



**ENERGY
NORTHWEST**

FY 2011 Budget and Long-range Plan Columbia Generating Station

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Columbia Generating Station (CGS) Pride In Performance

- ✦ **R** radiological safety
- ✦ **O** outage & forced outage readiness
- ✦ **L** leadership effectiveness
- ✦ **E** equipment reliability
- ✦ **S** safety & human performance

Objectives

- ✦ **Continue to Invest in Long-term Plant Reliability while Continuing to Ensure Affordable, Reliable Power for the Region**
- ✦ **Improved Long Range Plan that Meets the Needs of the Plant and the Region**
- ✦ **Continue to Improve Cost Predictability**
- ✦ **Continue to Improve the Efficiency of Work Execution**

Review Stakeholder Communications

✦ Purpose of Communication

- Receive stakeholder input prior Executive Board approval
- Continue to meet the commitment for budget transparency
- Support rate case schedule

Review Stakeholder Communications

✦ Rules and Content

- Information is preliminary and contingent upon Executive Board approval
- Overall costs are consistent with approved Long-range Plan (LRP)
- Present upcoming budget, project lists and LRP

Review Stakeholder Communications

✧ FY 2010

- January 2009 - BPA Richland enters preliminary FY 2010/11/12 rate case information contingent on Board approval
- February 18, 2009 - BPA IPR #2 kickoff
- February 25, 2009 - CEO budget review
- March 4, 2009 - PPC member forum, review Shriver report and upcoming budget contingent on Board approval
- March 5, 2009 - Present Columbia FY 2010 budget and benchmarking to PPC staff contingent on Board approval
- March 18, 2009 BPA Rate Hearing IPR #2 - Review Columbia O & M and Capital costs with BPA and region contingent on Board approval
- March 25, 2009 - EB Budget workshop
- April 22, 2009 - FY 2010 budget and LRP approved

Review Stakeholder Communications

✦ FY 2011

- November 18, 2009 - PPC staff: Draft FY 2011 budget review contingent upon board approval
- Mid-January 2010 - BPA Richland enters preliminary FY 2012/13/14 rate case information contingent on Board approval
- January 14, 2010 - PPC staff: Draft FY 2011 budget review contingent upon board approval
- February 16, 2010 - CEO budget review
- February 18, 2010 - EN and BPA staff meet with PPC staff: Draft FY 2011 budget review and Fuel 101 contingent upon board approval
- February 23 and 26, 2010 - BPA staff: Review preliminary budget and LRP contingent on Board approval
- March 23, 2010 - EB budget and LRP workshop
- April 21, 2010 - EB budget and LRP approval

Review Stakeholder Communications

- ✦ Do we want to change our communication strategy?
 - **Proposal:** Continue with same frequency and timing of communication, but provide Executive Board with notice of communication and topics to be discussed

Key Assumptions

- ✦ Cost of Power is Based on Net Generation of 7,395 GWh
- ✦ Fuel Costs are Based on FY 2011 10-Year Plan
- ✦ Issued Bonds to Finance \$75.1 Million of Capital. The Additional \$20.5 Million of Capital will be Obtained through the Direct Pay Process
- ✦ Excludes Unknown NRC Mandates

Key Assumptions

- ✦ No Forced Outage Budget
- ✦ Labor Escalation of \$1.74 Million
- ✦ 35 Average Monthly Open Headcount
- ✦ Excludes Fuel Decommissioning Charges that are in DOE's Budget Proposal

Budget Highlights

- ✦ **Budget is \$408.1 Million**
 - This meets the LRP except where additional fuel is consumed for a higher generation (and thus lower cost of power)
- ✦ **Industry Cost of Power is \$55.18/MWh**
 - This is lower than the LRP of \$56.51/MWh, also due to increased generation
- ✦ **Risk Reserves Total \$5.2 Million**
- ✦ **Projects Total \$145.9 Million**
 - Includes condenser replacement of \$40.9 million

Budget Versus Prior Year Long-range Plan (LRP)

(Dollars in Thousands)

<u>Budget Line Item</u>	<u>FY-2011 Budget</u>	<u>FY-2010 LRP for FY-2011</u>	<u>Variance</u>
Baseline	\$119,917	\$120,445	(\$528)
Baseline A & G	60,648	66,266	(5,618)
Incremental Outage	38,704	40,365	(1,661)
Expense Projects	51,547	49,099	2,448
Capital Projects	94,358	84,864	9,494
Risk Reserve	5,237	9,372	(4,135)
Subtotal O&M & Capital	<u>370,411</u>	<u>370,411</u>	<u>0</u>
Nuclear Fuel	<u>37,668</u>	<u>35,428</u>	<u>2,240</u>
Total CGS Costs	<u>\$408,079</u>	<u>\$405,839</u>	<u>\$2,240</u>
Net Generation	<u>7,395</u>	<u>7,182</u>	<u>213</u>
Cost of Power	<u>\$55.18</u>	<u>\$56.51</u>	<u>(\$1.32)</u>

Fiscal Year 2011 Challenges

- ✦ Condenser Replacement Project
- ✦ Increased Investment in Equipment Reliability Projects

