



Q2 Quarterly Business Review Technical Workshop

May 18, 2020 1:00 p.m. – 3:30 p.m. WebEx: <u>Join Meeting</u> Bridge: (415) 527-5035 Access Code: 909 872 047



Agenda

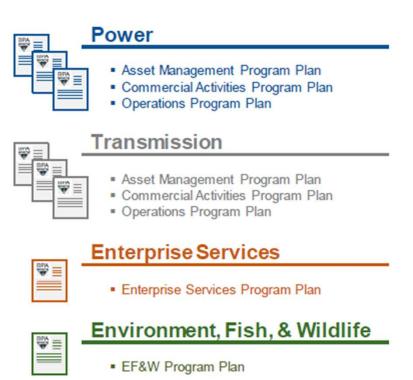
Time	Min	Agenda Topic	Presenter
1:00	5	Introduction & Safety Moment	Michelle Manary
1:05	25	Program Plans	Marchelle Watson, Kelly Akowskey
1:30	45	Q2 Forecast Including Income Statement, Capital and Reserves	Zach Mandell, Cheryl Hargin, Karlee Manary, Manny Holowatz, Sheila Dickenson, Jeff Cook & Mike Hull, Nadine Coseo, Damen Bleiler
2:15	15	Financial Reserves Review Action Plan Update	Nadine Coseo, Shelley Egerdahl
2:30	30	Grid Modernization Update	Allie Mace
3:00	30	Q & A Session	All

Program Plans Marchelle Watson and Kelly Akowskey

Program Plans

8 Program Plans





FY 20 Progress

Ok	ojective 1: Functionalize Program Plans		
	What are we doing?		Why is it important?
•	Integrating program plan content into planning and decision forums	ľ	Data-driven decision making leads to making effective strategic business choices
•	Improving Performance management Socialize program plans	•	Greater precision and reliability in decision- making resulting in higher quality decisions Higher probability of achieving intended outcomes

BPA is changing its approach in planning cycles by integrating program plan content.

- For the upcoming IPR process, Power and Transmission re-mapped their costs into program plans that define, link, and measure key elements of the business.
- This approach increased transparency on Agency costs and their impact to the Power and Transmission revenue requirements that are used for rate setting. This strengthened our ability to evaluate and prioritize costs so that spending levels are aligned with strategy.

FY 20 Progress

Ok	ojective 2: Increase cost transparency		
	What are we doing?		Why is it important?
•	Increasing utilization of direct charging	•	Increases cost transparency
•	Monitor direct charging results	•	Increases understanding of costs and cost
۰.	Developing reports		drivers
		1	More informed decision-making

- Historically, specific Enterprise Services' costs were direct charged to Power and Transmission and the remainder allocated.
- To help establish a better link between costs and cost drivers, beginning in FY20 all costs that are connected to a specific program plan can be direct charged to that program.
- The objective is to increase the amount direct charged to programs and reduce costs that go through allocations.

FY 20 Progress

Objective 2: Increase cost transparency

What are we doing?

- Changing from indirect to direct charging
- Monitor direct charging results
- **Developing reports**

Why is it important?

- Increases cost transparency
- Increases understanding of costs and cost drivers
- More informed decision-making

Beginning this quarter, Power and Transmission financial reports are presented in Program Plan format.

Sector and the sector sec

	Operating Revenues
1	Sales
2	Other Revenues
3	Inter-Business Unit Revenues
4	Total Operating Revenues
	Operating Expenses
	Integrated Program Review Programs
5	Asset Management
6	Operations
7	Commercial Activities
8	Enterprise Services G&A
9	Undistributed Reduction
10	Sub-Total Integrated Program Review Operating Expenses
	Operating Expenses
	Non-Integrated Program Review Programs
11	Commercial Activities
12	Other Income, Expenses and Adjustments
13	Depreciation & Amortization
14	Sub-Total Non-Integrated Program Review Operating Experience
15	Total Operating Expenses
16	Net Operating Revenues (Expenses)

Expenses

Q2 Forecast Including Income Statement, Capital and Reserves

Zach Mandell, Cheryl Hargin, Karlee Manary, Manny Holowatz, Sheila Dickinson, Jeff Cook & Mike Hull, Nadine Coseo, Damen Bleiler

COVID-19 Scenario: FY 20 Q2 End of Year Forecast

The COVID-19 Scenario tests a "bad-case" FY20 outcome in order to provide a point of comparison to the base Q2 Forecast

- Scenario assumptions:
 - Current pandemic response level continues past end of FY20
 - Pandemic does not substantially change in severity for the rest of the year
 - Average load losses for Power and Transmission consistent with 2008 financial crisis, which was 3%
 - Natural effects of pandemic only no assumed management-directed cost cutting
- Only one scenario was run in order to quickly provide analysis in a short time frame
- Analysis produced a single point forecast based on the above assumptions; not a probabilistic analysis using statistical methods
- Represents a bad-case (but not worst-case) pandemic
 - This is not BPA's expected outcome

COVID-19 Scenario: Power

	a		b		с		d	е
	Power Net Revenue (\$000)	Q2	Porecast	S	cenario		Delta	% Delta
1	Revenue	\$	2,700,200	\$	2,661,000	\$	(39,200)	-1.5%
2	Expense	\$	2,574,600	\$	2,549,600	\$	(25,000)	-0.8%
3	Net Revenue	\$	125,600	\$	111,400	\$	(14,200)	
	Power Direct Capital (\$000)	Q2	Forecast	S	cenario		Delta	% Delta
4	Power Direct Capital (\$000) Bureau of Reclamation	Q2 \$	2 Forecast 41,000	s \$	cenario 25,800	\$	Delta (15,200)	% Delta -37%
4 5						\$ \$		
-	Bureau of Reclamation	\$	41,000	\$	25,800		(15,200)	-37%
5	Bureau of Reclamation Corps of Engineers	\$ \$	41,000 163,000	\$ \$	25,800 98,200	\$	(15,200) (64,800)	-37% -40%

The COVID-19 analysis includes:

- \$39 million PF revenue decrease due to load loss.
- \$25 million in lower expenses primarily due to project delays at the Corps and Reclamation and Energy Efficiency.
- Capital execution reduction of \$85 million.
- Analysis does not capture potential Corps and Reclamation capital to expense shifts

