



**ENERGY
NORTHWEST**

Energy Northwest Briefing

2016 BPA Integrated Program Review

Kent Dittmer, Asset Manager/Controller

Cristina Reyff, Business Planning and Risk Manager

June 21, 2016

✦ **Phone Bridge: 877-336-1828**

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✦ **WebEx Meeting: [Join the meeting.](#)**

✦ **Meeting Number: 922 020 038**

Meeting Password: gDBSV987

Agenda

- ✦ Introduction
- ✦ Long Range Plan Overview
- ✦ Cost Effective Operation Initiative Overview
- ✦ Rate Case Overview

Introduction

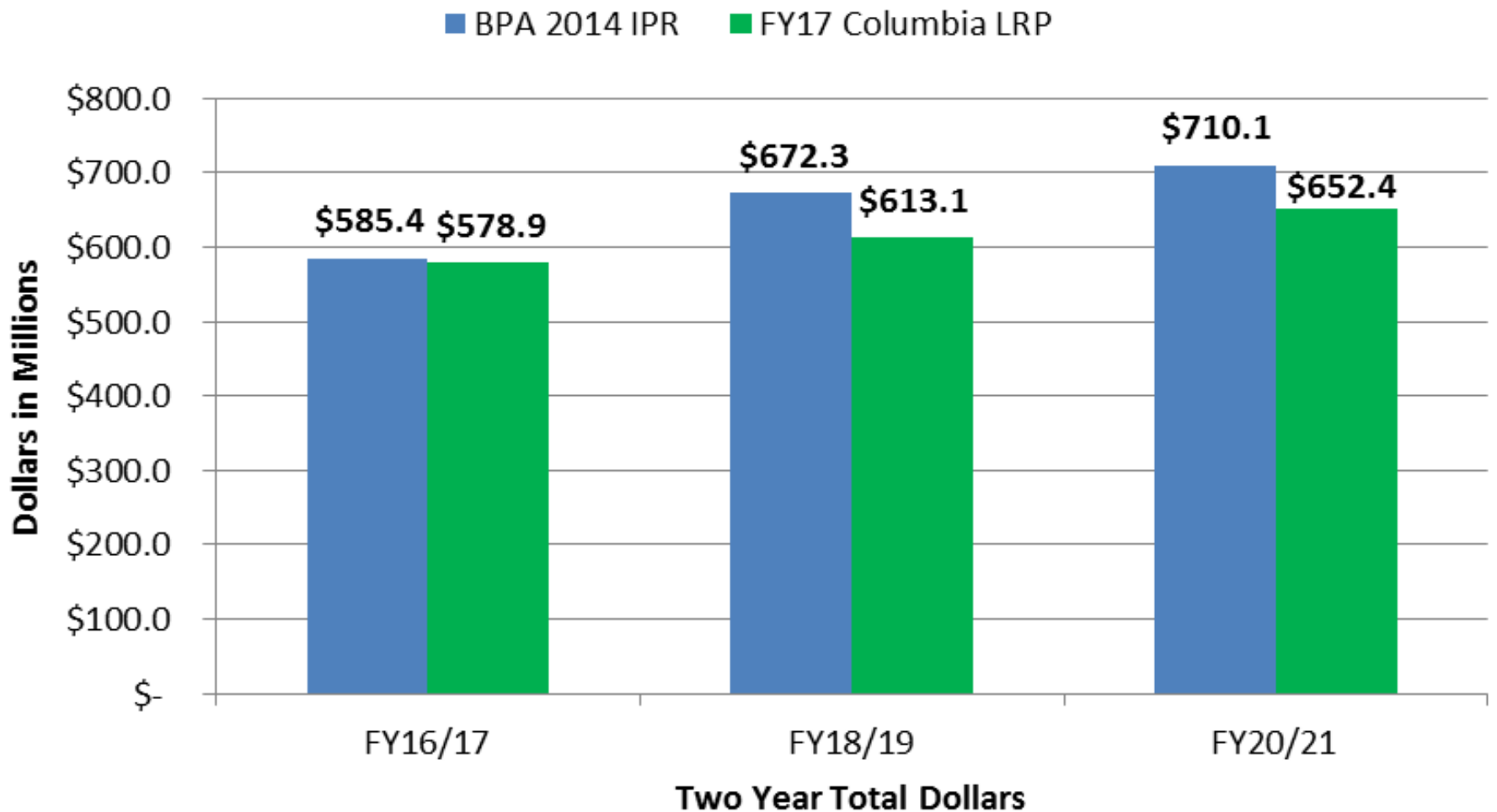
✦ Current Approved Plan

- FY16/17 = \$585.4 million
- FY18/19 = \$672.3 million
- FY20/21 = \$710.1 million

