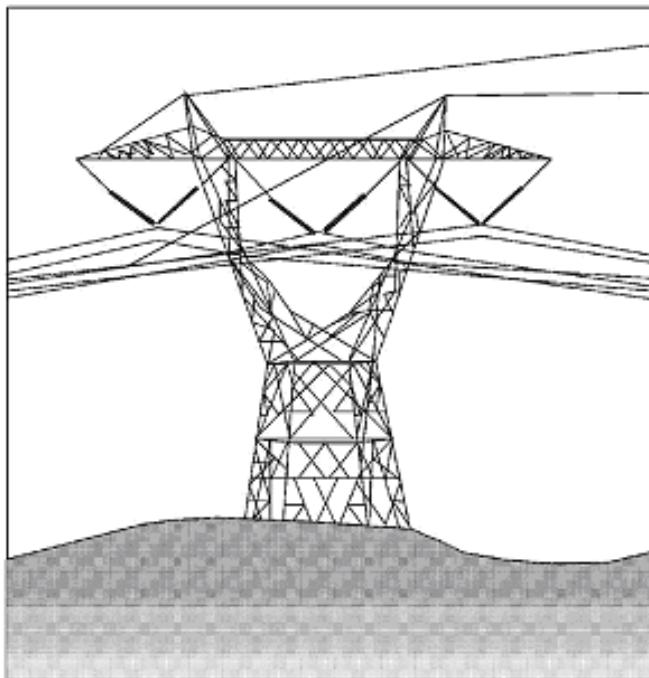


BONNEVILLE POWER ADMINISTRATION
TRANSMISSION BUSINESS LINE

2006 FINAL TRANSMISSION PROPOSAL

REVENUE REQUIREMENT STUDY DOCUMENTATION

TR-06-FS-BPA-01A



JUNE 2005



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CHAPTER 1
TRANSMISSION REVENUE REQUIREMENTS

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1. Introduction

This chapter documents how Bonneville Power Administration's (BPA) annual transmission revenue requirements are determined. Two tables are presented showing both years of the rate period (FYs 2006 and 2007). On the first table, revenue requirements for FYs 2006 and 2007 are projected in an income statement format. The second table, a statement of annual cash flows, determines the minimum required net revenues and presents the annual cash flows available for risk mitigation.

2. Income Statement

A more detailed description of the following line items is presented in Chapter 4 of the Revenue Requirement Study (Study), TR-06-FS-BPA-01. Operating expenses (lines 1-5) include: BPA's transmission system operation, maintenance and development expenses, environmental remediation, facility leases, non-Federal transmission arrangements, transmission marketing and scheduling, transmission business line support services and overheads, and corporate overheads (line 2); between business lines expenses (primarily the generation inputs for ancillary services) (line 3), and annual straight-line depreciation (remaining life technique) for transmission and general plant-in-service (line 4).

Interest expense includes both non-Federal and Federal interest expenses. Debt service reassignment interest consists of the interest component of the debt service reassigned to TBL through the Debt Optimization Program (line 7). Federal interest expense is calculated in transmission repayment studies on appropriations granted by Congress for BPA capital investments prior to the Transmission Systems Act (line 9) and on bonds that BPA issues to the

U.S. Treasury (line 10). Amortization of capitalized bond premiums (line 12) is the annual amortization of call premiums resulting from early retirement of bonds that have been refinanced. The call premiums are capitalized and included in the principal of the replacement bonds. They are then amortized over the term of the respective replacement bonds and constitute a non-cash component of interest expense. Bond interest is reduced by interest income from BPA's projected cash reserves (line 11). The capitalization adjustment and the Allowance for Funds Used During Construction (AFUDC) (lines 13-14) further reduce gross interest expense. The capitalization adjustment, a non-cash expense, is the annual recognition of the write-down in principal that resulted from the BPA Refinancing Act.

Planned net revenues (lines 17-18) are included to ensure coverage of planned amortization payments (minimum required net revenues) and to meet the Administrator's risk mitigation policy (planned net revenues for risk). *See Chapter 9 of this volume and Section 2.2 of the Revenue Requirement Study, TR-06-FS-BPA-01.*

3. Statement of Cash Flows

- **Cash from Current Operations:** Minimum required net revenues (line 2) is the amount necessary to ensure that cash from operations is sufficient for planned amortization payments. It is the amount by which these planned payments to the U.S. Treasury exceed the expenses that do not require cash outlays (depreciation (line 4), amortization of capitalized bond premiums (line 5), and the capitalization adjustment (line 6)) and the revenues that do not provide cash in that year (accrual revenues from AC Intertie capacity

ownership and fiber optic cable leases (line 7)). As part of the settlement agreement, BPA is drawing on cash reserves (line 8).

- **Cash Used for Capital Investments:** Investment in utility plant (line 12) is the increase in capital outlays associated with BPA investments for transmission, environment and general plant assets.
- **Cash from Treasury Borrowing and Appropriations:** Increase in long-term debt (line 15) is the annual increment in bonds that BPA issues to Treasury to fund capital outlays for transmission, environment and general plant assets. Debt Service Reassignment Principal is the principal component of the debt service obligation reassigned to TBL through the Debt Optimization Program (line 16). Repayment of long-term debt (line 17) is planned amortization of bonds issued to Treasury, as determined in transmission repayment studies. Repayment of capital appropriations (line 18) is planned amortization associated with pre-Transmission System Act appropriations, as determined in transmission repayment studies.

Table 1.1: Transmission Revenue Requirement Income Statement

| | (\$thousands) | A FY 2006 | B FY 2007 |
|---|----------------|----------------|--------------|
| 1 OPERATING EXPENSES | | | |
| 2 OPERATION AND MAINTENANCE | 254,493 | 260,584 | |
| 3 TRANSMISSION ACQUISITION & ANCILLARY SERVICES | 82,384 | 86,057 | |
| 4 FEDERAL PROJECTS DEPRECIATION | 195,884 | 207,517 | |
| 5 TOTAL OPERATING EXPENSES | 532,761 | 554,158 | |
| 6 INTEREST EXPENSE | | | |
| 7 DEBT SERVICE REASSIGNMENT INTEREST | 25,656 | 25,656 | |
| 8 INTEREST ON FEDERAL INVESTMENT - | | | |
| 9 ON APPROPRIATED FUNDS | 48,047 | 44,449 | |
| 10 ON LONG-TERM DEBT | 119,853 | 139,725 | |
| 11 INTEREST INCOME | (10,681) | (10,321) | |
| 12 AMORTIZATION OF CAPITALIZED BOND PREMIUMS | 3,009 | 2,900 | |
| 13 CAPITALIZATION ADJUSTMENT | (18,968) | (18,968) | |
| 14 AFUDC | (14,753) | (11,516) | |
| 15 NET INTEREST EXPENSE | 152,163 | 171,925 | |
| 16 TOTAL EXPENSES | 684,924 | 726,083 | |
| 17 MINIMUM REQUIRED NET REVENUES 1/ | 4,806 | 0 | |
| 18 PLANNED NET REVENUES FOR RISK | 0 | 0 | |
| 19 TOTAL PLANNED NET REVENUES | 4,806 | 0 | |
| 20 TOTAL REVENUE REQUIREMENT | 689,730 | 726,083 | |

1/ SEE NOTE ON CASH FLOW TABLE.

Table 1.2: Transmission Revenue Requirement Statement of Cash Flows

| | A FY 2006 | B FY2007 |
|---|--------------|-------------|
| 1 CASH FROM CURRENT OPERATIONS: | | |
| 2 MINIMUM REQUIRED NET REVENUES ¹ | 4,806 | 0 |
| 3 EXPENSES NOT REQUIRING CASH: | | |
| 4 FEDERAL PROJECTS DEPRECIATION | 195,884 | 207,517 |
| 5 AMORTIZATION OF CAPITALIZED BOND PREMIUMS | 3,009 | 2,900 |
| 6 CAPITALIZATION ADJUSTMENT | (18,968) | (18,968) |
| 7 ACCRUAL REVENUES (AC INTERTIE/FIBER) ² | (9,424) | (6,744) |
| 8 DRAWDOWN OF CASH RESERVES FOR CAPITAL FUNDING | 15,000 | 15,000 |
| 9 CASH PROVIDED BY CURRENT OPERATIONS | 190,307 | 199,705 |
| 10 CASH USED FOR CAPITAL INVESTMENTS: | | |
| 11 INVESTMENT IN: | | |
| 12 UTILITY PLANT | (268,617) | (279,464) |
| 13 CASH USED FOR CAPITAL INVESTMENTS | (268,617) | (279,464) |
| 14 CASH FROM TREASURY BORROWING AND APPROPRIATIONS: | | |
| 15 INCREASE IN LONG-TERM DEBT | 253,617 | 264,464 |
| 16 DEBT SERVICE REASSIGNMENT PRINCIPAL PAYMENT | | |
| 17 REPAYMENT OF LONG-TERM DEBT | (124,938) | (152,700) |
| 18 REPAYMENT OF CAPITAL APPROPRIATIONS | (50,369) | (17,600) |
| 19 CASH FROM TREASURY BORROWING AND APPROPRIATIONS | 78,310 | 94,164 |
| 20 ANNUAL INCREASE (DECREASE) IN CASH | 0 | 14,405 |
| 21 PLANNED NET REVENUES FOR RISK | 0 | 0 |
| 22 TOTAL ANNUAL INCREASE (DECREASE) IN CASH | 0 | 14,405 |

¹ Line 20 must be greater than or equal to zero, otherwise net revenues are added so that there are no negative cash flows for the year.

² In 2006, includes \$2,680 of an accrual-to-cash adjustment pertaining to Schultz-Wautoma AFUDC.

CHAPTER 2

TRANSMISSION EXPENSES

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1. Introduction

This chapter compiles the expenses that are the basis for cost recovery in determination of transmission revenue requirements for the rate approval period.

2. Expenses

BPA used O&M expenses reflected in the final spending level process and decisions explained in Chapter 2 of the Study. Between business line expenses for FY2006, as determined in BPA's 2002 power rate case, are the generation inputs for ancillary services and the COE and BOR annual costs of network transmission and utility delivery facilities of those agencies. Also included are costs associated with redispatch.

Depreciation expense, calculated using the straight-line method and remaining life technique is determined for lines, substations, and each of the FERC Accounts in the general plant category.

See Chapter 3 - FCRTS Investment Base.

Interest expense is calculated in the transmission repayment study, using the capital appropriations and BPA revenue bonds issued to Treasury at individual interest rates.

See Chapter 4, "Projected Cash Balances / Interest Credit" for calculation of the interest credit on cash reserves.

Table 2.1: TBL Expenses (\$000) Programs in Review

| Program & Other Operating Costs | FY2006 | FY2007 |
|---|---------------|---------------|
| TBL Transmission Acquisition | | |
| Leased Facilities | 12,614 | 12,614 |
| Settlements | 912 | 912 |
| Stability Reserve Payments | 310 | 310 |
| Sub-Total Transmission Acquisition | 13,835 | 13,835 |
| Transmission System Operations | | |
| Information Technology | 10,130 | 10,230 |
| Power System Dispatching | 9,800 | 9,800 |
| Control Center Support | 7,770 | 7,770 |
| Technical Operations | 3,620 | 3,620 |
| Substation Operations | 18,193 | 18,193 |
| Sub-Total Transmission System Operations | 49,513 | 49,613 |
| Transmission Scheduling | | |
| Management Supervision & Administration | 356 | 356 |
| Reservations | 300 | 300 |
| Pre-Scheduling | 740 | 740 |
| Real-Time Scheduling | 3,206 | 3,506 |
| Scheduling Technical Support | 6,215 | 6,264 |
| Scheduling After-The-Fact | 653 | 653 |
| Sub-Total Transmission Scheduling | 11,470 | 11,819 |
| Transmission Marketing | | |
| Transmission Sales | 2,243 | 2,243 |
| Marketing Internal Operations | 1,060 | 1,060 |
| Transmission Finance | 760 | 760 |
| Contract Management | 2,007 | 2,007 |
| Transmission Billing | 2,006 | 2,106 |
| Business Strategy & Assessment | 2,192 | 2,192 |
| Marketing IT Support | 2,585 | 2,585 |
| Meter Data | 1,922 | 1,972 |
| Sub-Total Transmission Marketing | 14,776 | 14,925 |

| Program & Other Operating Costs | FY2006 | FY2007 |
|---|---------------|---------------|
| Transmission Business Support | | |
| Executive and Admin Services ¹ | 9,944 | 11,718 |
| Staff Management | 416 | 416 |
| TBL Internal G&A ¹ | 3,098 | 3,098 |
| Aircraft Services | 743 | 743 |
| Logistics Services | 3,700 | 3,700 |
| Security Enhancements | 1,007 | 1,007 |
| Sub-Total Transmission Business Operations | 18,907 | 20,681 |
| Transmission System Development | | |
| Research & Development | 3,331 | 3,328 |
| TSD Planning & Analysis | 1,524 | 1,521 |
| Capital to Expense Transfer | 3,000 | 3,000 |
| Inventory Management | 1,000 | 1,000 |
| Regulatory & Region Association Fees | 700 | 700 |
| Sub-Total Transmission System Development | 9,555 | 9,549 |
| Transmission System Maintenance | | |
| Non-Electric Maintenance | 9,244 | 8,344 |
| Substation Maintenance | 14,810 | 15,590 |
| Transmission Line Maintenance | 16,290 | 17,140 |
| System Protection Control Maintenance | 8,080 | 8,500 |
| Power System Control Maintenance | 8,110 | 8,540 |
| System Maintenance Management | 6,120 | 6,440 |
| Right Of Way Maintenance | 13,465 | 11,565 |
| Heavy Mobile Equipment Maintenance | 1,278 | 1,278 |
| Technical Training | 2,969 | 2,969 |
| Sub-Total Transmission System Maintenance | 80,366 | 80,366 |

¹ /Executive and Admin Services includes expenses for Executive Management, Pay for Performance and Asset

Management Internal G&A includes expenses for General Administration and Relocations

| Program & Other Operating Costs | FY2006 | FY2007 |
|--|----------------|----------------|
| Transmission Environmental Operations | | |
| Environmental Policy & Planning | 1,286 | 1,309 |
| Pollution Prevention & Abatement | 3,290 | 3,290 |
| Sub-Total Transmission Environmental Operations | 4,576 | 4,599 |
| Transmission Other | | |
| Civil Service Retirement System (CSRS) | 11,550 | 10,550 |
| Undistributed Cost Reduction | (2,680) | |
| Non-Federal Debt Service | | |
| Sub-Total Transmission Other | 8,870 | 10,550 |
| Sub-Total System Operations & Maintenance | 211,868 | 215,938 |
| Between Business Line Expenses | | |
| Ancillary Services | 64,486 | 64,485 |
| Corps/Bureau/Network/Delivery Facilities | 3,544 | 3,920 |
| Station Service | 3,200 | 3,816 |
| Sub-Total Between Business Line Expense | 71,229 | 72,221 |
| Corporate Expenses | | |
| Legal Support – Expense | 1,844 | 1,908 |
| Shared Services Costs | 26,221 | 27,357 |
| Corporate Overhead Distributions | 25,715 | 29,217 |
| Sub-Total Corporate Charges | 53,780 | 58,482 |
| Total Expense Program Levels | 336,877 | 346,641 |

Table 2.2: Federal Columbia River Transmission System Capital-Related Costs

**SUMMARY OF TRANSMISSION CURRENT REPAYMENT STUDY DATA
AND OTHER CAPITAL COMPONENTS
(\$000)**

| | A 2006 | B 2007 |
|--|-------------------|-------------------|
| 1 INTEREST EXPENSE (GROSS) | | |
| 2 DSR INTEREST | 25,699 | 25,699 |
| 3 BPA APPROPRIATIONS | 48,047 | 44,449 |
| 4 TRANSMISSION LONG-TERM DEBT | 119,853 | 139,725 |
| 5 TOTAL INTEREST EXPENSE | 193,599 | 209,873 |
| | | |
| 6 PLANNED AMORTIZATION | | |
| 7 BPA APPROPRIATIONS | 50,369 | 17,600 |
| 8 LONG-TERM DEBT | 124,938 | 152,700 |
| 9 TOTAL AMORTIZATION | 175,307 | 170,300 |
| | | |
| SUMMARY OF DEPRECIATION EXPENSE | | |
| 10 TRANSMISSION PLANT | | |
| 11 LINES | 52,013 | 53,848 |
| 12 SUBSTATIONS | 74,726 | 81,008 |
| 13 GENERAL PLANT | 69,145 | 72,661 |
| 14 TOTAL DEPRECIATION | 195,884 | 207,517 |

Table 2.3: AFUDC

| | (\$ thousands) updated 5/3/05 | | | |
|------------------------|----------------------------------|-------------|-------------|-------------|
| | 2004 | 2005 | 2006 | 2007 |
| 1 capital expenditures | | 247,609 | 239,981 | 249,248 |
| 2 plant-in-service | | 311,751 | 415,193 | 269,054 |
| 3 SOY CWIP Balance | 443,967 | 512,374 | 464,732 | 304,273 |
| 4 EOY CWIP Balance | 491,846 | 448,232 | 289,520 | 284,467 |
| 5 Average CWIP Balance | 467,907 | 480,303 | 377,126 | 294,370 |
| 6 Interest Income Rate | 5.32% | 4.89% | 4.89% | 4.89% |
| 7 AFUDC | 20,528 | 16,500 | 14,753 | 11,516 |

FY 2005 is the Second Quarter Review estimate

Table 2.4: Amortization of Premiums of Bond Refinancings

| Date of Refinancing | Premium | Proration | No. of Months | Monthly Amortization | Type of Bond | Last Month to Amortize | 2006 | 2007 |
|---------------------|---------------------|-----------|---------------|----------------------|--------------|------------------------|-------------|-------------|
| 8/31/1992 | \$7,760,000 | | 180 | \$43,111.11 | Construction | Aug-2007 | \$517,000 | \$474,000 |
| 10/31/1993 | \$8,440,000 | | 480 | \$17,583.33 | Construction | Oct-2033 | pd 9/30/03 | \$0 |
| 8/31/1997 | \$7,954,100 | | 120 | \$66,284.17 | Construction | Aug-2007 | \$795,000 | \$729,000 |
| 4/30/1998 | \$4,998,330 | | 120 | \$41,652.75 | Construction | Apr-2008 | \$500,000 | \$500,000 |
| 5/31/1998 | \$4,827,690 | | 132 | \$36,573.41 | Construction | May-2009 | \$439,000 | \$439,000 |
| 5/31/1998 | \$2,556,947 | | 156 | \$16,390.69 | Construction | May-2011 | \$197,000 | \$197,000 |
| 5/31/1998 | \$6,322,053 | | 408 | \$15,495.23 | Construction | May-2032 | \$186,000 | \$186,000 |
| 8/31/1998 | \$4,684,950 | | 360 | \$13,013.75 | Construction | Aug-2028 | \$156,000 | \$156,000 |
| 8/31/1998 | \$6,560,000 | | 360 | \$18,222.22 | Construction | Aug-2028 | \$219,000 | \$219,000 |
| 1/31/2000 | \$3,470,000 | | 60 | \$57,866.67 | Construction | Jan-2005 | \$0 | \$0 |
| Total | <u>\$57,574,070</u> | | | <u>\$326,193.32</u> | | | \$3,009,000 | \$2,900,000 |

CHAPTER 3
FCRTS INVESTMENT BASE

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1. Introduction

This chapter documents the development of the FCRTS investment for the rate approval period.

In this proposal the investment data primarily serve as the source of depreciation calculations.

2. Methodology

The historical investment information is prepared from BPA's plant investment records. The general plant investment is identified according to different types of facilities (communications, supervisory control, buildings, etc.) by FERC Account. The historical plant investment data are from FY 2003.

Forecasted plant additions have been adjusted to take into account the investment associated with Delivery segment facilities projected to be sold prior to the rate approval period.

Depreciation is calculated using the straight-line method, remaining life technique. For general plant categories, annual depreciation rates are used unadjusted. For lines and substations, the annual rate has been weighted by the groups that compose these facilities, e.g., Substations is made up of land and land rights, structures and improvements, and station equipment. Both historical investment and forecasted additions are depreciated according to their group rate.

Table 3-1: BPA Plant Depreciation and Accumulated Depreciation

(**\$ THOUSANDS**)

| | A 2004 PLANT INVEST | B 2004 ACCUM DEPREC | C 2005 PLANT INVEST | D 2005 DEPREC EXPEN | E 2005 ACCUM DEPREC | F 2006 PLANT INVEST | G 2006 DEPREC EXPEN | H 2006 ACCUM DEPREC | I 2007 PLANT INVEST | J 2007 DEPREC EXPEN | K 2007 ACCUM DEPREC |
|------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 1 LINES: | | | | | | | | | | | |
| 2 GENER-INTEGRATION | 16,883 | 8,595 | 17,000 | 386 | 8,981 | 17,160 | 389 | 9,370 | 17,297 | 393 | 9,763 |
| 3 NETWORK | 1,779,636 | 877,861 | 1,929,871 | 42,288 | 920,149 | 1,993,025 | 44,721 | 964,870 | 2,083,221 | 46,469 | 1,011,339 |
| 4 SOUTHERN INTERTIE | 199,509 | 100,401 | 201,118 | 4,567 | 104,968 | 204,444 | 4,623 | 109,591 | 207,347 | 4,694 | 114,285 |
| 5 EASTERN INERTIE | 99,093 | 54,995 | 99,386 | 2,263 | 57,258 | 99,785 | 2,271 | 59,529 | 100,128 | 2,279 | 61,808 |
| 6 UTILITY DELIVERY | 150 | 17 | 300 | 5 | 22 | 504 | 9 | 31 | 679 | 13 | 44 |
| 7 DSi DELIVERY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 PLANT LEASED | 185 | 185 | 185 | 0 | 185 | 185 | 0 | 185 | 185 | 0 | 185 |
| 9 TOTAL LINES | 2,095,456 | 1,042,054 | 2,247,860 | 49,509 | 1,091,563 | 2,315,103 | 52,013 | 1,143,576 | 2,408,857 | 53,848 | 1,197,424 |
| 10 SUBSTATIONS: | | | | | | | | | | | |
| 11 GENER-INTEGRATION | 43,092 | 16,988 | 43,592 | 1,335 | 18,323 | 43,954 | 1,348 | 19,671 | 44,446 | 1,361 | 21,032 |
| 12 NETWORK | 1,530,888 | 572,267 | 1,630,504 | 48,685 | 620,952 | 1,914,797 | 54,598 | 675,550 | 2,023,993 | 60,657 | 736,207 |
| 13 SOUTHERN INTERTIE | 534,061 | 184,700 | 539,677 | 16,536 | 201,236 | 544,692 | 16,699 | 217,935 | 551,647 | 16,884 | 234,819 |
| 14 EASTERN INERTIE | 24,128 | 18,825 | 24,512 | 749 | 19,574 | 24,804 | 759 | 20,333 | 25,195 | 770 | 21,103 |
| 15 UTILITY DELIVERY | 31,874 | 13,820 | 22,064 | 831 | 14,651 | 22,462 | 686 | 15,337 | 23,002 | 700 | 16,037 |
| 16 DSi DELIVERY | 67,300 | 26,389 | 20,663 | 1,355 | 8,518 | 20,663 | 636 | 9,154 | 20,663 | 636 | 9,790 |
| 17 PLANT LEASED | 4 | 4 | 4 | 0 | 4 | 4 | 0 | 4 | 4 | 0 | 4 |
| 18 TOTAL SUBSTATIONS | 2,231,347 | 832,993 | 2,281,016 | 69,491 | 883,258 | 2,571,376 | 74,726 | 957,984 | 2,688,950 | 81,008 | 1,038,992 |

Table 3-2: BPA Projected Transmission Plant Investment

(\$ IN THOUSANDS)

| | A | | B | | C | | D | | E | | F | | G | |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|-----------|--------|--------|--------|--------|
| | TOTAL | | TOTAL | | TOTAL | | TOTAL | | TOTAL | | TOTAL | | TOTAL | |
| | 2004 | 2005 | 2005 | 2006 | 2006 | 2006 | 2007 | 2007 | 2007 | 2007 | 2007 | 2007 | 2007 | 2007 |
| | INVEST | ADDITIONS | INVEST | ADDITIONS | INVEST | ADDITIONS | INVEST | ADDITIONS | INVEST | ADDITIONS | INVEST | INVEST | INVEST | INVEST |
| 1 GENER-INTEGRATION | 59,975 | 617 | 60,592 | 522 | 61,114 | 629 | 61,743 | | | | | | | |
| 2 NETWORK | 3,310,524 | 249,851 | 3,560,375 | 347,447 | 3,907,822 | 199,392 | 4,107,214 | | | | | | | |
| 3 SOUTHERN INTERTIE | 733,570 | 7,225 | 740,795 | 8,341 | 749,136 | 9,858 | 758,994 | | | | | | | |
| 4 EASTERN INTERTIE | 123,221 | 677 | 123,898 | 691 | 124,589 | 734 | 125,323 | | | | | | | |
| 5 UTILITY DELIVERY | 32,024 | (9,660) | 22,364 | 602 | 22,966 | 715 | 23,681 | | | | | | | |
| 6 DSi DELIVERY | 67,300 | (46,637) | 20,663 | 0 | 20,663 | 0 | 20,663 | | | | | | | |
| 7 PLANT HELD | 3,245 | 0 | 3,245 | 0 | 3,245 | 0 | 3,245 | | | | | | | |
| 8 PLANT LEASED | 189 | 0 | 189 | 0 | 189 | 0 | 189 | | | | | | | |
| 9 GENERAL PLANT | 919,341 | 52,688 | 972,029 | 57,591 | 1,029,620 | 57,730 | 1,087,350 | | | | | | | |
| 10 TOTAL BPA | 5,249,389 | 254,761 | 5,504,150 | 415,194 | 5,919,344 | 269,058 | 6,188,402 | | | | | | | |

Table 3-3: BPA Plant Investment Additions

| | A LINES | B SUBS | C GEN PLANT | (\$ IN THOUSANDS) | | | | G GEN PLANT | H TOTAL 2006 ADDITIONS | I LINES | J SUBS | K GEN PLANT | L TOTAL 2007 ADDITIONS | |
|--|------------|-----------|-------------------|---------------------------------|------------|-----------|---------------------------------|-------------------|---------------------------------|------------|-----------|-------------------|---------------------------------|---------|
| | | | | D TOTAL 2005 ADDITIONS | E LINES | F SUBS | H TOTAL 2006 ADDITIONS | | | | | | | |
| | | | | | | | | | | | | | | |
| 1 GENER-INTEGRATION | 117 | 500 | | 617 | 160 | 362 | | | 522 | 137 | 492 | | | 629 |
| 2 NETWORK | 150,235 | 99,616 | | 249,851 | 63,154 | 284,293 | | | 347,447 | 90,196 | 109,196 | | | 199,392 |
| 3 SOUTHERN INTERTIE | 1,609 | 5,616 | | 7,225 | 3,326 | 5,015 | | | 8,341 | 2,903 | 6,955 | | | 9,858 |
| 4 EASTERN INERTIE | 293 | 384 | | 677 | 399 | 292 | | | 691 | 343 | 391 | | | 734 |
| 5 UTILITY DELIVERY | 150 | (9,810) | | (9,660) | 204 | 398 | | | 602 | 175 | 540 | | | 715 |
| 6 DSi DELIVERY | 0 | (46,637) | | (46,637) | 0 | 0 | | | 0 | 0 | 0 | | | 0 |
| 7 PLANT HELD | | | | 0 | | | | | 0 | | | | | 0 |
| 8 PLANT LEASED | | | | 0 | | | | | 0 | | | | | 0 |
| 9 GENERAL PLANT | | | 52,688 | 52,688 | | | | 57,591 | 57,591 | | | | 57,730 | 57,730 |
| 10 TOTAL BPA | 152,404 | 49,669 | 52,688 | 254,761 | 67,243 | 290,360 | | 57,591 | 415,194 | 93,754 | 117,574 | | 57,730 | 269,058 |
| P-I-S removed for Delivery Facilities: | | | | | | | | | | | | | | |
| UTILITY DELIVERY | | | | 10,357 | | | | | | | | | | |
| DSi DELIVERY | | | | 46,637 | | | | | | | | | | |

Table 3-4: Adjustment for Actual 2004 Plant Data, Segmented Stations and Lines

| | (\$000) | | | |
|------------------------|--|--|-----------------------|--|
| | A 2004 PROJ'D PLANT INVEST | B 2004 PROJ'D PLANT ADDTNS | C ADJ TO ADDTNS | D 2004 ADJ ACTUAL PLANT INVEST |
| 1 LINES: | | | | |
| 2 GENER-INTEGRATION | 16,922 | 134 | (39) | 16,883 |
| 3 NETWORK | 1,807,267 | 93,806 | (27,631) | 1,779,636 |
| 4 SOUTHERN INTERTIE | 200,632 | 3,812 | (1,123) | 199,509 |
| 5 EASTERN INTERTIE | 99,191 | 334 | (98) | 99,093 |
| 6 UTILITY DELIVERY | 200 | 169 | (50) | 150 |
| 7 DSi DELIVERY | 0 | 0 | 0 | 0 |
| 8 OTHER | 62,321 | 0 | 0 | 62,321 |
| 9 PLANT LEASED | 185 | 0 | 0 | 185 |
| 10 TOTAL LINES | 2,186,718 | 98,255 | (28,940) | 2,157,778 |
| 11 ACTUAL INVESTMENT | 2,157,778 | | | |
| 12 SUBSTATIONS: | | | | |
| 13 GENER-INTEGRATION | 43,126 | 138 | (34) | 43,092 |
| 14 NETWORK | 1,558,502 | 113,573 | (27,614) | 1,530,888 |
| 15 SOUTHERN INTERTIE | 542,392 | 34,265 | (8,331) | 534,061 |
| 16 EASTERN INTERTIE | 24,212 | 346 | (84) | 24,128 |
| 17 UTILITY DELIVERY 1/ | 31,874 | 0 | 0 | 31,874 |
| 18 DSi DELIVERY 2/ | 67,300 | 0 | 0 | 67,300 |
| 19 METERING/GEN PLANT | 93,167 | 5,451 | (1,325) | 91,842 |
| 20 OTHER | 121,625 | 0 | 0 | 121,625 |
| 21 PLANT LEASED/GP | 4 | 0 | 0 | 4 |
| 22 TOTAL SUBSTATIONS | 2,482,202 | 153,773 | (37,388) | 2,444,814 |
| 23 ACTUAL INVESTMENT | 2,444,814 | | | |

Table 3-5: BPA Segmented Plant Investment and Accumulated Depreciation Allocation

| | (\$ IN THOUSANDS) | | | | | | | | | | | |
|------------------------------------|---------------------|--------------|---------------------|--------------------|--------------------|----------|---------------------------------|----------------------|---------------------------------|----------------------|-----------------------|--|
| | A GENER INTEG | B NETWORK | C SOUTH INTER | E EAST INTER | F UTIL DELIV | G DSI | H MTRNG AND GN PLNT 1/ | I PLANT LEASED | J EMRGCY SPRS & PT SBS | K OTHR PLNT 5/ | L TOTAL 9.30.03 | |
| 1. SUBSTATIONS | 42,921 | 1,442,661 | 507,330 | 23,866 | 35,048 | 83,640 | 67,878 19,838 | 4 | 3,319 | 121,625 | 2,328,292 19,838 | |
| 2. METERING STATIONS | | | | | | | | | | | | |
| 3. SUB TOTAL | 42,921 | 1,442,661 | 507,330 | 23,866 | 35,048 | 83,640 | 87,716 | 4 | 3,319 (3,319) | 121,625 | 2,348,130 (1) | |
| 4. EMRGNCY SPARES & PORT SUBS 2/ | 67 | 2,268 | 797 | 0 | 55 | 131 | | | | | | |
| 5. TOTAL SUBSTATIONS | 42,988 | 1,444,929 | 508,127 | 23,866 | 35,103 | 83,771 | 87,716 | 4 | | 121,625 | 2,348,129 | |
| 6. ACCUMULATED DEPRECIATION | (15,662) | (526,439) | (168,650) | (18,086) | (12,789) | (30,521) | (31,958) | (4) | | (43,581) | (847,689) | |
| 7. NET SUBSTATIONS | 27,326 | 918,490 | 339,477 | 5,780 | 22,314 | 53,250 | 55,758 | | | | 1,422,395 | |
| 8. LINES (INCL LEASD/OTHERS) | 16,788 | 1,713,461 | 196,820 | 98,857 | 31 | 0 | | 185 | | 62,321 | 2,088,463 | |
| 9. ACCUMULATED DEPRECIATION | (8,211) | (838,040) | (95,883) | (52,738) | (15) | 0 | | (185) | | (30,481) | (1,025,553) | |
| 10. NET LINES | 8,577 | 875,421 | 100,937 | 46,119 | 16 | 0 | | 0 | | | 1,031,070 | |
| 11. GENERAL PLANT | | | | | | | 776,164 | | | 15,438 | 791,602 | |
| 12. ACCUMULATED DEPRECIATION | | | | | | | (268,610) | | | (5,488) | (274,098) | |
| 13. NET GENERAL PLANT | | | | | | | 239,268 | | | | 239,268 | |
| 14. OTHER PHYSICAL PLANT (LAND) 3/ | | | | | | | | | | 39 | 39 | |
| 15. PLANT FOR FUTURE USE (LAND) | | | | | | | | | | 3,245 | 3,245 | |
| 16. TOTAL COMPLETED PLANT | 59,776 | 3,158,390 | 704,947 | 122,723 | 35,134 | 83,771 | 863,880 | 189 | 0 | 202,668 | 5,231,478 | |
| 17. TOTAL BPA COMPLETED PLANT 4/ | 59,776 | 3,158,390 | 704,947 | 122,723 | 35,134 | 83,771 | 863,880 | 189 | | 18,683 | 5,047,493 | |
| 18. ACCUMULATED DEPRECIATION | (23,873) | (1,364,479) | (264,533) | (70,824) | (12,804) | (30,521) | (300,568) | (189) | | (43,581) | (2,111,372) | |
| 19. NET COMPLETED PLANT | 35,903 | 1,793,911 | 440,414 | 51,899 | 22,330 | 53,250 | 563,312 | 0 | | (24,898) | 2,936,121 | |

1/ LINE 1 INCLUDES POWER SYSTEM CONTROL EQUIPMENT.

2/ ALLOCATED TO SEGMENTS BY SUBSTATION INVESTMENT.

3/ NON-DEPRECIABLE LAND.

4/ DOES NOT INCLUDE NON-DEPRECIABLE LAND.

5/ PFIA, Other Physical Plant, Future Use, and Plant retired but not yet removed from records.

Table 3-6: BPA General Plant Cumulative Plant Investment

(\$THOUSANDS)

| | FERC ACCT | 2004 TOTAL | 2005 TOTAL | 2006 TOTAL | 2007 TOTAL |
|--|--------------|---------------|---------------|---------------|---------------|
| 1 LAND & LAND RIGHTS | 389 | 8,260 | 8,260 | 8,260 | 8,260 |
| 2 STRUCTURES & IMPROVEMENTS | 390 | 142,641 | 150,813 | 157,326 | 163,970 |
| 3 OFFICE FURNITURE & FIXTURES | 391.1 | 2,370 | 2,370 | 2,370 | 2,370 |
| 4 DATA PROCESSING -EQUIPMENT | 391.2 | 29,091 | 29,091 | 29,091 | 29,091 |
| 5 DATA PROCESSING -SOFTWARE | 391.3 | 85,669 | 98,794 | 110,900 | 123,465 |
| 6 TRANSPORT EQUIPMENT | 392.1 | 24,388 | 25,313 | 26,262 | 27,214 |
| 7 HELICOPTERS | 392.2 | 5,271 | 5,892 | 6,530 | 7,170 |
| 8 AIRPLANES | 392.3 | 5,255 | 5,876 | 6,514 | 7,154 |
| 9 STORES EQUIPMENT | 393 | 1,914 | 2,839 | 3,788 | 4,740 |
| 10 TOOLS, SHOP & GARAGE EQUIPMENT | 394 | 9,285 | 9,906 | 10,544 | 11,184 |
| 11 LAB EQUIPMENT | 395 | 39,514 | 40,756 | 42,032 | 43,312 |
| 12 POWER OPERATED EQUIPMENT | 396 | 25,351 | 26,593 | 27,869 | 29,149 |
| 13 COMMUNICATIONS EQUIPMENT | 397 | 447,154 | 462,346 | 480,596 | 500,834 |
| 14 MISC EQUIPMENT | 398 | 1,336 | 1,336 | 1,336 | 1,336 |
| 15 SUBTOTAL GENERAL PLANT | | 827,499 | 870,185 | 913,418 | 959,249 |
| 16 STATION EQUIPMENT | 353 | 91,842 | 101,844 | 116,202 | 128,101 |
| 17 TOTAL GENERAL PLANT | | 919,341 | 972,029 | 1,029,620 | 1,087,350 |

Table 3-7: BPA General Plant Depreciation Expense

(\$THOUSANDS)

| | FERC ACCT | FY 2005 TOTAL | FY 2006 TOTAL | FY 2007 TOTAL |
|--|--------------|------------------|------------------|------------------|
| 1 LAND & LAND RIGHTS | 389 | 111 | 111 | 111 |
| 2 STRUCTURES & IMPROVEMENTS | 390 | 2,597 | 2,727 | 2,843 |
| 3 OFFICE FURNITURE & FIXTURES | 391.1 | 123 | 123 | 123 |
| 4 DATA PROCESSING -EQUIPMENT | 391.2 | 4,087 | 4,087 | 4,087 |
| 5 DATA PROCESSING -SOFTWARE | 391.3 | 16,408 | 18,652 | 20,847 |
| 6 TRANSPORT EQUIPMENT | 392.1 | 2,875 | 2,181 | 952 |
| 7 HELICOPTERS | 392.2 | 188 | 209 | 230 |
| 8 AIRPLANES | 392.3 | 187 | 208 | 230 |
| 9 STORES EQUIPMENT | 393 | 85 | 118 | 152 |
| 10 TOOLS, SHOP & GARAGE EQUIPMENT | 394 | 388 | 413 | 439 |
| 11 LAB EQUIPMENT | 395 | 2,384 | 2,459 | 2,535 |
| 12 POWER OPERATED EQUIPMENT | 396 | 1,795 | 1,882 | 1,970 |
| 13 COMMUNICATIONS EQUIPMENT | 397 | 26,103 | 27,062 | 28,167 |
| 14 MISC EQUIPMENT | 398 | 93 | 93 | 93 |
| 15 SUBTOTAL GENERAL PLANT | | 57,424 | 60,325 | 62,779 |
| 16 STATION EQUIPMENT | 353 | 7,835 | 8,820 | 9,882 |
| 17 TOTAL GENERAL PLANT | | 65,259 | 69,145 | 72,661 |

Table 3-8: BPA Transmission General Plant Projected Plant Additions

(\$THOUSANDS)

| | FERC ACCT | 2005 ADDTNS | 2006 ADDTNS | 2007 ADDTNS |
|--|----------------------|------------------------|------------------------|------------------------|
| 1 LAND & LAND RIGHTS | 389 | 0 | 0 | 0 |
| 2 STRUCTURES & IMPROVEMENTS | 390 | 8,172 | 6,513 | 6,644 |
| 3 OFFICE FURNITURE & FIXTURES | 391.1 | 0 | 0 | 0 |
| 4 DATA PROCESSING -EQUIPMENT | 391.2 | | | |
| 5 DATA PROCESSING -SOFTWARE | 391.3 | 13,125 | 12,106 | 12,565 |
| 6 TRANSPORT EQUIPMENT | 392.1 | 925 | 949 | 952 |
| 7 HELICOPTERS | 392.2 | 621 | 638 | 640 |
| 8 AIRPLANES | 392.3 | 621 | 638 | 640 |
| 9 STORES EQUIPMENT | 393 | 925 | 949 | 952 |
| 10 TOOLS, SHOP & GARAGE EQUIPMENT | 394 | 621 | 638 | 640 |
| 11 LAB EQUIPMENT | 395 | 1,242 | 1,276 | 1,280 |
| 12 POWER OPERATED EQUIPMENT | 396 | 1,242 | 1,276 | 1,280 |
| 13 COMMUNICATIONS EQUIPMENT | 397 | 15,192 | 18,250 | 20,238 |
| 14 MISC EQUIPMENT | 398 | 0 | 0 | 0 |
| 15 SUBTOTAL GENERAL PLANT | | 42,686 | 43,233 | 45,831 |
| 16 STATION EQUIPMENT | 353 | 10,002 | 14,358 | 11,899 |
| 17 TOTAL GENERAL PLANT | | 52,688 | 57,591 | 57,730 |

CHAPTER 4

PROJECTED CASH BALANCES/INTEREST CREDITS

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1. Introduction

This chapter projects BPA-TBL cash balances for the rate period and estimates the interest income (credits) to be earned on of BPA's projected cash balances and on annual funds to be returned to Treasury. Included in BPA-TBL's projected cash balances are proceeds from the sale of Delivery segment facilities projected to be sold prior to the 2006-2007 rate period.

2. Interest credits on BPA's projected cash balances

The beginning rate period cash balance was derived from BPA's business line cash analysis for FY 2004 and from current TBL forecasts of revenues, expenses and cash flows for FY 2005.

The annual incremental cash provided from forecasted net revenues are added to this, for revenue requirements and the current and revised revenue tests. As agreed to in the rate case settlement, reserves during the rate period are reduced by \$15 million each year for the funding of capital expenditures in lieu of Treasury borrowing. Using the existing interest earnings rate, annual interest income is calculated from projected average annual cash balances. In addition, based on an analysis of actual TBL within-year cash flows, thirty-three percent of the repayment study interest income is included in the total credit. The resulting interest income is applied as a credit against interest expense in the transmission revenue requirements and in the income statements of the current and revised revenue tests.

3. Interest income (repayment program calculation)

Separately, interest income rates listed in this chapter are calculated and used within the repayment program to calculate an interest credit based on the average cash necessary to pay the interest, bond call premiums, and amortization payments calculated by the study for return to

Treasury in that year. The repayment program assumes the cash accumulates at a uniform rate throughout the year, except for interest paid on bonds issued to Treasury at mid-year. At the end of the year, the cash balance, together with the interest credit earned thereon, is used in the program for payment of interest expense, amortization of the Federal investment, and payment of bond premiums. For a further explanation of the calculation of the interest credit computed within repayment studies, *see* 2004 Final Transmission Proposal Revenue Requirement Study, TR-04-FS-BPA-01, Appendix A - The Repayment Program.

4. Proceeds from projected sales of Delivery facilities

TBL has projected the sale of certain delivery facilities in FY 2005, to be sold at book value. The total book value was included in the cash flow for that year and, by virtue of being included in the cash balances for the rate period, these funds provide an interest credit comparable to the reduction in interest expense that would occur from retirement of an equivalent amount of transmission debt. The projected sales proceeds were not available for the risk analysis to use in determining Treasury payment probability.

Table 4-1: Interest Income from Projected Cash Balances Revenue Requirement Development

| | (\$ thousands) | | |
|---------------------------------|----------------|--------------|--------------|
| | 2005 | 2,006 | 2,007 |
| 1 Annual Cash Surplus/(Deficit) | | 0 | 14,405 |
| 2 Adjustments to Cash | | | |
| 3 SOY Cash Balance | | 190,400 | 175,400 |
| 4 EOY Cash Balance | 190,400 | 175,400 | 174,805 |
| 5 Average Cash Balance | | 182,900 | 175,103 |
| 6 Interest Income Rate | | 4.75% | 4.75% |
| 7 Annual Interest Income * | | 10,681 | 10,321 |
| * includes from repayment study | | 6,644 | 6,681 |

The calculation factors in reserve financing of \$15m/year.

Table 4-2: Interest Income from Projected Cash Balances Revenues from Current Rates

| | (\$ thousands) | |
|---------------------------------|----------------|-------------|
| | 2006 | 2007 |
| 1 Annual Cash Surplus/(Deficit) | (62,938) | (76,672) |
| 2 Adjustments to Cash | | |
| 3 SOY Cash Balance | 190,400 | 115,225 |
| 4 EOY Cash Balance | 112,462 | 23,553 |
| 5 Average Cash Balance | 151,431 | 69,389 |
| 6 Interest Income Rate | 4.75% | 4.75% |
| 7 Annual Interest Income * | 9,408 | 5,511 |
| * includes from repayment study | 6,644 | 6,681 |

The calculation factors in reserve financing of \$15m/year.

Table 4-3: Interest Income from Projected Cash Balances Revenues from Proposed Rates

| | (\$ thousands) | |
|---------------------------------|----------------|-------------|
| | 2006 | 2007 |
| 1 Annual Cash Surplus/(Deficit) | 9,815 | (2,172) |
| 2 Adjustments to Cash | | |
| 3 SOY Cash Balance | 190,400 | 189,706 |
| 4 EOY Cash Balance | 185,215 | 172,534 |
| 5 Average Cash Balance | 187,807 | 181,120 |
| 6 Interest Income Rate | 4.75% | 4.75% |
| 7 Annual Interest Income * | 11,136 | 10,818 |
| * includes from repayment study | 6,644 | 6,681 |

The calculation factors in reserve financing of \$15m/year.

Table 4-4: Forecasted Delivery Facilities Sold, Sales Prior to Rate Period

| FY 2005 | Substation | Utility | Plant Inv 1/ | Book Val 1/ |
|----------------|---------------------------|----------------------------|---------------------|--------------------|
| 1 | 10000160 Cape Horn | Skamania PUD | | |
| 2 | 10000102 Carson | Skamania PUD | | |
| 3 | 10000103 Cathlamet | Wahkiakum PUD | | |
| 4 | 10000148 Connell | Franklin PUD | | |
| 5 | 10000151 Corvallis | Ravalli Electric Coop | | |
| 6 | 10000222 Eagle Lake | Big Bend | | |
| 7 | 10000229 East Grangeville | Idaho Co Light & Power | | |
| 8 | 10000300 Glade | Big Bend | | |
| 9 | 10000313 Grantsdale | Ravalli Electric Coop | | |
| 10 | 10000310 Grays River | Wahkiakum PUD | | |
| 11 | 10000419 Laclede | Northern Lights | | |
| 12 | 10000517 Monmouth | Consumers Power / Monmouth | | |
| 13 | 10000532 Mountain Avenue | Ashland, City of | | |
| 14 | 10000542 N Bonneville | Skamania PUD | | |
| 15 | 10000544 North Butte | Consumers Power Inc | | |
| 16 | 10000561 Norway | Coos Curry | | |
| 17 | 10000614 Port Orford | Coos Curry | | |
| 18 | 10000648 Ringold | Big Bend / Franklin PUD | | |
| 19 | 10000710 Sandpoint | Northern Lights | | |
| 20 | 10000718 Scooteney | Big Bend | | |
| 21 | 10000725 Selle | Northern Lights | | |
| 22 | 10000766 Stevenson | Skamania PUD | | |
| 23 | 10000767 Stevensville | Ravalli Electric Coop | | |
| 24 | 10000831 Underwood | Skamania PUD | | |
| 25 | 10000841 Victor | Ravalli Electric Coop | | |
| 26 | 10000892 Yaak Sub | Northern Lights | | |
| | TOTAL | | \$ 10,357,490 | \$ 7,095,126 |

1/ For multi-segment stations, includes only that portion attributable to the Delivery Segment.

Table 4-5: Transmission Income Statement for 2005

| | 2005 |
|---|-------------|
| 1 OPERATING REVENUES | 634,151 |
| 2 OPERATING EXPENSES | |
| 3 OPERATION AND MAINTENANCE | 245,734 |
| 4 TRANSMISSION ACQUISITION AND ANCILLARY SERVICES | 89,569 |
| 5 FEDERAL PROJECTS DEPRECIATION | 190,400 |
| 6 TOTAL OPERATING EXPENSES | 525,703 |
| 7 INTEREST EXPENSE | |
| 8 DSR INTEREST | 25,080 |
| 9 INTEREST ON FEDERAL INVESTMENT - | |
| 10 ON APPROPRIATED FUNDS | 48,150 |
| 11 ON LONG-TERM DEBT | 100,240 |
| 12 INTEREST CREDIT ON CASH RESERVES | (12,704) |
| 13 AMORTIZATION OF CAPITALIZED BOND PREMIUMS | 3,240 |
| 14 CAPITALIZATION ADJUSTMENT | (18,968) |
| 15 AFUDC | (16,500) |
| 16 NET INTEREST EXPENSE | 128,538 |
| 17 TOTAL EXPENSES | 654,241 |
| 18 NET REVENUES | (20,090) |

2005 from Second Quarter Review.

Table 4-6: Transmission Statement of Cash Flows for 2005

| | (\$ thousands) | 2005 |
|---|----------------|----------------|
| Cash Provided by Current Operations | | |
| 1. Net Revenues | (20,090) | |
| 2. Expenses not Requiring Cash | 190,400 | |
| 3. Depreciation/Amortization | 3,240 | |
| 4. Amort of Capitalized Bond Premiums | (18,968) | |
| 5. Capitalization Adjustment | (8,770) | |
| 6. Accrual Revenues (AC Intertie & Fiber) | 7,095 | |
| 7. Proceeds from Sale of Facilities | (29,000) | |
| 8. Use of funds from NIFC "overdraft" | (2,000) | |
| 9. Reimbursable revenues accrual adjustment | 3,194 | |
| 10. Morgan Stanley payment | (16,500) | |
| 11. AFUDC | 108,601 | |
| 12. Cash Provided by Current Operations | <hr/> | |
| Cash Used for Capital Investments | | |
| 13. Investment in | (218,768) | |
| 14. Gross Utility Plant and CWIP | <hr/> | |
| 15. Cash Used for Capital Investments | (218,768) | |
| Cash From Borrowing and Appropriations | | |
| 16. Increase in Long-term debt | 258,368 | |
| 17. Repayment of Long-term debt | (153,500) | |
| 18. Repayment of Capital Appropriations | (1,501) | |
| 19. Subtotal Cash from Borrowing & Approp | 103,367 | |
| 20. Annual Change in Cash Balance | <hr/> | (6,800) |
| 21. Plus Beginning Cash Balance | <hr/> | 197,200 |
| 22. Year End Cash Balance | <hr/> | 190,400 |
| 23. Deferred Borrowing | <hr/> | |
| 24. Total Reserves | <hr/> | 190,400 |

CHAPTER 5
INTEREST RATES FOR TREASURY SOURCES OF CAPITAL
AND PRICE DEFLATORS

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1. Introduction

Interest rates on bonds issued by BPA to Treasury are used in development of repayment studies and projections of Federal interest expense in revenue requirements. Price deflators are used for developing spending levels in revenue requirements.

2. Source of Forecasts

To project interest rates on bonds issued to Treasury, BPA uses Treasury yield curve forecasts provided by the Global Insights Group (GI). GI is also the source of price deflators that BPA treats as escalators for purposes of developing spending levels. GI develops the price deflators taking into account projections of Gross Domestic Product (GDP). The GDP consists of the sum of consumption, investment, government purchases and net exports, excluding transfers to foreigners.

3. Interest Rate Projections

Projected interest rates for BPA bonds issued to Treasury are based on GI's yield curve projections of Treasury market rates, plus a markup of 32 to 90 basis points depending on the length of time to maturity. The markup estimate reflects an interagency agreement that Treasury price BPA bonds at a level comparable to securities (bonds) issued by U.S. government corporations. The markup estimate reflects the average basis point markup on recent intermediate and long-term bonds issued by BPA. As noted in the attached transmittal memo documenting the interest rates in this revenue requirement study, for the FY 2006-2007 period the 30-year rate reflects a markup of 90 basis points.

4. Deflators

The current and cumulative price deflator used to escalate midyear dollars are derived from the fiscal and calendar year price deflators provided by GI. They are calculated as follows:

$$[(FY1/100) \times 0.5] + 1 = \text{Cumulative Price Deflator}_1$$

The fiscal year GDP price deflator for the current year is divided by one hundred and multiplied by one half. The result, when added to one, yields the cumulative price deflator for the first year.

$$[1 + (FY_t/100)] \times \text{Cumulative Price Deflator}_{t-1} = \text{Cumulative Price Deflator}_t, \text{ when } t > 1$$

The fiscal year GDP price deflator for a future year is divided by one hundred and added to one. The result, when multiplied by the cumulative price deflator from the previous year, yields the cumulative price deflator for the each successive year.

To the extent deflators are used in developing the FY 2006-2007 spending levels, they are based on the price deflators from the Second Quarter 2002 GI forecast.

5. Memorandum: FY 2004, Q3 BPA Borrowing Rate and Inflation Projections

DOE F 1325.8e Electronic Form Approved by GINA - 10/08/2002
(08-09)

United States Government

Department of Energy

memorandum

Bonneville Power Administration

DATE: July 23, 2004

REPLY TO
ATTN OF: KFW

SUBJECT: FY 2004.Q3 BPA Borrowing Rate and Inflation Projections

TO: See Attached

Updated BPA inflation and borrowing rate projections for FY 2004 through 2029 are attached. Incorporating these assumptions in capital budgeting, financial, and strategic planning decisions provides an internally consistent basis for BPA decisions. BPA's FY 2004.Q3 (FY 2003) projections differ significantly from its FY 2002.Q3 (FY 2002) forecast.

FY 2004.Q3 Forecast Borrowing Rate and Inflation Reports

The FY 2004 forecast of BPA borrowing rate and inflation projections are based on the Global Insight (GI) CY 2004 Second Quarter Long-Term Economic Outlook. BPA Treasury borrowing rate assumptions are summarized in Tables 1-8. Tables 1-4 provide projections of BPA borrowing rates for selected of 30-year, 20-year, and 15-year terms.

In Table 1, GI CY projections of 30-year U.S. Government bond rates are shown in Column A. Fiscal year projections are shown in Column B. Column C is a projection of BPA's borrowing rate. This rate includes a mark-up over the Treasury yield curve that the Treasury Department assigns to BPA Federal borrowing. The mark-up ranges from 32 bp over the 1-year T-note to 90 bp over the 30-year T-Bond. The estimated Treasury markup is an average value derived from the experience of past BPA Treasury borrowings and BPA Treasury analysts.

Table 2 compares FY 2004 and FY 2002 BPA borrowing rate forecasts for a 30-year term with the FY 2002 forecast. Tables 3 and 4 provide Treasury borrowing rate projections for 20 and 15-year terms. Table 5 provides BPA's borrowing rate curve for 1-year to 50-year terms. Table 6 projects the borrowing rate for BPA appropriations. Municipal taxable and tax-exempt rates are projected in Tables 7 and 8.

BPA inflation assumptions are summarized in tables 9-10. Table 9 shows the change in BPA inflation assumptions. Table 10 summarizes equivalent cumulative discount rates for alternative base years.

BPA inflation assumptions reflect projected changes in the U.S. Gross Domestic Product (GDP) Implicit Price Deflator. This index assumes a base year of 2000. The projected change in the GDP price deflator is summarized in Table 9. Column A shows the projected trend in the GDP inflation rate between 2004-2029 on a calendar year basis and in column B by fiscal year. Column C provides the cumulative price index projections. The forecast expresses fiscal year dollar values as mid-year dollar values.

GDP may be viewed as the goods and services produced by domestic and foreign capital and labor within the United States. Major components of GDP include: total consumption, investment, government purchases, and net exports. The government's method for calculating GDP changed in 1996. Instead of fixed weights the new measure of GDP is now based on a chain-weighted methodology. This means real GDP calculations now reflect both the changing mix of the components in GDP, and the relative price changes in these components.

BPA Treasury Borrowing Rate and Inflation Rate Forecasts

The FY 2004 forecast expects BPA's Treasury borrowing rate to increase significantly over the next 6 years. BPA's 30-year borrowing rate is projected to increase 166 bp from 6.17 percent in FY 2004 to 7.83 percent in FY 2010. From 2011 to 2017, BPA's borrowing rate is projected to decline slightly. Beyond 2018 borrowing rates again trend higher.

Although the FY 2004 borrowing rate forecast is on average only modestly higher than the FY 2002 forecast, the trajectory of the current forecast diverges significantly from it. The current forecast begins in an environment of historically low rates significantly below the FY 2002 forecast. The projected sharp increase in FY 2004.Q3 borrowing rates does not overtake the FY 2002 forecast until FY 2007. It then remains above the prior forecast until FY 2018. In FY 2004 the current 30-year borrowing rate forecast is 86 bp below the FY 2002 forecast. By FY 2007 rising interest rates have eliminated this negative spread, and by FY 2008 the current 30-year borrowing rate projection exceeds the FY 2003 forecast by 34 bp. This positive spread over the FY 2002 forecast widens to 92 bp by 2010, then narrows to only 15 bp by FY 2018.

Source of Change

BPA's previous FY 2002 borrowing rate forecast reflected a compromise between two divergent views of the U.S. economy. In FY 2002 two preeminent national forecasting services, Data Resources Inc (DRI) and The WEFA Group merged to become Global Insight Inc. Within GI there were initially two divergent views concerning the outlook for the U.S. economy, inflation, and the success of future government fiscal and monetary policies. DRI believed monetary policies would be only partially successful in limiting inflationary pressures in the economy. The needs of an older population would require significantly higher levels of government spending. Accommodating fiscal policies would create imbalances in the economy that would raise inflation pressures and push interest rates higher. Conversely, the WEFA Group believed that worker retention, an older more experienced workforce, and higher labor productivity, would moderate inflationary pressures, as well as the social costs associated with the health and retirement needs of an older society. Government policy makers would be successful in managing inflation and the U.S. economy.

Because both views were credible, BPA's FY 2002 forecast reflects the mid-point of these divergent forecasts. Since then a single GI view has evolved that more closely reflects the WEFA FY 2002 forecast. BPA's FY 2004 forecast is a direct reflection of Global Insight's May 2004 25-year economic outlook. GI's current long-term outlook now reflects a more moderate inflationary environment.

The divergence from BPA's FY 2002 borrowing rate forecasts prior to 2009 reflects the impact of a recent multi-year economic recession, and revised GI expectations concerning inflationary

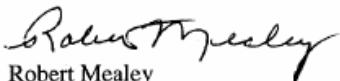
risks and Fed policy. In February 2002 GI expected economic activity to pickup, labor markets to tighten, and the Fed to limit inflationary pressures through restrictive monetary policies. GI believed the Fed Funds rate would increase from 1.75 percent to 5 percent over the following 2 years. However, interest rates continued to fall in the aftermath of the California energy crisis, scandals in corporate America and Wall Street that rocked investor confidence, and terrorist attacks at home. Interest rates did not begin to turn higher until the spring of 2003.

Over the next 6 years, GI expects a rebounding economy and rising inflationary expectations to push interest rates higher. The Fed is now expected to move more gradually in raising the Fed Funds rate from 1 percent to 5 percent over several years. Inflation is expected to remain well behaved, escalating from an annual rate of less than 2 percent to slightly more than 2 percent.

Beyond 2009, the assumptions underlying BPA's FY 2004 borrowing rate forecast parallel the previous forecast. Both forecasts assume that:

- Although the US government could face serious fiscal imbalances and increasing inflationary pressures that are structural and demographic in nature, future fiscal and monetary policies are effective in managing a path of stable economic growth.
- Inflationary pressures remain generally well contained.

If you have questions concerning these forecasts of BPA Treasury borrowing rates and/or inflation rates, please give Robert Mealey a call at (503) 230-5389. Also, please forward this to the appropriate people in your group. Your assistance in identifying addressees for future forecasts is appreciated.