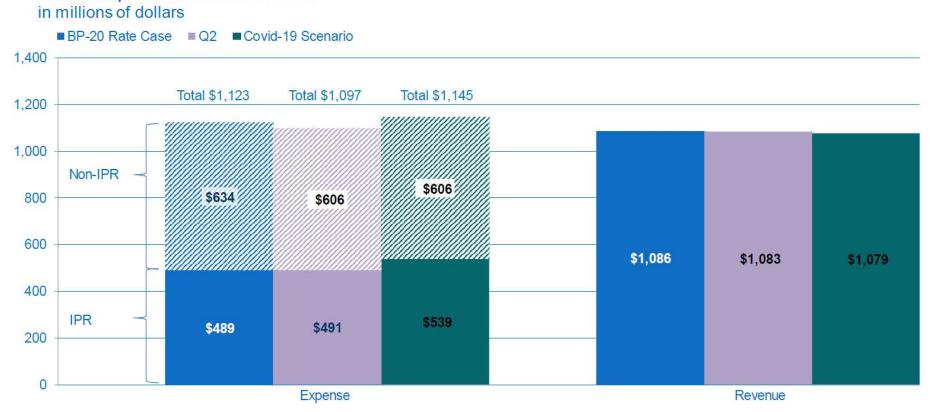
COVID-19 Scenario: Transmission

	a		b		С		d	е
	Transmission Net Revenue (\$000)	Q2	2 Forecast		Scenario		Delta	% Delta
9	Revenue	\$	1,083,200	\$	1,079,500	\$	(3,700)	-0.3%
10	Expense	\$	1,097,200	\$	1,145,200	\$	47,900	4.4%
11	Net Revenue	\$	(14,000)	\$	(65,700)	\$	(51,600)	
			_		- ·		- I.	
	Transmission Direct Capital (\$000)	Q2	2 Forecast		Scenario		Delta	% Delta
12	Transmission Direct Capital (\$000) Expand	Q2 \$	2 Forecast 74,800	\$	Scenario 28,900	\$	(45,900)	% Delta -61%
12 13						\$ \$		
	Expand	\$	74,800	\$	28,900	÷	(45,900)	-61%
13	Expand Sustain	\$ \$	74,800 133,300	\$ \$	28,900 77,100	\$	(45,900) (56,200)	-61% -42%
13 14	Expand Sustain PFIA	\$ \$	74,800 133,300 16,700	\$ \$	28,900 77,100 14,700	\$	(45,900) (56,200) (2,000)	-61% -42% -12%

The COVID-19 analysis includes:

- \$4 million NT revenue decrease due to load loss.
- \$48 million increase in Expenses, consisting of \$18 million in expense reductions offset by \$15 million in direct labor costs and \$50 million in indirect labor costs shifting from capital to expense
- Capital Execution reduction of \$109 million

TRANSMISSION FINANCIAL PERFORMANCE



Total expense and revenue

Report ID: 0123FY20 C Requesting BL: Transmission Business Unit Unit of Measure: \$ Thousands	QBR Forecast Analysis: Transmission Servio Program Plan View Through the Month Ended March 31, 2020 Preliminary / Unaudited			Date/Time: April 3 of Year Elapsed =		
			Α	B	11-	с
			FY 2	020	FY	2020
			Rate Case	Current EOY Forecast	1 C C C C C C C C C C C C C C C C C C C	nt EO cast - Case
Operating Revenues			7	97		
Sales		\$	919,467	\$ 935,434	\$	15,96
Other Revenues		2.5	43,031	43,528		49
Inter-Business Unit Revenues			123,755	104,228		(19,52
Total Operating Revenues			1,086,253	1,083,190		(3,00
Operating Expenses Integrated Program Review Programs						
Asset Management			262,974	273.806		10.8
Operations			71,098	66,346		(4,7
Commercial Activities			62,078	52,460		(9,6
Enterprise Services G&A			92,528	98,336		5,8
Undistributed Reduction			.25	107		5.1.0
Sub-Total Integrated Program Review	Operating Expenses		488,678	490,948		2,27
Operating Expenses						
Non-Integrated Program Review Program	IS					
Commercial Activities			128,005	124,690		(3,3
Other Income, Expenses and Adjustments Depreciation & Amortization			342.088	() 338,530		(3.5
Sub-Total Non-Integrated Program Rev	iew Operating Expenses		470.093	463.220	3	(6,8
Total Operating Expenses			958,771	954,168		(4,6
Net Operating Revenues (Expenses)			127,482	129,022		1,5
Interest expense and other income, net						
Interest Expense			183,458	161,037		(22,4)
AFUDC			(14,211)			(1,2
Interest Income			(14,211)	(13,500)		2,5
Provide a state of the second s			(5,078)	(2,525)		2,5
Other income, net Total interest expense and other incom	ne, net	-	164,169	143,012	2	(21,1
Total Expenses		-	1,122,940	1,097,181		(25,7
			1,122,940	1,037,101	4 2	(20,1
Net Revenues (Expenses)		\$	(36,687)	\$ (13,991)	\$ 2	2 69

<1 Although the forecasts in this report are presented as point estimates, BPA operates a hydro-based system that encounters much uncertainty regarding water supply and wholesale market prices. These uncertainties, among other factors, may result in large range swings +/- impacting the final results in revenues, expenses, and cash reserves.</p>

Transmission Services QBR Analysis: FY 20 Q2 End of Year Forecast

(Note: Variance explanations are for +/-\$2M or greater)

Row 4 – Total Operating Revenues: \$3 million below rate case primarily due to non-renewals of Network Point-to-Point service.

Integrated Program Review Operating Expenses:

Row 5 – Transmission Asset Management: \$11 million above the rate case due to absorbing the \$5 million Supply Chain Cost Management Initiative undistributed reduction put into rate case, increasing the forecast \$8 million for Puget Sound Area Northern Intertie and Mid C work, and decreasing the facilities direct charge forecast which partially offsets these increases.

Row 6 - Transmission Operations: \$5 million below rate case due to Enterprise Services direct charges for Grid Mod forecasted in rate case shifted from this program into the allocated Enterprise Services expense.

Row 7 – Transmission Commercial Activities: \$10 million below rate case due to removing funding for non-wires initiatives, cost shifts to align with program plans which didn't exist in BP-20, and a reduction in both the Enterprise services direct and allocated direct charge forecast reflecting a greater amount of costs coming through to Transmission via the Enterprises Services allocation.

Row 8 – Enterprise Services G&A: \$6 million higher due to a greater portion of the overall Enterprise Services support costs than assumed in rate case, partially offset by a decrease in post retirement benefits.

Transmission Services QBR Analysis: FY 20 Q2 End of Year Forecast

(Note: Variance explanations are for +/-\$2M or greater)

Non-Integrated Program Review Operating Expenses:

Row 11 – Commercial Activities: \$3 million lower reimbursable requests.