✦ Current Columbia LRP

- FY16/17 = \$578.9 million (\$6.5 million decrease)
- FY18/19 = \$613.1 million (\$59.2 million decrease)
- FY20/21 = \$652.4 million (\$57.6 million decrease)

Columbia Changes to IPR

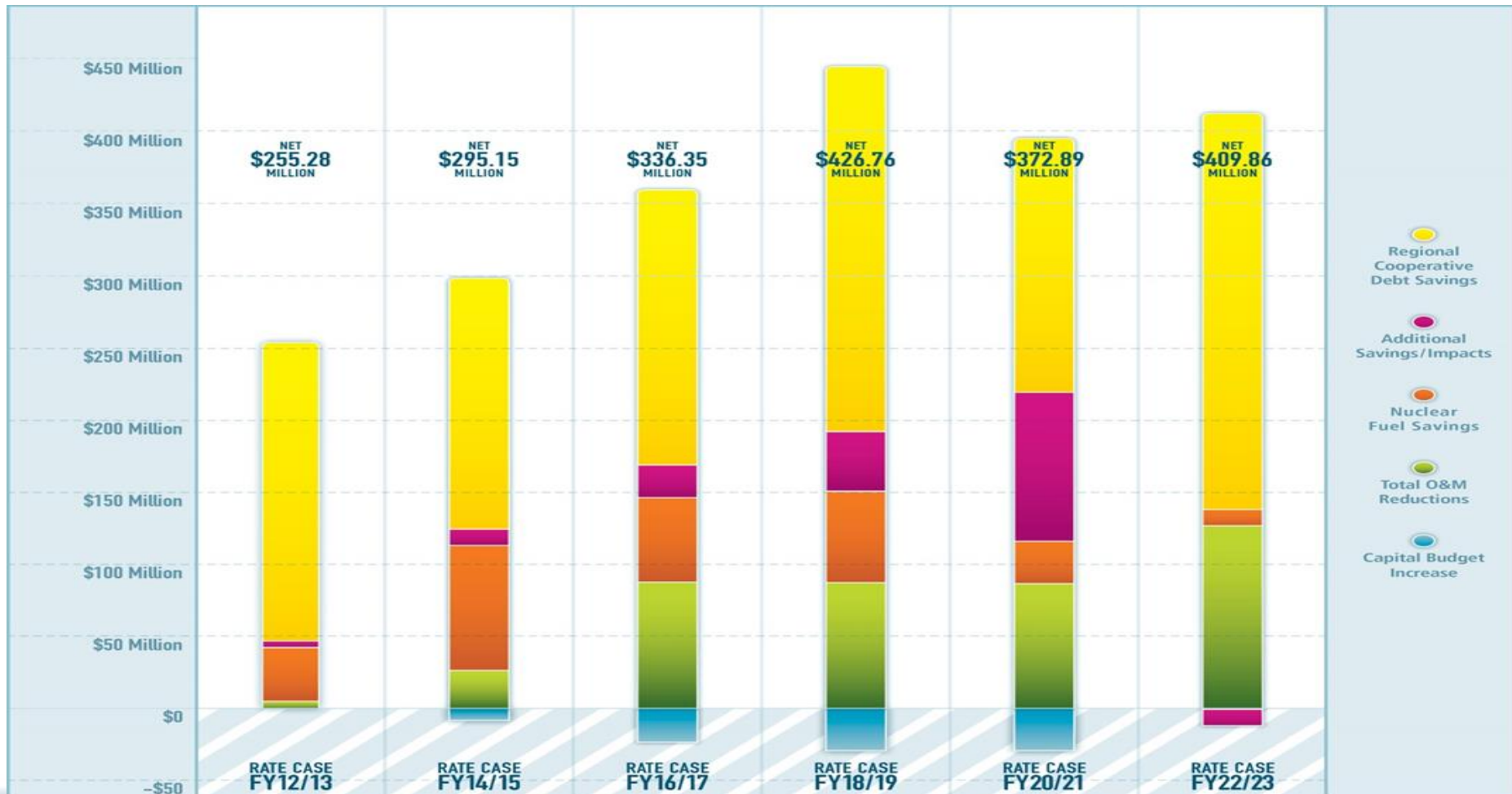


How did we get there?

- ✦ BPA Rate Periods 16/17, 18/19, 20/21
 - Continued Excellence in Plant Operation
 - Maintain the Plant and Replace Equipment per LRP
 - Aggressive Implementation of value optimization initiatives

Current Rate Case Savings

- Existing savings to region
- Reviewing future options for reductions



Other Opportunities & Issues

- ✦ Continued restructuring of Energy Northwest regional cooperation debt will further reduce BPA's overall interest expense and create additional BPA borrowing capacity
- ✦ Regulatory Mandates

Long Range Plan

Cristina Reyff, Business Planning & Risk Manager



Long Range Plan - Objective

The Columbia Generating Station (CGS) Long Range Plan (LRP) forecasts and prioritizes needed resources to maintain safe, reliable, and predictable cost effective operation of Columbia and promotes achievement of agency strategic goals.