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cc:
Official File – KFW (FI-21-12)

Table 5-1: 30 Year Treasury Yields, FY2004, Q3 Forecast of BPA Treasure Borrowing Rates

TABLE 1
30 YEAR TREASURY YIELDS
FY 2004.Q3 FORECAST OF BPA TREASURY BORROWING RATES
 Calendar/Fiscal Years 2003 - 2029

| <u>YEAR</u> | (A) | (B) | (C) |
|-------------|---|--|--|
| | <u>BOND RATE 1/</u> <u>Calendar Year</u> | <u>BOND RATE</u> <u>Fiscal Year</u> | <u>BPA RATE 2/</u> <u>Fiscal Year</u> |
| 2003 | 5.02% | 5.12% | 6.02% |
| 2004 | 5.35% | 5.27% | 6.17% |
| 2005 | 5.86% | 5.73% | 6.63% |
| 2006 | 5.93% | 5.92% | 6.82% |
| 2007 | 6.03% | 6.00% | 6.90% |
| 2008 | 6.48% | 6.36% | 7.26% |
| 2009 | 6.94% | 6.82% | 7.72% |
| 2010 | 6.93% | 6.93% | 7.83% |
| 2011 | 6.87% | 6.89% | 7.79% |
| 2012 | 6.80% | 6.82% | 7.72% |
| 2013 | 6.76% | 6.77% | 7.67% |
| 2014 | 6.75% | 6.75% | 7.65% |
| 2015 | 6.75% | 6.75% | 7.65% |
| 2016 | 6.76% | 6.76% | 7.66% |
| 2017 | 6.75% | 6.76% | 7.66% |
| 2018 | 6.82% | 6.81% | 7.71% |
| 2019 | 6.95% | 6.92% | 7.82% |
| 2020 | 7.02% | 7.01% | 7.91% |
| 2021 | 7.17% | 7.14% | 8.04% |
| 2022 | 7.18% | 7.18% | 8.08% |
| 2023 | 7.29% | 7.26% | 8.16% |
| 2024 | 7.34% | 7.33% | 8.23% |
| 2025 | 7.38% | 7.37% | 8.27% |
| 2026 | 7.45% | 7.43% | 8.33% |
| 2027 | 7.52% | 7.50% | 8.40% |
| 2028 | 7.57% | 7.56% | 8.46% |
| 2029 | 7.56% | 7.56% | 8.46% |

1/ BPA Forecast June 2004, Global Insight CY 2004.Q2 long-term outlook.
 The U.S. Economy: 25-Year Focus, Spring 2004 Core Forecast

2/ Column C = Column B + U.S. Treasury markup of 90 bp.

Table 5-2: 30 Year Treasury Yields, FY2004, Q3 Comparison of BPA Borrowing Rate Forecasts

TABLE 2

30 YEAR TREASURY YIELDS
FY 2004.Q3 COMPARISON OF BPA BORROWING RATE FORECASTS
Fiscal Years 2003 - 2029

| YEAR | (A) FY2004.Q3 FORECAST <u>BPA RATE 1/</u> | (B) FY2002.Q3 FORECAST <u>BPA RATE 2/</u> | (C) DIFFERENCE (A-B) |
|------|--|--|----------------------------|
| 2003 | 6.02% | 6.96% | -0.95% |
| 2004 | 6.17% | 7.03% | -0.86% |
| 2005 | 6.63% | 6.98% | -0.35% |
| 2006 | 6.82% | 6.95% | -0.13% |
| 2007 | 6.90% | 6.94% | -0.03% |
| 2008 | 7.26% | 6.92% | 0.34% |
| 2009 | 7.72% | 6.91% | 0.81% |
| 2010 | 7.83% | 6.91% | 0.92% |
| 2011 | 7.79% | 6.92% | 0.86% |
| 2012 | 7.72% | 6.98% | 0.74% |
| 2013 | 7.67% | 7.07% | 0.60% |
| 2014 | 7.65% | 7.19% | 0.46% |
| 2015 | 7.65% | 7.27% | 0.38% |
| 2016 | 7.66% | 7.37% | 0.29% |
| 2017 | 7.66% | 7.47% | 0.18% |
| 2018 | 7.71% | 7.59% | 0.11% |
| 2019 | 7.82% | 7.67% | 0.15% |
| 2020 | 7.91% | | |
| 2021 | 8.04% | | |
| 2022 | 8.08% | | |
| 2023 | 8.16% | | |
| 2024 | 8.23% | | |
| 2025 | 8.27% | | |
| 2026 | 8.33% | | |
| 2027 | 8.40% | | |
| 2028 | 8.46% | | |
| 2029 | 8.46% | | |

1/ BPA Forecast June 2004, Global Insight CY 2004.Q2 long-term outlook.
The U.S. Economy: 25-Year Focus, Spring 2004 Core Forecast

2/ BPA Forecast August 2002, Global Insight CY 2002.Q2 long-term outlook.
The U.S. Economy: 25-Year Focus, Spring 2002 Core Forecast

Table 5-3: 20 Year Treasury Yields, FY2004, Q3 Forecast of BPA Treasure Borrowing Rates

TABLE 3
20 YEAR TREASURY YIELDS
FY 2004.Q3 FORECAST OF BPA TREASURY BORROWING RATES
 Calendar/Fiscal Years 2003 - 2029

| <u>YEAR</u> | (A) | (B) | (C) |
|-------------|-----------------------------------|---------------------------------|--------------------------------|
| | BOND RATE <u>Calendar Year</u> | BOND RATE <u>Fiscal Year</u> | BPA RATE <u>Fiscal Year</u> |
| 2003 | 4.52% | 4.64% | 5.46% |
| 2004 | 4.92% | 4.82% | 5.64% |
| 2005 | 5.45% | 5.32% | 6.14% |
| 2006 | 5.58% | 5.55% | 6.37% |
| 2007 | 5.70% | 5.67% | 6.49% |
| 2008 | 6.21% | 6.09% | 6.91% |
| 2009 | 6.76% | 6.62% | 7.44% |
| 2010 | 6.76% | 6.76% | 7.58% |
| 2011 | 6.73% | 6.73% | 7.55% |
| 2012 | 6.67% | 6.68% | 7.50% |
| 2013 | 6.62% | 6.64% | 7.46% |
| 2014 | 6.61% | 6.62% | 7.44% |
| 2015 | 6.61% | 6.61% | 7.43% |
| 2016 | 6.64% | 6.63% | 7.45% |
| 2017 | 6.63% | 6.63% | 7.45% |
| 2018 | 6.72% | 6.69% | 7.51% |
| 2019 | 6.87% | 6.83% | 7.65% |
| 2020 | 6.96% | 6.94% | 7.76% |
| 2021 | 7.13% | 7.09% | 7.91% |
| 2022 | 7.15% | 7.14% | 7.96% |
| 2023 | 7.27% | 7.24% | 8.06% |
| 2024 | 7.33% | 7.31% | 8.13% |
| 2025 | 7.37% | 7.36% | 8.18% |
| 2026 | 7.45% | 7.43% | 8.25% |
| 2027 | 7.53% | 7.51% | 8.33% |
| 2028 | 7.59% | 7.57% | 8.39% |
| 2029 | 7.58% | 7.58% | 8.40% |

1/ BPA Forecast June 2004, Global Insight CY 2004.Q2 long-term outlook.
 The U.S. Economy: 25-Year Focus, Spring 2004 Core Forecast

2/ Column C = Column B + U.S. Treasury markup of 82 bp.

**Table 5-4: 15 Year Treasury Yields, FY2004, Q3 Forecast of BPA
Treasure Borrowing Rates**

TABLE 4
15 YEAR TREASURY YIELDS
FY 2004.Q3 FORECAST OF BPA TREASURY BORROWING RATES
Calendar/Fiscal Years 2003 - 2029

| <u>YEAR</u> | <u>BOND RATE 1/ Calendar Year</u> | <u>BOND RATE Fiscal Year</u> | <u>BPA RATE Fiscal Year</u> |
|-------------|---------------------------------------|----------------------------------|---------------------------------|
| 2003 | 4.27% | 4.40% | 5.09% |
| 2004 | 4.71% | 4.60% | 5.29% |
| 2005 | 5.24% | 5.11% | 5.80% |
| 2006 | 5.40% | 5.36% | 6.05% |
| 2007 | 5.54% | 5.50% | 6.19% |
| 2008 | 6.08% | 5.95% | 6.64% |
| 2009 | 6.66% | 6.52% | 7.21% |
| 2010 | 6.68% | 6.68% | 7.37% |
| 2011 | 6.65% | 6.66% | 7.35% |
| 2012 | 6.60% | 6.61% | 7.30% |
| 2013 | 6.56% | 6.57% | 7.26% |
| 2014 | 6.55% | 6.55% | 7.24% |
| 2015 | 6.55% | 6.55% | 7.24% |
| 2016 | 6.57% | 6.57% | 7.25% |
| 2017 | 6.57% | 6.57% | 7.26% |
| 2018 | 6.66% | 6.64% | 7.33% |
| 2019 | 6.83% | 6.79% | 7.48% |
| 2020 | 6.93% | 6.90% | 7.59% |
| 2021 | 7.11% | 7.07% | 7.75% |
| 2022 | 7.13% | 7.12% | 7.81% |
| 2023 | 7.26% | 7.23% | 7.92% |
| 2024 | 7.32% | 7.31% | 8.00% |
| 2025 | 7.37% | 7.36% | 8.05% |
| 2026 | 7.45% | 7.43% | 8.12% |
| 2027 | 7.53% | 7.51% | 8.20% |
| 2028 | 7.60% | 7.58% | 8.27% |
| 2029 | 7.59% | 7.60% | 8.28% |

1/ BPA Forecast June2004, Global Insight CY 2004.Q2 long-term outlook.
The U.S. Economy: 25-Year Focus, Spring 2004, Core Forecast

2/ Column C = Column B + U.S. Treasury markup of 69 bp.

Table 5-5: FY2004, Q3 Treasury Borrowing Rate Yield Curve Forecast 1

Table 5
FY 2004.Q3 BPA TREASURY BORROWING RATE YIELD CURVE FORECAST 1/
Fiscal Years: 2004 - 2029

| Year | Maturity | | | | | | | | | | | | | | | | | | | | |
|------|----------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1 Year | 2 Year | 3 Year | 4 Year | 5 Year | 6 Year | 7 Year | 8 Year | 9 Year | 10 Year | 11 Year | 12 Year | 13 Year | 14 Year | 15 Year | 16 Year | 17 Year | 18 Year | 19 Year | 20 Year | 21 Year |
| 2004 | 1.84 | 2.44 | 2.91 | 3.39 | 3.86 | 4.07 | 4.29 | 4.50 | 4.72 | 4.93 | 5.01 | 5.08 | 5.15 | 5.22 | 5.29 | 5.36 | 5.43 | 5.50 | 5.57 | 5.64 | 5.69 |
| 2005 | 2.80 | 3.43 | 3.81 | 4.19 | 4.58 | 4.75 | 4.93 | 5.11 | 5.28 | 5.46 | 5.53 | 5.60 | 5.66 | 5.73 | 5.80 | 5.87 | 5.93 | 6.00 | 6.07 | 6.14 | 6.19 |
| 2006 | 3.46 | 4.12 | 4.42 | 4.71 | 5.01 | 5.16 | 5.30 | 5.45 | 5.59 | 5.73 | 5.80 | 5.86 | 5.92 | 5.99 | 6.05 | 6.11 | 6.18 | 6.24 | 6.30 | 6.37 | 6.41 |
| 2007 | 3.68 | 4.34 | 4.63 | 4.92 | 5.20 | 5.34 | 5.48 | 5.62 | 5.76 | 5.90 | 5.96 | 6.01 | 6.07 | 6.13 | 6.19 | 6.25 | 6.31 | 6.37 | 6.43 | 6.49 | 6.53 |
| 2008 | 4.34 | 4.95 | 5.21 | 5.47 | 5.73 | 5.86 | 5.99 | 6.11 | 6.24 | 6.37 | 6.42 | 6.47 | 6.53 | 6.58 | 6.64 | 6.69 | 6.74 | 6.80 | 6.85 | 6.91 | 6.94 |
| 2009 | 5.25 | 5.78 | 6.00 | 6.22 | 6.44 | 6.54 | 6.65 | 6.76 | 6.87 | 6.97 | 7.02 | 7.07 | 7.11 | 7.16 | 7.21 | 7.25 | 7.30 | 7.35 | 7.39 | 7.44 | 7.47 |
| 2010 | 5.77 | 6.17 | 6.35 | 6.53 | 6.70 | 6.79 | 6.88 | 6.97 | 7.06 | 7.15 | 7.19 | 7.24 | 7.28 | 7.32 | 7.37 | 7.41 | 7.45 | 7.50 | 7.54 | 7.58 | 7.61 |
| 2011 | 5.86 | 6.23 | 6.39 | 6.55 | 6.72 | 6.80 | 6.89 | 6.97 | 7.06 | 7.14 | 7.18 | 7.22 | 7.26 | 7.31 | 7.35 | 7.39 | 7.43 | 7.47 | 7.51 | 7.55 | 7.58 |
| 2012 | 5.87 | 6.22 | 6.38 | 6.53 | 6.69 | 6.77 | 6.85 | 6.93 | 7.02 | 7.10 | 7.14 | 7.18 | 7.22 | 7.26 | 7.30 | 7.34 | 7.38 | 7.42 | 7.46 | 7.50 | 7.52 |
| 2013 | 5.89 | 6.22 | 6.37 | 6.52 | 6.66 | 6.74 | 6.82 | 6.90 | 6.98 | 7.06 | 7.10 | 7.14 | 7.18 | 7.22 | 7.26 | 7.30 | 7.34 | 7.38 | 7.42 | 7.46 | 7.48 |
| 2014 | 5.89 | 6.22 | 6.37 | 6.51 | 6.65 | 6.73 | 6.81 | 6.88 | 6.96 | 7.04 | 7.08 | 7.12 | 7.16 | 7.20 | 7.24 | 7.28 | 7.32 | 7.36 | 7.40 | 7.44 | 7.46 |
| 2015 | 5.88 | 6.21 | 6.35 | 6.50 | 6.64 | 6.72 | 6.80 | 6.88 | 6.96 | 7.04 | 7.08 | 7.12 | 7.16 | 7.20 | 7.24 | 7.28 | 7.32 | 7.35 | 7.39 | 7.43 | 7.46 |
| 2016 | 5.88 | 6.22 | 6.36 | 6.51 | 6.66 | 6.74 | 6.82 | 6.90 | 6.98 | 7.06 | 7.10 | 7.14 | 7.18 | 7.21 | 7.25 | 7.29 | 7.33 | 7.37 | 7.41 | 7.45 | 7.47 |
| 2017 | 5.89 | 6.22 | 6.37 | 6.52 | 6.67 | 6.75 | 6.83 | 6.91 | 6.99 | 7.07 | 7.10 | 7.14 | 7.18 | 7.22 | 7.26 | 7.30 | 7.34 | 7.38 | 7.41 | 7.45 | 7.47 |
| 2018 | 5.89 | 6.24 | 6.40 | 6.56 | 6.72 | 6.81 | 6.89 | 6.97 | 7.06 | 7.14 | 7.18 | 7.22 | 7.26 | 7.30 | 7.34 | 7.38 | 7.42 | 7.46 | 7.50 | 7.52 | |
| 2019 | 5.89 | 6.28 | 6.47 | 6.66 | 6.84 | 6.93 | 7.03 | 7.12 | 7.21 | 7.30 | 7.34 | 7.37 | 7.41 | 7.44 | 7.48 | 7.51 | 7.55 | 7.58 | 7.62 | 7.65 | 7.67 |
| 2020 | 5.89 | 6.31 | 6.52 | 6.73 | 6.93 | 7.03 | 7.13 | 7.23 | 7.33 | 7.43 | 7.46 | 7.49 | 7.53 | 7.56 | 7.59 | 7.63 | 7.66 | 7.69 | 7.73 | 7.76 | 7.77 |
| 2021 | 6.07 | 6.50 | 6.70 | 6.90 | 7.11 | 7.21 | 7.31 | 7.40 | 7.50 | 7.60 | 7.63 | 7.66 | 7.69 | 7.72 | 7.75 | 7.78 | 7.82 | 7.85 | 7.88 | 7.91 | 7.92 |
| 2022 | 6.13 | 6.55 | 6.76 | 6.96 | 7.17 | 7.27 | 7.37 | 7.47 | 7.57 | 7.66 | 7.69 | 7.72 | 7.75 | 7.78 | 7.81 | 7.84 | 7.87 | 7.90 | 7.93 | 7.96 | 7.97 |
| 2023 | 6.26 | 6.68 | 6.88 | 7.09 | 7.29 | 7.39 | 7.48 | 7.56 | 7.68 | 7.78 | 7.80 | 7.83 | 7.86 | 7.89 | 7.92 | 7.95 | 7.98 | 8.00 | 8.03 | 8.06 | 8.07 |
| 2024 | 6.34 | 6.75 | 6.96 | 7.17 | 7.37 | 7.47 | 7.57 | 7.67 | 7.76 | 7.86 | 7.89 | 7.92 | 7.94 | 7.97 | 8.00 | 8.03 | 8.06 | 8.08 | 8.11 | 8.13 | 8.14 |
| 2025 | 6.35 | 6.77 | 6.99 | 7.20 | 7.41 | 7.51 | 7.61 | 7.71 | 7.81 | 7.91 | 7.94 | 7.97 | 7.99 | 8.02 | 8.05 | 8.08 | 8.10 | 8.13 | 8.16 | 8.18 | 8.19 |
| 2026 | 6.35 | 6.79 | 7.02 | 7.24 | 7.47 | 7.57 | 7.68 | 7.78 | 7.89 | 7.99 | 8.02 | 8.04 | 8.07 | 8.10 | 8.12 | 8.15 | 8.17 | 8.20 | 8.23 | 8.25 | 8.26 |
| 2027 | 6.35 | 6.81 | 7.05 | 7.29 | 7.53 | 7.64 | 7.75 | 7.86 | 7.96 | 8.07 | 8.10 | 8.12 | 8.15 | 8.18 | 8.20 | 8.23 | 8.25 | 8.28 | 8.30 | 8.33 | 8.33 |
| 2028 | 6.36 | 6.83 | 7.08 | 7.33 | 7.58 | 7.70 | 7.81 | 7.92 | 8.03 | 8.15 | 8.17 | 8.20 | 8.22 | 8.25 | 8.27 | 8.29 | 8.32 | 8.34 | 8.37 | 8.39 | 8.40 |
| 2029 | 6.36 | 6.84 | 7.09 | 7.34 | 7.59 | 7.71 | 7.82 | 7.94 | 8.05 | 8.16 | 8.19 | 8.21 | 8.24 | 8.26 | 8.28 | 8.31 | 8.33 | 8.36 | 8.38 | 8.40 | 8.41 |

^{1/} Global Insight CY 2004.Q2 long-term outlook: The U.S. Economy: 25-Year Focus, Spring 2004 Core Forecast.

Table 5-6: FY2004, Q3 BPA Appropriations/Treasury Yield Curve Forecast 1

Table 6
2004.Q3 BPA APPROPRIATIONS/TREASURY YIELD CURVE FORECAST 1/
BPA Fiscal Years 2004 - 2029

| Year | 1 Year | 2 Year | 3 Year | 4 Year | 5 Year | 6 Year | 7 Year | 8 Year | 9 Year | 10 Year | 11 Year | 12 Year | 13 Year | 14 Year | 15 Year | 16 Year | 17 Year | 18 Year | 19 Year | 20 Year |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 2004 | 1.52 | 2.09 | 2.54 | 2.99 | 3.43 | 3.62 | 3.81 | 4.00 | 4.19 | 4.38 | 4.42 | 4.47 | 4.51 | 4.55 | 4.60 | 4.64 | 4.69 | 4.73 | 4.78 | 4.82 |
| 2005 | 2.47 | 3.08 | 3.44 | 3.79 | 4.15 | 4.30 | 4.45 | 4.60 | 4.75 | 4.90 | 4.94 | 4.99 | 5.03 | 5.07 | 5.11 | 5.15 | 5.19 | 5.23 | 5.27 | 5.32 |
| 2006 | 3.14 | 3.77 | 4.04 | 4.31 | 4.59 | 4.70 | 4.82 | 4.94 | 5.06 | 5.18 | 5.21 | 5.25 | 5.29 | 5.32 | 5.36 | 5.40 | 5.43 | 5.47 | 5.51 | 5.55 |
| 2007 | 3.36 | 3.99 | 4.26 | 4.52 | 4.78 | 4.89 | 5.00 | 5.11 | 5.23 | 5.34 | 5.37 | 5.40 | 5.44 | 5.47 | 5.50 | 5.54 | 5.57 | 5.60 | 5.64 | 5.67 |
| 2008 | 4.02 | 4.60 | 4.84 | 5.07 | 5.31 | 5.41 | 5.51 | 5.61 | 5.71 | 5.81 | 5.84 | 5.86 | 5.89 | 5.92 | 5.95 | 5.97 | 6.00 | 6.03 | 6.06 | 6.09 |
| 2009 | 4.94 | 5.43 | 5.62 | 5.82 | 6.01 | 6.09 | 6.17 | 6.25 | 6.34 | 6.42 | 6.44 | 6.46 | 6.48 | 6.50 | 6.52 | 6.54 | 6.56 | 6.58 | 6.60 | 6.62 |
| 2010 | 5.44 | 5.83 | 5.98 | 6.13 | 6.28 | 6.34 | 6.40 | 6.47 | 6.53 | 6.59 | 6.61 | 6.63 | 6.64 | 6.66 | 6.68 | 6.71 | 6.73 | 6.75 | 6.76 | 6.76 |
| 2011 | 5.54 | 5.88 | 6.02 | 6.15 | 6.29 | 6.35 | 6.41 | 6.47 | 6.52 | 6.58 | 6.60 | 6.61 | 6.63 | 6.64 | 6.66 | 6.67 | 6.69 | 6.70 | 6.72 | 6.73 |
| 2012 | 5.55 | 5.87 | 6.00 | 6.13 | 6.26 | 6.32 | 6.37 | 6.43 | 6.48 | 6.54 | 6.55 | 6.57 | 6.58 | 6.60 | 6.61 | 6.62 | 6.64 | 6.65 | 6.67 | 6.68 |
| 2013 | 5.57 | 5.88 | 6.00 | 6.12 | 6.23 | 6.29 | 6.34 | 6.39 | 6.45 | 6.50 | 6.51 | 6.53 | 6.54 | 6.55 | 6.57 | 6.58 | 6.59 | 6.61 | 6.62 | 6.64 |
| 2014 | 5.57 | 5.88 | 5.99 | 6.11 | 6.22 | 6.27 | 6.33 | 6.38 | 6.43 | 6.48 | 6.50 | 6.51 | 6.52 | 6.54 | 6.55 | 6.56 | 6.58 | 6.59 | 6.60 | 6.62 |
| 2015 | 5.55 | 5.86 | 5.98 | 6.10 | 6.22 | 6.27 | 6.32 | 6.38 | 6.43 | 6.48 | 6.49 | 6.51 | 6.52 | 6.53 | 6.55 | 6.56 | 6.57 | 6.59 | 6.60 | 6.61 |
| 2016 | 5.56 | 5.87 | 5.99 | 6.11 | 6.23 | 6.29 | 6.34 | 6.39 | 6.45 | 6.50 | 6.51 | 6.53 | 6.54 | 6.55 | 6.57 | 6.58 | 6.59 | 6.60 | 6.62 | 6.63 |
| 2017 | 5.57 | 5.88 | 6.00 | 6.12 | 6.24 | 6.29 | 6.35 | 6.40 | 6.45 | 6.51 | 6.52 | 6.53 | 6.55 | 6.57 | 6.58 | 6.60 | 6.61 | 6.62 | 6.63 | 6.63 |
| 2018 | 5.57 | 5.90 | 6.03 | 6.16 | 6.30 | 6.35 | 6.41 | 6.47 | 6.53 | 6.58 | 6.59 | 6.61 | 6.62 | 6.63 | 6.64 | 6.65 | 6.66 | 6.67 | 6.68 | 6.69 |
| 2019 | 5.57 | 5.94 | 6.10 | 6.26 | 6.41 | 6.48 | 6.55 | 6.61 | 6.68 | 6.75 | 6.75 | 6.76 | 6.77 | 6.78 | 6.79 | 6.80 | 6.81 | 6.82 | 6.82 | 6.83 |
| 2020 | 5.57 | 5.97 | 6.15 | 6.33 | 6.51 | 6.58 | 6.65 | 6.72 | 6.80 | 6.87 | 6.88 | 6.89 | 6.90 | 6.90 | 6.91 | 6.92 | 6.92 | 6.93 | 6.94 | 6.94 |
| 2021 | 5.75 | 6.15 | 6.33 | 6.50 | 6.68 | 6.75 | 6.83 | 6.90 | 6.97 | 7.04 | 7.05 | 7.05 | 7.06 | 7.06 | 7.07 | 7.07 | 7.07 | 7.08 | 7.09 | 7.09 |
| 2022 | 5.81 | 6.20 | 6.38 | 6.56 | 6.74 | 6.82 | 6.89 | 6.96 | 7.03 | 7.11 | 7.11 | 7.12 | 7.12 | 7.12 | 7.13 | 7.13 | 7.14 | 7.14 | 7.14 | 7.14 |
| 2023 | 5.94 | 6.33 | 6.51 | 6.69 | 6.86 | 6.93 | 7.01 | 7.08 | 7.15 | 7.22 | 7.22 | 7.22 | 7.23 | 7.23 | 7.23 | 7.23 | 7.24 | 7.24 | 7.24 | 7.24 |
| 2024 | 6.02 | 6.41 | 6.59 | 6.77 | 6.95 | 7.02 | 7.09 | 7.16 | 7.23 | 7.30 | 7.30 | 7.31 | 7.31 | 7.31 | 7.31 | 7.31 | 7.31 | 7.31 | 7.31 | 7.31 |
| 2025 | 6.03 | 6.42 | 6.61 | 6.80 | 6.99 | 7.06 | 7.13 | 7.21 | 7.28 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.36 |
| 2026 | 6.03 | 6.44 | 6.64 | 6.84 | 7.04 | 7.12 | 7.20 | 7.28 | 7.36 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 |
| 2027 | 6.03 | 6.46 | 6.66 | 6.89 | 7.10 | 7.18 | 7.27 | 7.35 | 7.43 | 7.52 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 | 7.51 |
| 2028 | 6.03 | 6.48 | 6.71 | 6.93 | 7.16 | 7.24 | 7.33 | 7.42 | 7.50 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 |
| 2029 | 6.04 | 6.49 | 6.71 | 6.94 | 7.17 | 7.28 | 7.34 | 7.43 | 7.52 | 7.61 | 7.60 | 7.60 | 7.60 | 7.60 | 7.60 | 7.60 | 7.60 | 7.60 | 7.60 | 7.60 |

1/ Global Insight CY 2004.Q2 long-term outlook: The U.S. Economy: 25-Year Focus, Spring Issue 2004 Core Forecast.

Table 6: (Cont.)

2004.Q3 BPA APPROPRIATIONS/TREASURY YIELD CURVE FORECAST 1/

BPA Fiscal Years 2004 - 2029

| 21 Year | 22 Year | 23 Year | 24 Year | 25 Year | 26 Year | 27 Year | 28 Year | 29 Year | 30 Year | 50 Year | Year |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| 4.87 | 4.91 | 4.96 | 5.00 | 5.04 | 5.09 | 5.13 | 5.18 | 5.22 | 5.27 | 5.27 | 2004 |
| 5.36 | 5.40 | 5.44 | 5.48 | 5.52 | 5.56 | 5.61 | 5.65 | 5.69 | 5.73 | 5.73 | 2005 |
| 5.58 | 5.62 | 5.66 | 5.69 | 5.73 | 5.77 | 5.80 | 5.84 | 5.88 | 5.92 | 5.92 | 2006 |
| 5.70 | 5.74 | 5.77 | 5.80 | 5.84 | 5.87 | 5.90 | 5.94 | 5.97 | 6.00 | 6.00 | 2007 |
| 6.11 | 6.14 | 6.17 | 6.20 | 6.23 | 6.25 | 6.28 | 6.31 | 6.34 | 6.36 | 6.36 | 2008 |
| 6.64 | 6.66 | 6.68 | 6.70 | 6.72 | 6.74 | 6.76 | 6.78 | 6.80 | 6.82 | 6.82 | 2009 |
| 6.78 | 6.80 | 6.81 | 6.83 | 6.85 | 6.86 | 6.88 | 6.90 | 6.91 | 6.93 | 6.93 | 2010 |
| 6.75 | 6.77 | 6.78 | 6.80 | 6.81 | 6.83 | 6.84 | 6.86 | 6.87 | 6.89 | 6.89 | 2011 |
| 6.69 | 6.71 | 6.72 | 6.74 | 6.75 | 6.77 | 6.78 | 6.79 | 6.81 | 6.82 | 6.82 | 2012 |
| 6.65 | 6.68 | 6.68 | 6.69 | 6.70 | 6.72 | 6.73 | 6.74 | 6.76 | 6.77 | 6.77 | 2013 |
| 6.63 | 6.64 | 6.66 | 6.67 | 6.68 | 6.70 | 6.71 | 6.72 | 6.74 | 6.75 | 6.75 | 2014 |
| 6.63 | 6.64 | 6.65 | 6.67 | 6.68 | 6.69 | 6.71 | 6.72 | 6.73 | 6.75 | 6.75 | 2015 |
| 6.64 | 6.66 | 6.67 | 6.68 | 6.69 | 6.71 | 6.72 | 6.73 | 6.75 | 6.76 | 6.76 | 2016 |
| 6.65 | 6.66 | 6.67 | 6.68 | 6.69 | 6.71 | 6.72 | 6.73 | 6.74 | 6.76 | 6.76 | 2017 |
| 6.71 | 6.72 | 6.73 | 6.74 | 6.75 | 6.76 | 6.77 | 6.78 | 6.79 | 6.81 | 6.81 | 2018 |
| 6.84 | 6.85 | 6.86 | 6.87 | 6.88 | 6.89 | 6.89 | 6.90 | 6.91 | 6.92 | 6.92 | 2019 |
| 6.95 | 6.95 | 6.96 | 6.97 | 6.97 | 6.98 | 6.99 | 6.99 | 7.00 | 7.01 | 7.01 | 2020 |
| 7.09 | 7.10 | 7.10 | 7.11 | 7.11 | 7.12 | 7.12 | 7.13 | 7.13 | 7.14 | 7.14 | 2021 |
| 7.15 | 7.15 | 7.15 | 7.16 | 7.16 | 7.17 | 7.17 | 7.17 | 7.18 | 7.18 | 7.18 | 2022 |
| 7.24 | 7.25 | 7.25 | 7.25 | 7.25 | 7.26 | 7.26 | 7.26 | 7.26 | 7.26 | 7.26 | 2023 |
| 7.32 | 7.32 | 7.32 | 7.32 | 7.32 | 7.32 | 7.32 | 7.32 | 7.32 | 7.33 | 7.33 | 2024 |
| 7.36 | 7.36 | 7.36 | 7.36 | 7.36 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 7.37 | 2025 |
| 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 7.43 | 2026 |
| 7.51 | 7.51 | 7.51 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | 2027 |
| 7.57 | 7.57 | 7.57 | 7.57 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 7.56 | 2028 |
| 7.58 | 7.58 | 7.58 | 7.58 | 7.57 | 7.57 | 7.57 | 7.57 | 7.56 | 7.56 | 7.56 | 2029 |

Table 5-7: FY2004, Q3 Municipal Taxable All-In Rate Curve Forecast 1

Table 7
FY 2004.Q3 MUNICIPAL TAXABLE ALL-IN RATE CURVE FORECAST 1/
BPA Fiscal Years 2004 - 2029

| Year | <u>MATURITY</u> | | | | | | | | | | | | | | | | | | | |
|------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| | 1 Year | 2 Year | 3 Year | 4 Year | 5 Year | 6 Year | 7 Year | 8 Year | 9 Year | 10 Year | 11 Year | 12 Year | 13 Year | 14 Year | 15 Year | 16 Year | 17 Year | 18 Year | 19 Year | |
| 2004 | 1.74 | 2.52 | 3.05 | 3.59 | 4.13 | 4.37 | 4.61 | 4.85 | 5.10 | 5.34 | 5.39 | 5.45 | 5.51 | 5.57 | 5.62 | 5.68 | 5.74 | 5.79 | 5.85 | |
| 2005 | 2.70 | 3.60 | 4.05 | 4.50 | 4.95 | 5.15 | 5.35 | 5.55 | 5.75 | 5.95 | 6.01 | 6.06 | 6.12 | 6.17 | 6.22 | 6.28 | 6.33 | 6.39 | 6.44 | |
| 2006 | 3.38 | 4.37 | 4.73 | 5.09 | 5.45 | 5.61 | 5.78 | 5.94 | 6.11 | 6.28 | 6.32 | 6.37 | 6.42 | 6.47 | 6.52 | 6.57 | 6.62 | 6.67 | 6.72 | |
| 2007 | 3.60 | 4.62 | 4.97 | 5.32 | 5.67 | 5.83 | 5.99 | 6.15 | 6.31 | 6.47 | 6.51 | 6.56 | 6.60 | 6.64 | 6.69 | 6.73 | 6.78 | 6.82 | 6.87 | |
| 2008 | 4.27 | 5.29 | 5.62 | 5.94 | 6.27 | 6.42 | 6.57 | 6.72 | 6.87 | 7.02 | 7.06 | 7.09 | 7.13 | 7.17 | 7.21 | 7.25 | 7.29 | 7.33 | 7.36 | |
| 2009 | 5.20 | 6.20 | 6.49 | 6.78 | 7.08 | 7.21 | 7.34 | 7.47 | 7.60 | 7.73 | 7.76 | 7.79 | 7.82 | 7.85 | 7.88 | 7.91 | 7.94 | 7.97 | 8.00 | |
| 2010 | 5.71 | 6.64 | 6.89 | 7.14 | 7.38 | 7.49 | 7.60 | 7.72 | 7.83 | 7.94 | 7.97 | 7.99 | 8.02 | 8.04 | 8.07 | 8.10 | 8.12 | 8.15 | 8.18 | |
| 2011 | 5.81 | 6.70 | 6.93 | 7.17 | 7.40 | 7.50 | 7.61 | 7.71 | 7.82 | 7.93 | 7.95 | 7.97 | 8.00 | 8.02 | 8.05 | 8.07 | 8.10 | 8.12 | 8.15 | |
| 2012 | 5.82 | 6.70 | 6.93 | 7.14 | 7.36 | 7.46 | 7.57 | 7.67 | 7.77 | 7.88 | 7.90 | 7.92 | 7.94 | 7.97 | 7.99 | 8.01 | 8.04 | 8.06 | 8.08 | |
| 2013 | 5.84 | 6.70 | 6.91 | 7.12 | 7.33 | 7.43 | 7.53 | 7.63 | 7.73 | 7.83 | 7.85 | 7.87 | 7.90 | 7.92 | 7.94 | 7.96 | 7.98 | 8.01 | 8.03 | |
| 2014 | 5.84 | 6.70 | 6.90 | 7.11 | 7.32 | 7.42 | 7.52 | 7.61 | 7.71 | 7.81 | 7.83 | 7.85 | 7.87 | 7.90 | 7.92 | 7.94 | 7.96 | 7.98 | 8.01 | |
| 2015 | 5.82 | 6.68 | 6.89 | 7.10 | 7.31 | 7.41 | 7.51 | 7.61 | 7.71 | 7.81 | 7.83 | 7.85 | 7.87 | 7.89 | 7.92 | 7.94 | 7.96 | 7.98 | 8.00 | |
| 2016 | 5.83 | 6.68 | 6.90 | 7.12 | 7.33 | 7.43 | 7.53 | 7.63 | 7.73 | 7.83 | 7.85 | 7.87 | 7.89 | 7.92 | 7.94 | 7.96 | 7.98 | 8.00 | 8.02 | |
| 2017 | 5.84 | 6.70 | 6.91 | 7.12 | 7.34 | 7.44 | 7.54 | 7.64 | 7.74 | 7.84 | 7.86 | 7.88 | 7.90 | 7.92 | 7.94 | 7.96 | 7.99 | 8.01 | 8.03 | |
| 2018 | 5.84 | 6.72 | 6.95 | 7.17 | 7.40 | 7.51 | 7.61 | 7.72 | 7.82 | 7.93 | 7.95 | 7.97 | 7.99 | 8.01 | 8.02 | 8.04 | 8.06 | 8.08 | 8.10 | |
| 2019 | 5.84 | 6.76 | 7.02 | 7.28 | 7.54 | 7.65 | 7.77 | 7.89 | 8.00 | 8.12 | 8.13 | 8.15 | 8.17 | 8.18 | 8.20 | 8.22 | 8.24 | 8.25 | 8.27 | |
| 2020 | 5.84 | 6.80 | 7.08 | 7.38 | 7.64 | 7.77 | 7.89 | 8.02 | 8.14 | 8.26 | 8.28 | 8.29 | 8.31 | 8.32 | 8.34 | 8.35 | 8.37 | 8.38 | 8.39 | |
| 2021 | 6.02 | 7.00 | 7.28 | 7.56 | 7.85 | 7.97 | 8.09 | 8.22 | 8.34 | 8.46 | 8.48 | 8.49 | 8.50 | 8.51 | 8.53 | 8.54 | 8.55 | 8.56 | 8.58 | |
| 2022 | 6.08 | 7.06 | 7.34 | 7.63 | 7.92 | 8.04 | 8.17 | 8.29 | 8.42 | 8.54 | 8.55 | 8.56 | 8.57 | 8.59 | 8.60 | 8.61 | 8.62 | 8.63 | 8.64 | |
| 2023 | 6.21 | 7.20 | 7.48 | 7.77 | 8.05 | 8.18 | 8.30 | 8.42 | 8.55 | 8.67 | 8.68 | 8.69 | 8.70 | 8.71 | 8.72 | 8.73 | 8.74 | 8.75 | 8.76 | |
| 2024 | 6.30 | 7.28 | 7.57 | 7.86 | 8.15 | 8.27 | 8.40 | 8.52 | 8.65 | 8.77 | 8.78 | 8.79 | 8.80 | 8.80 | 8.81 | 8.82 | 8.83 | 8.84 | 8.85 | |
| 2025 | 6.31 | 7.30 | 7.60 | 7.90 | 8.19 | 8.32 | 8.45 | 8.58 | 8.71 | 8.84 | 8.84 | 8.85 | 8.86 | 8.87 | 8.87 | 8.88 | 8.89 | 8.90 | 8.90 | |
| 2026 | 6.31 | 7.32 | 7.63 | 7.95 | 8.26 | 8.39 | 8.52 | 8.66 | 8.79 | 8.93 | 8.93 | 8.94 | 8.95 | 8.95 | 8.96 | 8.97 | 8.97 | 8.98 | 8.99 | |
| 2027 | 6.31 | 7.35 | 7.67 | 8.00 | 8.33 | 8.46 | 8.60 | 8.74 | 8.88 | 9.02 | 9.03 | 9.03 | 9.04 | 9.05 | 9.05 | 9.06 | 9.06 | 9.07 | 9.08 | |
| 2028 | 6.31 | 7.37 | 7.71 | 8.05 | 8.39 | 8.53 | 8.68 | 8.82 | 8.96 | 9.11 | 9.11 | 9.12 | 9.12 | 9.13 | 9.13 | 9.14 | 9.14 | 9.15 | 9.15 | |
| 2029 | 6.31 | 7.37 | 7.72 | 8.06 | 8.40 | 8.55 | 8.69 | 8.84 | 8.98 | 9.13 | 9.13 | 9.14 | 9.14 | 9.15 | 9.15 | 9.16 | 9.16 | 9.16 | 9.17 | |

1/ Global Insight CY 2004.Q2 long-term outlook. The U.S. Economy: 25-Year Focus, Spring Issue 2004 Core Forecast.

Table 7 (Cont.)
FY 2004.Q3 MUNICIPAL TAXABLE ALL-IN RATE CURVE FORECAST 1/
BPA Fiscal Years 2004 - 2029

| 20 Year | 21 Year | 22 Year | 23 Year | 24 Year | 25 Year | 26 Year | 27 Year | 28 Year | 29 Year | 30 Year | 50 Year | Year |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|
| 5.91 | 5.97 | 6.02 | 6.08 | 6.14 | 6.19 | 6.25 | 6.31 | 6.37 | 6.42 | 6.48 | 6.48 | 2004 |
| 6.49 | 6.55 | 6.60 | 6.66 | 6.71 | 6.76 | 6.82 | 6.87 | 6.92 | 6.98 | 7.03 | 7.03 | 2005 |
| 6.76 | 6.81 | 6.86 | 6.91 | 6.96 | 7.01 | 7.06 | 7.11 | 7.16 | 7.20 | 7.25 | 7.25 | 2006 |
| 6.91 | 6.96 | 7.00 | 7.05 | 7.09 | 7.14 | 7.18 | 7.23 | 7.27 | 7.32 | 7.36 | 7.36 | 2007 |
| 7.40 | 7.44 | 7.48 | 7.52 | 7.56 | 7.60 | 7.64 | 7.67 | 7.71 | 7.75 | 7.79 | 7.79 | 2008 |
| 8.03 | 8.06 | 8.09 | 8.13 | 8.16 | 8.19 | 8.22 | 8.25 | 8.28 | 8.31 | 8.34 | 8.34 | 2009 |
| 8.20 | 8.23 | 8.25 | 8.28 | 8.31 | 8.33 | 8.36 | 8.39 | 8.41 | 8.44 | 8.46 | 8.46 | 2010 |
| 8.17 | 8.19 | 8.22 | 8.24 | 8.27 | 8.29 | 8.32 | 8.34 | 8.36 | 8.39 | 8.41 | 8.41 | 2011 |
| 8.11 | 8.13 | 8.15 | 8.17 | 8.20 | 8.22 | 8.24 | 8.27 | 8.29 | 8.31 | 8.34 | 8.34 | 2012 |
| 8.05 | 8.07 | 8.10 | 8.12 | 8.14 | 8.16 | 8.19 | 8.21 | 8.23 | 8.25 | 8.27 | 8.27 | 2013 |
| 8.03 | 8.05 | 8.07 | 8.10 | 8.12 | 8.14 | 8.16 | 8.18 | 8.21 | 8.23 | 8.25 | 8.25 | 2014 |
| 8.03 | 8.05 | 8.07 | 8.09 | 8.11 | 8.14 | 8.16 | 8.18 | 8.20 | 8.22 | 8.25 | 8.25 | 2015 |
| 8.05 | 8.07 | 8.09 | 8.11 | 8.13 | 8.15 | 8.17 | 8.20 | 8.22 | 8.24 | 8.26 | 8.26 | 2016 |
| 8.05 | 8.07 | 8.09 | 8.11 | 8.13 | 8.15 | 8.17 | 8.20 | 8.22 | 8.24 | 8.26 | 8.26 | 2017 |
| 8.12 | 8.14 | 8.16 | 8.18 | 8.20 | 8.22 | 8.24 | 8.26 | 8.28 | 8.30 | 8.32 | 8.32 | 2018 |
| 8.29 | 8.30 | 8.32 | 8.34 | 8.35 | 8.37 | 8.39 | 8.40 | 8.42 | 8.44 | 8.45 | 8.45 | 2019 |
| 8.41 | 8.42 | 8.44 | 8.45 | 8.47 | 8.48 | 8.50 | 8.51 | 8.53 | 8.54 | 8.56 | 8.56 | 2020 |
| 8.59 | 8.60 | 8.61 | 8.62 | 8.64 | 8.65 | 8.66 | 8.67 | 8.69 | 8.70 | 8.71 | 8.71 | 2021 |
| 8.65 | 8.66 | 8.67 | 8.68 | 8.70 | 8.71 | 8.72 | 8.73 | 8.74 | 8.75 | 8.76 | 8.76 | 2022 |
| 8.77 | 8.78 | 8.79 | 8.80 | 8.81 | 8.82 | 8.83 | 8.84 | 8.85 | 8.86 | 8.86 | 8.86 | 2023 |
| 8.85 | 8.86 | 8.87 | 8.88 | 8.89 | 8.90 | 8.90 | 8.91 | 8.92 | 8.93 | 8.94 | 8.94 | 2024 |
| 8.91 | 8.92 | 8.93 | 8.93 | 8.94 | 8.95 | 8.96 | 8.96 | 8.97 | 8.98 | 8.99 | 8.99 | 2025 |
| 8.99 | 9.00 | 9.01 | 9.01 | 9.02 | 9.03 | 9.03 | 9.04 | 9.05 | 9.06 | 9.06 | 9.06 | 2026 |
| 9.08 | 9.09 | 9.09 | 9.10 | 9.11 | 9.11 | 9.12 | 9.12 | 9.13 | 9.14 | 9.14 | 9.14 | 2027 |
| 9.16 | 9.16 | 9.17 | 9.18 | 9.18 | 9.19 | 9.19 | 9.20 | 9.20 | 9.21 | 9.21 | 9.21 | 2028 |
| 9.17 | 9.18 | 9.18 | 9.19 | 9.19 | 9.20 | 9.20 | 9.20 | 9.21 | 9.21 | 9.22 | 9.22 | 2029 |

Table 8 (Cont.)
2004.Q3 MUNICIPAL TAX-EXEMPT ALL-IN RATE CURVE FORECAST 1/
BPA Fiscal Years 2004 - 2029

| 20 Year | 21 Year | 22 Year | 23 Year | 24 Year | 25 Year | 26 Year | 27 Year | 28 Year | 29 Year | 30 Year | 50 Year | Year |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|
| 4.43 | 4.49 | 4.55 | 4.60 | 4.66 | 4.71 | 4.77 | 4.83 | 4.88 | 4.94 | 4.99 | 4.99 | 2004 |
| 4.86 | 4.92 | 4.97 | 5.03 | 5.09 | 5.14 | 5.20 | 5.25 | 5.31 | 5.36 | 5.42 | 5.42 | 2005 |
| 5.06 | 5.12 | 5.17 | 5.22 | 5.27 | 5.32 | 5.36 | 5.43 | 5.48 | 5.53 | 5.59 | 5.59 | 2006 |
| 5.17 | 5.22 | 5.27 | 5.32 | 5.37 | 5.42 | 5.47 | 5.52 | 5.57 | 5.62 | 5.67 | 5.67 | 2007 |
| 5.53 | 5.58 | 5.63 | 5.67 | 5.72 | 5.76 | 5.81 | 5.86 | 5.90 | 5.95 | 5.99 | 5.99 | 2008 |
| 6.00 | 6.04 | 6.08 | 6.12 | 6.16 | 6.20 | 6.25 | 6.29 | 6.33 | 6.37 | 6.41 | 6.41 | 2009 |
| 6.12 | 6.16 | 6.20 | 6.24 | 6.28 | 6.31 | 6.35 | 6.39 | 6.43 | 6.47 | 6.51 | 6.51 | 2010 |
| 6.10 | 6.13 | 6.17 | 6.21 | 6.25 | 6.28 | 6.32 | 6.36 | 6.40 | 6.43 | 6.47 | 6.47 | 2011 |
| 6.05 | 6.08 | 6.12 | 6.16 | 6.19 | 6.23 | 6.27 | 6.30 | 6.34 | 6.37 | 6.41 | 6.41 | 2012 |
| 6.01 | 6.04 | 6.08 | 6.12 | 6.15 | 6.19 | 6.22 | 6.26 | 6.29 | 6.33 | 6.36 | 6.36 | 2013 |
| 5.99 | 6.03 | 6.06 | 6.10 | 6.13 | 6.17 | 6.20 | 6.24 | 6.28 | 6.31 | 6.35 | 6.35 | 2014 |
| 5.99 | 6.02 | 6.06 | 6.10 | 6.13 | 6.17 | 6.20 | 6.24 | 6.27 | 6.31 | 6.34 | 6.34 | 2015 |
| 6.00 | 6.04 | 6.07 | 6.11 | 6.14 | 6.18 | 6.21 | 6.25 | 6.28 | 6.32 | 6.35 | 6.35 | 2016 |
| 6.01 | 6.04 | 6.07 | 6.11 | 6.14 | 6.18 | 6.21 | 6.25 | 6.28 | 6.32 | 6.35 | 6.35 | 2017 |
| 6.06 | 6.09 | 6.13 | 6.16 | 6.19 | 6.23 | 6.26 | 6.29 | 6.33 | 6.36 | 6.40 | 6.40 | 2018 |
| 6.18 | 6.21 | 6.24 | 6.28 | 6.31 | 6.34 | 6.37 | 6.41 | 6.44 | 6.47 | 6.50 | 6.50 | 2019 |
| 6.27 | 6.30 | 6.33 | 6.36 | 6.39 | 6.42 | 6.46 | 6.49 | 6.52 | 6.55 | 6.58 | 6.58 | 2020 |
| 6.40 | 6.43 | 6.46 | 6.49 | 6.52 | 6.55 | 6.58 | 6.61 | 6.64 | 6.67 | 6.70 | 6.70 | 2021 |
| 6.45 | 6.48 | 6.51 | 6.54 | 6.56 | 6.59 | 6.62 | 6.65 | 6.68 | 6.71 | 6.74 | 6.74 | 2022 |
| 6.53 | 6.56 | 6.59 | 6.62 | 6.65 | 6.67 | 6.70 | 6.73 | 6.76 | 6.78 | 6.81 | 6.81 | 2023 |
| 6.60 | 6.63 | 6.65 | 6.68 | 6.71 | 6.73 | 6.76 | 6.79 | 6.82 | 6.84 | 6.87 | 6.87 | 2024 |
| 6.64 | 6.67 | 6.69 | 6.72 | 6.75 | 6.77 | 6.80 | 6.83 | 6.85 | 6.88 | 6.91 | 6.91 | 2025 |
| 6.70 | 6.73 | 6.75 | 6.78 | 6.81 | 6.83 | 6.86 | 6.89 | 6.91 | 6.94 | 6.97 | 6.97 | 2026 |
| 6.77 | 6.79 | 6.82 | 6.84 | 6.87 | 6.90 | 6.92 | 6.95 | 6.98 | 7.00 | 7.03 | 7.03 | 2027 |
| 6.82 | 6.85 | 6.87 | 6.90 | 6.93 | 6.95 | 6.98 | 7.00 | 7.03 | 7.05 | 7.08 | 7.08 | 2028 |
| 6.83 | 6.86 | 6.88 | 6.91 | 6.93 | 6.96 | 6.98 | 7.01 | 7.03 | 7.06 | 7.08 | 7.08 | 2029 |

Table 5-9: FY2004, Q3 Forecast of Inflationary Trends Change in Gross Domestic Product Price Deflator

TABLE 9
FY 2004.Q3 FORECAST OF INFLATIONARY TRENDS
CHANGE IN GROSS DOMESTIC PRODUCT PRICE DEFULATOR

Calendar/Fiscal Years 2004.Q3 vs. 2002.Q3

| (A) | (B) | (C) | (D) | (E) | (F) | (G) |
|------------------------------|----------------------------|---|------------------------------|---|-------------------------------|-------------------------------|
| CY 04.Q3 1/ CALENDAR YEAR | FY 04.Q3 1/ FISCAL YEAR | FY 04.Q3 2/ CUMULATIVE GDP DEFLATOR | FY 2002.Q3 3/ FISCAL YEAR | FY 2002.Q3 3/ CUMULATIVE GDP DEFLATOR | CHANGE IN GDP DEFULATOR | CHANGE IN GDP DEFULATOR |
| (% Change) | (% Change) | (Base Year 2004) | (% Change) | (Base Year 2004) | (% Change) | (% Change) |
| 2004 | 1.88% | 1.83% | 1.009 | 2.46% | 1.012 | -0.63% |
| 2005 | 1.57% | 1.65% | 1.026 | 2.43% | 1.037 | -0.78% |
| 2006 | 1.55% | 1.56% | 1.042 | 2.42% | 1.062 | -0.86% |
| 2007 | 1.91% | 1.82% | 1.061 | 2.44% | 1.088 | -0.62% |
| 2008 | 2.06% | 2.02% | 1.082 | 2.44% | 1.114 | -0.42% |
| 2009 | 2.09% | 2.08% | 1.105 | 2.45% | 1.142 | -0.37% |
| 2010 | 2.30% | 2.25% | 1.129 | 2.47% | 1.170 | -0.23% |
| 2011 | 2.48% | 2.43% | 1.157 | 2.55% | 1.200 | -0.12% |
| 2012 | 2.39% | 2.41% | 1.185 | 2.65% | 1.232 | -0.24% |
| 2013 | 2.35% | 2.36% | 1.213 | 2.71% | 1.265 | -0.35% |
| 2014 | 2.43% | 2.41% | 1.242 | 2.76% | 1.300 | -0.35% |
| 2015 | 2.46% | 2.46% | 1.273 | 2.79% | 1.336 | -0.33% |
| 2016 | 2.50% | 2.49% | 1.304 | 2.83% | 1.374 | -0.34% |
| 2017 | 2.53% | 2.52% | 1.337 | 2.88% | 1.413 | -0.36% |
| 2018 | 2.57% | 2.56% | 1.371 | 2.94% | 1.455 | -0.38% |
| 2019 | 2.57% | 2.57% | 1.406 | 2.96% | 1.498 | -0.39% |
| 2020 | 2.59% | 2.59% | 1.443 | | | |
| 2021 | 2.63% | 2.62% | 1.481 | | | |
| 2022 | 2.62% | 2.62% | 1.520 | | | |
| 2023 | 2.61% | 2.61% | 1.559 | | | |
| 2024 | 2.61% | 2.61% | 1.600 | | | |
| 2025 | 2.64% | 2.63% | 1.642 | | | |
| 2026 | 2.64% | 2.64% | 1.685 | | | |
| 2027 | 2.66% | 2.65% | 1.730 | | | |
| 2028 | 2.67% | 2.67% | 1.776 | | | |
| 2029 | 2.72% | 2.71% | 1.824 | | | |

1/ Source: Global Insight, Second Quarter 2004 Long Term Economic Outlook, Base Case Forecast.

2/ Fiscal Year Cumulative Price Deflator escalates to midyear dollars. The first year, 2004, is determined as follows: $1.009 = [(1.83/100)^{.5}] + 1$. An example of subsequent year cumulative growth such as in 2003 is found as:

Table 5- 10: FY2004, Q3 Inflation Forecast Comparisons Gross Domestic Product Price Deflator Indexes 1

| YEAR | (A) | (B) | (C) |
|------|--|--|------------|
| | FY 04.Q3 2/ | FY 2002.Q3 3/ | (A - B) |
| | CUMULATIVE PRICE DEFLATOR INDEX (Base Year 2004) | CUMULATIVE PRICE DEFLATOR INDEX (Base Year 2004) | DIFFERENCE |
| 2004 | 1.009 | 1.012 | -0.003 |
| 2005 | 1.026 | 1.037 | -0.011 |
| 2006 | 1.042 | 1.062 | -0.020 |
| 2007 | 1.061 | 1.088 | -0.027 |
| 2008 | 1.082 | 1.114 | -0.032 |
| 2009 | 1.105 | 1.142 | -0.037 |
| 2010 | 1.129 | 1.170 | -0.040 |
| 2011 | 1.157 | 1.200 | -0.043 |
| 2012 | 1.185 | 1.232 | -0.047 |
| 2013 | 1.213 | 1.265 | -0.052 |
| 2014 | 1.242 | 1.300 | -0.058 |
| 2015 | 1.273 | 1.336 | -0.064 |
| 2016 | 1.304 | 1.374 | -0.070 |
| 2017 | 1.337 | 1.413 | -0.076 |
| 2018 | 1.371 | 1.455 | -0.084 |
| 2019 | 1.406 | 1.498 | -0.091 |
| 2020 | 1.443 | | |
| 2021 | 1.481 | | |
| 2022 | 1.520 | | |
| 2023 | 1.559 | | |
| 2024 | 1.600 | | |
| 2025 | 1.642 | | |
| 2026 | 1.685 | | |
| 2027 | 1.730 | | |
| 2028 | 1.776 | | |
| 2029 | 1.824 | | |

1/ Fiscal Year Cumulative Price Deflator escalates to midyear dollars. The first year, 2004, is determined as follows: $1.009 = [(1.83/100)^*.5] + 1$. An example of subsequent year cumulative growth such as in $1.026 = [1 + (1.65/100)]^*1.009$.

2/ Source: Global Insight, Second Quarter 2004 Long Term Economic Outlook, Base Case Forec

3/ Source: Global Insight, Second Quarter 2002 Long Term Economic Outlook, Trend Forecast

CHAPTER 6

PROJECTED NEW BONDS ISSUED TO TREASURY

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1. Purpose

This section projects bonds that BPA plans to issue to the U.S. Treasury to finance BPA capital investments.

2. Method

New long-term debt consists of bonds issued by BPA to Treasury reflecting projected outlays for BPA Transmission construction and Environmental programs during the cost evaluation period (FY 2005-2007). All bonds projected for issuance are entered into the projected portions of the repayment study.

3. Application of Methodology

New bonds projected to be issued for the cost evaluation period are based on Programs in Review capital program outlays.