Row 13 – Depreciation and Amortization: \$4 million lower than rate case based on actual plant that has been placed into service as of the second quarter and the estimated capital expected to go into service over the remainder of FY20.

Row 21 – Net Interest Expense: \$21 million below rate case due to putting less lease financing in place and slightly less Federal borrowing coupled with lower interest rates than assumed in the rate case.

POWER FINANCIAL PERFORMANCE

Total expense and revenue in millions of dollars



-	Report ID: 0121FY20 QBR Foreca	et Analy	sis: Power Se	arvices Dat	a Source: PFMS
		-		un Date/Time: Apr	
				020 Year Elapsed =	
			/ Unaudited		
•			А	В	с
				2020	FY 2020
			Rate Case	Current EOY Forecast	Current EOY Forecast - Rate Case
	Operating Revenues				
1	Gross Sales (excluding bookout adjustment)		\$ 2,472,943	\$ 2,470,499	\$ (2,444)
2	Bookout Adjustment to Sales		-	(23,278)	(23,278)
3	Other Revenues		28,016	31,082	3,066
4 5	Inter-Business Unit		117,901	117,104	(797)
5	U.S. Treasury Credits Total Operating Revenues		90,850 2,709,710	104,785 2,700,192	13,935 (9,518)
Ŭ			2,703,710	2,700,132	(3,310)
	Operating Expenses				
_	Integrated Program Review Programs				(10.000)
7	Asset Management		961,496	947,833	(13,663)
8	Operations		124,378	132,952	8,574
9	Commercial Activities		106,852	101,484	(5,368)
10 11	Enterprise Services G&A		77,436	76,824	(612)
12	Undistributed Reduction Sub-Total Integrated Program Review Operating Expension	ises	1,270,162	1,259,093	(11,069)
12			1,270,102	1,239,095	(11,003)
	Operating Expenses				
	Non-Integrated Program Review Programs				(=
13 14	Asset Management		36,708	30,776	(5,932)
14	Operations		351,361	336,405	(14,956)
15	Commercial Activities		214,630	194,616	(20,014)
16	Other Income, Expenses & Adjustments		-		
17	Non-Federal Debt Service <note 2<="" td=""><td></td><td>-</td><td>-</td><td>-</td></note>		-	-	-
18	Depreciation, Amortization & Accretion		518,295	476,350	(41,945)
19	Sub-Total Non-Integrated Program Review Operating E	xpenses	1,120,993	1,038,147	(82,846)
20	Total Operating Expenses		2,391,155	2,297,240	(93,915)
21	Net Operating Revenues (Expenses)		318,555	402,952	84,398
	Interest expense and other income, net				
22	Interest Expense		305,707	308,088	2,382
23	AFUDC		(15,904)	· · · /	604
24	Interest Income		(13,777)		3,359
25 26	Other income, net Total interest expense and other income, net		(5,052) 270,974	(5,052) 277,319	() 6,344
	Total Expenses				
27			2,662,129	2,574,559	(87,571)
27	Net Revenues (Expenses)		\$ 47,580	\$ 125,633	\$ 78,053

<1 Although the forecasts in this report are presented as point estimates, BPA operates a hydro-based system that encounters much uncertainty regarding water supply and wholesale market prices. These uncertainties, among other factors, may result in large range swings +/- impacting the final results in revenues, expenses, and cash reserves.</p>

<2 In FY20, balances will be reflected in interest expense and amortization line items of the income statement.

Power Services QBR Analysis: FY 20 Q2 End of Year Forecast

(Note: Variance explanations are for +/-\$2M or greater)

Row 6 – Total Operating Revenues: \$10 million lower than the Rate Case due to 4H10c credit that was \$14 million higher than expected as well as the \$30 million Power surcharge that took effect this year. This was offset by a higher than expected Slice True-up credit and lower than expected Power secondary sales due to lower inventory and prices.

Integrated Program Review Operating Expenses:

Row 7 – Asset Management: \$10 million F&W contracting and observed delays in proceeding with seasonal project work.

Row 8 - Operations and Row 9 - Commercial Activities: When BP20 was created Program Plans did not exist therefore there has been a shift of costs between the Program Plans.

Power Services QBR Analysis: FY 20 Q2 End of Year Forecast (Note: Variance explanations are for +/-\$2M or greater)

Non-Integrated Program Review Operating Expenses:

Row 13 – Asset Management: \$6 million lower than Rate Case to reflect actual Colville Settlement.

Row 14 – Operations: \$15 million lower than Rate Case reflects lower loads and lower 3rd Party GTA wheeling.

Row 15 – Commercial Activities: \$20 million lower than Rate Case due to lower Transmission & Ancillary Services, partially offset by higher Power Purchase expenses due to higher spill conditions

Row 18 – Depreciation, Amortization and Accretion: \$42 million lower than Rate Case is due to the implementation of new accounting treatment for Energy Northwest and other nonfederal assets as discussed at Q1. Rate Case levels were set prior to the new accounting treatment being finalized and as such a Rate Case to actuals difference was created for the BP-20 rate period.

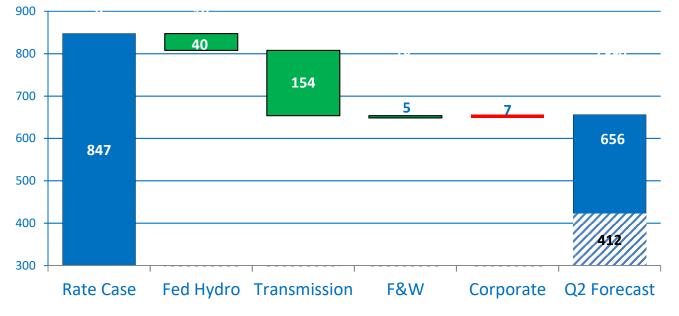
Row 26 - Net interest Expense: \$6 million higher than Rate Case primarily due to higher Non-Federal Interest resulting from the CGS lines of credit and bond issuances coupled with lower interest income due to a lower projected reserves balance and reduced rates.

Row 27 – Total Net Revenues: \$126 million, which is \$78 million greater than Rate Case.

