

Integrated Program Review

Depreciation, Amortization, Net Interest, and Debt Management

June 26, 2008



- 1. For forecasts, "all FY 2009-11 information was provided in May and June 2008 and cannot be found in BPA-approved Agency Financial Information but is provided for discussion or exploratory purposes only as projections of program activity levels, etc."
- 2. For actuals, "all FY 2006-07 information was provided in May 2008 and is consistent with audited actuals that contain BPA-approved Agency Financial Information."
- 3. This information is a derived estimate for presentation purposes and cannot be found in BPAapproved Agency Financial Information but is provided for discussion or exploratory purposes only as *projections of program activity levels, etc.*"



Agenda

- 1. Purpose and Objective of Workshop
- 2. Financial Disclosure Statements
- 3. Putting Today's Discussion in Perspective
- 4. Power Capital-Related Expenses
- 5. Transmission Capital-Related Expenses
- 6. Debt Management Actions
- 7. Access to Capital Update
- 8. Lease Financing Overview
- 9. IPR Workshop Schedule
- 10. How To Provide Comments



- Provide an overview of the current Power and Transmission forecasts of capital-related expenses:
 - Depreciation and Amortization
 - Federal Net Interest
 - Non-Federal Debt Service
 - Minimum Required Net Revenues (MRNR)
 - Transmission Capital Leases
- Provide an overview of BPA's debt management activities and issues:
 - Debt Optimization/Debt Service Reassignment
 - Update on Access to Capital
 - Lease Financing



Putting Today's Discussion in Perspective

- The costs associated with the traditional capital-related expenses -- Depreciation & Amortization, Federal Net Interest expense, and Non-Federal Debt Service -- are significant drivers of rate levels. These costs represent about one-third of Power's total expenses and about half of Transmission's total expenses.
 - These costs are driven by broad-based agency decisions and policies related to capital investment levels.
 - Corporate Finance responds to these decisions and the associated timing parameters by developing the optimal, most efficient debt management actions leading to the lowest costs overall.
 - The actual costs in the package are the aggregate result of past decisions.
- The forecasted costs in this package reflect the result of past decisions, forecasts of future spending levels, existing policies, and assumptions about other decisions.
- Capital spending levels are <u>not</u> within the scope of today's presentation. The appropriate forums are the related program sessions of the IPR.
- Debt management actions <u>are</u> within the scope of today's session.



What Are These Programs?

- These "programs" are really categories of expenses derived from actions taken in several other programs. These categories represent the financial outcomes of decisions in other areas.
- **Depreciation & Amortization**: This category consists of annual expenses associated with Power and Transmission plant-in-service and intangible assets, respectively.
- Net Interest Expense:
 - For Power, this category consists of the interest on outstanding Treasury bonds and Congressional appropriations, an interest credit, amortization of capitalized call premiums, the capitalization adjustment, and the allowance for funds used during construction.
 - For Transmission, this category includes the same categories as Power plus the interest associated with Debt Service Reassignment (DSR) within the Debt Optimization (DO) Program.
- Non-Federal Debt Service:
 - For Power, this category consists of third-party debt service or payment of costs associated with capitalized contracts and other long-term, fixed contractual obligations. Debt service costs on the Energy Northwest (EN) projects make up the majority of these costs.
 - For Transmission, this category consists of AFUDC and interest accruing on customer balances associated with network upgrades under Large Generator Interconnection Agreements (LGIA).
- **Minimum Required Net Revenues (MRNR)**: As necessary, revenue requirements include MRNR to ensure coverage of annual cash requirements. It is calculated as the amount by which BPA's payments to Treasury for amortization and irrigation assistance exceed the total of non-cash expenses and revenues. MRNR is a ratemaking construct only. It does not appear in audited financial statements as an expense.
- **Capital Leases**: This category affects Transmission only. Capital leases are part of Transmission Operations and Maintenance. As presented here, this category is the lease payments for various capital projects such as Schultz-Wautoma and projects financed through the Master Lease program.



- The primary purpose of the repayment study is to determine a schedule of Federal principal payments that satisfies the statutory requirement to set rates to assure timely repayment of the Federal investment.
- Repayment studies are conducted for each year in a rate test period. Each annual study includes outstanding bonds and appropriations as of the most recent year of actual data and projected repayment obligations through the year of the study. Funding for replacements projected during the repayment period also is included in the repayment study, consistent with the requirements of RA 6120.2.
- Annual debt service streams for non-Federal payment obligations are included as fixed requirements that the study must take into account in establishing the overall levelized debt service. This reflects the priority of revenue application in both policy and statute in which these obligations have a higher priority of repayment. The study schedules the repayment of Federal debt around these obligations.
- That schedule, with the resulting Federal interest payments, the non-Federal debt service requirements and, in generation, Federal irrigation assistance, is the lowest, levelized combined debt service for the study year and over the ensuing repayment period.



Power Capital-Related Expenses



- The repayment study used in this analysis included updates of historical debt management actions as well as assumptions about future actions. The more significant of these updates and assumptions are listed below.
 - Historical Federal actions through FY 2007
 - 2007 Supplemental Rate Case Federal amortization for FY 2009
 - Debt Optimization of \$37 million for FY 2008 (no projection of future DO)
 - Spring 2008 refinancings of EN debt
 - 15 percent lapse factor applied to projected Federal investments
- The repayment study assumption about CRFM investment has been updated since the IPR kickoff workshop to take into account the updated forecast.
- There are additional updates that are likely to happen prior to the Initial Proposal.
 - The database of historical Federal investments will be updated for FY 2008 transactions.
 - The non-Federal database will be updated for additional refinancing actions taken in FY 2008.
 - The interest rate forecast will be updated in the fall.



Power Function Capital Expenditures Actuals for FY 2006-2007, Forecasted FY 2009-2013

UPDATED				Rate Case					
\$ in Thousands	Acti	uals	SOY	Average	IPR	IPR	IPR	IPR	IPR
Description	FY 2006	FY 2007	FY 2008	FY 2008-09*	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Corps of									
Engineers/Bureau of									
Reclamation	120,561	108,351	162,488	150,301	154,950	183,200	199,200	208,200	220,200
Fish & Wildlife	35,000	35,000	36,000	36,000	50,000	70,000	60,000	50,000	50,000
Conservation	20,000	7,000	42,000	32,000	42,000	56,000	56,000	56,000	56,000
CGS ^{1/}	74,501	82,926	44,464	26,900	96,700	73,600	99,900	55,200	47,700
CRFM	366,165	49,410	60,000	68,300	110,000	88,000	96,000	50,000	0
15% lapse factor ^{2/}					(29,813)	(36,150)	(38,550)	(39,900)	(41,700)
Total Capital	616,227	282,687	344,952	313,501	423,837	434,650	472,550	379,500	332,200
Total Increase/Decrease *		(333,540)	62,265		78,885	10,813	37,900	(93,050)	(47,300)

^{1/}CGS values are in Energy Northwest fiscal year.