LRP - Methodology

- ✦ Rolling 10-Year Forecast of O&M and Capital
 - Direct and indirect inputs are updated and challenged annually
 - Procedurally driven and aligns with industry standards
- ✦ LRP must align to committed budget targets
- ✦ Risk is evaluated for deferred or cancelled activities
- ✦ Cross-functional challenge and approval (technical and financial)
 - Includes executive oversight
- ✦ Assign steering committees to elevate mission critical risk activities

LRP - Assumptions

- ✦ Future A&G increases absorbed through cost reduction efforts
- ✦ Capital costs levels remain flat at FY16 and 17 levels (excluding escalation)
- ✦ Fuel costs based on current inventory cost and generation levels
- ✦ Maintained previous escalation rates
 - 2.75% escalation for labor
 - 2.75% escalation for non-labor (i.e.: materials)

BPA Rate Case (RC)	RC		RC		RC		RC		RC		
Columbia Fiscal Year	FY17 (R23)	FY18	FY19 (R24)	FY20	FY21 (R25)	FY22	FY23 (R26)	FY24	FY25 (R27)	FY26	FY27 (R28)
O&M Costs											
Baseline Costs	\$ 118,861	\$ 118,865	\$ 122,423	\$ 124,279	\$ 123,974	\$ 126,076	\$ 125,988	\$ 124,656	\$ 126,181	\$ 124,414	\$ 126,548
Outage Costs (Incremental)	27,529	-	27,529	-	27,529	-	27,529	-	27,529	-	27,529
Administration / General (A&G) ▼	70,864	71,602	74,175	81,740	83,087	84,739	84,461	83,018	84,593	83,351	82,882
Plant Projects	32,228	6,213	43,810	10,459	43,648	13,350	42,956	9,052	46,462	9,052	46,462
Facilities Projects	939	958	958	958	958	958	958	958	958	958	958
Risk Reserve	2,455	1,312	5,000	3,250	2,000	1,500	2,000	1,500	2,000	1,500	3,500
Subtotal O&M Costs	\$ 252,876	\$ 198,950	\$ 273,895	\$ 220,686	\$ 281,196	\$ 226,623	\$ 283,893	\$ 219,184	\$ 287,723	\$ 219,275	\$ 287,880
Escalation (2.5%)	-	3,376	10,511	11,687	21,827	20,184	33,343	26,777	45,445	35,204	58,222
Total O&M Costs (w/ escalation)	\$ 252,876	\$ 202,326	\$ 284,406	\$ 232,373	\$ 303,023	\$ 246,807	\$ 317,236	\$ 245,961	\$ 333,168	\$ 254,480	\$ 346,102
Capital Costs											
Plant Projects *	\$ 103,738	\$ 57,663	\$ 71,460	\$ 50,735	\$ 53,586	\$ 43,509	\$ 53,696	\$ 51,419	\$ 48,170	\$ 50,746	\$ 50,373
Risk Reserve	9,804	7,200	8,600	6,300	7,500	5,000	8,300	12,000	13,300	12,000	12,500
Moveable Capital & Downtown Projects †	1,259	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,323	1,323
Facilities Projects	612	608	608	594	594	594	594	594	594	594	594
Information Technology Projects †	8,994	11,152	10,167	11,537	10,808	10,468	10,612	11,350	11,350	11,452	10,468
Administration / General (A&G) ▼	19,192	19,053	18,473	9,782	10,453	7,700	10,020	10,388	10,882	11,077	13,643
Subtotal Capital Costs	\$ 143,599	\$ 97,000	\$ 110,632	\$ 80,271	\$ 84,264	\$ 68,594	\$ 84,545	\$ 87,074	\$ 85,619	\$ 87,191	\$ 88,901
Escalation (2.5%)		2,425	5,601	6,172	8,748	9,014	13,501	16,430	18,699	21,699	24,900
Total Capital Costs (w/ escalation)	\$ 143,599	\$ 99,425	\$ 116,233	\$ 86,443	\$ 93,012	\$ 77,608	\$ 98,046	\$ 103,503	\$ 104,318	\$ 108,890	\$ 113,801
Fuel Related Costs											
Nuclear Fuel Amortization **	47,650	62,104	54,986	63,678	56,625	63,670	56,787	65,636	58,433	66,013	61,528
Subtotal Fuel Related Costs	\$ 47,650	\$ 62,104	\$ 54,986	\$ 63,678	\$ 56,625	\$ 63,670	\$ 56,787	\$ 65,636	\$ 58,433	\$ 66,013	\$ 61,528
Total Escalated Budget	\$ 444,125	\$ 358,054	\$ 439,513	\$ 364,635	\$ 422,085	\$ 358,887	\$ 425,225	\$ 371,894	\$ 431,775	\$ 372,480	\$ 438,309
Total Escalation	-	5,801	16,112	17,859	30,575	29,198	46,844	43,206	64,144	56,903	83,122
Total Cost - Industry Basis	\$ 444,125	\$ 363,855	\$ 455,625	\$ 382,494	\$ 452,660	\$ 388,085	\$ 472,069	\$ 415,101	\$ 495,919	\$ 429,382	\$ 521,431
Generation/Cost of Power											
Total Net Generation (Gwh)	8,550	9,755	8,686	9,782	8,686	9,755	8,686	9,782	8,686	9,755	8,686
Outage Days	40		40		40		40		40		40
Cost of Power (Cents per kWh)	\$ 5.19	\$ 3.67	\$ 5.06	\$ 3.73	\$ 4.86	\$ 3.68	\$ 4.90	\$ 3.80	\$ 4.97	\$ 3.82	\$ 5.05
Cost of Power (Cents per kWh, escalated)	\$ 5.19	\$ 3.73	\$ 5.25	\$ 3.91	\$ 5.21	\$ 3.98	\$ 5.43	\$ 4.24	\$ 5.71	\$ 4.40	\$ 6.00