Table 6.1: Projected Treasury Bonds for FY 2005 – 2007

| FY 2005 - FY 2007 (\$ Thousands) | | | | | | |
|-------------------------------------|--|----------------------|-------------|------------------------|-----------|--|
| <u>Fiscal Year</u> | <u>Description</u> | <u>Interest Rate</u> | <u>Term</u> | <u>Total Borrowing</u> | | |
| 2005 | Construction Environment | 5.630% | 35 | 221,179 | <u>1/</u> | |
| | | 5.800% | 15 | 11,919 | <u>2/</u> | |
| 2006 | Construction Environment | 6.820% | 35 | 248,948 | <u>3/</u> | |
| | | 6.050% | 15 | 4,670 | | |
| 2007 | Construction Environment | 6.900% | 35 | 259,628 | <u>3/</u> | |
| | | 6.190% | 15 | 4,836 | | |
| <u>1/</u> | Capital projection assumes \$15,000 of revenue financing and cashing in \$30,200 of deferred borrowing from 2004 | | | | | |
| <u>2/</u> | Capital projection assumes cashing in \$7,800 of deferred borrowing from 2004 | | | | | |
| <u>3/</u> | Capital projection assumes \$15,000 of revenue financing | | | | | |

Table 6.2: Association of Transmission Construction Funded by Bonds 1977 – 2004

| Association of Transmission Construction Funded by Bonds ^{1/} FY 1977 - 2004 (\$ Thousands) | | | | | | | | | |
|---|--------------------------------|---|------------------------------------|----------------------------------|-----------------------------|--------------------|------------------------|-------------------------------------|--|
| (A) <u>Fiscal Year</u> | (B) <u>Plant in Service</u> | (C) <u>Amount Funded by Bonds</u> | (D) <u>Amount of Bond Sales</u> | (E) <u>Amount Outstanding</u> | (F) <u>Interest Rate</u> | (G) <u>Term</u> | (H) <u>Year Due</u> | (I) <u>Date</u> | (J) <u>Refinancing</u> |
| 1977 | 171,038 | 100,800 50,000 20,238 — 171,038 | | | | | | | |
| 1978 | 90,494 | 54,762 35,732 — 90,494 | 50,000 | 0 | 8.95 | 35 | 2013 | | |
| 1979 | 67,649 | 14,268 53,381 — 67,649 | 75,000 50,000 | 0 0 | 9.45 9.90 | 35 35 | 2014 2014 | | |
| 1980 | 48,043 | 48,043 | 115,000 | 0 | 13.00 | 35 | 2015 | | |
| 1981 | 253,151 | 13,576 175,000 175,000 50,000 — 14,575 253,151 | 175,000 50,000 — 14,575 | 0 0 0 | 16.60 14.40 | 35 35 | 2016 2017 | | |
| 1982 | 92,111 | 85,425 6,686 — 92,111 | 100,000 85,000 | 0 0 | 14.40 14.15 | 35 35 | 2017 2017 | 7/31/1987 | 95,000 ^{4/} |
| 1983 | 149,133 | 78,314 40,000 40,000 30,000 30,000 45,000 819 — 149,133 | 40,000 30,000 45,000 | 0 0 0 | 10.85 11.70 12.25 | 35 35 35 | 2018 2018 2018 | 2/29/1988 | 43,700 ^{5/} |
| 1984 | 235,214 | 44,181 30,000 30,000 60,000 100,000 1,033 — 235,214 | 30,000 60,000 | 0 0 | 12.30 13.05 | 35 35 | 2019 2019 | | |
| 1985 | 115,901 | 98,967 16,934 — 115,901 | 100,000 | 0 | 11.25 | 45 | 2030 | | |
| 1986 | 326,694 | 283,066 43,628 — 326,694 | 100,000 300,000 | 0 0 | 8.15 8.95 | 10 45 | 1996 2031 | 8/31/1992 8/31/1992 5/31/1994 | 107,800 ^{7/} 107,700 ^{8/22/} 43,000 ^{11/} |

| | | | | | | | | | | |
|------|---------|----------------|---------|--------|------|----|------|-------------------------------------|----------------------------|--|
| | | | | | | | | | | |
| 1987 | 167,781 | 56,372 | 100,000 | 0 | 9.30 | 45 | 2032 | 4/30/1992 | 80,000 28,300 | ^{6/} ^{6/} |
| | | 100,000 | 100,000 | 0 | 8.35 | 5 | 1992 | | | |
| | | 11,409 | 50,000 | 0 | 9.55 | 45 | 2032 | | | |
| | | <u>167,781</u> | | | | | | | | |
| 1988 | 96,878 | 38,591 | 150,000 | 0 | 9.50 | 45 | 2033 | 10/31/1993 5/31/1994 | 108,400 54,100 | ^{10/} ^{11/} |
| | | 58,287 | 40,000 | 0 | 9.90 | 45 | 2033 | | | |
| | | <u>96,878</u> | | | | | | | | |
| 1989 | 211,811 | 91,713 | 75,000 | 0 | 8.95 | 10 | 1999 | 5/31/1999 | 26,200 | ^{25/} |
| | | 40,000 | | | | | | | | |
| | | 75,000 | | | | | | | | |
| | | <u>5,098</u> | | | | | | | | |
| | | <u>211,811</u> | | | | | | | | |
| 1990 | 88,894 | 44,902 | 50,000 | 0 | 9.25 | 40 | 2030 | 1/31/2000 | 53,500 | ^{26/} |
| | | <u>43,992</u> | | | | | | | | |
| | | <u>88,894</u> | | | | | | | | |
| 1991 | 139,891 | 16,008 | 60,000 | 0 | 7.55 | 4 | 1995 | | | |
| | | <u>123,883</u> | | | | | | | | |
| | | <u>139,891</u> | | | | | | | | |
| 1992 | 214,883 | 26,117 | 150,000 | 0 | 8.80 | 40 | 2032 | 8/31/1997 | 111,300 | ^{17/} |
| | | 50,000 | 50,000 | 0 | 7.00 | 5 | 1997 | | | |
| | | <u>138,766</u> | 150,000 | 0 | 8.13 | 40 | 2032 | 4/30/1998 5/31/1998 8/31/2000 | 75,300 72,700 15,300 | ^{18/} ^{19/} ^{28/} |
| | | <u>214,883</u> | | | | | | | | |
| 1993 | 209,541 | 11,234 | 50,000 | 0 | 6.05 | 5 | 1998 | | | |
| | | 50,000 | 99,962 | 0 | 8.35 | 40 | 2033 | | | |
| | | 99,962 | 130,000 | 0 | 7.80 | 40 | 2033 | 5/31/1998 | 40,000 98,900 | ^{20/} ^{20/} |
| | | 48,345 | | | | | | | | |
| | | 100,000 | | 0 | 7.50 | 40 | 2033 | 8/31/1998 | 106,500 | ^{21/} |
| | | 110,000 | | 0 | 6.95 | 40 | 2033 | | | |
| | | <u>209,541</u> | | | | | | | | |
| 1994 | 239,060 | 81,655 | 50,000 | 0 | 6.85 | 40 | 2034 | | | |
| | | 100,000 | 50,000 | 0 | 7.05 | 40 | 2034 | | | |
| | | 57,405 | 50,000 | 0 | 8.20 | 40 | 2034 | | | |
| | | 55,000 | | 0 | 7.65 | 5 | 1999 | | | |
| | | <u>239,060</u> | | | | | | | | |
| 1995 | 290,154 | 52,595 | 55,000 | 0 | 8.35 | 6 | 2001 | | | |
| | | 50,000 | 49,933 | 0 | 7.70 | 30 | 2025 | | | |
| | | 50,000 | 65,000 | 0 | 7.70 | 30 | 2025 | | | |
| | | 50,000 | | | | | | | | |
| | | 55,000 | | | | | | | | |
| | | 32,559 | | | | | | | | |
| | | <u>290,154</u> | | | | | | | | |
| 1996 | 146,886 | 49,933 | 15,000 | 0 | 5.90 | 7 | 2003 | | | |
| | | 65,000 | 54,378 | 70,000 | 7.05 | 10 | 2006 | | | |
| | | 15,000 | | 70,000 | | | | | | |
| | | 16,953 | | | | | | | | |
| | | <u>146,886</u> | | | | | | | | |

| | | | | | | | | |
|------|---------|--|--|----------------------------------|---|--|----------------------------------|--|
| 1997 | 178,551 | 37,425 70,000 15,000 22,600 33,526 | 15,000 22,600 80,000 | ^{15/} ^{16/} | 0 80,000 | 6.80 6.90 | 7 8 | 2004 2005 |
| 1998 | 149,940 | 46,474 50,000 36,819 36,819 16,647 | 50,000 36,819 40,000 | ^{23/} | 50,000 36,819 40,000 | 6.65 5.75 6.20 | 30 10 13 | 2028 2008 2011 |
| 1999 | 126,238 | 23,353 59,050 40,000 3,835 | 59,050 40,000 | ^{24/} | 59,050 0 | 5.90 6.20 | 15 3 | 2014 2002 |
| 2000 | 104,957 | 36,165 39,052 29,740 | 40,000 39,052 40,000 | ^{27/} | 0 0 40,000 | 6.40 7.00 6.75 | 3 4 6 | 2002 2004 2006 |
| 2001 | 126,298 | 10,260 20,000 59,932 25,000 25,000 11,106 | 20,000 59,932 25,000 50,000 | ^{29/} | 20,000 59,933 25,000 50,000 | 5.65 6.05 5.95 5.75 | 4 9 10 10 | 2005 2010 2011 2011 |
| 2002 | 273,625 | 38,894 108,010 60,000 60,000 66,721 | 108,010 60,000 100,000 | ^{30/} | 105,342 60,000 100,000 | 4.60 3.75 3.05 | 3 3 4 | 2005 2005 2006 |
| 2003 | 266,971 | 33,279 4,938 40,000 40,000 40,000 75,000 75,000 25,000 25,000 8,754 | 4,938 40,000 40,000 40,000 75,000 25,000 20,000 | ^{31/} | 4,938 40,000 40,000 40,000 75,000 25,000 20,000 | 3.00 2.80 2.90 5.55 2.30 2.95 2.50 | 3 3 4 30 3 4 3 | 2005 2005 2007 2033 2006 2007 2006 |
| 2004 | 270,077 | 11,246 15,000 46,643 65,000 65,000 50,000 50,000 17,188 30,000 40,000 | 15,000 46,643 65,000 65,000 50,000 25,000 30,000 40,000 | ^{32/} ^{33/} | 46643 65,000 65,000 50,000 25,000 30,000 40,000 | 2.50 2.95 2.95 3.45 3.80 3.10 5.60 | 3 4 3 3 4 3 30 | 2007 2008 2007 2007 2008 2007 2034 |

1/ These investments have an estimated average service life of 40 years and a maximum repayment period of 40 years

2/ BPA's Summary Financial data, Analysis of Funds Returned to the U.S Treasury and Cash Amortization Table
change in Total column from previous year

3/ Funded by appropriations (Reference WP-89-E-BPA-01A1, Documentation for the Revenue Requirement Study -
Volume 1, 1989 Rate Proposal, page 195)

4/ Refinanced on 7/31/87 with \$ 95,000 issued at 9.55%, 30 year term, due 2017

5/ Refinanced on 2/29/88 with \$43,700 issued at 9.50%, 30 year term, due 2018

6/ Refinanced on 4/30/92 with \$80,000 issued at 6.20%, 3 year term, due 1995; and \$28,300 issued at 7.00%, 5 year term,
due 1997

- 7/ Refinanced on 8/31/92 with \$107,800 issued at 6.60%, 8 year term, due 2000
- 8/ Refinanced on 8/31/92 with \$107,700 issued at 7.25%, 15 year term, due 2007
- 9/ \$100,000 bond, \$38 functionalized to Generation 1993
- 10/ Refinanced on 10/31/93 with \$108,400 issued at 6.85%, 40 year term, due 2033.
- 11/ Refinanced on 5/31/94 with \$97,100 issued at 7.1%, 4 year term, due 1998 (this new bond also refinanced one other bond
- 12/ \$50,000 bond, \$67 functionalized to Generation 1995
- 13/ As proposed in Revenue Requirements for 1996 in the 1995 Final Rate Proposal \$15 million of revenue financing
- 14/ \$60,000 bond, \$5,622 functionalized to Generation 1996
- 15/ As proposed in Revenue Requirements for 1997 in the 1996 Final Rate Proposal \$15 million of revenue financing
- 16/ \$30,000 bond, \$7,400 functionalized to Generation 1997
- 17/ Refinanced remaining \$103,300 on 8/31/97 with \$111,300 at 6.65% for 10 year term, due 2007.
- 18/ Partial refinance of \$70,300 on 4/30/1998 with \$75,300 issued at 6.0%, 10 year term, due 2009
- 19/ Paid \$11,800, and refinanced \$67,900 on 5/31/98 with \$72,700 at 6.00% for 11 year term, due 2009.
- 20/ Refinanced on 5/31/98 with \$40,000 issued at 6.20% for 13 year term, due 2011; and refinanced on 5/31/98 with \$98,900
issued at 6.70%, 34 year term, due 2032
- 21/ Refinanced on 8/31/98 with \$106,500 at 5.85% for 30 year term, due 2028
- 22/ Refinanced again on 8/31/98 with \$112,300 at 5.85%, 30 year term, due 2028
- 23/ \$40,000 bond, \$3,181 functionalized to Generation 1998
- 24/ \$60,000 bond, \$950 functionalized to Generation 1999
- 25/ Refinanced on 5/31/99 with \$26,200 issued at 5.95%, 5 year term, due 2004
- 26/ Refinanced on 1/31/2000 with \$53,500 issued at 7.15%, 5 year term, due 2005
- 27/ \$50,000 bond, \$10,948 functionalized to Generation 2000
- 28/ Refinanced on 8/31/00 with \$15,300 at 6.85% for 3 year term, due 2003
- 29/ \$60,000 bond, \$68 functionalized to Generation 2001
- 30/ \$110,000 bond, \$1,990 functionalized to Generation 2002
- 31/ \$50,000 bond, \$45,062 functionalized to Generation 2003
- 32/ As proposed in Revenue Requirements for 2004 in the 2004 Final Rate Proposal \$15 million of revenue financing
- 33/ \$60,000 bond, \$13,357 functionalized to Generation 2004

Table 6.3: Association of Environment Investment Funded by Bonds 1977 – 2004

| Association of Environment Investment Funded by Bonds FY 1995 - 2004 (\$ Thousands) | | | | | | | | | |
|--|--------------------------------|------------------------|----------------------|--------------------|---------------|------|----------|------------------|--------------------|
| (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) | (J) |
| Fiscal Year | Plant in Service ^{1/} | Amount Funded by Bonds | Amount of Bond Sales | Amount Outstanding | Interest Rate | Term | Year Due | Refinancing Date | Refinancing Amount |
| 1995 | 16,014 | 16,014 ^{2/} | | | | | | | |
| 1997 | 40,000 | 40,000 | 40,000 | 0 | 6.95 | 15 | 2011 | | |
| 1999 | 10,517 | 10,517 | | | | | | | |
| 2000 | 9,394 | 9,394 | | | | | | | |
| 2001 | 12,091 | 10,089 | 30,000 | 30,000 | 6.05 | 9 | 2010 | | |
| | | 2,002 | | | | | | | |
| | | 12,091 | | | | | | | |
| 2002 | 8,651 | 8,651 | 30,000 | 30,000 | 3.05 | 4 | 2006 | | |
| 2003 | 7,953 | 7,953 | | | | | | | |
| 2004 | 4,528 | 4,528 | | | | | | | |

1/ Data is from Year End Capital Spending Sheet

2/ Funded by construction bond

CHAPTER 7
NON-FEDERAL PAYMENT OBLIGATIONS

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1. Introduction

There are two forms of non-Federal payment obligations associated with transmission assets in this rate filing. One is a lease-purchase arrangement for capitalized asset purchases. The other is the functional reassignment to transmission of debt service payment obligations associated with non-Federal, Energy Northwest (EN) bonds that are typically recovered in power rates.

2. Lease-Purchase Agreement

BPA entered into a lease-purchase agreement with the Northwest Infrastructure Financing Corporation (NIFC) to provide for the construction of the 500 kV Schultz-Wautoma transmission line. The resulting semi-annual lease payments are treated as fixed obligations in the transmission repayment study. Table 7.1 displays the payment stream.

Table 7.1: Lease-Purchase Payment Stream

**Northwest Infrastructure Financing Corporation
Lease Payment**

| | Debt Service | | | NIFC Annual costs | | | | | | | |
|--------------|--------------------|--------------------|--------------------|-------------------|---------|-----------------------|------------------------|------------------------|--------------------|---|------------------------------------|
| | (A) | (B) | (C) (A+B) | (D) | (E) | (F) | (G) | (H) | (I) (D+E+F+G+H) | (J) | (K) (C+I+J) Lease Payment |
| | Principal | Interest | Total DS | Audit (PWC) | Trustee | JH Mgmt Annual Fee | JH Mgmt Maintenance | Potential Legal Exp | Total | Capitalized Interest Fund | |
| 3/25/04 | | | | | | | | | | | |
| 7/1/04 | | 1,715,327 | 1,715,327 | | | | | | | | |
| 1/1/05 | 3,216,239 | 3,216,239 | 3,216,239 | 24,000 | 2,000 | 10,000 | 2,000 | 3,000 | 41,000 | (1,715,327) (3,257,239) (3,216,239) | 41,000 |
| 7/1/05 | 3,216,239 | 3,216,239 | 3,216,239 | 24,960 | 2,000 | 10,000 | 2,080 | 3,120 | 42,160 | | 3,258,399 |
| 1/1/06 | 3,216,239 | 3,216,239 | 3,216,239 | 25,958 | 2,000 | 10,000 | 2,163 | 3,245 | 43,366 | | 3,259,605 |
| 7/1/06 | 3,216,239 | 3,216,239 | 3,216,239 | 26,997 | 2,000 | 10,000 | 2,250 | 3,375 | 44,621 | | 3,260,860 |
| 1/1/07 | 3,216,239 | 3,216,239 | 3,216,239 | 28,077 | 2,000 | 10,000 | 2,340 | 3,510 | 45,926 | | 3,262,164 |
| 7/1/07 | 3,216,239 | 3,216,239 | 3,216,239 | 29,200 | 2,000 | 10,000 | 2,433 | 3,650 | 47,283 | | 3,263,522 |
| 1/1/08 | 3,216,239 | 3,216,239 | 3,216,239 | 30,368 | 2,000 | 10,000 | 2,531 | 3,796 | 48,694 | | 3,264,933 |
| 7/1/08 | 3,216,239 | 3,216,239 | 3,216,239 | 31,582 | 2,000 | 10,000 | 2,632 | 3,948 | 50,162 | | 3,266,401 |
| 1/1/09 | 3,216,239 | 3,216,239 | 3,216,239 | 32,846 | 2,000 | 10,000 | 2,737 | 4,106 | 51,689 | | 3,267,927 |
| 7/1/09 | 3,216,239 | 3,216,239 | 3,216,239 | 34,159 | 2,000 | 10,000 | 2,847 | 4,270 | 53,276 | | 3,268,515 |
| 1/1/10 | 3,216,239 | 3,216,239 | 3,216,239 | 35,526 | 2,000 | 10,000 | 2,960 | 4,441 | 54,927 | | 3,269,239 |
| 7/1/10 | 3,216,239 | 3,216,239 | 3,216,239 | 36,947 | 2,000 | 10,000 | 3,079 | 4,618 | 56,644 | | 3,270,883 |
| 1/1/11 | 3,216,239 | 3,216,239 | 3,216,239 | 38,425 | 2,000 | 10,000 | 3,202 | 4,803 | 58,430 | | 3,269,239 |
| 7/1/11 | 3,216,239 | 3,216,239 | 3,216,239 | 39,962 | 2,000 | 10,000 | 3,330 | 4,995 | 60,287 | | 3,270,555 |
| 1/1/12 | 3,216,239 | 3,216,239 | 3,216,239 | 41,560 | 2,000 | 10,000 | 3,463 | 5,195 | 62,219 | | 3,271,166 |
| 7/1/12 | 3,216,239 | 3,216,239 | 3,216,239 | 43,223 | 2,000 | 10,000 | 3,602 | 5,403 | 64,227 | | 3,272,239 |
| 1/1/13 | 3,216,239 | 3,216,239 | 3,216,239 | 44,952 | 2,000 | 10,000 | 3,746 | 5,619 | 66,316 | | 3,273,466 |
| 7/1/13 | 3,216,239 | 3,216,239 | 3,216,239 | 46,750 | 2,000 | 10,000 | 3,896 | 5,844 | 68,489 | | 3,274,239 |
| 1/1/14 | 3,216,239 | 3,216,239 | 3,216,239 | 48,620 | 2,000 | 10,000 | 4,052 | 6,077 | 70,749 | | 3,275,555 |
| 7/1/14 | 3,216,239 | 3,216,239 | 3,216,239 | 50,564 | 2,000 | 10,000 | 4,214 | 6,321 | 73,099 | | 3,276,239 |
| 1/1/15 | 3,216,239 | 3,216,239 | 3,216,239 | 52,587 | 2,000 | 10,000 | 4,382 | 6,573 | 75,543 | | 3,277,166 |
| 7/1/15 | 3,216,239 | 3,216,239 | 3,216,239 | 54,690 | 2,000 | 10,000 | 4,558 | 6,836 | 78,084 | | 3,278,466 |
| 1/1/16 | 3,216,239 | 3,216,239 | 3,216,239 | 56,878 | 2,000 | 10,000 | 4,740 | 7,110 | 80,728 | | 3,279,239 |
| 7/1/16 | 3,216,239 | 3,216,239 | 3,216,239 | 59,153 | 2,000 | 10,000 | 4,929 | 7,394 | 83,477 | | 3,280,555 |
| 1/1/17 | 3,216,239 | 3,216,239 | 3,216,239 | 61,519 | 2,000 | 10,000 | 5,127 | 7,690 | 86,336 | | 3,281,239 |
| 7/1/17 | 3,216,239 | 3,216,239 | 3,216,239 | 63,980 | 2,000 | 10,000 | 5,332 | 7,998 | 89,309 | | 3,282,239 |
| 1/1/18 | 3,216,239 | 3,216,239 | 3,216,239 | 66,539 | 2,000 | 10,000 | 5,545 | 8,317 | 92,402 | | 3,283,466 |
| 7/1/18 | 3,216,239 | 3,216,239 | 3,216,239 | 69,201 | 2,000 | 10,000 | 5,767 | 8,650 | 95,618 | | 3,284,728 |
| 1/1/19 | 3,216,239 | 3,216,239 | 3,216,239 | 71,969 | 2,000 | 10,000 | 5,997 | 8,996 | 98,962 | | 3,286,239 |
| 7/1/19 | 3,216,239 | 3,216,239 | 3,216,239 | 74,848 | 2,000 | 10,000 | 6,237 | 9,356 | 102,441 | | 3,287,239 |
| 1/1/20 | 119,585,000 | 3,216,239 | 122,801,238.58 | 1,346,039 | 60,000 | 300,000 | 112,170 | 168,255 | 1,986,463 | (8,188,804) | 122,903,679 |
| Total | 119,585,000 | 191,473,403 | 311,058,403 | | | | | | | | 313,044,867 |

3. Debt Service Reassignment

Debt Service Reassignment (DSR) is an accounting and ratemaking mechanism created to make full use of the Debt Optimization program (DO). When the cash flows from DO are applied to transmission obligations, DSR ensures that transmission revenues repay the full cost of the associated EN debt.

Under DO, the proceeds from EN refinancing bonds are used to pay principal on the currently maturing EN bonds in a given fiscal year. Since BPA power rates were set to recover the originally-expected EN principal payments on the maturing bonds, and that debt service requirement declined in the EN budget (when the principal was paid from the proceeds of the newly issued refinancing bonds), funds in the BPA Fund then became available for other purposes. DO takes that additional cash in the BPA Fund and repays Federal obligations, particularly Treasury bonds to restore Treasury borrowing authority for the agency. The amount made available is equal to the principal of the amortized EN bonds. BPA uses these funds to amortize Federal obligations associated with generation and transmission assets ahead of schedule, thereby replenishing or creating future opportunities to replenish BPA's available Treasury borrowing authority.

DSR occurs when BPA uses the funds made available from DO to early-amortize Federal transmission obligations. The stream of annual all-in costs (debt service plus any transaction fees or other costs associated with bond sales) of the newly-issued EN refinancing bonds are assigned for recovery from transmission revenues. Part of the DSR is the interest expense on the new EN bonds, from July 1st, the date interest payments are made in a year, to September 30th,

the end of BPA's fiscal year when the transmission Federal obligations are paid (referred to as a "carrying charge" for the three-month window). Conversely, the cost of the EN refinancing bonds are not assigned for recovery from power revenues to the extent that they fulfilled the cost recovery obligation for the EN bonds, thereby enabling the amortization of Federal transmission obligations.

The following is an explanation of how the debt service stream associated with DSR is calculated. The allocation of debt optimization cash flows to transmission can be different each fiscal year. In FY 2003, all DO actions were applied to Federal transmission obligations and were reassigned to transmission through DSR. In 2004, the DO actions were split between generation and transmission Federal obligations.

4. Calculation of Debt Service Reassignment

Prior to calculating the transmission DSR obligation, two data inputs are required. First, the final pricing data from EN refunding forms the basis of all calculations. Second, the amount of debt service reassigned to transmission for repayment is determined based on the allocation between transmission and generation of the payment of Federal principal.

For illustration purposes, the following explanation of the process for determining the transmission payment obligation uses data from the 2003 EN bond sale and subsequent debt service reassignment.

Step 1: Determining the Total Base Debt Service. This is the sum of the debt service on the newly issued EN bonds reassigned to transmission plus the transaction costs associated with the issuance of the bonds. *See Table 7.2.* The transaction costs are treated like a bond issued with the principal due in the last year.

Table 7.2: Base Debt Service for Transmission

| EN Fiscal Year | A | B | C | D | E | F |
|-------------------|---------------------------|--------------------|--------------------------------|------------------|--------------------|--------------------|
| | New EN Bonds Principal | Interest | Transaction Costs Principal | Interest | Total Principal | Interest |
| 1 2004 | - | 15,746,867 | - | 389,191 | - | 16,136,057 |
| 2 2005 | - | 15,746,867 | - | 389,191 | - | 16,136,057 |
| 3 2006 | - | 15,746,867 | - | 389,191 | - | 16,136,057 |
| 4 2007 | - | 15,746,867 | - | 389,191 | - | 16,136,057 |
| 5 2008 | - | 15,746,867 | - | 389,191 | - | 16,136,057 |
| 6 2009 | - | 15,746,867 | 9,462,414 | 389,191 | 9,462,414 | 16,136,057 |
| 7 2010 | - | 15,746,867 | - | - | - | 15,746,867 |
| 8 2011 | - | 15,746,867 | - | - | - | 15,746,867 |
| 9 2012 | - | 15,746,867 | - | - | - | 15,746,867 |
| 10 2013 | 53,056,680 | 15,746,867 | - | - | 53,056,680 | 15,746,867 |
| 11 2014 | 67,542,293 | 12,856,753 | - | - | 67,542,293 | 12,856,753 |
| 12 2015 | 61,043,710 | 9,144,567 | - | - | 61,043,710 | 9,144,567 |
| 13 2016 | 36,390,793 | 5,790,199 | - | - | 36,390,793 | 5,790,199 |
| 14 2017 | 45,873,523 | 3,783,994 | - | - | 45,873,523 | 3,783,994 |
| 15 2018 | 21,600,000 | 1,239,303 | - | - | 21,600,000 | 1,239,303 |
| 16 Total | 285,506,999 | 190,283,481 | 9,462,414 | 2,335,144 | 294,969,413 | 192,618,625 |

Step 2: Calculate the “Carrying Charge.” The “carrying charge” represents the interest on the principal component of transmission’s payment obligation for the three months between the beginning of EN’s fiscal year (July 1) and beginning of the Federal fiscal year (October 1) plus other associated costs. During the three months, the interest charges are being accrued by BPA. The debt service reassignment occurs on October 1, immediately after the Federal principal payment is made. The charge is calculated by multiplying the sum of the Federal transmission principal retired and the transaction costs by one-twelfth of BPA’s weighted average cost of capital. The carrying charge for each month is added to the sum of the principal retired and

transaction costs for the calculation of the next month's charge. The carrying charge is reflected in Table 7.4

Step 3: Convert the Base Debt Service to the BPA Fiscal Year. The debt service on the newly issued EN bonds is based on the EN July-June fiscal year. The debt service stream is converted into BPA's October-September fiscal year. As part of the conversion, the first year interest payment is deleted because it is replaced by the carrying charge described in the previous step.

See Table 7.3.

Table 7.3: Convert to BPA Fiscal Year

| BPA FY | BPA FY Conversion | |
|-----------------|-------------------|-------------|
| | Principal | Interest |
| 1 2004 | - | 16,136,057 |
| 2 2005 | - | 16,136,057 |
| 3 2006 | - | 16,136,057 |
| 4 2007 | - | 16,136,057 |
| 5 2008 | 2,365,604 | 16,136,057 |
| 6 2009 | 7,096,811 | 16,038,760 |
| 7 2010 | - | 15,746,867 |
| 8 2011 | - | 15,746,867 |
| 9 2012 | 13,264,170 | 15,746,867 |
| 10 2013 | 56,678,083 | 15,024,338 |
| 11 2014 | 65,917,647 | 11,928,707 |
| 12 2015 | 54,880,480 | 8,305,975 |
| 13 2016 | 38,761,476 | 5,288,647 |
| 14 2017 | 39,805,142 | 3,147,821 |
| 15 2018 | 16,200,000 | 929,477 |
| 16 Total | 294,969,413 | 188,584,610 |

Step 4: Calculate Total Payment Obligation for Transmission. The total payment obligation for transmission is the sum of the base debt service, adjusted to BPA's fiscal year, and the carrying charge. *See Table 7.4*

Table 7.4: Total Payment Obligation

| BPA FY | A | B | C | D | E | F | G |
|-----------------|-------------------|-------------|-----------------|-----------|-------------|-------------|-------------|
| | BPA FY Conversion | | Carrying Charge | | TBL Total | | |
| | Principal | Interest | Principal | Interest | Principal | Interest | Total |
| 1 2004 | - | 16,136,057 | | | - | 16,418,815 | 16,418,815 |
| 2 2005 | - | 16,136,057 | - | 282,758 | - | 16,418,815 | 16,418,815 |
| 3 2006 | - | 16,136,057 | - | 282,758 | - | 16,418,815 | 16,418,815 |
| 4 2007 | - | 16,136,057 | - | 282,758 | - | 16,418,815 | 16,418,815 |
| 5 2008 | 2,365,604 | 16,136,057 | - | 282,758 | 2,365,604 | 16,418,815 | 18,784,418 |
| 6 2009 | 7,096,811 | 16,038,760 | - | 282,758 | 7,096,811 | 16,321,517 | 23,418,328 |
| 7 2010 | - | 15,746,867 | - | 282,758 | - | 16,029,624 | 16,029,624 |
| 8 2011 | - | 15,746,867 | - | 282,758 | - | 16,029,624 | 16,029,624 |
| 9 2012 | 13,264,170 | 15,746,867 | - | 282,758 | 13,264,170 | 16,029,624 | 29,293,794 |
| 10 2013 | 56,678,083 | 15,024,338 | - | 282,758 | 56,678,083 | 15,307,096 | 71,985,179 |
| 11 2014 | 65,917,647 | 11,928,707 | 1,065,000 | 282,758 | 66,982,647 | 12,211,464 | 79,194,111 |
| 12 2015 | 54,880,480 | 8,305,975 | 1,065,000 | 226,206 | 55,945,480 | 8,532,181 | 64,477,661 |
| 13 2016 | 38,761,476 | 5,288,647 | 1,065,000 | 169,655 | 39,826,476 | 5,458,302 | 45,284,777 |
| 14 2017 | 39,805,142 | 3,147,821 | 1,065,000 | 113,103 | 40,870,142 | 3,260,924 | 44,131,066 |
| 15 2018 | 16,200,000 | 929,477 | 1,065,000 | 56,552 | 17,265,000 | 986,028 | 18,251,028 |
| 16 Total | 294,969,413 | 188,584,610 | 5,325,000 | 3,675,848 | 300,294,413 | 192,260,458 | 492,554,870 |

Step 5: Reshape Debt Service. The total payment obligation needs to be reshaped so that the total principal equals the total Federal principal retired. The total principal amount is equal to the amount of EN principal on the maturing bonds that was paid off. This amount can differ from the new EN bond principal amount because bonds are sold at par, premium, or discount, based on the market conditions at the time of the sale. The reshaping increases or decreases the annual principal payments with corresponding changes to interest. The total debt service does not change. The principal reshaping is done proportionately using the ratio of annual principal payments to the total, displayed previously in Table 7.4. *See Table 7.5.*

Table 7.5: Reshape Debt Service

| BPA FY | A Principal | B Interest | C Total |
|-----------------|----------------|---------------|-------------|
| 1 2004 | - | 15,227,105 | 15,227,105 |
| 2 2005 | - | 15,227,105 | 15,227,105 |
| 3 2006 | - | 15,227,105 | 15,227,105 |
| 4 2007 | - | 15,227,105 | 15,227,105 |
| 5 2008 | 2,483,024 | 15,227,105 | 17,710,129 |
| 6 2009 | 7,449,072 | 15,107,152 | 22,556,223 |
| 7 2010 | - | 14,747,292 | 14,747,292 |
| 8 2011 | - | 14,747,292 | 14,747,292 |
| 9 2012 | 13,922,558 | 14,747,292 | 28,669,850 |
| 10 2013 | 59,491,389 | 14,074,702 | 73,566,092 |
| 11 2014 | 70,307,437 | 11,200,712 | 81,508,149 |
| 12 2015 | 58,722,423 | 7,804,206 | 66,526,629 |
| 13 2016 | 41,803,326 | 4,967,365 | 46,770,690 |
| 14 2017 | 42,898,796 | 2,947,873 | 45,846,670 |
| 15 2018 | 18,121,976 | 875,461 | 18,997,436 |
| 16 Total | 315,200,000 | 177,354,870 | 492,554,870 |

Transmission's total DSR payment obligation and the related relief of generation's obligations are shown in Tables 7.6 and 7.7. Transmission's total obligation is higher than the total relief for generation because of the carrying charge.

Table 7.6: Relief of Generation

| <u>BPA FY</u> | A | B | C | D | E | F | G | H | I |
|---------------|----------------|-------------|-------------|----------------|-------------|-------------|---------------------------|-------------|-------------|
| | <u>FY 2003</u> | | | <u>FY 2004</u> | | | <u>Total FY 2003-2004</u> | | |
| | Principal | Interest | Total | Principal | Interest | Total | Principal | Interest | Total |
| 1 2004 | - | 16,136,057 | 16,136,057 | | | | - | 16,136,057 | 16,136,057 |
| 2 2005 | - | 16,136,057 | 16,136,057 | | 11,009,366 | 11,009,366 | - | 27,145,423 | 27,145,423 |
| 3 2006 | - | 16,136,057 | 16,136,057 | | 10,382,114 | 10,382,114 | - | 26,518,171 | 26,518,171 |
| 4 2007 | - | 16,136,057 | 16,136,057 | | 10,382,114 | 10,382,114 | - | 26,518,171 | 26,518,171 |
| 5 2008 | 2,365,604 | 16,136,057 | 18,501,661 | | 10,382,114 | 10,382,114 | 2,365,604 | 26,518,171 | 28,883,774 |
| 6 2009 | 7,096,811 | 16,038,760 | 23,135,570 | | 10,382,114 | 10,382,114 | 7,096,811 | 26,420,873 | 33,517,684 |
| 7 2010 | - | 15,746,867 | 15,746,867 | | 10,382,114 | 10,382,114 | - | 26,128,980 | 26,128,980 |
| 8 2011 | - | 15,746,867 | 15,746,867 | | 10,382,114 | 10,382,114 | - | 26,128,980 | 26,128,980 |
| 9 2012 | 13,264,170 | 15,746,867 | 29,011,037 | 9,383,010 | 10,382,114 | 19,765,123 | 22,647,180 | 26,128,980 | 48,776,160 |
| 10 2013 | 56,678,083 | 15,024,338 | 71,702,421 | 28,149,029 | 9,887,504 | 38,036,533 | 84,827,112 | 24,911,842 | 109,738,954 |
| 11 2014 | 65,917,647 | 11,928,707 | 77,846,354 | - | 8,403,675 | 8,403,675 | 65,917,647 | 20,332,382 | 86,250,029 |
| 12 2015 | 54,880,480 | 8,305,975 | 63,186,455 | 7,702,500 | 8,403,675 | 16,106,175 | 62,582,980 | 16,709,650 | 79,292,630 |
| 13 2016 | 38,761,476 | 5,288,647 | 44,050,123 | 28,201,250 | 7,999,294 | 36,200,544 | 66,962,726 | 13,287,941 | 80,250,667 |
| 14 2017 | 39,805,142 | 3,147,821 | 42,952,963 | 42,502,500 | 6,518,728 | 49,021,228 | 82,307,642 | 9,666,549 | 91,974,191 |
| 15 2018 | 16,200,000 | 929,477 | 17,129,477 | 81,663,750 | 4,287,347 | 85,951,097 | 97,863,750 | 5,216,824 | 103,080,574 |
| 16 | 294,969,413 | 188,584,610 | 483,554,023 | 197,602,039 | 129,184,384 | 326,786,422 | 492,571,451 | 317,768,994 | 810,340,445 |

Table 7.7: Transmission's Debt Service Reassignment Obligation

| <u>BPA FY</u> | A | B | C | D | E | F | G | H | I |
|---------------|----------------|-------------|-------------|----------------|-------------|-------------|---------------------------|-------------|-------------|
| | <u>FY 2003</u> | | | <u>FY 2004</u> | | | <u>Total FY 2003-2004</u> | | |
| | Principal | Interest | Total | Principal | Interest | Total | Principal | Interest | Total |
| 1 2004 | - | 15,227,105 | 15,227,105 | | | | - | 15,227,105 | 15,227,105 |
| 2 2005 | - | 15,227,105 | 15,227,105 | | 10,153,006 | 10,153,006 | - | 25,380,111 | 25,380,111 |
| 3 2006 | - | 15,227,105 | 15,227,105 | | 10,153,006 | 10,153,006 | - | 25,380,111 | 25,380,111 |
| 4 2007 | - | 15,227,105 | 15,227,105 | | 10,153,006 | 10,153,006 | - | 25,380,111 | 25,380,111 |
| 5 2008 | 2,483,024 | 15,227,105 | 17,710,129 | | 10,153,006 | 10,153,006 | 2,483,024 | 25,380,111 | 27,863,135 |
| 6 2009 | 7,449,072 | 15,107,152 | 22,556,223 | | 10,153,006 | 10,153,006 | 7,449,072 | 25,260,157 | 32,709,229 |
| 7 2010 | - | 14,747,292 | 14,747,292 | | 10,153,006 | 10,153,006 | - | 24,900,298 | 24,900,298 |
| 8 2011 | - | 14,747,292 | 14,747,292 | | 10,153,006 | 10,153,006 | - | 24,900,298 | 24,900,298 |
| 9 2012 | 13,922,558 | 14,747,292 | 28,669,850 | 9,619,956 | 10,153,006 | 19,772,962 | 23,542,514 | 24,900,298 | 48,442,812 |
| 10 2013 | 59,491,389 | 14,074,702 | 73,566,092 | 29,307,364 | 9,677,202 | 38,984,566 | 88,798,753 | 23,751,905 | 112,550,658 |
| 11 2014 | 70,307,437 | 11,200,712 | 81,508,149 | 447,495 | 8,227,660 | 8,675,155 | 70,754,932 | 19,428,372 | 90,183,303 |
| 12 2015 | 58,722,423 | 7,804,206 | 66,526,629 | 8,344,504 | 8,205,526 | 16,550,031 | 67,066,927 | 16,009,733 | 83,076,659 |
| 13 2016 | 41,803,326 | 4,967,365 | 46,770,690 | 29,360,904 | 7,792,807 | 37,153,711 | 71,164,229 | 12,760,172 | 83,924,401 |
| 14 2017 | 42,898,796 | 2,947,873 | 45,846,670 | 44,023,299 | 6,340,616 | 50,363,915 | 86,922,096 | 9,288,489 | 96,210,585 |
| 15 2018 | 18,121,976 | 875,461 | 18,997,436 | 84,173,478 | 4,163,222 | 88,336,700 | 102,295,453 | 5,038,683 | 107,334,136 |
| 16 | 315,200,000 | 177,354,870 | 492,554,870 | 205,277,000 | 125,631,080 | 330,908,080 | 520,477,000 | 302,985,950 | 823,462,950 |

CHAPTER 8

REPLACEMENTS PROJECTED AFTER THE COST EVALUATION PERIOD

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1. Purpose

This section projects the amount of additional capital investment necessary to maintain an existing project at its current operating level after the Cost Evaluation Period.

2. Method

BPA uses the Iowa Curve Methodology to forecast replacements for the transmission system.

3. Application of Methodology

The repayment study incorporates a schedule of Federal investment with the replacements that are expected to occur over the repayment period for the existing transmission system. This schedule is expressed in mid-year dollars for FYs 2006 through 2007 and is based on the amount of the plant-in-service in the transmission system for BPA through the end of the cost evaluation period.

4. Transmission Replacements

The Iowa Curve methodology is used to calculate future replacements for the transmission system. The Iowa Curves are a set of curves with different shapes corresponding to how much of the initial asset survives as a function of time. They are described in the book "Statistical Analyses of Industrial Property Retirements" by Robley Winfrey, Bulletin 125 Revised, Engineering Research Institute, Iowa State University, April 1967. The Iowa Curves are initially used in BPA's depreciation study. BPA's total plant, catalogued by FERC account and in-service date, was analyzed and the various FERC accounts were assigned to various Iowa Curves.

A table from Winfrey's book, TABLE 22 - TOTAL RENEWALS FOR TYPE CURVES, tells what fraction of plant represented by a given curve will have to be replaced each tenth-of-lifetime to maintain the initial

plant. A data file with the contents of that table accurate to twelve lifetimes has been created for use in calculating BPA's future transmission replacements. *See TABLE 22.* For each of the Iowa Curves Table 22 will call for replacements equal to about 50 percent of the initial plant in the first lifetime and approaching 100 percent of initial plant in later lifetimes.

Table 22 gives replacement plant in the same physical units as the initial plant. The net investment in plant of any historical year must first be converted to units of physical plant by dividing the investment by an appropriate historical cost per unit plant. BPA's plant cost is converted to quasi-physical units of plant by use of the Handy-Whitman Index. The Handy-Whitman Index provides cost trends for electric, gas, telephone, and water utilities in geographical regions of generally similar characteristics. The Handy-Whitman Index numbers are widely used in the industry to trend original cost records to estimate reproduction cost at prices prevailing at a later date. The cost trends for each of the utilities are further subdivided by type of plant. In particular, the cost trends for electrical utilities include trends for total transmission plant and trends for the major FERC accounts within transmission plant. *See* table entitled HANDY-WHITMAN INDICES. The trends for individual FERC accounts are used when available. The trends for total transmission plant are used for those accounts for which no specific trend is included.

Surviving transmission plant investment by FERC account and in-service year is obtained from BPA's Plant Investment Section. *See* years 1940 through 2005 of table entitled PLANT INVESTMENT BY YEAR AND ACCOUNT. The plant investment of each year and account is divided by the corresponding Handy-Whitman number to obtain plant in quasi-physical units. The quasi-physical plant is then multiplied by factors obtained by interpolating in the appropriate column of Table 22 to obtain quasi-physical replacements for all years from the last year of the Handy-Whitman index through the last year of the repayment period. The resulting quasi-physical units are multiplied by the Handy-Whitman number for the

last year of the index for the corresponding FERC account to yield replacement costs in the dollars of that last year. These replacement costs are accumulated by future year and FERC account. *See* table entitled REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS.

Gross plant investment data for the cost evaluation period is obtained from BPA's Budget Support group. *See* table entitled COST-EVALUATION PERIOD DATA. This latter plant is first de-escalated to the dollars of the last year of the Handy-Whitman index and then distributed among the various FERC accounts in the same proportions as the total plant of BPA's summary of BPA investment from plant balances as of September 30, 2001. *See* years 1940 through 2005 of table entitled PLANT INVESTMENT BY YEAR AND ACCOUNT. Some of the historical plant obtained from the Plant Investment Section will be retired during the cost evaluation period and be replaced with plant funded by amounts obtained from Budget Support. If future replacements were calculated for both, a double counting would occur. Therefore the amount budgeted for a cost evaluation period year is reduced by the amount calculated for replacements for the same year. Future replacements are then calculated for only the remaining net initial investment of that year. *See* table entitled ADJUSTED PLANT INVESTMENT BY YEAR AND FERC ACCOUNT.

The replacement costs of each future year and FERC account are then accumulated for all FERC accounts and inflated from the dollars of the most recent Handy-Whitman year to the dollars of the rate change year. *See* the table entitled FUTURE REPLACEMENTS.

5. AC Intertie Replacements

Future replacements on the AC Intertie Facilities are calculated separately so that the contributions made toward those replacements by Non-Federal Capacity Owners can be properly credited in the repayment

studies. For historical plant, the plant investment as of September 30, 2001 in each of the lines and substations composing the AC Intertie System (*see* LINES and SUBSTATIONS) was apportioned among the years on the basis of the same line or substation data in a recent plant investment file. These investments by year were accumulated for all lines and substations to obtain historical plant investment by year. These annual investments were apportioned among land and the major FERC accounts on the same basis as the total lines and substations. *See* table entitled AC INTERTIE PLANT-IN-SERVICE.

The cost-evaluation period data for the AC Intertie was obtained. *See* the table entitled Segmentation Summary. The resulting plant data was then processed by the replacement methodology as described above. Those listings that apply only to the AC Intertie follow those for the transmission system. The results are the future replacements for the total AC Intertie and have to be multiplied by the appropriate fraction, 21 percent, to obtain the future contributions required by new capacity owners. These fractional parts, together with the amounts budgeted for the cost evaluation period, are entered into the Transmission Repayment Studies as negative expenses in the Capital Contract Obligation field. *See* Chapters 10 and 12, Repayment Study Input Data.

Table 8.1: Summary of Segmented Investment, as of September 30, 2001**TABLE A****SUMMARY OF SEGMENTED INVESTMENT**

As of September 30, 2001

| <u>Segment</u> | <u>ID</u> | (\$) | | | 9/30/2001 | | 9/30/1998 | |
|------------------------|-----------|---------------|--------------------|-------------------|---------------|--------------------|-----------|--|
| | | <u>Lines</u> | <u>Substations</u> | <u>Total</u> | <u>Lines</u> | <u>Substations</u> | | |
| DSI Delivery | DSI | 0 | 79,408,997 | 79,408,997 | 0 | 88,154,482 | | |
| Generation integration | GI | 16,465,887 | 43,443,234 | 59,909,121 | 15,483,753 | 43,361,401 | | |
| Eastern Intertie | IE | 98,248,694 | 23,866,195 | 122,114,889 | 97,890,490 | 23,866,195 | 1 | |
| Southern AC Intertie | ISAC | 167,996,152 | 154,688,159 | 322,684,310 | 168,283,191 | 160,697,655 | 3 | |
| Southern DC Intertie | ISDC | 29,157,322 | 308,124,415 | 337,281,737 | 29,095,036 | 309,856,051 | 3 | |
| Network | N | 1,658,195,262 | 1,332,351,158 | 2,990,546,420 | 1,646,973,650 | 1,292,779,262 | 2,9 | |
| Utility Delivery | UD | <u>31,479</u> | <u>62,352,720</u> | <u>62,384,199</u> | <u>31,483</u> | <u>88,282,645</u> | | |
| Total | | 1,970,094,796 | 2,004,234,879 | 3,974,329,674 | 1,957,757,603 | 2,006,997,690 | 3,9 | |

The details for line investment are shown in chapter 1.

The details for substation investment are shown in chapter 2.

Table 8.2: Plant In-Service Projection Summary

| SUB-LIN-GP Summary | | | | |
|-------------------------------------|------------------|------------------|------------------|------------------|
| | FY 04 | FY 05 | FY 06 | FY 07 |
| TOTAL Plant-In-Service - (SUB'S) | 148,501.4 | 106,662.6 | 290,359.6 | 117,572.7 |
| TOTAL Plant-In-Service - (LINES) | 98,254.2 | 152,403.5 | 67,242.1 | 93,753.3 |
| TOTAL Plant-In-Service - (GEN PLNT) | 52,923.4 | 52,685.3 | 57,591.3 | 57,728.1 |
| Grand Total | 299,679.0 | 311,751.4 | 415,193.0 | 269,054.1 |

| Substations Summary By Segment - w/ Indirects Rolled Into The Segments | | | | |
|--|------------------|------------------|------------------|------------------|
| Segment | FY 04 | FY 05 | FY 06 | FY 07 |
| DSI Segment | 0.0 | 0.0 | 0.0 | 0.0 |
| Generation Integration Segment | 138.4 | 500.0 | 362.0 | 491.9 |
| Montana Intertie Segment | 345.9 | 384.2 | 292.1 | 390.5 |
| Network Segment | 113,572.9 | 99,615.9 | 284,292.9 | 109,195.5 |
| Public Utility Segment | 178.9 | 547.0 | 397.7 | 539.7 |
| AC Intertie Segment | 2,054.6 | 2,999.8 | 2,653.5 | 3,672.8 |
| DC Intertie Segment | 32,210.6 | 2,615.7 | 2,361.4 | 3,282.3 |
| Sub's Grand Total | 148,501.4 | 106,662.6 | 290,359.6 | 117,572.7 |

| Lines Summary By Segment - w/ Indirects Rolled Into The Segments | | | | |
|--|-----------------|------------------|-----------------|-----------------|
| Segment | FY 04 | FY 05 | FY 06 | FY 07 |
| DSI Segment | 0.0 | 0.0 | 0.0 | 0.0 |
| Generation Integration Segment | 133.6 | 117.2 | 159.6 | 137.1 |
| Montana Intertie Segment | 334.0 | 293.0 | 398.9 | 342.8 |
| Network Segment | 93,806.0 | 150,235.0 | 63,153.8 | 90,195.5 |
| Public Utility Segment | 168.9 | 149.5 | 203.6 | 175.0 |
| AC Intertie Segment | 3,477.7 | 1,075.7 | 2,592.4 | 2,265.4 |
| DC Intertie Segment | 334.0 | 533.0 | 733.7 | 637.5 |
| Lines Grand Total | 98,254.2 | 152,403.5 | 67,242.1 | 93,753.3 |

General Plant Summary By Account

| Account | FY 04 | FY 05 | FY 06 | FY 07 |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|
| Metering Stations | 116.3 | 116.8 | 120.7 | 121.1 |
| Cntl. Equip. | 5,334.6 | 9,885.4 | 14,237.2 | 11,778.3 |
| Comm. Equip. | 18,896.0 | 15,191.8 | 18,249.7 | 20,238.3 |
| Structures & Imp. | 3,893.8 | 8,172.1 | 6,512.8 | 6,643.7 |
| Data Processing Equip. & Software | 16,845.4 | 13,124.9 | 12,105.8 | 12,564.7 |
| Tools, Shop & Garage Equip. | 785.2 | 620.8 | 638.1 | 639.8 |
| Stores Equip. | 1,170.4 | 924.5 | 949.4 | 951.9 |
| Helicopter | 785.2 | 620.8 | 638.1 | 639.8 |
| Lab Equip. | 1,570.5 | 1,241.5 | 1,276.1 | 1,279.5 |
| Test Facilities | 0.0 | 0.0 | 0.0 | 0.0 |
| Land & Land Rights | 0.0 | 0.0 | 0.0 | 0.0 |
| Fixed Wing | 785.2 | 620.8 | 638.1 | 639.8 |
| Office Furn. & Fixtures | 0.0 | 0.0 | 0.0 | 0.0 |
| Rolling Stocks | 1,170.4 | 924.5 | 949.4 | 951.9 |
| Power Operations Equip. | 1,570.5 | 1,241.5 | 1,276.1 | 1,279.5 |
| General Plant Grand Total | 52,923.4 | 52,685.3 | 57,591.3 | 57,728.1 |

BPA REPLACEMENTS

1 TABLE22 FROM 'STATISTICAL ANALYSES OF INDUSTRIAL PROPERTY RETIREMENTS' BY ROBLEY WINFREY, BULLETIN 125, IOWA STATE UNIVERSITY

| | L0 | L1 | L2 | L3 | L4 | L5 | S0 | S1 | S2 | S3 | S4 | S5 | S6 | R1 | R2 | R3 | R4 | R5 | O1 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 101 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.11 | 10.00 | 10.00 | 10.00 | 10.00 | 10.04 | 11.06 | 15.45 | 10.00 | 10.00 | 10.00 | 10.01 | 10.53 | 9.98 |
| 102 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.07 | 10.00 | 10.00 | 10.00 | 10.05 | 10.76 | 13.46 | 10.00 | 10.00 | 10.00 | 10.02 | 10.56 | 9.98 | |
| 103 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.04 | 10.19 | 10.12 | 10.00 | 10.00 | 10.00 | 10.02 | 10.38 | 9.98 | |
| 104 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.94 | 10.00 | 10.00 | 10.00 | 10.00 | 10.02 | 9.57 | 6.74 | 10.00 | 10.00 | 10.00 | 10.02 | 10.08 | 9.98 |
| 105 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.91 | 10.00 | 10.00 | 10.00 | 10.00 | 9.99 | 9.16 | 4.89 | 10.00 | 10.00 | 10.00 | 10.01 | 9.77 | 9.98 |
| 106 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.91 | 10.00 | 10.00 | 10.00 | 10.00 | 9.97 | 9.08 | 5.07 | 10.00 | 10.00 | 10.00 | 10.00 | 9.56 | 9.98 |
| 107 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.95 | 10.00 | 10.00 | 10.00 | 10.00 | 9.96 | 9.34 | 6.94 | 10.00 | 10.00 | 10.00 | 9.99 | 9.53 | 9.98 |
| 108 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.97 | 9.83 | 9.85 | 10.00 | 10.00 | 10.00 | 9.98 | 9.66 | 9.98 |
| 109 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.04 | 10.00 | 10.00 | 10.00 | 10.00 | 9.99 | 10.35 | 12.81 | 10.00 | 10.00 | 10.00 | 9.99 | 9.91 | 9.98 |
| 110 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.07 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.72 | 14.70 | 10.00 | 10.00 | 10.00 | 10.00 | 10.18 | 9.98 |
| 111 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.07 | 10.00 | 10.00 | 10.00 | 10.00 | 10.02 | 10.80 | 14.79 | 10.00 | 10.00 | 10.00 | 10.00 | 10.36 | 9.98 |
| 112 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.04 | 10.00 | 10.00 | 10.00 | 10.00 | 10.03 | 10.58 | 13.04 | 10.00 | 10.00 | 10.00 | 10.01 | 10.40 | 9.98 |
| 113 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.02 | 10.16 | 10.11 | 10.00 | 10.00 | 10.00 | 10.01 | 10.29 | 9.98 |
| 114 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.97 | 10.00 | 10.00 | 10.00 | 10.00 | 10.01 | 9.70 | 7.21 | 10.00 | 10.00 | 10.00 | 10.01 | 10.09 | 9.98 |
| 115 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.95 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.38 | 5.53 | 10.00 | 10.00 | 10.00 | 10.00 | 9.87 | 9.98 |
| 116 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.95 | 10.00 | 10.00 | 10.00 | 10.00 | 9.99 | 9.31 | 5.61 | 10.00 | 10.00 | 10.00 | 9.99 | 9.71 | 9.98 |
| 117 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.97 | 10.00 | 10.00 | 10.00 | 10.00 | 9.98 | 9.49 | 7.27 | 10.00 | 10.00 | 10.00 | 9.99 | 9.66 | 9.98 |
| 118 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 9.98 | 9.85 | 9.86 | 10.00 | 10.00 | 10.00 | 9.99 | 9.74 | 9.98 |
| 119 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.02 | 10.00 | 10.00 | 10.00 | 10.00 | 9.99 | 10.25 | 12.47 | 10.00 | 10.00 | 10.00 | 10.00 | 9.91 | 9.98 |
| 120 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.04 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.53 | 14.13 | 10.00 | 10.00 | 10.00 | 10.00 | 10.10 | 9.98 |

| C HANDY-WHITMAN INDICES 1/1/01: | | | | | | 1 |
|---------------------------------|-------|-------|-------|-------|-------|-----|
| C | TOTAL | STATN | TOWRS | POLES | OVRHD | 1 |
| C | YEAR | PLANT | EQPMT | & FIX | & FIX | 1 |
| C | | | #353 | #354 | #355 | 1 |
| C | | | | | #356 | 1 |
| 1940 | 22 | 35 | 17 | 15 | 22 | 1 |
| 1941 | 23 | 36 | 19 | 17 | 23 | 40 |
| 1942 | 25 | 37 | 20 | 18 | 25 | 41 |
| 1943 | 25 | 36 | 20 | 19 | 26 | 42 |
| 1944 | 25 | 35 | 21 | 21 | 26 | 43 |
| 1945 | 26 | 35 | 21 | 22 | 26 | 44 |
| 1946 | 29 | 39 | 24 | 24 | 30 | 45 |
| 1947 | 34 | 47 | 28 | 29 | 35 | 46 |
| 1948 | 37 | 49 | 31 | 32 | 39 | 47 |
| 1949 | 38 | 52 | 32 | 32 | 39 | 48 |
| 1950 | 40 | 56 | 34 | 33 | 41 | 49 |
| 1951 | 45 | 63 | 37 | 36 | 47 | 50 |
| 1952 | 46 | 64 | 39 | 37 | 49 | 51 |
| 1953 | 49 | 68 | 41 | 39 | 51 | 52 |
| 1954 | 50 | 69 | 42 | 40 | 52 | 53 |
| 1955 | 52 | 70 | 43 | 42 | 55 | 54 |
| 1956 | 56 | 77 | 46 | 44 | 61 | 55 |
| 1957 | 57 | 81 | 48 | 47 | 63 | 56 |
| 1958 | 59 | 84 | 51 | 49 | 63 | 57 |
| 1959 | 60 | 83 | 53 | 50 | 62 | 58 |
| 1960 | 60 | 77 | 55 | 52 | 63 | 59 |
| 1961 | 59 | 70 | 57 | 53 | 63 | 60 |
| 1962 | 59 | 69 | 57 | 54 | 65 | 61 |
| 1963 | 59 | 65 | 59 | 55 | 61 | 62 |
| 1964 | 61 | 69 | 61 | 56 | 64 | 63 |
| 1965 | 64 | 73 | 63 | 58 | 67 | 64 |
| 1966 | 67 | 75 | 67 | 61 | 70 | 65 |
| 1967 | 70 | 79 | 71 | 63 | 73 | 66 |
| 1968 | 73 | 83 | 74 | 65 | 73 | 67 |
| 1969 | 78 | 85 | 78 | 69 | 80 | 68 |
| 1970 | 83 | 89 | 82 | 76 | 89 | 69 |
| 1971 | 89 | 91 | 87 | 81 | 98 | 70 |
| 1972 | 93 | 94 | 92 | 87 | 99 | 71 |
| 1973 | 100 | 100 | 100 | 100 | 100 | 72 |
| 1974 | 124 | 124 | 123 | 126 | 117 | 73 |
| 1975 | 145 | 148 | 147 | 145 | 146 | 74 |
| 1976 | 158 | 156 | 150 | 150 | 173 | 75 |
| 1977 | 172 | 172 | 154 | 160 | 191 | 76 |
| 1978 | 174 | 182 | 170 | 170 | 176 | 77 |
| 1979 | 190 | 196 | 186 | 190 | 194 | 78 |
| 1980 | 211 | 217 | 210 | 210 | 215 | 79 |
| 1981 | 230 | 235 | 227 | 233 | 237 | 80 |
| 1982 | 245 | 254 | 229 | 253 | 251 | 81 |
| 1983 | 254 | 257 | 233 | 257 | 277 | 82 |
| 1984 | 255 | 261 | 247 | 263 | 265 | 83 |
| 1985 | 252 | 260 | 254 | 255 | 250 | 84 |
| 1986 | 256 | 262 | 262 | 258 | 254 | 85 |
| 1987 | 257 | 270 | 267 | 260 | 234 | 86 |
| 1988 | 286 | 280 | 280 | 282 | 326 | 87 |
| 1989 | 296 | 295 | 288 | 301 | 320 | 88 |
| 1990 | 308 | 315 | 290 | 309 | 333 | 89 |
| 1991 | 314 | 315 | 281 | 334 | 356 | 90 |
| 1992 | 310 | 323 | 283 | 353 | 312 | 91 |
| 1993 | 321 | 335 | 297 | 359 | 325 | 92 |
| 1994 | 336 | 353 | 314 | 376 | 333 | 93 |
| 1995 | 353 | 365 | 321 | 391 | 368 | 94 |
| 1996 | 358 | 365 | 332 | 410 | 372 | 95 |
| 1997 | 363 | 369 | 340 | 419 | 373 | 96 |
| 1998 | 375 | 382 | 347 | 428 | 391 | 97 |
| 1999 | 369 | 388 | 354 | 419 | 354 | 98 |
| 2000 | 373 | 391 | 365 | 413 | 356 | 99 |
| 2001 | 401 | 421 | 377 | 432 | 403 | 100 |

COST EVALUATION PERIOD DATA:

YEAR , ESC FACT AND PROJ PLANT

| | | |
|------|---------|----------|
| 2005 | 1.03700 | 311751.0 |
| 2006 | 1.06200 | 415193.0 |
| 2007 | 1.08800 | 269054.0 |