^{2/}Lapse Factor does not include Fish & Wildlife, CGS, or CRFM

*Change is calculated from the prior year. The "Rate Case Average" column is not used in calculations of increases and decreases.

UPDATE FROM THE KICKOFF WORKSHOP

• The forecast for the Columbia River Fish Mitigation (CRFM) program has been revised to reflect the latest assumptions about when plant will go into service.



Power Net Interest, Amortization, Depreciation & Non-Federal Debt Service

UPDATED				Rate Case	Rate				
\$ in Thousands	Actuals		SOY	Average	Case	IPR	IPR	IPR	
	FY 2006 FY 2007		FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011	
Program Level Spending	848,119	788,123	897,281	916,200	937,370	913,029	937,276	987,700	
Increase/Decrease *		(59,995)	109,157		40,089	(24,341)	24,248	50,424	

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

Program Background:

- Program components
 - Net interest Comprised of interest on bonds and appropriations netted against interest credit from the Bonneville Fund.
 - Depreciation The depreciation of revenue-producing assets and on-going infrastructure investments through BPA, direct funding for Corps of Engineers (COE) and Bureau of Reclamation (USBR) hydro projects, and appropriated investment for fish mitigation program at hydro projects managed by the Corps of Engineers.
 - Amortization The depreciation of non-revenue producing assets such as conservation and direct fish and wildlife capital investments (non-appropriated).
 - Non-Federal Debt Service Comprised of debt service or payments associated with capitalized contracts and other long-term, fixed contractual obligations. The majority of this category consists of debt service on Energy Northwest projects (e.g. CGS, WNP-1, and WNP-3).

Drivers of Change:

- Increased capital investment, particularly in conservation and BPA's Fish and Wildlife Program, results in higher costs in FYs 2010-2011.
- Change in projected interest income due to change in cash balances.
- Debt management actions.

See Financial Disclosure Statements on Page 2

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Where do these categories appear in the **Power Revenue Requirement?**

Bold Typeface = Affected Category

GENERATION REVENUE REQUIREMENT INCOME STATEMENT

1 OPERATING EXPENSES

- 2 POWER SYSTEM GENERATION RESOURCES
- 3 OPERATING GENERATION RESOURCES
- 4 OPERATING GENERATION SETTLEMENT PAYMENTS
- 5 NON-OPERATING GENERATION
- 6 CONTRACTED POWER PURCHASES
- 7 RESIDENTIAL EXCHANGE PROGRAM
- 8 RENEWABLE AND CONSERVATION GENERATION
- 9 TRANSMISSION ACQUISITION AND ANCILLARY SERVICES
- 10 POWER NON-GENERATION OPERATIONS
- 11 F&W/ENVIRONMENTAL REQUIREMENTS
- 12 GENERAL AND ADMINISTRATIVE
- 13 OTHER INCOME, EXPENSES AND ADJUSTMENTS
- 14 NON-FEDERAL DEBT SERVICE
- 15 DEPRECIATION AND AMORTIZATION

16 TOTAL OPERATING EXPENSES

17 INTEREST EXPENSE:

- 18 INTEREST ON FEDERAL INVESTMENT-
- 19 APPROPRIATED FUNDS
- 20 BONDS ISSUED TO U.S. TREASURY
- 21 INTEREST CREDIT ON CASH RESERVES
- 22 AMORTIZATION OF CAPITALIZED BOND PREMIUMS
- 23 CAPITALIZATION ADJUSTMENT
- 24 ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION 25 NET INTEREST EXPENSE
- 26 TOTAL EXPENSES

27 MINIMUM REQUIRED NET REVENUES 1/

28 PLANNED NET REVENUES FOR RISK

29 TOTAL PLANNED NET REVENUES (27+28)

30 TOTAL REVENUE REQUIREMENT

1/ SEE NOTE ON CASH FLOW STATEMENT

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GENERATION REVENUE REQUIREMENT STATEMENT OF CASH FLOWS

- 1 CASH FROM OPERATING ACTIVITIES
- 2 MINIMUM REQUIRED NET REVENUES 1/
- 3 NON-CASH ITEMS:
- 4 DEPRECIATION AND AMORTIZATION
- 5 AMORTIZATION OF CAPITALIZED BOND PREMIUMS
- 6 CAPITALIZATION ADJUSTMENT
- 7 ACCRUAL REVENUES
- 8 CASH PROVIDED BY OPERATING ACTIVITIES
- 9 CASH FROM INVESTMENT ACTIVITIES:
- 10 INVESTMENT IN:
- 11 UTILITY PLANT (INCLUDING AFUDC)
- 12 CONSERVATION
- 13 FISH & WILDLIFE
- 14 CASH USED FOR INVESTMENT ACTIVITIESS

15 CASH FROM BORROWING AND APPROPRIATIONS:

- 16 INCREASE IN BONDS ISSUED TO U.S. TREASURY
- 17 REPAYMENT OF BONDS ISSUED TO U.S. TREASURY
- 18 INCREASE IN FEDERAL CONSTRUCTION APPROPRIATIONS
- **19 REPAYMENT OF FEDERAL CONSTRUCTION APPROPRIATIONS**
- 20 PAYMENT OF IRRIGATION ASSISTANCE
- 21 CASH PROVIDED BY BORROWING AND APPROPRIATIONS
- 22 ANNUAL INCREASE (DECREASE) IN CASH
- 23 PLANNED NET REVENUES FOR RISK
- 24 TOTAL ANNUAL INCREASE (DECREASE) IN CASH
- 1/ Line 22 must be greater than or equal to zero, otherwise net revenues will be added so that there are no negative cash flows for the year.



Power Depreciation & Amortization Expense

UPDATED				Rate Case	Rate			
\$ in Thousands	Acti	uals	SOY	Average	Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2007-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	181,878	176,204	187,891	197,912	205,857	193,165	204,001	216,916
Increase/Decrease *		(5,674)	11,687		17,966	(12,692)	10,836	12,915

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

- Depreciation and amortization are the annual expenses associated with FCRPS plant-in-service and intangible assets, respectively. These non-cash expenses are the systematic distribution of the original cost of the assets over their estimated useful lives.
- The primary driver for these expenses is the level of capital investment, particularly in prior rate periods.
- This forecast is an update from the IPR Kickoff workshop to reflect the revised CRFM forecast.

