



# Bonneville Power Administration's

## Power Function Review

### Depreciation and Amortization, Federal Net Interest, Non-Federal Debt Service, and Related Debt Management Actions

### Management Discussion Group

March 17, 2005



# BPA's Financial Disclosure Information

1. All FY 05-09 information was released externally in February 2005 and may not be found verbatim in Agency Financial Information releases but is provided for discussion or exploratory purposes only as projections of program activity levels, etc.
2. All FY 97-04 information was released externally in February 2005 and is consistent with audited actuals that contain Agency Financial Information.
3. The FY 05-09 net interest expense information is a derived estimate for presentation purposes and may not be found in Agency Financial Information releases but is provided for discussion or exploratory purposes only as projections of program activity levels, etc. Such information should be used only for the purpose for which it was provided and should not be recommunicated by the recipient without the foregoing qualification.

NOTE: When referring to “actuals” for the 2002-2006 rate period, it is a combination of actual results for FY 02-04 and the current forecasts for FY 05-06.

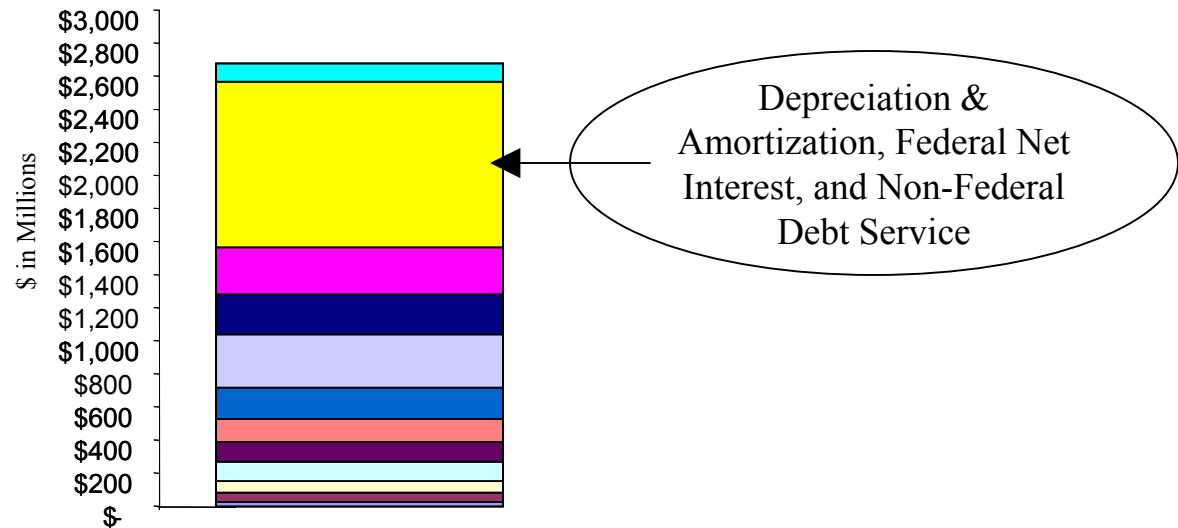


# Agenda for Today

- Setting the Stage
- Depreciation and Amortization
- Federal Net Interest Expense
- Non-Federal Debt Service and Debt Management Actions
- Summary



# What are the programs to be discussed?



Actually, these “programs” are really categories of expenses derived from several programs.

- 1. Depreciation & Amortization:** These categories consist of the annual expenses associated with FCRPS plant-in-service and intangible assets, respectively.
- 2. Federal Net Interest Expense:** This category consists of the interest on outstanding bonds and appropriations, an interest credit, amortization of capitalized call premiums, the capitalization adjustment, and the allowance for funds used during construction.
- 3. Non-Federal Debt Service:** This category consists of third-party debt service or payment costs associated with capitalized contracts and other long-term, fixed contractual obligations. Debt service costs on the Energy Northwest projects (WNP-1, Columbia Generating Station, and WNP-3) make up the majority of these costs.