1 PLANT INVESTMENT BY YEAR AND ACCOUNT

| YEAR | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 1940 | 304. | 238. | 0. | 1820. | 0. | 0. | 1165. | 22. |
| 1941 | 750. | 466. | 0. | 1431. | 0. | 0. | 3833. | 309. |
| 1942 | 376. | 337. | 0. | 1475. | 0. | 0. | 68. | 303. |
| 1943 | 439. | 297. | 0. | 1813. | 0. | 0. | 4237. | 56. |
| 1944 | 23. | 7. | 0. | 9. | 0. | 0. | 1. | 11. |
| 1945 | 31. | 16. | 0. | 276. | 0. | 0. | 538. | 102. |
| 1946 | 97. | 78. | 0. | 324. | 0. | 0. | 613. | 49. |
| 1947 | 109. | 34. | 0. | 64. | 0. | 0. | 9. | 165. |
| 1948 | 176. | 152. | 0. | 1473. | 0. | 0. | 325. | 273. |
| 1949 | 44. | 44. | 0. | 2458. | 0. | 0. | 394. | 584. |
| 1950 | 411. | 343. | 0. | 1970. | 0. | 0. | 3994. | 487. |
| 1951 | 283. | 215. | 0. | 2863. | 0. | 0. | 2043. | 428. |
| 1952 | 459. | 189. | 0. | 2722. | 0. | 0. | 7448. | 324. |
| 1953 | 1073. | 713. | 0. | 9480. | 0. | 0. | 9406. | 1702. |
| 1954 | 567. | 463. | 0. | 3913. | 0. | 0. | 13091. | 717. |
| 1955 | 768. | 459. | 0. | 6235. | 0. | 0. | 2126. | 217. |
| 1956 | 526. | 361. | 0. | 7653. | 0. | 0. | 16296. | 205. |
| 1957 | 749. | 536. | 0. | 8310. | 0. | 0. | 1479. | 691. |
| 1958 | 445. | 339. | 0. | 6879. | 0. | 0. | 5519. | 954. |
| 1959 | 320. | 160. | 0. | 7256. | 0. | 0. | 2177. | 563. |
| 1960 | 425. | 80. | 0. | 3000. | 0. | 0. | 770. | 186. |
| 1961 | 666. | 195. | 0. | 4415. | 0. | 0. | 3222. | 372. |
| 1962 | 397. | 280. | 0. | 3463. | 0. | 0. | 11359. | 669. |
| 1963 | 1656. | 159. | 0. | 2994. | 0. | 0. | 1223. | 222. |
| 1964 | 527. | 296. | 0. | 2737. | 0. | 0. | 2201. | 105. |
| 1965 | 803. | 91. | 0. | 3620. | 0. | 0. | 9012. | 152. |
| 1966 | 358. | 293. | 0. | 9080. | 0. | 0. | 4065. | 561. |
| 1967 | 797. | 584. | 0. | 8659. | 0. | 0. | 11304. | 404. |
| 1968 | 1558. | 1363. | 0. | 17090. | 0. | 0. | 34717. | 159. |
| 1969 | 1783. | 1061. | 0. | 18367. | 0. | 0. | 26192. | 578. |
| 1970 | 5896. | 5781. | 0. | 61046. | 0. | 0. | 26607. | 583. |
| 1971 | 932. | 689. | 0. | 0. | 5625. | 5625. | 16012. | 319. |
| 1972 | 3519. | 1196. | 0. | 0. | 7369. | 7369. | 14962. | 606. |
| 1973 | 2613. | 1080. | 0. | 0. | 8102. | 8102. | 28660. | 275. |
| 1974 | 2251. | 560. | 0. | 0. | 7723. | 7723. | 6504. | 806. |
| 1975 | 3193. | 1834. | 0. | 0. | 12180. | 12180. | 20982. | 947. |
| 1976 | 1750. | 1073. | 0. | 0. | 12757. | 12757. | 33087. | 1035. |
| 1977 | 8561. | 1319. | 0. | 0. | 15079. | 15079. | 62116. | 747. |
| 1978 | 2342. | 885. | 0. | 0. | 21999. | 21999. | 7713. | 733. |
| 1979 | 6512. | 523. | 0. | 0. | 9757. | 9757. | 9162. | 1047. |
| 1980 | 1795. | 860. | 0. | 0. | 9948. | 9948. | 14706. | 395. |
| 1981 | 2248. | 1215. | 0. | 0. | 21185. | 21185. | 61361. | 629. |
| 1982 | 2344. | 950. | 0. | 0. | 16620. | 16620. | 3576. | 338. |
| 1983 | 9758. | 2629. | 0. | 0. | 19867. | 19867. | 28605. | 1488. |
| 1984 | 7926. | 3632. | 0. | 0. | 33491. | 33491. | 76261. | 1663. |
| 1985 | 6121. | 4147. | 0. | 0. | 37234. | 37234. | 242. | 1048. |
| 1986 | 4041. | 2578. | 0. | 0. | 11533. | 11533. | 7491. | 4252. |
| 1987 | 5531. | 3753. | 0. | 0. | 16801. | 16801. | 100491. | 6967. |
| 1988 | 5293. | 4435. | 0. | 0. | 11525. | 11525. | 4838. | 1331. |
| 1989 | 17714. | 13046. | 0. | 0. | 65285. | 65285. | 2056. | 1855. |

| YEAR | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 1990 | 5645. | 2002. | 0. | 0. | 26852. | 26852. | 3377. | 684. |
| 1991 | 9276. | 3316. | 0. | 0. | 47988. | 47988. | 1305. | 763. |
| 1992 | 9680. | 1579. | 0. | 0. | 60649. | 60649. | 11016. | 1056. |
| 1993 | 8040. | 4187. | 0. | 0. | 40552. | 40552. | 14158. | 1510. |
| 1994 | 39212. | 14191. | 0. | 0. | 117805. | 117805. | 5807. | 1875. |
| 1995 | 8405. | 5854. | 0. | 0. | 35235. | 35235. | 826. | 778. |
| 1996 | 14498. | 3756. | 1078. | 0. | 42922. | 42922. | 1685. | 99. |
| 1997 | 6187. | 3518. | 3. | 0. | 44232. | 44232. | 16096. | 1083. |
| 1998 | 13668. | 5666. | 145. | 0. | 27796. | 27796. | 8932. | 1451. |
| 1999 | 5253. | 2730. | 3458. | 0. | 37001. | 37001. | -645. | 3753. |
| 2000 | 1032. | 767. | 0. | 0. | 20295. | 20295. | 96. | 1039. |
| 2001 | 2081. | 1273. | 0. | 0. | 27092. | 27092. | 1404. | 1909. |
| 2002 | 9073. | 4187. | 177. | 7663. | 32951. | 32951. | 29017. | 2063. |
| 2003 | 8306. | 3833. | 162. | 7015. | 30166. | 30166. | 26564. | 1889. |
| 2004 | 11607. | 5357. | 226. | 9803. | 42154. | 42154. | 37120. | 2640. |
| 2005 | 24721. | 11409. | 482. | 20879. | 89783. | 89783. | 79062. | 5622. |

1 PLANT INVESTMENT BY YEAR AND ACCOUNT

| YEAR | R3 | R4 | S3 | R4 | SQ | SQ | L3 | SQ |
|------|-------|---------|-------|--------|----|----|-------|-------|
| | 50 | 100 | 30 | 75 | 20 | 5 | 10 | 15 |
| | 4 | 5 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1940 | 22. | 1337. | 0. | 100. | 0. | 0. | 0. | 0. |
| 1941 | 309. | 6813. | 0. | 145. | 0. | 0. | 0. | 0. |
| 1942 | 303. | 1715. | 0. | 289. | 0. | 0. | 0. | 0. |
| 1943 | 56. | 3638. | 0. | 428. | 0. | 0. | 0. | 0. |
| 1944 | 11. | 328. | 0. | 131. | 0. | 0. | 0. | 0. |
| 1945 | 102. | 489. | 0. | 101. | 0. | 0. | 0. | 0. |
| 1946 | 49. | 443. | 0. | 20. | 0. | 0. | 0. | 0. |
| 1947 | 165. | 561. | 0. | 112. | 0. | 0. | 0. | 0. |
| 1948 | 273. | 1928. | 0. | 177. | 0. | 0. | 0. | 0. |
| 1949 | 584. | 1618. | 0. | 114. | 0. | 0. | 0. | 0. |
| 1950 | 487. | 5746. | 0. | 998. | 0. | 0. | 0. | 0. |
| 1951 | 428. | 4309. | 0. | 12. | 0. | 0. | 0. | 0. |
| 1952 | 324. | 7377. | 194. | 9. | 0. | 0. | 0. | 0. |
| 1953 | 1702. | 10975. | 0. | 231. | 0. | 0. | 0. | 0. |
| 1954 | 717. | 12380. | 0. | 1592. | 0. | 0. | 1. | 0. |
| 1955 | 217. | 2606. | 0. | 50. | 0. | 0. | 0. | 0. |
| 1956 | 205. | 12919. | 0. | 356. | 0. | 0. | 33. | 0. |
| 1957 | 691. | 3667. | 0. | 299. | 0. | 0. | 0. | 0. |
| 1958 | 954. | 6998. | 0. | 740. | 0. | 0. | 0. | 0. |
| 1959 | 563. | 3629. | 0. | 236. | 0. | 0. | 0. | 0. |
| 1960 | 186. | 1110. | 0. | 40. | 0. | 0. | 0. | 0. |
| 1961 | 372. | 4187. | 0. | 286. | 0. | 0. | 0. | 0. |
| 1962 | 669. | 9864. | 0. | 543. | 0. | 0. | 0. | 0. |
| 1963 | 222. | 1842. | 0. | 402. | 0. | 0. | 7. | 0. |
| 1964 | 105. | 1508. | 0. | 53. | 0. | 0. | 19. | 0. |
| 1965 | 152. | 11667. | 0. | 538. | 0. | 0. | 0. | 0. |
| 1966 | 561. | 6233. | 0. | 274. | 0. | 0. | 8. | 0. |
| 1967 | 404. | 12198. | 1401. | 235. | 0. | 0. | 16. | 0. |
| 1968 | 159. | 36861. | 0. | 1036. | 0. | 0. | 32. | 0. |
| 1969 | 578. | 27856. | 0. | 487. | 0. | 0. | 127. | 0. |
| 1970 | 583. | 28542. | 0. | 943. | 0. | 0. | 123. | 0. |
| 1971 | 319. | 14207. | 0. | 328. | 0. | 0. | 250. | 0. |
| 1972 | 606. | 18862. | 0. | 879. | 0. | 0. | 66. | 0. |
| 1973 | 275. | 26381. | 1494. | 1615. | 0. | 0. | 587. | 0. |
| 1974 | 806. | 7249. | 0. | 1121. | 0. | 0. | 437. | 0. |
| 1975 | 947. | 15017. | 0. | 1320. | 0. | 0. | 730. | 0. |
| 1976 | 1035. | 29182. | 1318. | 860. | 0. | 0. | 301. | 0. |
| 1977 | 747. | 69004. | 65. | 1017. | 0. | 0. | 304. | 0. |
| 1978 | 733. | 7684. | 43. | 51. | 0. | 0. | 1018. | 0. |
| 1979 | 1047. | 12052. | 0. | 1337. | 0. | 0. | 245. | 0. |
| 1980 | 395. | 16057. | 0. | 201. | 0. | 0. | 246. | 0. |
| 1981 | 629. | 64666. | 0. | 527. | 0. | 0. | 565. | 0. |
| 1982 | 338. | 5060. | 0. | 356. | 0. | 0. | 781. | 0. |
| 1983 | 1488. | 28663. | 0. | 827. | 0. | 0. | 355. | 1562. |
| 1984 | 1663. | 80157. | 0. | 8400. | 0. | 0. | 59. | 0. |
| 1985 | 1048. | 1672. | 4573. | 59. | 0. | 0. | 240. | 0. |
| 1986 | 4252. | 16166. | 0. | 742. | 0. | 0. | 116. | 2102. |
| 1987 | 6967. | 145662. | 0. | 40293. | 0. | 0. | 57. | 6414. |
| 1988 | 1331. | 6827. | 0. | 309. | 0. | 0. | 350. | 6059. |

| YEAR | R3 | R4 | S3 | R4 | SQ | SQ | L3 | SQ |
|------|-------|--------|------|-------|------|-------|-------|--------|
| | 50 | 100 | 30 | 75 | 20 | 5 | 10 | 15 |
| | 4 | 5 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1989 | 1855. | 2294. | 0. | 141. | 0. | 0. | 1215. | 5705. |
| 1990 | 684. | 2590. | 0. | 0. | 0. | 0. | 358. | 20471. |
| 1991 | 763. | 3258. | 0. | 0. | 0. | 0. | 1232. | 11183. |
| 1992 | 1056. | 20042. | 0. | 2021. | 0. | 0. | 1772. | 37791. |
| 1993 | 1510. | 23660. | 0. | 4254. | 0. | 0. | 976. | 29865. |
| 1994 | 1875. | 4879. | 0. | 118. | 0. | 0. | 805. | 34418. |
| 1995 | 778. | 5072. | 0. | 201. | 639. | 0. | 1076. | 22437. |
| 1996 | 99. | 4008. | 0. | 2. | 0. | 0. | 1267. | 45083. |
| 1997 | 1083. | 12459. | 14. | 2638. | 0. | 0. | 533. | 50822. |
| 1998 | 1451. | 12847. | 7. | 1784. | 0. | 0. | 371. | 49740. |
| 1999 | 3753. | 172. | 0. | 416. | 0. | 5358. | 548. | 89999. |
| 2000 | 1039. | 717. | 0. | 0. | 0. | 1744. | 0. | 10063. |
| 2001 | 1909. | 2802. | 0. | 1193. | 0. | 6097. | 0. | 6330. |
| 2002 | 2063. | 33639. | 344. | 3172. | 24. | 498. | 651. | 16241. |
| 2003 | 1889. | 30795. | 315. | 2904. | 22. | 456. | 596. | 14868. |
| 2004 | 2640. | 43034. | 440. | 4058. | 31. | 638. | 832. | 20777. |
| 2005 | 5622. | 91657. | 937. | 8643. | 66. | 1358. | 1773. | 44253. |

1 PLANT INVESTMENT BY YEAR AND ACCOUNT

| YEAR | SQ 30 | SQ 25 | L2 15 | |
|------|----------|----------|----------|---------|
| | 1 | 1 | 1 | |
| 1940 | 0. | 0. | 0. | 5008. |
| 1941 | 0. | 0. | 0. | 14056. |
| 1942 | 0. | 0. | 0. | 4866. |
| 1943 | 0. | 0. | 0. | 10964. |
| 1944 | 0. | 0. | 0. | 521. |
| 1945 | 0. | 0. | 0. | 1655. |
| 1946 | 0. | 0. | 0. | 1673. |
| 1947 | 0. | 0. | 0. | 1219. |
| 1948 | 0. | 0. | 0. | 4777. |
| 1949 | 0. | 0. | 0. | 5840. |
| 1950 | 0. | 0. | 0. | 14436. |
| 1951 | 0. | 0. | 0. | 10581. |
| 1952 | 0. | 0. | 0. | 19046. |
| 1953 | 0. | 0. | 0. | 35282. |
| 1954 | 0. | 0. | 0. | 33441. |
| 1955 | 0. | 0. | 0. | 12678. |
| 1956 | 0. | 0. | 0. | 38554. |
| 1957 | 0. | 0. | 0. | 16422. |
| 1958 | 0. | 0. | 0. | 22828. |
| 1959 | 0. | 0. | 26. | 14930. |
| 1960 | 0. | 0. | 0. | 5797. |
| 1961 | 0. | 0. | 0. | 13715. |
| 1962 | 0. | 0. | 0. | 27244. |
| 1963 | 0. | 0. | 0. | 8727. |
| 1964 | 0. | 0. | 22. | 7573. |
| 1965 | 0. | 0. | 0. | 26035. |
| 1966 | 0. | 0. | 16. | 21449. |
| 1967 | 0. | 0. | 7. | 36009. |
| 1968 | 0. | 0. | 18. | 92993. |
| 1969 | 0. | 0. | 95. | 77124. |
| 1970 | 0. | 0. | 36. | 130140. |
| 1971 | 0. | 0. | 12. | 44318. |
| 1972 | 0. | 0. | 115. | 55549. |
| 1973 | 0. | 0. | 167. | 79351. |
| 1974 | 0. | 0. | 247. | 35427. |
| 1975 | 0. | 0. | 198. | 69528. |
| 1976 | 0. | 0. | 841. | 95996. |
| 1977 | 0. | 0. | 860. | 174898. |
| 1978 | 0. | 0. | 325. | 65525. |
| 1979 | 0. | 0. | 615. | 52054. |
| 1980 | 1653. | 4054. | -3746. | 56512. |
| 1981 | 44. | 68. | 598. | 174920. |
| 1982 | 0. | 0. | 600. | 47583. |
| 1983 | 0. | 0. | 1155. | 116264. |
| 1984 | 0. | 0. | 989. | 247732. |
| 1985 | 0. | 0. | 1047. | 94665. |
| 1986 | 0. | 0. | 1280. | 66086. |
| 1987 | 0. | 0. | 593. | 350330. |
| 1988 | 0. | 0. | 513. | 54336. |
| 1989 | 0. | 0. | 310. | 176761. |
| 1990 | 0. | 0. | 981. | 90496. |
| 1991 | 0. | 0. | 1076. | 128148. |
| 1992 | 0. | 0. | 3014. | 210325. |
| 1993 | 0. | 0. | 2357. | 171621. |
| 1994 | 0. | 0. | 723. | 339513. |
| 1995 | 0. | 0. | 943. | 117479. |
| 1996 | 2. | 0. | 1665. | 159086. |
| 1997 | 0. | 0. | 1. | 182901. |
| 1998 | 0. | 0. | 395. | 152049. |
| 1999 | 214. | 1615. | 1329. | 191955. |
| 2000 | 0. | 101. | 0. | 57188. |
| 2001 | 0. | 0. | 0. | 79182. |
| 2002 | 72. | 220. | 734. | 175741. |
| 2003 | 66. | 202. | 672. | 160885. |
| 2004 | 92. | 282. | 938. | 224821. |
| 2005 | 197. | 601. | 1999. | 478847 |

1 ADJUSTED PLANT INVESTMENT BY YEAR AND FERC ACCOUNT

| YEAR | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 2002 | -3310. | -1702. | 0. | -27304. | -15624. | -12866. | -4603. | -3147. |
| 2003 | -3434. | -1789. | 0. | -27615. | -16732. | -14314. | -4825. | -3232. |
| 2004 | -3559. | -1878. | 0. | -27869. | -17833. | -15857. | -5053. | -3311. |
| 2005 | 21039. | 9444. | 482. | -7205. | 70811. | 72298. | 73777. | 2238. |

| YEAR | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 |
|------|---------------|----------------|---------------|---------------|---------------|--------------|---------------|---------------|
| 2002 | -3512. | -2429. | -965. | -594. | 0. | 0. | -2991. | 0. |
| 2003 | -3615. | -2610. | -978. | -636. | 0. | 0. | -3035. | 0. |
| 2004 | -3711. | -2802. | -991. | -681. | 0. | 0. | -3056. | 0. |
| 2005 | 1824. | 88654. | -59. | 7914. | 66. | 1358. | -1270. | 44253. |

| YEAR | SQ 30 1 | SQ 25 1 | L2 15 1 | | | | | |
|------|---------------|---------------|---------------|----|----|----|--|---------|
| 2002 | 0. | 0. | -1689. | 0. | 0. | 0. | | -80736. |
| 2003 | 0. | 0. | -1771. | 0. | 0. | 0. | | -84586. |
| 2004 | 0. | 0. | -1831. | 0. | 0. | 0. | | -88432. |
| 2005 | 197. | 601. | 131. | 0. | 0. | 0. | | 386553. |

1 2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 2002 | 3310. | 1702. | 0. | 27304. | 15624. | 12866. | 4603. | 3147. |
| 2003 | 3434. | 1789. | 0. | 27615. | 16732. | 14314. | 4825. | 3232. |
| 2004 | 3564. | 1879. | 0. | 27879. | 17892. | 15865. | 5054. | 3313. |
| 2005 | 3695. | 1966. | 0. | 28147. | 19111. | 17504. | 5287. | 3390. |
| 2006 | 3830. | 2053. | 0. | 28414. | 20349. | 19204. | 5527. | 3465. |
| 2007 | 3963. | 2139. | 0. | 28667. | 21632. | 20987. | 5777. | 3535. |
| 2008 | 4100. | 2227. | 0. | 28901. | 22943. | 22802. | 6034. | 3602. |
| 2009 | 4238. | 2317. | 0. | 29128. | 24276. | 24621. | 6302. | 3666. |
| 2010 | 4380. | 2411. | 0. | 29343. | 25638. | 26457. | 6577. | 3726. |
| 2011 | 4521. | 2500. | 0. | 29542. | 27003. | 28251. | 6857. | 3779. |
| 2012 | 4664. | 2585. | 0. | 29718. | 28369. | 30001. | 7144. | 3825. |
| 2013 | 4808. | 2668. | 0. | 29880. | 29728. | 31676. | 7441. | 3865. |
| 2014 | 4953. | 2752. | 0. | 30022. | 31076. | 33278. | 7745. | 3903. |
| 2015 | 5100. | 2837. | 0. | 30142. | 32384. | 34775. | 8054. | 3938. |
| 2016 | 5249. | 2926. | 0. | 30233. | 33659. | 36188. | 8370. | 3966. |
| 2017 | 5396. | 3012. | 0. | 30314. | 34904. | 37528. | 8699. | 3985. |
| 2018 | 5544. | 3094. | 0. | 30378. | 36071. | 38732. | 9037. | 4000. |
| 2019 | 5692. | 3174. | 0. | 30422. | 37184. | 39908. | 9391. | 4013. |
| 2020 | 5840. | 3252. | 0. | 30443. | 38242. | 41055. | 9755. | 4024. |
| 2021 | 5988. | 3329. | 0. | 30462. | 39218. | 42097. | 10125. | 4029. |
| 2022 | 6137. | 3409. | 0. | 30465. | 40109. | 43034. | 10507. | 4028. |
| 2023 | 6285. | 3491. | 0. | 30450. | 40941. | 43934. | 10899. | 4025. |
| 2024 | 6431. | 3574. | 0. | 30417. | 41690. | 44756. | 11299. | 4021. |
| 2025 | 6577. | 3656. | 0. | 30366. | 42329. | 45424. | 11706. | 4014. |
| 2026 | 6722. | 3734. | 0. | 30285. | 42893. | 45957. | 12121. | 4006. |
| 2027 | 6864. | 3809. | 0. | 30176. | 43372. | 46341. | 12546. | 3996. |
| 2028 | 7006. | 3879. | 0. | 30035. | 43749. | 46601. | 12983. | 3986. |
| 2029 | 7147. | 3952. | 0. | 29881. | 43998. | 46604. | 13436. | 3975. |
| 2030 | 7287. | 4026. | 0. | 29720. | 44158. | 46458. | 13901. | 3965. |
| 2031 | 7425. | 4098. | 0. | 29534. | 44201. | 46101. | 14373. | 3955. |
| 2032 | 7562. | 4166. | 0. | 29333. | 44131. | 45578. | 14859. | 3947. |
| 2033 | 7693. | 4231. | 0. | 29134. | 43971. | 44864. | 15359. | 3939. |
| 2034 | 7821. | 4284. | 0. | 28959. | 43677. | 43835. | 15873. | 3930. |
| 2035 | 7947. | 4344. | 0. | 28763. | 43325. | 42724. | 16396. | 3922. |
| 2036 | 8071. | 4404. | 0. | 28571. | 42884. | 41552. | 16927. | 3915. |
| 2037 | 8192. | 4464. | 0. | 28392. | 42358. | 40238. | 17462. | 3910. |
| 2038 | 8309. | 4520. | 0. | 28221. | 41769. | 38912. | 18008. | 3906. |

1 2002 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 2002 | 3310. | 1702. | 0. | 27304. | 15624. | 12866. | 4603. | 3147. |
| 2003 | 3440. | 1790. | 0. | 27627. | 16797. | 14322. | 4826. | 3234. |
| 2004 | 3573. | 1879. | 0. | 27935. | 17980. | 15878. | 5055. | 3318. |
| 2005 | 3706. | 1967. | 0. | 28241. | 19191. | 17520. | 5288. | 3398. |
| 2006 | 3839. | 2053. | 0. | 28536. | 20436. | 19224. | 5528. | 3473. |
| 2007 | 3973. | 2140. | 0. | 28817. | 21727. | 21010. | 5779. | 3544. |
| 2008 | 4110. | 2228. | 0. | 29078. | 23047. | 22835. | 6035. | 3612. |
| 2009 | 4249. | 2319. | 0. | 29331. | 24391. | 24662. | 6304. | 3676. |
| 2010 | 4391. | 2412. | 0. | 29568. | 25761. | 26504. | 6580. | 3737. |
| 2011 | 4533. | 2501. | 0. | 29789. | 27137. | 28309. | 6859. | 3791. |
| 2012 | 4676. | 2587. | 0. | 29986. | 28516. | 30071. | 7147. | 3837. |
| 2013 | 4821. | 2671. | 0. | 30168. | 29887. | 31757. | 7444. | 3878. |
| 2014 | 4966. | 2755. | 0. | 30329. | 31247. | 33370. | 7748. | 3917. |
| 2015 | 5114. | 2840. | 0. | 30467. | 32572. | 34885. | 8057. | 3953. |
| 2016 | 5264. | 2929. | 0. | 30576. | 33861. | 36313. | 8374. | 3981. |
| 2017 | 5412. | 3015. | 0. | 30674. | 35120. | 37667. | 8703. | 4002. |
| 2018 | 5561. | 3098. | 0. | 30755. | 36306. | 38892. | 9041. | 4018. |
| 2019 | 5709. | 3179. | 0. | 30815. | 37437. | 40087. | 9395. | 4032. |
| 2020 | 5858. | 3257. | 0. | 30852. | 38513. | 41252. | 9760. | 4043. |
| 2021 | 6007. | 3334. | 0. | 30887. | 39509. | 42315. | 10131. | 4049. |
| 2022 | 6157. | 3415. | 0. | 30905. | 40423. | 43277. | 10512. | 4050. |
| 2023 | 6305. | 3497. | 0. | 30905. | 41277. | 44200. | 10905. | 4048. |
| 2024 | 6453. | 3580. | 0. | 30887. | 42048. | 45045. | 11306. | 4045. |
| 2025 | 6600. | 3663. | 0. | 30849. | 42714. | 45751. | 11712. | 4039. |
| 2026 | 6746. | 3742. | 0. | 30783. | 43303. | 46316. | 12128. | 4032. |
| 2027 | 6889. | 3818. | 0. | 30687. | 43807. | 46732. | 12554. | 4024. |
| 2028 | 7032. | 3888. | 0. | 30559. | 44212. | 47034. | 12992. | 4015. |
| 2029 | 7174. | 3962. | 0. | 30418. | 44490. | 47084. | 13445. | 4006. |
| 2030 | 7316. | 4036. | 0. | 30270. | 44678. | 46982. | 13910. | 3997. |
| 2031 | 7455. | 4110. | 0. | 30097. | 44750. | 46668. | 14383. | 3990. |
| 2032 | 7592. | 4179. | 0. | 29908. | 44708. | 46195. | 14870. | 3983. |
| 2033 | 7725. | 4244. | 0. | 29722. | 44577. | 45529. | 15370. | 3977. |
| 2034 | 7854. | 4298. | 0. | 29557. | 44311. | 44547. | 15884. | 3969. |
| 2035 | 7982. | 4358. | 0. | 29373. | 43983. | 43467. | 16408. | 3963. |
| 2036 | 8108. | 4419. | 0. | 29193. | 43566. | 42327. | 16940. | 3958. |
| 2037 | 8229. | 4480. | 0. | 29024. | 43065. | 41048. | 17475. | 3955. |

1 2002 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 |
|----------------------|---------------|----------------|---------------|---------------|---------------|--------------|---------------|---------------|
| 2002 | 3512. | 2429. | 965. | 594. | 0. | 0. | 2991. | 0. |
| 2003 | 3615. | 2610. | 978. | 636. | 0. | 0. | 3035. | 0. |
| 2004 | 3711. | 2803. | 991. | 681. | 0. | 0. | 3059. | 0. |
| 2005 | 3800. | 3004. | 996. | 729. | 0. | 0. | 3058. | 0. |
| 2006 | 3874. | 3217. | 995. | 779. | 0. | 0. | 3034. | 0. |
| 2007 | 3931. | 3449. | 993. | 836. | 0. | 0. | 2984. | 0. |
| 2008 | 3977. | 3696. | 987. | 896. | 0. | 0. | 2900. | 0. |
| 2009 | 4018. | 3960. | 976. | 959. | 0. | 0. | 2800. | 0. |
| 2010 | 4057. | 4236. | 965. | 1023. | 0. | 0. | 2725. | 0. |
| 2011 | 4079. | 4520. | 952. | 1090. | 0. | 0. | 2707. | 0. |
| 2012 | 4081. | 4817. | 938. | 1160. | 0. | 0. | 2740. | 0. |
| 2013 | 4073. | 5130. | 924. | 1231. | 0. | 0. | 2789. | 0. |
| 2014 | 4062. | 5462. | 910. | 1307. | 0. | 0. | 2826. | 0. |
| 2015 | 4046. | 5806. | 896. | 1387. | 0. | 0. | 2840. | 0. |
| 2016 | 4018. | 6167. | 883. | 1467. | 0. | 0. | 2836. | 0. |
| 2017 | 3980. | 6550. | 870. | 1548. | 0. | 0. | 2822. | 0. |
| 2018 | 3941. | 6951. | 859. | 1633. | 0. | 0. | 2808. | 0. |
| 2019 | 3903. | 7373. | 848. | 1723. | 0. | 0. | 2799. | 0. |
| 2020 | 3864. | 7811. | 839. | 1812. | 0. | 0. | 2797. | 0. |
| 2021 | 3828. | 8259. | 831. | 1900. | 0. | 0. | 2801. | 0. |
| 2022 | 3797. | 8724. | 824. | 1987. | 0. | 0. | 2807. | 0. |
| 2023 | 3768. | 9214. | 819. | 2068. | 0. | 0. | 2811. | 0. |
| 2024 | 3741. | 9728. | 817. | 2149. | 0. | 0. | 2813. | 0. |
| 2025 | 3717. | 10258. | 814. | 2229. | 0. | 0. | 2812. | 0. |
| 2026 | 3703. | 10811. | 814. | 2310. | 0. | 0. | 2809. | 0. |
| 2027 | 3697. | 11406. | 817. | 2389. | 0. | 0. | 2807. | 0. |
| 2028 | 3695. | 12026. | 820. | 2466. | 0. | 0. | 2806. | 0. |
| 2029 | 3692. | 12678. | 825. | 2543. | 0. | 0. | 2806. | 0. |
| 2030 | 3693. | 13349. | 832. | 2609. | 0. | 0. | 2807. | 0. |
| 2031 | 3702. | 14034. | 839. | 2673. | 0. | 0. | 2808. | 0. |
| 2032 | 3720. | 14736. | 847. | 2737. | 0. | 0. | 2809. | 0. |
| 2033 | 3740. | 15475. | 856. | 2797. | 0. | 0. | 2809. | 0. |
| 2034 | 3761. | 16242. | 865. | 2846. | 0. | 0. | 2809. | 0. |
| 2035 | 3783. | 17029. | 873. | 2894. | 0. | 0. | 2808. | 0. |
| 2036 | 3811. | 17839. | 879. | 2943. | 0. | 0. | 2808. | 0. |
| 2037 | 3846. | 18657. | 886. | 2992. | 0. | 0. | 2807. | 0. |

1 2002 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | SQ 30 1 | SQ 25 1 | L2 15 1 |
|----------------------|---------------|---------------|---------------|
| FERC ACCT | SQ | SQ | L2 |
| 2002 | 0. | 0. | 1689. |
| 2003 | 0. | 0. | 1772. |
| 2004 | 0. | 0. | 1837. |
| 2005 | 0. | 0. | 1882. |
| 2006 | 0. | 0. | 1913. |
| 2007 | 0. | 0. | 1931. |
| 2008 | 0. | 0. | 1934. |
| 2009 | 0. | 0. | 1930. |
| 2010 | 0. | 0. | 1918. |
| 2011 | 0. | 0. | 1906. |
| 2012 | 0. | 0. | 1896. |
| 2013 | 0. | 0. | 1889. |
| 2014 | 0. | 0. | 1886. |
| 2015 | 0. | 0. | 1884. |
| 2016 | 0. | 0. | 1885. |
| 2017 | 0. | 0. | 1887. |
| 2018 | 0. | 0. | 1887. |
| 2019 | 0. | 0. | 1888. |
| 2020 | 0. | 0. | 1887. |
| 2021 | 0. | 0. | 1885. |
| 2022 | 0. | 0. | 1882. |
| 2023 | 0. | 0. | 1880. |
| 2024 | 0. | 0. | 1877. |
| 2025 | 0. | 0. | 1876. |
| 2026 | 0. | 0. | 1875. |
| 2027 | 0. | 0. | 1875. |
| 2028 | 0. | 0. | 1875. |
| 2029 | 0. | 0. | 1876. |
| 2030 | 0. | 0. | 1876. |
| 2031 | 0. | 0. | 1878. |
| 2032 | 0. | 0. | 1878. |
| 2033 | 0. | 0. | 1879. |
| 2034 | 0. | 0. | 1880. |
| 2035 | 0. | 0. | 1881. |
| 2036 | 0. | 0. | 1881. |
| 2037 | 0. | 0. | 1881. |

1 2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 2002 | 3310. | 1702. | 0. | 27304. | 15624. | 12866. | 4603. | 3147. |
| 2003 | 3434. | 1789. | 0. | 27615. | 16732. | 14314. | 4825. | 3232. |
| 2004 | 3564. | 1879. | 0. | 27879. | 17892. | 15865. | 5054. | 3313. |
| 2005 | 3695. | 1966. | 0. | 28147. | 19111. | 17504. | 5287. | 3390. |
| 2006 | 3830. | 2053. | 0. | 28414. | 20349. | 19204. | 5527. | 3465. |
| 2007 | 3963. | 2139. | 0. | 28667. | 21632. | 20987. | 5777. | 3535. |
| 2008 | 4100. | 2227. | 0. | 28901. | 22943. | 22802. | 6034. | 3602. |
| 2009 | 4238. | 2317. | 0. | 29128. | 24276. | 24621. | 6302. | 3666. |
| 2010 | 4380. | 2411. | 0. | 29343. | 25638. | 26457. | 6577. | 3726. |
| 2011 | 4521. | 2500. | 0. | 29542. | 27003. | 28251. | 6857. | 3779. |
| 2012 | 4664. | 2585. | 0. | 29718. | 28369. | 30001. | 7144. | 3825. |
| 2013 | 4808. | 2668. | 0. | 29880. | 29728. | 31676. | 7441. | 3865. |
| 2014 | 4953. | 2752. | 0. | 30022. | 31076. | 33278. | 7745. | 3903. |
| 2015 | 5100. | 2837. | 0. | 30142. | 32384. | 34775. | 8054. | 3938. |
| 2016 | 5249. | 2926. | 0. | 30233. | 33659. | 36188. | 8370. | 3966. |
| 2017 | 5396. | 3012. | 0. | 30314. | 34904. | 37528. | 8699. | 3985. |
| 2018 | 5544. | 3094. | 0. | 30378. | 36071. | 38732. | 9037. | 4000. |
| 2019 | 5692. | 3174. | 0. | 30422. | 37184. | 39908. | 9391. | 4013. |
| 2020 | 5840. | 3252. | 0. | 30443. | 38242. | 41055. | 9755. | 4024. |
| 2021 | 5988. | 3329. | 0. | 30462. | 39218. | 42097. | 10125. | 4029. |
| 2022 | 6137. | 3409. | 0. | 30465. | 40109. | 43034. | 10507. | 4028. |
| 2023 | 6285. | 3491. | 0. | 30450. | 40941. | 43934. | 10899. | 4025. |
| 2024 | 6431. | 3574. | 0. | 30417. | 41690. | 44756. | 11299. | 4021. |
| 2025 | 6577. | 3656. | 0. | 30366. | 42329. | 45424. | 11706. | 4014. |
| 2026 | 6722. | 3734. | 0. | 30285. | 42893. | 45957. | 12121. | 4006. |
| 2027 | 6864. | 3809. | 0. | 30176. | 43372. | 46341. | 12546. | 3996. |
| 2028 | 7006. | 3879. | 0. | 30035. | 43749. | 46601. | 12983. | 3986. |
| 2029 | 7147. | 3952. | 0. | 29881. | 43998. | 46604. | 13436. | 3975. |
| 2030 | 7287. | 4026. | 0. | 29720. | 44158. | 46458. | 13901. | 3965. |
| 2031 | 7425. | 4098. | 0. | 29534. | 44201. | 46101. | 14373. | 3955. |
| 2032 | 7562. | 4166. | 0. | 29333. | 44131. | 45578. | 14859. | 3947. |
| 2033 | 7693. | 4231. | 0. | 29134. | 43971. | 44864. | 15359. | 3939. |
| 2034 | 7821. | 4284. | 0. | 28959. | 43677. | 43835. | 15873. | 3930. |
| 2035 | 7947. | 4344. | 0. | 28763. | 43325. | 42724. | 16396. | 3922. |
| 2036 | 8071. | 4404. | 0. | 28571. | 42884. | 41552. | 16927. | 3915. |
| 2037 | 8192. | 4464. | 0. | 28392. | 42358. | 40238. | 17462. | 3910. |
| 2038 | 8309. | 4520. | 0. | 28221. | 41769. | 38912. | 18008. | 3906. |

1 2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 |
|----------------------|---------------|----------------|---------------|---------------|---------------|--------------|---------------|---------------|
| 2002 | 3512. | 2429. | 965. | 594. | 0. | 0. | 2991. | 0. |
| 2003 | 3615. | 2610. | 978. | 636. | 0. | 0. | 3035. | 0. |
| 2004 | 3711. | 2802. | 991. | 681. | 0. | 0. | 3056. | 0. |
| 2005 | 3799. | 3003. | 996. | 729. | 0. | 0. | 3046. | 0. |
| 2006 | 3873. | 3217. | 995. | 779. | 0. | 0. | 3002. | 0. |
| 2007 | 3929. | 3449. | 993. | 836. | 0. | 0. | 2917. | 0. |
| 2008 | 3974. | 3696. | 987. | 896. | 0. | 0. | 2772. | 0. |
| 2009 | 4016. | 3960. | 976. | 959. | 0. | 0. | 2576. | 0. |
| 2010 | 4054. | 4236. | 965. | 1023. | 0. | 0. | 2391. | 0. |
| 2011 | 4075. | 4520. | 952. | 1090. | 0. | 0. | 2297. | 0. |
| 2012 | 4076. | 4817. | 938. | 1160. | 0. | 0. | 2319. | 0. |
| 2013 | 4068. | 5130. | 923. | 1231. | 0. | 0. | 2411. | 0. |
| 2014 | 4056. | 5461. | 908. | 1307. | 0. | 0. | 2503. | 0. |
| 2015 | 4040. | 5806. | 893. | 1386. | 0. | 0. | 2556. | 0. |
| 2016 | 4011. | 6166. | 878. | 1467. | 0. | 0. | 2564. | 0. |
| 2017 | 3971. | 6549. | 864. | 1548. | 0. | 0. | 2543. | 0. |
| 2018 | 3931. | 6950. | 851. | 1633. | 0. | 0. | 2512. | 0. |
| 2019 | 3891. | 7372. | 837. | 1723. | 0. | 0. | 2487. | 0. |
| 2020 | 3852. | 7810. | 825. | 1812. | 0. | 0. | 2476. | 0. |
| 2021 | 3815. | 8258. | 814. | 1900. | 0. | 0. | 2479. | 0. |
| 2022 | 3782. | 8723. | 803. | 1986. | 0. | 0. | 2490. | 0. |
| 2023 | 3752. | 9213. | 794. | 2068. | 0. | 0. | 2502. | 0. |
| 2024 | 3722. | 9727. | 788. | 2148. | 0. | 0. | 2509. | 0. |
| 2025 | 3697. | 10257. | 781. | 2229. | 0. | 0. | 2509. | 0. |
| 2026 | 3681. | 10809. | 778. | 2309. | 0. | 0. | 2504. | 0. |
| 2027 | 3674. | 11405. | 777. | 2389. | 0. | 0. | 2499. | 0. |
| 2028 | 3669. | 12024. | 776. | 2465. | 0. | 0. | 2495. | 0. |
| 2029 | 3665. | 12676. | 779. | 2542. | 0. | 0. | 2494. | 0. |
| 2030 | 3663. | 13347. | 783. | 2608. | 0. | 0. | 2495. | 0. |
| 2031 | 3670. | 14031. | 788. | 2672. | 0. | 0. | 2498. | 0. |
| 2032 | 3686. | 14733. | 795. | 2735. | 0. | 0. | 2500. | 0. |
| 2033 | 3704. | 15472. | 804. | 2795. | 0. | 0. | 2501. | 0. |
| 2034 | 3723. | 16239. | 813. | 2844. | 0. | 0. | 2501. | 0. |
| 2035 | 3742. | 17025. | 822. | 2893. | 0. | 0. | 2500. | 0. |
| 2036 | 3767. | 17836. | 831. | 2941. | 0. | 0. | 2499. | 0. |
| 2037 | 3799. | 18653. | 840. | 2990. | 0. | 0. | 2498. | 0. |
| 2038 | 3833. | 19494. | 848. | 3034. | 0. | 0. | 2498. | 0. |

1 2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | SQ 30 1 | SQ 25 1 | L2 15 1 |
|----------------------|---------------|---------------|---------------|
| FERC ACCT | SQ | SQ | L2 |
| 2002 | 0. | 0. | 1689. |
| 2003 | 0. | 0. | 1771. |
| 2004 | 0. | 0. | 1832. |
| 2005 | 0. | 0. | 1873. |
| 2006 | 0. | 0. | 1896. |
| 2007 | 0. | 0. | 1905. |
| 2008 | 0. | 0. | 1897. |
| 2009 | 0. | 0. | 1876. |
| 2010 | 0. | 0. | 1845. |
| 2011 | 0. | 0. | 1814. |
| 2012 | 0. | 0. | 1786. |
| 2013 | 0. | 0. | 1766. |
| 2014 | 0. | 0. | 1757. |
| 2015 | 0. | 0. | 1753. |
| 2016 | 0. | 0. | 1754. |
| 2017 | 0. | 0. | 1758. |
| 2018 | 0. | 0. | 1761. |
| 2019 | 0. | 0. | 1764. |
| 2020 | 0. | 0. | 1765. |
| 2021 | 0. | 0. | 1764. |
| 2022 | 0. | 0. | 1761. |
| 2023 | 0. | 0. | 1758. |
| 2024 | 0. | 0. | 1755. |
| 2025 | 0. | 0. | 1752. |
| 2026 | 0. | 0. | 1751. |
| 2027 | 0. | 0. | 1750. |
| 2028 | 0. | 0. | 1751. |
| 2029 | 0. | 0. | 1752. |
| 2030 | 0. | 0. | 1753. |
| 2031 | 0. | 0. | 1755. |
| 2032 | 0. | 0. | 1756. |
| 2033 | 0. | 0. | 1758. |
| 2034 | 0. | 0. | 1759. |
| 2035 | 0. | 0. | 1759. |
| 2036 | 0. | 0. | 1760. |
| 2037 | 0. | 0. | 1760. |
| 2038 | 0. | 0. | 1759. |
| | | | 175112. |

1 2004 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 2002 | 3310. | 1702. | 0. | 27304. | 15624. | 12866. | 4603. | 3147. |
| 2003 | 3434. | 1789. | 0. | 27615. | 16732. | 14314. | 4825. | 3232. |
| 2004 | 3559. | 1878. | 0. | 27869. | 17833. | 15857. | 5053. | 3311. |
| 2005 | 3690. | 1966. | 0. | 28098. | 19055. | 17496. | 5286. | 3386. |
| 2006 | 3824. | 2052. | 0. | 28331. | 20317. | 19196. | 5526. | 3459. |
| 2007 | 3962. | 2138. | 0. | 28558. | 21599. | 20978. | 5777. | 3529. |
| 2008 | 4098. | 2226. | 0. | 28767. | 22907. | 22792. | 6033. | 3595. |
| 2009 | 4237. | 2317. | 0. | 28970. | 24236. | 24605. | 6302. | 3659. |
| 2010 | 4378. | 2410. | 0. | 29163. | 25594. | 26438. | 6578. | 3718. |
| 2011 | 4520. | 2499. | 0. | 29343. | 26956. | 28231. | 6858. | 3771. |
| 2012 | 4662. | 2584. | 0. | 29500. | 28318. | 29976. | 7145. | 3816. |
| 2013 | 4806. | 2668. | 0. | 29642. | 29672. | 31646. | 7442. | 3856. |
| 2014 | 4951. | 2751. | 0. | 29767. | 31017. | 33245. | 7746. | 3893. |
| 2015 | 5098. | 2836. | 0. | 29870. | 32321. | 34739. | 8055. | 3928. |
| 2016 | 5246. | 2925. | 0. | 29945. | 33588. | 36144. | 8372. | 3955. |
| 2017 | 5394. | 3011. | 0. | 30010. | 34828. | 37480. | 8701. | 3974. |
| 2018 | 5542. | 3093. | 0. | 30058. | 35991. | 38681. | 9038. | 3988. |
| 2019 | 5689. | 3173. | 0. | 30087. | 37096. | 39849. | 9392. | 4000. |
| 2020 | 5838. | 3251. | 0. | 30094. | 38147. | 40991. | 9757. | 4010. |
| 2021 | 5986. | 3328. | 0. | 30099. | 39118. | 42029. | 10127. | 4014. |
| 2022 | 6134. | 3408. | 0. | 30088. | 40002. | 42958. | 10508. | 4013. |
| 2023 | 6282. | 3490. | 0. | 30060. | 40825. | 43849. | 10900. | 4009. |
| 2024 | 6429. | 3572. | 0. | 30014. | 41567. | 44665. | 11302. | 4004. |
| 2025 | 6574. | 3654. | 0. | 29949. | 42199. | 45329. | 11708. | 3996. |
| 2026 | 6719. | 3732. | 0. | 29856. | 42752. | 45843. | 12124. | 3987. |
| 2027 | 6861. | 3807. | 0. | 29735. | 43223. | 46218. | 12549. | 3976. |
| 2028 | 7002. | 3877. | 0. | 29582. | 43593. | 46471. | 12987. | 3965. |
| 2029 | 7144. | 3950. | 0. | 29416. | 43832. | 46457. | 13438. | 3953. |
| 2030 | 7284. | 4023. | 0. | 29243. | 43981. | 46293. | 13904. | 3941. |
| 2031 | 7421. | 4095. | 0. | 29045. | 44016. | 45926. | 14377. | 3931. |
| 2032 | 7558. | 4163. | 0. | 28833. | 43938. | 45392. | 14863. | 3922. |
| 2033 | 7689. | 4228. | 0. | 28624. | 43769. | 44662. | 15363. | 3912. |
| 2034 | 7816. | 4281. | 0. | 28438. | 43466. | 43622. | 15878. | 3902. |
| 2035 | 7943. | 4340. | 0. | 28231. | 43106. | 42500. | 16402. | 3892. |
| 2036 | 8067. | 4401. | 0. | 28030. | 42660. | 41333. | 16933. | 3884. |
| 2037 | 8187. | 4460. | 0. | 27840. | 42128. | 40016. | 17468. | 3878. |
| 2038 | 8304. | 4516. | 0. | 27660. | 41532. | 38682. | 18014. | 3872. |
| 2039 | 8415. | 4568. | 0. | 27450. | 40915. | 37466. | 18566. | 3866. |

1 2004 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 |
|----------------------|---------------|----------------|---------------|---------------|---------------|--------------|---------------|---------------|
| 2002 | 3512. | 2429. | 965. | 594. | 0. | 0. | 2991. | 0. |
| 2003 | 3615. | 2610. | 978. | 636. | 0. | 0. | 3035. | 0. |
| 2004 | 3711. | 2802. | 991. | 681. | 0. | 0. | 3056. | 0. |
| 2005 | 3798. | 3003. | 996. | 729. | 0. | 0. | 3043. | 0. |
| 2006 | 3872. | 3217. | 995. | 779. | 0. | 0. | 2991. | 0. |
| 2007 | 3928. | 3449. | 993. | 836. | 0. | 0. | 2887. | 0. |
| 2008 | 3973. | 3696. | 987. | 896. | 0. | 0. | 2711. | 0. |
| 2009 | 4014. | 3960. | 976. | 959. | 0. | 0. | 2459. | 0. |
| 2010 | 4052. | 4236. | 965. | 1023. | 0. | 0. | 2186. | 0. |
| 2011 | 4073. | 4520. | 952. | 1090. | 0. | 0. | 1992. | 0. |
| 2012 | 4073. | 4817. | 937. | 1160. | 0. | 0. | 1945. | 0. |
| 2013 | 4064. | 5130. | 922. | 1231. | 0. | 0. | 2027. | 0. |
| 2014 | 4052. | 5462. | 907. | 1307. | 0. | 0. | 2159. | 0. |
| 2015 | 4035. | 5806. | 891. | 1386. | 0. | 0. | 2262. | 0. |
| 2016 | 4005. | 6167. | 875. | 1467. | 0. | 0. | 2305. | 0. |
| 2017 | 3965. | 6549. | 860. | 1548. | 0. | 0. | 2295. | 0. |
| 2018 | 3924. | 6950. | 845. | 1633. | 0. | 0. | 2257. | 0. |
| 2019 | 3884. | 7372. | 830. | 1723. | 0. | 0. | 2217. | 0. |
| 2020 | 3843. | 7810. | 815. | 1812. | 0. | 0. | 2191. | 0. |
| 2021 | 3805. | 8259. | 802. | 1900. | 0. | 0. | 2186. | 0. |
| 2022 | 3771. | 8723. | 788. | 1986. | 0. | 0. | 2196. | 0. |
| 2023 | 3740. | 9213. | 776. | 2068. | 0. | 0. | 2213. | 0. |
| 2024 | 3709. | 9727. | 766. | 2148. | 0. | 0. | 2226. | 0. |
| 2025 | 3683. | 10258. | 756. | 2229. | 0. | 0. | 2231. | 0. |
| 2026 | 3666. | 10811. | 749. | 2309. | 0. | 0. | 2228. | 0. |
| 2027 | 3657. | 11406. | 745. | 2389. | 0. | 0. | 2221. | 0. |
| 2028 | 3651. | 12025. | 741. | 2465. | 0. | 0. | 2214. | 0. |
| 2029 | 3645. | 12677. | 741. | 2542. | 0. | 0. | 2211. | 0. |
| 2030 | 3642. | 13348. | 743. | 2608. | 0. | 0. | 2211. | 0. |
| 2031 | 3647. | 14032. | 746. | 2672. | 0. | 0. | 2214. | 0. |
| 2032 | 3661. | 14735. | 752. | 2735. | 0. | 0. | 2217. | 0. |
| 2033 | 3678. | 15474. | 759. | 2795. | 0. | 0. | 2219. | 0. |
| 2034 | 3694. | 16241. | 768. | 2844. | 0. | 0. | 2220. | 0. |
| 2035 | 3712. | 17028. | 778. | 2893. | 0. | 0. | 2219. | 0. |
| 2036 | 3735. | 17839. | 787. | 2942. | 0. | 0. | 2218. | 0. |
| 2037 | 3764. | 18656. | 798. | 2990. | 0. | 0. | 2217. | 0. |
| 2038 | 3796. | 19497. | 808. | 3034. | 0. | 0. | 2216. | 0. |
| 2039 | 3826. | 20364. | 816. | 3079. | 0. | 0. | 2216. | 0. |

1 2004 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE | SQ | SQ | L2 | |
|-----------|----|----|-------|---------|
| LIFE | 30 | 25 | 15 | |
| H-W | 1 | 1 | 1 | |
| FERC ACCT | SQ | SQ | L2 | |
| 2002 | 0. | 0. | 1689. | 80736. |
| 2003 | 0. | 0. | 1771. | 84586. |
| 2004 | 0. | 0. | 1831. | 88432. |
| 2005 | 0. | 0. | 1869. | 92416. |
| 2006 | 0. | 0. | 1888. | 96446. |
| 2007 | 0. | 0. | 1890. | 100523. |
| 2008 | 0. | 0. | 1874. | 104556. |
| 2009 | 0. | 0. | 1844. | 108536. |
| 2010 | 0. | 0. | 1799. | 112541. |
| 2011 | 0. | 0. | 1751. | 116555. |
| 2012 | 0. | 0. | 1707. | 120640. |
| 2013 | 0. | 0. | 1673. | 124780. |
| 2014 | 0. | 0. | 1652. | 128908. |
| 2015 | 0. | 0. | 1642. | 132869. |
| 2016 | 0. | 0. | 1642. | 136635. |
| 2017 | 0. | 0. | 1646. | 140260. |
| 2018 | 0. | 0. | 1652. | 143653. |
| 2019 | 0. | 0. | 1657. | 146969. |
| 2020 | 0. | 0. | 1660. | 150219. |
| 2021 | 0. | 0. | 1660. | 153311. |
| 2022 | 0. | 0. | 1658. | 156235. |
| 2023 | 0. | 0. | 1655. | 159079. |
| 2024 | 0. | 0. | 1651. | 161780. |
| 2025 | 0. | 0. | 1648. | 164213. |
| 2026 | 0. | 0. | 1645. | 166419. |
| 2027 | 0. | 0. | 1644. | 168430. |
| 2028 | 0. | 0. | 1645. | 170218. |
| 2029 | 0. | 0. | 1645. | 171651. |
| 2030 | 0. | 0. | 1647. | 172869. |
| 2031 | 0. | 0. | 1649. | 173772. |
| 2032 | 0. | 0. | 1651. | 174420. |
| 2033 | 0. | 0. | 1653. | 174824. |
| 2034 | 0. | 0. | 1655. | 174825. |
| 2035 | 0. | 0. | 1656. | 174699. |
| 2036 | 0. | 0. | 1656. | 174482. |
| 2037 | 0. | 0. | 1656. | 174058. |
| 2038 | 0. | 0. | 1656. | 173587. |
| 2039 | 0. | 0. | 1655. | 173203. |

1 2005 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R3 100 3 | R2 50 4 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| 2002 | 3310. | 1702. | 0. | 27304. | 15624. | 12866. | 4603. | 3147. |
| 2003 | 3434. | 1789. | 0. | 27615. | 16732. | 14314. | 4825. | 3232. |
| 2004 | 3559. | 1878. | 0. | 27869. | 17833. | 15857. | 5053. | 3311. |
| 2005 | 3682. | 1966. | 0. | 28083. | 18972. | 17485. | 5285. | 3384. |
| 2006 | 3823. | 2052. | 0. | 28290. | 20311. | 19193. | 5526. | 3456. |
| 2007 | 3967. | 2139. | 0. | 28497. | 21682. | 20984. | 5778. | 3527. |
| 2008 | 4115. | 2227. | 0. | 28689. | 23001. | 22804. | 6036. | 3594. |
| 2009 | 4254. | 2318. | 0. | 28874. | 24340. | 24624. | 6305. | 3657. |
| 2010 | 4397. | 2411. | 0. | 29051. | 25706. | 26457. | 6582. | 3717. |
| 2011 | 4540. | 2501. | 0. | 29216. | 27080. | 28260. | 6863. | 3769. |
| 2012 | 4683. | 2586. | 0. | 29360. | 28456. | 30017. | 7151. | 3814. |
| 2013 | 4828. | 2670. | 0. | 29490. | 29822. | 31696. | 7450. | 3854. |
| 2014 | 4974. | 2753. | 0. | 29602. | 31179. | 33307. | 7754. | 3891. |
| 2015 | 5122. | 2839. | 0. | 29693. | 32500. | 34819. | 8064. | 3926. |
| 2016 | 5272. | 2929. | 0. | 29757. | 33783. | 36241. | 8382. | 3953. |
| 2017 | 5421. | 3014. | 0. | 29811. | 35036. | 37588. | 8712. | 3971. |
| 2018 | 5571. | 3097. | 0. | 29849. | 36220. | 38816. | 9050. | 3986. |
| 2019 | 5719. | 3178. | 0. | 29868. | 37346. | 40009. | 9404. | 3998. |
| 2020 | 5869. | 3256. | 0. | 29865. | 38414. | 41170. | 9770. | 4007. |
| 2021 | 6018. | 3333. | 0. | 29859. | 39407. | 42236. | 10141. | 4011. |
| 2022 | 6169. | 3414. | 0. | 29839. | 40317. | 43198. | 10525. | 4010. |
| 2023 | 6318. | 3497. | 0. | 29802. | 41164. | 44117. | 10919. | 4006. |
| 2024 | 6467. | 3580. | 0. | 29746. | 41928. | 44961. | 11321. | 4000. |
| 2025 | 6614. | 3663. | 0. | 29672. | 42593. | 45664. | 11730. | 3993. |
| 2026 | 6760. | 3741. | 0. | 29571. | 43177. | 46218. | 12147. | 3983. |
| 2027 | 6904. | 3817. | 0. | 29441. | 43672. | 46615. | 12574. | 3972. |
| 2028 | 7048. | 3889. | 0. | 29280. | 44078. | 46919. | 13014. | 3961. |
| 2029 | 7192. | 3963. | 0. | 29106. | 44354. | 46960. | 13467. | 3949. |
| 2030 | 7334. | 4037. | 0. | 28925. | 44537. | 46839. | 13934. | 3937. |
| 2031 | 7474. | 4110. | 0. | 28720. | 44608. | 46524. | 14409. | 3926. |
| 2032 | 7612. | 4179. | 0. | 28500. | 44571. | 46065. | 14898. | 3917. |
| 2033 | 7746. | 4246. | 0. | 28283. | 44444. | 45408. | 15401. | 3906. |
| 2034 | 7876. | 4299. | 0. | 28089. | 44182. | 44435. | 15918. | 3896. |
| 2035 | 8006. | 4360. | 0. | 27876. | 43863. | 43396. | 16444. | 3886. |
| 2036 | 8132. | 4422. | 0. | 27667. | 43459. | 42312. | 16978. | 3878. |
| 2037 | 8255. | 4483. | 0. | 27471. | 42974. | 41099. | 17516. | 3871. |
| 2038 | 8374. | 4540. | 0. | 27284. | 42418. | 39842. | 18065. | 3865. |
| 2039 | 8488. | 4594. | 0. | 27068. | 41838. | 38688. | 18619. | 3859. |
| 2040 | 8596. | 4632. | 0. | 26851. | 41231. | 37621. | 19183. | 3852. |

1 2005 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 |
|----------------------|---------------|----------------|---------------|---------------|---------------|--------------|---------------|---------------|
| 2002 | 3512. | 2429. | 965. | 594. | 0. | 0. | 2991. | 0. |
| 2003 | 3615. | 2610. | 978. | 636. | 0. | 0. | 3035. | 0. |
| 2004 | 3711. | 2802. | 991. | 681. | 0. | 0. | 3056. | 0. |
| 2005 | 3798. | 3003. | 996. | 729. | 0. | 0. | 3043. | 0. |
| 2006 | 3871. | 3217. | 995. | 779. | 0. | 0. | 2988. | 0. |
| 2007 | 3927. | 3449. | 993. | 836. | 0. | 0. | 2877. | 0. |
| 2008 | 3972. | 3696. | 987. | 896. | 0. | 0. | 2685. | 0. |
| 2009 | 4013. | 3960. | 976. | 959. | 0. | 0. | 2407. | 0. |
| 2010 | 4051. | 4237. | 965. | 1023. | 0. | 0. | 2088. | 0. |
| 2011 | 4072. | 4521. | 952. | 1090. | 0. | 0. | 1825. | 0. |
| 2012 | 4072. | 4818. | 937. | 1160. | 0. | 0. | 1707. | 0. |
| 2013 | 4063. | 5131. | 922. | 1231. | 0. | 0. | 1746. | 0. |
| 2014 | 4051. | 5463. | 906. | 1307. | 0. | 0. | 1877. | 0. |
| 2015 | 4033. | 5808. | 890. | 1387. | 0. | 0. | 2012. | 0. |
| 2016 | 4004. | 6168. | 874. | 1467. | 0. | 0. | 2092. | 0. |
| 2017 | 3963. | 6552. | 858. | 1548. | 0. | 0. | 2104. | 0. |
| 2018 | 3921. | 6952. | 842. | 1633. | 0. | 0. | 2072. | 0. |
| 2019 | 3881. | 7375. | 826. | 1723. | 0. | 0. | 2025. | 0. |
| 2020 | 3840. | 7812. | 810. | 1812. | 0. | 0. | 1988. | 0. |
| 2021 | 3802. | 8261. | 796. | 1900. | 0. | 0. | 1972. | 0. |
| 2022 | 3768. | 8727. | 780. | 1987. | 0. | 0. | 1978. | 0. |
| 2023 | 3736. | 9217. | 767. | 2069. | 0. | 0. | 1994. | 0. |
| 2024 | 3705. | 9732. | 755. | 2149. | 0. | 0. | 2012. | 0. |
| 2025 | 3678. | 10263. | 743. | 2230. | 0. | 0. | 2021. | 0. |
| 2026 | 3661. | 10816. | 734. | 2310. | 0. | 0. | 2021. | 0. |
| 2027 | 3652. | 11412. | 728. | 2390. | 0. | 0. | 2014. | 0. |
| 2028 | 3645. | 12032. | 722. | 2467. | 0. | 0. | 2007. | 0. |
| 2029 | 3639. | 12684. | 720. | 2544. | 0. | 0. | 2001. | 0. |
| 2030 | 3635. | 13355. | 720. | 2610. | 0. | 0. | 2000. | 0. |
| 2031 | 3640. | 14041. | 722. | 2674. | 0. | 0. | 2001. | 0. |
| 2032 | 3654. | 14745. | 727. | 2738. | 0. | 0. | 2005. | 0. |
| 2033 | 3669. | 15485. | 734. | 2798. | 0. | 0. | 2008. | 0. |
| 2034 | 3686. | 16254. | 743. | 2848. | 0. | 0. | 2010. | 0. |
| 2035 | 3703. | 17043. | 752. | 2897. | 0. | 0. | 2009. | 0. |
| 2036 | 3725. | 17855. | 762. | 2946. | 0. | 0. | 2008. | 0. |
| 2037 | 3754. | 18674. | 773. | 2995. | 0. | 0. | 2007. | 0. |
| 2038 | 3785. | 19516. | 784. | 3040. | 0. | 0. | 2006. | 0. |
| 2039 | 3814. | 20384. | 794. | 3085. | 0. | 0. | 2005. | 0. |
| 2040 | 3839. | 21286. | 804. | 3129. | 0. | 0. | 2006. | 0. |