Program Components of \$210 million per year average annual expense for FY 2010-2011:

- 53% COE/USBR investment in power portion of hydro projects, including Columbia River Fish Mitigation (CRFM) and Lower Snake hatcheries
- 5% Power investment in capital equipment (IT and furniture), including share of Corporate
- 12% Fish and Wildlife (F&W) investment in BPA's Fish and Wildlife direct program
- 12% Legacy Conservation investments in BPA's original conservation capital program, FYs 1982-1999
- 6% Conservation Augmentation (ConAug) investments in BPA 's conservation capital program during FYs 2002-2006
- 11% Conservation Acquisition (ConAcq) investments in BPA's conservation capital program during FYs
2007-20112007-2011See Financial Disclosure Statements on Page 2

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Power Depreciation & Amortization for FY 2010–2011 Rate Period

(\$Thousands)	2010	2011
Depreciation		
BPA General	10,671	10,341
Bureau of Reclamation	23,687	25,592
Corps of Engineers	79,054	80,228
USFW Lower Snake	3,166	3,166
Sub-Total	116,578	119,327
Amortization		
Fish & Wildlife	24,440	27,021
Legacy Conservation	25,289	23,439
ConAug	13,335	13,335
ConAcq	19,403	28,838
SFAS 71 (CRFM Studies)	4,955	4,955
Sub-Total	87,423	97,589
Total	204,001	216,916

FY 2010 – 2011 Risks & Opportunities:

- Since depreciation and amortization are direct results of the level of capital investment, they will increase or decrease based on capital investment decisions and actual plant-in-service.
- This forecast applies the 15 percent lapse factor evenly across all of the affected categories. The forecast will be different if the lapse factor were applied differently.



Power Net Interest Expense

UPDATED

				Rate Case				
\$ in Thousands	Actuals		SOY	Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2007-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	157,609	145,516	169,748	169,958	177,499	161,996	177,092	193,721
Increase/Decrease *		(12,093)	24,232		7,750	(15,503)	15,096	16,629

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

- This category was updated to reflect the change in CRFM investments.
- The major components of Net Interest Expense are:
 - 1. Interest on outstanding bonds and appropriations. For Power, bonds issued to the U.S. Treasury by BPA are for capital equipment, F&W, conservation and the direct-funding of COE and USBR investments. Congressional appropriations are for the power portion of COE and USBR hydro projects, including F&W.
 - **2.** Interest credit. A significant variable is an interest credit associated with interest income from cash in the BPA Fund attributable to Power cash flows.
 - **3. Amortization of certain cash events.** These include the non-cash expenses for amortization of capitalized bond premiums and the capitalization adjustment resulting from the BPA Appropriations Refinancing Act.
 - 4. Allowance For Funds Used During Construction (AFUDC). This is included to offset bond interest used to fund assets under construction.



Power Net Interest for FY 2010-2011 Rate Period

(\$Thousands)	2010	2011
Interest on Federal Investment -		
On Appropriated Funds	223,743	228,979
On Long-Term Debt	70,986	81,558
Interest Credit	(61,120)	(60,295)
Amort of Cap Bond Prem	185	185
Capitalization Adjustment	(45,937)	(45,937)
AFUDC	(10,765)	(10,770)
Net Interest Expense	177,092	193,721

FY 2010 – 2011 Risks & Opportunities:

- Non-Federal debt management actions can change the shape of Federal debt service when calculated in the Repayment Study.
- Updates to the interest rate forecast can raise or lower debt service on projected borrowing.
- Cash in the Bonneville Fund that is attributed to Power affects the calculation of the Interest Credit.
- The effect of the phase out of the Interest Offset Credit (IOC) and implementation of Market-based Investing is not yet known. The IOC will be phased out over 10 years.



Power Non-Federal Debt Service Expense

\$ in Thousands	Actuals		SOY	Rate Case Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2007-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	508,632	466,404	539,641	548,331	554,014	557,867	556,184	577,064
Increase/Decrease *		(42,228)	73,238		14,373	3,853	(1,684)	20,880

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

- Non-Federal debt service consists of 3rd Party arrangements with the following entities: Energy Northwest (EN-Nuclear Plants), Lewis County PUD (Cowlitz Falls Hydro Project), Conservation and Renewable Energy System (CARES), Northern Wasco (McNary), City of Tacoma, and Emerald PUD.
- Debt service for EN consists of: principal, interest, investment income, reserve & contingency funds, treasury services fees, and other miscellaneous items.
- Debt service for Lewis County, CARES, Northern Wasco, City of Tacoma, and Emerald is paid directly by BPA and consists of principal and interest only.
- Non-Federal debt service is not level year by year. The primary factor that drives the debt service level in a given year is the amount of maturing principal in that year.



Power Non-Federal Debt Service for FY 2010-2011 Rate Period

	2010	2011
Energy Northwest		
CGS	234,040	227,926
WNP-1 DEBT SVC	160,376	162,234
WNP-3 DEBT SVC	142,923	168,221
EN RETIRED DEBT	-	-
EN LIBOR SWAP		
Sub-Total	537,339	558,381
Non-Energy Northwest		
TROJAN	-	-
CONSERVATION	5,079	4,924
COWLITZ FALLS	11,566	11,563
N. WASCO	2,200	2,196
Sub-Total	18,845	18,683
TOTAL	556,184	577,064

FY 2010 – 2011 Risks & Opportunities:

- Debt Optimization is forecasted to continue through 2009 only
- Potential debt extension associated with CGS license extension
- Refinancing for savings or potential restructuring opportunities



• As necessary, revenue requirements include a component, minimum required net revenues, to ensure coverage of annual cash requirements. It is calculated as the amount by which BPA's payments to Treasury for amortization and irrigation assistance exceed the total of non-cash expenses and revenues.

