



**ENERGY  
NORTHWEST**

# Columbia Generating Station (CGS) Budget Overview

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December 13th, 2016**

**CGS:**

[Join WebEx meeting](#)

Meeting number: 998 310 560

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# Purpose

- ✦ The purpose of this presentation is to provide a representative breakdown of cost categories for Columbia Generating Station's budget process and formulation. Using data in support of a prior year's approved budget, the presentation will focus on providing examples of previous budget components, and present cost control measures that Columbia Generating Station is taking to reduce overall cost.

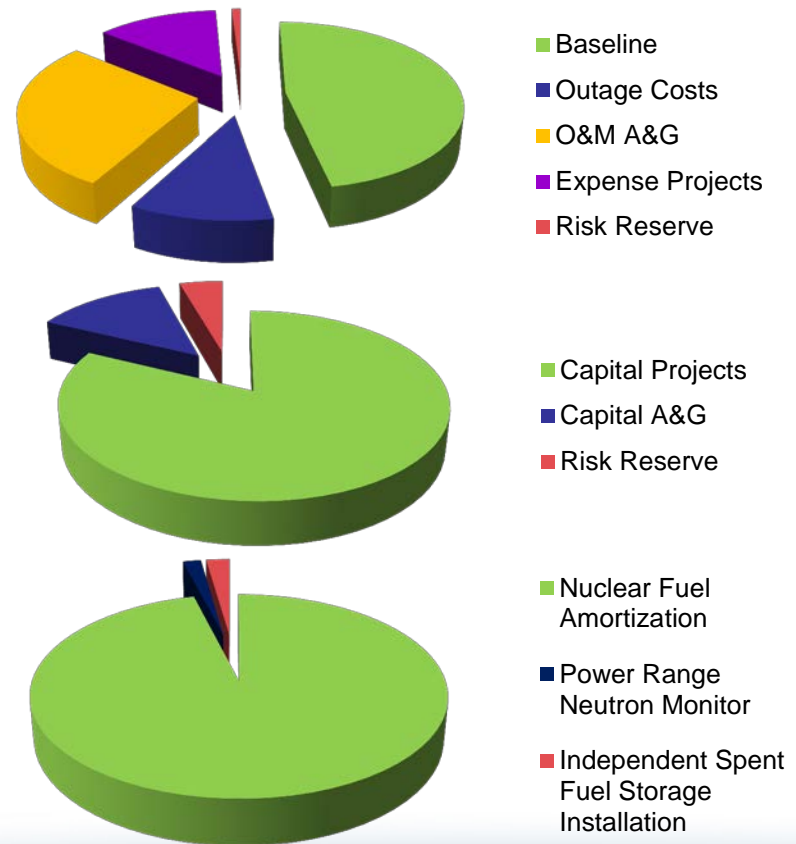
# Agenda

- ✦ Introductions
- ✦ Operation & Maintenance (O&M) Budget
  - Board Approved FY17 Budget
- ✦ Capital (CAP) Budget
  - Board Approved FY17 Budget
- ✦ Cost Effective Operation

# Budget

(Dollars in Thousands)

<u>Description</u>	<u>EN - FY 2017</u> <u>Budget</u>
Baseline	\$ 118,863
Outage Costs (Incremental)	\$ 27,528
O&M A&G	70,889
Expense Projects	33,167
Risk Reserve	2,429
<b>Operations &amp; Maintenance Total</b>	<b>252,876</b>
Capital Projects	118,090
Capital A&G	19,192
Risk Reserve	6,317
<b>Capital Total</b>	<b>143,599</b>
Nuclear Fuel Related Costs	47,650
<b>Fuel Total</b>	<b>47,650</b>
<b>Total</b>	<b>\$ 444,125</b>
<b>Net Generation (GWh)</b>	<b>8,511</b>
<b>Cost of Power (\$/MWh)</b>	<b>\$ 52.18</b>



# Budget

(Dollars in Thousands)