1 2005 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE | SQ | SQ | L2 | |
|-----------|----|----|-------|---------|
| LIFE | 30 | 25 | 15 | |
| H-W | 1 | 1 | 1 | |
| FERC ACCT | SQ | SQ | L2 | |
| 2002 | 0. | 0. | 1689. | 80736. |
| 2003 | 0. | 0. | 1771. | 84586. |
| 2004 | 0. | 0. | 1831. | 88432. |
| 2005 | 0. | 0. | 1867. | 92294. |
| 2006 | 0. | 0. | 1884. | 96385. |
| 2007 | 0. | 0. | 1883. | 100537. |
| 2008 | 0. | 0. | 1864. | 104567. |
| 2009 | 0. | 0. | 1829. | 108518. |
| 2010 | 0. | 0. | 1778. | 112462. |
| 2011 | 0. | 0. | 1721. | 116411. |
| 2012 | 0. | 0. | 1668. | 120430. |
| 2013 | 0. | 0. | 1626. | 124527. |
| 2014 | 0. | 0. | 1599. | 128663. |
| 2015 | 0. | 0. | 1586. | 132678. |
| 2016 | 0. | 0. | 1584. | 136505. |
| 2017 | 0. | 0. | 1588. | 140166. |
| 2018 | 0. | 0. | 1595. | 143604. |
| 2019 | 0. | 0. | 1601. | 146953. |
| 2020 | 0. | 0. | 1606. | 150218. |
| 2021 | 0. | 0. | 1607. | 153345. |
| 2022 | 0. | 0. | 1605. | 156316. |
| 2023 | 0. | 0. | 1602. | 159207. |
| 2024 | 0. | 0. | 1598. | 161954. |
| 2025 | 0. | 0. | 1594. | 164457. |
| 2026 | 0. | 0. | 1591. | 166731. |
| 2027 | 0. | 0. | 1590. | 168783. |
| 2028 | 0. | 0. | 1590. | 170652. |
| 2029 | 0. | 0. | 1591. | 172170. |
| 2030 | 0. | 0. | 1592. | 173457. |
| 2031 | 0. | 0. | 1595. | 174445. |
| 2032 | 0. | 0. | 1597. | 175207. |
| 2033 | 0. | 0. | 1599. | 175727. |
| 2034 | 0. | 0. | 1601. | 175836. |
| 2035 | 0. | 0. | 1602. | 175837. |
| 2036 | 0. | 0. | 1603. | 175747. |
| 2037 | 0. | 0. | 1603. | 175475. |
| 2038 | 0. | 0. | 1602. | 175121. |
| 2039 | 0. | 0. | 1602. | 174838. |
| 2040 | 0. | 0. | 1601. | 174630. |

Future Replacements For Year 2006

| | | |
|------------|--------|------------------|
| 62006ZABFX | 111518 | 111518071002041R |
| 62007ZABFX | 116070 | 116070071002042R |
| 62008ZABFX | 120232 | 120232071002043R |
| 62009ZABFX | 124203 | 124203071002044R |
| 62010ZABFX | 128137 | 128137071002045R |
| 62011ZABFX | 132012 | 132012071002046R |
| 62012ZABFX | 135979 | 135979071002047R |
| 62013ZABFX | 140126 | 140126071002048R |
| 62014ZABFX | 144430 | 144430071002049R |
| 62015ZABFX | 148671 | 148671071002050R |
| 62016ZABFX | 152808 | 152808071002051R |
| 62017ZABFX | 156817 | 156817071002052R |
| 62018ZABFX | 160595 | 160595071002053R |
| 62019ZABFX | 164361 | 164361071002054R |
| 62020ZABFX | 168116 | 168116071002055R |
| 62021ZABFX | 171721 | 171721071002056R |
| 62022ZABFX | 175133 | 175133071002057R |
| 62023ZABFX | 178400 | 178400071002058R |
| 62024ZABFX | 181444 | 181444071002059R |
| 62025ZABFX | 184179 | 184179071002060R |
| 62026ZABFX | 186618 | 186618071002061R |
| 62027ZABFX | 188805 | 188805071002062R |
| 62028ZABFX | 190793 | 190793071002063R |
| 62029ZABFX | 192432 | 192432071002064R |
| 62030ZABFX | 193838 | 193838071002065R |
| 62031ZABFX | 194952 | 194952071002066R |
| 62032ZABFX | 195869 | 195869071002067R |
| 62033ZABFX | 196542 | 196542071002068R |
| 62034ZABFX | 196771 | 196771071002069R |
| 62035ZABFX | 196870 | 196870071002070R |
| 62036ZABFX | 196879 | 196879071002071R |
| 62037ZABFX | 196657 | 196657071002072R |
| 62038ZABFX | 196297 | 196297071002073R |
| 62039ZABFX | 195944 | 195944071002074R |
| 62040ZABFX | 195652 | 195652071002075R |

Future Replacements For Year 2006

| | | |
|------------|--------|------------------|
| 62007ZABFX | 118591 | 118591070902042R |
| 62008ZABFX | 122945 | 122945070902043R |
| 62009ZABFX | 127001 | 127001070902044R |
| 62010ZABFX | 130989 | 130989070902045R |
| 62011ZABFX | 134879 | 134879070902046R |
| 62012ZABFX | 138865 | 138865070902047R |
| 62013ZABFX | 143033 | 143033070902048R |
| 62014ZABFX | 147381 | 147381070902049R |
| 62015ZABFX | 151707 | 151707070902050R |
| 62016ZABFX | 155961 | 155961070902051R |
| 62017ZABFX | 160079 | 160079070902052R |
| 62018ZABFX | 163942 | 163942070902053R |
| 62019ZABFX | 167822 | 167822070902054R |
| 62020ZABFX | 171702 | 171702070902055R |
| 62021ZABFX | 175451 | 175451070902056R |
| 62022ZABFX | 179049 | 179049070902057R |
| 62023ZABFX | 182517 | 182517070902058R |
| 62024ZABFX | 185748 | 185748070902059R |
| 62025ZABFX | 188650 | 188650070902060R |
| 62026ZABFX | 191261 | 191261070902061R |
| 62027ZABFX | 193596 | 193596070902062R |
| 62028ZABFX | 195689 | 195689070902063R |
| 62029ZABFX | 197467 | 197467070902064R |
| 62030ZABFX | 199009 | 199009070902065R |
| 62031ZABFX | 200238 | 200238070902066R |
| 62032ZABFX | 201290 | 201290070902067R |
| 62033ZABFX | 202133 | 202133070902068R |
| 62034ZABFX | 202533 | 202533070902069R |
| 62035ZABFX | 202799 | 202799070902070R |
| 62036ZABFX | 202998 | 202998070902071R |
| 62037ZABFX | 202965 | 202965070902072R |
| 62038ZABFX | 202820 | 202820070902073R |
| 62039ZABFX | 202634 | 202634070902074R |
| 62040ZABFX | 202489 | 202489070902075R |
| 62041ZABFX | 202489 | 202489070902076R |

Future Replacements For Year 2007

| | | |
|------------|--------|------------------|
| 62008ZABFX | 125044 | 125044071002043R |
| 62009ZABFX | 129009 | 129009071002044R |
| 62010ZABFX | 132886 | 132886071002045R |
| 62011ZABFX | 136618 | 136618071002046R |
| 62012ZABFX | 140354 | 140354071002047R |
| 62013ZABFX | 144215 | 144215071002048R |
| 62014ZABFX | 148247 | 148247071002049R |
| 62015ZABFX | 152293 | 152293071002050R |
| 62016ZABFX | 156334 | 156334071002051R |
| 62017ZABFX | 160283 | 160283071002052R |
| 62018ZABFX | 163952 | 163952071002053R |
| 62019ZABFX | 167577 | 167577071002054R |
| 62020ZABFX | 171207 | 171207071002055R |
| 62021ZABFX | 174746 | 174746071002056R |
| 62022ZABFX | 178206 | 178206071002057R |
| 62023ZABFX | 181629 | 181629071002058R |
| 62024ZABFX | 184857 | 184857071002059R |
| 62025ZABFX | 187730 | 187730071002060R |
| 62026ZABFX | 190241 | 190241071002061R |
| 62027ZABFX | 192421 | 192421071002062R |
| 62028ZABFX | 194290 | 194290071002063R |
| 62029ZABFX | 195720 | 195720071002064R |
| 62030ZABFX | 196874 | 196874071002065R |
| 62031ZABFX | 197685 | 197685071002066R |
| 62032ZABFX | 198269 | 198269071002067R |
| 62033ZABFX | 198619 | 198619071002068R |
| 62034ZABFX | 198538 | 198538071002069R |
| 62035ZABFX | 198349 | 198349071002070R |
| 62036ZABFX | 198095 | 198095071002071R |
| 62037ZABFX | 197629 | 197629071002072R |
| 62038ZABFX | 197066 | 197066071002073R |
| 62039ZABFX | 196539 | 196539071002074R |
| 62040ZABFX | 196066 | 196066071002075R |
| 62041ZABFX | 195732 | 195732071002076R |
| 62042ZABFX | 195558 | 195558071002077R |

AC INTERTIE REPLACEMENTS

AC INTERTIE COST-EVALUATION PERIOD DATA:

| YEAR | PLANT INVESTMENT | ESCALATION FACTOR |
|------|---------------------|----------------------|
| 2005 | 1994. | 1.02600 |
| 2006 | 4217. | 1.04200 |
| 2007 | 3917. | 1.06100 |

PLANT INVESTMENT BY YEAR AND ACCOUNT

| YEAR | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R2 32 2 | R3 32 2 |
|------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1951 | 0. | 0. | 0. | 16. | 0. | 0. | 0. | 0. |
| 1952 | 0. | 0. | 0. | 24. | 0. | 0. | 0. | 0. |
| 1953 | 331. | 177. | 0. | 883. | 0. | 0. | 0. | 0. |
| 1954 | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1955 | 30. | 6. | 0. | 48. | 0. | 0. | 0. | 0. |
| 1956 | 208. | 207. | 0. | 796. | 0. | 0. | 0. | 0. |
| 1957 | 47. | 1. | 0. | 21. | 0. | 0. | 0. | 0. |
| 1958 | 7. | 5. | 0. | 1430. | 0. | 0. | 0. | 0. |
| 1959 | 28. | 0. | 0. | 288. | 0. | 0. | 0. | 0. |
| 1960 | 0. | 0. | 0. | 24. | 0. | 0. | 0. | 0. |
| 1961 | 0. | 0. | 0. | 6. | 0. | 0. | 0. | 0. |
| 1962 | 98. | 0. | 0. | 5. | 0. | 0. | 0. | 0. |
| 1963 | 0. | 0. | 0. | 68. | 0. | 0. | 0. | 0. |
| 1964 | 0. | 0. | 0. | 25. | 0. | 0. | 0. | 0. |
| 1965 | 0. | 0. | 0. | 7. | 0. | 0. | 0. | 0. |
| 1966 | 11. | 8. | 0. | 333. | 0. | 0. | 0. | 0. |
| 1967 | 26. | 0. | 0. | 1. | 0. | 0. | 0. | 0. |
| 1968 | 336. | 211. | 0. | 1498. | 0. | 0. | 0. | 0. |
| 1969 | 206. | 131. | 0. | 2617. | 0. | 0. | 0. | 0. |
| 1970 | 1. | 1. | 0. | 1460. | 0. | 0. | 0. | 0. |
| 1971 | 0. | 0. | 0. | 0. | 323. | 323. | 0. | 0. |
| 1972 | 238. | 193. | 0. | 0. | 2389. | 2389. | 0. | 0. |
| 1973 | 0. | 0. | 0. | 0. | 68. | 68. | 0. | 0. |
| 1974 | 0. | 0. | 0. | 0. | 62. | 62. | 0. | 0. |
| 1975 | 46. | 46. | 0. | 0. | 429. | 429. | 0. | 0. |
| 1976 | 22. | 22. | 0. | 0. | 33. | 33. | 0. | 0. |
| 1977 | 49. | 49. | 0. | 0. | 888. | 888. | 0. | 0. |
| 1978 | 8. | 0. | 0. | 0. | 89. | 89. | 0. | 0. |
| 1979 | 0. | 0. | 0. | 0. | 186. | 186. | 0. | 0. |
| 1980 | 63. | 1. | 0. | 0. | -2. | -2. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. | 75. | 75. | 0. | 0. |
| 1982 | 6. | 6. | 0. | 0. | 243. | 243. | 0. | 0. |
| 1983 | 1206. | 1203. | 0. | 0. | 5636. | 5636. | 0. | 0. |
| 1984 | 252. | 58. | 0. | 0. | 24. | 24. | 0. | 0. |
| 1985 | 16. | 16. | 0. | 0. | 28. | 28. | 0. | 0. |
| 1986 | 79. | 0. | 0. | 0. | 407. | 407. | 0. | 0. |
| 1987 | 366. | 316. | 0. | 0. | 6. | 6. | 0. | 0. |
| 1988 | 38. | 0. | 0. | 0. | 1834. | 1834. | 0. | 0. |
| 1989 | 2548. | 2548. | 0. | 0. | 2738. | 2738. | 0. | 0. |
| 1990 | 152. | 152. | 0. | 0. | 336. | 336. | 0. | 0. |
| 1991 | 167. | 167. | 0. | 0. | 100. | 100. | 0. | 0. |
| 1992 | 879. | 879. | 0. | 0. | 21296. | 21296. | 0. | 0. |
| 1993 | 235. | 88. | 0. | 0. | 4545. | 4545. | 0. | 0. |
| 1994 | 3358. | 3158. | 0. | 0. | 29122. | 29122. | 18. | 18. |
| 1995 | 183. | 183. | 0. | 0. | 3103. | 3103. | 34. | 34. |
| 1996 | 133. | 85. | 0. | 0. | 2334. | 2334. | 53. | 53. |
| 1997 | 23. | 23. | 0. | 0. | 386. | 386. | 0. | 0. |

| | | | | | | | | |
|------|-----|----|----|----|-------|-------|-----|-----|
| 1998 | 0. | 0. | 0. | 0. | 1479. | 1479. | 24. | 24. |
| 1999 | 31. | 0. | 0. | 0. | 575. | 575. | 0. | 0. |
| 2000 | 1. | 1. | 0. | 0. | 1653. | 1653. | 0. | 0. |

| YEAR | R2 | R3 | SQ | S0 | R2 | R3 | R2 | R3 |
|------|------|------|----|------|-------|-------|----|----|
| | 60 | 60 | 40 | 39 | 34 | 34 | 32 | 32 |
| | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2001 | 2. | 2. | 0. | 0. | 3108. | 3108. | 0. | 0. |
| 2002 | 200. | 142. | 0. | 0. | 1846. | 1846. | 0. | 0. |
| 2003 | 140. | 122. | 0. | 115. | 1029. | 1029. | 2. | 2. |
| 2004 | 115. | 99. | 0. | 94. | 840. | 840. | 1. | 1. |
| 2005 | 74. | 64. | 0. | 60. | 540. | 540. | 1. | 1. |

PLANT INVESTMENT BY YEAR AND ACCOUNT

| YEAR | R2 13 2 | R3 13 2 | R3 100 3 | R2 50 4 | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 |
|------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 1951 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1952 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1953 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1954 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1955 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1956 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1957 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1958 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1959 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1960 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1961 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1962 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1963 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1964 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1965 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1966 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1967 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1968 | 0. | 0. | 9688. | 0. | 0. | 9685. | 0. | 413. |
| 1969 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1970 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1971 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1972 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1973 | 0. | 0. | 0. | 0. | 0. | 2. | 0. | 0. |
| 1974 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1975 | 0. | 0. | 48. | 0. | 0. | 0. | 0. | 0. |
| 1976 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1977 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1978 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1979 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1980 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1981 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1982 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1983 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 139. |
| 1984 | 0. | 0. | 0. | 0. | 0. | 3. | 0. | 0. |
| 1985 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1986 | 0. | 0. | 0. | 0. | 0. | 38. | 0. | 0. |
| 1987 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1988 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1989 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1990 | 0. | 0. | 0. | 0. | 0. | 55. | 0. | 0. |
| 1991 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1992 | 0. | 0. | 10214. | 0. | 0. | 13250. | 0. | 1696. |
| 1993 | 0. | 0. | 10142. | 864. | 864. | 17279. | 0. | 3553. |
| 1994 | 0. | 0. | 4326. | 0. | 0. | 2779. | 0. | 0. |
| 1995 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1996 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1997 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1998 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1999 | 3. | 3. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2000 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

| YEAR | R2 13 2 | R3 13 2 | R3 100 3 | R2 50 4 | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 |
|------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 2001 | 0. | 0. | 0. | 0. | 0. | 25. | 0. | 0. |
| 2002 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 2003 | 0. | 0. | 415. | 10. | 10. | 520. | 0. | 70. |
| 2004 | 0. | 0. | 339. | 9. | 9. | 424. | 0. | 57. |
| 2005 | 0. | 0. | 218. | 5. | 5. | 273. | 0. | 37. |

PLANT INVESTMENT BY YEAR AND ACCOUNT

| YEAR | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 | SQ 30 1 | SQ 25 1 | L2 15 1 | S4 40 1 | |
|------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| 1951 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 16. |
| 1952 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 24. |
| 1953 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1391. |
| 1954 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 18. |
| 1955 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 84. |
| 1956 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1211. |
| 1957 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 69. |
| 1958 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1442. |
| 1959 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 316. |
| 1960 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 24. |
| 1961 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 6. |
| 1962 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 103. |
| 1963 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 68. |
| 1964 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 25. |
| 1965 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 7. |
| 1966 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 352. |
| 1967 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 27. |
| 1968 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 21831. |
| 1969 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2954. |
| 1970 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1462. |
| 1971 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 646. |
| 1972 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 5209. |
| 1973 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 138. |
| 1974 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 124. |
| 1975 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 998. |
| 1976 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 110. |
| 1977 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1874. |
| 1978 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 186. |
| 1979 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 372. |
| 1980 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 60. |
| 1981 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 150. |
| 1982 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 498. |
| 1983 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 13820. |
| 1984 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 361. |
| 1985 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 88. |
| 1986 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 931. |
| 1987 | 0. | 0. | 0. | 14. | 0. | 0. | 0. | 0. | 708. |
| 1988 | 0. | 0. | 0. | 235. | 0. | 0. | 0. | 0. | 3941. |
| 1989 | 0. | 0. | 0. | 307. | 0. | 0. | 0. | 0. | 10879. |
| 1990 | 0. | 0. | 0. | 2299. | 0. | 0. | 0. | 0. | 3330. |
| 1991 | 0. | 0. | 0. | 142. | 0. | 0. | 0. | 0. | 676. |
| 1992 | 0. | 0. | 0. | 1390. | 0. | 0. | 0. | 0. | 70900. |
| 1993 | 0. | 0. | 0. | 1059. | 0. | 0. | 0. | 0. | 43174. |
| 1994 | 0. | 0. | 0. | 6317. | 0. | 0. | 0. | 0. | 78218. |
| 1995 | 0. | 0. | 0. | 699. | 0. | 0. | 0. | 0. | 7339. |
| 1996 | 0. | 0. | 0. | 2520. | 0. | 0. | 0. | 0. | 7512. |
| 1997 | 0. | 0. | 0. | 557. | 0. | 0. | 0. | 0. | 1375. |
| 1998 | 0. | 0. | 0. | 414. | 0. | 0. | 0. | 0. | 3420. |
| 1999 | 0. | 0. | 0. | 481. | 0. | 0. | 0. | 1214. | 2882. |

| YEAR | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 | SQ 30 1 | SQ 25 1 | L2 15 1 | S4 40 1 | |
|------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| 2000 | 0. | 0. | 0. | 126. | 0. | 0. | 0. | 0. | 3434. |
| 2001 | 0. | 0. | 0. | 57. | 0. | 0. | 0. | 0. | 6302. |
| 2002 | 0. | 0. | 0. | 382. | 0. | 0. | 0. | 0. | 4416. |
| 2003 | 0. | 0. | 0. | 205. | 0. | 0. | 0. | 15. | 3682. |
| 2004 | 0. | 0. | 0. | 167. | 0. | 0. | 0. | 12. | 3007. |
| 2005 | 0. | 0. | 0. | 108. | 0. | 0. | 0. | 8. | 1932. |

ADJUSTED PLANT INVESTMENT BY YEAR AND FERC ACCOUNT

| YEAR | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R2 32 2 | R3 32 2 |
|------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2003 | -162. | -82. | 0. | -1220. | -1301. | -1034. | -1. | 0. |
| 2004 | -169. | -88. | 0. | -1235. | -1393. | -1150. | -1. | 0. |
| 2005 | -102. | -30. | 0. | -1187. | -944. | -729. | 0. | 0. |

| YEAR | R2 13 2 | R3 13 2 | R3 100 3 | R2 50 4 | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 |
|------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 2003 | 0. | 0. | -90. | -4. | -1. | -29. | 0. | -5. |
| 2004 | 0. | 0. | -96. | -4. | -2. | -33. | 0. | -6. |
| 2005 | 0. | 0. | 116. | 1. | 4. | 236. | 0. | 31. |

| YEAR | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 | SQ 30 1 | SQ 25 1 | L2 15 1 | S4 40 1 |
|------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | | -3930. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | | -4176. |
| 2005 | 0. | 0. | 0. | 108. | 0. | 0. | | -2490. |

2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R2 32 2 | R3 32 2 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2003 | 162. | 82. | 0. | 1220. | 1301. | 1034. | 1. | 0. |
| 2004 | 169. | 88. | 0. | 1235. | 1395. | 1150. | 1. | 0. |
| 2005 | 176. | 94. | 0. | 1250. | 1490. | 1270. | 1. | 1. |
| 2006 | 182. | 100. | 0. | 1265. | 1589. | 1395. | 1. | 1. |
| 2007 | 189. | 106. | 0. | 1279. | 1693. | 1528. | 1. | 1. |
| 2008 | 196. | 112. | 0. | 1292. | 1800. | 1660. | 1. | 1. |
| 2009 | 203. | 119. | 0. | 1305. | 1907. | 1785. | 2. | 1. |
| 2010 | 211. | 126. | 0. | 1318. | 2019. | 1918. | 2. | 1. |
| 2011 | 218. | 133. | 0. | 1330. | 2135. | 2054. | 2. | 1. |
| 2012 | 225. | 140. | 0. | 1341. | 2249. | 2174. | 2. | 2. |
| 2013 | 233. | 148. | 0. | 1352. | 2364. | 2297. | 2. | 2. |
| 2014 | 241. | 155. | 0. | 1362. | 2484. | 2425. | 2. | 2. |
| 2015 | 248. | 162. | 0. | 1371. | 2604. | 2558. | 3. | 2. |
| 2016 | 256. | 170. | 0. | 1379. | 2720. | 2685. | 3. | 2. |
| 2017 | 264. | 177. | 0. | 1387. | 2841. | 2823. | 3. | 3. |
| 2018 | 272. | 185. | 0. | 1394. | 2963. | 2976. | 3. | 3. |
| 2019 | 280. | 192. | 0. | 1399. | 3082. | 3148. | 3. | 3. |
| 2020 | 287. | 199. | 0. | 1404. | 3200. | 3321. | 4. | 4. |
| 2021 | 295. | 206. | 0. | 1408. | 3320. | 3508. | 4. | 4. |
| 2022 | 303. | 213. | 0. | 1410. | 3441. | 3709. | 4. | 5. |
| 2023 | 310. | 220. | 0. | 1411. | 3556. | 3896. | 4. | 5. |
| 2024 | 318. | 227. | 0. | 1411. | 3669. | 4093. | 5. | 5. |
| 2025 | 325. | 234. | 0. | 1410. | 3780. | 4278. | 5. | 6. |
| 2026 | 332. | 239. | 0. | 1406. | 3885. | 4453. | 5. | 6. |
| 2027 | 339. | 245. | 0. | 1401. | 3981. | 4605. | 5. | 7. |
| 2028 | 346. | 251. | 0. | 1395. | 4071. | 4731. | 6. | 7. |
| 2029 | 353. | 257. | 0. | 1387. | 4147. | 4822. | 6. | 7. |
| 2030 | 360. | 263. | 0. | 1378. | 4212. | 4897. | 6. | 8. |
| 2031 | 366. | 269. | 0. | 1367. | 4264. | 4923. | 6. | 8. |
| 2032 | 372. | 274. | 0. | 1355. | 4296. | 4883. | 6. | 8. |
| 2033 | 378. | 279. | 0. | 1342. | 4324. | 4823. | 6. | 8. |
| 2034 | 383. | 284. | 0. | 1332. | 4326. | 4690. | 6. | 7. |
| 2035 | 389. | 291. | 0. | 1322. | 4310. | 4523. | 6. | 7. |
| 2036 | 394. | 297. | 0. | 1312. | 4284. | 4335. | 6. | 6. |
| 2037 | 399. | 304. | 0. | 1304. | 4241. | 4123. | 6. | 6. |
| 2038 | 404. | 310. | 0. | 1294. | 4180. | 3885. | 6. | 5. |

2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 13 2 | R3 13 2 | R3 100 3 | R2 50 4 | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 |
|----------------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 2003 | 0. | 0. | 90. | 4. | 1. | 29. | 0. | 5. |
| 2004 | 0. | 0. | 96. | 4. | 2. | 33. | 0. | 6. |
| 2005 | 0. | 0. | 102. | 4. | 2. | 37. | 0. | 6. |
| 2006 | 0. | 0. | 107. | 5. | 2. | 41. | 0. | 7. |
| 2007 | 0. | 0. | 113. | 5. | 2. | 44. | 0. | 8. |
| 2008 | 0. | 0. | 119. | 5. | 3. | 48. | 0. | 8. |
| 2009 | 0. | 0. | 126. | 6. | 3. | 52. | 0. | 9. |
| 2010 | 0. | 0. | 132. | 6. | 3. | 57. | 0. | 10. |
| 2011 | 0. | 0. | 139. | 6. | 4. | 61. | 0. | 11. |
| 2012 | 0. | 0. | 145. | 7. | 4. | 65. | 0. | 12. |
| 2013 | 0. | 0. | 152. | 7. | 5. | 69. | 0. | 13. |
| 2014 | 0. | 0. | 160. | 7. | 5. | 76. | 0. | 15. |
| 2015 | 0. | 0. | 168. | 8. | 5. | 84. | 0. | 16. |
| 2016 | 0. | 0. | 175. | 8. | 6. | 91. | 0. | 17. |
| 2017 | 0. | 0. | 183. | 9. | 6. | 99. | 0. | 19. |
| 2018 | 0. | 0. | 191. | 9. | 7. | 106. | 0. | 20. |
| 2019 | 0. | 0. | 200. | 10. | 7. | 115. | 0. | 22. |
| 2020 | 0. | 0. | 209. | 10. | 8. | 123. | 0. | 24. |
| 2021 | 0. | 0. | 217. | 11. | 9. | 131. | 0. | 26. |
| 2022 | 0. | 0. | 226. | 11. | 9. | 139. | 0. | 28. |
| 2023 | 0. | 0. | 234. | 12. | 10. | 147. | 0. | 30. |
| 2024 | 0. | 0. | 244. | 12. | 11. | 160. | 0. | 32. |
| 2025 | 0. | 0. | 255. | 13. | 11. | 172. | 0. | 35. |
| 2026 | 0. | 0. | 265. | 13. | 12. | 185. | 0. | 37. |
| 2027 | 0. | 0. | 275. | 14. | 13. | 198. | 0. | 40. |
| 2028 | 0. | 0. | 285. | 15. | 14. | 211. | 0. | 43. |
| 2029 | 0. | 0. | 296. | 15. | 15. | 225. | 0. | 46. |
| 2030 | 0. | 0. | 307. | 16. | 16. | 239. | 0. | 50. |
| 2031 | 0. | 0. | 318. | 17. | 17. | 253. | 0. | 53. |
| 2032 | 0. | 0. | 329. | 17. | 18. | 267. | 0. | 56. |
| 2033 | 0. | 0. | 340. | 18. | 19. | 281. | 0. | 60. |
| 2034 | 0. | 0. | 354. | 19. | 21. | 300. | 0. | 65. |
| 2035 | 0. | 0. | 368. | 19. | 22. | 319. | 0. | 70. |
| 2036 | 0. | 0. | 382. | 20. | 23. | 337. | 0. | 75. |
| 2037 | 0. | 0. | 396. | 21. | 25. | 356. | 0. | 80. |
| 2038 | 0. | 0. | 410. | 22. | 26. | 376. | 0. | 85. |

2003 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 | SQ 30 1 | SQ 25 1 | L2 15 1 | S4 40 1 | |
|----------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 3930. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4178. |
| 2005 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4431. |
| 2006 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4694. |
| 2007 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4969. |
| 2008 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5247. |
| 2009 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5518. |
| 2010 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5804. |
| 2011 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6095. |
| 2012 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6367. |
| 2013 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6645. |
| 2014 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6935. |
| 2015 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7229. |
| 2016 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7514. |
| 2017 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7814. |
| 2018 | 0. | 0. | 0. | 0. | 0. | 0. | | 1. | 8131. |
| 2019 | 0. | 0. | 0. | 0. | 0. | 0. | | 2. | 8462. |
| 2020 | 0. | 0. | 0. | 0. | 0. | 0. | | 2. | 8793. |
| 2021 | 0. | 0. | 0. | 0. | 0. | 0. | | 3. | 9139. |
| 2022 | 0. | 0. | 0. | 0. | 0. | 0. | | 5. | 9499. |
| 2023 | 0. | 0. | 0. | 0. | 0. | 0. | | 7. | 9837. |
| 2024 | 0. | 0. | 0. | 0. | 0. | 0. | | 9. | 10188. |
| 2025 | 0. | 0. | 0. | 0. | 0. | 0. | | 11. | 10524. |
| 2026 | 0. | 0. | 0. | 0. | 0. | 0. | | 16. | 10840. |
| 2027 | 0. | 0. | 0. | 0. | 0. | 0. | | 20. | 11124. |
| 2028 | 0. | 0. | 0. | 0. | 0. | 0. | | 25. | 11375. |
| 2029 | 0. | 0. | 0. | 0. | 0. | 0. | | 29. | 11577. |
| 2030 | 0. | 0. | 0. | 0. | 0. | 0. | | 36. | 11751. |
| 2031 | 0. | 0. | 0. | 0. | 0. | 0. | | 42. | 11861. |
| 2032 | 0. | 0. | 0. | 0. | 0. | 0. | | 48. | 11882. |
| 2033 | 0. | 0. | 0. | 0. | 0. | 0. | | 54. | 11879. |
| 2034 | 0. | 0. | 0. | 0. | 0. | 0. | | 59. | 11787. |
| 2035 | 0. | 0. | 0. | 0. | 0. | 0. | | 63. | 11647. |
| 2036 | 0. | 0. | 0. | 0. | 0. | 0. | | 68. | 11473. |
| 2037 | 0. | 0. | 0. | 0. | 0. | 0. | | 73. | 11262. |
| 2038 | 0. | 0. | 0. | 0. | 0. | 0. | | 73. | 11003. |

2004 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE | R2 | R3 | SQ | S0 | R2 | R3 | R2 | R3 |
|-------|------|------|----|-------|-------|-------|----|----|
| LIFE | 60 | 60 | 40 | 39 | 34 | 34 | 32 | 32 |
| H-W | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2003 | 162. | 82. | 0. | 1220. | 1301. | 1034. | 1. | 0. |
| 2004 | 169. | 88. | 0. | 1235. | 1393. | 1150. | 1. | 0. |
| 2005 | 175. | 94. | 0. | 1248. | 1486. | 1269. | 1. | 1. |
| 2006 | 182. | 100. | 0. | 1261. | 1583. | 1394. | 1. | 1. |
| 2007 | 189. | 106. | 0. | 1273. | 1686. | 1527. | 1. | 1. |
| 2008 | 196. | 112. | 0. | 1286. | 1793. | 1658. | 1. | 1. |
| 2009 | 203. | 119. | 0. | 1298. | 1899. | 1783. | 2. | 1. |
| 2010 | 210. | 126. | 0. | 1309. | 2011. | 1916. | 2. | 1. |
| 2011 | 217. | 133. | 0. | 1320. | 2126. | 2051. | 2. | 1. |
| 2012 | 225. | 140. | 0. | 1330. | 2239. | 2171. | 2. | 2. |
| 2013 | 232. | 147. | 0. | 1340. | 2353. | 2293. | 2. | 2. |
| 2014 | 240. | 155. | 0. | 1349. | 2472. | 2419. | 2. | 2. |
| 2015 | 248. | 162. | 0. | 1357. | 2591. | 2551. | 3. | 2. |
| 2016 | 256. | 170. | 0. | 1365. | 2707. | 2677. | 3. | 2. |
| 2017 | 263. | 177. | 0. | 1372. | 2826. | 2814. | 3. | 3. |
| 2018 | 271. | 185. | 0. | 1378. | 2947. | 2966. | 3. | 3. |
| 2019 | 279. | 192. | 0. | 1383. | 3064. | 3137. | 3. | 3. |
| 2020 | 287. | 199. | 0. | 1387. | 3181. | 3309. | 4. | 4. |
| 2021 | 294. | 206. | 0. | 1390. | 3300. | 3494. | 4. | 4. |
| 2022 | 302. | 213. | 0. | 1391. | 3419. | 3694. | 4. | 5. |
| 2023 | 309. | 220. | 0. | 1392. | 3532. | 3879. | 4. | 5. |
| 2024 | 317. | 227. | 0. | 1391. | 3644. | 4074. | 5. | 5. |
| 2025 | 324. | 233. | 0. | 1389. | 3752. | 4258. | 5. | 6. |
| 2026 | 331. | 239. | 0. | 1385. | 3856. | 4430. | 5. | 6. |
| 2027 | 338. | 244. | 0. | 1379. | 3950. | 4580. | 5. | 7. |
| 2028 | 345. | 250. | 0. | 1372. | 4037. | 4703. | 6. | 7. |
| 2029 | 352. | 256. | 0. | 1364. | 4112. | 4791. | 6. | 7. |
| 2030 | 359. | 262. | 0. | 1355. | 4175. | 4863. | 6. | 8. |
| 2031 | 365. | 269. | 0. | 1343. | 4224. | 4886. | 6. | 8. |
| 2032 | 371. | 274. | 0. | 1330. | 4254. | 4842. | 6. | 8. |
| 2033 | 376. | 278. | 0. | 1317. | 4279. | 4779. | 6. | 7. |
| 2034 | 382. | 283. | 0. | 1306. | 4279. | 4642. | 6. | 7. |
| 2035 | 387. | 290. | 0. | 1296. | 4261. | 4472. | 6. | 7. |
| 2036 | 393. | 297. | 0. | 1285. | 4232. | 4280. | 6. | 6. |
| 2037 | 398. | 303. | 0. | 1276. | 4188. | 4066. | 6. | 6. |
| 2038 | 402. | 309. | 0. | 1266. | 4125. | 3825. | 6. | 5. |
| 2039 | 406. | 315. | 0. | 1258. | 4046. | 3611. | 6. | 5. |

2004 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 13 2 | R3 13 2 | R3 100 3 | R2 50 4 | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 |
|----------------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 2003 | 0. | 0. | 90. | 4. | 1. | 29. | 0. | 5. |
| 2004 | 0. | 0. | 96. | 4. | 2. | 33. | 0. | 6. |
| 2005 | 0. | 0. | 102. | 4. | 2. | 37. | 0. | 6. |
| 2006 | 0. | 0. | 107. | 5. | 2. | 41. | 0. | 7. |
| 2007 | 0. | 0. | 113. | 5. | 2. | 44. | 0. | 8. |
| 2008 | 0. | 0. | 119. | 5. | 3. | 48. | 0. | 8. |
| 2009 | 0. | 0. | 126. | 6. | 3. | 52. | 0. | 9. |
| 2010 | 0. | 0. | 132. | 6. | 3. | 57. | 0. | 10. |
| 2011 | 0. | 0. | 139. | 6. | 4. | 61. | 0. | 11. |
| 2012 | 0. | 0. | 145. | 7. | 4. | 65. | 0. | 12. |
| 2013 | 0. | 0. | 152. | 7. | 5. | 69. | 0. | 13. |
| 2014 | 0. | 0. | 160. | 7. | 5. | 76. | 0. | 15. |
| 2015 | 0. | 0. | 168. | 8. | 5. | 84. | 0. | 16. |
| 2016 | 0. | 0. | 175. | 8. | 6. | 91. | 0. | 17. |
| 2017 | 0. | 0. | 183. | 9. | 6. | 99. | 0. | 19. |
| 2018 | 0. | 0. | 191. | 9. | 7. | 106. | 0. | 20. |
| 2019 | 0. | 0. | 200. | 10. | 7. | 115. | 0. | 22. |
| 2020 | 0. | 0. | 208. | 10. | 8. | 123. | 0. | 24. |
| 2021 | 0. | 0. | 217. | 10. | 9. | 131. | 0. | 26. |
| 2022 | 0. | 0. | 226. | 11. | 9. | 139. | 0. | 28. |
| 2023 | 0. | 0. | 234. | 12. | 10. | 147. | 0. | 30. |
| 2024 | 0. | 0. | 244. | 12. | 11. | 160. | 0. | 32. |
| 2025 | 0. | 0. | 254. | 13. | 11. | 172. | 0. | 35. |
| 2026 | 0. | 0. | 265. | 13. | 12. | 185. | 0. | 37. |
| 2027 | 0. | 0. | 275. | 14. | 13. | 198. | 0. | 40. |
| 2028 | 0. | 0. | 285. | 15. | 14. | 211. | 0. | 43. |
| 2029 | 0. | 0. | 296. | 15. | 15. | 225. | 0. | 46. |
| 2030 | 0. | 0. | 307. | 16. | 16. | 239. | 0. | 50. |
| 2031 | 0. | 0. | 318. | 17. | 17. | 253. | 0. | 53. |
| 2032 | 0. | 0. | 329. | 17. | 18. | 267. | 0. | 56. |
| 2033 | 0. | 0. | 340. | 18. | 19. | 281. | 0. | 60. |
| 2034 | 0. | 0. | 354. | 19. | 21. | 300. | 0. | 65. |
| 2035 | 0. | 0. | 368. | 19. | 22. | 319. | 0. | 69. |
| 2036 | 0. | 0. | 382. | 20. | 23. | 337. | 0. | 75. |
| 2037 | 0. | 0. | 396. | 21. | 25. | 356. | 0. | 80. |
| 2038 | 0. | 0. | 410. | 22. | 26. | 376. | 0. | 85. |
| 2039 | 0. | 0. | 425. | 22. | 27. | 397. | 0. | 90. |

2004 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 | SQ 30 1 | SQ 25 1 | L2 15 1 | S4 40 1 | |
|----------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 3930. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4176. |
| 2005 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4424. |
| 2006 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4683. |
| 2007 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4956. |
| 2008 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5231. |
| 2009 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5500. |
| 2010 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5783. |
| 2011 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6072. |
| 2012 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6342. |
| 2013 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6617. |
| 2014 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6904. |
| 2015 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7196. |
| 2016 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7478. |
| 2017 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7774. |
| 2018 | 0. | 0. | 0. | 0. | 0. | 0. | | 1. | 8088. |
| 2019 | 0. | 0. | 0. | 0. | 0. | 0. | | 2. | 8416. |
| 2020 | 0. | 0. | 0. | 0. | 0. | 0. | | 2. | 8743. |
| 2021 | 0. | 0. | 0. | 0. | 0. | 0. | | 3. | 9085. |
| 2022 | 0. | 0. | 0. | 0. | 0. | 0. | | 5. | 9442. |
| 2023 | 0. | 0. | 0. | 0. | 0. | 0. | | 7. | 9775. |
| 2024 | 0. | 0. | 0. | 0. | 0. | 0. | | 9. | 10123. |
| 2025 | 0. | 0. | 0. | 0. | 0. | 0. | | 11. | 10454. |
| 2026 | 0. | 0. | 0. | 0. | 0. | 0. | | 16. | 10765. |
| 2027 | 0. | 0. | 0. | 0. | 0. | 0. | | 20. | 11044. |
| 2028 | 0. | 0. | 0. | 0. | 0. | 0. | | 25. | 11289. |
| 2029 | 0. | 0. | 0. | 0. | 0. | 0. | | 29. | 11486. |
| 2030 | 0. | 0. | 0. | 0. | 0. | 0. | | 35. | 11654. |
| 2031 | 0. | 0. | 0. | 0. | 0. | 0. | | 42. | 11758. |
| 2032 | 0. | 0. | 0. | 0. | 0. | 0. | | 48. | 11772. |
| 2033 | 0. | 0. | 0. | 0. | 0. | 0. | | 54. | 11762. |
| 2034 | 0. | 0. | 0. | 0. | 0. | 0. | | 59. | 11664. |
| 2035 | 0. | 0. | 0. | 0. | 0. | 0. | | 63. | 11517. |
| 2036 | 0. | 0. | 0. | 0. | 0. | 0. | | 68. | 11337. |
| 2037 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 11121. |
| 2038 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 10857. |
| 2039 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 10609. |

2005 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 60 1 | R3 60 1 | SQ 40 2 | S0 39 2 | R2 34 2 | R3 34 2 | R2 32 2 | R3 32 2 |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2003 | 162. | 82. | 0. | 1220. | 1301. | 1034. | 1. | 0. |
| 2004 | 169. | 88. | 0. | 1235. | 1393. | 1150. | 1. | 0. |
| 2005 | 175. | 94. | 0. | 1247. | 1484. | 1269. | 1. | 1. |
| 2006 | 182. | 100. | 0. | 1258. | 1578. | 1393. | 1. | 1. |
| 2007 | 188. | 106. | 0. | 1269. | 1680. | 1526. | 1. | 1. |
| 2008 | 195. | 112. | 0. | 1280. | 1785. | 1657. | 1. | 1. |
| 2009 | 202. | 119. | 0. | 1291. | 1891. | 1781. | 2. | 1. |
| 2010 | 210. | 126. | 0. | 1301. | 2002. | 1914. | 2. | 1. |
| 2011 | 217. | 133. | 0. | 1311. | 2117. | 2049. | 2. | 1. |
| 2012 | 224. | 140. | 0. | 1320. | 2228. | 2167. | 2. | 2. |
| 2013 | 232. | 147. | 0. | 1329. | 2342. | 2289. | 2. | 2. |
| 2014 | 239. | 155. | 0. | 1337. | 2460. | 2414. | 2. | 2. |
| 2015 | 247. | 162. | 0. | 1345. | 2578. | 2545. | 3. | 2. |
| 2016 | 255. | 170. | 0. | 1351. | 2692. | 2670. | 3. | 2. |
| 2017 | 263. | 177. | 0. | 1357. | 2810. | 2806. | 3. | 3. |
| 2018 | 270. | 184. | 0. | 1363. | 2930. | 2957. | 3. | 3. |
| 2019 | 278. | 192. | 0. | 1366. | 3046. | 3126. | 3. | 3. |
| 2020 | 286. | 199. | 0. | 1370. | 3161. | 3297. | 4. | 4. |
| 2021 | 293. | 206. | 0. | 1372. | 3279. | 3480. | 4. | 4. |
| 2022 | 301. | 213. | 0. | 1373. | 3396. | 3678. | 4. | 5. |
| 2023 | 309. | 219. | 0. | 1372. | 3508. | 3862. | 4. | 5. |
| 2024 | 316. | 226. | 0. | 1371. | 3618. | 4055. | 5. | 5. |
| 2025 | 323. | 233. | 0. | 1369. | 3724. | 4236. | 5. | 6. |
| 2026 | 330. | 239. | 0. | 1364. | 3825. | 4406. | 5. | 6. |
| 2027 | 337. | 244. | 0. | 1357. | 3918. | 4554. | 5. | 7. |
| 2028 | 344. | 250. | 0. | 1350. | 4003. | 4674. | 6. | 7. |
| 2029 | 351. | 256. | 0. | 1341. | 4075. | 4760. | 6. | 7. |
| 2030 | 357. | 262. | 0. | 1331. | 4135. | 4828. | 6. | 8. |
| 2031 | 364. | 268. | 0. | 1318. | 4183. | 4848. | 6. | 8. |
| 2032 | 369. | 273. | 0. | 1305. | 4210. | 4800. | 6. | 8. |
| 2033 | 375. | 278. | 0. | 1291. | 4232. | 4733. | 6. | 7. |
| 2034 | 380. | 283. | 0. | 1280. | 4229. | 4591. | 6. | 7. |
| 2035 | 386. | 290. | 0. | 1269. | 4209. | 4417. | 6. | 7. |
| 2036 | 391. | 296. | 0. | 1258. | 4178. | 4221. | 6. | 6. |
| 2037 | 396. | 302. | 0. | 1249. | 4131. | 4003. | 6. | 6. |
| 2038 | 400. | 309. | 0. | 1238. | 4065. | 3758. | 6. | 5. |
| 2039 | 404. | 314. | 0. | 1230. | 3984. | 3541. | 6. | 5. |
| 2040 | 408. | 321. | 0. | 1222. | 3899. | 3344. | 6. | 4. |

2005 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | R2 13 2 | R3 13 2 | R3 100 3 | R2 50 4 | R3 50 4 | R4 100 5 | S3 30 1 | R4 75 1 |
|----------------------|---------------|---------------|----------------|---------------|---------------|----------------|---------------|---------------|
| 2003 | 0. | 0. | 90. | 4. | 1. | 29. | 0. | 5. |
| 2004 | 0. | 0. | 96. | 4. | 2. | 33. | 0. | 6. |
| 2005 | 0. | 0. | 102. | 4. | 2. | 37. | 0. | 6. |
| 2006 | 0. | 0. | 107. | 5. | 2. | 41. | 0. | 7. |
| 2007 | 0. | 0. | 113. | 5. | 2. | 44. | 0. | 8. |
| 2008 | 0. | 0. | 119. | 5. | 3. | 48. | 0. | 8. |
| 2009 | 0. | 0. | 126. | 6. | 3. | 52. | 0. | 9. |
| 2010 | 0. | 0. | 132. | 6. | 3. | 57. | 0. | 10. |
| 2011 | 0. | 0. | 139. | 6. | 4. | 61. | 0. | 11. |
| 2012 | 0. | 0. | 145. | 7. | 4. | 65. | 0. | 12. |
| 2013 | 0. | 0. | 152. | 7. | 5. | 69. | 0. | 13. |
| 2014 | 0. | 0. | 160. | 7. | 5. | 76. | 0. | 15. |
| 2015 | 0. | 0. | 168. | 8. | 5. | 84. | 0. | 16. |
| 2016 | 0. | 0. | 175. | 8. | 6. | 91. | 0. | 17. |
| 2017 | 0. | 0. | 183. | 9. | 6. | 99. | 0. | 19. |
| 2018 | 0. | 0. | 191. | 9. | 7. | 106. | 0. | 20. |
| 2019 | 0. | 0. | 200. | 9. | 7. | 114. | 0. | 22. |
| 2020 | 0. | 0. | 208. | 10. | 8. | 123. | 0. | 24. |
| 2021 | 0. | 0. | 217. | 10. | 9. | 131. | 0. | 26. |
| 2022 | 0. | 0. | 226. | 11. | 9. | 139. | 0. | 28. |
| 2023 | 0. | 0. | 234. | 12. | 10. | 147. | 0. | 30. |
| 2024 | 0. | 0. | 244. | 12. | 11. | 160. | 0. | 32. |
| 2025 | 0. | 0. | 254. | 13. | 11. | 172. | 0. | 35. |
| 2026 | 0. | 0. | 264. | 13. | 12. | 185. | 0. | 37. |
| 2027 | 0. | 0. | 275. | 14. | 13. | 198. | 0. | 40. |
| 2028 | 0. | 0. | 285. | 15. | 14. | 211. | 0. | 43. |
| 2029 | 0. | 0. | 296. | 15. | 15. | 225. | 0. | 46. |
| 2030 | 0. | 0. | 307. | 16. | 16. | 239. | 0. | 50. |
| 2031 | 0. | 0. | 318. | 16. | 17. | 253. | 0. | 53. |
| 2032 | 0. | 0. | 329. | 17. | 18. | 267. | 0. | 56. |
| 2033 | 0. | 0. | 340. | 18. | 19. | 281. | 0. | 60. |
| 2034 | 0. | 0. | 354. | 19. | 21. | 300. | 0. | 65. |
| 2035 | 0. | 0. | 368. | 19. | 22. | 318. | 0. | 69. |
| 2036 | 0. | 0. | 382. | 20. | 23. | 337. | 0. | 75. |
| 2037 | 0. | 0. | 396. | 21. | 24. | 356. | 0. | 80. |
| 2038 | 0. | 0. | 410. | 21. | 26. | 376. | 0. | 85. |
| 2039 | 0. | 0. | 424. | 22. | 27. | 397. | 0. | 90. |
| 2040 | 0. | 0. | 439. | 23. | 29. | 418. | 0. | 94. |

2005 REPLACEMENTS BY INDIVIDUAL PLANT ACCOUNTS:

| CURVE LIFE H-W | SQ 20 1 | SQ 5 1 | L3 10 1 | SQ 15 1 | SQ 30 1 | SQ 25 1 | L2 15 1 | S4 40 1 | |
|----------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------|
| 2003 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 3930. |
| 2004 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4176. |
| 2005 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4422. |
| 2006 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4675. |
| 2007 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 4944. |
| 2008 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5217. |
| 2009 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5484. |
| 2010 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 5764. |
| 2011 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6050. |
| 2012 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6318. |
| 2013 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6590. |
| 2014 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 6874. |
| 2015 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7163. |
| 2016 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7442. |
| 2017 | 0. | 0. | 0. | 0. | 0. | 0. | | 0. | 7735. |
| 2018 | 0. | 0. | 0. | 0. | 0. | 0. | | 1. | 8045. |
| 2019 | 0. | 0. | 0. | 0. | 0. | 0. | | 2. | 8369. |
| 2020 | 0. | 0. | 0. | 0. | 0. | 0. | | 2. | 8693. |
| 2021 | 0. | 0. | 0. | 0. | 0. | 0. | | 3. | 9031. |
| 2022 | 0. | 0. | 0. | 0. | 0. | 0. | | 5. | 9384. |
| 2023 | 0. | 0. | 0. | 0. | 0. | 0. | | 7. | 9713. |
| 2024 | 0. | 0. | 0. | 0. | 0. | 0. | | 9. | 10055. |
| 2025 | 0. | 0. | 0. | 0. | 0. | 0. | | 11. | 10382. |
| 2026 | 0. | 0. | 0. | 0. | 0. | 0. | | 16. | 10688. |
| 2027 | 0. | 0. | 0. | 0. | 0. | 0. | | 20. | 10961. |
| 2028 | 0. | 0. | 0. | 0. | 0. | 0. | | 25. | 11201. |
| 2029 | 0. | 0. | 0. | 0. | 0. | 0. | | 29. | 11392. |
| 2030 | 0. | 0. | 0. | 0. | 0. | 0. | | 35. | 11554. |
| 2031 | 0. | 0. | 0. | 0. | 0. | 0. | | 42. | 11651. |
| 2032 | 0. | 0. | 0. | 0. | 0. | 0. | | 48. | 11657. |
| 2033 | 0. | 0. | 0. | 0. | 0. | 0. | | 54. | 11641. |
| 2034 | 0. | 0. | 0. | 0. | 0. | 0. | | 58. | 11535. |
| 2035 | 0. | 0. | 0. | 0. | 0. | 0. | | 63. | 11381. |
| 2036 | 0. | 0. | 0. | 0. | 0. | 0. | | 68. | 11193. |
| 2037 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 10969. |
| 2038 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 10699. |
| 2039 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 10446. |
| 2040 | 0. | 0. | 0. | 0. | 0. | 0. | | 72. | 10208. |

FUTURE REPLACEMENTS FOR YEAR 2003:
 YEAR 2002 DOLLARS 2003 DOLLARS

| | | |
|------|--------|--------|
| 2003 | 3930. | |
| 2004 | 4178. | 4295. |
| 2005 | 4431. | 4556. |
| 2006 | 4694. | 4825. |
| 2007 | 4969. | 5109. |
| 2008 | 5247. | 5394. |
| 2009 | 5518. | 5673. |
| 2010 | 5804. | 5966. |
| 2011 | 6095. | 6265. |
| 2012 | 6367. | 6546. |
| 2013 | 6645. | 6831. |
| 2014 | 6935. | 7129. |
| 2015 | 7229. | 7432. |
| 2016 | 7514. | 7725. |
| 2017 | 7814. | 8032. |
| 2018 | 8131. | 8358. |
| 2019 | 8462. | 8699. |
| 2020 | 8793. | 9039. |
| 2021 | 9139. | 9395. |
| 2022 | 9499. | 9765. |
| 2023 | 9837. | 10112. |
| 2024 | 10188. | 10474. |
| 2025 | 10524. | 10819. |
| 2026 | 10840. | 11144. |
| 2027 | 11124. | 11435. |
| 2028 | 11375. | 11693. |
| 2029 | 11577. | 11901. |
| 2030 | 11751. | 12080. |
| 2031 | 11861. | 12194. |
| 2032 | 11882. | 12214. |
| 2033 | 11879. | 12211. |
| 2034 | 11787. | 12117. |
| 2035 | 11647. | 11973. |
| 2036 | 11473. | 11794. |
| 2037 | 11262. | 11577. |
| 2038 | 11003. | 11311. |

FUTURE REPLACEMENTS FOR YEAR 2004:

| YEAR | 2002 DOLLARS | 2004 DOLLARS |
|------|--------------|--------------|
| 2003 | 3930. | |
| 2004 | 4176. | |
| 2005 | 4424. | 4654. |
| 2006 | 4683. | 4926. |
| 2007 | 4956. | 5214. |
| 2008 | 5231. | 5503. |
| 2009 | 5500. | 5786. |
| 2010 | 5783. | 6084. |
| 2011 | 6072. | 6388. |
| 2012 | 6342. | 6672. |
| 2013 | 6617. | 6961. |
| 2014 | 6904. | 7263. |
| 2015 | 7196. | 7570. |
| 2016 | 7478. | 7867. |
| 2017 | 7774. | 8178. |
| 2018 | 8088. | 8508. |
| 2019 | 8416. | 8853. |
| 2020 | 8743. | 9198. |
| 2021 | 9085. | 9558. |
| 2022 | 9442. | 9933. |
| 2023 | 9775. | 10283. |
| 2024 | 10123. | 10649. |
| 2025 | 10454. | 10998. |
| 2026 | 10765. | 11325. |
| 2027 | 11044. | 11618. |
| 2028 | 11289. | 11876. |
| 2029 | 11486. | 12084. |
| 2030 | 11654. | 12260. |
| 2031 | 11758. | 12369. |
| 2032 | 11772. | 12384. |
| 2033 | 11762. | 12374. |
| 2034 | 11664. | 12271. |
| 2035 | 11517. | 12116. |
| 2036 | 11337. | 11926. |
| 2037 | 11121. | 11699. |
| 2038 | 10857. | 11421. |
| 2039 | 10609. | 11161. |

FUTURE REPLACEMENTS FOR YEAR 2005:

| YEAR | 2002 DOLLARS | 2005 DOLLARS |
|------|--------------|--------------|
| 2003 | 3930. | |
| 2004 | 4176. | |
| 2005 | 4422. | |
| 2006 | 4675. | 5035. |
| 2007 | 4944. | 5325. |
| 2008 | 5217. | 5619. |
| 2009 | 5484. | 5906. |
| 2010 | 5764. | 6208. |
| 2011 | 6050. | 6516. |
| 2012 | 6318. | 6804. |
| 2013 | 6590. | 7097. |
| 2014 | 6874. | 7403. |
| 2015 | 7163. | 7715. |
| 2016 | 7442. | 8015. |
| 2017 | 7735. | 8330. |
| 2018 | 8045. | 8664. |
| 2019 | 8369. | 9014. |
| 2020 | 8693. | 9362. |
| 2021 | 9031. | 9727. |
| 2022 | 9384. | 10106. |
| 2023 | 9713. | 10460. |
| 2024 | 10055. | 10830. |
| 2025 | 10382. | 11182. |
| 2026 | 10688. | 11511. |
| 2027 | 10961. | 11805. |
| 2028 | 11201. | 12064. |
| 2029 | 11392. | 12270. |
| 2030 | 11554. | 12444. |
| 2031 | 11651. | 12548. |
| 2032 | 11657. | 12555. |
| 2033 | 11641. | 12537. |
| 2034 | 11535. | 12424. |
| 2035 | 11381. | 12257. |
| 2036 | 11193. | 12055. |
| 2037 | 10969. | 11814. |
| 2038 | 10699. | 11523. |
| 2039 | 10446. | 11250. |
| 2040 | 10208. | 10994. |

CHAPTER 9

FINANCIAL RISK AND MITIGATION

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| | |
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1. Background

BPA adopted a long-term policy in its 1993 Final Rate Proposal calling for setting rates that build and maintain financial reserves sufficient for the agency to achieve a 95 percent probability of meeting U.S. Treasury payments in full and on time for each two-year rate period. *See* 1993 Final Rate Proposal, Administrator's Record of Decision, WP-93-A-02 at page 72.

In this rate proposal, BPA has analyzed its transmission risks and has determined that the rate proposal achieves the 95 percent probability standard for the transmission function.

To achieve this Treasury payment probability, the following risk mitigation "tools" were considered in the rate proposal:

1. Starting financial reserves: Starting financial reserves include cash in the BPA Fund and the deferred borrowing balance attributed to the transmission function. The most likely value for starting reserves is projected to be \$183.4 million at the beginning of FY 2006.
2. Planned Net Revenues for Risk (PNRR). PNRR is a component of the revenue requirement that is added to annual expenses. PNRR adds to cash flows so that financial reserves mitigate short-run cost and revenue risk and achieve the TPP goal. No PNRR was required in the revenue requirement to achieve the TPP standard under the rate proposal.

3. Two Year Rate Period. BPA is proposing to adopt rates for a two-year period. The ability to revise rates after two years, or more frequently if need be, serves as an important risk mitigation tool for BPA's transmission function. By adopting a two-year rate period the TBL limits the amount of risk that must be covered by financial reserves and PNRR.