MINIMUM REQUIRED NET REVENUES CALCULATION (\$THOUSANDS)

	2010	2011	Average
1 CASH FROM OPERATING ACTIVITIES			
3 EXPENSES NOT REQUIRING CASH:			
4 DEPRECIATION AND AMORTIZATION	204,001	216,916	210,459
5 AMORTIZATION OF CAPITALIZED BOND PREMIUMS	185	185	185
6 CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)	(45,937)
7 ACCRUAL REVENUES	(3,524)	(3,524)	(3,524)
8 CASH PROVIDED BY OPERATING ACTIVITIES	154,725	167,640	161,183
9 CASH REQUIREMENTS			
10 REPAYMENT OF BONDS ISSUED TO U.S. TREASURY	174,749	20,000	97,375
11 REPAYMENT OF FEDERAL APPROPRIATIONS	2	108,802	54,402
12 PAYMENT OF IRRIGATION ASSISTANCE	-	-	-
13 TOTAL CASH REQUIREMENTS	174,751	128,802	151,777
14 MINIMUM REQUIRED NET REVENUES (13 - 8)	20,026	-	10,013

• Due to the shape of the cash flows, it may be possible to shift amortization from FY 2010 to FY 2011 to reduce or eliminate MRNR in FY 2010. BPA staff will examine this possibility prior to the WP-10 Initial Proposal.

See Financial Disclosure Statements on Page 2

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Transmission Capital-Related Expenses



Transmission Repayment Study Assumptions

The repayment study used in this analysis included updates of historical debt management actions as well as assumptions about future actions. The more significant of these updates and assumptions are listed below.

- Historical Federal actions through FY 2007
- 15 percent lapse factor applied for projected Federal investments
- 2008 Rate Case amortization for FY 2009
- Debt Service Reassignment (DSR) of \$110 million for FY 2008
- Spring 2008 refinancings of EN debt
- Lease financing actions through April 2008 (no projected lease financing in repayment studies)
- \$15 million per year of revenue/reserve financing
- Repayment study assumptions have been updated since the IPR Kickoff workshop.
 - There were corrections to the lease financing payment stream used in the study.
 - We modified assumptions about when some Federal debt will be paid.
- There are additional updates that are likely to happen prior to the Initial Proposal.
 - The database of historical Federal investments will be updated for 2008 transactions.
 - The non-Federal database will be updated for additional non-Federal refinancing actions occurring in FY 2008.
 - The non-Federal database will be updated for additional lease financing transactions.
 - The interest rate forecast should be updated in the fall.
 - Staff are also considering other alternative assumptions that may reduce overall debt service.



Transmission Function Capital Expenditures Actuals FY 2006-2007, Proposed FY 2009-2012

						R	ate Case								
\$ in Thousands	Actu	als	als		SOY	Average		IPR		IPR		IPR		IPR	
Transmission Description	FY 2006		FY 2007		FY 2008	F١	2008-2009	F	TY 2009	F	FY 2010		FY 2011	l	FY 2012
Main Grid	\$ 7,278	\$	17,258	\$	31,777	\$	76,477	\$	71,832	\$	155,904	\$	221,346	\$	199,945
Area & Customer Service	\$ 326	\$	1,240	\$	6,099	\$	16,893	\$	19,681	\$	31,714	\$	6,256	\$	6,322
Upgrades & Additions	\$ 38,033	\$	36,398	\$	60,947	\$	41,854	\$	59,881	\$	91,108	\$	107,471	\$	69,009
System Replacements	\$ 47,599	\$	63,728	\$	62,285	\$	63,168	\$	102,717	\$	134,494	\$	138,423	\$	109,335
Customer Financed/Credits ^{1/}	\$ 23,674	\$	61,336	\$	71,775	\$	61,923	\$	84,427	\$	90,165	\$	102,287	\$	83,904
Environment	\$ 2,602	\$	3,904	\$	3,705	\$	5,290	\$	5,213	\$	5,530	\$	5,752	\$	5,869
Total Direct Capital	\$ 119,512	\$	183,864	\$	236,588	\$	265,605	\$	343,751	\$	508,915	\$	581,535	\$	474,384
Total Indirect Capital ^{2/}	\$ 66,944	\$	64,435	\$	70,895	\$	77,550	\$	81,246	\$	86,100	\$	88,696	\$	93,126
Total Capital Sub-Total	\$ 186,456	\$	248,299	\$	307,483	\$	343,155	\$	424,997	\$	595,015	\$	670,231	\$	567,510
15% Lapse Factor	\$ -	\$	-	\$	-	\$	-	\$	(64,021)	\$	(89,551)	\$	(101,324)	\$	(85,736)
Total	\$ 186,456	\$	248,299	\$	307,483.0	\$	343,155	\$	360,976	\$	505,464	\$	568,907	\$	481,774
Total Increase/Decrease From Prior Year		\$	61,843	\$	59,184.0			\$	53,493	\$	144,488	\$	63,443	\$	(87,133)

^{1/} Includes Radio Spectrum and PFIA projects

^{2/} Includes AFUDC



Transmission Net Interest, Amortization, Depreciation & Non-Federal Debt Service

 PDATED \$ in Thousands	Act	uals	SOY	Rate Case Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	307,457	311,510	315,702	364,567	375,020	329,817	357,323	384,892
Increase/Decrease *		4,053	4,192		59,319	(45,203)	27,505	27,569

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

Program Background:

- Program components
 - Net interest Comprised of Debt Service Reassignment interest and interest on Federal bonds and appropriations netted against interest credit from the Bonneville Fund.
 - Depreciation The depreciation of revenue-producing assets and on-going infrastructure investments.
 - Amortization The depreciation of regulatory assets such as spacer dampers and non-wires solutions.
 - Non-Federal Debt Service Comprised of interest that accrues on customer balances for network upgrades associated with LGIA contracts.

Drivers of Change:

- Increased capital investment results in higher costs in FYs 2010-2011.
- Change in projected interest income due to change in cash balances.
- Debt management actions.



Where do these categories appear in the Transmission Revenue Requirement?

Bold Typeface = Affected Category

Transmission Revenue Requirement Income Statement

- **1 OPERATING EXPENSES**
- 2 OPERATION AND MAINTENANCE
- 3 TRANSMISSION ACQ & ANCILLARY SERVICES
- 4 NON-FEDERAL PROJECTS DEBT SERVICE
- 5 DEPRECIATION & AMORTIZATION
- 6 TOTAL OPERATING EXPENSES

7 INTEREST EXPENSE

- 8 DEBT SERVICE REASSIGNMENT INTEREST
- 9 INTEREST ON FEDERAL INVESTMENT -
- 10 ON APPROPRIATED FUNDS
- 11 ON LONG-TERM DEBT
- 12 INTEREST INCOME
- 13 AMORTIZATION OF CAPITALIZED BOND PREMIUMS
- 14 CAPITALIZATION ADJUSTMENT
- 15 AFUDC
- **16 NET INTEREST EXPENSE**

17 TOTAL EXPENSES

18 MINIMUM REQUIRED NET REVENUES 1/

19 PLANNED NET REVENUES FOR RISK 20 TOTAL PLANNED NET REVENUES

21 TOTAL REVENUE REQUIREMENT

1/ SEE NOTE ON CASH FLOW TABLE.