Q2 Capital Drivers

FCRPS Capital

in millions of dollars



20

Agency Capital Expenditures: FY 20 Performance

	Report ID: 0027FY20 QBR Forecast Analysis: BPA Statement of Capital Exp Requesting BL: Corporate Business Unit FYTD Through the Month Ended March 31, 2020 Unit of Measure: \$Thousands Preliminary Unaudited			ata Source: PFMS April 30,2020 / 03:10 50%
-		A	В	С
		FY	2020	FY 2020
		Rate Case	Current EOY Forecast	Current EOY Forecast - Rate Case
	Transmission Business Unit			
1	MAIN GRID	\$ 2,320	\$ 10,626	\$ 8,306
2	AREA & CUSTOMER SERVICE	73,359	46,219	(27,140)
3	SYSTEM REPLACEMENTS	316,710	220,936	(95,774)
4	UPGRADES & ADDITIONS	58,319	64,517	6,199
5	ENVIRONMENT CAPITAL	6,898	8,364	1,466
	PFIA			
6	MISC. PFIA PROJECTS	14,034	7,399	(6,635)
7	GENERATOR INTERCONNECTION	69,157	16,113	(53,045)
8	SPECTRUM RELOCATION	1,522	947	(575)
9	CORPORATE CAPITAL INDIRECTS, undistributed	C	-	
10	TBL CAPITAL INDIRECTS, undistributed	C	0	
11	LAPSE FACTOR	(13,125)	0	13,125
12	TOTAL Transmission Business Unit	529,194	375,122	(154,073)
	Power Business Unit			
13	BUREAU OF RECLAMATION <note 1<="" td=""><td>120,893</td><td>45,950</td><td>(74,943)</td></note>	120,893	45,950	(74,943)
14	CORPS OF ENGINEERS <note 1<="" td=""><td>133,011</td><td>171,250</td><td>38,239</td></note>	133,011	171,250	38,239
15	POWER INFORMATION TECHNOLOGY	3,900	806	(3,094)
16	FISH & WILDLIFE <note 2<="" td=""><td>47,266</td><td>42,000</td><td>(5,266)</td></note>	47,266	42,000	(5,266)
17	TOTAL Power Business Unit	305,070	260,006	(45,064)
	Corporate Business Unit			
18	CORPORATE PROJECTS	13,200	20,587	7,387
19	TOTAL Corporate Business Unit	13,200	20,587	7,387
20	TOTAL BPA Capital Expenditures	\$ 847,465	\$ 655,715	\$ (191,750)

< 1 Excludes projects funded by federal appropriations.

< 2 Amounts are reported as regulatory assets and not utility plant

Agency Capital Expenditures: FY20 Performance

(Note: Variance explanations are for +/-\$2M or greater)

Transmission Business Unit

Transmission is \$154 million below rate case due to a shift in Transmission's Sustain and Expand Program prioritizations in FY18. Analysis revealed BPA's need to focus on the Sustain Program was required in order to maintain the reliability of the Grid. This resulted in a change to the mix and size of projects & their corresponding demand for resources. A Sustain-focused program requires a larger amount of resources. Due to staffing changes limitations, Transmission reduced their Start of Year (SOY) Budget to what they believed to be an accurate reflection of what could be delivered.

Row 1 – Main Grid: \$8 million above rate case, but expected through budgeting. Shift in strategy resulted in a variance.

Row 2 – Area and Customer Service: \$27 million below rate case due to a shift to more Sustain projects.

Row 3 – System Replacements: \$98 million less than rate case due mainly to limited resources needed for Sustain projects.

Row 4 – Upgrades and additions: \$11 million above rate case, but expected due to more resources moving to the Sustain program.

Rows 6-8 – Projects Funded in Advance (PFIA): \$57 million less than rate case due to a change in strategy above. This was budgeted for a reduced amount at SOY and currently on track.

Power Business Unit

Row 13 – Bureau of Reclamation: \$75 million below rate case due to Asset Investment Excellence initiative, projects were delayed or cancelled to prioritize other investments.

Row 14 – Corps of Engineers: \$38 million above rate case due to Asset Investment Excellence initiative, projects were prioritized and pulled forward.

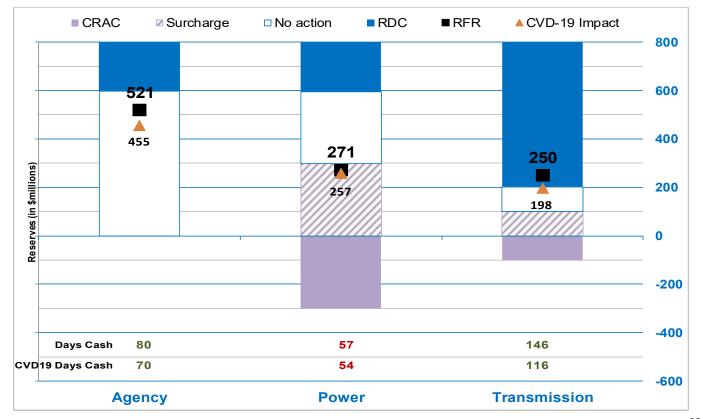
Row 15 – Power IT: \$3 million below rate case due to project prioritization resulting in EE tracking and reporting being the only Power specific IT project moving forward.

Row 16 – Fish and Wildlife: \$5 million below rate case due to expected delay of qualified land acquisitions.

Corporate Business Unit

Row 18 – Corporate IT projects: \$7 million above rate case due to project prioritization of new customer billing and enterprise business system disaster recovery projects and updated project estimates.

Rate Triggers Forecast – FY20 EOY



23

Power Crosswalk – Key Drivers

PS FY20 EOY Reserves for Risk (RFR) is forecasted to be \$271M, which is ~\$50M less than the rate case forecast of \$321M. Key drivers:

- The BP-20 Rate Case assumed PS ended FY19 with RFR = \$288M, but PS ended FY19 with \$203M, resulting in \$85M less in RFR heading into FY20 than assumed in the rate case.
- FY20 Driver: The Q2 Net Revenue forecast is \$78M higher than the rate case projection.
 - Lower operating expenses due to lower Transmission and Ancillary Services expense, lower Fish and Wildlife expenses, and lower
 Depreciation/Amortization, offset by higher Power Purchases.
 - Depreciation/Amortization is lower by \$42M, but is non-cash.

