

# Bonneville Power Administration

## Debt Optimization Annual Meeting as Required Under the Slice Memorandum of Understanding

This information is being released externally by BPA on February 9, 2009 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 (dated 11/22/06)
- 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



# 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 2008-A Current "Rollout" (Goldman)								147					147
11 <b>Forecasted Current Refinancings</b>									<b>156</b>	<b>34</b>			<b>190</b>
12 <b>Total Cash Flow from EN DOP Debt Mgmt Actions</b>	<b>101</b>	<b>262</b>	<b>315</b>	<b>346</b>	<b>313</b>	<b>337</b>	<b>289</b>	<b>211</b>	<b>234</b>	<b>73</b>	<b>70</b>	<b>53</b>	<b>2,604</b>
13 <b>Cumulative Net Cash Flow</b>	<b>101</b>	<b>363</b>	<b>679</b>	<b>1,025</b>	<b>1,338</b>	<b>1,675</b>	<b>1,964</b>	<b>2,174</b>					

### Actual and Forecasted

#### BPA's Application to Treasury Principal Payments

•----- Forecast -----•

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
14 Power - Advance Refundings Portion <sup>1</sup>	97	83	0	55	40	133	57	64	78	39	70	53	768
15 Power - Current Refinancings Portion <sup>2</sup>	0	183	0	86	83	0	30	37	116	34	0	0	570
16 <b>Total Power Prepayment</b>	<b>97</b>	<b>266</b>	<b>0</b>	<b>141</b>	<b>123</b>	<b>133</b>	<b>87</b>	<b>101</b>	<b>194</b>	<b>73</b>	<b>70</b>	<b>53</b>	<b>1,337</b>
17 <b>Total Transmission Prepayment</b>	<b>0</b>	<b>0</b>	<b>315</b>	<b>205</b>	<b>190</b>	<b>204</b>	<b>202</b>	<b>110</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,266</b>
18 <b>Agency Treasury Prepayment</b>	<b>97</b>	<b>266</b>	<b>315</b>	<b>346</b>	<b>313</b>	<b>337</b>	<b>289</b>	<b>211</b>	<b>234</b>	<b>73</b>	<b>70</b>	<b>53</b>	<b>2,603</b>
19 <b>Cumulative Treasury Prepayment</b>	<b>97</b>	<b>363</b>	<b>679</b>	<b>1,025</b>	<b>1,338</b>	<b>1,675</b>	<b>1,964</b>	<b>2,174</b>					

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 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: 0060FY08

Requesting BL: POWER BUSINESS UNIT

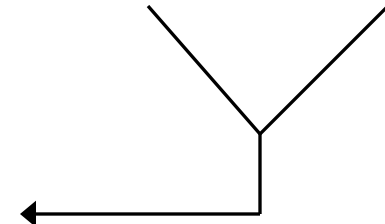
Unit of Measure: \$ Thousands (\$ 000)

## Power Services Detailed Statement of Revenues and Expenses Through the Month Ended September 30, 2008

		A	B	C	E
		Actuals: FY 2006	Actuals: FY 2007	Rate Case: FY 2008	Actuals: FYTD 2008
<b>Non-Federal Debt Service</b>					
<b>Energy Northwest Debt Service</b>					
75	COLUMBIA GENERATING STATION DEBT SVC	103,071	96,868	217,856	114,911
76	WNP-1 DEBT SVC	96,687	88,559	165,916	130,258
77	WNP-3 DEBT SVC	71,153	79,034	160,092	145,125
78	EN RETIRED DEBT	212,400	178,888		95,000
79	EN LIBOR INTEREST RATE SWAP	(155)	(2,091)		4,668
80	<b>Sub-Total</b>	483,156	441,258	543,864	489,964

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

\$544	2008 DS as forecasted in the RC (WP-07-FS-BPA-02A(E1))
(\$145)	Less: DO Refinancing $[(75\% * 147M) + (25\% * 138M)]$
\$95	Add EN Retired Debt Accrual (see next page)
(\$4)	Less: Other Adjustments (Refi for Savings)
<u>\$490</u>	





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

Fiscal Year	Calculation Explained	The Math
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	Actual 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	$\$50 \times 25\% = \$13$
FY08 EN Retired Debt Accrual		<u><u>\$95</u></u>
FY09	Actual FY09 DSR - FY09 portion accr'd in FY08, plus	$\$40 - \$13 = \$28$
	1/4 of projected FY10 DSR	$\$0 \times 25\% = \$0$
Projected FY09 EN Retired Debt Accrual		<u><u>\$28</u></u>