CGS Fiscal Year 2011 – Fiscal Year 2010 Comparison

(Dollars in Thousands)

<u>Budget Line Item</u>	<u>FY-2011 Budget</u>	<u>Original FY 2010 Budget</u>	<u>Variance</u>
Controllable Costs			
Energy NW Labor*	\$76,481	\$70,133	\$6,348
Baseline Non-Labor	53,683	51,776	1,907
Incremental Outage Non-Labor	35,018	880	34,138
Projects - Expense Non-Labor	46,779	13,167	33,612
Projects - Capital Non-Labor	81,881	60,478	21,403
Corporate Allocations	71,332	71,082	250
Risk Reserve	5,237	4,793	444
Subtotal Controllable	\$370,411	\$272,309	\$98,102
Fuel Related Costs			
Fuel Amortization	\$30,583	\$36,415	(\$5,832)
Spent Fuel Fee	7,085	8,989	(1,904)
Subtotal Fuel Related Costs	\$37,668	\$45,404	(\$7,736)
Total CGS Costs	\$408,079	\$317,713	\$90,366
Net Generation (GWh)	7,395	9,258	(1,863)
Cost of Power (\$/MWh)	\$55.18	\$34.32	\$20.87

*Includes escalation @ 2.25%

CGS Fiscal Year 2011 – Fiscal Year 2009 Comparison

(Dollars in Thousands)

<u>Budget Line Item</u>	<u>FY-2011 Budget</u>	<u>Actual FY09 Cost (Escalated)</u>	<u>Variance</u>
Controllable Costs			
Energy NW Labor	\$76,481	\$73,013	\$3,468
Baseline Non-Labor	53,683	59,228	(5,545)
Incremental Outage Non-Labor	35,018	37,620	(2,602)
Projects - Expense Non-Labor	46,779	71,112	(24,333)
Projects - Capital Non-Labor	81,881	69,031	12,850
Corporate Allocations	71,332	71,617	(285)
Risk Reserve	5,237	0	5,237
Subtotal Controllable	\$370,411	\$381,622	(\$11,211)
Fuel Related Costs			
Fuel Amortization	\$30,583	\$25,292	\$5,291
Spent Fuel Fee	7,085	7,380	(295)
Subtotal Fuel Related Costs	\$37,668	\$32,672	\$4,996
Total CGS Costs	\$408,079	\$414,294	(\$6,215)
Net Generation (GWh)	7,395	7,725	(330)
Cost of Power (\$/MWh)	\$55.18	\$53.63	\$1.55

CGS Budgeted Positions

(Full Time Equivalents)

<u>Organization</u>	<u>FY 2011 Budget</u>	<u>Original FY 2010 Budget⁽¹⁾</u>	<u>Headcount Change</u>	<u>Charges to Bus Unit Changed</u>
CEO	2	2	0	0
VP Technical Services	136	134	0	2
VP Operational Support	276	275	0	1
VP Nuclear Generation	592	586	5	1
VP Energy Business Services (2)	23	23	0	0
VP Corporate Services/CFO	35	36	0	-1
Total CGS	1,064	1,056	5	3

Excludes "Project" positions with job durations of up to five years.

(1) FY 2010 FTEs have been reclassified for comparison purposes.

(2) Includes Lab support (19 FTEs).

Baseline Non-Labor

FY 2011 Non-Labor	\$53,683
FY 2010 Non-Labor (escalated)	\$53,588
Variance	\$95
<u>Major Changes:</u>	
Equipment	\$408
NRC Fees	282
Radwaste Disposal	220
EFSEC Fees	142
Temporary Labor	(108)
Building Lease	(120)
Overtime	(344)
Contractor Support	(420)
All Other	35

O&M Plant Projects Over \$1 Million

(Dollars in Thousands)

Vessel Services	\$5,850
Chemical Decontamination	5,175
Plant Valves	5,018
In Service Inspection/Non-Destructive Evaluation	4,254
Main Turbine Inspection	4,050
Main Generator Maintenance	3,450
Control Rod Drive Repair/Refurb	2,150
Flow Accelerated Corrosion Pipe Min Wall Inspection	1,900
Disassemble & Inspect Main Steam Isolation Valves	1,735
Hydraulic Control Unit Maintenance	1,589
Annual Transformer Yard	1,294
Cooling Tower & Circ Water Preventive Maint	1,058

Capital Plant Projects Over \$1 Million

(Dollars in Thousands)

Condenser Replacement	\$40,870
Replace Main Generator Rotor	6,100
Cooling Tower Fill Replacement	4,220
Plant License Extension	3,700
Rebuild Main Transformer M2	3,000
Plant Fire Detection System Upgrade	2,080
Modify Logic to close at Level 1	1,983
On Line Noble Chem Application	1,806
Vibration Instrumentation	1,443
Local Power Range Monitor Procurement	1,304
Dose Reduction	1,200

Project List Details

- ✦ Review Handout
- ✦ Project Assessment Rigor
- ✦ Projects Sorted by:
 - Ranking
 - Rationale
 - System health