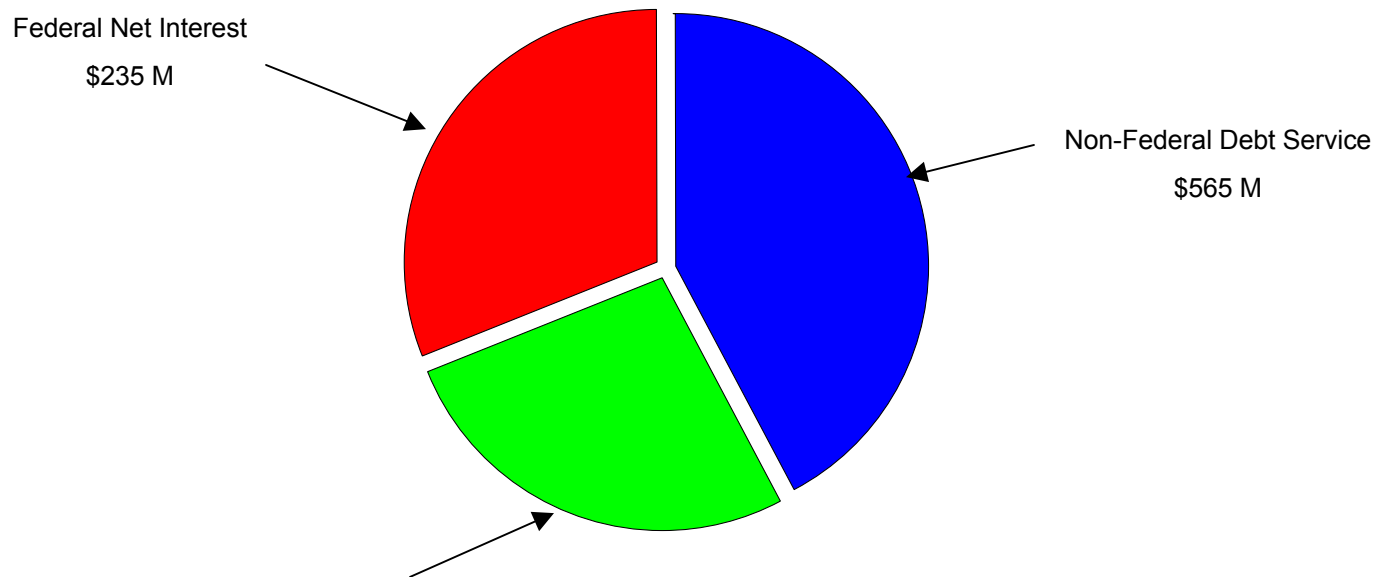
# Executive Summary

- Approximately 40 percent of PBL's total expenses are Depreciation & Amortization, Federal Net Interest Expense, and Non-Federal Debt Service
- The forecast of FY05 – FY09 capital levels, debt management activities and depreciation & amortization impacts the FY07 – FY09 period to a much lesser degree than the historical component; the main driver for this period is the level of obligations acquired prior to 2005.
- Debt management activities of recent years have contributed somewhat to the forecasted non-Federal debt service levels in FY07 – FY09, but will impact the levels more significantly in later rate periods.
- There are potential decisions that could decrease the FY07 – FY09 costs. In some cases those decreases may increase risk or defer costs into a later rate period. Decreases to forecasted capital spending levels and financing decisions are examples.



# Depreciation & Amortization

Average Annual Expenses for FY 07-09



**Depreciation/Amortization**

**\$201 M**

*See Financial Disclosure Statements on Page 2*



# Depreciation & Amortization

	FY97-01 Average	FY02-06 Average	FY07-09 Average
Depreciation/Amortization	\$161.4 M	\$178.2 M	\$201.3 M
Increase/Decrease		\$16.8 M	\$23.1 M
% increase		10%	13%

- Depreciation and amortization are the annual expenses associated with FCRPS plant-in-service and intangible assets (ones that are not part of the FCRPS, such as conservation and F&W direct program investments), 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.

## **Program Components of \$201M/year average annual expense for FY07-09:**

- 52% COE/USBR – investment in power portion of hydro projects, including Columbia River Fish Mitigation (CRFM) and Lower Snake hatcheries
- 7% PBL - investment in capital equipment (IT and furniture), including share of Corporate
- 11% F&W - investment in BPA’s Fish and Wildlife direct program
- 15% Legacy Conservation – investments in BPA’s original conservation capital program, 1982-1999
- 15% ConAug – investments in BPA’s conservation capital program during Subscription contract period, 2002-2011

*See Financial Disclosure Statements on Page 2*



# Drivers of Change, FY 05-09

- CRFM plant-in-service schedule, which previously was heavily weighted to a 2001 in-service date, has been more spread out over the 2003 – 2014 period.
- Consistent on-going levels of annual capital expenditures for Fish & Wildlife, Conservation Augmentation, Direct Funding and Capital Equipment programs
- Legacy conservation amortization has been declining as investments are fully amortized

## Plant-in-Service and Intangible Asset Investments, actual data and current forecasts:

(\$thousands)	2005	2006	2007	2008	2009
ConAug	32,500	29,000	32,000	32,000	32,000
F&W	36,000	36,000	36,000	36,000	36,000
Capital Equipment (inc Corp)	17,900	18,000	18,000	18,000	18,000
COE/USBR:					
Direct Funding	153,671	112,394	172,910	69,958	83,594
CRFM	17,000	182,000	100,200	113,400	147,400
Other Appropriations	0	0	0	0	0
Total COE/USBR	170,671	294,394	273,110	183,358	230,994
Total Incremental Investment	257,071	377,394	359,110	269,358	316,994
Incremental Depreciation/Amortization	6,072	19,557	35,719	53,053	71,277
Depreciation/Amortization on 2004 base	172,725	165,119	157,181	146,375	140,386
Total Depreciation/Amortization	178,797	184,677	192,900	199,428	211,663

## 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.
- Uncertainty surrounding CRFM plant-in-service schedule (FY04 CWIP at \$529 M)

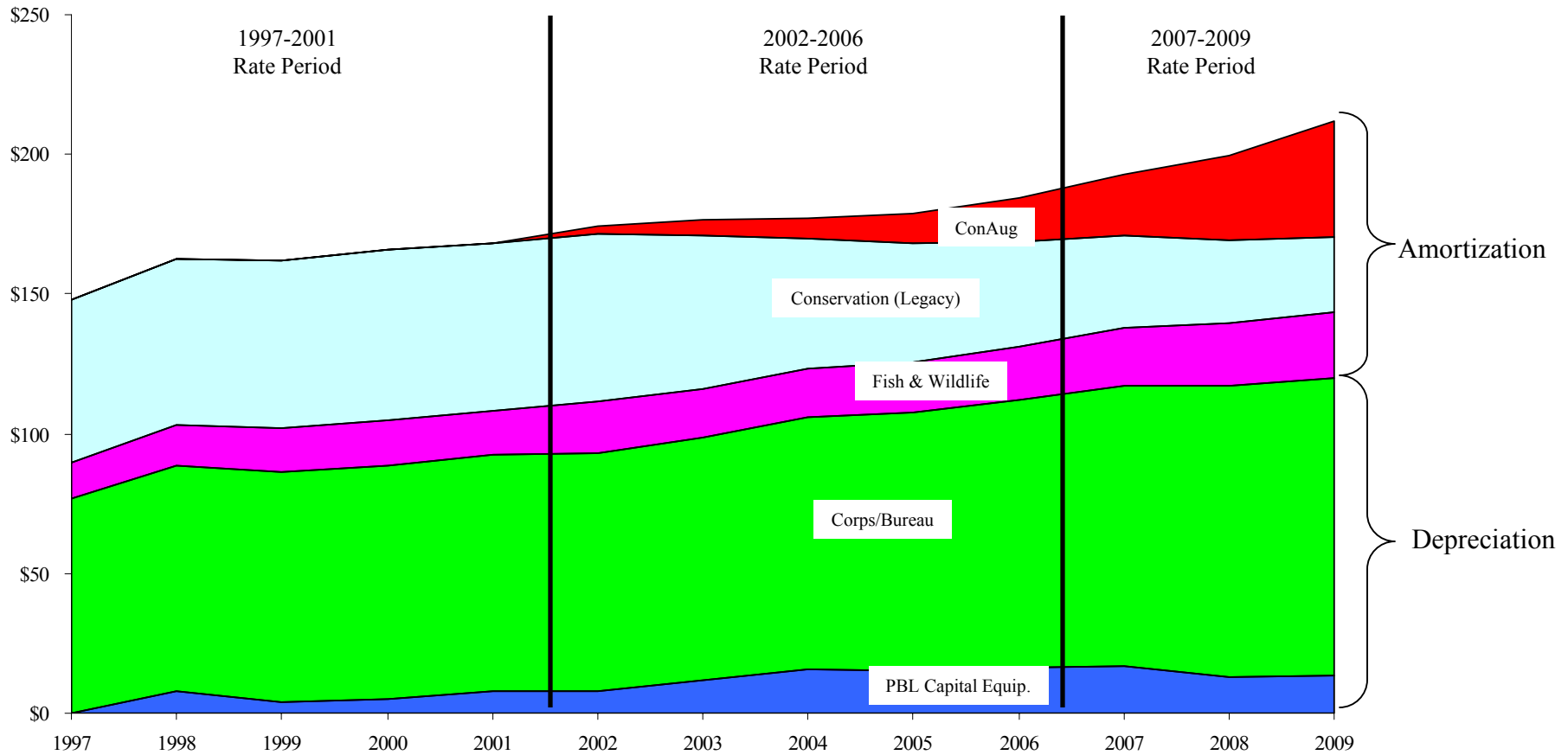
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# Trends of Depreciation & Amortization