Key Assumption/Qualifications (Revision - 3/09/16)

Escalation Rate = Labor 2.75% and Non-labor 2.5%. Generation assumes 1% unplanned/ 2% planned loss.

Recovered 5 MWe from Instrument Fouling in FY 16, 18 MWe from Appendix K in FY 18 (FY 16 Net 1125, FY 17 Net 1125, FY 18 Net 1143)

▼ Potential Financial Risk; † Potential Financial Opportunity; *Number includes Fukushima project funding ** Does not include fuel costs associated with increase generation

LRP Challenges

- ✦ Regulatory mandates
- ✦ Benefits expected to escalate at a higher rate
- ✦ Effective implementation of cost reduction plans

Cost Effective Operation Project

Kent Dittmer, Asset Manager/Controller



Project Initiatives

- ✦ Value Optimization Projects
- ✦ Industry Initiatives – Nuclear Promise
- ✦ Fuel Savings

Value Optimization Project (VOP)

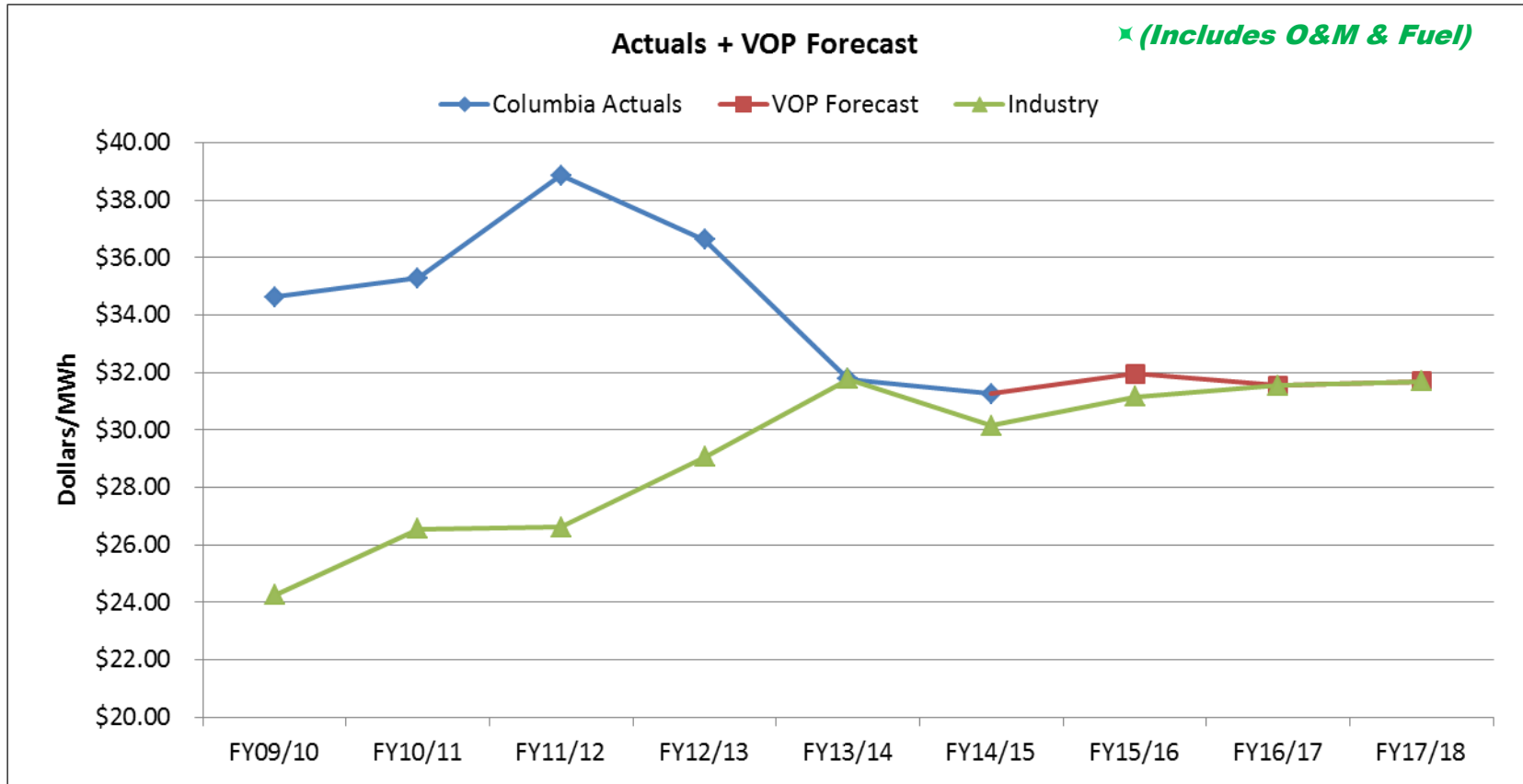
Initial VOP – Met Goal for Top Peer Quartile

