

Fiscal Year 2016 Columbia Generating Station Annual Operating Budget



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Summary

Energy Northwest's Columbia Generating Station (Columbia) is a 1,150 megawatt boiling water nuclear power station utilizing a General Electric nuclear steam supply system. The project is located on the Department of Energy's Hanford Reservation near Richland, Washington. The project began commercial operation in December 1984.

This Columbia Generating Station Fiscal Year 2016 Annual Operating Budget has been prepared by Energy Northwest pursuant to the requirements of Board of Directors Resolution No. 640, the Project Agreement, and the Net Billing Agreements. This document includes all capitalized and non-capitalized costs associated with the project for Fiscal Year 2016. In addition this document includes all funding requirements.

The total cost budget for Fiscal Year 2016 for Expense and Capital related costs are estimated at \$589,609,000 (Table 3), with associated total funding requirements of \$641,934,000 (Table 8). Using the Memorandum of Agreement basis for measuring Columbia's costs, budget requirements for Fiscal Year 2016 have been established at \$371,982,000 (Table 1) including escalation. In Fiscal Year 2016, Bonneville Power Administration will be directly paying the funding requirements on a monthly basis under the provisions of the Direct Pay Agreements. This will take the net billing requirements to zero, for the statements which are normally sent to participants in the project, and will be paid in accordance with the terms of the Net Billing Agreements. The Net Billing Agreements are still in place, but the direct cash payments from Bonneville Power Administration will simply take the participant payment amounts to zero. In the Direct Pay Agreements, Energy Northwest agreed to promptly bill each participant its share of the costs of the project under the Net Billing Agreements, if Bonneville fails to make a payment when due under the Direct Pay Agreements. Fiscal Year 2016 Capital costs will be funded by bond proceeds and are not included in the Fiscal Year 2016 direct pay requirements. Total direct pay requirements of \$424,166,000 (Table 8) will be the basis for billing directly to Bonneville Power Administration.

This budget is presented on a cost basis and includes a cost to cash reconciliation (Table 7) converting cost data to a cash basis. Cost and cash data are presented on white and green pages, respectively. The Columbia Generating Station's Annual Budget (Table 8) is required by the various project agreements.

Comparison of the Fiscal Year 2016 Budget to the Fiscal Year 2015 Long Range Plan for Fiscal Year 2016 is included (Table 1). Comparison of the Fiscal Year 2016 Budget is made to the original budget for Fiscal Year 2015, dated April 23, 2014.

Key Assumptions/Qualifications

This budget is based upon the following key assumptions and qualifications:

- Fiscal Year 2016 cost of power is based on net generation of 9,586 GWh.
- There is not a refueling outage planned for Fiscal Year 2016.
- Risk reserves consist of a total of \$5.5 million.
- Unknown NRC mandates are excluded.
- All assumptions associated with Nuclear Fuel are referenced in the Columbia Fuel Plan Section.
- Other Specific Inclusions:
 - Sales tax calculated at 8.6 percent for appropriate items
- All Fiscal Year 2016 Capital expenses are expected to be financed through a long-term bond issuance in May 2015.

Table 1
Memorandum of Agreement (MOA) (1)
(Dollars in Thousands)

<u>Description</u>	FY 2015 (2)		Variance
	FY 2016 Budget	LRP for FY 2016 (2)	
Baseline	\$ 119,590	\$ 125,552	\$ (5,962)
Indirect Allocations O&M	68,460	61,520	6,940
Expense Projects	9,378	10,241	(863)
Risk Reserve	2,960	3,075	(115)
Operations & Maintenance Total	\$ 200,388	\$ 200,388	\$ -
Capital Projects	\$ 98,273	\$ 98,018	\$ 255
Indirect Allocations Capital	17,339	16,733	606
Risk Reserve	2,500	3,361	(861)
Capital Total	\$ 118,112	\$ 118,112	\$ -
Nuclear Fuel Related Costs	\$ 53,482	\$ 67,167	\$ (13,685)
Fuel Total	\$ 53,482	\$ 67,167	\$ (13,685)
Total	\$ 371,982	\$ 385,667	\$ (13,685)
Net Generation (GWh)	9,586	9,628	(42)
Cost of Power (\$/MWh)	\$ 38.80	\$ 40.06	\$ (1.25)

- (1) Columbia costs as defined by the Memorandum of Agreement between Energy Northwest and BPA. This measure includes operations and maintenance, capital additions and fuel related costs as well as an appropriate allocation of indirect costs (such as employee benefits, A&G, and information technology expenses).
- (2) Fiscal Year 2015 Long Range Plan for Fiscal Year 2016.