\$ in millions)	
Power Crosswalk	
Q2 FY20 EOY RFR Forecast	271
BP-20 RFR Forecast	321
Delta	(\$50)
-	
Explain the (\$50)m Delta	
FY20 SOY RFR Beg Bal Delta from RC	(85)
Plus: Increase in Net Revenues	78
Minus: Non-Cash Portion of Net Revenues	(42)
Plus: Cash and Booking Timing	4
Less: Miscellaneous	(5)
-	(\$50)

Transmission Crosswalk – Key Drivers

TS FY20 EOY Reserves for Risk (RFR) is forecasted to be \$250M, which is ~\$102M more than the rate case forecast of \$148M. Key drivers:

- The BP-20 Rate Case assumed TS ended FY19 with RFR = \$207M, but TS ended FY19 with \$281M, resulting in \$75M more in RFR heading into FY20 than assumed in the rate case.
- FY20 Drivers: The Q2 Net Revenue forecast and other cash receipts.
 - Q2 NR forecast is \$23M higher than rate case primarily due to decreased operating expenses: Interest Expense lower by \$21M and Depreciation/ Amortization (non-cash) lower by \$4M.
 - \$10M cash receipt from a customer dispute not included in the rate case.

in millions)	
Transmission Crosswalk	
Q2 FY20 EOY RFR Forecast	250
BP-20 RFR Forecast	148
Delta	\$102
Explain the \$102m Delta	
FY20 SOY RFR Beg Bal Delta from RC	75
Plus: Increase in Net Revenues	23
Minus: Non-Cash Portion of Net Revenues	(4)
Plus: Cash and Booking Timing	10
Less: Miscellaneous	(3)
-	\$102

Financial Reserves Review Action Plan Update Nadine Coseo and Shelley Egerdahl

Process Improvements Updates

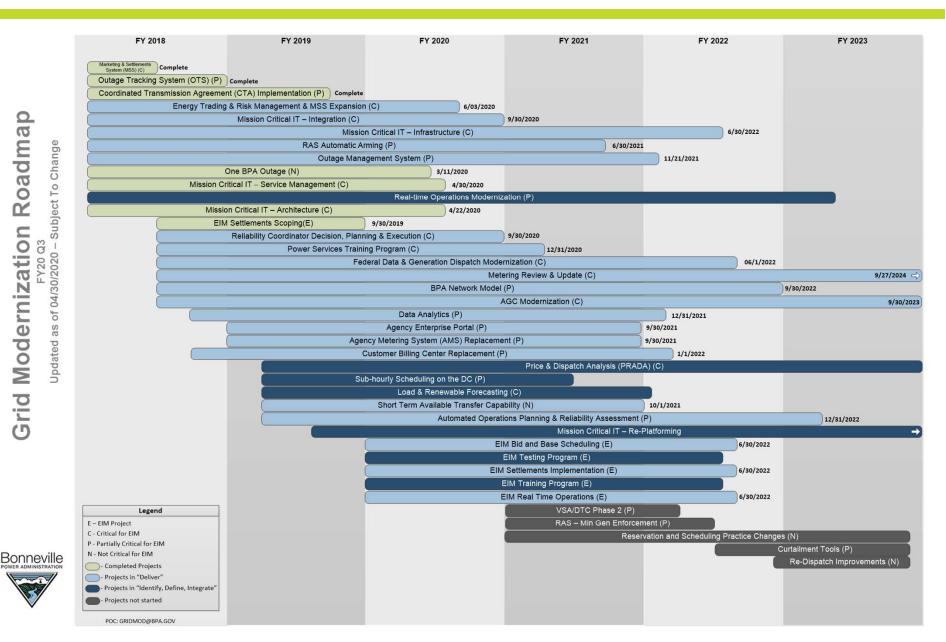
Risk Informed Financial Process Review (RIFPR) Updates

- Reserves Forecast High level process map and input source documentation complete
- Revenue Requirement: Detailed process map and input source documentation complete
- Next Steps Process mapping of SOY has begun

BU Cash Split Action Plan Update

- Controls established to validate output continue to be run periodically, as planned.
- Documentation of the model, standard operating procedures and policy are well underway.
- The action plan is on track to be completed within established timeframe.

Grid Modernization Update Allie Mace



GM Progress Metric

87%

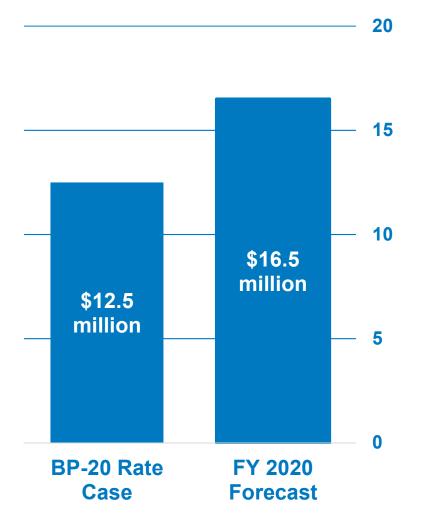
- 87% of milestones for projects in deliver are on-track or completed.
- A milestone identifies the completion of significant events and/or key decisions associated with the grid modernization project. Examples include (but are not limited to) a formal project kickoff, RFO release dates, "go-live" dates for new software, targets for completing training for new processes, and project conclusion.
- Status: Green





- 40% of the FY 2020 IPR expense budget has been spent at the close of the second quarter for projects in deliver.
- This is the equivalent of \$3.5 million.
- Status: Green

GM FY 2020 Spending



- The timing of projects moving to deliver has a significant impact on spending.
- BPA anticipates needing up to \$4 million more than what was allocated in BP-20 due to the timing of projects.
- The official Q2 forecast reflects a total need of \$16.5 million.

Project Spotlights

- One BPA Outage
 - Completed in March 2020.
 - Provides a comprehensive, cross-agency solution to planning and executing outages.
- Agency Metering System Replacement (AMS) and Customer Billing Center Replacement (CBC)
 - AMS implements a new system that will meet requirements for short and long-term meter data collection, meter data management, event tracking and reporting.
 - CBC replaces the existing aging system and offers an opportunity to streamline the billing process to better serve customers.

Project Spotlights

- Mission Critical Information Technology
 - Modernize control center systems in order to improve their effectiveness and efficiencies to better position BPA to participate in existing and emerging markets.
- MCIT Architecture
 - Completed in April 2020.
 - Establishes a capability that will apply foundational principles and design in BPA's IT processes and systems to meet business needs.
 - Reduces software architecture complexity and redundant infrastructure.