- ✦ Budget Management
- ✦ Production Performance
- ✦ Generation Improvements

New Regional VOP – Cost Effective Operation - 2026

- ✦ Pacific Northwest Target Reference
- ✦ Budget/Cost Initiatives
- ✦ Delivering the Nuclear Promise

VOP – Production Costs



Cost of Power

Category	FY14/15	FY15/16	FY16/17	FY17/18
* Industry	\$ 30.15	\$ 31.15	\$ 31.55	\$ 31.70
Current VOP Status	\$ 31.27	\$ 31.96	\$ 31.55	\$ 31.70

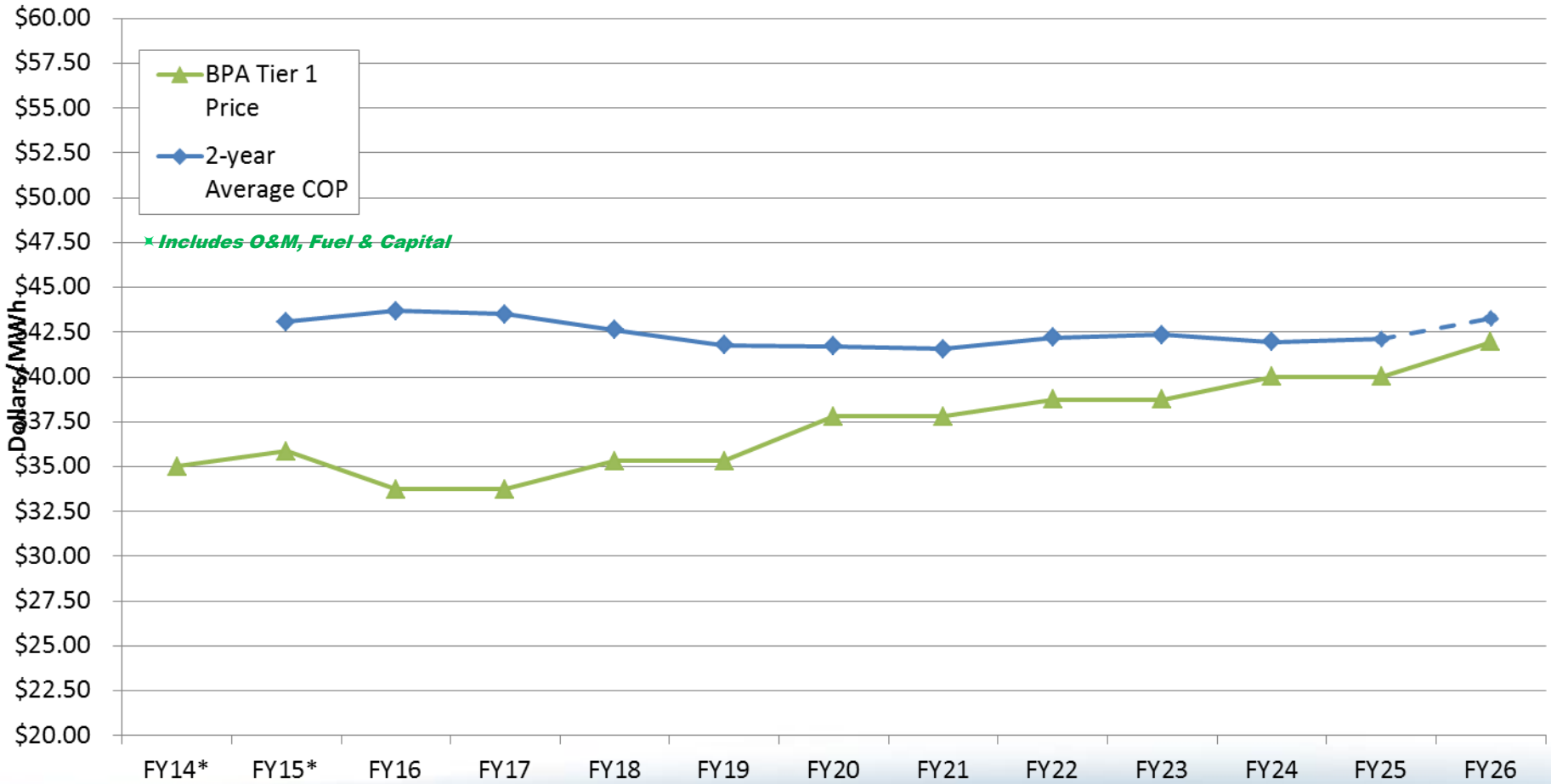
Amounts are in EN fiscal year dollars

* Industry Data Source is copyrighted by EUCG, Inc.



Regional – Cost Effective Operation