Fiscal Year 2011 Budget Workshop

Projects Sorted by Issue

Category	Project	Title	Rank	FY10	FY10	FY10	FY11	FY11	FY11
				SENL	\$ENEL	\$Total	SENL	\$ENEL	\$Total
CAPITAL PROJECTS									
Dose Reduction									
2	00448701	Scram Discharge Volume Instrument Mods.	16 - 4	43.8	50.0	93.8	0.0	0.0	0.0
2	01479301	Dose Reduction (Formerly Stellite Reduction Components)	16 - 4	100.0	300.0	400.0	300.0	900.0	1,200.0
2	00131701	Shield DW Travel Paths	16 - 4	0.0	0.0	0.0	149.6	0.0	149.6
4	01299404	Whole Body Counter monitor replacement	16 - 3	50.0	200.0	250.0	0.0	0.0	0.0
						Subtotal	743.8	Subtotal	1,349.6
Equipment Reliability									
1	21010001	Rebuild Main Transformer M2	25 - 3	80.0	920.0	1,000.0	160.0	2,840.0	3,000.0
1	00493501	Replace Main Generator Rotor	20 - 4	39.7	169.0	208.7	100.0	6,000.0	6,100.0
1	17599001	DG-3 Turbocharger Replacement	20 - 3	12.1	162.0	174.1	0.0	0.0	0.0
1	00608601	Main Condenser Replacement	16 - 4	422.9	32,363.2	32,786.1	659.8	40,210.2	40,870.0
1	00612801	Replace Main Transformer Study/Testing	16 - 3	20.1	55.0	75.1	0.0	0.0	0.0
2	00185301	Keep-fill Pump Upgrades	22 - 0	150.0	657.0	807.0	89.0	534.0	623.0
2	01696201	Feedwater Heater Level Controller, Positioners, Transmitter	21 - 3	84.0	1,200.0	1,284.0	150.0	250.0	400.0
2	01734101	Main Transformers Online Dissolved Gas Monitor	16.8 - 3	9.0	70.0	79.0	7.5	167.0	174.5
2	17795001	Replace DG 2 with Spare Generator	16 - 3	16.0	125.0	141.0	180.0	495.0	675.0
2	00482501	Replace Moisture Separator Reheater Tube Bundles	16 - 3	0.0	0.0	0.0	30.0	100.0	130.0
2	00638501	Upgrade RFP Control System to Eliminate Governor/Servo	15 - 3	14.2	10.4	24.6	0.0	0.0	0.0
2	00719201	Cooling Tower Fill Replacement	15 - 2	5.0	2,400.0	2,405.0	20.0	4,200.0	4,220.0
3	00148501	Seal Oil Skid Filter Replacement	20 - 0	25.0	27.5	52.5	0.0	260.0	260.0
3	01599501	Replace Battery charger E-C2-1	20 - 0	0.0	0.0	0.0	10.3	265.0	275.3
3	01109701	Supply Breaker Replacement for SM-1, 2, 3	16 - 3	32.0	130.0	162.0	0.0	0.0	0.0
3	18732201	Upgrade/Replace Plant Elevators	16 - 0	0.0	0.0	0.0	24.0	76.0	100.0
3	18332601	Steam Tunnel Fan Power Source	16 - 0	50.0	200.0	250.0	50.0	350.0	400.0
						Subtotal	39,449.1	Subtotal	57,227.8
Equipment Obsolescence									
2	00165301	Vibration Instrumentation for TG and RFW Obsolete	22 - 0	50.0	545.0	595.0	70.0	1,372.5	1,442.5
2	00852501	PDIS System Replacement	20 - 4	155.0	620.0	775.0	175.0	225.0	400.0
2	00820801	Plant Fire Detection System Upgrade	20 - 4	33.0	200.0	233.0	61.1	2,019.2	2,080.3
2	00166301	HPCS Voltage Regulator Replacement	20 - 3	33.0	264.0	297.0	0.0	0.0	0.0
2	00876901	HPCS Governor Replacement	20 - 3	17.0	136.0	153.0	0.0	0.0	0.0
2	01691901	Simulator I/O Hardware Upgrade	16 - 3	34.0	1,180.0	1,214.0	0.0	0.0	0.0
2	00365501	Stack Monitor Upgrade	16 - 3	9.0	70.0	79.0	63.8	404.7	468.5
2	00247901	Main Steam Pressure Switches are Obsolete	16 - 3	9.0	70.0	79.0	0.0	100.0	100.0
2	00574101	Replace Main Generator Voltage Regulator	16 - 3	0.0	0.0	0.0	40.0	0.0	40.0
2	01791601	Upgrade RWM System	16 - 3	23.0	180.0	203.0	0.0	0.0	0.0
2	00614401	Evaporator Steam Supply Control	15 - 1	0.0	0.0	0.0	25.0	0.0	25.0
3	18096601	Replace obsolete E-TR-7BC	20 - 8	6.0	80.0	86.0	0.0	0.0	0.0