EIM Implementation

Partially Critical for EIM

- Agency Enterprise Portal
- Agency Metering System Replacement
- Automated Operations Planning and Reliability Assessment
- BPA Network Model
- Coordinated Transmission Agreement Implementation
- Customer Billing Center Replacement
- Data Analytics
- MCIT Re-platforming
- Outage Management System
- Outage Tracking System
- Real-time Operations Modernization
- Remedial Action Scheme Automatic Arming
- Sub-hourly Scheduling on the DC Intertie

Critical for EIM

- Automatic Generation Control Modernization
- Energy Trading and Risk Management and MSS Expansion
- Federal Data and Generation Dispatch Modernization
- Load and Renewable Forecasting
- Marketing and Settlements System
- MCIT Architecture
- MCIT Infrastructure
- MCIT Integration
- MCIT Service Management
- Metering Review and Update
- Power Services Training Program
- Price and Dispatch Analysis
- Reliability Coordinator Decision, Planning and Execution

EIM-Specific Project

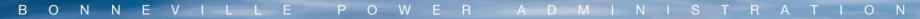
- EIM Bid and Base Scheduling
- EIM Real-Time Operations
- EIM Settlements Implementation
- EIM Settlements Scoping
- EIM Testing Program
- EIM Training Program

More Information

On grid modernization: <u>www.bpa.gov/goto/gridmodernization</u>

On EIM: www.bpa.gov/goto/eim

Q & A Session





Appendix

Slice Reporting Composite Cost Pool Review Forecast of Annual Slice True-Up Adjustment

Q2 Forecast of FY 2020 Slice True-Up Adjustment

	FY 2020 Forecast \$ in thousands
February 11, 2020 First Quarter Technical Workshop	\$(4,524)*
May 18, 2020 Second Quarter Technical Workshop	\$(10,111)*
August 13, 2020 Third Quarter Technical Workshop	
November 17, 2020 Fourth Quarter Technical Workshop	

*Negative = Credit; Positive = Charge

Summary of Differences From Q2 Forecast to FY 20 (BP-20)

#		Composite Cost Pool True-Up Table Reference	QTR2 ^B - Rate Case \$ in thousands
1	Total Expenses	Row 95	\$(80 <i>,</i> 466)
2	Total Revenue Credits	Rows 113 + 122	\$3 <i>,</i> 508
3	Minimum Required Net Revenue	Row 144	\$41,941
4	TOTAL Composite Cost Pool (1 - 2 + 3) \$(80,466) - \$3,508 + \$41,941 = (42,032)	Row 149	\$(42 <i>,</i> 032)
5	TOTAL in line 4 divided by <u>0.9451467</u> sum of TOCAs \$(42,032)/ <u>0.9451467</u> = \$(44,471)	Row 151	\$(44,471)
6	QTR Forecast of FY 20 True-up Adjustment 22.7358 percent of Total in line 5 0.227358 * \$(44,471) = \$(10,111)	Row 152	\$(10,111)

FY20 Impacts of Debt Management Actions

			А		В	С		D
FY20	Impacts of Acceleration of Debt							
	-							
					¢		Delta	from the
<u>#</u>	Description	FY2	0 Q2 QBR	FY2	0 Rate Case	CCP	FY20) rate case
1	MRNR Section of Composite Cost Pool Table						\$	-
2	Principal Payment of Federal Debt						\$	-
3	2020 Regional Cooperation Debt (RCD)	\$	18,803,026	\$	21,148,026		\$	2,345,000
4	2020 Debt Service Reassignment (DSR)	\$	1,506,974	\$	1,506,974		\$	-
5	Prepay	\$	-	\$	-		\$	-
6	Energy Northwest's Line Of Credit (LOC)	\$		\$	2000 (1997) 1997 - 1997 (1997)		\$	-
7	Rate Case Scheduled Base Power Principal	\$	151,000,000	\$	151,000,000	-	\$	
8	Total Principal Payment of Fed Debt	\$	171,310,000	\$	173,655,000	row 125	\$	2,345,000
							\$	(=)
9	Repayment of Non-Federal Obligations	\$	227,000,000	\$	227,000,000	row 126	\$	-
							\$	-
10	Customer Proceeds	\$	<u>-</u>	\$		row 134	\$	1997) 1997)
11	Non-Cash Expenses	\$		\$	9 .	row 133	\$	
12	Nonfederal Bond Principal Payment	\$	41,581,000	\$	41,581,000	row 127	\$	-

Composite Cost Pool Interest Credit

	Allocation of Interest Earned on the Bonneville Fund (\$ in thousands)		
		<u>Q2 2020</u>	
1	Fiscal Year Reserves Balance	570,255	
2	Adjustments for pre-2002 Items	<u>16,341</u>	
3	Reserves for Composite Cost Pool (Line 1 + Line 2)	586,596	
4	Composite Interest Rate	0.42%	
5	Composite Interest Credit	(2,445)	
6	Prepay Offset Credit	0	
7	Total Interest Credit for Power Services	(1,600)	
8	Non-Slice Interest Credit (Line 7 – (Line 5 + Line 6))	845	

Net Interest Expense in Slice True-Up Forecast

		FY20 Rate Case	Q2 Forecast
		<u>(\$ in thousands)</u>	<u>(\$ in thousands)</u>
• Fed	leral Appropriation	44,686	45,791
• Cap	pitalization Adjustment	(45,937)	(45,937)
	rowings from US asury	61,157	58,896
• Pre	pay Interest Expense	9,826	9,826
• Inte	erest Expense	69,733	68,577
• AFL	JDC	(15,904)	(15,300)
	rest Income nposite)	(13,777)	(2,445)
• Pre	epay Offset Credit	(0)	(0)
	al Net Interest Dense	40,052	50,832

BONNEVILLE POWER ADMINISTRATION

<u>Proposed</u> Schedule for Slice True-Up Adjustment for Composite Cost Pool True-Up Table and Cost Verification Process

Dates	Agenda
February 11, 2020	First Quarter Technical Workshop
May 18, 2020	Second Quarter Technical Workshop
TBD August, 2020	Third Quarter Technical Workshop
October 2020	BPA External CPA firm conducting audit for fiscal year end
Mid-October 2020	Recording the Fiscal Year End Slice True-Up Adjustment Accrual
End of October	Final audited actual financial data is expected to be available
November 13, 2020	Mail notification to Slice Customers of the Slice True-Up Adjustment for the Composite Cost Pool
November 17, 2020	BPA to post Composite Cost Pool True-Up Table containing actual values and the Slice True-Up Adjustment
TBD November, 2020	Fourth Quarter Business Review and Technical Workshop Meeting Provide Slice True-Up Adjustment for the Composite Cost Pool (this is the number posted in the financial system; the final actual number may be different)
December 10, 2020	Deadline for customers to submit questions about actual line items in the Composite Cost Pool True-Up Table with the Slice True-Up Adjustment for inclusion in the Agreed Upon Procedures (AUPs) Performed by BPA external CPA firm (customers have 15 business days following the BPA posting of Composite Cost Pool Table containing actual values and the Slice True-Up Adjustment)
December 24, 2020	BPA posts a response to customer questions (Attachment A does not specify an exact date)
January 11, 2021	Customer comments are due on the list of tasks (The deadline can not exceed 10 days from BPA posting)
February 2, 2021	BPA finalizes list of questions about actual lines items in the Composite Cost Pool True-Up Table for the AUPs