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

Report ID: 0061FY08

Requesting BL: TRANSMISSION BUSINESS UNIT

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

Transmission Services Detailed Statement of Revenues and Expenses

Through the Month Ended September 30, 2008

	A	B	D	F
	Actuals: FY 2006	Actuals: FY 2007	Rate Case: FY 2008	Actuals: FY 2008
<b>Interest Expense</b>				
<b>Interest on Federal Investment</b>				
87 <b>Appropriated</b>	46,435	44,665	37,918	40,838
88 <b>Capitalization Adjustment</b>	(18,968)	(18,968)	(18,968)	(18,968)
89 <b>Gross Bonds Interest Expense</b>	99,184	90,860	114,385	98,138
90 <del><b>Interest Earned on BPA Fund</b></del>	<del>(13,517)</del>	<del>(17,808)</del>	<del>(10,506)</del>	<del>(22,075)</del>
91 <b>Debt Service Reassignment Interest</b>	32,827	42,574	42,546	51,137
92 <b>AFUDC</b>	(9,201)	(7,518)	(10,295)	(12,711)
93 <b>Net Interest Expense</b>	<b>136,761</b>	<b>133,806</b>	<b>155,080</b>	<b>136,360</b>

### 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	\$201	5%	\$9	\$43
FY08	-	-	-	\$52

Rate cases do not include forecasts of additional DO. Therefore, the amount shown at FY07 would have been the total forecasted DSR interest going forward into FY08 and beyond at the time of the rate case (April 2007).





# 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 Proof Total Debt Service	Delta
09/30/2009	927,545	926,063	(1,482)
09/30/2010	1,035,036	1,031,890	(3,146)
09/30/2011	1,057,598	1,054,513	(3,086)
09/30/2012	1,099,500	1,099,010	(490)
09/30/2013	1,120,010	1,119,520	(490)
09/30/2014	1,139,510	1,139,021	(489)
09/30/2015	1,151,807	1,151,318	(489)
09/30/2016	1,160,090	1,159,600	(490)
09/30/2017	1,159,377	1,158,887	(490)
09/30/2018	1,031,618	1,031,130	(488)
09/30/2019	793,180	792,421	(759)
09/30/2020	803,230	802,472	(758)
09/30/2021	811,854	811,098	(756)
09/30/2022	821,810	821,055	(755)
09/30/2023	830,450	829,697	(753)
09/30/2024	838,395	837,642	(753)
09/30/2025	847,460	846,703	(757)
09/30/2026	857,828	857,071	(757)
09/30/2027	865,535	864,777	(758)
09/30/2028	884,191	883,433	(758)
<b>Total 20-Year Difference</b>			<b>(\$18,704)</b>

Transmission			
Date	Base Total Debt Service	DO Proof Total Debt Service	Delta
09/30/2009	362,541	361,595	(946)
09/30/2010	408,683	408,391	(292)
09/30/2011	429,952	429,658	(294)
09/30/2012	455,944	455,663	(281)
09/30/2013	478,246	477,977	(269)
09/30/2014	496,552	496,289	(263)
09/30/2015	510,618	510,357	(261)
09/30/2016	531,404	531,142	(262)
09/30/2017	548,236	547,963	(273)
09/30/2018	560,707	560,435	(272)
09/30/2019	572,527	572,253	(274)
09/30/2020	585,251	584,976	(275)
09/30/2021	598,592	598,318	(274)
09/30/2022	613,132	612,858	(274)
09/30/2023	628,991	628,716	(275)
09/30/2024	644,298	644,024	(274)
09/30/2025	661,201	660,928	(273)
09/30/2026	678,765	678,492	(273)
09/30/2027	696,473	696,199	(274)
09/30/2028	714,743	714,469	(274)
<b>Total 20-Year Difference</b>			<b>(\$6,153)</b>

Net Present Value<sup>1</sup> (\$12,780)  
 Net Present Value<sup>2</sup> (\$8,994)

Net Present Value<sup>1</sup> (\$3,997)  
 Net Present Value<sup>2</sup> (\$3,129)

NOTE: In the delta column, a negative number denotes a decrease in debt service; a positive number an increase in debt service.