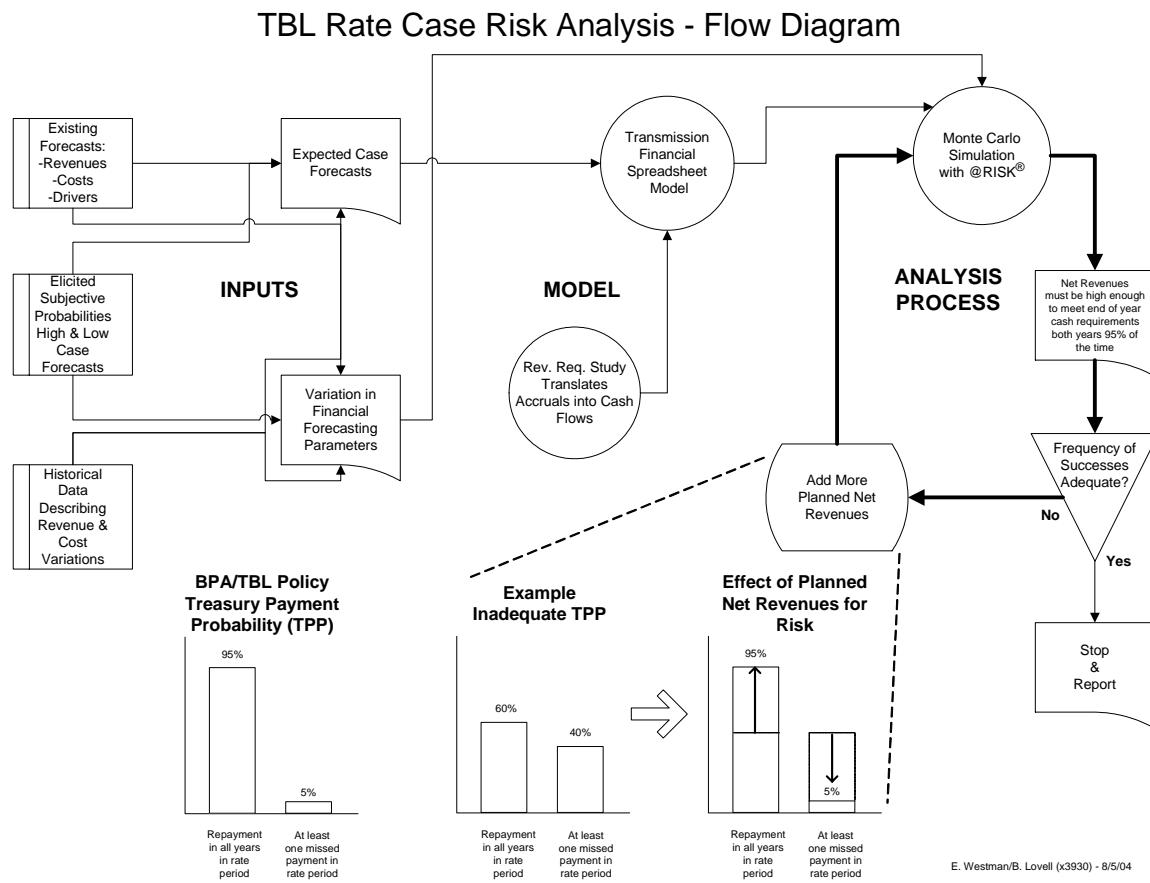
2. Transmission Risk Analysis

To quantify the effects of risk on the finances of BPA's transmission function, BPA analyzes the effects of uncertainty in expenses and revenues on transmission cash flows using a Monte Carlo simulation method. *See Figure 9.1.* The analysis is used to estimate the probability of successful Treasury payment on time and in full during the rate period, FYs 2006 and 2007. Successful Treasury payment is assumed to occur when the end-of-year cash reserve for the transmission function is at least sufficient to cover the TBL's working capital requirement of \$20 million per year. The working capital requirement was estimated based on historical monthly net cash flow patterns and monthly cash requirements for the TBL. The value of \$20 million was used in the 2002 and 2004 TBL rate cases.

The risk analysis is part of the Revenue Requirements Study (RRS). It uses inputs that come from the RRS and transmission sales, revenue, and expense forecasts. *See the Programs in Review close-out letter in Appendix B, Revenue Requirement Study, TR-06-E-BPA-01, and the testimony of Knudsen and Woerner, TR-06-E-BPA-04.* The risk analysis simulates the financial reserves available at the beginning of the rate period and calculates the probability that financial reserves will be sufficient in both years of the rate period to make the scheduled Treasury

payments in full and on time. If this probability is below BPA's TPP standard of 95% for two years, it calculates the PNRR needed to raise the TPP to 95%. Initial input values for point estimates of expenses and revenues come from the applicable forecasts and when combined with inputs describing uncertainty in expenses and revenues, provide the basis for the initial estimate of PNRR. The PNRR is in turn provided, if appropriate, as an expense input to the RRS, changing the transmission revenue requirement and ultimately transmission rates.

Figure 9.1 TBL Rate Case Risk Analysis – Flow Diagram



The adjusted transmission rates increase expected revenues during the rate period. The revised estimates of expected revenues combined with the revenue and expense uncertainties are used to update the risk analysis, TPP and adequacy of PNRR. This iterative analysis process is

continued until estimates of PNRR converge on a particular amount of PNRR. The estimated amount of PNRR is used to set the PNRR expense for the RRS.

The risk analysis covers the period of FYs 2005 through 2007. The analysis begins with an historical period, FY 2004. The change in revenues, expenses, and accrual to cash adjustments that are expected to occur between the final rate proposal and the end of the next rate period is analyzed. The amount of cash reserves at the start of the next rate period has a direct effect on the amount of financial reserves and PNRR needed to achieve BPA's TPP standard. The FY 2004 information reflects historical data, FY 2005 is a transition year, part history and part forecast, and FYs 2006 and 2007 cover the next rate period forecast. The transition year of 2005 includes historical data through the first half of FY2005, and therefore is analyzed with a half-year's uncertainty in revenues and expenses so that uncertainty in financial reserves at the beginning of the next rate period (FYs 2006-2007) is appropriately captured in the risk analysis.

3. Transmission Risk Analysis Model

The foundation of the risk analysis is a transmission financial spreadsheet model. This model was developed in Microsoft Excel to estimate the effects of risk and risk mitigation on end-of-year financial reserves and likelihood of successful Treasury payment during the rate period. Cash reserve levels at the end of a FY determine whether BPA is able to meet its Treasury payment obligation. The model is organized as a "workbook" with individual work sheets including: an input matrix of revenues and expenses, an income statement, a cash flow statement, and individual work sheets for the risks analyzed using the model.

The calculation of end-of-year financial reserves starts with historical data on start-of-year financial reserves, revenues earned and expenses paid during FY 2004 (Tables 9.1 and 9.2). FY 2004 transmission revenues and expenses are based on BPA's end-of-year financial results. The accrual-based revenues and expenses shown in the income statement are then converted to cash flows in the cash flow statement worksheet. The year-end cash balance in FY 2004 becomes the beginning year cash balance for FY 2005. The structure of the income statement and cash flow statement are similar to those contained in the RRS, but does not match precisely because the tables contained in the risk analysis are for the purpose of forecasting net cash flow instead of determining the revenue requirement, and the values found are expected values instead of point estimates. The net cash flow provides an estimate of the annual change in cash balance which, when added to the beginning cash balance, yields the year-end cash balance. The year-end cash balance, when combined with deferred borrowing, provides an estimate of end-of-year financial reserves. This flow of computations is repeated sequentially for each year from FYs 2005 through 2007.

Simulating transmission cash flows in this manner permits forecasting start-of-year reserves at the beginning of the rate period instead of defining FY 2006 start-of-year reserves as an uncertain input variable. The model forecasts the start-of-year FY 2006 financial reserves based on transmission function historical cash flows, current forecasts of expenses and revenues, and uncertainty in expenses and revenues explicitly modeled for FY 2005 (Table 9.1). Table 9.1 shows the most likely value forecasts of expenses and revenues used in the RRS and the most likely revenue forecast. *See TR-06-FS-BPA-04.* The “most likely” forecasts are equal to the “mode” or peak of the underlying probability distribution for all uncertain variables. The most

likely (mode or peak) forecast will also be equal to the mean or “expected” value when the underlying distribution is symmetric or the value is a single point estimate. However, in a few cases the “most likely” forecast is greater or less than the “expected” (or mean) value if the underlying uncertainty distribution is not symmetric.

4. Risk Analysis Computer Software

The model used to perform the risk analysis was developed with Microsoft® Office Excel Professional Edition 2003 and @RISK, version 4.5.3 (©Palisade Corporation). Microsoft Excel is a basic spreadsheet computer program and @RISK is an Excel add-in computer program available from Palisade Corporation. The @RISK software allows the user to develop models incorporating uncertainty in a spreadsheet computer program environment. Uncertainty is incorporated by specifying model variables as probability distributions that reflect the variability in an input variable of interest. With model input variables specified as probability distributions instead of as point estimates, @RISK samples values from the probability distributions and then carries out the spreadsheet computations. Randomly sampled sets of input values are drawn for each game in a Monte Carlo simulation process that involves computing results of large numbers of games in order to describe a probability distribution of outcomes, such as net revenues or financial reserves. The values sampled from the probability distributions are drawn with probability based on their relative likelihood of occurrence as specified in the input probability distributions. While @RISK provides tools that enable users to turn spreadsheet models into Monte Carlo simulation models, the user still has the burden of determining the input probability distributions for uncertain variables in the model. This is done in analyses external to the @RISK computer program.

5. Risk Factors

Transmission risk factors used in the risk analysis include:

- (1) Network long-term firm NT revenues;
- (2) Network long-term firm Take or Pay (PTP, IR, FPT) revenues;
- (3) Network short-term firm PTP revenues;
- (4) Network hourly non-firm revenues;
- (5) Southern Intertie long-term firm PTP revenues;
- (6) Southern Intertie short-term firm PTP revenues;
- (7) Southern Intertie hourly non-firm revenues;
- (8) Scheduling, system control & dispatch revenues;
- (9) Regulation & frequency response revenues;
- (10) Delivery segment revenues;
- (11) Total transmission expense annual variation, excluding between business line expenses paid to the PBL and Corporate expense;
- (12) BPA Corporate expenses paid by the transmission function; and
- (13) Effects of interest rates on interest expense for new borrowing.

The ancillary service “reactive supply & voltage control” revenues is treated as a point estimate forecast, since the pass through of actual costs provided in the formula rate means that this item entails little risk. Revenue from leasing fiber; proceeds from the sale of delivery facilities; and a variety of “other revenues” are also treated as point forecasts for this analysis due to their small size and the low level of additional uncertainty these are expected to contribute.

The risk variables analyzed were those judged to represent a significant impact on net revenues and cash flows, and that reasonably bear on estimating the amount of required PNRR during the next rate period. Other long-run risks such as variation in capital investment patterns; changes in generation and load patterns that may change transmission expenses and capacity availability; the price-elasticity effects of TBL transmission rate increases on load; the effect of secondary transmission markets on transmission revenues; and potential changes in transmission industry structure due to formation of a Regional Transmission Organization are more speculative and not included in the analysis. Such risks are mitigated by the combination of financial reserves at the beginning of the rate period and the option of future rate increases if the unforeseen events occurs. In other words, these long-run risks are considered exogenous risks mitigated by the TBL's ability to change rate levels in response to fundamental changes in business environment and long-term changes in cost structure.

BPA relied on two approaches to forecasting the uncertainty in risk variables modeled. When historical data were present on which to base the estimation of uncertainty in a risk variable, BPA estimated the uncertainty in the historical data as the basis for forecasting the uncertainty in the variable. The underlying rationale for this approach is that the variation in the recent past is a reasonable basis for forecasting the short-run future (5 years or less). When historical data were not reasonably available, or when the future is expected to be different from the past, BPA relied on the judgment of technical staff familiar with specific areas of transmission risk as the basis for forecasting the uncertainty in those risks. With the exception of the Network and Intertie revenue uncertainties, standard deviations around the mean TBL forecasts of revenues and expenses were

determined using the same methodology as in the 2004 rate case. *See* 2004 Final Transmission Proposal Revenue Requirement Study Documentation, TR-04-FS-BPA-01A.

6. Network and Intertie Transmission Revenue Uncertainties

Although the Network and Intertie rates are fixed during the rate period, the amount of revenue earned can be expected to vary due to uncertainty surrounding the quantity of service purchased by transmission customers. This is generally referred to as volumetric risk. Various underlying factors can affect the quantity of transmission service purchased. Some of these factors are related to weather such as the effect of temperature upon electric load and precipitation upon stream flows that determine the amount of generation output at hydro facilities in the Northwest. Influences outside the Northwest (e.g., the price of natural gas and relative hydro levels) can influence regional prices at Mid-Columbia, California-Oregon Border, and Palo Verde hubs and the amount of transmission purchased to move power between regions. Factors such as growth rates in the regional economy and the competitiveness of electricity-intensive industries (e.g., DSIs) also influence the quantity of electricity usage and the amount of transmission needed to serve the demand for electricity. The existence of a growing secondary transmission market which competes with TBL on price, and the arbitrage between short-term and long-term transmission services, also introduce risk. Technical factors such as outages and de-ratings can affect revenues. A combination of these factors has caused substantial swings in TBL revenues in the past since the California power crisis of 2000-1, and could cause them again. It is important, therefore, to be sure that either transmission financial reserves provide a high enough cushion against reasonable adverse events or, if not, PNRR is set high enough to meet BPA's TPP standard. To model intertie and network revenue uncertainty appropriately in the current

transmission environment, TBL believes there is a higher likelihood that revenues may be below its “most likely” (or mode) values than at or above such values for both Network Point-to-Point and Intertie. The probability distributions are then skewed toward lower revenues for a robust risk analysis that adequately weights these adverse outcomes. The result of this analysis is that expected or mean total revenues produced by the risk analysis are \$13.6 million lower than “most likely” or mode revenues as presented in the accompanying tables. The important result from this analysis is that, even if this risk adjustment produces lower revenues, TPP remains well above 95% and PNRR is zero.

7. Transmission Operations and Maintenance Expense

The uncertainty in transmission O&M expense was estimated in the same manner as described in the 2004 Revenue Requirements Study Documentation, TR-04-FS-BPA-01A. It was assumed in this rate case, as in the previous one, that the variety of factors that have influenced year-to-year variations in transmission O&M expense in the historical period can reasonably be expected to prevail during the future, particularly the near term future. As in the case of transmission revenues, the objective was to describe short-run volatility and not long-run variability or variation in trend that may be due to factors such as changes in the structure of the transmission industry in the Northwest. Such long-term effects are mitigated by the TBL’s ability to change rate levels as frequently as every two years.

The risk analysis model includes subcategories of transmission O&M expense with forecasted point estimates of expenses. The volatility in total O&M expense was distributed proportionally

based on the relative size of individual expense categories to the total O&M expense, with the exception of BPA Corporate and Shared Services and inter-business line expenses.

BPA Corporate and Shared Services expense uncertainty was treated in a similar manner to the 2004 rate case (i.e., skewed in the direction of higher cost). This is partly to reflect the move of Information Technology tech support to corporate and the concern that Corporate and Shared Services costs may exceed expectations in the future. Such skew has the effect of causing the “expected” or mean value TBL total operating expense to exceed the most likely or mode value (shown in Table 9.3) by an average of \$3.4 million per year. Again, to repeat the similar discussion above on revenues, even with this “adverse bias” risk analysis the TPP exceeds 95% and the PNRR is zero.

Inter-business line expenses are treated as a point-estimate forecast because this item will change in a formula rate to reflect the actual costs that are incurred after new BPA’s power rates and associated costs take effect. The specific “most likely” input values for Transmission O&M Expense are shown in Table 9.3.

8. Ancillary Services Revenue

The risk associated with TBL’s inter-business line expense is implicitly treated in the ancillary services revenue risk assessment. Two of the six ancillary services revenue categories were modeled with uncertainty in the risk analysis. They are Scheduling, System Control, and Dispatch and Regulation and Frequency Response Service. Reactive Supply & Voltage Control from Generation is treated as entailing no significant risk as this is a periodically trued-up cost

passed onto ratepayers via a formula rate. The remaining three ancillary services revenues were treated as risks borne by BPA's power marketing function (PBL) either because the transmission function only buys what it sells or the amount of revenue expected to be earned from the sale of the service was too small to warrant modeling revenue uncertainty.

Scheduling, System Control and Dispatch is an additional charge associated with the provision of transmission services and transmission customers are not permitted to self-supply this service. There is no price risk since the rate for this service is set in the rates process. The volumetric risk is assumed to vary in a manner directly proportional to the uncertainty in the total of transmission revenue. Since the majority of transmission wheeling revenue uncertainty is modeled as a normal distribution, Scheduling, System Control and Dispatch uncertainty is assumed to be normally distributed with mean equal to the point estimate forecast for revenues from the revenue forecast. See Table 9.6.

Reactive Supply and Voltage Control service also is a mandatory service required for each transmission transaction. This service must be acquired from TBL unless the transmission customer demonstrates that it can self-supply a portion of its requirements or by qualifying generators billing TBL through FERC-approved rates. This additional potential cost exposure will be recovered via a formula rate that will be periodically trued-up to reflect actual cost throughout the rate period. Although there are other risk exposures associated with selling Reactive Supply and Voltage Control ancillary services, because this item is small it is treated as a point estimate forecast (i.e., as entailing no risk). *See Table 9.6.*

Regulation and Frequency Response service is a load-based service that only is applied to load in BPA's control area. The amount of revenue earned from this service is dependent on the amount of load that exists within TBL's control area and the rate of load growth. The risk analysis adopted the triangular distribution as a means of approximating the uncertainty that is expected to be associated with revenues earned from this service in the same manner as described in TR-04-FS-BPA-01A. *See* Table 9.6.

9. Interest Rate Risk

Annual volatility in Treasury borrowing rates can affect short-run interest expense for new debt required to finance transmission capital program additions. This effect was modeled by defining Treasury borrowing rates as an uncertain variable using the same distribution assumptions as in BPA's 2004 power rate case and estimating the effects of the uncertain interest rates on incremental transmission interest expense each year from FYs 2005 through 2007. *See* Risk Analysis Study Documentation, Chapter 2, WP-02-E-BPA-03A. In each year, a randomly sampled interest rate is drawn in each game for the debt added in that year. The extent to which the interest rate is above or below the expected rate determines whether there is an increase or decrease in interest expense compared to the expected interest expense for that new investment. The change in interest expense applies only to the new debt for the year in which the debt was incurred and for subsequent years during which interest payments are made on the debt. Since new debt is assumed issued midway through the fiscal year, the interest expense deviation for the first year is only half of the total interest expense deviation expected to occur for an entire year. The entire deviation in interest expense affects subsequent years. New debt in each successive year is treated similarly. Randomly sampled interest rates are drawn independently for each year

in which new debt is added and for each game of the simulation. The specific input values for Interest Rate Risk are shown in Table 9.9. Since this table shows expected value deviations in interest expense for new transmission debt, the actual deviation in net interest expense values shown are nil because the expected value or mean deviation in interest expense is nil.

10. Sale of Delivery Facilities Risk

Transmission customers who take service through delivery facilities have the opportunity to acquire those facilities instead of paying the Delivery charge. There is uncertainty in the pricing of the facilities that BPA expects will be sold and the number of facilities sold. The proceeds from facilities sold are assumed to be applied to amortization payments, lagged one year, made as BPA removes these assets from its books. However, because this item is small and the uncertainty difficult to estimate the proceeds from the sale of facilities were modeled as a deterministic point forecast. The specific input values for Sale of Facilities Net Proceeds Risk are shown in Table 9.10.

11. Risk Correlations

The risk analysis models revenue and expense risks as diversified risks. The chances of outcomes for individual risk factors are therefore independent of each other. The result is that the chance of consistently good luck or consistently bad luck across all of the risks is very low. More frequently in any individual simulation game the chances are that some risks will harm the TBL's financial reserves while others will benefit or increase financial reserves. However, the TPP standard is focused on the downside risk or the chances of the TBL not being able to meet its Treasury payment obligations.

If there were significant correlations between risk factors the assumption of diversified risks could serve to either bias the risk analysis in the direction of excessive risk mitigation or insufficient risk mitigation depending on the direction of the correlation. Risks can either be positively correlated or negatively correlated. Where data were available BPA analyzed risk factor correlation and found no compelling basis for explicitly modeling the effects of correlations among revenue and expense risks. *See* 2002 Final Transmission Proposal Revenue Requirement Documentation, TR-02-FS-BPA-01A, Chapter 8.

12. Risk Analysis Results

The transmission risk analysis simulation resulted in 4999 games out of 5000 in which end-of-year financial reserves were sufficient to pay Treasury on time and in full in both years of the FY 2006 through 2007 rate period. This represents a 99.9% TPP for the rate period. These results were obtained with a pseudo random number seed value of “77” and the @RISK sampling option set for Latin Hypercube sampling.

13. Financial Reserves and PNRR

The most likely (or mode) year-end financial reserves for FYs 2006 and 2007 are estimated to be \$187.1 million and \$178.5 million, respectively. *See* Table 9.2. The range of possible financial reserves at the end of the current rate period and each year of the next rate period is shown in Figure 9.2. Since the 5th percentile of year-end reserves stays above \$20 million, assuming \$187.1 million start-of-year reserves in 2006 and the proposed rate levels, no PNRR were necessary to achieve the 95% TPP.

Figure 9.2 End-of-year Reserves FY 2004 through FY 2007

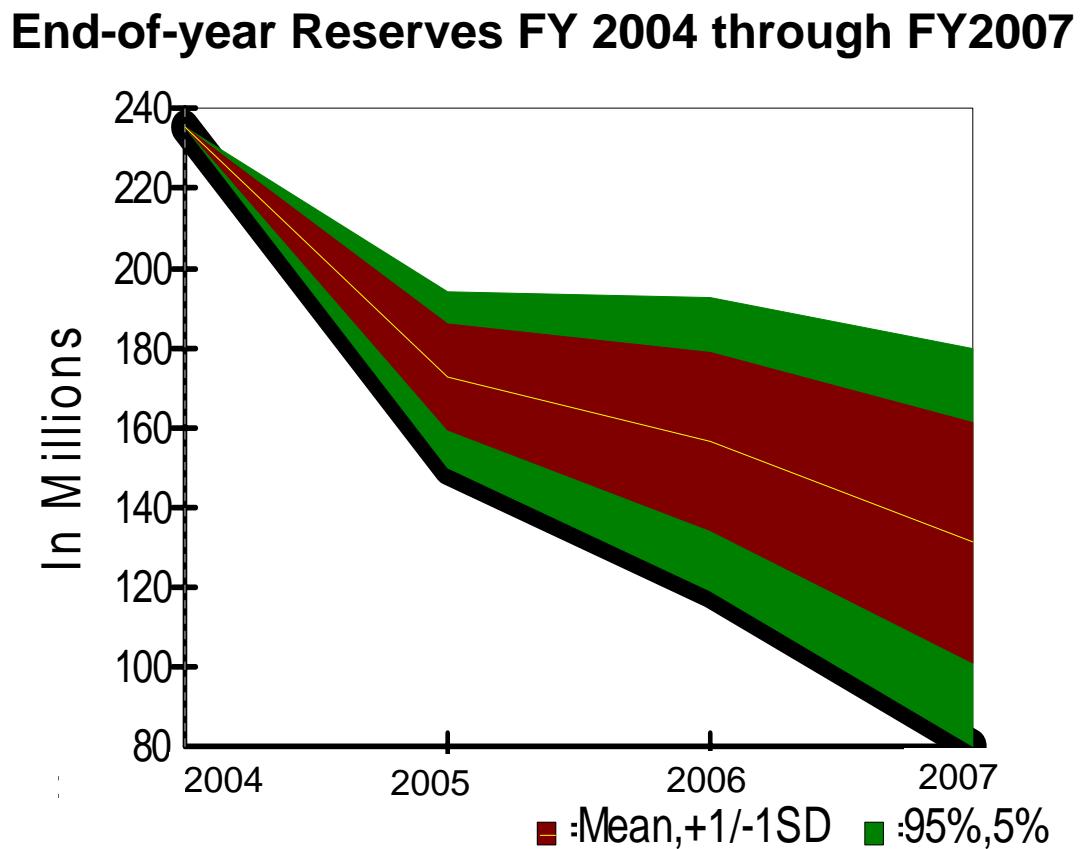


Table 9.1: Statement of Revenues and Expenses – Transmission Business

| (\$ millions) | 2004 | 2005 | 2006 | 2007 |
|--|--------------|---------------|--------------|--------------|
| Operating Revenues (Most Likely) | | | | |
| Transmission Revenues | 451.1 | 451.6 | 527.2 | 534.4 |
| Ancillary Services Revenues | 114.7 | 116.8 | 128.0 | 130.7 |
| Delivery Segment Revenues | 3.6 | 4.7 | 4.3 | 4.4 |
| Fiber & PCS Revenues | 13.8 | 10.7 | 10.8 | 10.8 |
| TBL Services Revenues | 14.0 | 14.9 | 15.4 | 15.4 |
| Other Revenues & Credits | 41.5 | 35.3 | 22.3 | 22.1 |
| Total Operating Revenues | 638.6 | 634.1 | 708.0 | 717.6 |
| Operating Expenses | | | | |
| Transmission G&A | 15.5 | 17.7 | 22.7 | 24.6 |
| CSRS Pension Expense | 15.5 | 13.3 | 11.6 | 10.6 |
| Transmission Marketing | 9.9 | 10.3 | 12.9 | 13.0 |
| Transmission Scheduling | 12.4 | 10.6 | 11.5 | 11.8 |
| Transmission System Operations | 41.1 | 34.3 | 49.5 | 49.6 |
| Transmission System Maintenance | 69.8 | 78.5 | 80.4 | 80.4 |
| Transmission System Development | 6.3 | 9.7 | 9.6 | 9.5 |
| Wheeling/Leases | 5.5 | 7.0 | 13.8 | 13.8 |
| Environment | 3.9 | 1.4 | 4.6 | 4.6 |
| Transmission Support Services | 0.0 | 0.0 | 0.0 | 0.0 |
| TBL Services Expenses | 8.9 | 10.0 | 0.0 | 0.0 |
| Between Business Line Expenses | 78.9 | 76.8 | 71.2 | 72.2 |
| Corporate Expenses | 45.0 | 65.8 | 49.3 | 56.6 |
| Total Transmission Operating Expense | 312.5 | 335.3 | 336.9 | 346.6 |
| Net Operating Margin | 326.2 | 298.8 | 371.1 | 371.0 |
| Federal Projects Depreciation | 188.9 | 190.4 | 195.9 | 207.5 |
| Total Operating Expense & Depreciation | 501.4 | 525.7 | 532.8 | 554.2 |
| Net Operating Revenue | 137.2 | 108.4 | 175.2 | 163.4 |
| Interest Expense | | | | |
| Interest on Appropriated Funds | 61.8 | 48.2 | 48.0 | 44.4 |
| Debt Service Re-assignment Interest | | 25.1 | 25.7 | 25.7 |
| Interest on Long-Term Debt Issued to Treasury | 112.6 | 100.2 | 119.9 | 139.7 |
| Interest Credit on Cash Reserves | 0.0 | (12.7) | (11.1) | (10.8) |
| Amortization of Capitalized Bond Premiums | 3.7 | 3.2 | 3.0 | 2.9 |
| Capitalization Adjustment | (19.0) | (19.0) | (19.0) | (19.0) |
| AFUDC | (20.5) | (16.5) | (14.8) | (11.5) |
| Net Interest Expense | 138.6 | 128.5 | 151.8 | 171.5 |
| Total Operating & Net Interest Expenses | 640.0 | 654.2 | 684.5 | 725.6 |
| Net Revenues (Most Likely or Mode) | (1.4) | (20.2) | 23.5 | (8.0) |

Table 9.2 Statement of Cash Flows – Transmission Business

| (\$ millions) | 2004 | 2005 | 2006 | 2007 |
|---|---------|---------|---------|---------|
| Cash Provided by Current Operations | | | | |
| 1. Net Revenues | (1.4) | (20.2) | 23.5 | (8.0) |
| Expenses not Requiring Cash | | | | |
| 2. Depreciation/Amortization | 188.9 | 190.4 | 195.9 | 207.5 |
| 3. Amort of Capitalized Bond Premiums | 3.7 | 3.2 | 3.0 | 2.9 |
| 4. Capitalization Adjustment | (19.0) | (19.0) | (19.0) | (19.0) |
| 5. Revenue Recognition (Third AC) | (13.6) | (3.1) | (3.1) | (3.1) |
| 6. Revenue Recognition (Fiber optics) | (0.9) | (2.9) | (0.9) | (0.9) |
| 7. Prepayment of Fiber Revenues | 44.5 | 0.0 | | |
| 8. Proceeds from Sale of Assets | 2.5 | 7.1 | 4.9 | 4.9 |
| 9. Payments for Stranded Investments/Defaults | | | | |
| 10. AFUDC | 0.0 | 0.0 | 0.0 | 0.0 |
| 11. Inter Business Line Transfers | | 0.0 | 0.0 | 0.0 |
| 12. Net Cash Inflow from 3rd Party Leases | | (29.0) | (2.7) | 0.0 |
| 13. ELI Prepay & Other Fiber Lease Advances | | (2.8) | (2.8) | (2.8) |
| 14. Other Accrual to Cash Adjustments | 0.0 | 1.2 | | |
| 15. Cash Provided by Current Operations | 204.8 | 125.0 | 198.9 | 181.5 |
| Cash Used for Capital Investments | | | | |
| 13. Investment in Gross Utility Plant and CWIP | (289.4) | (218.8) | (268.6) | (279.5) |
| 14. Cash Used for Capital Investments | (289.4) | (218.8) | (268.6) | (279.5) |
| Cash From Borrowing and Appropriations | | | | |
| 15. Cash from Borrowing & Appropriations | 307.7 | 203.8 | 253.6 | 264.5 |
| 16. Debt Reassignment (from Corporate) | | | | |
| 17. Repayment of Long-term Debt | (87.9) | (153.5) | (124.9) | (152.7) |
| 18. Accelerated Repayment of Debt (Debt Mgt.) | 0.0 | 0.0 | 0.0 | 0.0 |
| 19. Accelerated Repayment of Debt (Asset Sales) | | (7.1) | (4.9) | (4.9) |
| 20. Repayment of Capital Appropriations | (66.4) | (1.5) | (50.4) | (17.6) |
| 21. Subtotal Cash from Borrowing & Approp | 153.5 | 41.7 | 73.4 | 89.3 |
| 22. Annual Change in Cash Balance | 68.9 | (52.1) | 3.7 | (8.6) |
| 23. Plus Beginning Cash Balance | 128.5 | 235.5 | 183.4 | 187.1 |
| 24. Year End Cash Balance | 197.4 | 183.4 | 187.1 | 178.5 |
| 25. Deferred Borrowing | 38.1 | 0.0 | 0.0 | 0.0 |
| 26. Total Reserves (Most Likely or Mode) | 235.5 | 183.4 | 187.1 | 178.5 |

Table 9.3 Transmission Expense Risk

| Operating Expenses | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|--|---------|----------------|----------------|----------------|
| (\$1,000) | | | | |
| 1. Trans O&M Expense Change From Exp Value | 0.0 | 0.0 | 0.0 | 0.0 |
| 2. Total Trans O&M Expense (With Uncertainty) | 179,693 | 182,769 | 216,393 | 217,849 |
| 3. Transmission O&M Expense Standard Deviation | | 9,687 | 11,469 | 11,546 |
| 4. Sd as pct of mean | - | 3.7% | 5.3% | 5.3% |
| Transmission O&M Expenses (With Uncertainty) | | | | |
| 5. Transmission G&A | 15,534 | 17,674 | 22,672 | 24,561 |
| 6. CSRS Pension Expense | 15,450 | 13,250 | 11,550 | 10,550 |
| 7. Transmission Marketing and Scheduling | 9,858 | 10,324 | 12,854 | 12,954 |
| 8. Transmission Scheduling | 12,363 | 10,596 | 11,470 | 11,819 |
| 9. Transmission System Operations | 41,137 | 34,288 | 49,513 | 49,613 |
| 10. Transmission System Maintenance | 69,753 | 78,529 | 80,367 | 80,367 |
| 11. Transmission System Development | 6,280 | 9,658 | 9,554 | 9,549 |
| 12. Wheeling/Leases | 5,459 | 7,025 | 13,835 | 13,835 |
| 13. Environment | 3,862 | 1,425 | 4,576 | 4,599 |
| 14. Transmission Support Services | 0 | 0 | 0 | 0 |
| 15. TBL Services (Reimbursable) | 8,937 | 10,000 | 0 | 0 |
| 16. Trans Exp excl Corp,BBL & CSRS | 179,693 | 182,769 | 216,393 | 217,849 |
| 17. TBL Corp & Shared Serv Expense (Mean Value) | 44,978 | 66,257 | 55,384 | 59,490 |
| 18. TBL Corp & Shared Serv. Expenses (Most Likely or Mode) | 44,978 | 65,772 | 49,256 | 56,574 |
| 19. Min Corp & Shared Serv Exp | 40,000 | 62,000 | 45,000 | 50,000 |
| 20. Max Corp & Shared Serv Exp | 75,506 | 71,000 | 71,896 | 71,896 |
| 21. Between Business Line Expenses | 78,891 | 76,762 | 71,229 | 72,221 |
| O&M Expense Standard Deviations | | sd (\$1,000) | | |
| 22. Transmission G&A | 823.3 | 936.7 | 1201.6 | 1301.7 |
| 23. Transmission Marketing | 522.4 | 547.2 | 681.3 | 686.6 |
| 24. Transmission Scheduling | 655.2 | 561.6 | 607.9 | 626.4 |
| 25. Transmission System Operations | 2180.3 | 1817.3 | 2624.2 | 2629.5 |
| 26. Transmission System Maintenance | 3696.9 | 4162.1 | 4259.5 | 4259.5 |
| 27. Transmission System Development | 332.8 | 511.9 | 506.4 | 506.1 |
| 28. Support Services | 0.0 | 0.0 | 0.0 | 0.0 |
| 29. Environment | 204.7 | 75.5 | 242.5 | 243.8 |
| Total TBL Expenses (Most Likely) - PIR Check | | 335,303 | 336,878 | 346,645 |

Table 9.4: Network Transmission Revenue Risk

| Operating Revenues | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|--|----------------|----------------|----------------|----------------|
| (\$1,000) | | | | |
| Long Term Firm (Take or Pay) | | | | |
| 1. Network LT Firm (Mean) | 266,191 | 254,133 | 316,722 | 321,064 |
| 2. Network LT Firm (Most Likely or Mode) | 266,191 | 260,466 | 323,056 | 327,397 |
| 3. Standard Deviation | - | 13,987 | 24,391 | 24,719 |
| 4. Sd as pct of mean | | 5.4% | 7.6% | 7.6% |
| 7. Min | | 235,466 | 298,056 | 302,397 |
| 8. Max | | 266,466 | 329,056 | 333,397 |
| Long Term Firm (NT Load) | | | | |
| 7. Network NT Service (Mean) | 99,282 | 92,591 | 113,859 | 115,638 |
| 8. Network NT Service (Most Likely or Mode) | 99,282 | 92,591 | 113,859 | 115,638 |
| 9. Standard Deviation | - | 1,944 | 3,416 | 3,469 |
| 10. Sd as pct of mean | | 2.1% | 3.0% | 3.0% |
| Short Term Firm | | | | |
| 11. Network ST Firm (Mean) | 8,652 | 14,446 | 7,765 | 9,043 |
| 12. Network ST Firm (Most Likely or Mode) | 8,652 | 14,446 | 7,765 | 9,043 |
| 13. Standard Deviation | - | 2,206 | 1,675 | 1,951 |
| 14. Sd as pct of mean | | 15.3% | 21.6% | 21.6% |
| 15. Min | 3,000 | 1,000 | - | - |
| 16. Max | 35,000 | 39,449 | 39,449 | 39,449 |
| Nonfirm | | | | |
| 17. RNF Short Term (1 to 30 days) | 0 | 0 | 0 | 0 |
| 18. ET Hourly | 5,768 | 9,630 | 5,176 | 6,029 |
| 19. Network Hourly Nonfirm (Mean) | 5,768 | 9,630 | 5,176 | 6,029 |
| 20. Network Hourly Nonfirm (Most Likely or Mode) | 5,768 | 9,630 | 5,176 | 6,029 |
| 21. Standard Deviation | - | 3,063 | 2,334 | 2,718 |
| 22. Sd as pct of mean | | 32% | 45% | 45% |
| 23. Network Grand Total (Most Likely or Mode) | 385,660 | 386,764 | 455,032 | 464,137 |

Table 9.5 Interties Transmission Revenue Risk

| Operating Revenues | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|--|----------------|----------------|----------------|----------------|
| (\$1,000) | | | | |
| Long Term Firm (Most Likely) | | | | |
| 1. IS LT Firm (Mean) | 64,347 | 66,150 | 61,703 | 60,268 |
| 2. IS LT Firm (Most Likely or mode) | 64,347 | 69,817 | 68,703 | 67,268 |
| 3. Standard Deviation | | 3,700 | 5,139 | 5,032 |
| 4. Sd as pct of mean | - | 5.3% | 7.5% | 7.5% |
| 7. Min | | 56,817 | 43,703 | 42,268 |
| 8. Max | | 71,817 | 72,703 | 71,268 |
| Short Term Firm | | | | |
| 7. IS ST Firm (Mean) | 5,069 | 2,817 | 5,210 | 5,395 |
| 8. IS ST Firm (Mode) | 5,069 | 2,817 | 5,210 | 5,395 |
| 9. Standard Deviation | | 797 | 2,081 | 2,155 |
| 10. Sd as pct of mean | - | 28.3% | 40.0% | 40.0% |
| IS Hourly Non firm Revenue | | | | |
| 11. IS Hourly Non Firm Revenue (Mean) | 1,750 | 1,878 | 3,474 | 3,596 |
| 12. IS Hourly Non firm Revenue (Most Likely) | 1,750 | 1,878 | 3,474 | 3,596 |
| 13. Standard Deviation | | 292 | 765 | 792 |
| 14. Sd as pct of mean | | 16% | 22% | 22% |
| 15. IS Total (Most Likely or Mode) | 71,166 | 74,511 | 77,386 | 76,260 |

Table 9.6: Ancillary Services Revenue Risk

| Operating Revenues | FY 2005 | FY 2006 | FY 2007 |
|--|---------|---------|---------|
| (\$1,000) | | | |
| 1. Scheduling, System Control, & Dispatch (Most Likely) | 50,396 | 64,276 | 66,099 |
| 2. Most Likely (Mode) | 50,396 | 64,276 | 66,099 |
| 3. Standard Deviation | 2,706 | 4,853 | 4,991 |
| 4. Generation Supplied Reactive (Point Estimate)* | 19,608 | 21,493 | 22,099 |
| 5. Most Likely (Point Estimate) | 19,608 | 21,493 | 22,099 |
| * Treated as zero risk item due to formula rate pass through | | | |
| 8. Regulation and Frequency Response Service (Mean) | 12,647 | 13,474 | 13,682 |
| 9. Most Likely (Mode) | 12,847 | 13,847 | 14,055 |
| 10. Min | 9,727 | 10,727 | 10,935 |
| 11. Max | 14,847 | 15,847 | 16,055 |
| 12. Operating Reserve - Spinning Reserve Service | 16,977 | 14,199 | 14,199 |
| 13. Operating Reserve - Supplemental Reserve Service | 16,977 | 14,199 | 14,199 |
| 14. Energy Imbalance Service | 0 | 0 | 0 |
| 15. Generation Imbalance Service | 0 | 0 | 0 |
| 16. Total Ancillary Services (Most Likely or Mode) | 116,805 | 128,014 | 130,652 |

Table 9.7: Delivery Segment Revenue Risk

| Operating Revenues (\$1,000) | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|--|----------------|----------------|----------------|----------------|
| 1. Utility | 3,638 | 2,977 | 2,611 | 2,650 |
| 2. Utility PBL Payments | 0 | 0 | 0 | 0 |
| 3. Industrial (UFT Method) | 0 | 1,740 | 1,715 | 1,715 |
| 4. Delivery Segment Revenue | 3,638 | 4,717 | 4,326 | 4,365 |
| 5. Mean | 3,638 | 4,717 | 4,326 | 4,365 |
| 6. Standard Deviation | | 605 | 555 | 560 |
| 7. Sd as pct of mean | - | 9.07% | 12.83% | 12.83% |

Table 9.8: Fiber and PCS Revenue Risk

| Operating Revenues (\$1,000) | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|---|----------------|----------------|----------------|----------------|
| Fiber | | | | |
| 1. Fiber & PCS Revenue (Point Estimate) | 13,771 | 10,685 | 10,768 | 10,768 |

Table 9.9: Treasury Borrowing Rate Interest Expense Risk

| | Bond type | original | Principal outstanding | E(rate) | rate | Bonds due | annual issued interest | Fiscal Year 2005 | Interest 2006 | Expense Impact 2007 |
|-----|--|----------|-----------------------|---------|-------|-----------|------------------------|------------------|---------------|---------------------|
| 11. | TINT2005 | 198,354 | 198,354 | 6.20% | 6.20% | 2035 | 2005 | 12,298 | 6,149 | 12,298 |
| 12. | ZAFW | 5,414 | 5,414 | 6.50% | 6.50% | 2020 | 2005 | 352 | 176 | 352 |
| 13. | Subtotal | | | | | | | 6,325 | 12,650 | 12,650 |
| 14. | Subtotal Based on E(Interest Rate) | | | | | | | 6,325 | 12,650 | 12,650 |
| 15. | Deviation in Net Interest Expense (Bonds Issued in 2005) | | | | | | | - | - | - |
| 16. | TINT2006 | 248,065 | 248,065 | 6.20% | 6.20% | 2036 | 2006 | 15,380 | 7,690 | 15,380 |
| 17. | ZAFW | 5,552 | 5,552 | 6.50% | 6.50% | 2021 | 2006 | 361 | 180 | 361 |
| 18. | Subtotal | | | | | | | 7,870 | 15,741 | |
| 19. | Subtotal Based on E(Interest Rate) | | | | | | | 7,870 | 15,741 | |
| 20. | Deviation in Net Interest Expense (Bonds Issued in 2006) | | | | | | | - | - | - |
| 16. | TINT2007 | 258,912 | 258,912 | 6.20% | 6.20% | 2036 | 2007 | 16,053 | | 8,026 |
| 17. | ZAFW | 5,552 | 5,552 | 6.50% | 6.50% | 2021 | 2007 | 361 | | 180 |
| 18. | Subtotal | | | | | | | | | 8,207 |
| 19. | Subtotal Based on E(Interest Rate) | | | | | | | | | 8,207 |
| 20. | Deviation in Net Interest Expense (Bonds Issued in 2006) | | | | | | | | | - |
| 21. | Total Annual Variation in Net Interest Expense for New Debt | | | | | | | - | - | - |

Uncertainty in Treasury Borrowing Rates

| | Δr | $p(\Delta r)$ |
|-----|------------|---------------|
| 22. | -2.00% | 0.05 |
| 23. | -1.25% | 0.1 |
| 24. | -0.75% | 0.2 |
| 25. | 0.00% | 0.3 |
| 26. | 0.75% | 0.2 |
| 27. | 1.25% | 0.1 |
| 28. | 2.00% | 0.05 |

Table 9.10 Sale of Delivery Facilities Risk

| Proceeds from Sale of Delivery Facilities (\$1,000) | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|--|---------|---------|---------|---------|
| 1. Proceeds from Sale of Facilities (Point Estimates) | 2,465 | 7,095 | 4,871 | 4,871 |

CHAPTER 10
REPAYMENT STUDY INPUT DATA CURRENT STUDY
FY 2006 AND FY 2007

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Table 10-1: Transmission Historical Federal Investments (\$000s) (FY 2006)

| Historical Federal Investments (1000s) (FY 2006) | | | | | | | | | |
|--|--------------------|-------------------|---------------|----------|-----------------|--------------|----------|---------------|---------------|
| Project | Original Principal | Current Principal | Interest Rate | Due Date | In Replacement? | Service Date | In Month | Rollover Date | Rollover Rate |
| BONNEVILLE POWER ADMINISTRATION | 6,812 | - | 2.500% | 1985 | No | 1940 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 18,906 | - | 2.500% | 1986 | No | 1941 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 461 | - | 2.500% | 1986 | No | 1941 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,446 | - | 2.500% | 1987 | No | 1942 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,052 | - | 2.500% | 1987 | No | 1942 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 16,083 | - | 2.500% | 1988 | No | 1943 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,538 | - | 2.500% | 1988 | No | 1943 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 583 | - | 2.500% | 1989 | No | 1944 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 249 | - | 2.500% | 1989 | No | 1944 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,366 | - | 2.500% | 1990 | No | 1945 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,306 | - | 2.500% | 1990 | No | 1945 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,488 | - | 2.500% | 1991 | No | 1946 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 732 | - | 2.500% | 1991 | No | 1946 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,773 | - | 2.500% | 1992 | No | 1947 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,330 | - | 2.500% | 1992 | No | 1947 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,468 | - | 2.500% | 1993 | No | 1948 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,290 | - | 2.500% | 1993 | No | 1948 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 6,809 | - | 2.500% | 1994 | No | 1949 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,719 | - | 2.500% | 1994 | No | 1949 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 24,111 | - | 2.500% | 1995 | No | 1950 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 6,124 | - | 2.500% | 1995 | No | 1950 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 13,266 | - | 2.500% | 1996 | No | 1951 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,040 | - | 2.500% | 1996 | No | 1951 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 18,610 | - | 2.500% | 1997 | No | 1952 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,979 | - | 2.500% | 1997 | No | 1952 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 23,550 | - | 6.330% | 1998 | No | 1953 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,605 | - | 6.330% | 1998 | Yes | 1953 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 23,614 | - | 6.510% | 1999 | No | 1954 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 17,370 | - | 6.510% | 1999 | No | 1954 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,827 | - | 6.620% | 2000 | No | 1955 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,283 | - | 6.620% | 2000 | Yes | 1955 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 32,221 | - | 6.710% | 2001 | Yes | 1956 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 14,573 | - | 6.710% | 2001 | No | 1956 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 15,980 | - | 6.790% | 2002 | Yes | 1957 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,933 | - | 6.790% | 2002 | No | 1957 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 15,593 | - | 6.840% | 2003 | No | 1958 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,654 | - | 6.840% | 2003 | Yes | 1958 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,863 | - | 6.880% | 2004 | Yes | 1959 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,157 | - | 6.880% | 2004 | No | 1959 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,218 | - | 6.910% | 2005 | Yes | 1960 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,598 | 1,500 | 6.910% | 2005 | No | 1960 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,271 | 11,271 | 6.950% | 2006 | Yes | 1961 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,468 | 4,468 | 6.950% | 2006 | No | 1961 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 19,597 | 19,597 | 6.980% | 2007 | No | 1962 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,877 | 4,877 | 6.980% | 2007 | Yes | 1962 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,876 | 4,876 | 7.020% | 2008 | No | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,330 | 4,330 | 7.020% | 2008 | Yes | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 904 | 904 | 7.020% | 2008 | No | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 803 | 803 | 7.020% | 2008 | Yes | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 5,738 | 5,738 | 7.060% | 2009 | Yes | 1964 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,151 | 4,151 | 7.060% | 2009 | No | 1964 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,171 | 10,171 | 7.090% | 2010 | Yes | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,248 | 7,248 | 7.090% | 2010 | Yes | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 5,202 | 5,202 | 7.090% | 2010 | No | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,706 | 3,706 | 7.090% | 2010 | No | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,830 | 11,830 | 7.130% | 2011 | No | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 6,647 | 6,647 | 7.130% | 2011 | No | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,049 | 3,049 | 7.130% | 2011 | Yes | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,714 | 1,714 | 7.130% | 2011 | Yes | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 19,003 | 19,003 | 7.160% | 2012 | No | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 14,300 | - | 7.160% | 2012 | No | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,566 | 2,454 | 7.160% | 2012 | Yes | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,436 | - | 7.160% | 2012 | Yes | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 41,070 | 18,250 | 7.200% | 2013 | No | 1968 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 23,202 | - | 7.200% | 2013 | No | 1968 | - | - | - |

| | | | | | | | | | |
|---------------------------------|---------|--------|---------|------|-----|------|---|---|---|
| BONNEVILLE POWER ADMINISTRATION | 8,076 | - | 7.200% | 2013 | Yes | 1968 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,562 | - | 7.200% | 2013 | Yes | 1968 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 42,237 | 19,198 | 7.230% | 2014 | No | 1969 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 22,537 | - | 7.230% | 2014 | Yes | 1969 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 384 | - | 7.230% | 2014 | No | 1969 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 205 | - | 7.230% | 2014 | Yes | 1969 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 64,977 | 64,977 | 7.270% | 2015 | No | 1970 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 24,412 | 23,551 | 7.270% | 2015 | No | 1970 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,995 | 7,995 | 7.270% | 2015 | Yes | 1970 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,003 | - | 7.270% | 2015 | Yes | 1970 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 17,805 | - | 7.290% | 2016 | Yes | 1971 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 17,766 | - | 7.290% | 2016 | Yes | 1971 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 12,051 | - | 7.290% | 2016 | No | 1971 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 12,025 | - | 7.290% | 2016 | No | 1971 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 29,326 | 29,326 | 7.290% | 2017 | No | 1972 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 21,170 | 21,170 | 7.290% | 2017 | Yes | 1972 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,980 | 3,980 | 7.290% | 2017 | No | 1972 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,873 | 1,298 | 7.290% | 2017 | Yes | 1972 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 33,788 | 33,788 | 7.280% | 2018 | No | 1973 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 21,656 | 21,656 | 7.280% | 2018 | Yes | 1973 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 16,368 | 16,368 | 7.280% | 2018 | No | 1973 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,491 | 10,491 | 7.280% | 2018 | Yes | 1973 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 21,826 | 21,826 | 7.270% | 2019 | Yes | 1974 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 20,984 | 20,984 | 7.270% | 2019 | Yes | 1974 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 12,563 | 12,563 | 7.270% | 2019 | No | 1974 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 12,079 | 12,079 | 7.270% | 2019 | No | 1974 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 32,026 | 32,026 | 7.250% | 2020 | No | 1975 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 21,916 | 21,916 | 7.250% | 2020 | Yes | 1975 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 17,158 | 17,158 | 7.250% | 2020 | No | 1975 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,742 | 11,742 | 7.250% | 2020 | Yes | 1975 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 61,025 | 61,025 | 7.230% | 2021 | No | 1976 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,212 | 2,212 | 7.230% | 2021 | Yes | 1976 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 33,702 | 33,702 | 7.210% | 2022 | No | 1977 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 5,380 | 5,380 | 7.210% | 2022 | Yes | 1977 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,981 | 4,981 | 7.210% | 2022 | Yes | 1977 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,948 | 3,948 | 7.210% | 2022 | No | 1977 | - | - | - |
| BPA PROGRAM | 24,222 | - | 8.950% | 2013 | Yes | 1978 | 9 | - | - |
| BPA PROGRAM | 17,770 | - | 8.950% | 2013 | No | 1978 | 9 | - | - |
| BPA PROGRAM | 4,619 | - | 8.950% | 2013 | Yes | 1978 | 9 | - | - |
| BPA PROGRAM | 3,389 | - | 8.950% | 2013 | No | 1978 | 9 | - | - |
| BPA PROGRAM | 21,228 | - | 9.900% | 2014 | No | 1979 | 9 | - | - |
| BPA PROGRAM | 14,340 | - | 9.900% | 2014 | Yes | 1979 | 9 | - | - |
| BPA PROGRAM | 10,610 | - | 9.900% | 2014 | No | 1979 | 9 | - | - |
| BPA PROGRAM | 2,888 | - | 9.900% | 2014 | Yes | 1979 | 9 | - | - |
| BPA PROGRAM | 605 | - | 9.900% | 2014 | No | 1979 | 9 | - | - |
| BPA PROGRAM | 165 | - | 9.900% | 2014 | Yes | 1979 | 9 | - | - |
| BPA PROGRAM | 98 | - | 9.900% | 2014 | No | 1979 | 9 | - | - |
| BPA PROGRAM | 66 | - | 9.900% | 2014 | Yes | 1979 | 9 | - | - |
| BPA PROGRAM | 26,690 | - | 9.450% | 2014 | No | 1979 | 6 | - | - |
| BPA PROGRAM | 21,977 | - | 9.450% | 2014 | Yes | 1979 | 6 | - | - |
| BPA PROGRAM | 9,804 | - | 9.450% | 2014 | Yes | 1979 | 6 | - | - |
| BPA PROGRAM | 7,010 | - | 9.450% | 2014 | No | 1979 | 6 | - | - |
| BPA PROGRAM | 6,026 | - | 9.450% | 2014 | Yes | 1979 | 6 | - | - |
| BPA PROGRAM | 1,870 | - | 9.450% | 2014 | Yes | 1979 | 6 | - | - |
| BPA PROGRAM | 1,371 | - | 9.450% | 2014 | No | 1979 | 6 | - | - |
| BPA PROGRAM | 150 | - | 9.450% | 2014 | No | 1979 | 6 | - | - |
| BPA PROGRAM | 102 | - | 9.450% | 2014 | Yes | 1979 | 6 | - | - |
| BPA PROGRAM | 44,811 | - | 13.000% | 2015 | No | 1980 | 9 | - | - |
| BPA PROGRAM | 39,696 | - | 13.000% | 2015 | No | 1980 | 9 | - | - |
| BPA PROGRAM | 10,806 | - | 13.000% | 2015 | Yes | 1980 | 9 | - | - |
| BPA PROGRAM | 9,292 | - | 13.000% | 2015 | No | 1980 | 9 | - | - |
| BPA PROGRAM | 4,253 | - | 13.000% | 2015 | Yes | 1980 | 9 | - | - |
| BPA PROGRAM | 2,263 | - | 13.000% | 2015 | No | 1980 | 9 | - | - |
| BPA PROGRAM | 1,707 | - | 13.000% | 2015 | No | 1980 | 9 | - | - |
| BPA PROGRAM | 1,469 | - | 13.000% | 2015 | Yes | 1980 | 9 | - | - |
| BPA PROGRAM | 616 | - | 13.000% | 2015 | Yes | 1980 | 9 | - | - |
| BPA PROGRAM | 56 | - | 13.000% | 2015 | Yes | 1980 | 9 | - | - |
| BPA PROGRAM | 21 | - | 13.000% | 2015 | No | 1980 | 9 | - | - |
| BPA PROGRAM | 10 | - | 13.000% | 2015 | Yes | 1980 | 9 | - | - |
| BPA PROGRAM | 119,775 | - | 16.600% | 2016 | No | 1981 | 9 | - | - |
| BPA PROGRAM | 54,821 | - | 16.600% | 2016 | Yes | 1981 | 9 | - | - |
| BPA PROGRAM | 277 | - | 16.600% | 2016 | No | 1981 | 9 | - | - |
| BPA PROGRAM | 127 | - | 16.600% | 2016 | Yes | 1981 | 9 | - | - |
| BPA PROGRAM | 46,980 | - | 14.400% | 2017 | No | 1982 | 4 | - | - |

| | | | | | | | | | |
|-------------|---------|---|---------|------|-----|------|----|---|---|
| BPA PROGRAM | 37,455 | - | 14.400% | 2017 | Yes | 1982 | 4 | - | - |
| BPA PROGRAM | 34,221 | - | 14.400% | 2017 | No | 1982 | 12 | - | - |
| BPA PROGRAM | 15,663 | - | 14.400% | 2017 | Yes | 1982 | 12 | - | - |
| BPA PROGRAM | 9,975 | - | 14.400% | 2017 | No | 1982 | 4 | - | - |
| BPA PROGRAM | 4,566 | - | 14.400% | 2017 | Yes | 1982 | 4 | - | - |
| BPA PROGRAM | 551 | - | 14.400% | 2017 | No | 1982 | 4 | - | - |
| BPA PROGRAM | 439 | - | 14.400% | 2017 | Yes | 1982 | 4 | - | - |
| BPA PROGRAM | 80 | - | 14.400% | 2017 | No | 1982 | 12 | - | - |
| BPA PROGRAM | 36 | - | 14.400% | 2017 | Yes | 1982 | 12 | - | - |
| BPA PROGRAM | 23 | - | 14.400% | 2017 | No | 1982 | 4 | - | - |
| BPA PROGRAM | 11 | - | 14.400% | 2017 | Yes | 1982 | 4 | - | - |
| BPA PROGRAM | 77,807 | - | 14.150% | 2017 | No | 1982 | 7 | - | - |
| BPA PROGRAM | 3,677 | - | 14.150% | 2017 | No | 1982 | 7 | - | - |
| BPA PROGRAM | 2,932 | - | 14.150% | 2017 | Yes | 1982 | 7 | - | - |
| BPA PROGRAM | 402 | - | 14.150% | 2017 | No | 1982 | 7 | - | - |
| BPA PROGRAM | 105 | - | 14.150% | 2017 | Yes | 1982 | 7 | - | - |
| BPA PROGRAM | 43 | - | 14.150% | 2017 | No | 1982 | 7 | - | - |
| BPA PROGRAM | 34 | - | 14.150% | 2017 | Yes | 1982 | 7 | - | - |
| BPA PROGRAM | 37,235 | - | 12.250% | 2018 | No | 1983 | 9 | - | - |
| BPA PROGRAM | 6,708 | - | 12.250% | 2018 | Yes | 1983 | 9 | - | - |
| BPA PROGRAM | 814 | - | 12.250% | 2018 | No | 1983 | 9 | - | - |
| BPA PROGRAM | 203 | - | 12.250% | 2018 | No | 1983 | 9 | - | - |
| BPA PROGRAM | 35 | - | 12.250% | 2018 | Yes | 1983 | 9 | - | - |
| BPA PROGRAM | 4 | - | 12.250% | 2018 | No | 1983 | 9 | - | - |
| BPA PROGRAM | 1 | - | 12.250% | 2018 | Yes | 1983 | 9 | - | - |
| BPA PROGRAM | 29,806 | - | 11.700% | 2018 | No | 1983 | 6 | - | - |
| BPA PROGRAM | 154 | - | 11.700% | 2018 | No | 1983 | 6 | - | - |
| BPA PROGRAM | 40 | - | 11.700% | 2018 | Yes | 1983 | 6 | - | - |
| BPA PROGRAM | 39,741 | - | 10.850% | 2018 | No | 1983 | 11 | - | - |
| BPA PROGRAM | 205 | - | 10.850% | 2018 | No | 1983 | 11 | - | - |
| BPA PROGRAM | 54 | - | 10.850% | 2018 | Yes | 1983 | 11 | - | - |
| BPA PROGRAM | 50,567 | - | 13.050% | 2019 | No | 1984 | 9 | - | - |
| BPA PROGRAM | 9,109 | - | 13.050% | 2019 | Yes | 1984 | 9 | - | - |
| BPA PROGRAM | 276 | - | 13.050% | 2019 | No | 1984 | 9 | - | - |
| BPA PROGRAM | 48 | - | 13.050% | 2019 | Yes | 1984 | 9 | - | - |
| BPA PROGRAM | 25,283 | - | 12.300% | 2019 | No | 1984 | 11 | - | - |
| BPA PROGRAM | 4,555 | - | 12.300% | 2019 | Yes | 1984 | 11 | - | - |
| BPA PROGRAM | 138 | - | 12.300% | 2019 | No | 1984 | 11 | - | - |
| BPA PROGRAM | 24 | - | 12.300% | 2019 | Yes | 1984 | 11 | - | - |
| BPA PROGRAM | 15,182 | - | 11.250% | 2029 | Yes | 1985 | 6 | - | - |
| BPA PROGRAM | 460 | - | 11.250% | 2029 | No | 1985 | 6 | - | - |
| BPA PROGRAM | 80 | - | 11.250% | 2029 | Yes | 1985 | 6 | - | - |
| BPA PROGRAM | 84,278 | - | 11.250% | 2030 | No | 1985 | 6 | - | - |
| BPA PROGRAM | 68,194 | - | 8.150% | 1996 | Yes | 1986 | 3 | - | - |
| BPA PROGRAM | 30,161 | - | 8.150% | 1996 | No | 1986 | 3 | - | - |
| BPA PROGRAM | 870 | - | 8.150% | 1996 | No | 1986 | 3 | - | - |
| BPA PROGRAM | 443 | - | 8.150% | 1996 | No | 1986 | 3 | - | - |
| BPA PROGRAM | 169 | - | 8.150% | 1996 | Yes | 1986 | 3 | - | - |
| BPA PROGRAM | 157 | - | 8.150% | 1996 | Yes | 1986 | 3 | - | - |
| BPA PROGRAM | 5 | - | 8.150% | 1996 | No | 1986 | 3 | - | - |
| BPA PROGRAM | 1 | - | 8.150% | 1996 | Yes | 1986 | 3 | - | - |
| BPA PROGRAM | 180,054 | - | 8.950% | 2031 | No | 1986 | 6 | - | - |
| BPA PROGRAM | 57,354 | - | 8.950% | 2031 | Yes | 1986 | 6 | - | - |
| BPA PROGRAM | 40,000 | - | 8.950% | 2031 | Yes | 1986 | 6 | - | - |
| BPA PROGRAM | 11,668 | - | 8.950% | 2031 | Yes | 1986 | 6 | - | - |
| BPA PROGRAM | 5,161 | - | 8.950% | 2031 | No | 1986 | 6 | - | - |
| BPA PROGRAM | 3,117 | - | 8.950% | 2031 | Yes | 1986 | 6 | - | - |
| BPA PROGRAM | 1,819 | - | 8.950% | 2031 | No | 1986 | 6 | - | - |
| BPA PROGRAM | 722 | - | 8.950% | 2031 | Yes | 1986 | 6 | - | - |
| BPA PROGRAM | 76 | - | 8.950% | 2031 | No | 1986 | 6 | - | - |
| BPA PROGRAM | 29 | - | 8.950% | 2031 | Yes | 1986 | 6 | - | - |
| BPA PROGRAM | 96,519 | - | 8.350% | 1992 | No | 1987 | 6 | - | - |
| BPA PROGRAM | 2,498 | - | 8.350% | 1992 | No | 1987 | 6 | - | - |
| BPA PROGRAM | 983 | - | 8.350% | 1992 | No | 1987 | 6 | - | - |
| BPA PROGRAM | 86,958 | - | 9.550% | 2017 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 4,113 | - | 9.550% | 2017 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 3,274 | - | 9.550% | 2017 | Yes | 1987 | 7 | - | - |
| BPA PROGRAM | 569 | - | 9.550% | 2017 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 48 | - | 9.550% | 2017 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 38 | - | 9.550% | 2017 | Yes | 1987 | 7 | - | - |
| BPA PROGRAM | 37,342 | - | 9.550% | 2032 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 7,903 | - | 9.550% | 2032 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 3,109 | - | 9.550% | 2032 | Yes | 1987 | 7 | - | - |
| BPA PROGRAM | 631 | - | 9.550% | 2032 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 618 | - | 9.550% | 2032 | Yes | 1987 | 7 | - | - |
| BPA PROGRAM | 285 | - | 9.550% | 2032 | No | 1987 | 7 | - | - |
| BPA PROGRAM | 112 | - | 9.550% | 2032 | Yes | 1987 | 7 | - | - |
| BPA PROGRAM | 54,409 | - | 9.300% | 2032 | Yes | 1987 | 4 | - | - |
| BPA PROGRAM | 43,236 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 1,409 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 554 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 281 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 111 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 43,417 | - | 9.500% | 2018 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 283 | - | 9.500% | 2018 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 30,004 | - | 9.900% | 2033 | Yes | 1988 | 6 | - | - |
| BPA PROGRAM | 9,018 | - | 9.900% | 2033 | No | 1988 | 6 | - | - |
| BPA PROGRAM | 752 | - | 9.900% | 2033 | Yes | 1988 | 6 | - | - |

| | | | | | | | | | |
|-------------|---------|---------|--------|------|----|------|----|------|--------|
| BPA PROGRAM | 112,300 | 112,300 | 5.850% | 2028 | No | 1998 | 8 | - | - |
| BPA PROGRAM | 106,600 | 106,600 | 5.850% | 2028 | No | 1998 | 8 | 2031 | 8.290% |
| BPA PROGRAM | 98,900 | 98,900 | 6.700% | 2032 | No | 1998 | 5 | - | - |
| BPA PROGRAM | 40,000 | - | 6.200% | 2002 | No | 1999 | 9 | - | - |
| BPA PROGRAM | 26,200 | - | 5.950% | 2004 | No | 1999 | 5 | - | - |
| BPA PROGRAM | 59,050 | 59,050 | 5.900% | 2014 | No | 1999 | 2 | - | - |
| BPA PROGRAM | 15,300 | - | 6.850% | 2003 | No | 2000 | 8 | - | - |
| BPA PROGRAM | 40,000 | - | 6.400% | 2003 | No | 2000 | 11 | - | - |
| BPA PROGRAM | 39,052 | - | 7.000% | 2004 | No | 2000 | 7 | - | - |
| BPA PROGRAM | 53,500 | 53,500 | 7.150% | 2005 | No | 2000 | 1 | - | - |
| BPA PROGRAM | 40,000 | 40,000 | 6.750% | 2006 | No | 2000 | 9 | 2020 | 6.690% |
| BPA PROGRAM | 20,000 | 20,000 | 5.650% | 2005 | No | 2001 | 1 | - | - |
| BPA PROGRAM | 59,932 | 59,932 | 6.050% | 2010 | No | 2001 | 1 | - | - |
| BPA PROGRAM | 25,000 | 25,000 | 5.950% | 2011 | No | 2001 | 6 | - | - |
| BPA PROGRAM | 50,000 | 50,000 | 5.750% | 2011 | No | 2001 | 8 | - | - |
| BPA PROGRAM | 108,010 | 108,010 | 4.600% | 2005 | No | 2002 | 3 | 2024 | 6.830% |
| BPA PROGRAM | 60,000 | 60,000 | 3.750% | 2005 | No | 2002 | 6 | 2023 | 6.790% |
| BPA PROGRAM | 100,000 | 100,000 | 3.050% | 2006 | No | 2002 | 9 | 2022 | 6.760% |
| BPA PROGRAM | 4,938 | 4,938 | 3.000% | 2006 | No | 2003 | 10 | - | - |
| BPA PROGRAM | 40,000 | 40,000 | 2.800% | 2006 | No | 2003 | 11 | 2021 | 6.730% |
| BPA PROGRAM | 20,000 | 20,000 | 2.500% | 2006 | No | 2003 | 9 | - | - |
| BPA PROGRAM | 75,000 | 75,000 | 2.300% | 2006 | No | 2003 | 7 | 2023 | 6.800% |
| BPA PROGRAM | 25,000 | 25,000 | 2.950% | 2007 | No | 2003 | 7 | 2020 | 6.670% |
| BPA PROGRAM | 40,000 | 40,000 | 2.900% | 2007 | No | 2003 | 4 | - | - |
| BPA PROGRAM | 40,000 | 40,000 | 5.550% | 2033 | No | 2003 | 4 | - | - |
| BPA PROGRAM | 50,000 | 50,000 | 3.450% | 2007 | No | 2004 | 7 | - | - |
| BPA PROGRAM | 30,000 | 30,000 | 3.100% | 2007 | No | 2004 | 9 | - | - |
| BPA PROGRAM | 65,000 | 65,000 | 2.950% | 2007 | No | 2004 | 4 | 2019 | 6.640% |
| BPA PROGRAM | 32,700 | 32,700 | 2.500% | 2007 | No | 2004 | 1 | - | - |
| BPA PROGRAM | 25,000 | 25,000 | 3.800% | 2008 | No | 2004 | 7 | - | - |
| BPA PROGRAM | 65,000 | 65,000 | 2.950% | 2008 | No | 2004 | 1 | 2020 | 6.680% |
| BPA PROGRAM | 40,000 | 40,000 | 5.600% | 2034 | No | 2004 | 9 | - | - |
| ENVIRONMENT | 40,000 | - | 6.950% | 2012 | No | 1997 | 11 | - | - |
| ENVIRONMENT | 30,000 | 30,000 | 6.050% | 2010 | No | 2001 | 1 | - | - |
| ENVIRONMENT | 30,000 | 30,000 | 3.050% | 2006 | No | 2002 | 9 | - | - |
| ENVIRONMENT | 30,000 | 30,000 | 3.050% | 2006 | No | 2002 | 9 | - | - |

