

Bonneville Power Administration

Debt Optimization Annual Meeting as Required Under the Slice Memorandum of Understanding (dated November 22, 2006)

This information is being released externally by BPA on January 28, 2008 as an ad hoc report or analysis generated for a specific purpose. The information provided is based upon data found in Agency Financial Information but may not be found verbatim in an External Standard Financial Report or other Agency Financial Information release.



Agenda

- Review commitments related to the Debt Optimization Program (DOP) outlined in the Memorandum of Understanding (MOU) of the Slice Settlement Agreement
- Share DOP and Debt Service Reassignment (DSR) historical results and projections for the current and upcoming years
 - Agency view
 - Business unit breakout
- General review of DOP and DSR
- Demonstrate how DOP and DSR flow through the income statements
 - Power Income Statement
 - Transmission Income Statement
- “Rates no higher” demonstration
 - Power Repayment Results
 - Transmission Repayment Results – Transmission Rate DOP Demonstration



Requirements as Outlined in the DOP MOU of the Slice Settlement Agreement

Section B.2 BPA Commitments Concerning the Debt Optimization Program requires that:

- BPA demonstrate that rates are no higher with the DOP than they would have been in the absence of the DOP.
- BPA will annually demonstrate achievement of this principle by running and presenting repayment studies that compare a base repayment study that includes all debt management activities completed to date with a DOP repayment study that includes new DOP projections for the upcoming years, the results of which comply with such principle.

Section C.1 Annual Communication and Management Protocols requires that:

- BPA will provide each year in the late fall/early winter timeframe, the following:
 - i. What DOP activities/transactions occurred through the prior fiscal year;
 - ii. What the current expectation is for DOP activities/transactions in the current fiscal year, including an estimate of the total amount of debt optimization and estimated allocation to each business line; and
 - iii. What the current estimate is for DOP activities/transactions beyond the current fiscal year, both in total and allocation by business function.



Section C.1(i-iii): Historical & Projected Debt Optimization with Allocation by Function

What BPA and Energy Northwest Have Achieved So Far

(\$ in millions)

Actual and Forecasted

Cash Flow from EN Debt Management Actions

Calendar Year (Cash Basis)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
1 2001-A Advance Refunding (Goldman)		51	31						14	15	36	38	185
2 2001-B Current "Rollout" (UBS PaineWebber)	101												101
3 2002-A Advance Refunding (Salomon)		32	24	43	40	60	45	51	51	24	34		402
4 2002-B Current "Rollout" (Salomon)		180	22	12			12	13	14			15	266
5 2003-A Current "Rollout" (Citigroup)			239										239
6 2004-A Current "Rollout" (Goldman)				291									291
7 2005-A Current "Rollout" (Citigroup)					273	73							347
8 2006-A Current "Rollout" (Goldman)						204							204
9 2007-A Current "Rollout" (Citigroup)							232						232
10 Forecasted Current Refinancings								147	138				285
11 Total Cash Flow from EN DOP Debt Mgmt Actions	101	262	315	346	313	337	289	210	216	39	70	53	2,552
12 Cumulative Net Cash Flow	101	363	679	1,025	1,338	1,675	1,964						

Actual and Forecasted

BPA's Application to Treasury Principal Payments

•----- Forecast -----•

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
13 Power - Advance Refundings Portion ¹	97	83	0	55	40	133	57	64	78	39	70	53	768
14 Power - Current Refinancings Portion ²	0	183	0	86	83	0	30	37	88	0	0	0	508
15 Total Power Prepayment	97	266	0	141	123	133	87	101	166	39	70	53	1,275
16 Total Transmission Prepayment	0	0	315	205	190	204	202	110	50	0	0	0	1,276
17 Agency Treasury Prepayment	97	266	315	346	313	337	289	211	216	39	70	53	2,552
18 Cumulative Treasury Prepayment	97	363	679	1,025	1,338	1,675	1,964						

NOTE: In FY01 BPA made a Treasury prepayment of \$97M; the amount should have been \$101M. Therefore, the payment in FY02 increased from \$262M to \$266M.

1 The advance refundings for 2007 - 2009 have already been incorporated into the base amortization schedule and will not contribute to additional Treasury payments in the Minimum Required Net Revenues (MRNR) for the SLICE True-up calculation.