(\$ millions)



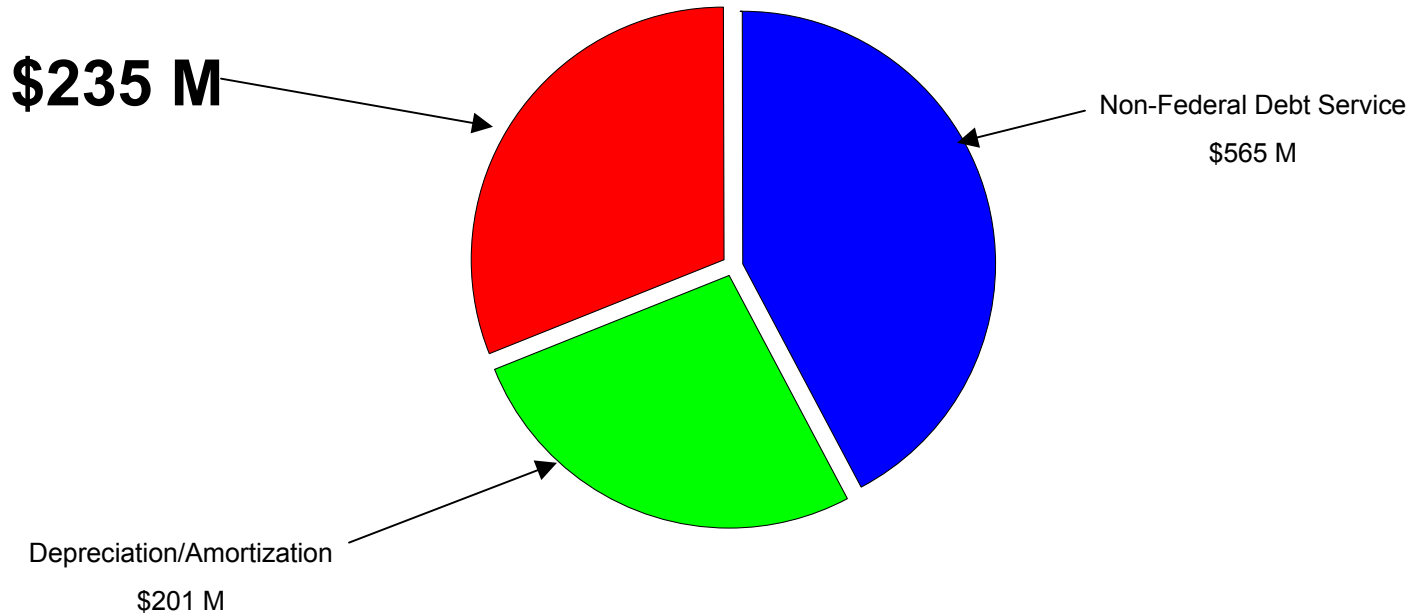
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# Federal Net Interest

Average Annual Expenses for FY 07-09

## Federal Net Interest



*See Financial Disclosure Statements on Page 2*



# Components of Federal Net Interest Expense

	FY 97-01 Average	FY 02-06 Average	FY 07-09 Average
Net Interest Expense	\$183.4 M	\$184.3 M	\$235.1 M
Increase/Decrease		0.9 M	50.8 M
% increase		0.5%	28%

## The components of Net Interest Expense are:

- 1. Interest on outstanding bonds and appropriations.** For PBL, 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 PBL 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.

*See Financial Disclosure Statements on Page 2*



# FY 07–09 Forecast: Risks & Opportunities

## Federal Net Interest Expense Forecast

(\$ in thousands)	2002	2003	2004	2005	2006	2007	2008	2009
1 Interest on Federal Investment -								
2 On Appropriated Funds	226,488	215,119	220,828	213,111	200,861	205,475	211,061	215,775
3 On Long-Term Debt	54,383	39,012	36,536	43,811	59,186	74,672	91,001	100,636
4 Interest Credit	(20,589)	(14,307)	(29,410)	(24,599)	(2,852)	(9,977)	(10,413)	(10,628)
5 Amort of Cap Bond Prem	1,065	613	613	613	613	613	613	185
6 Capitalization Adjustment	(47,672)	(47,917)	(48,122)	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)
7 AFUDC	(12,093)	(15,925)	(17,913)	(9,320)	(8,593)	(8,593)	(8,593)	(8,593)
8 <b>Net Interest Expense</b>	201,582	176,595	162,532	177,679	203,278	216,254	237,732	251,437

2006 – 2009 do not include interest income on average annual cash balances.