<u>Description</u>	EN - FY 2017 Budget	
<b>Baseline</b>	\$ 118,863	Labor, Overtime, Temp Labor, Material, Equipment, Travel, Regulatory Fees, Insurance
<b>Outage Costs (Incremental)</b>	\$ 27,528	Incremental Labor, Material, Outside Services
<b>O&amp;M A&amp;G</b>	70,889	Benefits: Absence, 401k, Retirement, Workers Compensation, Unemployment
<b>Expense Projects</b>	33,167	Organizational Overhead: Labor, Relocation, Leadership Awards, At-Risk Compensation, Tuition Reimbursement, Retention
<b>Risk Reserve</b>	2,429	Critical Maintenance Projects
<b>Operations &amp; Maintenance Total</b>	252,876	Contingency
<b>Capital Projects</b>	118,090	Critical Capital Projects
<b>Capital A&amp;G</b>	19,192	Capitalized Administrative & General
<b>Risk Reserve</b>	6,317	Contingency
<b>Capital Total</b>	143,599	
<b>Nuclear Fuel Related Costs</b>	47,650	Fuel Amortization, Power Range Neutron Monitoring, Independent Spent Fuel Storage Installation
<b>Fuel Total</b>	47,650	
<b>Total</b>	\$ 444,125	
<b>Net Generation (GWh)</b>	8,511	
<b>Cost of Power (\$/MWh)</b>	\$ 52.18	

# Long Range Plan

# LRP - Methodology

- ✦ Rolling 10-Year Forecast of O&M and Capital
  - Direct and indirect inputs updated and challenged annually
  - Procedurally driven and aligns with industry standards
- ✦ Projects ranked and approved in accordance with risk and budget constraints
- ✦ Risk is evaluated for deferred or cancelled activities
- ✦ LRP is cross-functionally challenged and approved
- ✦ Oversight of key activities to ensure performance (financial and technical) is achieved

# Projects



# FY 2017 Operations & Maintenance Projects (Critical to Plant Safety & Reliability)

(Dollars in Thousands)

✦ Vessel Services	\$6,496
✦ Main Turbine Inspection	\$3,727
✦ Plant Valve Project	\$3,725
✦ In-Service Inspections	\$2,950
✦ Flow Accelerated Corrosion Program	\$1,794
✦ Disassemble/Inspect Main Steam Isolation Valves	\$1,275
✦ Spent Fuel Pool Cleanup	\$1,100
✦ Outage Temporary Power	\$1,000
✦ Cooling Tower Circulation Water Preventative Maint	\$ 835
✦ Valve Program Project	\$ 735
✦ Calculation & Drawing Backlog Reduction	\$ 734

\* *Projects greater than \$700k*

# FY 2017 Capital Projects (Critical to Plant Safety & Reliability)

(Dollars in Thousands)

✦ Fukushima – (Regulatory)	\$11,316
✦ Cyber Security Program (Regulatory)	\$7,791
✦ Install Residual Heat Removal Flush Ports	\$5,590
✦ Low Pressure Turbine Rotor Replacement	\$5,467
✦ Plant Fire Detection System	\$4,912
✦ Control Rod Drive Repair/Refurbishment	\$3,500
✦ Open Phase Design Vulnerability (Regulatory)	\$2,572
✦ Replace Obsolete Safety Related 480V Starters	\$2,146

\* *Projects greater than \$1,000k*

# FY 2017 Capital Projects – Cont. (Critical to Plant Safety & Reliability)

(Dollars in Thousands)

✦ Flow Accelerated Corrosion Pipe Minimum Wall Inspection	\$1,961
✦ Local Power Range Monitor Replacement	\$1,775
✦ Scram Discharge Volume Instrument Mods	\$1,485
✦ Condenser Expansion Joint/Piping Replace	\$1,410
✦ Independent Spent Fuel Storage Installation Storage Pad Expansion	\$1,288
✦ Security Qualification Range – Capital Improvements (Regulatory)	\$1,250