<sup>1</sup> Discount Rate = WAI on Treasury Bonds Outstanding at 9/30/08 = 5.2%

<sup>2</sup> Discount Rate equal to the following for each Service function: Transmission = 9.0% Power = 12.0%



## Section B.2: Rates No Higher

- The “rates no higher” test has been met.
- For both Generation and Transmission, in each year of the 20-year studies, debt service is lower in the debt optimization case than debt service in the without debt optimization case.
- These forecasted decreases to debt service total approximately \$19M for Generation and \$6M for Transmission.
- Moreover, these forecasted decreases over the 20-year period hold true from a net present value standpoint as well, assuming various discount rates. (See previous slide)



# Appendix

(More on Debt Optimization Basics)

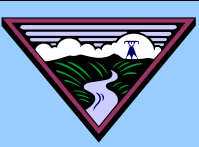


# EN Debt Service

## Different Fiscal Years = Timing Differences

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

- EN debt comes due at the end of their fiscal year, which runs from July 1<sup>st</sup> to June 30<sup>th</sup>.
- BPA's fiscal year runs from October 1<sup>st</sup> to September 30<sup>th</sup>. 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.

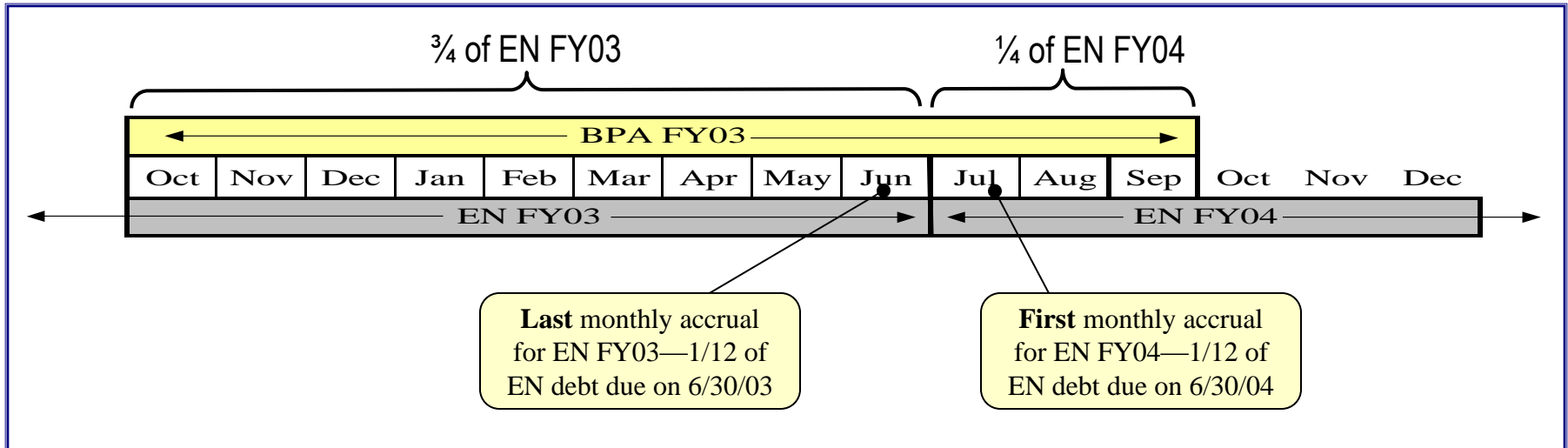


# EN Debt Service

## 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:

$$\begin{aligned} & \text{Actual DO allocated to Transmission from the current year EN refinancing} \\ - & \text{The DSR portion of the current year EN refinancing accrued in the prior FY} \\ + & \text{One-quarter of the projected DSR allocation for the following FY} \\ \hline & \text{EN Retired Debt Accrual} \end{aligned}$$

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	Actual FY07 DSR - FY07 portion accr'd in FY06, plus	\$202 - \$50 = \$151
	1/4 of projected FY08 DSR	\$110 x 25% = \$28
FY07 EN Retired Debt Accrual		<u>\$179</u>
FY08	Actual FY08 DSR - FY08 portion accr'd in FY07, plus	\$110 - \$28 = \$83
	1/4 of projected FY09 DSR	\$50 x 25% = \$13
FY08 EN Retired Debt Accrual		<u>\$95</u>
FY09	Actual FY09 DSR - FY09 portion accr'd in FY08, plus	\$40 - \$13 = \$28
	1/4 of projected FY10 DSR	\$0 x 25% = \$0
Projected FY09 EN Retired Debt Accrual		<u>\$28</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 30<sup>th</sup>.
  - The debt service associated with DSR is assigned to Transmission on October 1<sup>st</sup>.
  - Therefore, there is no impact to Transmission until October 1<sup>st</sup>, 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 Transmission'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%. [ $\$315 \times 5\% = \$15.8\text{m}$ ]
  - 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.