### Risks:

- Rising interest rates, affecting the cost of future Treasury borrowing
- Changes in the plant-in-service schedule of the Columbia River Fish Mitigation project by the Corps of Engineers
- Reduced cash balances, decreasing interest credit

### Opportunities for Reductions:

- Continued aggressive debt management to reduce interest costs
- Continuation of the Debt Optimization Program
- Lower interest rates
- Increased cash balances, increasing interest credit

*See Financial Disclosure Statements on Page 2*



# Capital Funding Mechanisms

## **BPA currently funds capital investments in two ways:**

1. Bonds Issued to Treasury
2. Capital Appropriations

## **Bonds Issued to Treasury**

- Bonds issued to Treasury represents debt issued by Bonneville to the US Treasury since the late 1970's to finance BPA investments in transmission, fish & wildlife, and conservation, and in direct-funded Corps & Bureau investments.
- Bonds outstanding are limited by law to \$4.45 billion. Interest rates are set at prevailing government agency rates.
- BPA draws on the BPA Fund for the capital expenditures and issues bonds to Treasury to replenish the Fund. The term of the bonds is not to exceed the associated average service life. Interest is paid semi-annually on the bonds and the principal is paid at the end of the term. Callable bonds may be issued and can be called (paid early), but BPA must then pay a premium.



# Capital Funding Mechanisms (Continued)

## Capital Appropriations

- Appropriations represent funding from annual Congressional appropriations for Corps and Bureau capital investments in hydro related facilities, including fish recovery measures. With passage of the 1996 BPA Appropriations Refinancing Act, interest rates are at Treasury's prevailing market rates, without mark-up.
- This specifically includes Corps of Engineers' investment in the Columbia River Fish Mitigation (CRFM) project. The Corps receives appropriated funds and uses them for construction. Once a project is complete, it is transferred to plant-in-service. It is at this point that the power portion becomes BPA's obligation to repay to Treasury. These obligations must be paid within 50 years.



# Drivers of Change, FY 07-09

- Debt Optimization Program increases the repayment of Federal obligations, both bonds and appropriations, thereby reducing interest expense
- Increased capital investment for Conservation Augmentation, PBL/Corporate Information Technology, Fish & Wildlife and Direct Funding programs for the Corps and Bureau
- CRFM plant-in-service schedule pushed out from original 2001 in-service date

## Bonds issued to the U.S. Treasury and Congressional Appropriations, actual data and current forecasts:

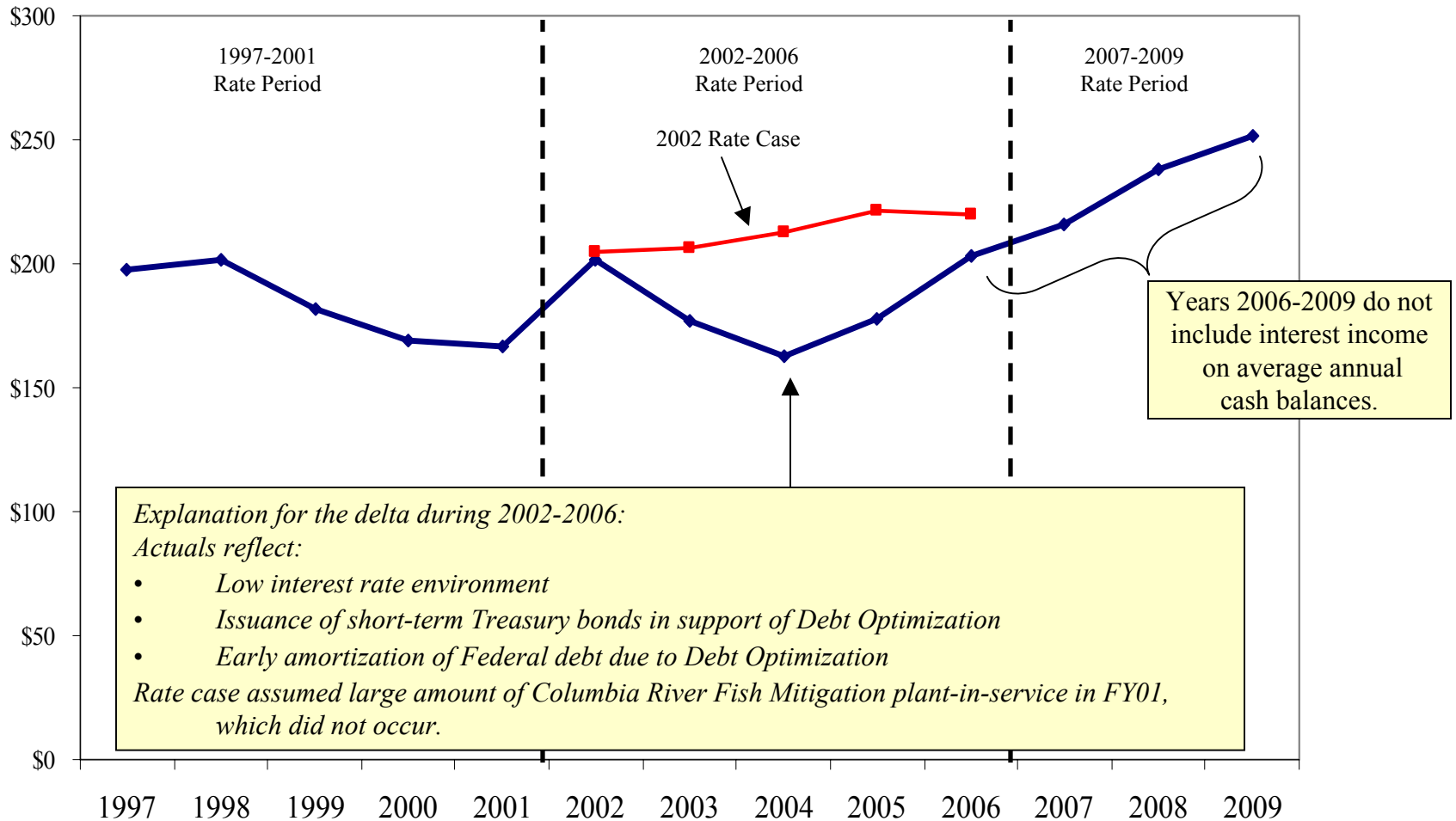
<b>Borrowing</b>									
<b>(\$ thousands)</b>		<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
1	ConAug	40,000	0	30,000	32,500	29,000	32,000	32,000	32,000
2	F&W	0	20,000	0	36,000	36,000	36,000	36,000	36,000
3	Capital Equipment (inc Corp)	1,990	45,062	27,300	19,220	18,000	18,050	15,500	16,500
4	COE/USBR:								
5	Direct Funding	50,000	160,000	119,800	153,671	119,400	133,000	145,000	137,000
6	CRFM	8,797	68,435	75,880	17,000	182,000	100,200	113,400	147,400
7	Other Appropriations	5,130	6,791	53,000	0	0	0	0	0
8	Total COE/USBR	63,927	235,226	248,680	170,671	301,400	233,200	258,400	284,400