Fiscal Year 2011 Budget Workshop

Projects Sorted by PRC Rank

Category	Project	Title	Rank	Phase	FY10	FY10	FY10	FY11	FY11	FY11	
					SENL	\$ENL	\$Total	SENL	\$ENL	\$Total	
CAPITAL PROJECTS											
1	00595001	ISFSI Campaigns	25 - 4		100.0	90.0	190.0	160.0	375.0	535.0	
1	21010001	Rebuild Main Transformer M2	25 - 3		80.0	920.0	1,000.0	160.0	2,840.0	3,000.0	
1	20672501	Install Microwave IDS to Zones 20-24	25 - 0		5.0	288.0	293.0	0.0	0.0	0.0	
2	00185301	Keep-fill Pump Upgrades	22 - 0	2	150.0	657.0	807.0	89.0	534.0	623.0	
2	00165301	Vibration Instrumentation for TG and RFW Obsolete	22 - 0	2	50.0	545.0	595.0	70.0	1,372.5	1,442.5	
2	19196501	Eliminate Drywell Identified Leakage	22 - 0		12.1	33.7	45.8	13.7	177.1	190.8	
2	01696201	Feedwater Heater Level Controller, Positioners, Transmitter	21 - 3	2	84.0	1,200.0	1,284.0	150.0	250.0	400.0	
3	18096601	Replace obsolete E-TR-7BC	20 - 8		6.0	80.0	86.0	0.0	0.0	0.0	
1	00536301	TMU-P-1A, 1B, 1C Remove, Replace, & Refurbish Pump	20 - 5	3	13.0	223.7	236.7	0.0	0.0	0.0	
1	00493501	Replace Main Generator Rotor	20 - 4	2	39.7	169.0	208.7	100.0	6,000.0	6,100.0	
1	01263501	CW-P-1A, 1B, 1C Remove, Replace, & Refurbish Pump	20 - 4	3	41.1	423.0	464.1	82.2	423.0	505.2	
1	01263901	RFW-P-1A, 1B Remove, Repl, Refurb	20 - 4		0.0	0.0	0.0	50.0	350.0	400.0	
1	01159401	COND-P-2A, 2B, 2C Remove, Repl, Refurb	20 - 4		0.0	0.0	0.0	22.0	200.5	222.5	
2	00852501	PDIS System Replacement	20 - 4	2	155.0	620.0	775.0	175.0	225.0	400.0	
2	00820801	Plant Fire Detection System Upgrade	20 - 4	2	33.0	200.0	233.0	61.1	2,019.2	2,080.3	
2	00178801	Critical Spares	20 - 4	3	113.7	212.0	325.7	50.0	450.0	500.0	
2	01164001	Modify NS4 Logic to close MSIVs at Level 1	20 - 4		0.0	0.0	0.0	82.5	1,900.0	1,982.5	
1	17599001	DG-3 Turbocharger Replacement	20 - 3	3	12.1	162.0	174.1	0.0	0.0	0.0	
2	00166301	HPCS Voltage Regulator Replacement	20 - 3	2	33.0	264.0	297.0	0.0	0.0	0.0	
2	00876901	HPCS Governor Replacement	20 - 3	2	17.0	136.0	153.0	0.0	0.0	0.0	
3	00920501	Yokagawa Recorders	20 - 3	3	46.3	375.0	421.3	0.0	139.0	139.0	
1	00535801	SW-P-1A&1B	20 - 0		7.2	1,468.6	1,475.8	7.2	75.0	82.2	
1	19096201	Security Upgrades from NRC Order	20 - 0		300.0	1,235.0	1,535.0	0.0	0.0	0.0	
3	00148501	Seal Oil Skid Filter Replacement	20 - 0	2	25.0	27.5	52.5	0.0	260.0	260.0	
3	01599501	Replace Battery charger E-C2-1	20 - 0		0.0	0.0	0.0	10.3	265.0	275.3	
					Subtotal			Subtotal			19,138.3
2	01734101	Main Transformers Online Dissolved Gas Monitor	16.8 - 3	2	9.0	70.0	79.0	7.5	167.0	174.5	
2	01613301	TSW Pump Swap Logic	16.8 - 3		0.0	0.0	0.0	16.0	66.0	82.0	
2	18204301	On Line Noble Chem Application	16.8 - 3	2	40.0	1,144.0	1,184.0	45.0	1,761.0	1,806.0	
3	01592501	Turbine Building Outage Facility Temp Power	16.8 - 3		0.0	552.8	552.8	0.0	347.0	347.0	
1	00100201	LPRM Procurement	16 - 5		0.0	0.0	0.0	0.0	1,304.4	1,304.4	
1	00104201	Control Rod Blade Procurement	16 - 5		0.0	0.0	0.0	30.0	875.0	905.0	
1	01264001	COND-M-P/1A, B, C Remove, Repl, Refurb	16 - 5		0.0	0.0	0.0	38.0	469.8	507.8	
3	00100101	CFD Filter Replacement	16 - 5		0.0	0.0	0.0	25.4	116.9	142.3	
1	00608601	Main Condenser Replacement	16 - 4	2	422.9	32,363.2	32,786.1	659.8	40,210.2	40,870.0	
1	00191401	Plant License Extension/Renewal	16 - 4	3	700.0	2,302.0	3,002.0	0.0	3,700.0	3,700.0	
1	00525201	RRC-M-P-1A/B Refurb	16 - 4		0.0	435.8	435.8	3.0	397.0	400.0	
2	00448701	Scram Discharge Volume Instrument Mods.	16 - 4	2	43.8	50.0	93.8	0.0	0.0	0.0	
2	01479301	Dose Reduction (Formerly Stellite Reduction Components)	16 - 4	1	100.0	300.0	400.0	300.0	900.0	1,200.0	
2	00131701	Shield DW Travel Paths	16 - 4		0.0	0.0	0.0	149.6	0.0	149.6	
2	01096101	Upgrade transformer yard oil collection	16 - 4	2	27.0	210.0	237.0	70.0	494.0	564.0	
3	00119101	Replace Process Rad Monitors	16 - 4	3	97.0	450.4	547.4	0.0	0.0	0.0	
1	00612801	Replace Main Transformer Study/Testing	16 - 3	2	20.1	55.0	75.1	0.0	0.0	0.0	
1	01264501	CW-M-P/1A, 1B, 1C Remove, Replace, & Refurbish Motor	16 - 3	3	36.0	42.0	78.0	36.0	42.0	78.0	
1	01264901	LPCS-M-P-1 Remove, Repl, Refurb	16 - 3		0.0	0.0	0.0	17.9	288.5	306.4	
1	01159301	COND-P-1A, B, C Remove, Repl, Refurb	16 - 3		0.0	55.0	55.0	12.0	200.0	212.0	
1	01264101	COND-M-P/2A, B, C Remove, Repl, Refurb	16 - 3		0.0	0.0	0.0	41.2	229.0	270.2	