Regional Cost of Power CGS vs. Industry Target



Amounts are in EN fiscal year dollars

Cost Effective Operation Project

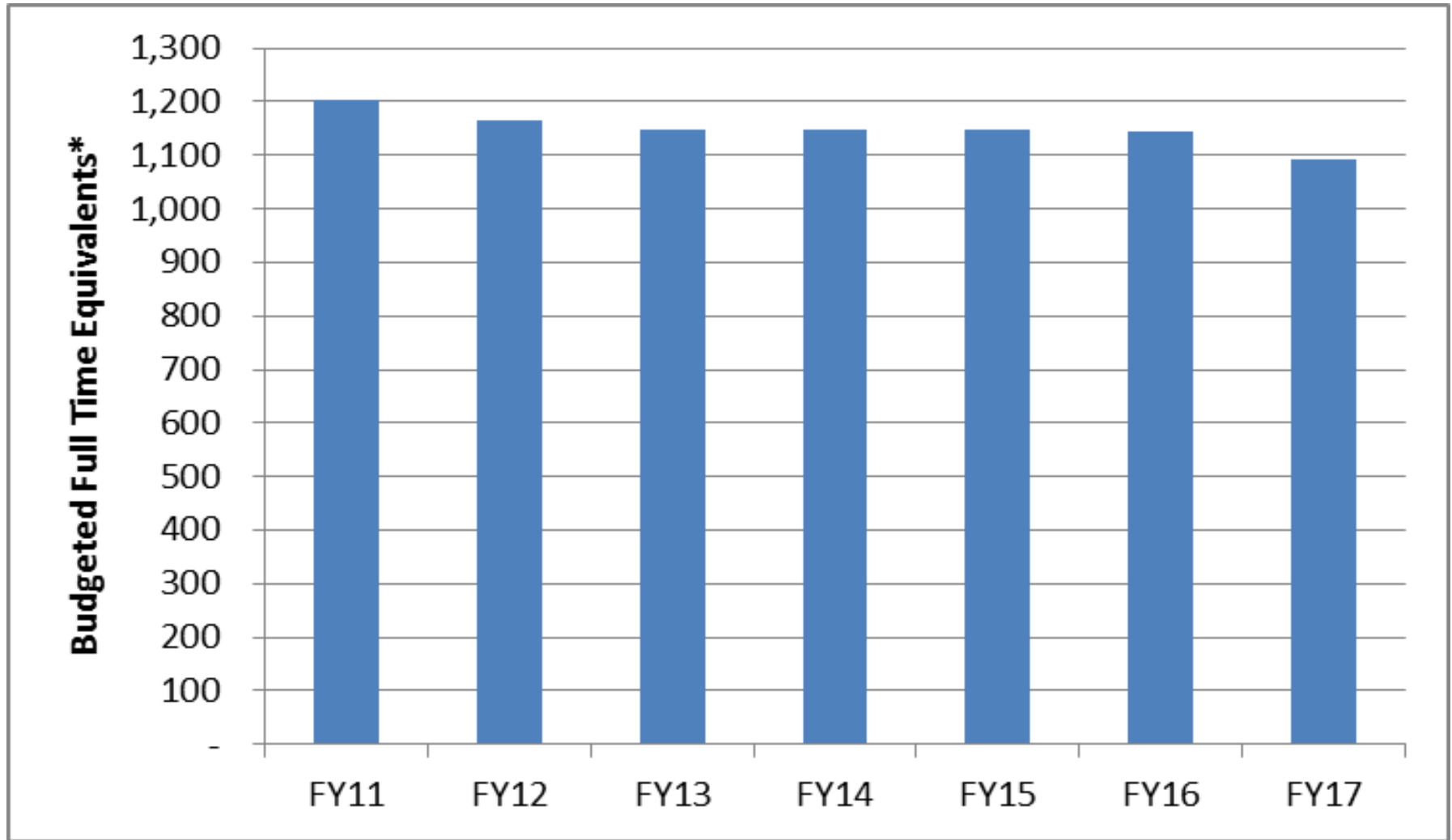
- ✦ Cost Effective Operation approved by Senior Management
- ✦ Mission – Achieve a reduced cost of power that continues to be regionally competitive
- ✦ The focus is to approach, as close as possible, BPA preference customer Tier 1 Pricing by FY2026.
 - Staffing Labor Cost
 - Gradual Headcount reductions through attrition and performance management
 - Hold/Reduce Department and O&M project spending
 - Days on-line and station production
 - Reduce outage durations