Interest on post 2004 incremental obligations      7,171    21,664    47,142    75,520    100,820

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# Actual and Forecasted Federal Net Interest Expense (\$ millions)



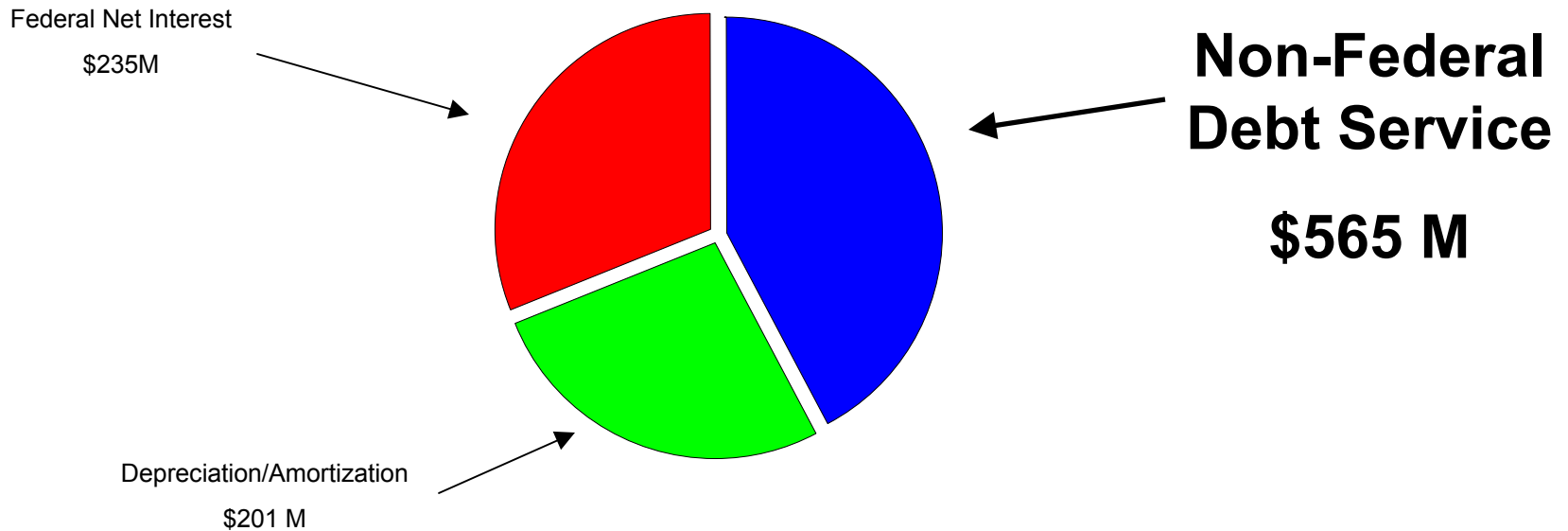
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# Non-Federal Debt Service

## Average Expenses for FY 07-09



*See Financial Disclosure Statements on Page 2*



# Non-Federal Debt Service Forecast

## FY 07 – FY09

<b>Non-Federal Debt Service</b>	FY 07-09 Ave
Operating Generation Projects	\$245.4 M
Non-Operating Generation Projects	\$319.9 M
<b>Total</b>	\$565.3 M
<b>Increase/Decrease</b>	\$119 M
<b>% Change</b>	26.60%

### What is non-Federal debt service?

- It consists of third-party debt service or payment costs associated with capitalized contracts and other long-term, fixed contractual obligations.
- The major component in this category is Energy Northwest (EN) debt service, which has never been level. Over the years it has been shaped through debt management actions to minimize the revenue requirement for the benefit of ratepayers.
- Recent debt management actions from FY 2000 – 2004 have created varying effects, both positive and negative, on non-federal debt service. These include:
  - Debt Optimization
  - EN Debt Service Reserve Fund Free-ups
  - Refinancings for Savings
  - New money financing at EN

*See Financial Disclosure Statements on Page 2*



# Debt Management Actions – Debt Optimization

The fundamental reason for Debt Optimization is to restore borrowing authority.

## Results to date:

*(\$ in millions)*

**Advanced Federal Payments Due to Debt Optimization**

<b>Obligation Type</b>	<b>FY01</b>	<b>FY02</b>	<b>FY03</b>	<b>FY04</b>	<b>Totals</b>
<b>Power Bonds</b>	2	93	-	83	<b>178</b>
<b>Transmission Bonds</b>	-	-	315	31	<b>346</b>
<b>Power Appropriations</b>	95	173	-	58	<b>326</b>
<b>Transmission Appropriations</b>	-	-	-	174	<b>174</b>
<b>Total Advanced Payments</b>	<b>\$97</b>	<b>\$266</b>	<b>\$315</b>	<b>\$346</b>	<b>\$1,025</b>

To date, prepayment of Federal obligations due to Debt Optimization has been approximately \$1B.

- Of that amount, \$525M has been applied toward Federal bonds, directly restoring Treasury borrowing authority.
- The other half was applied to Federal appropriations, which does not immediately restore borrowing authority, but creates opportunities for restoration in future years.



# Understanding the Debt Optimization Impact on the FY07 – FY09 Forecast

Only Debt Optimization that has been completed to date is included in and has an impact on the current forecast.

How does it impact the forecast?