Projects Added

- ✦ Rebuild Main Transformer M2
- ✦ Modify Logic to Close Main Steam Isolation Valves @ Level 1
- ✦ Upgrade Transformer Yard Oil Collection
- ✦ Removal of Rod Sequence Control System Rod Blocks from Reactor Manual Control System
- ✦ Rebuild Diesel Generator 2 with Spare

Projects Added

- ✦ Eliminate Drywell Identified Leakage
- ✦ Reactor Feed Water Pump 1A Remove, Replace, Refurbish
- ✦ Resolve Multiple Fire Induced Circuit Faults
- ✦ Flow Accelerated Corrosion Pipe Min Wall Inspection

Projects Deferred and Below the Line

- ✦ Replace Transformer TR-N1
- ✦ Reactor Manual Control System Upgrade
- ✦ Replace Control Air System/Service Air Compressors
- ✦ Control Room Indication for Circulating Water Plenum
- ✦ Upgrade Trip Logic for Condensate Booster Pump Low Suction Pressure Trip

Projects Deferred and Below the Line

- ✦ Upgrade Trip Logic Reactor Feed Water Turbine Hi Exhaust Temperature
- ✦ Seismic System Replacement

Project Presentations

- ✦ Power Range Neutron Monitors
- ✦ Main Generator Rotor Replacement
- ✦ Modify Logic to Close at Level 1
- ✦ Condenser Replacement

Long-range Plan

✦ Assumptions:

- 78 day outage in FY 2011
- Reduction of 30 positions in FY 2012 and 25 positions in FY 2014
- Maintain the same capital investment in the out-years as was in last year's plan
- No adverse impact to rate case periods
- 3.5% average escalation

Long-range Plan Challenges

- ✦ Increased Investment in Equipment Reliability Projects
- ✦ Benefits are Expected to Escalate Dramatically in the Out Years
- ✦ A Managed Attrition Plan will be Required to Meet our Commitments
- ✦ Although Fuel Savings are Significant over the Whole Period, the Cost of Fuel is up in the Next Rate Case Period
- ✦ Additional Funding for Inventory Growth
- ✦ Capital Project Spending