2 If the projected current refinancings for 2008 - 2009 take place, these amounts will be added to the MRNR for the SLICE True-up calculation.

Forecasts are estimates only, subject to change, and should be relied upon at one's own risk. Totals may not add due to rounding.

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Section C.1(i): Debt Optimization & Debt Service Reassignment General Review

- Debt Optimization (DO) that is allocated to Power results in a reduction to non-Federal debt service in the refinancing year, but creates debt service repayment obligations for future years.
- Debt Service Reassignment (DSR) is the use of DO to replenish Treasury Borrowing Authority by paying Transmission-related Federal repayment obligations.
- DSR impacts both Power's and Transmission's Income Statements, as follows:
 - Power: DSR results in the satisfaction of an original Power obligation; essentially, the EN debt has been deemed paid by Power.
 - To show that Power's original obligation has been satisfied, it is reflected in Power's Income Statement as **EN Retired Debt**.
 - All future EN debt service costs associated with DSR are assigned to Transmission, and accordingly will be recovered through Transmission's rates.
 - Transmission: DSR is reflected in Transmission's Income Statement as **Debt Service Reassignment Interest**.
 - Debt Service Reassignment Interest represents the interest expense on the EN bonds that are a Transmission obligation due to DSR.
 - Technically the *debt service* is assigned to Transmission, not the *debt*.



Section C.1(i): Excerpt from the Power Income Statement

Report ID: 0060FY07

Power Services Detailed Statement of Revenues and Expenses

Requesting BL: POWER BUSINESS UNIT

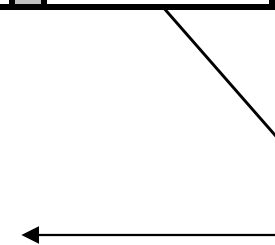
Through the Month Ended September 30, 2007

Unit of Measure: \$ Thousands (\$ 000)

		A	B	C	D
		Actuals: FY 2005	Actuals: FY 2006	Actuals: FY 2007	Rate Case: FY 2007
Non-Federal Debt Service					
Energy Northwest Debt Service					
75	COLUMBIA GENERATING STATION DEBT SVC	97,631	103,071	96,868	195,690
76	WNP-1 DEBT SVC	75,791	96,687	88,559	147,941
77	WNP-3 DEBT SVC	56,546	71,153	79,034	151,724
78	EN RETIRED DEBT	184,800	212,400	178,888	
79	EN LIBOR INTEREST RATE SWAP	6,421	(155)	(2,091)	
80	Sub-Total	421,188	483,156	441,258	495,355

Simple Reconciliation: from Rate Case (RC) to Actual Debt Service (DS)

\$513	2007 DS as forecasted in the RC (WP-07-FS-BPA-02A Table 8)
(18)	Less: \$18M unanticipated EN FY06 cash carry-over (WP-07-FS-BPA-02 page 15)
\$495	Adjusted 2007 RC DS
(211)	Less: DO Refinancing [(75% * 232M) + (25% * 147M)]
179	Add: EN Retired Debt Accrual (see next page)
(22)	Less: R&C Fund and Other Adjustments
\$441	FY 2007 EN Debt Service





Section C.1(i): The Calculation for Power EN Retired Debt

Fiscal Year	Calculation Explained	The Math
FY05	Actual FY05 DSR - FY05 portion accr'd in FY04, plus	$\$190 - \$48 = \$143$
	1/4 of projected FY06 DSR	$\$169 \times 25\% = \42
FY05 EN Retired Debt Accrual		<u><u>\$185</u></u>
FY06	Actual FY06 DSR - FY06 portion accr'd in FY05, plus	$\$204 - \$42 = \$162$
	1/4 of projected FY07 DSR	$\$202 \times 25\% = \50
FY06 EN Retired Debt Accrual		<u><u>\$212</u></u>
FY07	Projected FY07 DSR - FY07 portion accr'd in FY06, plus	$\$202 - \$50 = \$151$
	1/4 of projected FY08 DSR	$\$110 \times 25\% = \28
FY07 EN Retired Debt Accrual		<u><u>\$179</u></u>
FY08	Actual FY08 DSR - FY08 portion accr'd in FY07, plus	$\$110 - \$28 = \$83$
	1/4 of projected FY09 DSR	$\$50 \times 25\% = \13
Projected FY08 EN Retired Debt Accrual		<u><u>\$95</u></u>