Table 2
Columbia Station Costs - Memorandum of Agreement Comparison (1)
(Dollars in Thousands)

<u>Description</u>	<u>FY 2016 Budget</u>	<u>Original FY 2015 Budget</u>	<u>Variance</u>
Controllable Costs			
Energy Northwest Labor	\$ 84,332	\$ 82,017	\$ 2,315
Baseline Non-Labor	54,425	58,598	(4,173)
Incremental Outage	-	27,722	(27,722)
Expense Projects Non-Labor	7,378	46,881	(39,503)
Capital Projects Non-Labor	81,106	79,085	2,021
Indirect Allocations	85,799	81,040	4,759
Risk Reserve	5,460	2,942	2,518
Subtotal Controllable	<u>\$ 318,500</u>	<u>\$ 378,285</u>	<u>\$ (67,062)</u>
Nuclear Fuel Related Costs			
Nuclear Fuel Amortization	\$ 53,482	\$ 44,326	\$ 9,156
Spent Fuel Fee	-	7,594	(7,594)
Subtotal Nuclear Fuel Related	<u>\$ 53,482</u>	<u>\$ 51,920</u>	<u>\$ 1,562</u>
Total	<u>\$ 371,982</u>	<u>\$ 430,205</u>	<u>\$ (65,500)</u>
Net Generation (GWh)	<u>9,586</u>	<u>8,422</u>	<u>1,164</u>
Cost of Power (\$/MWh)	<u>\$ 38.80</u>	<u>\$ 51.08</u>	<u>\$ (12.28)</u>

(1) Columbia Costs as defined by the Memorandum of Agreement between Energy Northwest and BPA. This cost measure includes operations and maintenance and capital additions, fuel related costs as well as an appropriate allocation of indirect costs (such as employee benefits, and corporate programs).

Table 3
Summary of Costs
(Dollars in Thousands)

<u>Description</u>	<u>FY 2016 Budget</u>	<u>Original FY 2015 Budget</u>	<u>Variance</u>
<u>Controllable Expense</u>			
Energy Northwest Labor	\$ 67,165	\$ 68,005	\$ (840)
Base Non-Labor	54,425	58,598	(4,173)
Expense Projects Non-Labor (1)	7,378	46,881	(39,503)
Incremental Outage	-	27,722	(27,722)
Indirect Allocations	68,460	67,185	1,275
Risk Reserve	2,960	2,500	460
Subtotal Controllable	\$ 200,388	\$ 270,891	\$ (70,503)
<u>Incremental</u>			
Nuclear Fuel Amortization	\$ 53,482	\$ 44,326	\$ 9,156
Spent Fuel Disposal Fee	-	7,594	(7,594)
Generation Taxes	5,626	4,669	957
Subtotal Incremental	\$ 59,108	\$ 56,589	\$ 2,519
<u>Fixed</u>			
Treasury Related Expenses (2)	\$ 135,004	\$ 129,949	\$ 5,055
Decommissioning (3)	7,376	7,010	366
Depreciation	69,621	86,003	(16,382)
Subtotal Fixed	\$ 212,001	\$ 222,962	\$ (10,961)
Total Operating Expense	\$ 471,497	\$ 550,442	\$ (78,945)
<u>Capital</u>			
Energy Northwest Labor	\$ 17,167	\$ 14,012	\$ 3,155
Capital Projects Non-Labor (4)	81,106	79,085	2,021
Indirect Allocations	17,339	13,855	3,484
Capital Risk Reserve	2,500	442	2,058
Total Capital	\$ 118,112	\$ 107,394	\$ 10,718
Total Expense and Capital	\$ 589,609	\$ 657,836	\$ (68,227)

(1) See Table 5B (page 10).

(2) See Table 6 (page 11).

(3) Includes ISFSI Decommissioning.

(4) See Table 5A (page 10).