Cost Effective Operation – Cont.

Columbia Cost Control: How will we achieve goal?

- ✦ Attrition Management (Hiring Panel)
- ✦ Process Streamlining
- ✦ Benefit Costs
- ✦ Personal Time/Vacation Requirements
- ✦ Nuclear Promise Initiative
- ✦ Risk Assessments to Avoid Negative Impact on Safety & Reliability
- ✦ Reset Targets Annually

Columbia Staffing Levels



NUCLEAR PROMISE

an industry Chief Nuclear Officers' (CNO) initiative

- ✦ Corrective Action Program
- ✦ Engineering
- ✦ Preventative Maintenance
- ✦ Radiation Protection
- ✦ Regulatory Efficiency
- ✦ Security
- ✦ Supply Chain Efficiency
- ✦ Training
- ✦ Transform Engineering and Maintenance Org.
- ✦ Work Management

Project Oversight

- ✦ Steering Committee has been established for the new Cost Effective Operations project - 6/6/16
- ✦ Project Sponsor – Brad Sawatzke, Chief Operating Officer/CNO
- ✦ Committee Chair – Brent Ridge, VP Corporate Services & Chief Financial/ Risk Officer
- ✦ Project Manager – Kent Dittmer, Asset Manager/Controller
- ✦ Staffing Coordinator – Steve Lorence, Human Resources Manager

Cost Effective Operation - Status

- ✦ The Cost Effective Operations Project is On Track
- ✦ The Cost Effective Operations Project has been targeted to be integrated into the LRP in FY17
- ✦ The FY19 LRP includes a BPA 18/19 rate case two-year saving of \$11 million resulting directly from the project
- ✦ Future deductions being identified to continue to support rate case