			Q2	Ra	te Case forecast for FY 2020	Q	2- Rate Case Difference
			(\$000)	•	(\$000)	-	(\$000)
1	Operating Expenses						
2	Power System Generation Resources						
3	Operating Generation						
4	COLUMBIA GENERATING STATION (WNP-2)	S	263,735	s	262,471	S	1,264
5	BUREAU OF RECLAMATION	S	153,609	s	153,609		-
6	CORPS OF ENGINEERS	S	252,557	s	252.557		
7	LONG-TERM CONTRACT GENERATING PROJECTS	S	11,703	s	12,709		(1,006
8	Sub-Total	\$	681,604	S	681,345	\$	25
9	Operating Generation Settlement Payment and Other Payments			-		-	
10	COLVILLE GENERATION SETTLEMENT	S	17,586	s	22,997	S	(5,411
11	SPOKANE LEGISLATION PAYMENT	S	-	s	22,001	S	
12	Sub-Total	S	17,586	s	22.997	\$	(5,411
13	Non-Operating Generation	*	11,000	-	22,557	*	(0,111
14	TROJAN DECOMMISSIONING	S	935	s	1.200	s	(265
15	WNP-1&3 DECOMMISSIONING	S	1,182		431	-	75
16	Sub-Total	S	2,117		1.631	s	48
17	Gross Contracted Power Purchases	*	2,111		1,001	*	10
18	PNCA HEADWATER BENEFITS	S	2,909	s	3.100	S	(191
19	OTHER POWER PURCHASES (omit, except Designated Obligations or Purchase	-	(19,631)		5,100	S	(19,631
20	Sub-Total	s	(16,722)		3,100	s	(19,822
20		\$	(10,722)	3	5,100	3	(13,021
21	Bookout Adjustment to Power Purchases (omit) Augmentation Power Purchases (omit - calculated below)						
22	AUGMENTATION POWER PURCHASES	S	290	s		s	
23	Sub-Total	S	-	5		s	
24		3	-	3	-	3	
	Exchanges and Settlements	S	249,767		249,767	e	
26	RESIDENTIAL EXCHANGE PROGRAM (REP)	S				-	
27	OTHER SETTLEMENTS	S	-		249,767	S	
28	Sub-Total	3	249,767	3	249,101	3	
29	Renewable Generation		00.040		00.475	-	2.42
30	RENEWABLES (excludes KIII)	S	28,913			S	2,43
31	Sub-Total	\$	28,913	\$	26,475	\$	2,43
32	Generation Conservation	•	74.000				
33	CONSERVATION ACQUISITION	S	71,690	S		S	4,69
34	CONSERVATION INFRASCTRUCTURE	S	23,311	S		S	(3,985
35	LOW INCOME WEATHERIZATION & TRIBAL	S	5,739	S		S	
36	ENERGY EFFICIENCY DEVELOPMENT	S	8,000	S		S	
37	DR & SMART GRID	S	276	S		S	(579
38	LEGACY	S	590	S		S	
39	MARKET TRANSFORMATION	S	12,090	S		S	4
40	Sub-Total	\$	121,696	\$	121,530	\$	16
41	Power System Generation Sub-Total	S	1.084.961	S	1,106,845	S	(21,884

45

	COMPOSITE COST POOL						
		Q2 (\$000)		fo	recast for FY 2020		Rate Case lifference
			(\$000)		(\$000)		(\$000)
42							
43	Power Non-Generation Operations						
44	Power Services System Operations						
45	EFFICIENCIES PROGRAM	\$		\$		\$	-
46	INFORMATION TECHNOLOGY	\$		\$	6,714		(6,714
47	GENERATION PROJECT COORDINATION	\$	6,444		6,059	Sec. 1	385
48	ASSET MGMT ENTERPRISE SVCS	\$	512			\$	512
49	SLICE IMPLEMENTATION	\$	900			\$	345
50	Sub-Total	\$	7,856	\$	13,329	\$	(5,472)
51	Power Services Scheduling						
52	OPERATIONS SCHEDULING	\$	8,769		8,806		(38
53	OPERATIONS PLANNING	\$	8,105		5,643		2,462
54	Sub-Total	\$	16,874	\$	14,449	\$	2,425
55	Power Services Marketing and Business Support						
56	COMMERCIAL ENTERPRISE SVCS	\$	5,460			\$	5,460
57	OPERATIONS ENTERPRISE SYCS	\$	4,068		-	\$	4,068
58	POWER R&D	\$	2,527	-	2,662		(135
59	SALES & SUPPORT	\$	11,839		23,191		(11,352
60	STRATEGY, FINANCE & RISK MGMT (REP support costs included he		20,712		16,905		3,807
61	EXECUTIVE AND ADMINISTRATIVE SERVICES (REP support costs in	\$	3,584		3,880		(296
62	CONSERVATION SUPPORT	\$	8,210	\$	8,399	\$	(189
63	Sub-Total	\$	56,401			\$	1,363
64	Power Non-Generation Operations Sub-Total	\$	81,131	\$	82,815	\$	(1,684)
65	Power Services Transmission Acquisition and Ancillary Service						
66	TRANSMISSION and ANCILLARY Services - System Obligations	\$	32,028			\$	
67	3RD PARTY GTA WHEELING	\$	80,000		96,200		(16,200
68	POWER 3RD PARTY TRANS & ANCILLARY SVCS (Composite Cost		2,338		2,338		0
69	TRANS ACQ GENERATION INTEGRATION	\$	13,577		13,577		-
70	TELEMETERING/EQUIP REPLACEMT	\$			•	\$	
71	Power Services Trans Acquisition and Ancillary Serv Sub-1	\$	127,943	\$	144,143	\$	(16,200)
72	Fish and Vildlife/USF&V/Planning Council/Environmental Req						
73	Fish & Vildlife	\$	239,603		249,603		(10,000)
74	USF&V Lower Snake Hatcheries	\$	30,483	-	30,483		
75	Planning Council	\$	11,522		11,725		(203)
76	Environmental Requirements	\$			•	\$	-
77	Fish and Vildlife/USF&V/Planning Council Sub-Total	\$	281,608	\$	291,811	\$	(10,203)
	BPA Internal Support						
	Additional Post-Retirement Contribution	\$	17,289			\$	(2,287
79		\$	59,534		57,859		1,675
79	Agency Services G&A (excludes direct project support)		76,824		77,436	\$	(612)
79 80 81	Agency Services G&A (excludes direct project support) BPA Internal Support Sub-Total	\$		\$	-	\$	
79 80 81 82	BPA Internal Support Sub-Total Bad Debt Expense	\$					
79 80 81 82	BPA Internal Support Sub-Total	\$		\$	-	\$	
79 80 81 82 83 83	BPA Internal Support Sub-Total Bad Debt Expense	\$			138,968	\$	
78 79 80 81 82 83 83 84 85	BPA Internal Support Sub-Total Bad Debt Expense Other Income, Expenses, Adjustments	\$		\$		\$	1,802
79 80 81 82 83 83	BPA Internal Support Sub-Total Bad Debt Expense Other Income, Expenses, Adjustments Depreciation	\$ \$ \$.**	\$ \$ \$	138,968	\$	- 1,802 (43,129 (618 (92,528)