1 CASH FROM CURRENT OPERATIONS:

- 2 MINIMUM REQUIRED NET REVENUES 1/
- 3 EXPENSES NOT REQUIRING CASH:
- 4 DEPRECIATION & AMORTIZATION
- 5 NON-FEDERAL PROJECTS DEBT SERVICE
- 6 AMORTIZATION OF CAPITALIZED BOND PREMIUMS

Transmission Revenue Requirement Statement of Cash Flows

- 7 CAPITALIZATION ADJUSTMENT
- 8 ACCRUAL REVENUES (LGIA revenue credits)
- 9 ACCRUAL REVENUES (AC INTERTIE/FIBER)
- 10 CASH PROVIDED BY CURRENT OPERATIONS

11 CASH USED FOR CAPITAL INVESTMENTS:

- 12 INVESTMENT IN:
- 13 UTILITY PLANT

14 CASH USED FOR CAPITAL INVESTMENTS

15 CASH FROM TREASURY BORROWING AND APPROPRIATIONS:

- 16 INCREASE IN LONG-TERM DEBT
- 17 DEBT SERVICE REASSIGNMENT PRINCIPAL
- 18 REPAYMENT OF LONG-TERM DEBT
- 19 REPAYMENT OF CAPITAL APPROPRIATIONS

20 CASH FROM TREASURY BORROWING AND APPROPRIATIONS

21 ANNUAL INCREASE (DECREASE) IN CASH

22 PLANNED NET REVENUES FOR RISK

23 TOTAL ANNUAL INCREASE (DECREASE) IN CASH

1/ Line 21 must be greater than or equal to zero, otherwise net revenues will be added so that there are no negative cash flows for the year.



Transmission Depreciation & Amortization Expense

\$ in Thousands	Acti	uals	SOY	Rate Case Average	Rate Case	IPR	IPR	IPR
	FY 2006 FY 2007		FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	171,359	175,584	184,472	194,382	198,535	190,648	200,810	211,538
Increase/Decrease *		4,225	8,888		14,063	(7,887)	10,162	10,728

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

- Depreciation is for revenue-producing assets such as lines, towers, and substations. Depreciation is calculated using the straight-line method. The depreciation period for different assets varies by FERC account and depends on factors for salvage value and removal costs.
- Amortization is for regulatory assets such as spacer-dampers and non-wires solutions. Amortization is calculated using the straight-line method over 30 and 20 years respectively.

FY 2010 – 2011 Risks & Opportunities:

• This forecast applies the 15 percent lapse factor to all categories. The forecast will vary if the lapse factor were to be applied differently.



Transmission Net Interest Expense

UPDATED \$ in Thousands	Actu	als	SOY	Rate Case Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	136,761	133,806	127,850	130,828	164,941	132,283	150,623	168,664
Increase/Decrease *		(2,955)	(5,956)		37,091	(32,658)	18,340	18,041

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

The major components of Net Interest Expense are:

- **Debt Service Reassignment interest.** This represents the interest component of Energy Northwest refinanced debt that has been assigned to Transmission for repayment as part of the Debt Optimization program.
- **Interest on outstanding bonds and appropriations**. For Transmission, bonds issued to the U.S. Treasury by BPA are for capital equipment and the construction of transmission facilities. Congressional appropriations are for the construction of transmission facilities.
- **Interest credit.** A significant variable is an interest credit associated with interest income from cash in the BPA Fund attributable to Transmission cash flows.
- Amortization of certain cash events. These include the non-cash expenses for amortization of capitalized bond premiums and the capitalization adjustment resulting from the BPA Appropriations Refinancing Act.
- Allowance For Funds Used During Construction (AFUDC). This is included to offset bond interest used to fund assets under construction.



Transmission Net Interest Expense for FY 2010-2011 Rate Period

(\$Thousands)	2010	2011
Debt Service Reassignment Interest	55,458	55,429
Interest on Federal Investment		
On Appropriated Funds	23,198	22,051
On Long-Term Debt	119,877	139,774
Interest Credit	(19,000)	(19,000)
Amort of Cap Bond Prem	758	692
Capitalization Adjustment	(18,968)	(18,968)
AFUDC	(10,700)	(11,314)
Net Interest Expense	150,623	168,664

FY 2010 – 2011 Risks & Opportunities:

- Non-Federal debt management actions can change the shape of Federal debt service when calculated in the Repayment Study.
- Updates to the interest rate forecast can raise or lower debt service on projected borrowing.
- Cash in the Bonneville Fund that is attributed to Transmission affects the calculation of the Interest Credit.
- The effect of the transition from the Interest Offset Credit (IOC) to Market-based Investing is not yet known. The IOC will be phased out over 10 years.



Transmission Non-Federal Debt Service Expense

\$ in Thousands	Actı	uals	SOY	Rate Case Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	(663)	2,121	3,380	8,804	11,544	6,886	5,890	4,690
Increase/Decrease *		2,783	1,259		8,164	(4,658)	(996)	(1,200)

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

- Non-Federal Debt Service for Transmission consists of interest that accrues on customer balances for prepayments made for network upgrades related to Large Generator Interconnection Agreements (LGIA).
- Non-Federal debt service is directly associated with the forecast of LGIA customer balances. As customer balances increase, debt service tends to increase. As balances decline, debt service tends to decline.
- The IPR forecast does not include a forecast of additional LGIA projects. If an updated forecast includes new projects, non-Federal debt service expense will likely increase.



• As necessary, revenue requirements include a component, minimum required net revenues, to ensure coverage of annual cash requirements. It is calculated as the amount by which BPA's payments to Treasury for amortization and irrigation assistance exceed the total of non-cash expenses and revenues.

MINIMUM REQUIRED NET REVENUES CALCULATION

(\$Thousands)

	2010	2011	Average
1 CASH FROM CURRENT OPERATIONS:			
2 EXPENSES NOT REQUIRING CASH:			
3 FEDERAL PROJECTS DEPRECIATION	200,810	211,538	206,174
4 AMORTIZATION OF CAPITALIZED BOND PREMIUMS	758	692	725
5 CAPITALIZATION ADJUSTMENT	(18,968)	(18,968)	(18,968)
6 NON-FEDERAL DEBT SERVICE	5,890	4,690	5,290
7 ACCRUAL REVENUES (LGIA)	(11,276)	(11,276)	(11,276)
8 ACCRUAL REVENUES (AC INTERTIE/FIBER)	(7,937)	(7,897)	(7,917)
9 CASH PROVIDED BY CURRENT OPERATIONS	169,277	178,779	174,028
10 CASH REQUIREMENTS			
11 DEBT SERVICE REASSIGNMENT PRINCIPAL	12	154	83
12 REPAYMENT OF LONG-TERM DEBT	190,251	115,000	152,626
13 REPAYMENT OF CAPITAL APPROPRIATIONS	15,873	94,872	55,372
14 TOTAL CASH REQUIREMENTS	206,136	210,026	208,081
15 MINUMUM REQUIRED NET REVENUES (14 - 9)	36,858	31,247	34,053

- This calculation does not include a forecast of new LGIA projects and associated revenue credits. These values represent actual credits distributed today.
- This calculation assumes the use of \$15 million/year of reserves as a source of capital. If revenue financing were used instead of reserves, MRNR would increase by a corresponding amount.