Table 4
Summary of Full Time Equivalent (FTE) Positions*

Organization	Direct Charge	Corporate Allocation**	Laboratories Support	FY 2016 Budget	FY 2015 Budget	Variance
Chief Executive Officer	1	1	-	2	2	-
General Counsel	31	8	-	39	38	1
Chief Operating Officer/Chief Nuclear Officer***	883	-	-	883	883	-
General Manager Energy Services & Development****	51	1	20	72	74	(2)
Vice President Corporate Services/Chief Financial Officer/Chief Risk Officer	83	66	-	149	150	(1)
Total	1,049	76	20	1,145	1,147	(2)

* Includes project positions

* Includes employees supporting Capital Projects

* Excludes temporary positions

** Includes allocation of Corporate FTE Positions (95% in FY 2016 and FY 2015)

*** Includes employment "pipeline" for Operations and Security

**** Includes Environmental and Calibrations Laboratories support (20 FTE in FY 2016 and FY 2015)

Table 5
Projects Non-Labor
(Dollars in Thousands)

<u>Description</u>	<u>FY 2016</u> <u>Budget</u>	<u>Original</u> <u>FY 2015</u> <u>Budget</u>	<u>Variance</u>
<u>Capital Projects</u>			
Plant Modifications	\$ 70,447	\$ 70,914	\$ (467)
Facilities Modifications	1,971	1,133	838
Information Technology	8,688	7,038	1,650
Subtotal Capital Projects	\$ 81,106	\$ 79,085	\$ 2,021
<u>Expense Projects</u>			
Plant Modifications	\$ 6,525	\$ 46,771	\$ (40,246)
Facilities Modifications	853	110	743
Subtotal Expense Projects	\$ 7,378	\$ 46,881	\$ (39,503)
Total	\$ 88,484	\$ 125,966	\$ (37,482)

Table 5A
Capital Projects Non-Labor Over \$1 Million
(Dollars in Thousands)

<u>Plant Modifications</u>	FY 2016 Budget
Fukushima Project*	\$ 9,706
Cyber Security	9,688
Low Pressure Turbine Rotor Replacement	6,430
Independent Spent Fuel Storage Installation Pad Expansion	6,046
Replace Condensate Heat Exchanger	4,476
Measurement Uncertainty Recapture	3,021
Main Turbin Valve Maintenance	2,369
Plant Fire Detection System	2,119
Upgrade Transformer Yard Oil Collection	1,910
Replace Obsolete Safety Related 480V Starters	1,699
Shooting Range	1,500
Stack Monitor Upgrade	1,480
Replace Obsolete Non-safety Related 480V Starters	1,350
Residual Heat Removal Pump and Motor Replacement	1,055
All Other Projects < \$1 million	28,257
Total Capital Projects Non-Labor	\$ 81,106

Table 5B
Expense Projects Non-Labor Over \$250 Thousand
(Dollars in Thousands)

<u>Plant Modifications & Major Maintenance(MM)</u>	FY 2016 Budget
Spent Fuel Pool Clean-up (Control Rod Blades Disposal)	\$ 2,460
Emergency Diesel Generator Maintenance	1,006
Plant Valve Project	488
Valve Program	316
Plant Heating, Ventilating, and Air Conditioning Program	293
In-Service Inspection Programs	287
Buried Piping Integrity Program	262
All Other Projects < \$250 Thousand	2,266
Total Expense Projects Non-Labor	\$ 7,378

*Preliminary estimate for FY 2016 Fukushima impacts

Table 6
Treasury Related Expenses
(Dollars in Thousands)

<u>Description</u>	Original		Variance
	FY 2016	FY 2015	
	<u>Budget</u>	<u>Budget</u>	
Interest Expense (1)	\$ 151,729	\$ 146,689	\$ 5,040
Build America Bond Subsidy (2)	(4,067)	(4,072)	5
Interest on Note (3)	87	-	87
Amortized Financing Cost (4)	(12,940)	(13,060)	120
Investment Income (5)	(411)	(203)	(208)
Treasury Svcs/Paying Agent Fees (6)	606	595	11
Total	<u>\$ 135,004</u>	<u>\$ 129,949</u>	<u>\$ 5,055</u>

Assumptions

- (1) Budget assumes approximately \$2.7 million in principal will be refunded in FY 2016.
- (2) Build America Bonds were expected to receive a subsidy from the Treasury for 35% of the interest payments. A reduction of approximately \$320K (7%) was implemented as part of the Congressional budget cuts surrounding the Sequestration events.
- (3) A line of credit in the amount of \$70 million to fund a portion of O&M & debt service for three months while awaiting Tennessee Valley Authority (TVA) revenue by September 30, 2015 related to Uranium Tails transaction.
- (4) The amortized financing costs are driven by the amortization of the premiums on bond issues.
- (5) Includes income on investment of monies held in the Interest and Principal Accounts and the Capital Fund which can be transferred periodically to the Revenue Fund. Projected investment income earning rates are forecasted to average 0.20%.
- (6) Includes all non-interest costs of fixed rate debt and internal labor and overheads.

