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February 6, 2018

MEMORANDUM

TO: Council Members

FROM: Elizabeth Osborne

SUBJECT: Cowlitz PUD Perspectives on BPA Market Position

BACKGROUND:

Presenter: Steve Kern, Cowlitz PUD

Summary: Steve Kern, General Manager of Cowlitz PUD, will discuss Cowlitz PUD's

perspectives on Bonneville's wholesale market position. Mr. Kern will share his recommendations for reducing risks and operating expenses to

maintain competitiveness going forward.

Background: Mr. Steve Kern was appointed General Manager of Cowlitz PUD in

January 2016, and was the Power Supply and Environmental Affairs Officer for Seattle City Light prior to that. He has worked as an energy consultant throughout the Northwest and has many years of experience working for utilities and energy companies, specializing in power supply management, portfolio risk management, and renewable resources.

More Info: https://www.cowlitzpud.org/

BPA Wholesale Market Position Cowlitz PUD's Perspective January 11, 2018



BPA Rates Are Significantly Higher Than the Current and Future Market

Worrying Trends:

BPA:

- Increased court mandated spill
- Increasing F&W costs
- Net Secondary revenues down dramatically

External:

- Avalanche of \$0 marginal cost power (CA & PNW)
- Increased WECC region RPS mandates
- Persistently low Natural Gas forward market prices

BPA Focus 2028 Assumptions:

- 50% California RPS by FY 2030
- Henry Hub gas prices increase from \$2.15 per MMBtu in CY 2016 to \$5.61 per MMBtu in CY 2030 (nominal) with risk variation
- Regional annual load growth 0.7% with weather and economic risk variation
- No significant changes in BPA firm requirements power obligations or BPA resources (only
 moderate changes to the Tier 1 system are forecast, keeping Tier 1 loads relatively
 constant).

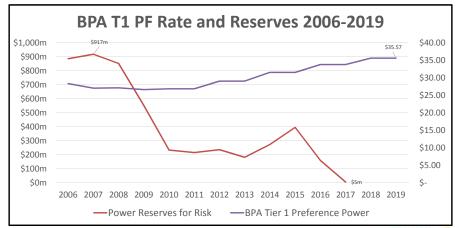


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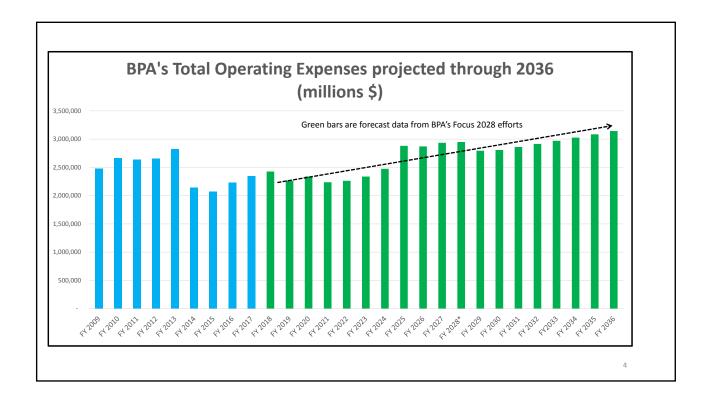
BPA Rates Have Climbed Substantially Power Business Line Cash Reserves are Depleted

- BPA went to 2 year rate case cycles in 2012
- Beginning FY18, BPA will collect an extra \$20 Million annually from rate payers to increase reserve level

Year	Rate Change %
2007	-4.6%
2008	0.4%
2009	-1.9%
2010	0.8%
2012*	8.2%
2014	8.6%
2016	7.1%
2018	5.4%



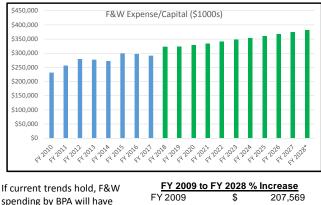




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F&W Spending Expected to Steadily Increase Currently Represents Over 30% of BPA's Annual OpEx

Annual Historical and projected F&W Expense:



If current trends hold, F&W spending by BPA will have increased by 84% (2009-2028):

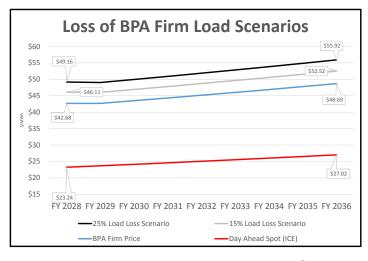
Total FY16 Costs:

F&W Major Area (FY16):	Millions
Power Purchase for Fish Enhancement	\$50.3
Direct F&W Program	\$258.1
Foregone Revenue	\$76.6
Reimbursable Costs	\$88.2
Fixed Costs (interest, amortization/dep)	\$148.2
<u>Total:</u>	\$621.5



BPA Faces Significant Customer Loss of Load Risk in 2028 Which Will Increase Future Rate Pressure

207,569



Loss of Load FY 2028 Impact	15% Load Loss Scenario	25% Load Loss Scenario
BPA Rate Increase \$:	\$3.43	\$6.48
BPA Rate Increase %:	7.44%	13.18%
Lost Load aMW:	-1101	-1835
Remaining BPA Load aMW:	6239	5505

Going Forward

In attempt to be competitive now and in the future, BPA must immediately take all possible steps and actions necessary to further reduce it operating expenses and risks going forward including:

- 1. Control and reduce Fish and Wildlife spending. Work with the region to bring about increase program oversight and real accountability.
- 2. Challenge all operating expenses. Set firm operating expense reduction targets (e.g. 20%) across the entire organization to achieve savings.
- 3. Power supply and portfolio risk management. Improve management of BPA's power supply portfolio through additional hedging and/or completion of new creative power supply agreements.

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