Section C.1(i): Excerpt from the Transmission Income Statement

Transmission Services Detailed Statement of Revenues and Expenses

Through the Month Ended September 30, 2007

Report ID: 0061FY07

Requesting BL: TRANSMISSION BUSINESS UNIT

Unit of Measure: \$ Thousands (\$000)

		A	B	C	D
		Actuals: FY 2005	Actuals: FY 2006	Actuals: FY 2007	Rate Case: FY 2007
Interest Expense					
Interest on Federal Investment					
87	Appropriated	48,150	46,435	44,665	44,449
88	Capitalization Adjustment	(18,968)	(18,968)	(18,968)	(18,968)
89	Gross Bonds Interest Expense	103,318	99,184	90,860	142,625
90	Interest Earned on BPA Fund	(8,890)	(13,517)	(17,808)	(10,818)
91	Debt Service Reassignment Interest	25,080	32,827	42,574	25,656
92	AFUDC	(12,936)	(9,201)	(7,518)	(11,516)
93	Net Interest Expense	135,754	136,761	133,806	171,428

Simple Reconciliation: Interest Expense from DSR

Fiscal Year	DOP Principal allocated to Transmission	Approximate Interest Rate	Interest Expense	Income Stmt Effect (one-year lag)
FY03	\$315	5%	\$16	\$0
FY04	\$205	5%	\$9	\$16
FY05	\$190	5%	\$9	\$25
FY06	\$204	5%	\$9	\$33
FY07	-	-	-	\$43

Rate cases do not include forecasts of additional DO. Therefore, the amount shown at FY05 would have been the total forecasted DSR interest for FY07 at the time of the rate case (June 2005).



Repayment Study: What It Is & How It Works

- 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 Federal repayment policy.
- 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, for Generation, Federal irrigation assistance, is the lowest, levelized combined debt service for the study year and over the ensuing repayment period.
- The study creates the lowest, levelized combined debt service schedule using an iterative methodology to find the lowest level of combined non-Federal and Federal interest and principal payments such that all debts are paid within the repayment period (50 years for Generation and 35 years for Transmission).



Repayment Study: Why It Is the Right Test

For demonstration of compliance with the “rates no higher with Debt Optimization” principle, the results of a series of annual repayment studies is the logical place and the right place to make that determination because the repayment study:

- Employs a complex binary iteration methodology for a consistent analytical approach that allows for the least cost interaction of Federal flexibility and fixed non-Federal requirements.
- Features 20-year analytical capability. A 20-year look goes beyond the EN repayment period and allows for an analytical look over multiple rate periods ensuring that DO does not create problems in future rate periods.
- Allows for a comprehensive evaluation of DO. The repayment study shows how the DO transactions interact with BPA’s entire debt portfolio as well as projected debt obligations.



Section B.2: Rates No Higher as Demonstrated by Repayment Study Results

(\$ in 000)

Generation			
Date	Base Total Debt Service	DO Total Debt Service	Delta
09/30/2008	1,075,405	1,074,931	(474)
09/30/2009	938,611	936,480	(2,131)
09/30/2010	1,041,292	1,039,860	(1,432)
09/30/2011	1,057,663	1,057,758	95
09/30/2012	1,106,658	1,105,739	(919)
09/30/2013	1,122,792	1,121,913	(879)
09/30/2014	1,135,135	1,134,255	(880)
09/30/2015	1,143,940	1,143,061	(879)
09/30/2016	1,152,516	1,151,636	(880)
09/30/2017	1,159,199	1,158,318	(881)
09/30/2018	1,112,671	1,111,794	(877)
09/30/2019	990,484	989,604	(880)
09/30/2020	998,606	997,713	(893)
09/30/2021	1,004,921	1,004,029	(892)
09/30/2022	1,012,693	1,011,817	(876)
09/30/2023	1,019,599	1,018,705	(894)
09/30/2024	1,028,136	1,025,304	(2,832)
09/30/2025	1,034,894	1,029,008	(5,886)
09/30/2026	1,039,501	1,033,613	(5,888)
09/30/2027	1,049,097	1,043,211	(5,886)
Total 20-year Difference			(35,064)

Net Present Value¹ (\$17,303)
 Net Present Value² (\$8,337)