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Table 7
Cost-to-Cash Reconciliation
(Dollars in Thousands)

Description	FY 2016 Total Cost	Non-Cash Items	Non-Cost Items	Deferred Cash Requirements	Prior Year Commitments	FY 2016 Total Cash
<u>Operating</u>						
Controllable - Expense	\$ 200,388	\$ -	\$ -	\$ -	\$ -	\$ 200,388
Controllable - Capital	118,112	-	2,070	-	-	120,182
Nuclear Fuel	53,482	(52,997)	11,578	-	-	12,063
Spent Fuel Disposal Fee	-	-	-	-	-	-
Fuel Litigation	-	-	350	-	-	350
Spares/Inventory Growth	-	-	6,500	-	-	6,500
Generation Taxes	5,626	-	(863)	-	-	4,763
Subtotal Operating	\$ 377,608	\$ (52,997)	\$ 19,635	\$ -	\$ -	\$ 344,246
<u>Fixed Expenses</u>						
Treasury Related Expense						
Interest on Bonds	\$ 151,729	\$ -	\$ -	\$ -	\$ -	\$ 151,729
Build America Bond Subsidy	(4,067)	-	-	-	-	(4,067)
Interest on Note Payable	87	-	-	-	-	87
Payoff of Note Principal	-	-	69,960	-	-	69,960
Bond Retirement	-	-	75,960	-	-	75,960
Amortized Cost	(12,940)	12,940	-	-	-	-
Investment Income-Revenue Fund	(411)	-	-	338	-	(73)
Treasury Services	606	-	-	-	-	606
Decommissioning(1)	7,234	(7,234)	3,326	-	-	3,326
ISFSI Decommissioning	142	(142)	160	-	-	160
Depreciation	69,621	(69,621)	-	-	-	-
Subtotal Fixed Expenses	\$ 212,001	\$ (64,057)	\$ 149,406	\$ 338	\$ -	\$ 297,688
Total	\$ 589,609	\$ (117,054)	\$ 169,041	\$ 338	\$ -	\$ 641,934

(1) Decommissioning paid directly by the Bonneville Power Administration

Note: Controllable cost and cash is equal due to BPA decision to Direct Pay and the institution of contractor time & labor.

Table 8
Annual Budget
Statement of Funding Requirements (Revenue Fund)
(Dollars in Thousands)

<u>Description</u>	<u>FY 2016</u>	<u>Original</u>	<u>Variance</u>
	<u>Budget</u>	<u>FY 2015</u>	
		<u>Budget</u>	
<u>Operating</u>			
Controllable Expense	\$ 200,388	\$ 270,891	\$ (70,503)
Controllable Capital	120,182	111,026	9,156
Nuclear Fuel	12,063	60,742	(48,679)
Spent Fuel Disposal	-	8,722	(8,722)
Fuel Litigation	350	1,225	(875)
Spares/Inventory Growth	6,500	7,000	(500)
Generation Taxes	4,763	4,959	(196)
Subtotal Operating Requirements	\$ 344,246	\$ 464,565	\$ (120,319)
<u>Fixed</u>			
Treasury Related Expenses			
Interest on Bonds	\$ 151,729	\$ 146,689	\$ 5,040
Build America Bond Subsidy	(4,067)	(4,072)	5
Interest on Note	87	-	87
Payoff of Note Principal	69,960	-	69,960
Bond Retirement (1)	75,960	113,895	(37,935)
Investment Income-Revenue Fund	(73)	(93)	20
Treasury Services/Paying Agent Fees	606	595	11
Decommissioning Costs (2)	3,326	3,198	128
ISFSI Decommissioning Costs	160	135	25
Subtotal Fixed	\$ 297,688	\$ 260,347	\$ 37,341
Total Funding Requirements	\$ 641,934	\$ 724,912	\$ (82,978)
<u>Funding Sources</u>			
Direct Pay from BPA / Net Billing (3)	\$ 424,166	\$ 540,398	\$ (116,232)
Bond Proceeds	120,182	111,026	9,156
Fuel Revenue	94,260	69,960	24,300
Transfer From Capital Fund (4)	-	330	(330)
Bonneville Direct Funding Decommissioning	3,326	3,198	128
Total Funding Sources	\$ 641,934	\$ 724,912	\$ (82,978)

(1) \$2,685,000 of maturing July 2016 bonds are expected to be extended. The remaining \$75,960,000 is expected to be paid off as scheduled.