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Table 10-2: Transmission Projected Federal Investments (\$1000s) (FY 2006)

BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Projected Federal Investments (1000s) (FY 2006)

| Project | Original Principal | Current Principal | Interest Rate | Due Date | Replacement? | In Service Date | Month | Rollover Date | Rollover Rate |
|-----------|--------------------|-------------------|---------------|----------|--------------|-----------------|-------|---------------|---------------|
| BPA PROGR | 221,179 | 221,179 | 5.630% | 2040 | No | 2005 | 3 | - | - |
| BPA PROGR | 248,948 | 248,948 | 6.820% | 2041 | No | 2006 | 3 | - | - |
| ENVIRONME | 11,919 | 11,919 | 5.800% | 2020 | No | 2005 | 3 | - | - |
| ENVIRONME | 4,670 | 4,670 | 6.050% | 2021 | No | 2006 | 3 | - | - |

Table 10-3: Transmission Historical Federal Investments (\$000s) (FY 2007)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Historical Federal Investments (1000s) (FY 2007)

| Project | Original Principal | Current Principal | Interest Rate | Due Date | Replacement? | In Service Date | Month | Rollover Date | Rollover Rate |
|---------------------------------|--------------------|-------------------|---------------|----------|--------------|-----------------|-------|---------------|---------------|
| BONNEVILLE POWER ADMINISTRATION | 6,812 | - | 2.500% | 1985 | No | 1940 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 18,906 | - | 2.500% | 1986 | No | 1941 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 461 | - | 2.500% | 1986 | No | 1941 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,446 | - | 2.500% | 1987 | No | 1942 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,052 | - | 2.500% | 1987 | No | 1942 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 16,083 | - | 2.500% | 1988 | No | 1943 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,538 | - | 2.500% | 1988 | No | 1943 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 583 | - | 2.500% | 1989 | No | 1944 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 249 | - | 2.500% | 1989 | No | 1944 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,366 | - | 2.500% | 1990 | No | 1945 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,306 | - | 2.500% | 1990 | No | 1945 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,488 | - | 2.500% | 1991 | No | 1946 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 732 | - | 2.500% | 1991 | No | 1946 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,773 | - | 2.500% | 1992 | No | 1947 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,330 | - | 2.500% | 1992 | No | 1947 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,468 | - | 2.500% | 1993 | No | 1948 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,290 | - | 2.500% | 1993 | No | 1948 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 6,809 | - | 2.500% | 1994 | No | 1949 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 2,719 | - | 2.500% | 1994 | No | 1949 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 24,111 | - | 2.500% | 1995 | No | 1950 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 6,124 | - | 2.500% | 1995 | No | 1950 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 13,266 | - | 2.500% | 1996 | No | 1951 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,040 | - | 2.500% | 1996 | No | 1951 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 18,610 | - | 2.500% | 1997 | No | 1952 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,979 | - | 2.500% | 1997 | No | 1952 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 23,550 | - | 6.330% | 1998 | No | 1953 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,605 | - | 6.330% | 1998 | Yes | 1953 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 23,614 | - | 6.510% | 1999 | No | 1954 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 17,370 | - | 6.510% | 1999 | No | 1954 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,827 | - | 6.620% | 2000 | No | 1955 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,283 | - | 6.620% | 2000 | Yes | 1955 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 32,221 | - | 6.710% | 2001 | Yes | 1956 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 14,573 | - | 6.710% | 2001 | No | 1956 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 15,980 | - | 6.790% | 2002 | Yes | 1957 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,933 | - | 6.790% | 2002 | No | 1957 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 15,593 | - | 6.840% | 2003 | No | 1958 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,654 | - | 6.840% | 2003 | Yes | 1958 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,863 | - | 6.880% | 2004 | Yes | 1959 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,157 | - | 6.880% | 2004 | No | 1959 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,218 | - | 6.910% | 2005 | Yes | 1960 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,598 | 1,500 | 6.910% | 2005 | No | 1960 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,271 | 11,271 | 6.950% | 2006 | Yes | 1961 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,468 | 4,468 | 6.950% | 2006 | No | 1961 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 19,597 | 19,597 | 6.980% | 2007 | No | 1962 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,877 | 4,877 | 6.980% | 2007 | Yes | 1962 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,876 | 4,876 | 7.020% | 2008 | No | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,330 | 4,330 | 7.020% | 2008 | Yes | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 904 | 904 | 7.020% | 2008 | No | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 803 | 803 | 7.020% | 2008 | Yes | 1963 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 5,738 | 5,738 | 7.060% | 2009 | Yes | 1964 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,151 | 4,151 | 7.060% | 2009 | No | 1964 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 10,171 | 10,171 | 7.090% | 2010 | Yes | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 7,248 | 7,248 | 7.090% | 2010 | Yes | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 5,202 | 5,202 | 7.090% | 2010 | No | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,706 | 3,706 | 7.090% | 2010 | No | 1965 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 11,830 | 11,830 | 7.130% | 2011 | No | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 6,647 | 6,647 | 7.130% | 2011 | No | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,049 | 3,049 | 7.130% | 2011 | Yes | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,714 | 1,714 | 7.130% | 2011 | Yes | 1966 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 19,003 | 19,003 | 7.160% | 2012 | No | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 14,300 | - | 7.160% | 2012 | No | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 4,566 | 2,454 | 7.160% | 2012 | Yes | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 3,436 | - | 7.160% | 2012 | Yes | 1967 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 41,070 | 18,250 | 7.200% | 2013 | No | 1968 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 23,202 | - | 7.200% | 2013 | No | 1968 | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 8,076 | - | 7.200% | 2013 | Yes | 1968 | - | - | - |

| | | | | | | | | | |
|-------------|---------|---------|--------|------|-----|------|----|------|--------|
| BPA PROGRAM | 54,409 | - | 9.300% | 2032 | Yes | 1987 | 4 | - | - |
| BPA PROGRAM | 43,236 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 1,409 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 554 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 281 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 111 | - | 9.300% | 2032 | No | 1987 | 4 | - | - |
| BPA PROGRAM | 43,417 | - | 9.500% | 2018 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 283 | - | 9.500% | 2018 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 30,004 | - | 9.900% | 2033 | Yes | 1988 | 6 | - | - |
| BPA PROGRAM | 9,018 | - | 9.900% | 2033 | No | 1988 | 6 | - | - |
| BPA PROGRAM | 752 | - | 9.900% | 2033 | Yes | 1988 | 6 | - | - |
| BPA PROGRAM | 226 | - | 9.900% | 2033 | No | 1988 | 6 | - | - |
| BPA PROGRAM | 45,870 | - | 9.500% | 2033 | Yes | 1988 | 2 | - | - |
| BPA PROGRAM | 28,513 | - | 9.500% | 2033 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 27,887 | - | 9.500% | 2033 | Yes | 1988 | 2 | - | - |
| BPA PROGRAM | 22,923 | - | 9.500% | 2033 | Yes | 1988 | 2 | - | - |
| BPA PROGRAM | 20,677 | - | 9.500% | 2033 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 1,725 | - | 9.500% | 2033 | Yes | 1988 | 2 | - | - |
| BPA PROGRAM | 954 | - | 9.500% | 2033 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 933 | - | 9.500% | 2033 | Yes | 1988 | 2 | - | - |
| BPA PROGRAM | 518 | - | 9.500% | 2033 | No | 1988 | 2 | - | - |
| BPA PROGRAM | 56,257 | - | 8.950% | 1999 | Yes | 1989 | 5 | - | - |
| BPA PROGRAM | 16,909 | - | 8.950% | 1999 | No | 1989 | 5 | - | - |
| BPA PROGRAM | 1,410 | - | 8.950% | 1999 | No | 1989 | 5 | - | - |
| BPA PROGRAM | 424 | - | 8.950% | 1999 | No | 1989 | 5 | - | - |
| BPA PROGRAM | 41,894 | - | 9.250% | 2030 | No | 1990 | 1 | - | - |
| BPA PROGRAM | 3,824 | - | 9.250% | 2030 | Yes | 1990 | 1 | - | - |
| BPA PROGRAM | 3,008 | - | 9.250% | 2030 | No | 1990 | 1 | - | - |
| BPA PROGRAM | 1,149 | - | 9.250% | 2030 | No | 1990 | 1 | - | - |
| BPA PROGRAM | 96 | - | 9.250% | 2030 | Yes | 1990 | 1 | - | - |
| BPA PROGRAM | 29 | - | 9.250% | 2030 | No | 1990 | 1 | - | - |
| BPA PROGRAM | 54,145 | - | 7.550% | 1995 | No | 1991 | 2 | - | - |
| BPA PROGRAM | 5,855 | - | 7.550% | 1995 | No | 1991 | 2 | - | - |
| BPA PROGRAM | 80,000 | - | 6.200% | 1995 | No | 1992 | 4 | - | - |
| BPA PROGRAM | 50,000 | - | 7.000% | 1997 | No | 1992 | 4 | - | - |
| BPA PROGRAM | 28,300 | - | 7.000% | 1997 | No | 1992 | 4 | - | - |
| BPA PROGRAM | 107,800 | - | 6.600% | 2000 | No | 1992 | 8 | - | - |
| BPA PROGRAM | 107,700 | - | 7.250% | 2007 | No | 1992 | 8 | - | - |
| BPA PROGRAM | 147,521 | - | 8.800% | 2032 | No | 1992 | 4 | - | - |
| BPA PROGRAM | 2,479 | - | 8.800% | 2032 | No | 1992 | 4 | - | - |
| BPA PROGRAM | 150,000 | - | 8.130% | 2032 | No | 1992 | 7 | - | - |
| BPA PROGRAM | 50,000 | - | 6.050% | 1998 | No | 1993 | 10 | - | - |
| BPA PROGRAM | 99,962 | - | 8.350% | 2033 | No | 1993 | 10 | - | - |
| BPA PROGRAM | 130,000 | - | 7.800% | 2033 | No | 1993 | 2 | - | - |
| BPA PROGRAM | 100,000 | - | 7.500% | 2033 | No | 1993 | 4 | - | - |
| BPA PROGRAM | 110,000 | - | 6.950% | 2033 | No | 1993 | 8 | - | - |
| BPA PROGRAM | 49,489 | - | 7.100% | 1998 | No | 1994 | 5 | - | - |
| BPA PROGRAM | 43,155 | - | 7.100% | 1998 | No | 1994 | 5 | - | - |
| BPA PROGRAM | 4,456 | - | 7.100% | 1998 | No | 1994 | 5 | - | - |
| BPA PROGRAM | 55,000 | - | 7.650% | 1999 | No | 1994 | 9 | - | - |
| BPA PROGRAM | 50,000 | - | 8.200% | 2034 | No | 1994 | 5 | - | - |
| BPA PROGRAM | 50,000 | - | 7.050% | 2034 | No | 1994 | 1 | - | - |
| BPA PROGRAM | 108,400 | - | 6.850% | 2034 | No | 1994 | 10 | - | - |
| BPA PROGRAM | 50,000 | - | 6.850% | 2034 | No | 1994 | 10 | - | - |
| BPA PROGRAM | 55,000 | - | 8.350% | 2001 | No | 1995 | 1 | - | - |
| BPA PROGRAM | 65,000 | - | 7.700% | 2025 | No | 1995 | 8 | - | - |
| BPA PROGRAM | 49,933 | - | 7.700% | 2025 | No | 1995 | 7 | - | - |
| BPA PROGRAM | 54,378 | - | 5.900% | 2003 | No | 1996 | 1 | - | - |
| BPA PROGRAM | 70,000 | 70,000 | 7.050% | 2006 | No | 1996 | 8 | - | - |
| BPA PROGRAM | 22,600 | - | 6.800% | 2004 | No | 1997 | 1 | - | - |
| BPA PROGRAM | 80,000 | 80,000 | 6.900% | 2005 | No | 1997 | 5 | - | - |
| BPA PROGRAM | 111,254 | 111,254 | 6.650% | 2007 | No | 1997 | 8 | 2021 | 6.700% |

| | | | | | | | | | |
|--------------------|----------------|----------------|---------------|-------------|-----------|-------------|----------|-------------|---------------|
| BPA PROGRAM | 75,300 | 75,300 | 6.000% | 2008 | No | 1998 | 4 | - | - |
| BPA PROGRAM | 36,819 | 36,819 | 5.750% | 2008 | No | 1998 | 8 | - | - |
| BPA PROGRAM | 72,700 | 72,700 | 6.000% | 2009 | No | 1998 | 5 | - | - |
| BPA PROGRAM | 40,000 | 40,000 | 6.200% | 2011 | No | 1998 | 5 | - | - |
| <u>BPA PROGRAM</u> | <u>50,000</u> | <u>50,000</u> | <u>6.650%</u> | <u>2028</u> | <u>No</u> | <u>1998</u> | <u>4</u> | <u>-</u> | <u>-</u> |
| BPA PROGRAM | 112,300 | 112,300 | 5.850% | 2028 | No | 1998 | 8 | - | - |
| BPA PROGRAM | 106,600 | 106,600 | 5.850% | 2028 | No | 1998 | 8 | 2031 | 8.290% |
| BPA PROGRAM | 98,900 | 98,900 | 6.700% | 2032 | No | 1998 | 5 | - | - |
| BPA PROGRAM | 40,000 | - | 6.200% | 2002 | No | 1999 | 9 | - | - |
| BPA PROGRAM | 26,200 | - | 5.950% | 2004 | No | 1999 | 5 | - | - |
| <u>BPA PROGRAM</u> | <u>59,050</u> | <u>59,050</u> | <u>5.900%</u> | <u>2014</u> | <u>No</u> | <u>1999</u> | <u>2</u> | <u>-</u> | <u>-</u> |
| BPA PROGRAM | 15,300 | - | 6.850% | 2003 | No | 2000 | 8 | - | - |
| BPA PROGRAM | 40,000 | - | 6.400% | 2003 | No | 2000 | 11 | - | - |
| BPA PROGRAM | 39,052 | - | 7.000% | 2004 | No | 2000 | 7 | - | - |
| BPA PROGRAM | 53,500 | 53,500 | 7.150% | 2005 | No | 2000 | 1 | - | - |
| BPA PROGRAM | 40,000 | 40,000 | 6.750% | 2006 | No | 2000 | 9 | 2020 | 6.690% |
| <u>BPA PROGRAM</u> | <u>20,000</u> | <u>20,000</u> | <u>5.650%</u> | <u>2005</u> | <u>No</u> | <u>2001</u> | <u>1</u> | <u>-</u> | <u>-</u> |
| BPA PROGRAM | 59,932 | 59,932 | 6.050% | 2010 | No | 2001 | 1 | - | - |
| BPA PROGRAM | 25,000 | 25,000 | 5.950% | 2011 | No | 2001 | 6 | - | - |
| BPA PROGRAM | 50,000 | 50,000 | 5.750% | 2011 | No | 2001 | 8 | - | - |
| BPA PROGRAM | 108,010 | 108,010 | 4.600% | 2005 | No | 2002 | 3 | 2024 | 6.830% |
| BPA PROGRAM | 60,000 | 60,000 | 3.750% | 2005 | No | 2002 | 6 | 2023 | 6.790% |
| <u>BPA PROGRAM</u> | <u>100,000</u> | <u>100,000</u> | <u>3.050%</u> | <u>2006</u> | <u>No</u> | <u>2002</u> | <u>9</u> | <u>2022</u> | <u>6.760%</u> |
| BPA PROGRAM | 4,938 | 4,938 | 3.000% | 2006 | No | 2003 | 10 | - | - |
| BPA PROGRAM | 40,000 | 40,000 | 2.800% | 2006 | No | 2003 | 11 | 2021 | 6.730% |
| BPA PROGRAM | 20,000 | 20,000 | 2.500% | 2006 | No | 2003 | 9 | - | - |
| BPA PROGRAM | 75,000 | 75,000 | 2.300% | 2006 | No | 2003 | 7 | 2023 | 6.800% |
| BPA PROGRAM | 25,000 | 25,000 | 2.950% | 2007 | No | 2003 | 7 | 2020 | 6.670% |
| <u>BPA PROGRAM</u> | <u>40,000</u> | <u>40,000</u> | <u>2.900%</u> | <u>2007</u> | <u>No</u> | <u>2003</u> | <u>4</u> | <u>-</u> | <u>-</u> |
| BPA PROGRAM | 40,000 | 40,000 | 5.550% | 2033 | No | 2003 | 4 | - | - |
| BPA PROGRAM | 50,000 | 50,000 | 3.450% | 2007 | No | 2004 | 7 | - | - |
| BPA PROGRAM | 30,000 | 30,000 | 3.100% | 2007 | No | 2004 | 9 | - | - |
| BPA PROGRAM | 65,000 | 65,000 | 2.950% | 2007 | No | 2004 | 4 | 2019 | 6.640% |
| BPA PROGRAM | 32,700 | 32,700 | 2.500% | 2007 | No | 2004 | 1 | - | - |
| <u>BPA PROGRAM</u> | <u>25,000</u> | <u>25,000</u> | <u>3.800%</u> | <u>2008</u> | <u>No</u> | <u>2004</u> | <u>7</u> | <u>-</u> | <u>-</u> |
| BPA PROGRAM | 65,000 | 65,000 | 2.950% | 2008 | No | 2004 | 1 | 2020 | 6.680% |
| BPA PROGRAM | 40,000 | 40,000 | 5.600% | 2034 | No | 2004 | 9 | - | - |
| ENVIRONMENT | 40,000 | - | 6.950% | 2012 | No | 1997 | 11 | - | - |
| ENVIRONMENT | 30,000 | 30,000 | 6.050% | 2010 | No | 2001 | 1 | - | - |
| ENVIRONMENT | 30,000 | 30,000 | 3.050% | 2006 | No | 2002 | 9 | - | - |
| ENVIRONMENT | 30,000 | 30,000 | 3.050% | 2006 | No | 2002 | 9 | - | - |

Table 10-4: Transmission Projected Federal Investments (\$1000s) (FY 2007)

BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Projected Federal Investments (1000s) (FY 2007)

| Project | Original Principal | Current Principal | Interest Rate | Due Date | Replacement? | In Service Date | Month | Rollover Date | Rollover Rate |
|-------------|--------------------|-------------------|---------------|----------|--------------|-----------------|-------|---------------|---------------|
| BPA PROGRAM | 221,179 | 221,179 | 5.630% | 2040 | No | 2005 | 3 | - | - |
| BPA PROGRAM | 248,948 | 248,948 | 6.820% | 2041 | No | 2006 | 3 | - | - |
| BPA PROGRAM | 259,628 | 259,628 | 6.900% | 2042 | No | 2007 | 3 | - | - |
| ENVIRONMENT | 11,919 | 11,919 | 5.800% | 2020 | No | 2005 | 3 | - | - |
| ENVIRONMENT | 4,670 | 4,670 | 6.050% | 2021 | No | 2006 | 3 | - | - |
| ENVIRONMENT | 4,836 | 4,836 | 6.190% | 2022 | No | 2007 | 3 | - | - |

Table 10-5: Non-Federal Debt Service**TBL NON-FEDERAL DEBT SERVICE -- REVISED DSR**

4/27/2005

None

W:\KGW\MUNEX\BPADatabases\Current ThirdParty Historical File\Current\3ptyBase 042605
 _Revised DSR_UpdWasco020105.SF

TOTAL NET DEBT SERVICE -- GAAP BASIS

| Fiscal Year | Principal | | Interest | | Expenses Base 2004HY | CIF Base 2004HY | Net New D/S | |
|--------------------|--------------------|---------------------|--------------------|---------------------|--------------------------------|---------------------------|--------------------|---------------------|
| | Base 2004HY | Full Program | Base 2004HY | Full Program | | | Base 2004HY | Full Program |
| 2005 | - | - | 32,088,638.94 | 32,088,638.94 | 41,290.00 | (4,824,357.87) | 27,305,571.07 | 27,305,571.07 |
| 2006 | - | - | 32,088,638.94 | 32,088,638.94 | 42,461.50 | | 32,131,100.44 | 32,131,100.44 |
| 2007 | - | - | 32,088,638.94 | 32,088,638.94 | 43,679.75 | | 32,132,318.69 | 32,132,318.69 |
| 2008 | 2,483,023.00 | 2,483,023.00 | 32,088,638.94 | 32,088,638.94 | 44,947.25 | | 34,616,609.19 | 34,616,609.19 |
| 2009 | 7,449,072.00 | 7,449,072.00 | 31,966,511.10 | 31,966,511.10 | 46,265.25 | | 39,461,848.35 | 39,461,848.35 |
| 2010 | - | - | 31,600,127.46 | 31,600,127.46 | 47,635.75 | | 31,647,763.21 | 31,647,763.21 |
| 2011 | - | - | 31,600,127.46 | 31,600,127.46 | 49,061.00 | | 31,649,188.46 | 31,649,188.46 |
| 2012 | 23,542,514.00 | 23,542,514.00 | 31,600,127.46 | 31,600,127.46 | 50,543.75 | | 55,193,185.21 | 55,193,185.21 |
| 2013 | 88,351,258.00 | 88,351,258.00 | 30,439,541.22 | 30,439,541.22 | 52,085.75 | | 118,842,884.97 | 118,842,884.97 |
| 2014 | 70,844,431.00 | 70,844,431.00 | 26,086,039.08 | 26,086,039.08 | 53,688.75 | | 96,984,158.83 | 96,984,158.83 |
| 2015 | 67,156,426.00 | 67,156,426.00 | 22,601,398.24 | 22,601,398.24 | 55,356.25 | | 89,813,180.49 | 89,813,180.49 |
| 2016 | 71,253,729.00 | 71,253,729.00 | 19,295,981.66 | 19,295,981.66 | 57,090.50 | | 90,606,801.16 | 90,606,801.16 |
| 2017 | 87,011,594.00 | 87,011,594.00 | 15,783,261.52 | 15,783,261.52 | 58,894.25 | | 102,853,749.77 | 102,853,749.77 |
| 2018 | 102,384,953.00 | 102,384,953.00 | 11,491,458.12 | 11,491,458.12 | 60,770.00 | | 113,937,181.12 | 113,937,181.12 |
| 2019 | - | - | 6,432,477.16 | 6,432,477.16 | 62,721.00 | | 6,495,198.16 | 6,495,198.16 |
| 2020 | - | - | 6,432,477.16 | 6,432,477.16 | 64,749.25 | | 6,497,226.41 | 6,497,226.41 |
| 2021 | - | - | 6,432,477.16 | 6,432,477.16 | 66,859.25 | | 6,499,336.41 | 6,499,336.41 |
| 2022 | - | - | 6,432,477.16 | 6,432,477.16 | 69,054.00 | | 6,501,531.16 | 6,501,531.16 |
| 2023 | - | - | 6,432,477.16 | 6,432,477.16 | 71,336.50 | | 6,503,813.66 | 6,503,813.66 |
| 2024 | - | - | 6,432,477.16 | 6,432,477.16 | 73,710.00 | | 6,506,187.16 | 6,506,187.16 |
| 2025 | - | - | 6,432,477.16 | 6,432,477.16 | 76,178.25 | | 6,508,655.41 | 6,508,655.41 |
| 2026 | - | - | 6,432,477.16 | 6,432,477.16 | 78,745.00 | | 6,511,222.16 | 6,511,222.16 |
| 2027 | - | - | 6,432,477.16 | 6,432,477.16 | 81,415.25 | | 6,513,892.41 | 6,513,892.41 |
| 2028 | - | - | 6,432,477.16 | 6,432,477.16 | 84,191.75 | | 6,516,668.91 | 6,516,668.91 |
| 2029 | - | - | 6,432,477.16 | 6,432,477.16 | 87,079.25 | | 6,519,556.41 | 6,519,556.41 |
| 2030 | - | - | 6,432,477.16 | 6,432,477.16 | 90,082.25 | | 6,522,559.41 | 6,522,559.41 |
| 2031 | - | - | 6,432,477.16 | 6,432,477.16 | 93,206.00 | | 6,525,683.16 | 6,525,683.16 |
| 2032 | - | - | 6,432,477.16 | 6,432,477.16 | 96,454.00 | | 6,528,931.16 | 6,528,931.16 |
| 2033 | 29,896,250.00 | 29,896,250.00 | 5,628,417.51 | 5,628,417.51 | 99,831.75 | | 35,624,499.27 | 35,624,499.27 |
| 2034 | 89,688,750.00 | 89,688,750.00 | 2,412,178.94 | 2,412,178.94 | 76,830.75 | | 92,177,759.68 | 92,177,759.68 |
| 2035 | - | - | - | - | - | | - | - |
| 2036 | - | - | - | - | - | | - | - |
| 2037 | - | - | - | - | - | | - | - |
| 2038 | - | - | - | - | - | | - | - |
| 2039 | - | - | - | - | - | | - | - |
| 2040 | - | - | - | - | - | | - | - |
| 2041 | - | - | - | - | - | | - | - |
| 2042 | - | - | - | - | - | | - | - |

CHAPTER 11
REPAYMENT STUDY RESULTS CURRENT STUDY
FY 2006 AND FY 2007

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Table 11-1: Summary of Interest (\$1000s) (FY 2006)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Summary of Interest (1000s) (FY 2006)

| Project | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------|---------|---------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BUREAU OF RECLAMATION | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL BUREAU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CORPS OF ENGINEERS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL CORPS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 48,150 | 48,047 | <u>44,466</u> | 43,608 | 42,239 | 36,677 | 31,734 | 28,506 | 18,605 | 13,417 | 11,234 | 4,572 | - | - | - | - |
| TOTAL APPROPRIATIONS | 48,150 | 48,047 | 44,466 | 43,608 | 42,239 | 36,677 | 31,734 | 28,506 | 18,605 | 13,417 | 11,234 | 4,572 | - | - | - | - |
| BPA BORROWING | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BPA PROGRAM | 107,818 | 116,291 | 131,873 | 138,861 | 142,224 | 146,659 | 152,100 | 154,592 | 164,205 | 174,108 | 180,823 | 191,314 | 200,534 | 207,017 | 214,918 | 216,339 |
| ENVIRONMENT | 3,076 | 3,563 | 2,789 | 2,789 | 2,789 | 2,789 | 974 | 974 | 974 | 974 | 974 | 974 | 974 | 974 | 974 | 974 |
| PREMIUMS | - | - | - | - | - | - | - | - | - | - | - | 1,112 | 3,131 | 2,242 | 3,672 | 269 |
| (LESS INTEREST INCOME) | -6,036 | -6,644 | -6,418 | -6,279 | -6,127 | -6,262 | -6,221 | -5,637 | -4,020 | -4,423 | -4,515 | -4,375 | -3,979 | -3,642 | -6,092 | -6,078 |
| TOTAL BPA BORROWING | 104,858 | 113,209 | 128,244 | 135,371 | 138,886 | 143,187 | 146,852 | 149,929 | 161,158 | 170,659 | 177,281 | 189,025 | 200,661 | 206,590 | 213,472 | 211,503 |
| TOTALS | 153,008 | 161,255 | 172,710 | 178,979 | 181,125 | 179,863 | 178,587 | 178,435 | 179,762 | 184,076 | 188,515 | 193,597 | 200,661 | 206,590 | 213,472 | 211,503 |

| 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 219,075 | 221,017 | 223,343 | 225,932 | 228,914 | 232,533 | 236,559 | 240,986 | 249,275 | 254,785 | 260,751 | 265,400 | 272,254 | 282,255 | 296,065 | 304,534 | 313,990 | 324,335 | 335,255 | 346,783 |
| 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | 1,819 | 432 | 1,238 | 4,721 | 4,625 | 3,462 | - | 3,785 | 3,504 | 6 | 43 | 53 | - | 1,841 | 973 | 299 | 166 | 65 | - |
| -6,060 | -6,039 | -6,014 | -5,986 | -5,953 | -5,913 | -5,867 | -5,816 | -5,719 | -5,655 | -5,586 | -5,531 | -4,762 | -3,305 | -5,321 | -5,220 | -5,107 | -4,983 | -4,852 | -4,715 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 213,015 | 216,797 | 217,761 | 221,184 | 227,681 | 231,245 | 234,155 | 235,170 | 247,341 | 252,633 | 255,171 | 259,913 | 267,546 | 278,949 | 292,585 | 300,287 | 309,182 | 319,518 | 330,468 | 342,068 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 213,015 | 216,797 | 217,761 | 221,184 | 227,681 | 231,245 | 234,155 | 235,170 | 247,341 | 252,633 | 255,171 | 259,913 | 267,546 | 278,949 | 292,585 | 300,287 | 309,182 | 319,518 | 330,468 | 342,068 |

| 2041 | 2042 | Total |
|-------------|-------------|--------------|
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | 371,254 |
| - | - | - |
| - | - | 371,254 |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| 358,963 | 364,753 | 8,697,433 |
| - | - | 27,531 |
| 223 | 96 | 37,777 |
| -4,570 | -4,406 | -204,131 |
| - | - | - |
| 354,617 | 360,443 | 8,558,611 |
| - | - | - |
| 354,617 | 360,443 | 8,929,865 |

Table 11-2: Interest Calculation Summary (\$1000s) (FY 2006)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD
 Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Interest Calculation Summary (1000s) (FY 2006)

| Date | Project | Type | Principal | Rate | Interest | Premium | Total |
|-----------------|---------------------------|------|--------------------|--------|------------------|---------|------------------|
| FY 2005 | BONNEVILLE PO\ HISTORICAL | | 667,129 | 7.218% | 48,150 | - | 48,150 |
| FY 2005 | BPA PROGRAM HISTORICAL | | 1,982,003 | 5.126% | 101,592 | - | 101,592 |
| FY 2005 | BPA PROGRAM NEW | | 221,179 | 2.815% | 6,226 | - | 6,226 |
| FY 2005 | ENVIRONMENT HISTORICAL | | 60,000 | 4.550% | 2,730 | - | 2,730 |
| FY 2005 | ENVIRONMENT NEW | | 11,919 | 2.900% | 346 | - | 346 |
| FY 2005 | Float HISTORICAL | | - | - | -6,036 | - | -6,036 |
| Subtotal | | | \$2,942,230 | - | \$153,008 | - | \$153,008 |
| FY 2006 | BONNEVILLE PO\ HISTORICAL | | 665,628 | 7.218% | 48,047 | - | 48,047 |
| FY 2006 | BPA PROGRAM HISTORICAL | | 2,049,682 | 5.259% | 107,801 | - | 107,801 |
| FY 2006 | BPA PROGRAM NEW | | 248,948 | 3.410% | 8,489 | - | 8,489 |
| FY 2006 | ENVIRONMENT HISTORICAL | | 71,919 | 4.757% | 3,421 | - | 3,421 |
| FY 2006 | ENVIRONMENT NEW | | 4,670 | 3.025% | 141 | - | 141 |
| FY 2006 | Float HISTORICAL | | - | - | -6,644 | - | -6,644 |
| Subtotal | | | \$3,040,847 | - | \$161,255 | - | \$161,255 |
| FY 2007 | BONNEVILLE PO\ HISTORICAL | | 615,259 | 7.227% | 44,466 | - | 44,466 |
| FY 2007 | BPA PROGRAM HISTORICAL | | 2,203,692 | 5.801% | 127,829 | - | 127,829 |
| FY 2007 | ENVIRONMENT HISTORICAL | | 46,589 | 5.986% | 2,789 | - | 2,789 |
| FY 2007 | BPA PROGRAM NEW | | 118,591 | 3.410% | 4,044 | - | 4,044 |
| FY 2007 | Float HISTORICAL | | - | - | -6,418 | - | -6,418 |
| Subtotal | | | \$2,984,131 | - | \$172,710 | - | \$172,710 |
| FY 2008 | BONNEVILLE PO\ HISTORICAL | | 602,968 | 7.232% | 43,608 | - | 43,608 |
| FY 2008 | BPA PROGRAM HISTORICAL | | 2,050,992 | 6.172% | 126,581 | - | 126,581 |
| FY 2008 | ENVIRONMENT HISTORICAL | | 46,589 | 5.986% | 2,789 | - | 2,789 |
| FY 2008 | BPA PROGRAM HISTORICAL | | 118,591 | 6.820% | 8,088 | - | 8,088 |
| FY 2008 | BPA PROGRAM NEW | | 122,945 | 3.410% | 4,192 | - | 4,192 |
| FY 2008 | Float HISTORICAL | | - | - | -6,279 | - | -6,279 |
| Subtotal | | | \$2,942,085 | - | \$178,979 | - | \$178,979 |
| FY 2009 | BONNEVILLE PO\ HISTORICAL | | 583,786 | 7.235% | 42,239 | - | 42,239 |
| FY 2009 | BPA PROGRAM HISTORICAL | | 1,913,873 | 6.344% | 121,421 | - | 121,421 |
| FY 2009 | ENVIRONMENT HISTORICAL | | 46,589 | 5.986% | 2,789 | - | 2,789 |
| FY 2009 | BPA PROGRAM HISTORICAL | | 241,536 | 6.820% | 16,473 | - | 16,473 |
| FY 2009 | BPA PROGRAM NEW | | 127,001 | 3.410% | 4,331 | - | 4,331 |
| FY 2009 | Float HISTORICAL | | - | - | -6,127 | - | -6,127 |
| Subtotal | | | \$2,912,785 | - | \$181,125 | - | \$181,125 |
| FY 2010 | BONNEVILLE PO\ HISTORICAL | | 507,115 | 7.232% | 36,677 | - | 36,677 |
| FY 2010 | BPA PROGRAM HISTORICAL | | 1,841,173 | 6.358% | 117,059 | - | 117,059 |
| FY 2010 | ENVIRONMENT HISTORICAL | | 46,589 | 5.986% | 2,789 | - | 2,789 |
| FY 2010 | BPA PROGRAM HISTORICAL | | 368,537 | 6.820% | 25,134 | - | 25,134 |
| FY 2010 | BPA PROGRAM NEW | | 130,989 | 3.410% | 4,467 | - | 4,467 |
| FY 2010 | Float HISTORICAL | | - | - | -6,262 | - | -6,262 |
| Subtotal | | | \$2,894,402 | - | \$179,863 | - | \$179,863 |
| FY 2011 | BONNEVILLE PO\ HISTORICAL | | 438,535 | 7.236% | 31,734 | - | 31,734 |
| FY 2011 | BPA PROGRAM HISTORICAL | | 1,781,241 | 6.368% | 113,433 | - | 113,433 |
| FY 2011 | ENVIRONMENT HISTORICAL | | 16,589 | 5.870% | 974 | - | 974 |
| FY 2011 | BPA PROGRAM HISTORICAL | | 499,526 | 6.820% | 34,068 | - | 34,068 |
| FY 2011 | BPA PROGRAM NEW | | 134,879 | 3.410% | 4,599 | - | 4,599 |
| FY 2011 | Float HISTORICAL | | - | - | -6,221 | - | -6,221 |
| Subtotal | | | \$2,870,769 | - | \$178,587 | - | \$178,587 |
| FY 2012 | BONNEVILLE PO\ HISTORICAL | | 393,683 | 7.241% | 28,506 | - | 28,506 |
| FY 2012 | BPA PROGRAM HISTORICAL | | 1,666,241 | 6.397% | 106,590 | - | 106,590 |
| FY 2012 | ENVIRONMENT HISTORICAL | | 16,589 | 5.870% | 974 | - | 974 |
| FY 2012 | BPA PROGRAM HISTORICAL | | 634,405 | 6.820% | 43,266 | - | 43,266 |
| FY 2012 | BPA PROGRAM NEW | | 138,865 | 3.410% | 4,735 | - | 4,735 |
| FY 2012 | Float HISTORICAL | | - | - | -5,637 | - | -5,637 |
| Subtotal | | | \$2,849,782 | - | \$178,435 | - | \$178,435 |
| FY 2013 | BONNEVILLE PO\ HISTORICAL | | 257,161 | 7.235% | 18,605 | - | 18,605 |
| FY 2013 | BPA PROGRAM HISTORICAL | | 1,666,241 | 6.397% | 106,590 | - | 106,590 |
| FY 2013 | ENVIRONMENT HISTORICAL | | 16,589 | 5.870% | 974 | - | 974 |
| FY 2013 | BPA PROGRAM HISTORICAL | | 773,270 | 6.820% | 52,737 | - | 52,737 |
| FY 2013 | BPA PROGRAM NEW | | 143,033 | 3.410% | 4,877 | - | 4,877 |
| FY 2013 | Float HISTORICAL | | - | - | -4,020 | - | -4,020 |
| Subtotal | | | \$2,856,294 | - | \$179,762 | - | \$179,762 |

| | | | | | | |
|-----------------|---------------------------|--------------------|--------|------------------|----------------|------------------|
| FY 2014 | BONNEVILLE POV HISTORICAL | 185,555 | 7.231% | 13,417 | - | 13,417 |
| FY 2014 | BPA PROGRAM HISTORICAL | 1,666,241 | 6.397% | 106,590 | - | 106,590 |
| FY 2014 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | - | 974 |
| FY 2014 | BPA PROGRAM HISTORICAL | 916,303 | 6.820% | 62,492 | - | 62,492 |
| FY 2014 | BPA PROGRAM NEW | 147,381 | 3.410% | 5,026 | - | 5,026 |
| FY 2014 | Float HISTORICAL | - | - | -4,423 | - | -4,423 |
| Subtotal | | \$2,932,068 | - | \$184,076 | - | \$184,076 |
| FY 2015 | BONNEVILLE POV HISTORICAL | 155,388 | 7.230% | 11,234 | - | 11,234 |
| FY 2015 | BPA PROGRAM HISTORICAL | 1,607,191 | 6.415% | 103,106 | - | 103,106 |
| FY 2015 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | - | 974 |
| FY 2015 | BPA PROGRAM HISTORICAL | 1,063,684 | 6.820% | 72,543 | - | 72,543 |
| FY 2015 | BPA PROGRAM NEW | 151,707 | 3.410% | 5,173 | - | 5,173 |
| FY 2015 | Float HISTORICAL | - | - | -4,515 | - | -4,515 |
| Subtotal | | \$2,994,558 | - | \$188,515 | - | \$188,515 |
| FY 2016 | BONNEVILLE POV HISTORICAL | 63,373 | 7.215% | 4,572 | - | 4,572 |
| FY 2016 | BPA PROGRAM HISTORICAL | 1,607,191 | 6.415% | 103,106 | 1,112 | 104,218 |
| FY 2016 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | - | 974 |
| FY 2016 | BPA PROGRAM HISTORICAL | 1,215,391 | 6.820% | 82,890 | - | 82,890 |
| FY 2016 | BPA PROGRAM NEW | 155,961 | 3.410% | 5,318 | - | 5,318 |
| FY 2016 | Float HISTORICAL | - | - | -4,375 | - | -4,375 |
| Subtotal | | \$3,058,504 | - | \$192,485 | \$1,112 | \$193,597 |
| FY 2017 | BPA PROGRAM HISTORICAL | 1,584,361 | 6.409% | 101,549 | 3,131 | 104,681 |
| FY 2017 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | - | 974 |
| FY 2017 | BPA PROGRAM HISTORICAL | 1,371,352 | 6.820% | 93,526 | - | 93,526 |
| FY 2017 | BPA PROGRAM NEW | 160,079 | 3.410% | 5,459 | - | 5,459 |
| FY 2017 | Float HISTORICAL | - | - | -3,979 | - | -3,979 |
| Subtotal | | \$3,132,380 | - | \$197,529 | \$3,131 | \$200,661 |
| FY 2018 | BPA PROGRAM HISTORICAL | 1,517,401 | 6.391% | 96,983 | 2,242 | 99,224 |
| FY 2018 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | - | 974 |
| FY 2018 | BPA PROGRAM HISTORICAL | 1,531,431 | 6.820% | 104,444 | - | 104,444 |
| FY 2018 | BPA PROGRAM NEW | 163,942 | 3.410% | 5,590 | - | 5,590 |
| FY 2018 | Float HISTORICAL | - | - | -3,642 | - | -3,642 |
| Subtotal | | \$3,229,363 | - | \$204,348 | \$2,242 | \$206,590 |
| FY 2019 | BPA PROGRAM HISTORICAL | 1,467,383 | 6.377% | 93,571 | 3,672 | 97,243 |
| FY 2019 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | - | 974 |
| FY 2019 | BPA PROGRAM HISTORICAL | 1,695,373 | 6.820% | 115,624 | - | 115,624 |
| FY 2019 | BPA PROGRAM NEW | 167,822 | 3.410% | 5,723 | - | 5,723 |
| FY 2019 | Float HISTORICAL | - | - | -6,092 | - | -6,092 |
| Subtotal | | \$3,347,167 | - | \$209,800 | \$3,672 | \$213,472 |
| FY 2020 | BPA PROGRAM HISTORICAL | 1,316,730 | 6.335% | 83,414 | 250 | 83,664 |
| FY 2020 | ENVIRONMENT HISTORICAL | 16,589 | 5.870% | 974 | 19 | 993 |
| FY 2020 | BPA PROGRAM HISTORICAL | 1,863,195 | 6.820% | 127,070 | - | 127,070 |
| FY 2020 | BPA PROGRAM NEW | 171,702 | 3.410% | 5,855 | - | 5,855 |
| FY 2020 | Float HISTORICAL | - | - | -6,078 | - | -6,078 |
| Subtotal | | \$3,368,215 | - | \$211,234 | \$269 | \$211,503 |
| FY 2021 | BPA PROGRAM HISTORICAL | 1,180,624 | 6.294% | 74,312 | - | 74,312 |
| FY 2021 | ENVIRONMENT HISTORICAL | 1 | 6.410% | 0 | - | 0 |
| FY 2021 | BPA PROGRAM HISTORICAL | 2,034,897 | 6.820% | 138,780 | - | 138,780 |
| FY 2021 | BPA PROGRAM NEW | 175,451 | 3.410% | 5,983 | - | 5,983 |
| FY 2021 | Float HISTORICAL | - | - | -6,060 | - | -6,060 |
| Subtotal | | \$3,390,973 | - | \$213,015 | - | \$213,015 |
| FY 2022 | BPA PROGRAM HISTORICAL | 1,029,370 | 6.234% | 64,166 | 643 | 64,809 |
| FY 2022 | BPA PROGRAM HISTORICAL | 2,210,348 | 6.820% | 150,746 | 1,176 | 151,922 |
| FY 2022 | BPA PROGRAM NEW | 179,049 | 3.410% | 6,106 | - | 6,106 |
| FY 2022 | Float HISTORICAL | - | - | -6,039 | - | -6,039 |
| Subtotal | | \$3,418,767 | - | \$214,978 | \$1,819 | \$216,797 |
| FY 2023 | BPA PROGRAM HISTORICAL | 911,989 | 6.165% | 56,220 | - | 56,220 |
| FY 2023 | BPA PROGRAM HISTORICAL | 2,359,224 | 6.820% | 160,899 | 432 | 161,331 |
| FY 2023 | BPA PROGRAM NEW | 182,517 | 3.410% | 6,224 | - | 6,224 |
| FY 2023 | Float HISTORICAL | - | - | -6,014 | - | -6,014 |
| Subtotal | | \$3,453,730 | - | \$217,329 | \$432 | \$217,761 |
| FY 2024 | BPA PROGRAM HISTORICAL | 776,989 | 6.055% | 47,046 | - | 47,046 |
| FY 2024 | BPA PROGRAM HISTORICAL | 2,530,079 | 6.820% | 172,551 | 1,238 | 173,790 |
| FY 2024 | BPA PROGRAM NEW | 185,748 | 3.410% | 6,334 | - | 6,334 |
| FY 2024 | Float HISTORICAL | - | - | -5,986 | - | -5,986 |
| Subtotal | | \$3,492,816 | - | \$219,946 | \$1,238 | \$221,184 |

| | | | | | | | |
|-----------------|-------------|------------|--------------------|--------|------------------|----------------|------------------|
| FY 2025 | BPA PROGRAM | HISTORICAL | 668,979 | 5.930% | 39,669 | - | 39,669 |
| FY 2025 | BPA PROGRAM | HISTORICAL | 2,680,521 | 6.820% | 182,812 | 4,721 | 187,532 |
| FY 2025 | BPA PROGRAM | NEW | 188,650 | 3.410% | 6,433 | - | 6,433 |
| FY 2025 | Float | HISTORICAL | - | - | -5,953 | - | -5,953 |
| Subtotal | | | \$3,538,150 | - | \$222,961 | \$4,721 | \$227,681 |
| FY 2026 | BPA PROGRAM | HISTORICAL | 668,979 | 5.930% | 39,669 | - | 39,669 |
| FY 2026 | BPA PROGRAM | HISTORICAL | 2,732,281 | 6.820% | 186,342 | 4,625 | 190,967 |
| FY 2026 | BPA PROGRAM | NEW | 191,261 | 3.410% | 6,522 | - | 6,522 |
| FY 2026 | Float | HISTORICAL | - | - | -5,913 | - | -5,913 |
| Subtotal | | | \$3,592,521 | - | \$226,620 | \$4,625 | \$231,245 |
| FY 2027 | BPA PROGRAM | HISTORICAL | 668,979 | 5.930% | 39,669 | 73 | 39,742 |
| FY 2027 | BPA PROGRAM | HISTORICAL | 2,790,149 | 6.820% | 190,288 | 3,390 | 193,678 |
| FY 2027 | BPA PROGRAM | NEW | 193,596 | 3.410% | 6,602 | - | 6,602 |
| FY 2027 | Float | HISTORICAL | - | - | -5,867 | - | -5,867 |
| Subtotal | | | \$3,652,724 | - | \$230,692 | \$3,462 | \$234,155 |
| FY 2028 | BPA PROGRAM | HISTORICAL | 636,257 | 5.893% | 37,493 | - | 37,493 |
| FY 2028 | BPA PROGRAM | HISTORICAL | 2,885,922 | 6.820% | 196,820 | - | 196,820 |
| FY 2028 | BPA PROGRAM | NEW | 195,689 | 3.410% | 6,673 | - | 6,673 |
| FY 2028 | Float | HISTORICAL | - | - | -5,816 | - | -5,816 |
| Subtotal | | | \$3,717,868 | - | \$235,170 | - | \$235,170 |
| FY 2029 | BPA PROGRAM | HISTORICAL | 506,679 | 6.390% | 32,376 | - | 32,376 |
| FY 2029 | BPA PROGRAM | HISTORICAL | 3,081,611 | 6.820% | 210,166 | 3,785 | 213,951 |
| FY 2029 | BPA PROGRAM | NEW | 197,467 | 3.410% | 6,734 | - | 6,734 |
| FY 2029 | Float | HISTORICAL | - | - | -5,719 | - | -5,719 |
| Subtotal | | | \$3,785,757 | - | \$243,556 | \$3,785 | \$247,341 |
| FY 2030 | BPA PROGRAM | HISTORICAL | 506,679 | 6.390% | 32,376 | 10 | 32,386 |
| FY 2030 | BPA PROGRAM | HISTORICAL | 3,161,628 | 6.820% | 215,623 | 3,494 | 219,117 |
| FY 2030 | BPA PROGRAM | NEW | 199,009 | 3.410% | 6,786 | - | 6,786 |
| FY 2030 | Float | HISTORICAL | - | - | -5,655 | - | -5,655 |
| Subtotal | | | \$3,867,316 | - | \$249,130 | \$3,504 | \$252,633 |
| FY 2031 | BPA PROGRAM | HISTORICAL | 504,174 | 6.388% | 32,208 | 6 | 32,214 |
| FY 2031 | BPA PROGRAM | HISTORICAL | 3,250,951 | 6.820% | 221,715 | - | 221,715 |
| FY 2031 | BPA PROGRAM | NEW | 200,238 | 3.410% | 6,828 | - | 6,828 |
| FY 2031 | Float | HISTORICAL | - | - | -5,586 | - | -5,586 |
| Subtotal | | | \$3,955,363 | - | \$255,165 | \$6 | \$255,171 |
| FY 2032 | BPA PROGRAM | HISTORICAL | 394,503 | 5.872% | 23,165 | 43 | 23,208 |
| FY 2032 | BPA PROGRAM | HISTORICAL | 3,451,189 | 6.820% | 235,371 | - | 235,371 |
| FY 2032 | BPA PROGRAM | NEW | 201,290 | 3.410% | 6,864 | - | 6,864 |
| FY 2032 | Float | HISTORICAL | - | - | -5,531 | - | -5,531 |
| Subtotal | | | \$4,046,982 | - | \$259,869 | \$43 | \$259,913 |
| FY 2033 | BPA PROGRAM | HISTORICAL | 289,577 | 5.616% | 16,263 | 53 | 16,315 |
| FY 2033 | BPA PROGRAM | HISTORICAL | 3,652,479 | 6.820% | 249,099 | - | 249,099 |
| FY 2033 | BPA PROGRAM | NEW | 202,133 | 3.410% | 6,893 | - | 6,893 |
| FY 2033 | Float | HISTORICAL | - | - | -4,762 | - | -4,762 |
| Subtotal | | | \$4,144,189 | - | \$267,493 | \$53 | \$267,546 |
| FY 2034 | BPA PROGRAM | HISTORICAL | 221,384 | 5.630% | 12,464 | - | 12,464 |
| FY 2034 | BPA PROGRAM | HISTORICAL | 3,854,612 | 6.820% | 262,885 | - | 262,885 |
| FY 2034 | BPA PROGRAM | NEW | 202,533 | 3.410% | 6,906 | - | 6,906 |
| FY 2034 | Float | HISTORICAL | - | - | -3,305 | - | -3,305 |
| Subtotal | | | \$4,278,529 | - | \$278,949 | - | \$278,949 |
| FY 2035 | BPA PROGRAM | HISTORICAL | 221,179 | 5.630% | 12,452 | - | 12,452 |
| FY 2035 | BPA PROGRAM | HISTORICAL | 4,057,145 | 6.820% | 276,697 | 1,841 | 278,538 |
| FY 2035 | BPA PROGRAM | NEW | 202,799 | 3.410% | 6,915 | - | 6,915 |
| FY 2035 | Float | HISTORICAL | - | - | -5,321 | - | -5,321 |
| Subtotal | | | \$4,481,123 | - | \$290,744 | \$1,841 | \$292,585 |
| FY 2036 | BPA PROGRAM | HISTORICAL | 221,179 | 5.630% | 12,452 | 244 | 12,697 |
| FY 2036 | BPA PROGRAM | HISTORICAL | 4,181,229 | 6.820% | 285,160 | 728 | 285,888 |
| FY 2036 | BPA PROGRAM | NEW | 202,998 | 3.410% | 6,922 | - | 6,922 |
| FY 2036 | Float | HISTORICAL | - | - | -5,220 | - | -5,220 |
| Subtotal | | | \$4,605,406 | - | \$299,314 | \$973 | \$300,287 |

| | | | | | | | |
|--------------------|-------------|------------|----------------------|--------|--------------------|-----------------|--------------------|
| FY 2037 | BPA PROGRAM | HISTORICAL | 183,200 | 5.630% | 10,314 | 299 | 10,613 |
| FY 2037 | BPA PROGRAM | HISTORICAL | 4,351,237 | 6.820% | 296,754 | - | 296,754 |
| FY 2037 | BPA PROGRAM | NEW | 202,965 | 3.410% | 6,921 | - | 6,921 |
| FY 2037 | Float | HISTORICAL | - | - | -5,107 | - | -5,107 |
| Subtotal | | | \$4,737,403 | - | \$308,883 | \$299 | \$309,182 |
| FY 2038 | BPA PROGRAM | HISTORICAL | 121,180 | 5.630% | 6,822 | 166 | 6,989 |
| FY 2038 | BPA PROGRAM | HISTORICAL | 4,554,202 | 6.820% | 310,597 | - | 310,597 |
| FY 2038 | BPA PROGRAM | NEW | 202,820 | 3.410% | 6,916 | - | 6,916 |
| FY 2038 | Float | HISTORICAL | - | - | -4,983 | - | -4,983 |
| Subtotal | | | \$4,878,203 | - | \$319,352 | \$166 | \$319,518 |
| FY 2039 | BPA PROGRAM | HISTORICAL | 69,561 | 5.630% | 3,916 | 65 | 3,982 |
| FY 2039 | BPA PROGRAM | HISTORICAL | 4,757,022 | 6.820% | 324,429 | - | 324,429 |
| FY 2039 | BPA PROGRAM | NEW | 202,634 | 3.410% | 6,910 | - | 6,910 |
| FY 2039 | Float | HISTORICAL | - | - | -4,852 | - | -4,852 |
| Subtotal | | | \$5,029,217 | - | \$330,403 | \$65 | \$330,468 |
| FY 2040 | BPA PROGRAM | HISTORICAL | 28,950 | 5.630% | 1,630 | - | 1,630 |
| FY 2040 | BPA PROGRAM | HISTORICAL | 4,959,656 | 6.820% | 338,249 | - | 338,249 |
| FY 2040 | BPA PROGRAM | NEW | 202,489 | 3.410% | 6,905 | - | 6,905 |
| FY 2040 | Float | HISTORICAL | - | - | -4,715 | - | -4,715 |
| Subtotal | | | \$5,191,095 | - | \$342,068 | - | \$342,068 |
| FY 2041 | BPA PROGRAM | HISTORICAL | 5,162,145 | 6.820% | 352,058 | 223 | 352,281 |
| FY 2041 | BPA PROGRAM | NEW | 202,489 | 3.410% | 6,905 | - | 6,905 |
| FY 2041 | Float | HISTORICAL | - | - | -4,570 | - | -4,570 |
| Subtotal | | | \$5,364,634 | - | \$354,394 | \$223 | \$354,617 |
| FY 2042 | BPA PROGRAM | HISTORICAL | 5,348,280 | 6.820% | 364,753 | 96 | 364,849 |
| FY 2042 | Float | HISTORICAL | - | - | -4,406 | - | -4,406 |
| Subtotal | | | \$5,348,280 | - | \$360,346 | \$96 | \$360,443 |
| Grand Total | | | \$140,326,625 | - | \$8,892,088 | \$37,777 | \$8,929,865 |