- Principal impact from new EN bonds: The principal is all due in 2013 - 2018. None is due in FY 2007 - 2009.

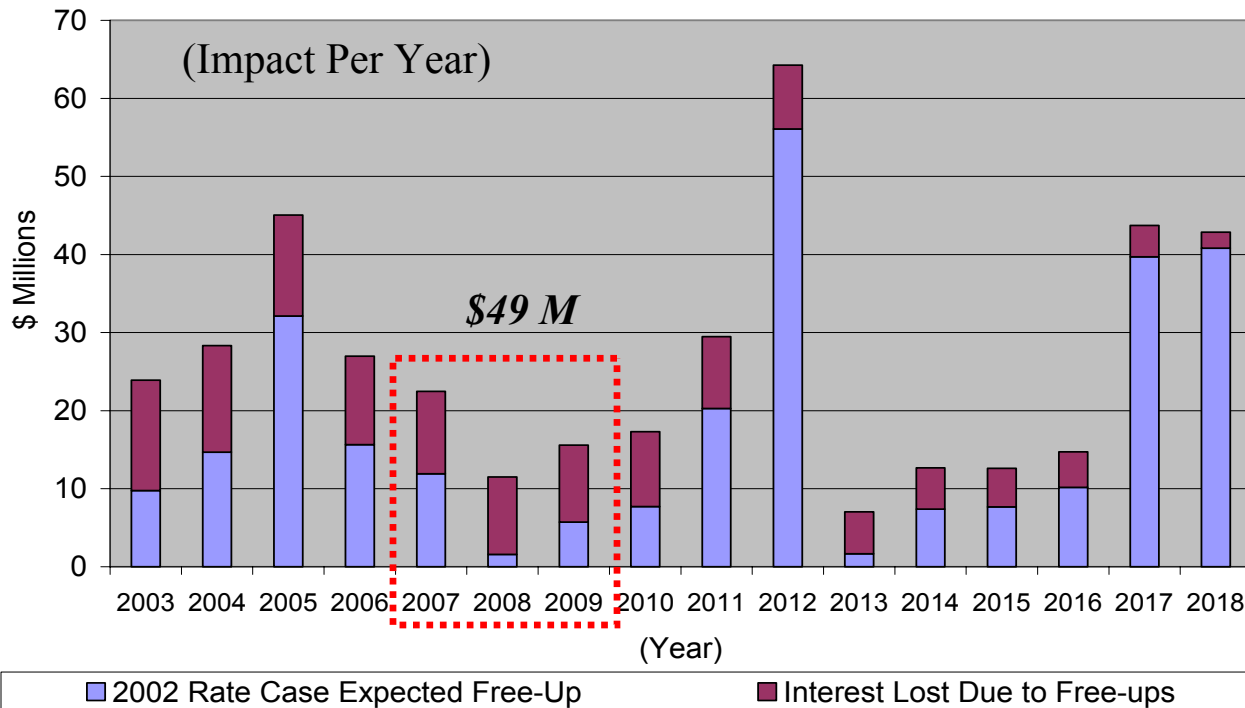
**FY07 -FY09 impact: zero.**

- Interest impact from new EN bonds: Additional semi-annual interest expense on the new EN bonds that were placed in the 2013 – 2018 period is part of the EN debt service expense in each year from 2005 – 2018.

**FY07 - FY09 impact: EN interest expense is higher in the '07 – '09 period than it otherwise would have been. However, the decrease to Federal Net Interest Expense offsets this increase.**



# Debt Management Actions – EN Debt Service Reserve Fund Free-Ups



- \$287M of reserve funds that otherwise would have freed up between FY 2003 and FY 2018 were freed up between FY00 and FY04. Of this, \$238M was used in FY02-04 to lower EN debt service expenses, reducing the SN CRACs and SLICE True-up.
- If the debt service reserve fund free-ups had not been released early, the balance would have generated interest earnings throughout the FY07 - FY09 rate period.
- Total impact in FY07 - FY09 will be about \$49M (about \$19M due to free-ups no longer available and about \$30M due to lost interest on reserve funds).

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# Debt Management Actions – Refinancing for Savings

What are refinancings for savings?

- BPA Corporate Finance pursues traditional refinancings for interest rate savings when established target thresholds are met by market conditions.
- These “high-to-low” refinancings take advantage of the low interest rate environment.
- Typically the original maturities on the bonds do not change and the principal stays roughly the same, but the interest rate decreases.
- All interest rate savings from these refinancings accrue to PBL.

During FY01 - FY04, 12 EN bond refinancings and three non-EN smaller project refinancings totaling over \$3B were completed. Several of these transactions were very complex, combining both traditional refinancings and Debt Optimization. This makes it difficult to segregate out actual savings in the FY07 – FY09 period specifically due to traditional refinancings.



# Single Portfolio Debt Management has Created Significant Results

- Between FY00 and FY04, the weighted average interest rate (WAI) on total outstanding liabilities decreased from 6.6% to 5.6%, a 100 basis point (1.0%) reduction, currently saving over \$100 million per year in interest expense.
- Even though the amount of long-term liabilities has been relatively constant from FY00 to FY04, just under \$13 billion, about one-third of the portfolio has turned over.
- A number of factors have contributed to these results:
  - Low interest rate environment
  - Prepayment of Federal debt due to Debt Optimization
  - Issuance of short-term Treasury bonds
  - Refinancings for savings