Large Generator Interconnection Agreement Transmission Credits

\$ in Thousands	Acti	uals	SOY	Rate Case Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	1,656	5,515	13,445	31,565	35,348	11,276	11,276	11,276
Increase/Decrease *		3,858	7,930		21,903	(24,072)	0	0

* For FY 2006-2008, Rate Case FY 2009, 2010 and 2011, change is from the prior year. For FY 2009 Forecast, change is calculated from "Rate Case".

- The revenue forecast will include a non-cash revenue that matches transmission credits.
- The revenue requirement will include two expense categories:
 - Interest accrued on the account balances ("non-Federal projects debt service")
 - Depreciation on the assets once they are placed into service.
- Originally, Transmission projected a higher non-cash effect to be higher because several projects were expected to be energized (COI and Klondike Phase III) were not.
- We have limited the non-cash effect at this time to the projected annual credits for existing network upgrade projects.
- The IPR forecast does not include a forecast of additional network upgrade projects.



- How is the credit balance calculated? It is the sum of:
 - The total funds advanced by the customer to TBL for construction of the network upgrades.
 - Interest earned on the total advance which accrues at the FERC rate beginning on the date the funds are received.
- How are the credits applied?
 - Currently Transmission business practice outlines two different methods of repayment of transmission credits.
 - Method one : When transmission services commence, Transmission Credits will be applied to charges in the Interconnection Customer's, or its assignee, monthly transmission bill for Network Integration (NT) or Point-to-Point (PTP) transmission service on a dollar-for-dollar basis at the applicable transmission rates that are in effect when transmission service is taken.
 - Method two: Upon the Commercial Operation Date of the generator, Transmission Credits will be repaid to the Interconnection Customer, or its assignee, based on the estimated output of the facility multiplied by the PTP Long-Term rate.
 - If the customer's credit balance is not fully depleted within twenty years, Transmission Services (TS) will refund the balance in a single payment.
 - The interconnection customer may assign the credits to another TS customer with NT or PTP contracts so long as the generator is identified as either the POR or as a network resource in the assignee's contracts.



Transmission Leased Facilities Expense (includes all leases)

				Rate Case				
\$ in Thousands	Acti	ials	SOY	Average	Rate Case	IPR	IPR	IPR
	FY 2006	FY 2007	FY 2008	FY 2008-09	FY 2009	FY 2009	FY 2010	FY 2011
Program Level Spending	11,545	12,136	15,269	14,853	16,098	15,621	16,136	16,678
Increase/Decrease *		591	3,133		829	(477)	515	542

- The Leased Facilities Expense line item is part of Transmission's Operating Expenses.
- This line item includes both capital and operating leases as well as and potential property tax liabilities.
- The lease expenses due to BPA's capital leases in the lease financing program are:
 - FY 2009: \$10,305,750
 - FY 2010: \$10,820,752
 - FY 2011: \$11,363,159
- The capital lease forecast for FY 2009-2011 only includes signed leases.
- The capital lease forecast will increase for Initial Proposal because we entered into additional leases after the forecast was prepared.



Debt Management Actions



- 1. What is Debt Optimization?
 - Energy Northwest replaces old bonds that are currently coming due with new bonds that will become due in the 2013 –2018 period.
 - As part of this program BPA agreed with EN that BPA would use cash in the Bonneville Fund that would have been used to pay the old EN bonds to pay off Treasury debt early in order to preserve/restore borrowing authority. This additional BPA amortization is a necessary condition of the refinancings.
 - The end result is BPA's available Treasury borrowing authority increases. Also, because municipal tax-exempt debt is typically less expensive than BPA's taxable Treasury debt, overall interest costs go down.
- 2. Debt Optimization is working as intended by EN and BPA. The goals are to:
 - Restore Treasury borrowing authority.
 - Prevent any overall negative impact on rates.
 - Minimize the cost of BPA's overall debt portfolio.

Advanced Payments Due to Debt Optimization (\$ in millions)									Projec Payme	
	FY01	FY02	FY03	FY04	FY05	FY06	FY07	Total	FY08	FY09
Generation	\$98	\$266	\$0	\$141	\$123	\$133	\$87	\$847	\$101	\$166
Transmission	\$0	\$0	\$315	\$205	\$190	\$204	\$202	\$1,117	\$110	\$50
Total	\$98	\$266	\$315	\$346	\$313	\$337	\$289	\$1,964	\$211	\$216

See Financial Disclosure Statements on Page 2

BPA Integrated Program Review



Debt Management Actions: EN Bond Transactions

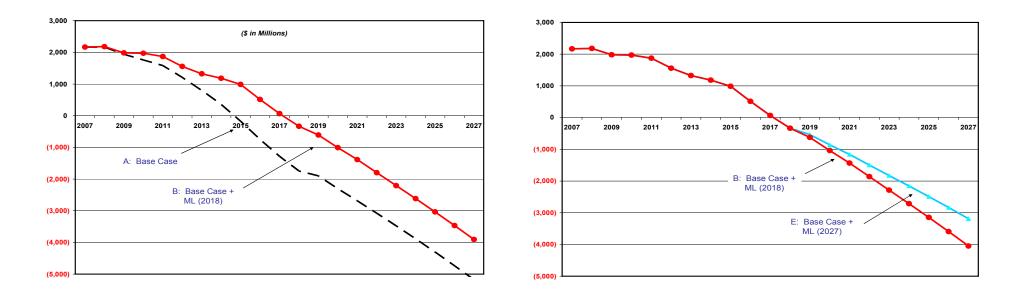
- 2008ABC- March 25 Pricing
 - Debt Optimization \$147 million
 - Fix-out of under-performing variable rate debt \$226 million
 - CGS new money \$50 million
 - Implemented FY07-09 Power Services rate case promise to move debt to reduce spike in 2017, keeping rates down
- 2008DE- May 14 Pricing
 - Traditional Refunding for Savings \$272 million (about \$2 million in estimated annual savings in the rate case years of 2010-11)
 - This bond deal has not been included in the repayment studies and affects only Power
- 2008F- June 16 Pricing
 - Replacement of under-performing variable rate debt with new variable rate debt \$209 million
 - This bond deal has not been included in the repayment studies and affects only Power