Transmission			
Date	Base Total Debt Service	DO Total Debt Service	Delta
09/30/2008	354,052	351,451	(2,602)
09/30/2009	372,308	368,847	(3,461)
09/30/2010	412,008	407,514	(4,494)
09/30/2011	428,247	424,468	(3,779)
09/30/2012	446,655	443,614	(3,041)
09/30/2013	457,647	454,931	(2,716)
09/30/2014	465,311	466,362	1,051
09/30/2015	478,203	479,242	1,039
09/30/2016	499,958	499,019	(939)
09/30/2017	517,253	516,306	(947)
09/30/2018	529,065	528,113	(952)
09/30/2019	540,216	539,260	(956)
09/30/2020	552,223	551,264	(959)
09/30/2021	564,809	563,848	(961)
09/30/2022	578,536	577,574	(962)
09/30/2023	593,520	592,556	(964)
09/30/2024	607,931	606,966	(965)
09/30/2025	623,873	622,906	(967)
09/30/2026	640,429	639,459	(970)
09/30/2027	657,094	656,124	(970)
Total 20-year Difference			(29,514)

Net Present Value¹ (\$20,785)
 Net Present Value² (\$17,385)

NOTE: In the delta column, a negative number denotes a decrease in debt service; a positive number an increase in debt service.
 1 Discount Rate = WAI on Treasury Bonds Outstanding at 9/30/07 = 5.5%
 2 Discount Rate equal to the following for each Service function: Transmission = 9.0% Power = 13.0%



Section B.2: Rates No Higher

- In the 20-year studies there are three years in which total debt service with DO is slightly higher than total debt service without DO, as follows:
 - Generation debt service is approximately \$95k higher in 2011.
 - Transmission debt service is approximately \$1m higher in each 2014 and 2015.
- The “rates no higher” test has been met:
 - Debt service is lower than it otherwise would have been in total over the 20 year period. The forecasted decreases total \$35m for Generation and \$29m for Transmission.
 - These forecasted decreases to debt service over the 20 years holds true from a net present value standpoint as well, using various discount rates. (See previous slide)



Appendix

(More on Debt Optimization Basics)



EN Debt Service

Different Fiscal Years = Timing Differences

In the current year BPA accrues $\frac{1}{4}$ of the forecasted EN debt service for the following year because:

- EN debt comes due at the end of their fiscal year, which runs from July 1st to June 30th.
- BPA's fiscal year runs from October 1st to September 30th. This means $\frac{1}{4}$ of EN's new fiscal year falls into BPA's current fiscal year. Or simply, that EN's fiscal year is three months ahead of BPA's fiscal year.
- BPA maintains its accounts on an accrual accounting basis in accordance with generally accepted accounting principles (GAAP), which means that revenues are recognized when earned and expenses are recognized when incurred, without regard to receipt or payment of cash.
- In accordance with GAAP, each month BPA accrues $\frac{1}{12}$ of the EN due principal—this coincides with the liability for the EN principal due.