CGS Long-range Plan

Item Description	Calendar Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
	BPA Rate	BPA Rate Period		BPA Rate Period		BPA Rate Period		BPA Rate Period		
Direct and Indirect O&M Costs										
Baseline costs	\$ 119,917	\$ 121,651	\$ 116,347	\$ 114,966	\$ 114,810	\$ 112,999	\$ 113,434	\$ 113,346	\$ 111,885	\$ 116,969
Outage Costs (Incremental)	38,704	932	20,700	932	20,700	932	17,078	932	17,078	518
Admin / General (A&G) O&M includes escalation	60,648	69,062	72,466	73,699	76,745	84,664	88,467	92,550	97,104	103,524
O&M Projects	50,043	9,392	42,981	10,143	43,652	8,302	41,814	8,362	40,832	8,358
Facilities O&M Projects	752	569	569	621	621	621	621	-	621	-
Information Technology O&M Projects	752	160	492	492	233	595	295	160	1,656	160
O&M Risk Reserve	1,593	859	2,070	776	1,656	518	1,656	518	776	518
Outage Risk Reserve	1,095	-	1,122	-	1,123	-	1,035	-	1,035	-
Baseproj Contingency	312	518	518	518	518	518	518	-	518	-
Subtotal Direct & Indirect O&M Costs	\$ 273,816	\$ 203,143	\$ 257,265	\$ 202,147	\$ 260,058	\$ 209,149	\$ 264,918	\$ 215,868	\$ 271,505	\$ 230,047
Escalation on Direct & Indirect	-	4,693	13,163	13,963	27,043	23,363	40,451	33,576	55,251	45,913
Subtotal Direct & Indirect O&M Costs	\$ 273,816	\$ 207,836	\$ 270,428	\$ 216,110	\$ 287,101	\$ 232,512	\$ 305,369	\$ 249,444	\$ 326,756	\$ 275,960
Capital Costs										
PHC Capital Projects	\$ 38,212	\$ 13,175	\$ 21,727	\$ 8,825	\$ 20,559	\$ 7,959	\$ 21,140	\$ 7,580	\$ 25,607	\$ 11,211
Moveable Capital & Downtown Capital Projects	1,720	1,346	1,346	1,346	1,346	1,346	1,346	1,346	1,346	1,346
Facilities Capital Projects	299	10,258	6,200	5,693	1,553	2,329	2,846	1,811	1,811	1,811
Information Technology Capital Projects	5,943	5,183	6,227	7,642	6,185	5,915	6,022	9,587	6,435	6,624
Admin / General (A&G) Cap includes escalation	7,314	8,000	8,100	3,500	6,365	3,623	6,365	3,623	6,521	3,623
Capital Risk Reserve	2,237	3,877	4,028	2,330	3,389	1,983	3,518	1,922	3,867	2,070
Main Condenser Replacement includes escalation	40,870	8,460	-	-	-	-	-	-	-	-
Subtotal Capital Costs	\$ 96,595	\$ 50,299	\$ 47,628	\$ 29,336	\$ 39,397	\$ 23,155	\$ 41,237	\$ 25,869	\$ 45,587	\$ 26,685
Escalation on Capital Costs	-	1,184	2,813	2,809	4,872	3,665	7,994	6,057	12,376	8,369
Subtotal Capital Costs	\$ 96,595	\$ 51,483	\$ 50,441	\$ 32,145	\$ 44,269	\$ 26,820	\$ 49,231	\$ 31,926	\$ 57,963	\$ 35,054
Fuel Related Costs										
Nuclear Fuel Amortization	\$ 30,583	\$ 43,555	\$ 38,081	\$ 49,847	\$ 46,013	\$ 61,734	\$ 56,985	\$ 69,471	\$ 64,502	\$ 74,224
Spent Fuel Fee	7,085	8,918	8,280	9,078	8,280	9,078	8,280	10,200	8,600	8,900
Subtotal Fuel Related Costs	\$ 37,668	\$ 52,473	\$ 46,361	\$ 58,925	\$ 54,293	\$ 70,812	\$ 65,265	\$ 79,671	\$ 73,102	\$ 83,124
Total Unescalated Budget	\$ 408,079	\$ 305,915	\$ 351,254	\$ 290,408	\$ 353,748	\$ 303,116	\$ 371,420	\$ 321,408	\$ 390,194	\$ 339,856
Total Escalation	-	5,877	15,977	16,771	31,915	27,028	48,445	39,633	67,627	54,282
Total Costs - Industry basis	\$ 408,079	\$ 311,792	\$ 367,231	\$ 307,179	\$ 385,663	\$ 330,144	\$ 419,865	\$ 361,041	\$ 457,821	\$ 394,138
Total Net Generation (Gwh)	7,395	9,383	8,313	9,383	8,507	9,383	8,558	9,383	8,598	9,383
Outage Days	78	-	40	-	31	-	29	-	27	-
Cost of Power (Cents per kWh, constant FY11\$)	5.518	3.260	4.225	3.095	4.158	3.230	4.340	3.425	4.538	3.622
Cost of Power (Cents per kWh, escalated)	5.518	3.323	4.418	3.274	4.534	3.519	4.906	3.848	5.325	4.201

Key Assumption/Qualifications
Escalation Rate = 3.5% starting FY 12

CGS Impact on BPA Rates

- ✦ The following two slides show what last year's Long-range Plan estimates were for BPA's current rate case period and next rate case period, what changes have been made, and the resulting current Long-range Plan estimates.

Current Rate Case Period BPA Fiscal Years 2010 & 2011

(\$ in thousands)

FY 2010 LRP Commitment	\$594,503
Nuclear Fuel	(11,309)
O&M Costs	<u>(3,175)</u>
FY 2011 LRP	\$580,019

Next Rate Case Period BPA Fiscal Years 2012 & 2013

(\$ in thousands)

