent decrease in the next FY	(May / November)
v	Less than \$60 million but greater than \$40 million with an expected decrease to below \$40 million in the next FY	Monthly

FY 2019 CRC Calculation

Apr 2018

		FY 2019		
Step 1	BFBB	Basin Fund Beginning Balance (\$)	\$108,991,000	Projected beginning balance for FY per financial cash flow analysis (FY Beginning Bal * 1000)
	BFTB	Basin Fund Target Balance	\$65,394,600 *	Basin Fund Target Balance is Based on "tiered" criteria.
	PAR	Projected Annual Revenue (\$) w/o CRC	\$183,160,000	Per financial cash flow analysis, (=TOTAL REV *1000)
	PAE	Projected Annual Expense (\$) (Excludes WRP)	\$205,878,000	Per financial cash flow analysis, (=TOTAL EXP *1000)
	NR	Net Revenue (\$)	(\$22,718,000)	=PAR-PAE
	NB	Net Balance (\$)	\$86,273,000	=BFBB + NR
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Step 2	EA	SHP Energy Allocation (GWh)	5,207.29	FY '16 SHP energy allocation excluding project use (=SHP DELIVERIES / 1MIL)
	HE	Forecasted Hydro Energy (GWh)	4,737.62	Projected generation from the most current 24-month study, does not include project use (=NET GEN / 1MIL)
	FE	Forecasted Energy Purchase (GWh)	626	Forecasted Energy Purchase (GWh) from the most current 24-month study (=FIRMING PURCHASES / 1MIL)
	Price	Average price per MWh for purchased power	\$25.43	Average price = 60% onpeak + 40% offpeak (=COMP PRICE)
	FX	Forecasted Energy Purchase Expense (\$)	\$15,909,693	Estimated purchased power costs based upon most current 24-month study (= PURCHASE COST)
<hr/>				
Step 3	FA1	Basin Fund Balance Factor (\$)	\$15,909,693	If NB is greater than BFTB then use FA1=FX, if NB is less than BFTB then use FX-(BFTB-NB) Formula is: =IF(NB>BFTB,FX,FX-(BFTB-NB))
	FA2	Revenue Factor (\$)	\$15,909,693	If NR is greater than -(1 - tiered percent) of BFBB then FX, if NR is less than -(1 - tiered percent) of BFBB then, FX+(NR+(tiered percent *BFBB)). Formula is: =IF(NR>-(1 - tiered percent *BFBB),FX,FX+(NR+(1 - tiered percent *BFBB)))
	FA	Funds Available (\$) (Lesser of FA1 or FA2)	\$15,909,693	The lesser of FA1 or FA2 but not less than zero: if (min(FA1,FA2) >= 0, MIN(FA1,FA2),0)
	FARR	Additional Revenue to be Recovered (FX-FA)	\$0	=FX-FA
	<hr/>			
Step 4	WL	Waiver Level (GWh)	5,363	Equals the lesser of SHP or HE + (FE * (FA / FX))
	WLP	Waiver level percentage of full SHP	103%	Percent of waiver level to full SHP
	CRCE	CRC Energy GWh (EA-WL)	0	= EA-WL (Does not include losses projected at 7.81%)
	CRCEP	CRC level percentage of full SHP	0%	Percent of CRCE to full SHP or CRCE/EA
	CRC	Cost Recovery Charge (mills/kWh)	-	=FARR / (EA * 1000)
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Note:	Cash flow projections from the: Apr 2018, 24-month study * BFTB based on CRC tier iii: 60% of BFBB (40% decrease), where BFBB is less than \$120,000,000 but greater than \$90,000,000			

Updated: April 30, 2018