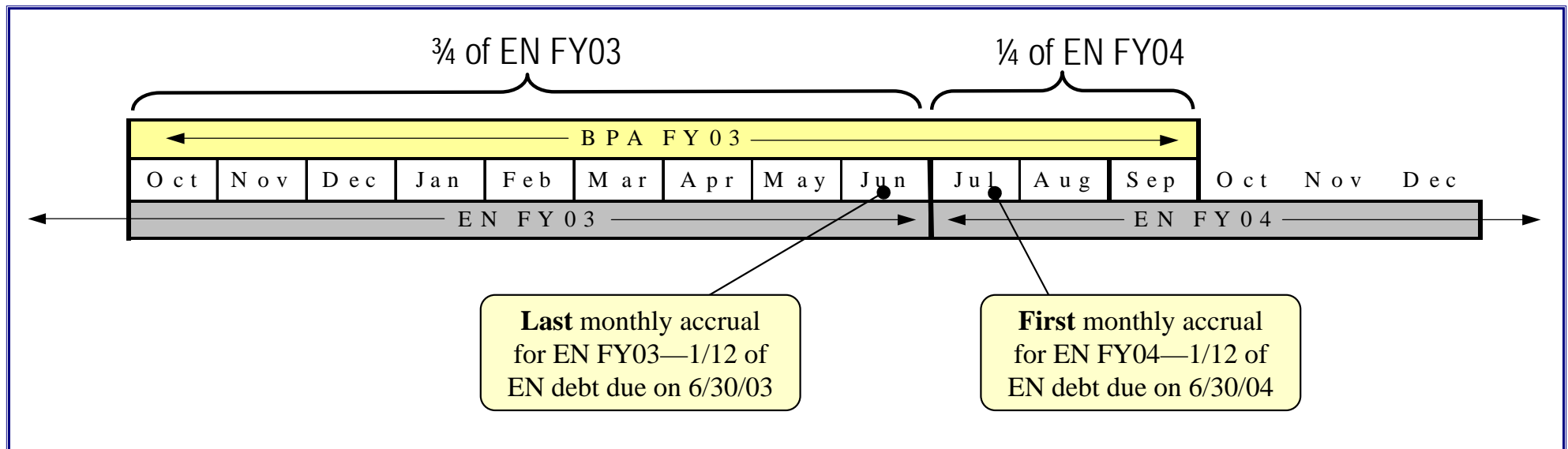


EN Debt Service

Different Fiscal Years = Timing Differences

The following example shows how EN debt is accounted for on BPA's books:

$$\text{BPA FY03} = \frac{3}{4} \text{ of EN FY03} + \frac{1}{4} \text{ of EN FY04}$$



The impact of DSR on Power's Income statement follows the same accounting pattern. See the next slides for more detail.



Accrual for EN Retired Debt

For Power, in any given year, the EN Retired Debt accrual will be equal to:

- Actual DO allocated to Transmission from the current year EN refinancing
- The DSR portion of the current year EN refinancing accrued in the prior FY
- + One-quarter of the projected DSR allocation for the following FY

EN Retired Debt Accrual

To see this calculation explained in greater detail, see the next page.



Section C: The Calculation Power EN Retired Debt

Fiscal Year	Calculation Explained	The Math
FY02	Actual FY02 DSR - FY02 portion accr'd in FY01, plus	\$0 - \$0 = \$0
	1/4 of projected FY03 DSR	\$220 x 25% = \$55
FY02 EN Retired Debt Accrual		<u>\$55</u>
FY03	Actual FY03 DSR - FY03 portion accr'd in FY02, plus	\$315 - \$55 = \$260
	1/4 of projected FY04 DSR	\$220 x 25% = \$55
FY03 EN Retired Debt Accrual		<u>\$315</u>
FY04	Actual FY04 DSR - FY04 portion accr'd in FY03, plus	\$205 - \$55 = \$150
	1/4 of projected FY05 DSR	\$190 x 25% = \$48
FY04 EN Retired Debt Accrual		<u>\$198</u>
FY05	Actual FY05 DSR - FY05 portion accr'd in FY04, plus	\$190 - \$48 = \$143
	1/4 of projected FY06 DSR	\$169 x 25% = \$42
FY05 EN Retired Debt Accrual		<u>\$185</u>
FY06	Actual FY06 DSR - FY06 portion accr'd in FY05, plus	\$204 - \$42 = \$162
	1/4 of projected FY07 DSR	\$202 x 25% = \$50
FY06 EN Retired Debt Accrual		<u>\$212</u>
FY07	Projected FY07 DSR - FY07 portion accr'd in FY06, plus	\$202 - \$50 = \$151
	1/4 of projected FY08 DSR	\$110 x 25% = \$28
Projected FY07 EN Retired Debt Accrual		<u>\$179</u>