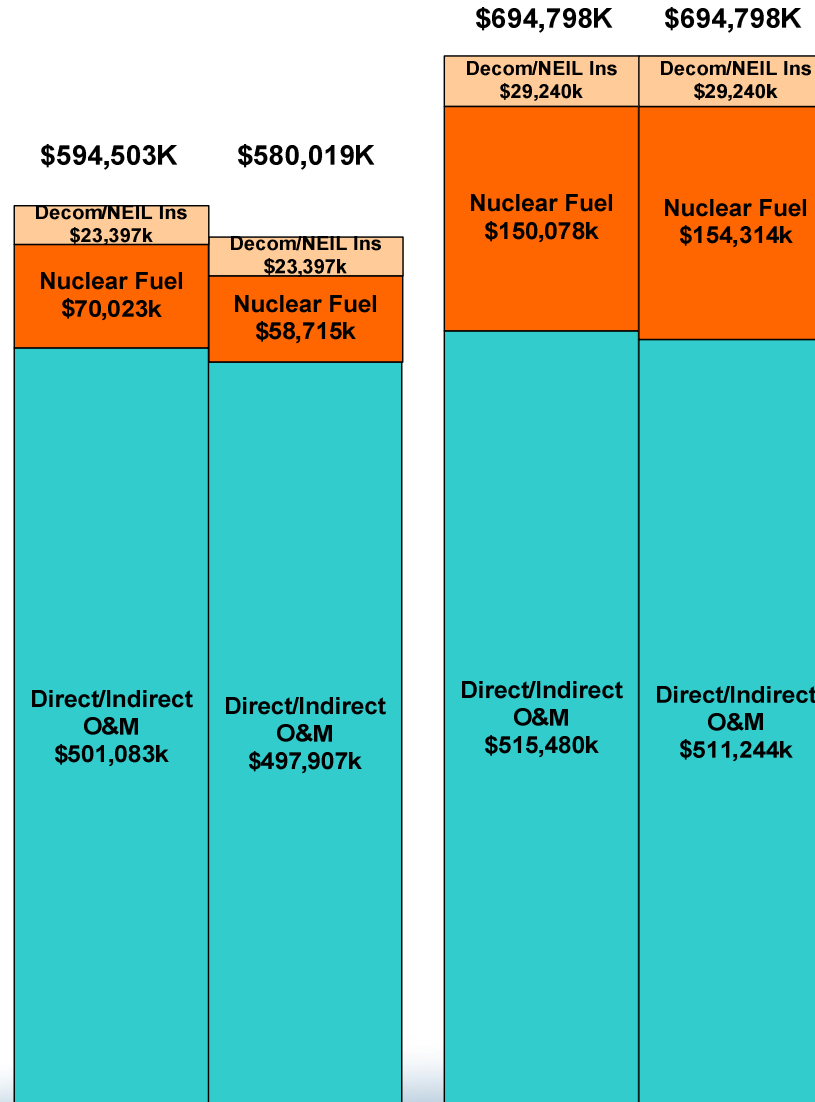
FY 2010 LRP Commitment	\$694,798
Nuclear Fuel	4,237
O&M Costs	<u>(4,237)</u>
FY 2011 LRP	\$694,798