\* *Projects greater than \$1,000k*

# Administrative & General (A&G)

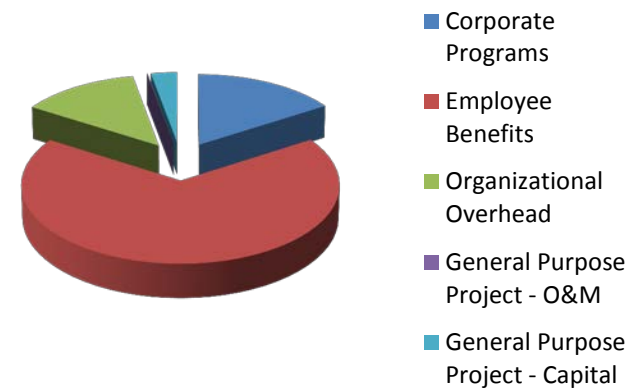
# Operation & Maintenance Budget Assumptions

- ✦ Average Normal Escalation is Approximately 2.5%
- ✦ Estimating an 8% Increase to Medical Benefits
- ✦ PERS Rate at 11.18%, 0.18% Increase from FY16
- ✦ At Risk Compensation at 100% Payout

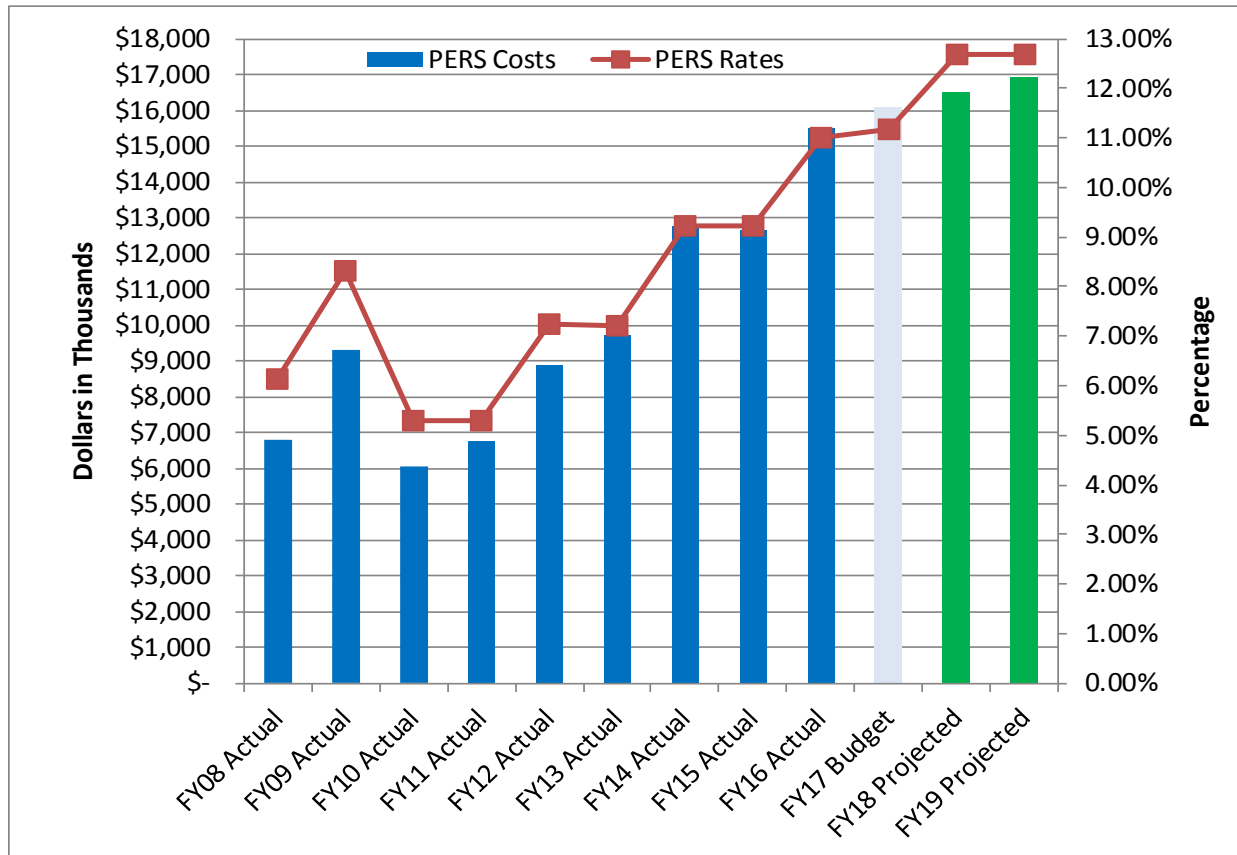
# FY 2017 A&G Budget Compared to Long Range Plan (LRP)