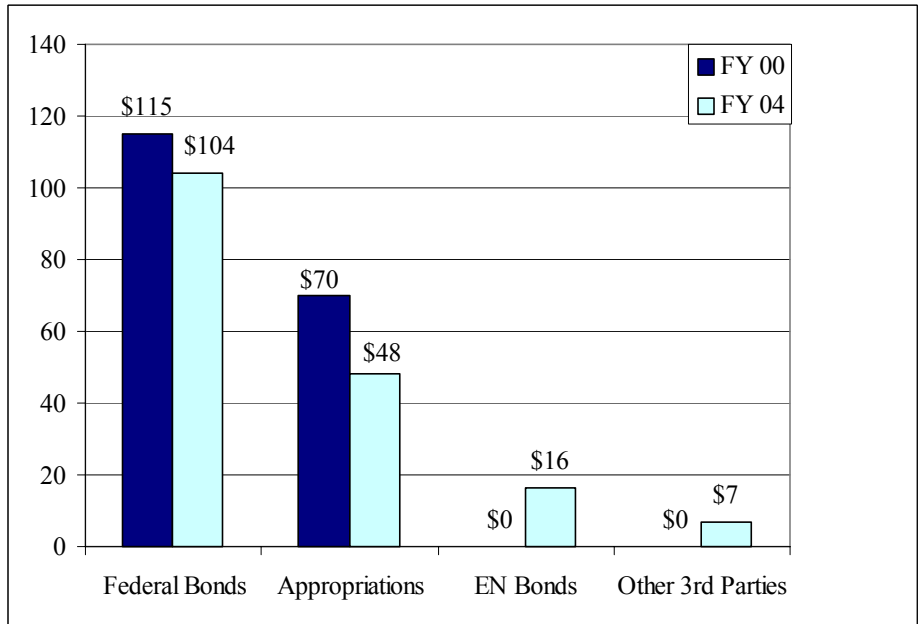
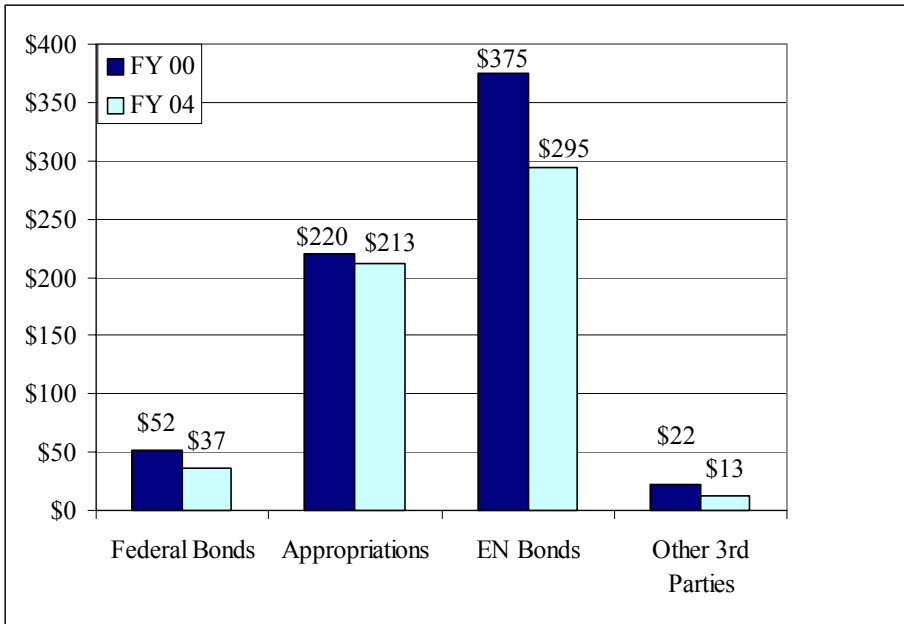
# Understanding Debt Management Actions – Currently Producing Over \$100 Million in Interest Savings

Interest expense below is calculated by multiplying each outstanding principal balance by the weighted average interest rate for that category at the end of FY '00 and FY '04.

(\$ in Millions)

Power

Transmission



\$112M in Power

\$10M in Transmission

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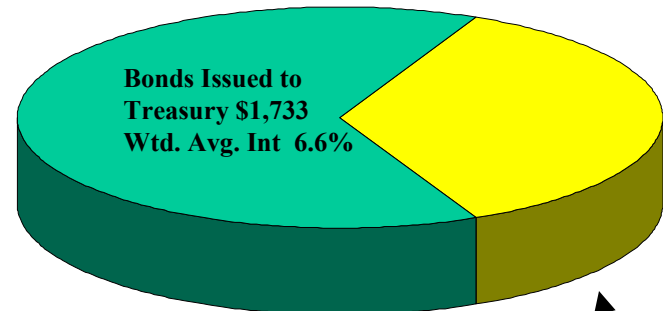
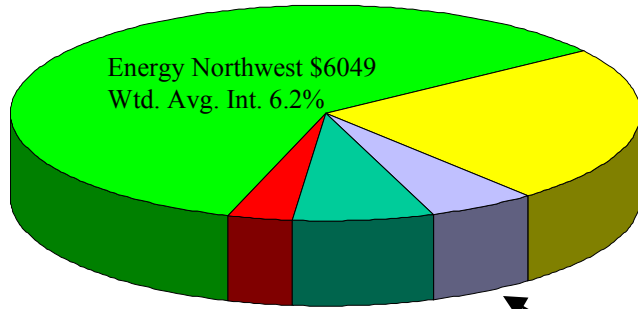


# BPA's Total Debt Portfolio, 9/30/00<sup>1/</sup>

## Power

## Transmission

(\$ millions)



Other Non-Federal Projects \$360  
Wtd Avg. Int. 6.2%

Bonds Issued to Treasury \$779  
Wtd. Avg. Int. 6.7%

Bureau of Reclamation Appropriations \$565  
Wtd. Avg. Int. 7.1%

Corps of Engineers Appropriations \$2,526  
Wtd. Avg. Int. 7.1%

BPA Appropriations \$977  
Wtd. Avg. Int. 7.2%

	<u>Power</u>		<u>Transmission</u>		<u>Total</u>	
	<b>Liabilities Outstanding (\$millions)</b>	<b>WAI Rate</b>	<b>Liabilities Outstanding (\$millions)</b>	<b>WAI Rate</b>	<b>Liabilities Outstanding (\$millions)</b>	<b>WAI Rate</b>
<b>Total Appropriations <sup>2/</sup></b>	\$3,091	7.1	\$977	7.2	\$4,068	7.1
<b>Total Bonds Issued to Treasury</b>	779	6.7	1,733	6.6	2,512	6.7
<b>Total Federal Liabilities</b>	3,870	7.0	2,710	6.8	6,580	6.9
<b>BPA Liabilities to Non Federal Parties</b>	6,409	6.2	0	0	6,409	6.2
<b>Total FCRPS Liabilities</b>	\$10,279	6.5	\$2,710	6.8	\$12,989	6.6

1/ Irrigation assistance liability not included (\$770 million at zero percent interest).  
2/ Appropriation amounts exclude appropriations for work still in progress.