			Q2	fo	recast for FY 2020		Rate Case ifference
			(\$000)		(\$000)		(\$000)
89	Other Expenses and (Income)		- 14 A				
90	Net Interest Expense	\$	276,474	\$	270,654	\$	5,820
91	LDD	\$	39,493	\$	38,505	\$	987
92	Irrigation Rate Discount Costs	\$	20,880	\$	20,905	\$	(24)
93	Other Expense and (Income)	\$	and the second sec	\$	(5,279)	\$	5,279
94	Sub-Total	\$	336,847	\$	324,785	\$	12,062
95	Total Expenses	\$	2,465,664	\$	2,546,130	\$	(80,466)
96							
97	Revenue Credits						
98	Generation Inputs for Ancillary, Control Area, and Other Services Revenues	\$	117,104	\$	119,815	\$	(2,711)
99	Downstream Benefits and Pumping Power revenues	\$	20,693	\$	19,364	\$	1,329
100	4(h)(10)(c) credit	\$	100,185	\$	86,250	\$	13,935
101	Colville and Spokane Settlements	\$	4,600	\$	4,600	\$	0
102	Energy Efficiency Revenues	\$	8,000	\$	8,000	\$	-
103	PF Load Forecast Deviation Liquidated Damages	\$	1,493	\$	9,499	\$	(8,006)
104	Miscellaneous revenues	\$	11,648	\$	12,362	\$	(714)
105	Renewable Energy Certificates	\$	10 M	\$		\$	
106	Net Revenues from other Designated BPA System Obligations (Upper Bak	\$	352	\$	353	\$	(1)
107	RSS Revenues	\$	2,728	\$	2,728	\$	
108	Firm Surplus and Secondary Adjustment (from Unused RHWM)	\$	68,746	\$	68,746	\$	-
109	Balancing Augmentation Adjustment	\$	1,213	\$	1,213	\$	
110	Transmission Loss Adjustment	\$	30,066	\$	30,066	\$	-
111	Tier 2 Rate Adjustment	\$	510		510		-
112	NB Revenues	\$	1		1		(0)
113	Total Revenue Credits	\$	367,339	\$	363,507	\$	3,832
114		·					
115	Augmentation Costs (not subject to True-Up)						
116	Tier 1 Augmentation Resources (includes Augmentation RSS and Augmentation	\$	12,367	\$	12,367	\$	
117	Augmentation Purchases	\$		\$		\$	
118	Total Augmentation Costs	\$	12,367	\$	12,367	\$	-
119	lota ragintination oosto	•	12,001				
120	DSI Bevenue Credit						
121	Revenues 12 aMV @ IP rate	\$	3,979	\$	4,303	\$	(324)
122	Total DSI revenues	\$	3,979	*	4,303	\$	[324]
123		*	3,313	•	4,000	*	נשביון
124	Minimum Required Net Revenue Calculation	-					
124	Principal Payment of Fed Debt for Power	\$	171,310	*	173.072	*	(1,762
120	Repayment of Non-Federal Obligations (EN Line of Credit)	э \$	227,000		227,000		(1,762
126	Repayment of Non-Federal Obligations (EN Line of Credit) Repayment of Non-Federal Obligations (CGS, WNP1, WNP3, N. Wasco, Cowlitz F	•			41,581	•	1.759
121	- repayment of Non-regeral Obligations (CGS, WNP1, WNP3, N. WaSco, COWIIC2 F	•	43,340	4	41,081	•	1,753
128	Irrigation assistance	\$	24,331	\$	24,331	\$	

BONNEVILLE POWER ADMINISTRATION

	COMPOSITE COST POOL	TRI	JE-UP TAB	LE		
			Q2	Rate Case forecast for FY 2020	Q	2- Rate Case Difference
			(\$000)	(\$000)		(\$000)
130	Depreciation	\$	140,770			1,802
131	Amortization	\$	302,460	\$ 345,589	\$	(43,129
132	Accretion	\$	33,120	\$ 33,738		
133	Capitalization Adjustment	\$	(45,937)	\$ (45,937)	\$	
134	Non-Cash Expenses	\$	-	\$ -	\$	10
135	Customer Proceeds	\$	-	\$ -	\$	-
136	Cash freed up by DSR refinancing	\$	16,590	\$ 16,590	\$	-
137	Prepay Revenue Credits	\$	(30,600)	\$ (30,600)	\$	-
138	Non-Federal Interest (Prepay)	\$	9,826	\$ 9,826	\$	
139	Contribution to decommissioning trust fund	\$	(4,100)	\$ (4,100)	\$	8 <u>4</u>
140	Gains/losses on decommissioning trust fund	\$	(5,052)	\$ (5,052)	\$	
141	Interest earned on decommissioning trust fund	\$	(8,818)	\$ (8,818)	\$	-
142	Sub-Total	\$	408,260	\$ 450,204	\$	(41,945
143	Principal Payment of Fed Debt plus Irrigation assistance exceeds non cash ex	\$	57,721	\$ 15,780	\$	41,941
144	Minimum Required Net Revenues	\$	57,721	\$ 15,780	\$	41,941
145						
146	Annual Composite Cost Pool (Amounts for each FY)	\$	2,164,434	\$ 2,206,466	\$	(42,032
147						
148	SLICE TRUE-UP ADJUSTMENT CALCULATION FOR COMPOSITE COST POOL					
149	TRUE-UP AMOUNT (Diff. between Rate Case and Forecast)		(42,032)			
150	Sum of TOCAs		0.9451467			
151	Adjustment of True-Up Amount when actual TOCAs < 100 percent		(44,471)			
152	TRUE-UP ADJUSTMENT CHARGE BILLED (22.7358 percent)		(10,111)			

Financial Disclosures

This information has been made publicly available by BPA on May 15, 2020 and does <u>not</u> contain Agency-approved Financial Information.