(Dollars in Thousands)

<u>Description</u>	FY 2017	LRP	<u>Differences</u>
	<u>Budget</u>	<u>for FY 2017</u> <u>Budget</u>	
Corporate Programs	\$ 15,393	\$ 14,756	\$ 637
Employee Benefits	65,513	61,130	4,383
Organizational Overhead	12,624	11,255	1,369
General Purpose Project - O&M	(60)	(98)	38
<b>Total O&amp;M Costs</b>	<b>\$ 93,470</b>	<b>\$ 87,043</b>	<b>\$ 6,427</b>
General Purpose Project - Capital	\$ 2,781	\$ 2,386	\$ 395
<b>Total Costs</b>	<b>\$ 96,251</b>	<b>\$ 89,429</b>	<b>\$ 6,822</b>



# Historical/Projected State Retirement (PERS) Costs



Note: FY18-FY19 Projected includes a 2.5% inflation rate each year

# Operations & Maintenance / Capital - Basis for Risk Reserve

- ✦ Non- Planned Outages
- ✦ Equipment Failures
- ✦ Regulatory Fees
- ✦ Project Impacts
- ✦ Non-scoped Material Purchases
- ✦ Litigation/Legal Fees
- ✦ Impacts from A&G uncontrollable increases

(Risk Reserve small in percentage of total budget)



# BENEFITS

# Employee Benefits

## ✦ Medical Benefits Program (Health & Welfare)

- Medical, Dental, Vision
- Life Insurance
- ST/LT Disability

## ✦ Retirement Programs

- Employer FICA Contribution
- State Retirement - PERS
- Employer 401(k) Match

## ✦ Personal Time/Holidays

## ✦ Other

- Bargaining Unit VEBA Contribution
- Unemployment/Worker's Compensation
- At-Risk Compensation