Section C.1(i): Transmission Debt Service Reassignment

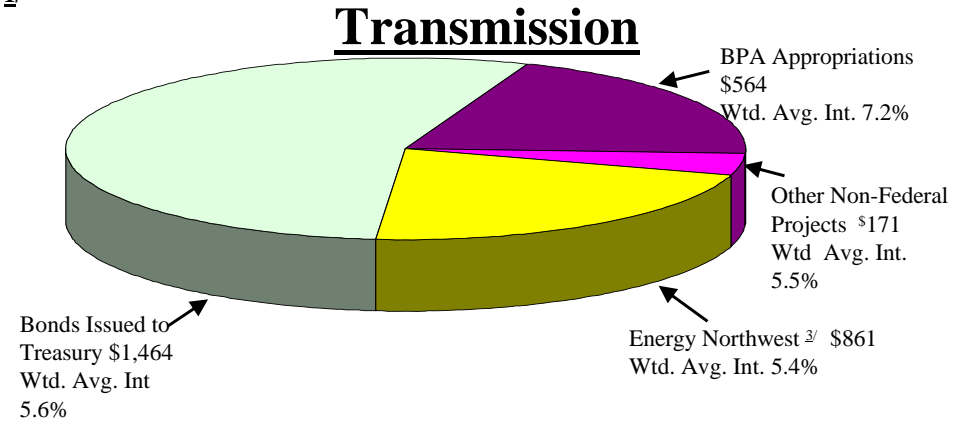
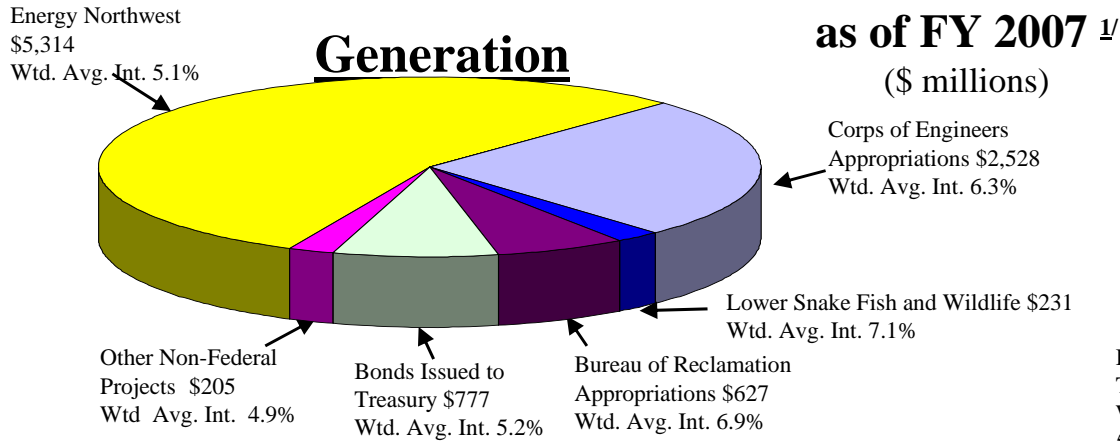
- DSR occurs when BPA uses the funds made available from DO to early-amortize Federal Transmission repayment obligations. For each year of DO/DSR, while the old EN bonds are refinanced in July, the advanced Federal payment is made on September 30th.
 - The debt service associated with DSR is assigned to Transmission on October 1st.
 - Therefore, there is no impact to Transmission until October 1st, the new fiscal year.
 - The interest and transaction costs related to each DO transaction that are the responsibility of Transmission are captured through a "carrying charge" calculation.
- The total payment obligation for Transmission due to DSR in a given year is the sum of the base debt service + transaction costs + carrying charge, adjusted to BPA's fiscal year and reshaped so that the total principal equals the total Federal principal retired.
- EN municipal bonds are issued at different amounts –par, discount or premium—depending on market conditions; reshaping is done so that the total principal equals the total Federal principal retired through the advanced Federal payment.
- In general, the DSR interest expense included in TBL's income statement is roughly equal to:
 - Transmission Advanced Federal amortization x the average rate on the new extension bonds.
 - For example, the FY03 Transmission advanced Federal payment = \$315m; the average rate on the extension bonds was approximately 5%. [$\$315 \times 5\% = \15.8m]
 - Any minor differences between the results of this calculation and the numbers recorded in Transmission Income Statement are due to the adjustments noted above.

Note: See 2008 Final Revenue Requirement Study Documentation, TR-08-FS-BPA-01A, Chapter 7 for most recent information; or see 2006 Final Revenue Requirement Study Documentation, TR-06-FS-BPA-01A, Chapter 7 for that which applied to 2007 rates setting.



Outstanding Liabilities 2007

Federal Columbia River Power System (FCRPS) Total Liabilities to Federal and Non Federal Parties



	Power Marketing		Transmission		Total	
	Liabilities Outstanding (\$millions)	WAI Rate %	Liabilities Outstanding (\$millions)	WAI Rate %	Liabilities Outstanding (\$millions)	WAI Rate %
Total Appropriations ^{2/}	\$3,386	6.5	\$564	7.2	\$3,950	6.6
Total Bonds Issued to Treasury	777	5.2	1,464	5.6	2,241	5.5
Total Federal Liabilities	4,163	6.3	2,028	6.0	6,191	6.2
BPA Liabilities to Non Federal Parties ^{3/}	5,519	5.1	1,032	5.4	6,551	5.2
Total FCRPS Liabilities	\$9,682	5.6	\$3,060	5.8	\$12,742	5.7

1/ Does not include irrigation assistance liability of \$735 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). 2007 CWIP for appropriations was \$304 million.