This information has been made publicly available by BPA on August 3, 2004 and is consistent with BPA's and Energy Northwest's FY2000 annual reports.

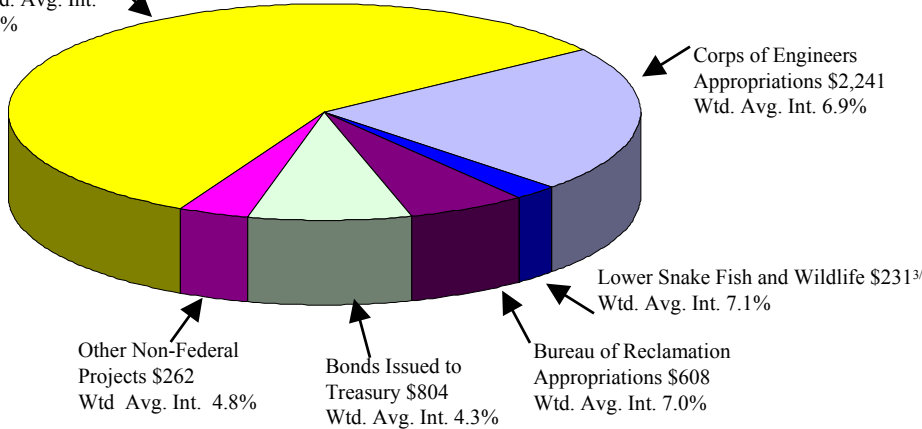


# BPA Total Debt Portfolio, 9/30/04 <sup>1/</sup>

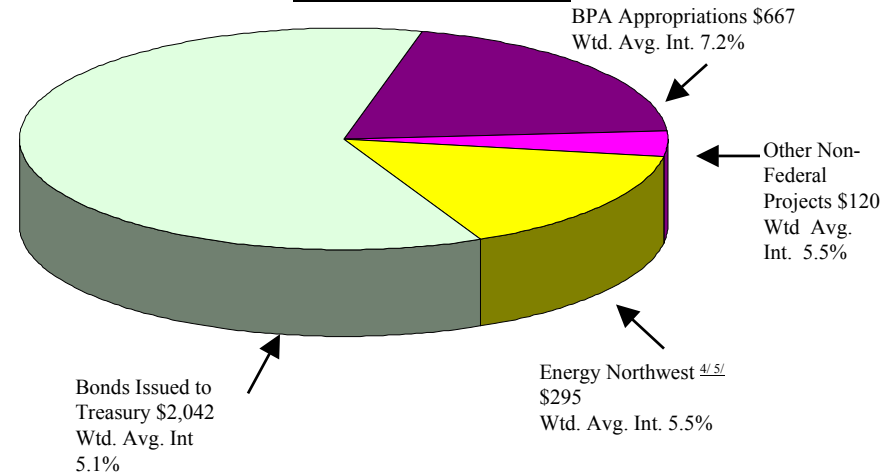
(\$ millions)

Energy Northwest <sup>4/</sup>  
\$5,777  
Wtd. Avg. Int. 5.1%

## Generation



## Transmission



	<u>Power Marketing</u>		<u>Transmission</u>		<u>Total</u>	
	<u>Liabilities Outstanding (\$millions)</u>	<u>WAI Rate</u>	<u>Liabilities Outstanding (\$millions)</u>	<u>WAI Rate</u>	<u>Liabilities Outstanding (\$millions)</u>	<u>WAI Rate</u>
<b>Total Appropriations <sup>2/</sup></b>	\$3,080	6.9	\$667	7.2	\$3,747	7.0
<b>Total Bonds Issued to Treasury</b>	858	4.3	2,042	5.1	2,900	4.9
<b>Total Federal Liabilities</b>	<u>3,938</u>	<u>6.3</u>	<u>2,709</u>	<u>5.6</u>	<u>6,647</u>	<u>6.1</u>
<b>BPA Liabilities to Non Federal Parties</b>	6,039	5.1	415	5.5	6,454	5.3
<b>Total FCRPS Liabilities</b>	<u>\$9,977</u>	<u>5.6</u>	<u>\$3,124</u>	<u>5.6</u>	<u>\$13,101</u>	<u>5.6</u>

1/ Does not include irrigation assistance liability of \$722 million at zero percent interest (\$53.9 of this amount is for Lower Teton, for which the Administrator has no obligation to recover costs). "Liabilities" on this page do not directly relate to "liabilities" as reflected in the Combined Statements of Capitalization and Long-Term Liabilities.

2/ Appropriation amounts exclude appropriations for construction work still in progress (CWIP). 2004 CWIP for appropriations was \$669.1.

3/ Lower Snake Fish and Wildlife previously included in Corps of Engineers.

4/ EN Principal ties to EN FY04 Annual Report, Financial Operating Statistics page. The WAI will not match EN's Annual Report because BPA overlays a debt instrument on top of some EN variable rate debt (from Projects 1 and 3). The effect is that approximately \$500m of EN variable rate debt is a synthetic fixed rate obligation for BPA, making BPA's WAI on EN debt different than the WAI noted in EN's books.

5/ TBL principal is different from the actual amount issued in bonds due to: 1) premium bonds issued, 2) timing differences, and 3) transactions costs. TBL is assigned the repayment obligation for the 3 items stated above, which equals the additional Federal prepayment made on TBL's behalf.



# Summary: Non-Federal Debt Service and Debt Management Actions

- The existing non-Federal debt is the main driver of the FY07 – FY09 forecast.
- Debt management activities, from the first refinancings in the 1980's through today, have lowered debt service costs for customers and will continue to do so through this rate period.
- Single portfolio management the last few years has played a key role in strengthening BPA's financial health and maintaining high credit ratings.
- Freeing up all EN debt service reserve funds early served a valuable purpose in the FY02 - FY04 period but their adverse impacts will be realized from FY05 - FY18.
- There are options related to non-Federal debt service that could benefit rate payers in the near term, but could impact future rates.