(2) BPA directly funds the requirements for the Decommissioning Fund on behalf of Energy Northwest.

(3) Bonneville will direct pay the monthly funding requirements under the provisions of the Direct Pay Agreement.

(4) Includes \$330K transferred to pay expected tax assessment in the 2015 Fuel Management Plan.

Table 9
Monthly Statement of Funding Requirements
(Dollars in Thousands)

Description	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FY 2016 Total
Beginning Balance	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Disbursements													
Operating													
Controllable Expense	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 16,699	\$ 200,388
Controllable Capital	11,500	8,700	8,100	8,500	8,400	9,100	9,400	9,700	9,900	10,256	11,600	15,026	120,182
Nuclear Fuel In Process	1,693	570	571	570	571	570	1,356	570	2,380	1,070	1,071	1,071	12,063
Fuel Litigation	29	29	30	29	29	30	29	29	29	29	29	29	350
Spares/Inventory Growth	-	1,625	-	-	1,625	-	-	1,625	-	-	1,625	-	6,500
Generation Taxes	-	-	-	-	-	-	-	-	-	-	-	4,763	4,763
Subtotal Operating	\$ 29,921	\$ 27,623	\$ 25,400	\$ 25,798	\$ 27,324	\$ 26,399	\$ 27,484	\$ 28,623	\$ 29,008	\$ 28,054	\$ 31,024	\$ 37,588	\$ 344,246
Fixed													
Treasury Related Expenses													
Interest on Bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 74,365	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77,364	\$ 151,729
BABs Subsidy	-	-	-	-	-	(2,034)	-	-	-	-	-	(2,033)	\$ (4,067)
Interest on Note	29	29	29	-	-	-	-	-	-	-	-	-	\$ 87
Payoff of Note Principal	-	-	69,960	-	-	-	-	-	-	-	-	-	\$ 69,960
Bond Retirement (1)	-	-	-	-	-	-	-	-	-	-	-	75,960	\$ 75,960
Investment Income	(5)	(5)	(5)	(5)	(5)	(10)	(5)	(5)	(5)	(5)	(5)	(13)	\$ (73)
Treasury Services	50	50	51	50	51	51	50	51	50	51	50	51	\$ 606
Decommissioning	-	-	3,326	-	-	-	-	-	-	-	-	-	\$ 3,326
ISFSI Decommissioning	160	-	-	-	-	-	-	-	-	-	-	-	\$ 160
Subtotal Fixed	\$ 234	\$ 74	\$ 73,361	\$ 45	\$ 46	\$ 72,372	\$ 45	\$ 46	\$ 45	\$ 46	\$ 45	\$ 151,329	\$ 297,688
Total Disbursements	\$ 30,155	\$ 27,697	\$ 98,761	\$ 25,843	\$ 27,370	\$ 98,771	\$ 27,529	\$ 28,669	\$ 29,053	\$ 28,100	\$ 31,069	\$ 188,917	\$ 641,934
Funding Sources													
BPA Direct Pay (2)	\$ 18,655	\$ 18,997	\$ 17,375	\$ 17,343	\$ 18,970	\$ 89,671	\$ 18,129	\$ 18,969	\$ 19,153	\$ 17,844	\$ 19,469	\$ 149,591	\$ 424,166
Bond Proceeds	11,500	8,700	8,100	8,500	8,400	9,100	9,400	9,700	9,900	10,256	11,600	15,026	\$ 120,182
Fuel Revenue	-	-	69,960	-	-	-	-	-	-	-	-	24,300	\$ 94,260
BPA - Decommissioning	-	-	3,326	-	-	-	-	-	-	-	-	-	\$ 3,326
Total Funding Sources	\$ 30,155	\$ 27,697	\$ 98,761	\$ 25,843	\$ 27,370	\$ 98,771	\$ 27,529	\$ 28,669	\$ 29,053	\$ 28,100	\$ 31,069	\$ 188,917	\$ 641,934
Ending Balance	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000

(1) \$2,685,000 of 7/1/2016 maturing bonds are expected to be refunded. The remaining \$75,960,000 are expected to be paid off.
(2) BPA is billed, through the Direct Pay Agreements, one month in advance for the following month's expenses.

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