# Cost Effective Operation

# Cost-effective Project Initiatives

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

# Value Optimization Project (VOP)

## Initial VOP – Met Goal for Top Peer Quartile

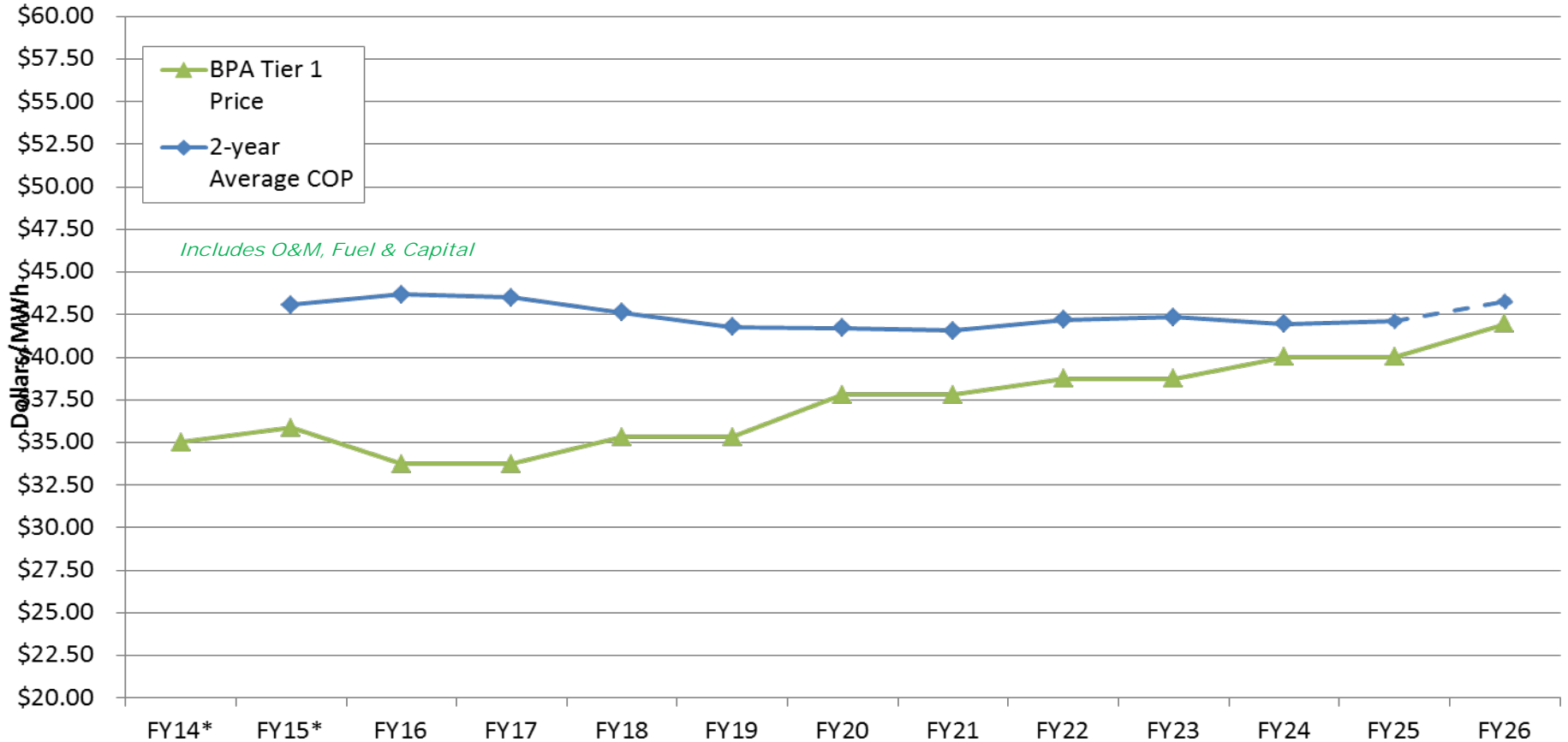
- ✦ Budget Management
- ✦ Production Performance
- ✦ Generation Improvements

## New Regional VOP – Cost-effective Operation - 2026

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

# Regional – Cost-effective Operation

**Regional Cost of Power**  
CGS vs. Industry Target



\* Amounts are in EN fiscal year dollars

\* BPA Tier 1 Price: BPA Focus 2028 Reference Case

# 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 staffing reductions through attrition and performance management**
  - Hold/Reduce Department and O&M project spending
  - Days on-line and station production
    - **Reduce outage durations**