3/ TBL principal is different from the Transmission Services (TS) Federal repayment obligation due to: 1) premium bonds issued, 2) timing differences, and 3) transactions costs. TBL is assigned the repayment obligation for these items, which equals the additional Federal prepayment made on TBL's behalf.

This information made publicly available by BPA in February 2008 and is consistent with BPA's FY 2007 Annual Report. Any variation is due to rounding .



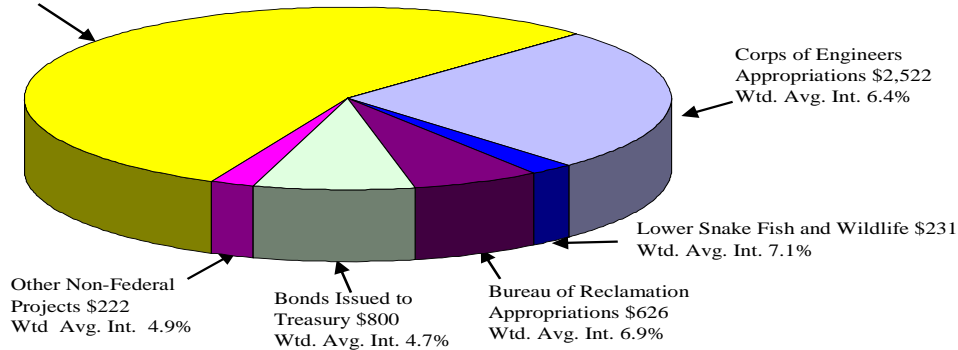
Outstanding Liabilities 2006

Federal Columbia River Power System (FCRPS) Total Liabilities to Federal and Non Federal Parties

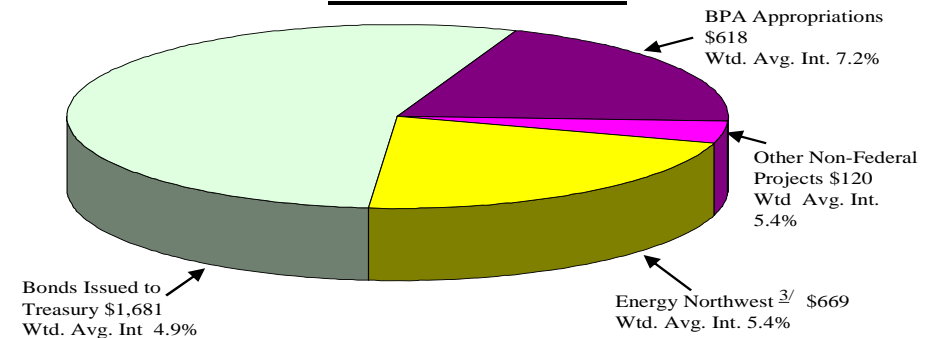
FY 2006 ^{1/}
(\$ millions)

Energy Northwest
\$5,505
Wtd. Avg. Int. 5.2%

Generation



Transmission



	Power Marketing		Transmission		Total	
	Liabilities Outstanding (\$millions)	WAI Rate %	Liabilities Outstanding (\$millions)	WAI Rate %	Liabilities Outstanding (\$millions)	WAI Rate %
Total Appropriations ^{2/}	\$3,379	6.6	\$618	7.2	\$3,997	6.7
Total Bonds Issued to Treasury	800	4.7	1,681	5.2	2,481	5.0
Total Federal Liabilities	4,179	6.2	2,299	5.7	6,478	6.1
BPA Liabilities to Non Federal Parties ³	5,727	5.2	789	5.4	6,516	5.2
Total FCRPS Liabilities	\$9,906	5.6	\$3,088	5.7	\$12,994	5.6

1/ Does not include irrigation assistance liability of \$735 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). 2006 CWIP for appropriations was \$295 million.

3/ 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.

This information made publicly available by BPA in January 2007 and is consistent with BPA's FY 2006 Annual Report. Any variation is due to rounding.