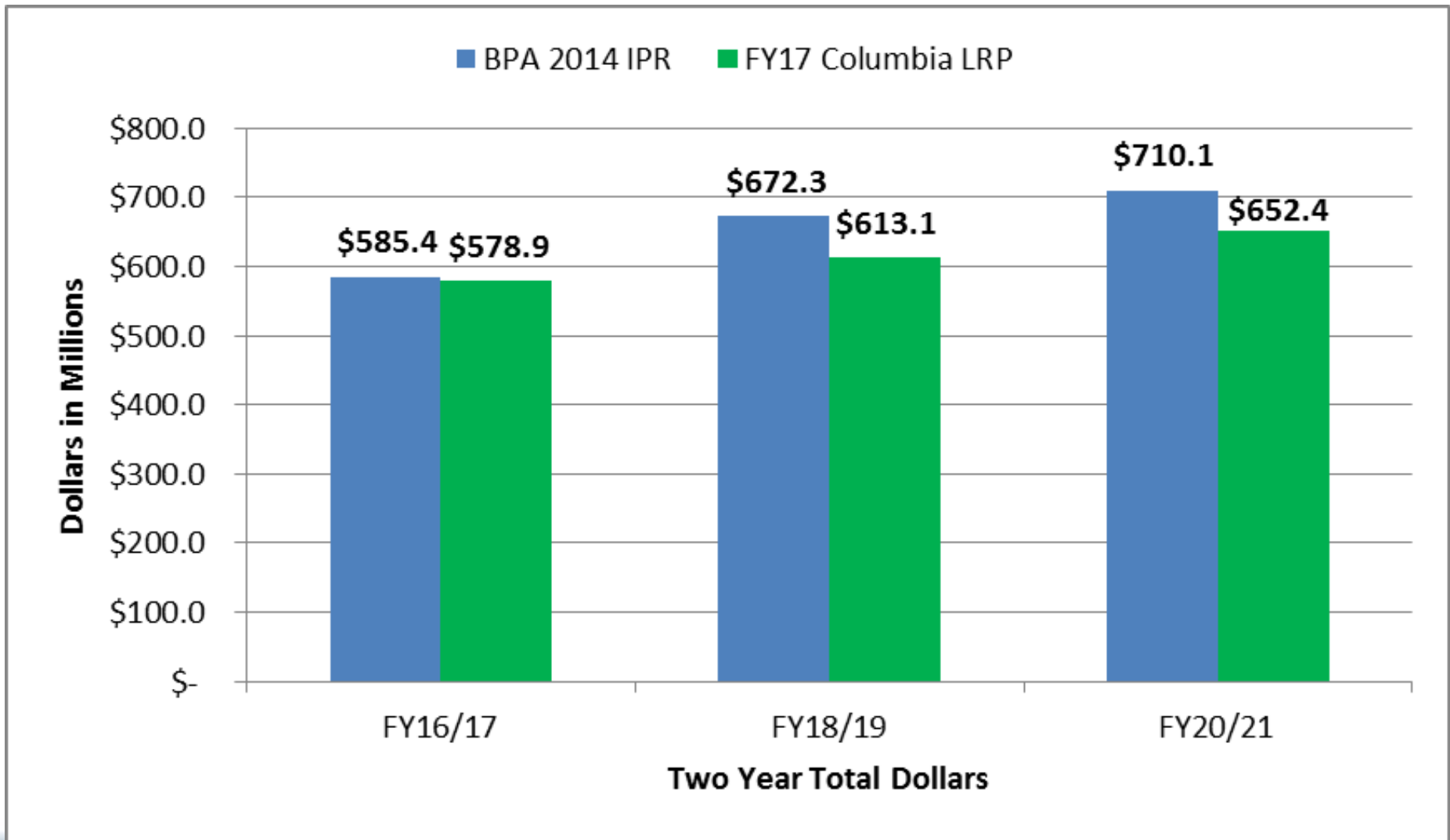
Rate Case Overview

Kent Dittmer, Asset Manager/Controller

Columbia IPR Cost Elements

- ✦ Operations & Maintenance
- ✦ Spares/Inventory Adjustments
- ✦ Generation Taxes
- ✦ Fuel Procurement
- ✦ Independent Spent Fuel Storage Decommissioning Fund
- ✦ Decommissioning Fund
- ✦ NEIL Insurance

Columbia Changes to IPR



Fiscal Year 16/17

(Dollars in Thousands)

BPA FY	FY14 IPR	FY17 CGS	Total Delta
Columbia O&M	\$453,749	\$453,749	\$0
Spares/Inventory Adj	\$11,500	\$11,250	(\$250)
Generation Tax	\$10,737	\$10,434	(\$303)
Subtotal O&M	\$475,986	\$475,433	(\$553)
Fuel	\$93,159	\$89,051	(\$4,108)
Building Financing	\$0	\$103	\$103
Total Columbia Controllable	\$569,145	\$564,587	(\$4,558)
Fuel Litigation	\$767	\$575	(\$192)
ISFSI Decomm Fund	\$289	\$342	\$53
BPA Adjustment	(\$1)	\$43	\$44
Total Columbia	\$570,200	\$565,547	(\$4,653)
Decommissioning	\$7,136	\$7,136	\$0
NEIL Insurance	\$8,085	\$6,265	(\$1,820)
Total IPR	\$585,421	\$578,948	(\$6,473)

Fiscal Year 18/19

(Dollars in Thousands)

BPA FY	FY14 IPR	FY17 CGS	Total Delta
Columbia O&M	\$537,214	\$494,244	(\$42,970)
Spares/Inventory Adj	\$12,500	\$12,500	\$0
Generation Tax	\$12,268	\$12,153	(\$115)
Subtotal O&M	\$561,982	\$518,897	(\$43,085)
Fuel	\$93,998	\$90,574	(\$3,424)
Agreed Upon Reduction	\$0	(\$11,100)	(\$11,100)
Total Columbia Controllable	\$655,980	\$598,371	(\$57,609)
Fuel Litigation	\$1,248	\$1,248	\$0
ISFSI Decomm Fund	\$386	\$402	\$16
BPA Adjustment	\$0	\$179	\$179
Total Columbia	\$657,614	\$600,200	(\$57,414)
Decommissioning	\$7,719	\$7,718	(\$1)
NEIL Insurance	\$7,000	\$5,198	(\$1,802)
Total IPR	\$672,333	\$613,116	(\$59,217)

Questions

Financial Disclosure

This information has been made publicly available by BPA on June 20, 2016 and contains information not sourced directly from BPA financial statements.