Access to Capital Update



Treasury Borrowing Authority from the March 4, 2008 Access to Capital Presentation



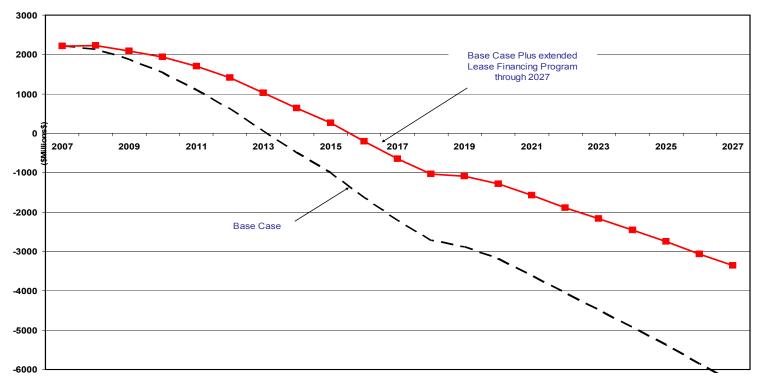
- In the Access to Capital presentation from March 4, 2008, we shared the above charts projecting the crossover point for borrowing authority to be roughly 2015 for the base case and 2018 with the lease financing scenarios.
- Since then, we have updated our assumptions used in the borrowing authority analysis.



Updated Borrowing Authority Chart

Agency Remaining Borrowing Authority

IPR Capital Submittal With and Without Lease Financing through 2027



- Changes since the March 4th Access to Capital presentation include updated IPR capital expenditures, updated repayment run amortization, and updated Lease Financing forecast.
- Capital spending forecasts increased significantly, while amortization changed little, which results in Treasury borrowing authority being depleted about two years earlier in the both the Base Case and the Lease Financing Scenario when compared to the March 2008 Access to Capital presentation.

See Financial Disclosure Statements on Page 2

BPA Integrated Program Review



March 2008 Access to Capital Presentation

BASE CASE ASSUMPTIONS

- Capital forecast: 2008-13 consistent with 2009 President's Budget; 2014-27 forecast is a shaped and escalated forecast. Total capital projections for 2008-2027 is \$11.2 billion.
- Under-run factor applied to Federal capital forecast
- Debt Optimization: 2008 = \$211 million; 2009 = \$216 million. Amounts are consistent with information shared at the 2008 annual DO meeting, and include advance + current refinancings.
- Revenue finance: Transmission = \$15 million in 2008 and 2009; Power = \$0
- CRFM projections: Power only, \$577 million in total through 2015
- CGS new capital: Power only, \$677 million in total through 2019; level debt service 2020-24
- CGS replacements: Power only, \$4.7 billion plant, debt service starting in 2025
- Interest rates forecast: Official BPA forecast from 10/25/07

BASE CASE + Lease Financing

• Same as above, except add Lease Financing projections through 2018 totaling \$1.4 billion and 2027 totaling \$2.3 billion

June 2008 IPR Presentation

BASE CASE ASSUMPTIONS

- Capital forecast: New capital forecast for 2009-2014; 2015-27 forecast is a shaped and escalated forecast. Total capital projections for 2008-2027 is \$12.6 billion
- Lapse factor applied to Federal capital forecast for 2009-2014, no under-run applied for the outyears
- Debt Optimization: 2008 = \$211 million; 2009 = \$78 million.
 2008 amount is consistent with the 2008 DO transaction and includes current and advance refinancings; 2009 includes only advance refinancings for Power.
- Revenue finance: Transmission = \$15 million 2009-2011; Power = \$0
- CRFM projections: Power only, \$721 million in total through 2015
- CGS new capital: Power only, \$731 million in total through 2024; 2009-2012 level debt service through 2020-24, 2013-2024 level debt service for 20 years
- CGS replacements: Power only, \$4.7 billion plant, debt service starting in 2025
- Interest rates forecast: Official BPA forecast from 10/25/07

BASE CASE + Lease Financing

 Same as above, except add Lease Financing projections through 2018 totaling \$1.8 billion and through 2027 totaling \$3.2 billion



Lease Financing Overview



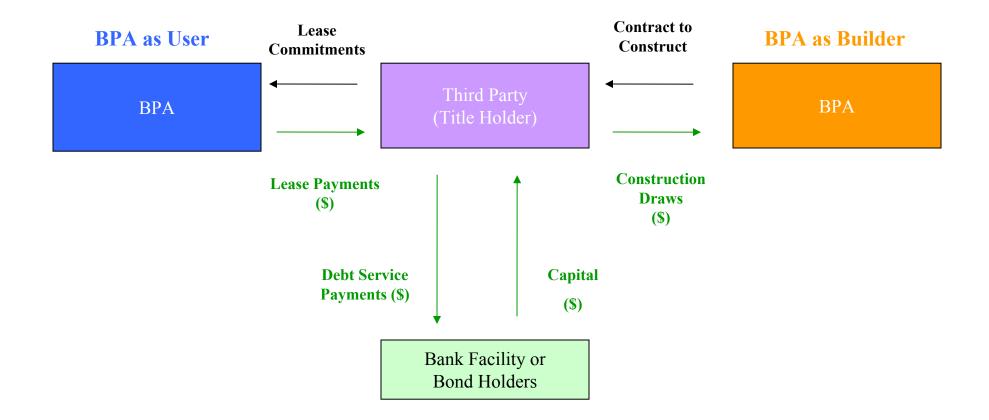
- BPA's capital appetite across all areas of investment will eventually exceed BPA's ability to borrow from the Treasury.
- BPA has limited access to borrowing from the U.S. Treasury.
- BPA received a modest increase in Treasury borrowing authority in 2002 (Congressional enactment). The likelihood of receiving more borrowing authority is low given the Federal budget deficits.
- BPA was encouraged to use third-party financing arrangements to acquire capital.
- Simultaneously, BPA was encouraged to make infrastructure investments in light of the 2000-2001 energy crisis.
- BPA has worked closely with the a focus group of the Customer Collaborative regarding its lease financing program.