Fiscal Year 2011 Budget Workshop

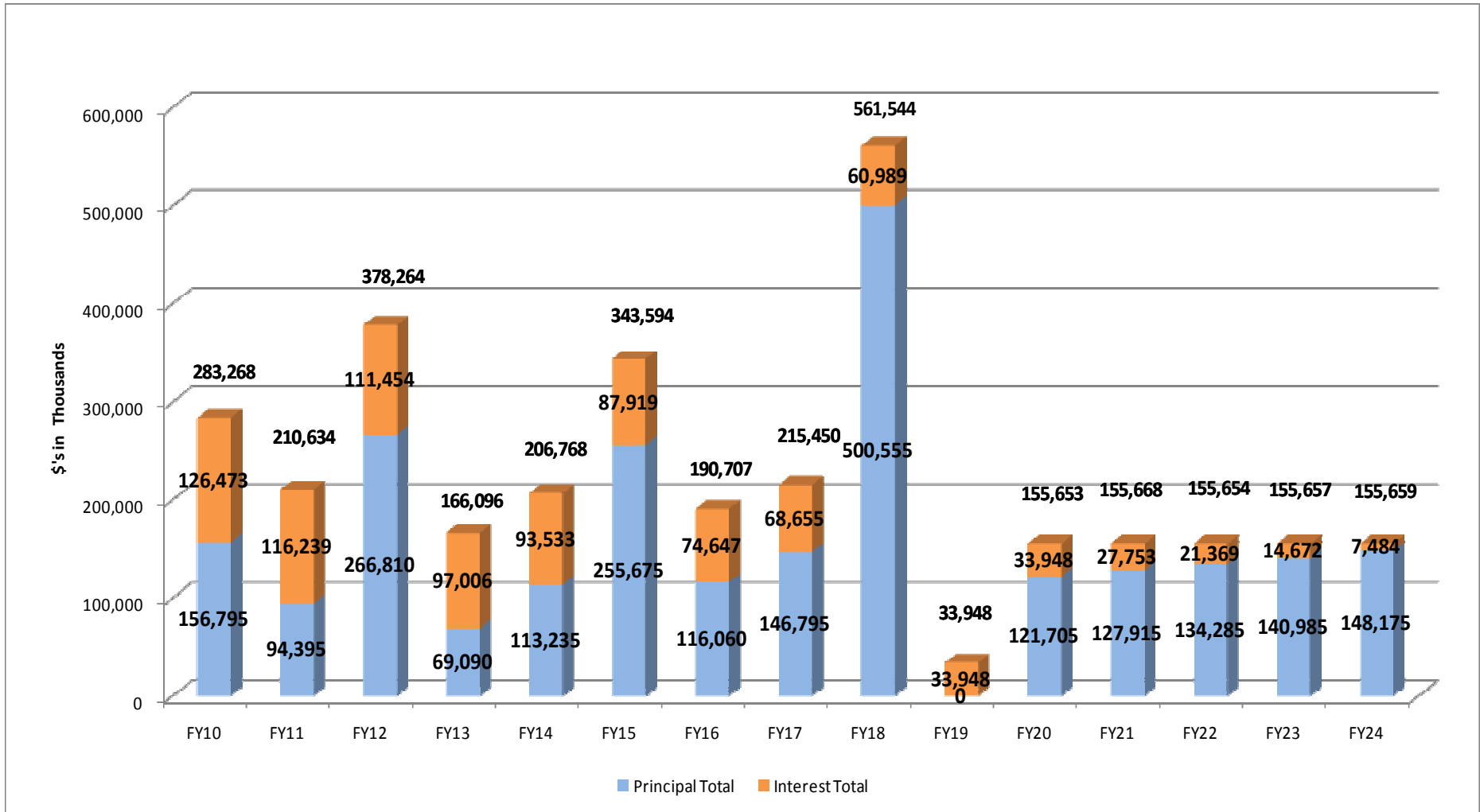
BPA Rate Case FY10/FY11

BPA Rate Case FY12/FY13

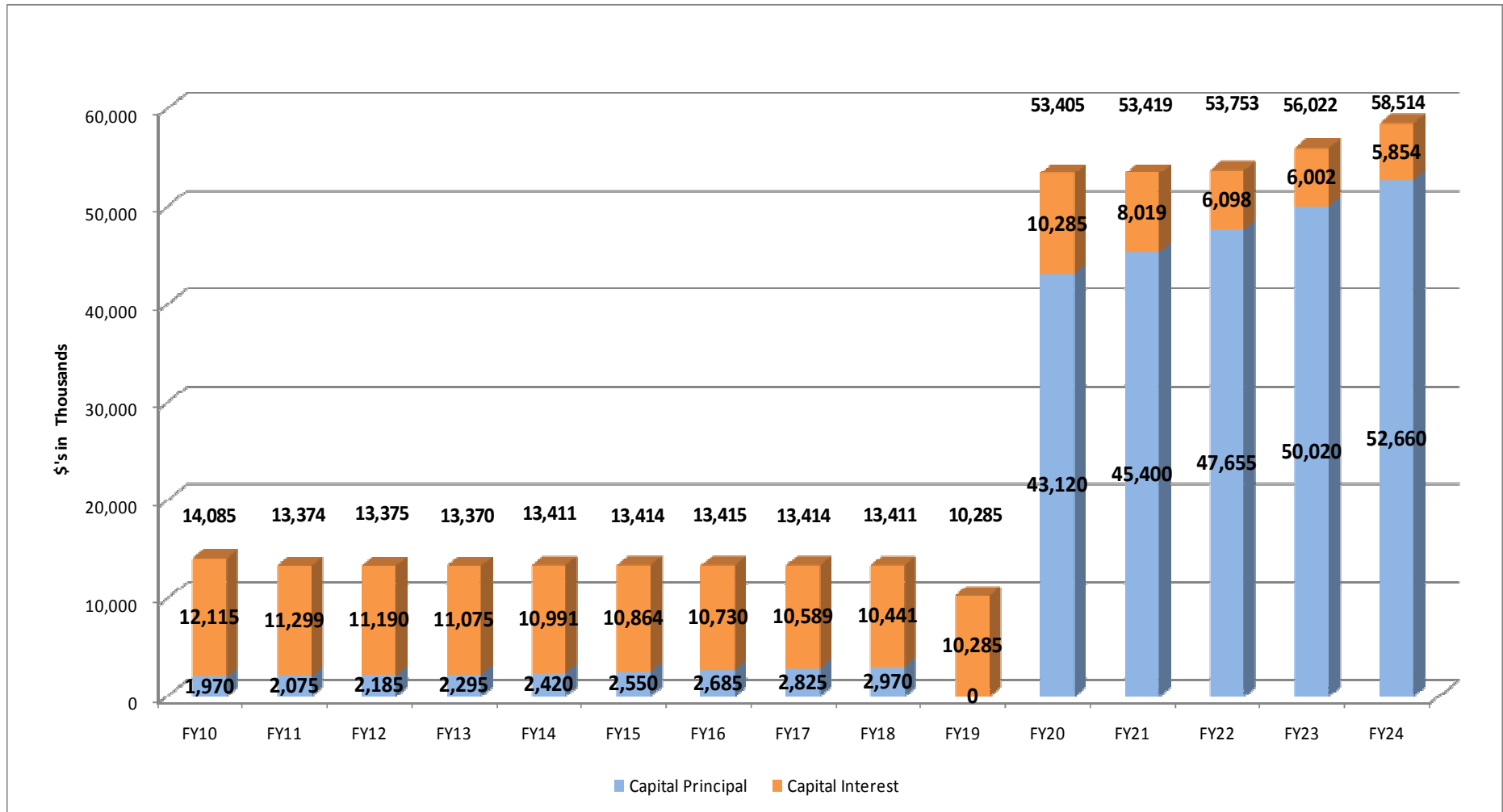
Columbia Cash Budget Totals by Rate Period



CGS Debt Service



CGS Capital Debt Service



Questions?