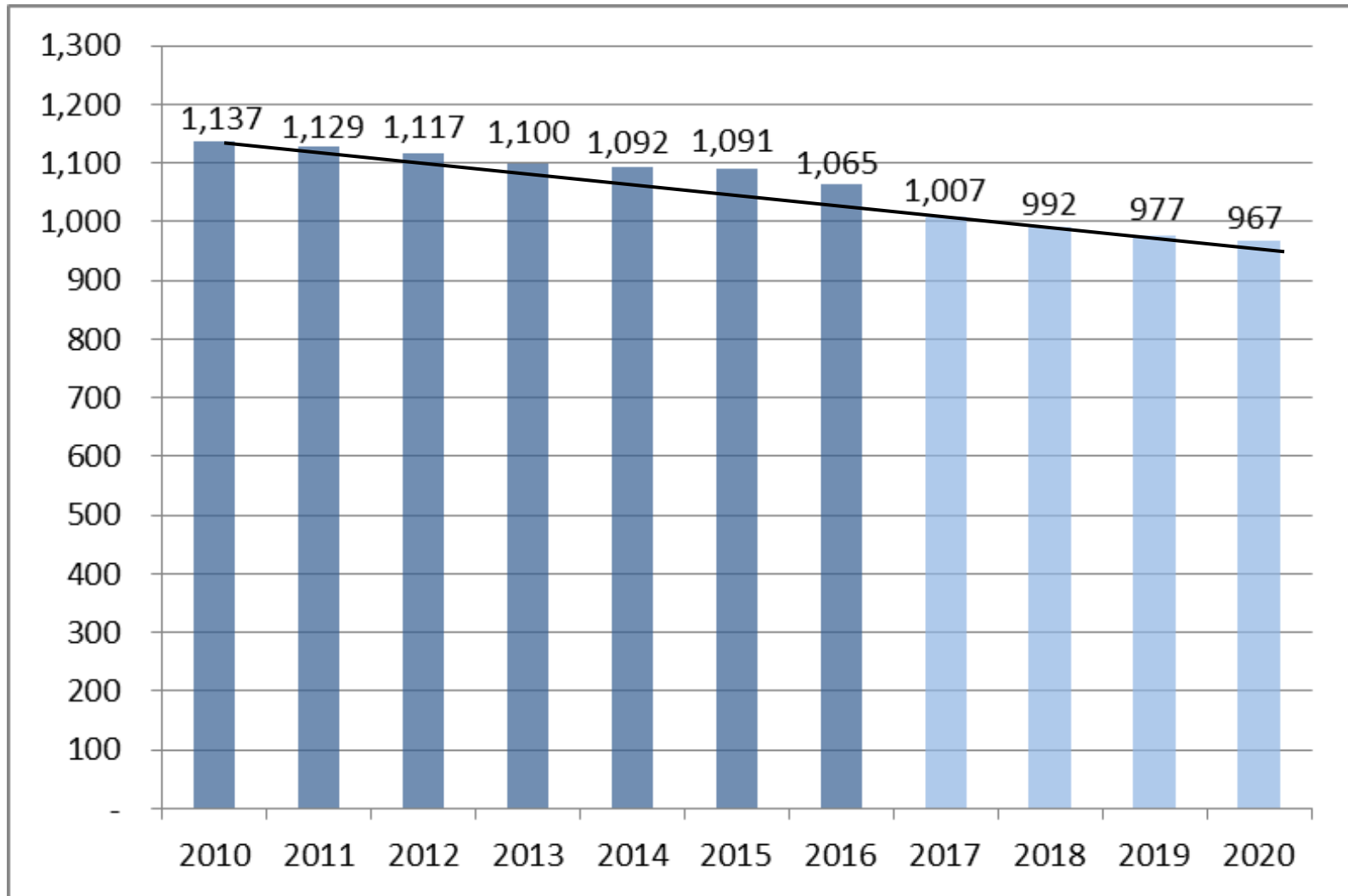
# Cost-effective Operation – Cont.

Columbia Cost Control: How will we achieve goal?

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



# Columbia Staffing Levels



# Delivering the Nuclear Promise

## 3 Strategic Focus Areas

### Maintain Operational Focus



### Increase Value



### Improve Efficiency



# 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 Operation project - 6/6/16
- ✦ Project Sponsor – Chief Operating Officer/CNO
- ✦ Committee Chair – VP Corporate Services & Chief Financial/ Risk Officer
- ✦ Project Manager – Asset Manager/Controller
- ✦ Staffing Coordinator – Human Resources Manager

# Cost-effective Operation - Status

- ✦ The Cost-effective Operation Project is On Track
- ✦ The Project has been targeted to be integrated into the 10 year LRP in EN-FY18
- ✦ The present LRP includes IPR two-year savings of \$14 million (O&M savings)
- ✦ Future reductions being identified to support IPR2

# Questions



**“This information was made publicly available on Dec. 9, 2016, and contains information not sourced directly from BPA financial statements.”**