- BPA enters into a series of individual lease commitments with one or more bankruptcy remote special purpose entities.
- BPA's lease payment commitments are to be made regardless of whether the related facility is completed, operable or operating.
- The third party irrevocably pledges BPA lease payments to the payment of bank loans or other debt.
- The related project assets are not pledged as collateral.
- The third party initially holds title to the assets, but BPA obtains full benefit and use of the assets.
- BPA pays all costs to operate and maintain the assets.
- At the end of the lease, BPA has the option to acquire title to the assets for a nominal charge.



Lease Financing Structure





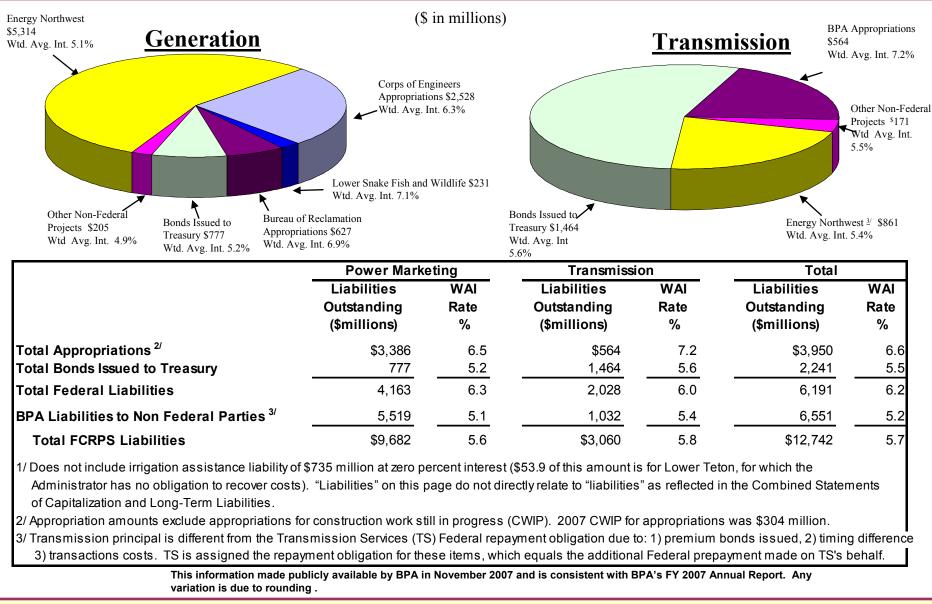
Project Criteria

- Capital work order estimate greater than \$500 thousand loaded (~\$365 thousand direct)
 - Temporary threshold
- Project contains at least one tagged and tracked asset
- Low likelihood of moving the asset
- Assets with long design lives
- Inventory usage expected to be less than 25 percent of the material costs and less than 10 percent of the total project costs
- Excludes retirement activities, land acquisitions, and access roads



- In FY 2007, BPA used the lease finance program to finance 10 projects that will preserve roughly \$45 million in Treasury borrowing.
- In FY 2008, BPA used the lease financing program to finance 17 projects that will preserve roughly \$60 million in Treasury borrowing.
- The average weighted all-in borrowing rate for transactions we have entered into for the 27 projects is about 70 basis points above the agency borrowing rate.
- Due to the recent turmoil in the credit markets, it is likely that the rate differential will become larger, at least in the near term.

Federal Columbia River Power System (FCRPS)Total Liabilities to Federal and Non Federal Parties as of 9-30-07 $\frac{1}{2}$



BPA Integrated Program Review



Workshop Schedule

Worl	kshop #	Dates	Time
1	Executive Welcome and overviews Executive welcome, introduction and process overview Power overview Transmission overview	Th. 5/15/2008	9am-3pm
2	FY 2009 Power Costs Overview, schedule Miscellaneous small program changes	Th. 5/15/2008	3pm-4pm
3	Asset Management Overview Agency services Costs	Tues. 5/20/2008	9am-9:30 am 9:30am-12pm
4	Power's Internal Operating Costs Power's Transmission Acquisition Residential Exchange	Tues. 5/20/2008	1pm-4pm
5	Fish and Wildlife Capital/Expense MOA costs overall, and changes to FY 2009 F&W Program costs, and Columbia River Fish Mitigation Investment.	Wedn. 5/21/2008	9am-12pm
6	Corps/Reclamation - Capital/Expense Part 1 of 2	Wedn. 5/21/2008	1pm-4pm
7	Conservation and Energy Efficiency - Capital/Expense Renewable Resources Program	Th. 5/22/2008	9am-12 pm
8	Columbia Generating Station	Th. 5/22/2008	1pm-4pm
9	General Manager Meeting on 2009 costs	Wedn. 6/11/2008	1pm-4pm
	(Steve Wright attending 2pm to 4pm)		
10	Fish and Wildlife Capital/Expense with emphasis on FY 2010-2011 F&W program costs, hydro ops, Lower Snake River comp. Program, Columbia River Fish Mitigation Investment and NWPCC	Th. 6/12/2008	9am-12pm
12	Depreciation, Amortization and Interest, and Debt Management	Th. 6/26/2008	9am-12pm
13	Transmission		
	Transmission Expenses		
	Transmission Capital	Th. 6/26/2008	1pm - 5pm
45	Olean out monting on EV 2000 Dower Conto	Made 7/0/0000	0.20 0.20
15	Close-out meeting on FY 2009 Power Costs	Wedn. 7/2/2008	8:30am-9:30am
14	General Manager meeting on 2010-2011 costs (Steve Wright in attendance)	Wedn. 7/2/2008	9:30am-11:30an

BPA Integrated Program Review



Integrated Program Review Process

Ways to Participate

- All forums are open to the public and will be noticed on the IBR external Web site at: http://www.bpa.gov/corporate/Finance/IBR/IPR/
- All Technical and Managerial workshops will be held at BPA Headquarters.
- The comment period for FY 2009 Power Costs opens Thursday, May 15, 2008 and closes Thursday, June 19, 2008.
- The comment period for FY 2010 and beyond opens Thursday, May 15, 2008 and closes Friday, August 15, 2008.
- You have several options to provide comments to BPA:
 - 1. Attend one or more of the meetings listed above and give BPA your comments.
 - 2. Discuss your input with your Customer Account Executive, Constituent Account Executive, or Tribal Liaison.
 - 3. Submit written comments to Bonneville Power Administration, P.O. Box 14428, Portland OR 97293-4428.
 - 4. Submit comments via e-mail to: comment@bpa.gov or submitted on-line at: http://www.bpa.gov/comment
 - 5. Comments can also be sent via fax to (503) 230-4470.