W:\KGS\Transmission 2006 RC\Final Proposal\Study\TRANS 2004HY 3-year runs.sf | TRANS FINAL RC 5-5-05.xls | TRANS FINAL RC 5-5-05.xls

Table 11-3: Summary of Amortization (\$1000s) (FY 2006)

BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Summary of Amortization (1000s) (FY 2006)

| Project | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|---------|---------|
| BUREAU OF RECLAMATION | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL BUREAU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| CORPS OF ENGINEERS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL CORPS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BONNEVILLE POWER ADMINISTRATION | 1,501 | 50,369 | 12,291 | 19,182 | 76,671 | 68,580 | 44,852 | 136,521 | 71,607 | 30,167 | 92,015 | 63,373 | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL APPROPRIATIONS | 1,501 | 50,369 | 12,291 | 19,182 | 76,671 | 68,580 | 44,852 | 136,521 | 71,607 | 30,167 | 92,015 | 63,373 | - | - | - | - |
| BPA BORROWING | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BPA PROGRAM | 153,500 | 94,938 | 152,700 | 137,119 | 72,700 | 59,932 | 115,000 | - | - | 59,050 | - | 22,830 | 66,960 | 50,018 | 150,653 | 136,106 |
| ENVIRONMENT | - | 30,000 | - | - | - | 30,000 | - | - | - | - | - | - | - | - | - | 16,588 |
| TOTAL BPA BORROWING | 153,500 | 124,938 | 152,700 | 137,119 | 72,700 | 89,932 | 115,000 | - | - | 59,050 | - | 22,830 | 66,960 | 50,018 | 150,653 | 152,694 |
| TOTALS | 155,001 | 175,307 | 164,991 | 156,301 | 149,371 | 158,512 | 159,852 | 136,521 | 71,607 | 89,217 | 92,015 | 86,203 | 66,960 | 50,018 | 150,653 | 152,694 |

| 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|------|--------|--------|--------|--------|--------|--------|
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 151,254 | 147,553 | 146,662 | 143,316 | 136,890 | 133,393 | 130,544 | 129,578 | 117,450 | 112,191 | 109,671 | 104,926 | 68,193 | 205 | 78,715 | 70,968 | 62,020 | 51,620 | 40,611 | 28,950 |
| 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 151,255 | 147,553 | 146,662 | 143,316 | 136,890 | 133,393 | 130,544 | 129,578 | 117,450 | 112,191 | 109,671 | 104,926 | 68,193 | 205 | 78,715 | 70,968 | 62,020 | 51,620 | 40,611 | 28,950 |
| 151,255 | 147,553 | 146,662 | 143,316 | 136,890 | 133,393 | 130,544 | 129,578 | 117,450 | 112,191 | 109,671 | 104,926 | 68,193 | 205 | 78,715 | 70,968 | 62,020 | 51,620 | 40,611 | 28,950 |

| 2041 | 2042 | Total |
|-------------|-------------|--------------|
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | 667,129 |
| - | - | - |
| - | - | 667,129 |
| - | - | - |
| - | - | - |
| - | - | - |
| 16,354 | 8,250 | 3,260,822 |
| - | - | 76,589 |
| - | - | - |
| 16,354 | 8,250 | 3,337,411 |
| - | - | - |
| 16,354 | 8,250 | 4,004,540 |

Table 11:- Application of Amortization (\$1000s) (FY 2006)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD
 Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Application of Amortization (1000s) (FY 2006)

| Date | Project | In Service | Due | Original Balance | Amount Available | Rate Replacement? | Rollover? | Amount Amortized |
|-----------------|---------------|------------|------|------------------|------------------|-------------------|------------|------------------|
| FY 2005 | BPA PROGRAM | 2000 | 2005 | 53,500 | 53,500 | 7.150% | No | No |
| FY 2005 | BONNEVILLE PC | 1960 | 2005 | 3,598 | 1,500 | 6.910% | No | No |
| FY 2005 | BPA PROGRAM | 1997 | 2005 | 80,000 | 80,000 | 6.900% | No | No |
| FY 2005 | BPA PROGRAM | 2001 | 2005 | 20,000 | 20,000 | 5.650% | No | No |
| FY 2005 | BONNEVILLE PC | 1972 | 2017 | 2,873 | 1,298 | 7.290% | Yes | No |
| Subtotal | | | - | \$159,971 | \$156,298 | - | Yes | No |
| | | | | | | | | \$155,001 |
| FY 2006 | BPA PROGRAM | 1996 | 2006 | 70,000 | 70,000 | 7.050% | No | No |
| FY 2006 | BONNEVILLE PC | 1961 | 2006 | 4,468 | 4,468 | 6.950% | No | No |
| FY 2006 | BONNEVILLE PC | 1961 | 2006 | 11,271 | 11,271 | 6.950% | Yes | No |
| FY 2006 | ENVIRONMENT | 2002 | 2006 | 30,000 | 30,000 | 3.050% | No | No |
| FY 2006 | BPA PROGRAM | 2003 | 2006 | 4,938 | 4,938 | 3.000% | No | No |
| FY 2006 | BPA PROGRAM | 2003 | 2006 | 20,000 | 20,000 | 2.500% | No | No |
| FY 2006 | BONNEVILLE PC | 1962 | 2007 | 19,597 | 19,597 | 6.980% | No | No |
| FY 2006 | BONNEVILLE PC | 1962 | 2007 | 4,877 | 4,877 | 6.980% | Yes | No |
| FY 2006 | BONNEVILLE PC | 1972 | 2017 | 21,170 | 21,170 | 7.290% | Yes | No |
| FY 2006 | BONNEVILLE PC | 1972 | 2017 | 3,980 | 3,980 | 7.290% | No | No |
| FY 2006 | BONNEVILLE PC | 1972 | 2017 | 2,873 | 1,297 | 7.290% | Yes | No |
| Subtotal | | | - | \$193,174 | \$191,598 | - | Yes | No |
| | | | | | | | | \$175,307 |
| FY 2007 | BONNEVILLE PC | 1962 | 2007 | 19,597 | 12,291 | 6.980% | No | No |
| FY 2007 | BPA PROGRAM | 2004 | 2007 | 50,000 | 50,000 | 3.450% | No | No |
| FY 2007 | BPA PROGRAM | 2004 | 2007 | 30,000 | 30,000 | 3.100% | No | No |
| FY 2007 | BPA PROGRAM | 2003 | 2007 | 40,000 | 40,000 | 2.900% | No | No |
| FY 2007 | BPA PROGRAM | 2004 | 2007 | 32,700 | 32,700 | 2.500% | No | No |
| Subtotal | | | - | \$172,297 | \$164,991 | - | No | No |
| | | | | | | | | \$164,991 |
| FY 2008 | BONNEVILLE PC | 1963 | 2008 | 4,876 | 4,876 | 7.020% | No | No |
| FY 2008 | BONNEVILLE PC | 1963 | 2008 | 4,330 | 4,330 | 7.020% | Yes | No |
| FY 2008 | BONNEVILLE PC | 1963 | 2008 | 904 | 904 | 7.020% | No | No |
| FY 2008 | BONNEVILLE PC | 1963 | 2008 | 803 | 803 | 7.020% | Yes | No |
| FY 2008 | BPA PROGRAM | 1998 | 2008 | 75,300 | 75,300 | 6.000% | No | No |
| FY 2008 | BPA PROGRAM | 1998 | 2008 | 36,819 | 36,819 | 5.750% | No | No |
| FY 2008 | BPA PROGRAM | 2004 | 2008 | 25,000 | 25,000 | 3.800% | No | No |
| FY 2008 | BONNEVILLE PC | 1972 | 2017 | 29,326 | 29,326 | 7.290% | No | No |
| FY 2008 | BONNEVILLE PC | 1972 | 2017 | 21,170 | 4,000 | 7.290% | Yes | No |
| Subtotal | | | - | \$198,528 | \$181,358 | - | Yes | No |
| | | | | | | | | \$156,301 |
| FY 2009 | BONNEVILLE PC | 1964 | 2009 | 4,151 | 4,151 | 7.060% | No | No |
| FY 2009 | BONNEVILLE PC | 1964 | 2009 | 5,738 | 5,738 | 7.060% | Yes | No |
| FY 2009 | BPA PROGRAM | 1998 | 2009 | 72,700 | 72,700 | 6.000% | No | No |
| FY 2009 | BONNEVILLE PC | 1972 | 2017 | 29,326 | 25,057 | 7.290% | No | No |
| FY 2009 | BONNEVILLE PC | 1973 | 2018 | 21,656 | 21,656 | 7.280% | Yes | No |
| FY 2009 | BONNEVILLE PC | 1973 | 2018 | 16,368 | 16,368 | 7.280% | No | No |
| FY 2009 | BONNEVILLE PC | 1973 | 2018 | 10,491 | 10,491 | 7.280% | Yes | No |
| Subtotal | | | - | \$160,430 | \$156,161 | - | Yes | No |
| | | | | | | | | \$149,371 |
| FY 2010 | BONNEVILLE PC | 1965 | 2010 | 3,706 | 3,706 | 7.090% | No | No |
| FY 2010 | BONNEVILLE PC | 1965 | 2010 | 7,248 | 7,248 | 7.090% | Yes | No |
| FY 2010 | BONNEVILLE PC | 1965 | 2010 | 5,202 | 5,202 | 7.090% | No | No |
| FY 2010 | BONNEVILLE PC | 1965 | 2010 | 10,171 | 10,171 | 7.090% | Yes | No |
| FY 2010 | ENVIRONMENT | 2001 | 2010 | 30,000 | 30,000 | 6.050% | No | No |
| FY 2010 | BPA PROGRAM | 2001 | 2010 | 59,932 | 59,932 | 6.050% | No | No |
| FY 2010 | BONNEVILLE PC | 1970 | 2015 | 24,412 | 23,551 | 7.270% | No | No |
| FY 2010 | BONNEVILLE PC | 1973 | 2018 | 33,788 | 33,788 | 7.280% | No | No |
| FY 2010 | BONNEVILLE PC | 1973 | 2018 | 21,656 | 6,790 | 7.280% | Yes | No |
| Subtotal | | | - | \$196,115 | \$180,388 | - | Yes | No |
| | | | | | | | | \$158,512 |
| FY 2011 | BONNEVILLE PC | 1966 | 2011 | 11,830 | 11,830 | 7.130% | No | No |
| FY 2011 | BONNEVILLE PC | 1966 | 2011 | 3,049 | 3,049 | 7.130% | Yes | No |
| FY 2011 | BONNEVILLE PC | 1966 | 2011 | 6,647 | 6,647 | 7.130% | No | No |
| FY 2011 | BONNEVILLE PC | 1966 | 2011 | 1,714 | 1,714 | 7.130% | Yes | No |
| FY 2011 | BPA PROGRAM | 1998 | 2011 | 40,000 | 40,000 | 6.200% | No | No |
| FY 2011 | BPA PROGRAM | 2001 | 2011 | 25,000 | 25,000 | 5.950% | No | No |
| FY 2011 | BPA PROGRAM | 2001 | 2011 | 50,000 | 50,000 | 5.750% | No | No |
| FY 2011 | BONNEVILLE PC | 1970 | 2015 | 24,412 | 21,876 | 7.270% | No | No |
| Subtotal | | | - | \$162,652 | \$160,116 | - | Yes | No |
| | | | | | | | | \$159,852 |

| | | | | | | | | | |
|-----------------|---------------|------|------|------------------|------------------|--------|------------|------------|------------------|
| FY 2012 | BONNEVILLE PC | 1967 | 2012 | 19,003 | 19,003 | 7.160% | No | No | 19,003 |
| FY 2012 | BONNEVILLE PC | 1967 | 2012 | 4,566 | 2,454 | 7.160% | Yes | No | 2,454 |
| FY 2012 | BONNEVILLE PC | 1970 | 2015 | 64,977 | 64,977 | 7.270% | No | No | 64,977 |
| FY 2012 | BONNEVILLE PC | 1970 | 2015 | 7,995 | 7,995 | 7.270% | Yes | No | 7,995 |
| FY 2012 | BONNEVILLE PC | 1970 | 2015 | 24,412 | 264 | 7.270% | No | No | 264 |
| FY 2012 | BONNEVILLE PC | 1974 | 2019 | 20,984 | 20,984 | 7.270% | Yes | No | 7,440 |
| FY 2012 | BONNEVILLE PC | 1974 | 2019 | 12,563 | 12,563 | 7.270% | No | No | 12,563 |
| FY 2012 | BONNEVILLE PC | 1974 | 2019 | 21,826 | 21,826 | 7.270% | Yes | No | 21,826 |
| Subtotal | | - | - | \$176,326 | \$150,066 | - | Yes | No | \$136,521 |
| FY 2013 | BONNEVILLE PC | 1968 | 2013 | 41,070 | 18,250 | 7.200% | No | No | 18,250 |
| FY 2013 | BONNEVILLE PC | 1974 | 2019 | 12,079 | 12,079 | 7.270% | No | No | 12,079 |
| FY 2013 | BONNEVILLE PC | 1974 | 2019 | 20,984 | 13,544 | 7.270% | Yes | No | 13,544 |
| FY 2013 | BONNEVILLE PC | 1975 | 2020 | 17,158 | 17,158 | 7.250% | No | No | 15,991 |
| FY 2013 | BONNEVILLE PC | 1975 | 2020 | 11,742 | 11,742 | 7.250% | Yes | No | 11,742 |
| Subtotal | | - | - | \$103,033 | \$72,773 | - | Yes | No | \$71,607 |
| FY 2014 | BONNEVILLE PC | 1969 | 2014 | 42,237 | 19,198 | 7.230% | No | No | 19,198 |
| FY 2014 | BPA PROGRAM | 1999 | 2014 | 59,050 | 59,050 | 5.900% | No | No | 59,050 |
| FY 2014 | BONNEVILLE PC | 1975 | 2020 | 21,916 | 21,916 | 7.250% | Yes | No | 9,802 |
| FY 2014 | BONNEVILLE PC | 1975 | 2020 | 17,158 | 1,167 | 7.250% | No | No | 1,167 |
| Subtotal | | - | - | \$140,361 | \$101,331 | - | Yes | No | \$89,217 |
| FY 2015 | BONNEVILLE PC | 1970 | 2015 | 24,412 | -0 | 7.270% | No | No | -0 |
| FY 2015 | BONNEVILLE PC | 1975 | 2020 | 32,026 | 32,026 | 7.250% | No | No | 32,026 |
| FY 2015 | BONNEVILLE PC | 1975 | 2020 | 21,916 | 12,114 | 7.250% | Yes | No | 12,114 |
| FY 2015 | BONNEVILLE PC | 1976 | 2021 | 61,025 | 61,025 | 7.230% | No | No | 45,663 |
| FY 2015 | BONNEVILLE PC | 1976 | 2021 | 2,212 | 2,212 | 7.230% | Yes | No | 2,212 |
| Subtotal | | - | - | \$141,591 | \$107,377 | - | Yes | No | \$92,015 |
| FY 2016 | BONNEVILLE PC | 1976 | 2021 | 61,025 | 15,362 | 7.230% | No | No | 15,362 |
| FY 2016 | BONNEVILLE PC | 1977 | 2022 | 3,948 | 3,948 | 7.210% | No | No | 3,948 |
| FY 2016 | BONNEVILLE PC | 1977 | 2022 | 5,380 | 5,380 | 7.210% | Yes | No | 5,380 |
| FY 2016 | BONNEVILLE PC | 1977 | 2022 | 33,702 | 33,702 | 7.210% | No | No | 33,702 |
| FY 2016 | BONNEVILLE PC | 1977 | 2022 | 4,981 | 4,981 | 7.210% | Yes | No | 4,981 |
| FY 2016 | BPA PROGRAM | 2006 | 2041 | 248,948 | 248,948 | 6.820% | No | No | 22,830 |
| Subtotal | | - | - | \$357,984 | \$312,321 | - | Yes | No | \$86,203 |
| FY 2017 | BONNEVILLE PC | 1972 | 2017 | 21,170 | -0 | 7.290% | Yes | No | -0 |
| FY 2017 | BPA PROGRAM | 2006 | 2041 | 248,948 | 226,118 | 6.820% | No | No | 66,960 |
| Subtotal | | - | - | \$270,118 | \$226,118 | - | Yes | No | \$66,960 |
| FY 2018 | BPA PROGRAM | 2006 | 2041 | 248,948 | 159,158 | 6.820% | No | No | 50,018 |
| Subtotal | | - | - | \$248,948 | \$159,158 | - | No | No | \$50,018 |
| FY 2019 | BPA PROGRAM | 2004 | 2019 | 65,000 | 65,000 | 6.640% | No | Yes | 65,000 |
| FY 2019 | BPA PROGRAM | 2006 | 2041 | 248,948 | 109,140 | 6.820% | No | No | 85,653 |
| Subtotal | | - | - | \$313,948 | \$174,140 | - | No | Yes | \$150,653 |
| FY 2020 | BONNEVILLE PC | 1975 | 2020 | 17,158 | -0 | 7.250% | No | No | -0 |
| FY 2020 | BPA PROGRAM | 2000 | 2020 | 40,000 | 40,000 | 6.690% | No | Yes | 40,000 |
| FY 2020 | BPA PROGRAM | 2004 | 2020 | 65,000 | 65,000 | 6.680% | No | Yes | 65,000 |
| FY 2020 | BPA PROGRAM | 2003 | 2020 | 25,000 | 25,000 | 6.670% | No | Yes | 25,000 |
| FY 2020 | ENVIRONMENT | 2005 | 2020 | 11,919 | 11,919 | 5.800% | No | No | 11,919 |
| FY 2020 | ENVIRONMENT | 2006 | 2021 | 4,670 | 4,670 | 6.050% | No | No | 4,669 |
| FY 2020 | BPA PROGRAM | 2006 | 2041 | 248,948 | 23,487 | 6.820% | No | No | 6,106 |
| Subtotal | | - | - | \$412,695 | \$170,075 | - | No | Yes | \$152,694 |
| FY 2021 | BONNEVILLE PC | 1976 | 2021 | 61,025 | -0 | 7.230% | No | No | -0 |
| FY 2021 | BPA PROGRAM | 2003 | 2021 | 40,000 | 40,000 | 6.730% | No | Yes | 40,000 |
| FY 2021 | BPA PROGRAM | 1997 | 2021 | 111,254 | 111,254 | 6.700% | No | Yes | 111,254 |
| FY 2021 | ENVIRONMENT | 2006 | 2021 | 4,670 | 1 | 6.050% | No | No | 1 |
| Subtotal | | - | - | \$216,949 | \$151,255 | - | No | Yes | \$151,255 |
| FY 2022 | BPA PROGRAM | 2002 | 2022 | 100,000 | 100,000 | 6.760% | No | Yes | 100,000 |
| FY 2022 | BPA PROGRAM | 2006 | 2041 | 248,948 | 17,381 | 6.820% | No | No | 17,381 |
| FY 2022 | BPA PROGRAM | 2007 | 2042 | 118,591 | 118,591 | 6.820% | Yes | No | 30,173 |
| Subtotal | | - | - | \$467,539 | \$235,972 | - | Yes | Yes | \$147,553 |
| FY 2023 | BPA PROGRAM | 2003 | 2023 | 75,000 | 75,000 | 6.800% | No | Yes | 75,000 |
| FY 2023 | BPA PROGRAM | 2002 | 2023 | 60,000 | 60,000 | 6.790% | No | Yes | 60,000 |
| FY 2023 | BPA PROGRAM | 2007 | 2042 | 118,591 | 88,418 | 6.820% | Yes | No | 11,662 |
| Subtotal | | - | - | \$253,591 | \$223,418 | - | Yes | Yes | \$146,662 |

| | | | | | | | | | |
|--------------------|-------------|------|------|--------------------|--------------------|--------|------------|------------|--------------------|
| FY 2024 | BPA PROGRAM | 2002 | 2024 | 108,010 | 108,010 | 6.830% | No | Yes | 108,010 |
| FY 2024 | BPA PROGRAM | 2007 | 2042 | 118,591 | 76,756 | 6.820% | Yes | No | 35,306 |
| Subtotal | | - | - | \$226,601 | \$184,766 | - | Yes | Yes | \$143,316 |
| FY 2025 | BPA PROGRAM | 2007 | 2042 | 118,591 | 41,450 | 6.820% | Yes | No | 41,450 |
| FY 2025 | BPA PROGRAM | 2008 | 2043 | 122,945 | 122,945 | 6.820% | Yes | No | 95,440 |
| Subtotal | | - | - | \$241,536 | \$164,395 | - | Yes | No | \$136,890 |
| FY 2026 | BPA PROGRAM | 2008 | 2043 | 122,945 | 27,505 | 6.820% | Yes | No | 27,505 |
| FY 2026 | BPA PROGRAM | 2009 | 2044 | 127,001 | 127,001 | 6.820% | Yes | No | 105,888 |
| Subtotal | | - | - | \$249,946 | \$154,506 | - | Yes | No | \$133,393 |
| FY 2027 | BPA PROGRAM | 1998 | 2028 | 50,000 | 50,000 | 6.650% | No | No | 32,722 |
| FY 2027 | BPA PROGRAM | 2009 | 2044 | 127,001 | 21,113 | 6.820% | Yes | No | 21,113 |
| FY 2027 | BPA PROGRAM | 2010 | 2045 | 130,989 | 130,989 | 6.820% | Yes | No | 76,710 |
| Subtotal | | - | - | \$307,990 | \$202,102 | - | Yes | No | \$130,544 |
| FY 2028 | BPA PROGRAM | 1998 | 2028 | 50,000 | 17,278 | 6.650% | No | No | 17,278 |
| FY 2028 | BPA PROGRAM | 1998 | 2028 | 112,300 | 112,300 | 5.850% | No | No | 112,300 |
| Subtotal | | - | - | \$162,300 | \$129,578 | - | No | No | \$129,578 |
| FY 2029 | BPA PROGRAM | 2010 | 2045 | 130,989 | 54,279 | 6.820% | Yes | No | 54,279 |
| FY 2029 | BPA PROGRAM | 2011 | 2046 | 134,879 | 134,879 | 6.820% | Yes | No | 63,171 |
| Subtotal | | - | - | \$265,868 | \$189,158 | - | Yes | No | \$117,450 |
| FY 2030 | BPA PROGRAM | 1998 | 2032 | 98,900 | 98,900 | 6.700% | No | No | 2,505 |
| FY 2030 | BPA PROGRAM | 2011 | 2046 | 134,879 | 71,708 | 6.820% | Yes | No | 71,708 |
| FY 2030 | BPA PROGRAM | 2012 | 2047 | 138,865 | 138,865 | 6.820% | Yes | No | 37,978 |
| Subtotal | | - | - | \$372,644 | \$309,473 | - | Yes | No | \$112,191 |
| FY 2031 | BPA PROGRAM | 1998 | 2031 | 106,600 | 106,600 | 8.290% | No | Yes | 106,600 |
| FY 2031 | BPA PROGRAM | 1998 | 2032 | 98,900 | 96,395 | 6.700% | No | No | 3,071 |
| Subtotal | | - | - | \$205,500 | \$202,995 | - | No | Yes | \$109,671 |
| FY 2032 | BPA PROGRAM | 1998 | 2032 | 98,900 | 93,324 | 6.700% | No | No | 93,324 |
| FY 2032 | BPA PROGRAM | 2004 | 2034 | 40,000 | 40,000 | 5.600% | No | No | 11,602 |
| Subtotal | | - | - | \$138,900 | \$133,324 | - | No | No | \$104,926 |
| FY 2033 | BPA PROGRAM | 2003 | 2033 | 40,000 | 40,000 | 5.550% | No | No | 40,000 |
| FY 2033 | BPA PROGRAM | 2004 | 2034 | 40,000 | 28,398 | 5.600% | No | No | 28,193 |
| Subtotal | | - | - | \$80,000 | \$68,398 | - | No | No | \$68,193 |
| FY 2034 | BPA PROGRAM | 2004 | 2034 | 40,000 | 205 | 5.600% | No | No | 205 |
| Subtotal | | - | - | \$40,000 | \$205 | - | No | No | \$205 |
| FY 2035 | BPA PROGRAM | 2012 | 2047 | 138,865 | 100,887 | 6.820% | Yes | No | 78,715 |
| Subtotal | | - | - | \$138,865 | \$100,887 | - | Yes | No | \$78,715 |
| FY 2036 | BPA PROGRAM | 2005 | 2040 | 221,179 | 221,179 | 5.630% | No | No | 37,979 |
| FY 2036 | BPA PROGRAM | 2012 | 2047 | 138,865 | 22,172 | 6.820% | Yes | No | 22,172 |
| FY 2036 | BPA PROGRAM | 2013 | 2048 | 143,033 | 143,033 | 6.820% | Yes | No | 10,818 |
| Subtotal | | - | - | \$503,077 | \$386,384 | - | Yes | No | \$70,968 |
| FY 2037 | BPA PROGRAM | 2005 | 2040 | 221,179 | 183,200 | 5.630% | No | No | 62,020 |
| Subtotal | | - | - | \$221,179 | \$183,200 | - | No | No | \$62,020 |
| FY 2038 | BPA PROGRAM | 2005 | 2040 | 221,179 | 121,180 | 5.630% | No | No | 51,620 |
| Subtotal | | - | - | \$221,179 | \$121,180 | - | No | No | \$51,620 |
| FY 2039 | BPA PROGRAM | 2005 | 2040 | 221,179 | 69,561 | 5.630% | No | No | 40,611 |
| Subtotal | | - | - | \$221,179 | \$69,561 | - | No | No | \$40,611 |
| FY 2040 | BPA PROGRAM | 2005 | 2040 | 221,179 | 28,950 | 5.630% | No | No | 28,950 |
| Subtotal | | - | - | \$221,179 | \$28,950 | - | No | No | \$28,950 |
| FY 2041 | BPA PROGRAM | 2006 | 2041 | 248,948 | -0 | 6.820% | No | No | -0 |
| FY 2041 | BPA PROGRAM | 2013 | 2048 | 143,033 | 132,215 | 6.820% | Yes | No | 16,354 |
| Subtotal | | - | - | \$391,981 | \$132,215 | - | Yes | No | \$16,354 |
| FY 2042 | BPA PROGRAM | 2007 | 2042 | 118,591 | -0 | 6.820% | Yes | No | -0 |
| FY 2042 | BPA PROGRAM | 2013 | 2048 | 143,033 | 115,861 | 6.820% | Yes | No | 8,250 |
| Subtotal | | - | - | \$261,624 | \$115,861 | - | Yes | No | \$8,250 |
| Grand Total | | - | - | \$8,817,797 | \$6,152,051 | - | Yes | Yes | \$4,004,540 |

Table 11-5: Summary of Interest (\$1000s) (FY 2007)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Summary of Interest (1000s) (FY 2007)

| Project | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------|
| BONNEVILLE POWER ADMINISTRATION | 48,150 | 48,047 | 44,449 | 43,221 | 41,739 | 36,075 | 31,040 | 27,729 | 17,755 | 12,508 | 10,271 | 3,568 | - | - | - |
| TOTAL APPROPRIATIONS | 48,150 | 48,047 | 44,449 | 43,221 | 41,739 | 36,075 | 31,040 | 27,729 | 17,755 | 12,508 | 10,271 | 3,568 | - | - | - |
| BPA BORROWING | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BPA PROGRAM ENVIRONMENT PREMIUMS (LESS INTEREST INCOME) | 107,818 3,076 - -6,036 | 116,291 3,563 - -6,644 | 136,787 2,938 - -6,681 | 148,809 3,088 - -6,425 | 152,414 3,088 - -6,270 | 157,087 1,273 - -6,402 | 162,759 1,273 - -6,359 | 165,472 1,273 - -5,772 | 175,290 1,273 - -4,153 | 185,380 1,273 - -4,553 | 192,264 1,273 - -4,643 | 202,912 1,273 - -4,501 | 211,319 1,273 - -4,115 | 217,875 1,273 - -3,777 | 225,853 1,273 -6,227 |
| TOTAL BPA BORROWING | 104,858 | 113,209 | 133,044 | 145,473 | 149,232 | 153,773 | 157,674 | 160,973 | 172,410 | 182,100 | 188,894 | 201,553 | 211,785 | 217,743 | 224,782 |
| TOTALS | 153,008 | 161,255 | 177,494 | 188,694 | 190,971 | 189,848 | 188,714 | 188,703 | 190,165 | 194,608 | 199,165 | 205,121 | 211,785 | 217,743 | 224,782 |

| 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 230,136 | 232,167 | 234,872 | 237,547 | 240,607 | 244,242 | 248,278 | 252,728 | 261,088 | 266,570 | 272,483 | 277,123 | 283,940 | 293,859 | 307,551 | 315,804 |
| 302 | 299 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | 1,742 | 454 | 1,312 | 5,008 | 4,891 | 3,623 | - | 3,923 | 2,357 | 5 | 45 | 52 | 0 | 930 | 581 |
| -6,192 | -6,171 | -6,145 | -6,116 | -6,082 | -6,041 | -5,995 | -5,944 | -5,847 | -5,783 | -5,713 | -5,659 | -4,890 | -3,434 | -5,451 | -5,353 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 224,246 | 228,038 | 229,181 | 232,743 | 239,533 | 243,092 | 245,906 | 246,784 | 259,165 | 263,145 | 266,775 | 271,509 | 279,102 | 290,424 | 303,030 | 311,033 |
| 224,246 | 228,038 | 229,181 | 232,743 | 239,533 | 243,092 | 245,906 | 246,784 | 259,165 | 263,145 | 266,775 | 271,509 | 279,102 | 290,424 | 303,030 | 311,033 |

| 2038 | 2039 | 2040 | 2041 | 2042 | Total |
|-------------|-------------|-------------|-------------|-------------|--------------|
| - | - | - | - | - | 364,552 |
| - | - | - | - | - | - |
| - | - | - | - | - | 364,552 |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| 335,098 | 345,735 | 356,942 | 368,759 | 381,019 | 9,097,190 |
| - | - | - | - | - | 32,174 |
| 168 | 67 | 0 | - | 56 | 37,238 |
| -5,121 | -4,994 | -4,860 | -4,719 | -4,573 | -209,095 |
| - | - | - | - | - | - |
| 330,145 | 340,808 | 352,082 | 364,040 | 376,502 | 8,957,507 |
| - | - | - | - | - | - |
| 330,145 | 340,808 | 352,082 | 364,040 | 376,502 | 9,322,059 |

Table 11-6: Summary of Interest (\$1000s) (FY 2007)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD
 Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

| Interest Calculation Summary (1000s) (FY 2007) | | | | | | | |
|--|--------------------------|------|--------------------|--------|------------------|---------|------------------|
| Date | Project | Type | Principal | Rate | Interest | Premium | Total |
| FY 2005 | BONNEVILLE PO\HISTORICAL | | 667,129 | 7.218% | 48,150 | - | 48,150 |
| FY 2005 | BPA PROGRAM HISTORICAL | | 1,982,003 | 5.126% | 101,592 | - | 101,592 |
| FY 2005 | BPA PROGRAM NEW | | 221,179 | 2.815% | 6,226 | - | 6,226 |
| FY 2005 | ENVIRONMENT HISTORICAL | | 60,000 | 4.550% | 2,730 | - | 2,730 |
| FY 2005 | ENVIRONMENT NEW | | 11,919 | 2.900% | 346 | - | 346 |
| FY 2005 | Float HISTORICAL | | - | - | -6,036 | - | -6,036 |
| Subtotal | | | \$2,942,230 | - | \$153,008 | - | \$153,008 |
| FY 2006 | BONNEVILLE PO\HISTORICAL | | 665,628 | 7.218% | 48,047 | - | 48,047 |
| FY 2006 | BPA PROGRAM HISTORICAL | | 2,049,682 | 5.259% | 107,801 | - | 107,801 |
| FY 2006 | BPA PROGRAM NEW | | 248,948 | 3.410% | 8,489 | - | 8,489 |
| FY 2006 | ENVIRONMENT HISTORICAL | | 71,919 | 4.757% | 3,421 | - | 3,421 |
| FY 2006 | ENVIRONMENT NEW | | 4,670 | 3.025% | 141 | - | 141 |
| FY 2006 | Float HISTORICAL | | - | - | -6,644 | - | -6,644 |
| Subtotal | | | \$3,040,847 | - | \$161,255 | - | \$161,255 |
| FY 2007 | BONNEVILLE PO\HISTORICAL | | 615,259 | 7.225% | 44,449 | - | 44,449 |
| FY 2007 | BPA PROGRAM HISTORICAL | | 2,203,692 | 5.801% | 127,829 | - | 127,829 |
| FY 2007 | BPA PROGRAM NEW | | 259,628 | 3.450% | 8,957 | - | 8,957 |
| FY 2007 | ENVIRONMENT HISTORICAL | | 46,589 | 5.986% | 2,789 | - | 2,789 |
| FY 2007 | ENVIRONMENT NEW | | 4,836 | 3.095% | 150 | - | 150 |
| FY 2007 | Float HISTORICAL | | - | - | -6,681 | - | -6,681 |
| Subtotal | | | \$3,130,004 | - | \$177,494 | - | \$177,494 |
| FY 2008 | BONNEVILLE PO\HISTORICAL | | 597,659 | 7.232% | 43,221 | - | 43,221 |
| FY 2008 | BPA PROGRAM HISTORICAL | | 2,310,620 | 6.254% | 144,495 | - | 144,495 |
| FY 2008 | ENVIRONMENT HISTORICAL | | 51,425 | 6.005% | 3,088 | - | 3,088 |
| FY 2008 | BPA PROGRAM NEW | | 125,044 | 3.450% | 4,314 | - | 4,314 |
| FY 2008 | Float HISTORICAL | | - | - | -6,425 | - | -6,425 |
| Subtotal | | | \$3,084,748 | - | \$188,694 | - | \$188,694 |
| FY 2009 | BONNEVILLE PO\HISTORICAL | | 576,931 | 7.235% | 41,739 | - | 41,739 |
| FY 2009 | BPA PROGRAM HISTORICAL | | 2,173,501 | 6.411% | 139,335 | - | 139,335 |
| FY 2009 | ENVIRONMENT HISTORICAL | | 51,425 | 6.005% | 3,088 | - | 3,088 |
| FY 2009 | BPA PROGRAM HISTORICAL | | 125,044 | 6.900% | 8,628 | - | 8,628 |
| FY 2009 | BPA PROGRAM NEW | | 129,009 | 3.450% | 4,451 | - | 4,451 |
| FY 2009 | Float HISTORICAL | | - | - | -6,270 | - | -6,270 |
| Subtotal | | | \$3,055,909 | - | \$190,971 | - | \$190,971 |
| FY 2010 | BONNEVILLE PO\HISTORICAL | | 498,843 | 7.232% | 36,075 | - | 36,075 |
| FY 2010 | BPA PROGRAM HISTORICAL | | 2,100,801 | 6.425% | 134,973 | - | 134,973 |
| FY 2010 | ENVIRONMENT HISTORICAL | | 51,425 | 6.005% | 3,088 | - | 3,088 |
| FY 2010 | BPA PROGRAM HISTORICAL | | 254,053 | 6.900% | 17,530 | - | 17,530 |
| FY 2010 | BPA PROGRAM NEW | | 132,886 | 3.450% | 4,585 | - | 4,585 |
| FY 2010 | Float HISTORICAL | | - | - | -6,402 | - | -6,402 |
| Subtotal | | | \$3,038,008 | - | \$189,848 | - | \$189,848 |
| FY 2011 | BONNEVILLE PO\HISTORICAL | | 428,986 | 7.236% | 31,040 | - | 31,040 |
| FY 2011 | BPA PROGRAM HISTORICAL | | 2,040,869 | 6.436% | 131,347 | - | 131,347 |
| FY 2011 | ENVIRONMENT HISTORICAL | | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2011 | BPA PROGRAM HISTORICAL | | 386,939 | 6.900% | 26,699 | - | 26,699 |
| FY 2011 | BPA PROGRAM NEW | | 136,618 | 3.450% | 4,713 | - | 4,713 |
| FY 2011 | Float HISTORICAL | | - | - | -6,359 | - | -6,359 |
| Subtotal | | | \$3,014,837 | - | \$188,714 | - | \$188,714 |
| FY 2012 | BONNEVILLE PO\HISTORICAL | | 382,998 | 7.240% | 27,729 | - | 27,729 |
| FY 2012 | BPA PROGRAM HISTORICAL | | 1,925,869 | 6.465% | 124,504 | - | 124,504 |
| FY 2012 | ENVIRONMENT HISTORICAL | | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2012 | BPA PROGRAM HISTORICAL | | 523,557 | 6.900% | 36,125 | - | 36,125 |
| FY 2012 | BPA PROGRAM NEW | | 140,354 | 3.450% | 4,842 | - | 4,842 |
| FY 2012 | Float HISTORICAL | | - | - | -5,772 | - | -5,772 |
| Subtotal | | | \$2,994,202 | - | \$188,703 | - | \$188,703 |
| FY 2013 | BONNEVILLE PO\HISTORICAL | | 245,480 | 7.233% | 17,755 | - | 17,755 |
| FY 2013 | BPA PROGRAM HISTORICAL | | 1,925,869 | 6.465% | 124,504 | - | 124,504 |
| FY 2013 | ENVIRONMENT HISTORICAL | | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2013 | BPA PROGRAM HISTORICAL | | 663,911 | 6.900% | 45,810 | - | 45,810 |
| FY 2013 | BPA PROGRAM NEW | | 144,215 | 3.450% | 4,975 | - | 4,975 |
| FY 2013 | Float HISTORICAL | | - | - | -4,153 | - | -4,153 |
| Subtotal | | | \$3,000,899 | - | \$190,165 | - | \$190,165 |

| | | | | | | |
|-----------------|--------------------------|--------------------|--------|------------------|----------------|------------------|
| FY 2014 | BONNEVILLE PO\HISTORICAL | 173,011 | 7.229% | 12,508 | - | 12,508 |
| FY 2014 | BPA PROGRAM HISTORICAL | 1,925,869 | 6.465% | 124,504 | - | 124,504 |
| FY 2014 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2014 | BPA PROGRAM HISTORICAL | 808,126 | 6.900% | 55,761 | - | 55,761 |
| FY 2014 | BPA PROGRAM NEW | 148,247 | 3.450% | 5,115 | - | 5,115 |
| FY 2014 | Float HISTORICAL | - | - | -4,553 | - | -4,553 |
| Subtotal | | \$3,076,677 | - | \$194,608 | - | \$194,608 |
| FY 2015 | BONNEVILLE PO\HISTORICAL | 142,109 | 7.228% | 10,271 | - | 10,271 |
| FY 2015 | BPA PROGRAM HISTORICAL | 1,866,819 | 6.483% | 121,021 | - | 121,021 |
| FY 2015 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2015 | BPA PROGRAM HISTORICAL | 956,373 | 6.900% | 65,990 | - | 65,990 |
| FY 2015 | BPA PROGRAM NEW | 152,293 | 3.450% | 5,254 | - | 5,254 |
| FY 2015 | Float HISTORICAL | - | - | -4,643 | - | -4,643 |
| Subtotal | | \$3,139,019 | - | \$199,165 | - | \$199,165 |
| FY 2016 | BONNEVILLE PO\HISTORICAL | 49,478 | 7.211% | 3,568 | - | 3,568 |
| FY 2016 | BPA PROGRAM HISTORICAL | 1,866,819 | 6.483% | 121,021 | 1,869 | 122,890 |
| FY 2016 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2016 | BPA PROGRAM HISTORICAL | 1,108,666 | 6.900% | 76,498 | - | 76,498 |
| FY 2016 | BPA PROGRAM NEW | 156,334 | 3.450% | 5,394 | - | 5,394 |
| FY 2016 | Float HISTORICAL | - | - | -4,501 | - | -4,501 |
| Subtotal | | \$3,202,721 | - | \$203,252 | \$1,869 | \$205,121 |
| FY 2017 | BPA PROGRAM HISTORICAL | 1,830,349 | 6.474% | 118,504 | 3,307 | 121,811 |
| FY 2017 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2017 | BPA PROGRAM HISTORICAL | 1,265,000 | 6.900% | 87,285 | - | 87,285 |
| FY 2017 | BPA PROGRAM NEW | 160,283 | 3.450% | 5,530 | - | 5,530 |
| FY 2017 | Float HISTORICAL | - | - | -4,115 | - | -4,115 |
| Subtotal | | \$3,277,057 | - | \$208,478 | \$3,307 | \$211,785 |
| FY 2018 | BPA PROGRAM HISTORICAL | 1,763,245 | 6.458% | 113,874 | 2,372 | 116,246 |
| FY 2018 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2018 | BPA PROGRAM HISTORICAL | 1,425,283 | 6.900% | 98,345 | - | 98,345 |
| FY 2018 | BPA PROGRAM NEW | 163,952 | 3.450% | 5,656 | - | 5,656 |
| FY 2018 | Float HISTORICAL | - | - | -3,777 | - | -3,777 |
| Subtotal | | \$3,373,905 | - | \$215,371 | \$2,372 | \$217,743 |
| FY 2019 | BPA PROGRAM HISTORICAL | 1,713,110 | 6.445% | 110,415 | 3,882 | 114,297 |
| FY 2019 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | - | 1,273 |
| FY 2019 | BPA PROGRAM HISTORICAL | 1,589,235 | 6.900% | 109,657 | - | 109,657 |
| FY 2019 | BPA PROGRAM NEW | 167,577 | 3.450% | 5,781 | - | 5,781 |
| FY 2019 | Float HISTORICAL | - | - | -6,227 | - | -6,227 |
| Subtotal | | \$3,491,347 | - | \$220,900 | \$3,882 | \$224,782 |
| FY 2020 | BPA PROGRAM HISTORICAL | 1,562,497 | 6.412% | 100,191 | 271 | 100,463 |
| FY 2020 | ENVIRONMENT HISTORICAL | 21,425 | 5.942% | 1,273 | 19 | 1,292 |
| FY 2020 | BPA PROGRAM HISTORICAL | 1,756,812 | 6.900% | 121,220 | - | 121,220 |
| FY 2020 | BPA PROGRAM NEW | 171,207 | 3.450% | 5,907 | - | 5,907 |
| FY 2020 | Float HISTORICAL | - | - | -6,212 | - | -6,212 |
| Subtotal | | \$3,511,941 | - | \$222,379 | \$290 | \$222,669 |
| FY 2021 | BPA PROGRAM HISTORICAL | 1,426,243 | 6.386% | 91,074 | - | 91,074 |
| FY 2021 | ENVIRONMENT HISTORICAL | 4,879 | 6.189% | 302 | - | 302 |
| FY 2021 | BPA PROGRAM HISTORICAL | 1,928,019 | 6.900% | 133,033 | - | 133,033 |
| FY 2021 | BPA PROGRAM NEW | 174,746 | 3.450% | 6,029 | - | 6,029 |
| FY 2021 | Float HISTORICAL | - | - | -6,192 | - | -6,192 |
| Subtotal | | \$3,533,887 | - | \$224,246 | - | \$224,246 |
| FY 2022 | BPA PROGRAM HISTORICAL | 1,274,989 | 6.347% | 80,928 | 554 | 81,482 |
| FY 2022 | ENVIRONMENT HISTORICAL | 4,836 | 6.190% | 299 | - | 299 |
| FY 2022 | BPA PROGRAM HISTORICAL | 2,102,765 | 6.900% | 145,091 | 1,188 | 146,279 |
| FY 2022 | BPA PROGRAM NEW | 178,206 | 3.450% | 6,148 | - | 6,148 |
| FY 2022 | Float HISTORICAL | - | - | -6,171 | - | -6,171 |
| Subtotal | | \$3,560,796 | - | \$226,296 | \$1,742 | \$228,038 |
| FY 2023 | BPA PROGRAM HISTORICAL | 1,160,937 | 6.305% | 73,199 | - | 73,199 |
| FY 2023 | BPA PROGRAM HISTORICAL | 2,252,273 | 6.900% | 155,407 | 454 | 155,861 |
| FY 2023 | BPA PROGRAM NEW | 181,629 | 3.450% | 6,266 | - | 6,266 |
| FY 2023 | Float HISTORICAL | - | - | -6,145 | - | -6,145 |
| Subtotal | | \$3,594,839 | - | \$228,727 | \$454 | \$229,181 |

| | | | | | | | |
|-----------------|-------------|------------|--------------------|--------|------------------|----------------|------------------|
| FY 2024 | BPA PROGRAM | HISTORICAL | 1,025,937 | 6.241% | 64,025 | - | 64,025 |
| FY 2024 | BPA PROGRAM | HISTORICAL | 2,422,384 | 6.900% | 167,145 | 1,312 | 168,456 |
| FY 2024 | BPA PROGRAM | NEW | 184,857 | 3.450% | 6,378 | - | 6,378 |
| FY 2024 | Float | HISTORICAL | - | - | -6,116 | - | -6,116 |
| Subtotal | | | \$3,633,178 | - | \$231,431 | \$1,312 | \$232,743 |
| FY 2025 | BPA PROGRAM | HISTORICAL | 917,927 | 6.171% | 56,648 | - | 56,648 |
| FY 2025 | BPA PROGRAM | HISTORICAL | 2,572,218 | 6.900% | 177,483 | 5,008 | 182,491 |
| FY 2025 | BPA PROGRAM | NEW | 187,730 | 3.450% | 6,477 | - | 6,477 |
| FY 2025 | Float | HISTORICAL | - | - | -6,082 | - | -6,082 |
| Subtotal | | | \$3,677,875 | - | \$234,525 | \$5,008 | \$239,533 |
| FY 2026 | BPA PROGRAM | HISTORICAL | 917,927 | 6.171% | 56,648 | - | 56,648 |
| FY 2026 | BPA PROGRAM | HISTORICAL | 2,623,633 | 6.900% | 181,031 | 4,891 | 185,922 |
| FY 2026 | BPA PROGRAM | NEW | 190,241 | 3.450% | 6,563 | - | 6,563 |
| FY 2026 | Float | HISTORICAL | - | - | -6,041 | - | -6,041 |
| Subtotal | | | \$3,731,801 | - | \$238,200 | \$4,891 | \$243,092 |
| FY 2027 | BPA PROGRAM | HISTORICAL | 917,927 | 6.171% | 56,648 | 73 | 56,721 |
| FY 2027 | BPA PROGRAM | HISTORICAL | 2,681,049 | 6.900% | 184,992 | 3,550 | 188,542 |
| FY 2027 | BPA PROGRAM | NEW | 192,421 | 3.450% | 6,639 | - | 6,639 |
| FY 2027 | Float | HISTORICAL | - | - | -5,995 | - | -5,995 |
| Subtotal | | | \$3,791,397 | - | \$242,283 | \$3,623 | \$245,906 |
| FY 2028 | BPA PROGRAM | HISTORICAL | 884,870 | 6.153% | 54,449 | - | 54,449 |
| FY 2028 | BPA PROGRAM | HISTORICAL | 2,776,458 | 6.900% | 191,576 | - | 191,576 |
| FY 2028 | BPA PROGRAM | NEW | 194,290 | 3.450% | 6,703 | - | 6,703 |
| FY 2028 | Float | HISTORICAL | - | - | -5,944 | - | -5,944 |
| Subtotal | | | \$3,855,618 | - | \$246,784 | - | \$246,784 |
| FY 2029 | BPA PROGRAM | HISTORICAL | 755,627 | 6.532% | 49,354 | 122 | 49,476 |
| FY 2029 | BPA PROGRAM | HISTORICAL | 2,970,748 | 6.900% | 204,982 | 3,802 | 208,783 |
| FY 2029 | BPA PROGRAM | NEW | 195,720 | 3.450% | 6,752 | - | 6,752 |
| FY 2029 | Float | HISTORICAL | - | - | -5,847 | - | -5,847 |
| Subtotal | | | \$3,922,095 | - | \$255,241 | \$3,923 | \$259,165 |
| FY 2030 | BPA PROGRAM | HISTORICAL | 750,418 | 6.530% | 48,999 | 2,357 | 51,356 |
| FY 2030 | BPA PROGRAM | HISTORICAL | 3,054,774 | 6.900% | 210,779 | - | 210,779 |
| FY 2030 | BPA PROGRAM | NEW | 196,874 | 3.450% | 6,792 | - | 6,792 |
| FY 2030 | Float | HISTORICAL | - | - | -5,783 | - | -5,783 |
| Subtotal | | | \$4,002,065 | - | \$260,788 | \$2,357 | \$263,145 |
| FY 2031 | BPA PROGRAM | HISTORICAL | 637,461 | 6.479% | 41,300 | 5 | 41,305 |
| FY 2031 | BPA PROGRAM | HISTORICAL | 3,251,648 | 6.900% | 224,364 | - | 224,364 |
| FY 2031 | BPA PROGRAM | NEW | 197,685 | 3.450% | 6,820 | - | 6,820 |
| FY 2031 | Float | HISTORICAL | - | - | -5,713 | - | -5,713 |
| Subtotal | | | \$4,086,794 | - | \$266,770 | \$5 | \$266,775 |
| FY 2032 | BPA PROGRAM | HISTORICAL | 528,118 | 6.112% | 32,279 | 45 | 32,324 |
| FY 2032 | BPA PROGRAM | HISTORICAL | 3,449,333 | 6.900% | 238,004 | - | 238,004 |
| FY 2032 | BPA PROGRAM | NEW | 198,269 | 3.450% | 6,840 | - | 6,840 |
| FY 2032 | Float | HISTORICAL | - | - | -5,659 | - | -5,659 |
| Subtotal | | | \$4,175,719 | - | \$271,464 | \$45 | \$271,509 |
| FY 2033 | BPA PROGRAM | HISTORICAL | 423,512 | 5.998% | 25,403 | 52 | 25,455 |
| FY 2033 | BPA PROGRAM | HISTORICAL | 3,647,602 | 6.900% | 251,685 | - | 251,685 |
| FY 2033 | BPA PROGRAM | NEW | 198,619 | 3.450% | 6,852 | - | 6,852 |
| FY 2033 | Float | HISTORICAL | - | - | -4,890 | - | -4,890 |
| Subtotal | | | \$4,269,732 | - | \$279,050 | \$52 | \$279,102 |
| FY 2034 | BPA PROGRAM | HISTORICAL | 355,602 | 6.080% | 21,620 | 0 | 21,620 |
| FY 2034 | BPA PROGRAM | HISTORICAL | 3,846,221 | 6.900% | 265,389 | - | 265,389 |
| FY 2034 | BPA PROGRAM | NEW | 198,538 | 3.450% | 6,850 | - | 6,850 |
| FY 2034 | Float | HISTORICAL | - | - | -3,434 | - | -3,434 |
| Subtotal | | | \$4,400,360 | - | \$290,424 | \$0 | \$290,424 |
| FY 2035 | BPA PROGRAM | HISTORICAL | 355,600 | 6.080% | 21,620 | 930 | 22,550 |
| FY 2035 | BPA PROGRAM | HISTORICAL | 4,044,759 | 6.900% | 279,088 | - | 279,088 |
| FY 2035 | BPA PROGRAM | NEW | 198,349 | 3.450% | 6,843 | - | 6,843 |
| FY 2035 | Float | HISTORICAL | - | - | -5,451 | - | -5,451 |
| Subtotal | | | \$4,598,707 | - | \$302,100 | \$930 | \$303,030 |

| | | | | | | | |
|--------------------|-------------|------------|----------------------|--------|--------------------|-----------------|--------------------|
| FY 2036 | BPA PROGRAM | HISTORICAL | 276,060 | 5.867% | 16,195 | 581 | 16,777 |
| FY 2036 | BPA PROGRAM | HISTORICAL | 4,243,108 | 6.900% | 292,774 | - | 292,774 |
| FY 2036 | BPA PROGRAM | NEW | 198,095 | 3.450% | 6,834 | - | 6,834 |
| FY 2036 | Float | HISTORICAL | - | - | -5,353 | - | -5,353 |
| Subtotal | | | \$4,717,262 | - | \$310,451 | \$581 | \$311,033 |
| FY 2037 | BPA PROGRAM | HISTORICAL | 204,569 | 5.736% | 11,734 | 301 | 12,035 |
| FY 2037 | BPA PROGRAM | HISTORICAL | 4,441,203 | 6.900% | 306,443 | - | 306,443 |
| FY 2037 | BPA PROGRAM | NEW | 197,629 | 3.450% | 6,818 | - | 6,818 |
| FY 2037 | Float | HISTORICAL | - | - | -5,243 | - | -5,243 |
| Subtotal | | | \$4,843,401 | - | \$319,752 | \$301 | \$320,053 |
| FY 2038 | BPA PROGRAM | HISTORICAL | 142,156 | 5.782% | 8,220 | 168 | 8,388 |
| FY 2038 | BPA PROGRAM | HISTORICAL | 4,638,832 | 6.900% | 320,079 | - | 320,079 |
| FY 2038 | BPA PROGRAM | NEW | 197,066 | 3.450% | 6,799 | - | 6,799 |
| FY 2038 | Float | HISTORICAL | - | - | -5,121 | - | -5,121 |
| Subtotal | | | \$4,978,053 | - | \$329,976 | \$168 | \$330,145 |
| FY 2039 | BPA PROGRAM | HISTORICAL | 89,899 | 5.871% | 5,278 | 67 | 5,344 |
| FY 2039 | BPA PROGRAM | HISTORICAL | 4,835,898 | 6.900% | 333,677 | - | 333,677 |
| FY 2039 | BPA PROGRAM | NEW | 196,539 | 3.450% | 6,781 | - | 6,781 |
| FY 2039 | Float | HISTORICAL | - | - | -4,994 | - | -4,994 |
| Subtotal | | | \$5,122,336 | - | \$340,741 | \$67 | \$340,808 |
| FY 2040 | BPA PROGRAM | HISTORICAL | 48,369 | 6.077% | 2,940 | 0 | 2,940 |
| FY 2040 | BPA PROGRAM | HISTORICAL | 5,032,437 | 6.900% | 347,238 | - | 347,238 |
| FY 2040 | BPA PROGRAM | NEW | 196,066 | 3.450% | 6,764 | - | 6,764 |
| FY 2040 | Float | HISTORICAL | - | - | -4,860 | - | -4,860 |
| Subtotal | | | \$5,276,872 | - | \$352,082 | \$0 | \$352,082 |
| FY 2041 | BPA PROGRAM | HISTORICAL | 18,176 | 6.820% | 1,240 | - | 1,240 |
| FY 2041 | BPA PROGRAM | HISTORICAL | 5,228,503 | 6.900% | 360,767 | - | 360,767 |
| FY 2041 | BPA PROGRAM | NEW | 195,732 | 3.450% | 6,753 | - | 6,753 |
| FY 2041 | Float | HISTORICAL | - | - | -4,719 | - | -4,719 |
| Subtotal | | | \$5,442,410 | - | \$364,040 | - | \$364,040 |
| FY 2042 | BPA PROGRAM | HISTORICAL | 5,424,235 | 6.900% | 374,272 | 56 | 374,328 |
| FY 2042 | BPA PROGRAM | NEW | 195,558 | 3.450% | 6,747 | - | 6,747 |
| FY 2042 | Float | HISTORICAL | - | - | -4,573 | - | -4,573 |
| Subtotal | | | \$5,619,793 | - | \$376,446 | \$56 | \$376,502 |
| Grand Total | | | \$145,209,341 | - | \$9,284,821 | \$37,238 | \$9,322,059 |

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Table 11-: Summary of Amortization (\$1000s) (FY 2007)

BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD

Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Summary of Amortization (1000s) (FY 2007)

| Project | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|---------|---------|
| BONNEVILLE POWER ADMINISTRATION | 1,501 | 50,369 | 17,600 | 20,729 | 78,087 | 69,857 | 45,988 | 137,518 | 72,469 | 30,901 | 92,632 | 49,478 | - | - | - | - |
| TOTAL APPROPRIATIONS | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BPA BORROWING | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| BPA PROGRAM ENVIRONMENT | 153,500 | 94,938 | 152,700 | 137,119 | 72,700 | 59,932 | 115,000 | - | - | 59,050 | - | 36,470 | 67,104 | 50,135 | 150,613 | 136,254 |
| TOTAL BPA BORROWING | - | 30,000 | - | - | - | 30,000 | - | - | - | - | - | - | - | - | - | 16,546 |
| TOTALS | 155,001 | 175,307 | 170,300 | 157,848 | 150,787 | 159,789 | 160,988 | 137,518 | 72,469 | 89,951 | 92,632 | 85,947 | 67,104 | 50,135 | 150,613 | 152,799 |

| 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 |
|---------------|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|------|--------|--------|--------|
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 151,254 43 | 142,751 4,836 | 146,517 | 143,033 | 136,315 | 132,825 | 130,070 | 129,243 | 116,904 | 112,956 | 109,344 | 104,606 | 67,910 | 2 | 79,540 | 71,490 | 62,414 |
| 151,297 | 147,587 | 146,517 | 143,033 | 136,315 | 132,825 | 130,070 | 129,243 | 116,904 | 112,956 | 109,344 | 104,606 | 67,910 | 2 | 79,540 | 71,490 | 62,414 |
| 151,297 | 147,587 | 146,517 | 143,033 | 136,315 | 132,825 | 130,070 | 129,243 | 116,904 | 112,956 | 109,344 | 104,606 | 67,910 | 2 | 79,540 | 71,490 | 62,414 |

| 2038 | 2039 | 2040 | 2041 | 2042 | Total |
|-------------|-------------|-------------|-------------|-------------|--------------|
| - | - | - | - | - | 667,129 |
| - | - | - | - | - | - |
| - | - | - | - | - | 667,129 |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| - | - | - | - | - | - |
| 52,256 | 41,530 | 30,193 | 18,176 | 5,673 | 3,270,516 |
| - | - | - | - | - | 81,425 |
| - | - | - | - | - | - |
| 52,256 | 41,530 | 30,193 | 18,176 | 5,673 | 3,351,941 |
| - | - | - | - | - | - |
| 52,256 | 41,530 | 30,193 | 18,176 | 5,673 | 4,019,070 |

Table 11-8: Application of Amortization (\$1000s) (FY 2007)
BONNEVILLE POWER ADMINISTRATION

OCTOBER 1, 2004 - SEPTEMBER 30, 2007 COST EVALUATION PERIOD
 Transmission 3-year Final RC w/ Corrected 3rd Party (ENW) and Revenue Finance 5-5-05

Application of Amortization (1000s) (FY 2007)

| Date | Project | Service Due | Original Balance | Amount Available | Rate | Replacement? | Rollover? | Amount Amortized |
|-----------------|---------------------------------|-------------|------------------|------------------|--------|--------------|-----------|------------------|
| FY 2005 | BPA PROGRAM | 2000 2005 | 53,500 | 53,500 | 7.150% | No | No | 53,500 |
| FY 2005 | BONNEVILLE POWER ADMINISTRATION | 1960 2005 | 3,598 | 1,500 | 6.910% | No | No | 1,500 |
| FY 2005 | BPA PROGRAM | 1997 2005 | 80,000 | 80,000 | 6.900% | No | No | 80,000 |
| FY 2005 | BPA PROGRAM | 2001 2005 | 20,000 | 20,000 | 5.650% | No | No | 20,000 |
| FY 2005 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 2,873 | 1,298 | 7.290% | Yes | No | 1 |
| Subtotal | | - - | \$159,971 | \$156,298 | - | Yes | No | \$155,001 |
| FY 2006 | BPA PROGRAM | 1996 2006 | 70,000 | 70,000 | 7.050% | No | No | 70,000 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1961 2006 | 4,468 | 4,468 | 6.950% | No | No | 4,468 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1961 2006 | 11,271 | 11,271 | 6.950% | Yes | No | 11,271 |
| FY 2006 | ENVIRONMENT | 2002 2006 | 30,000 | 30,000 | 3.050% | No | No | 30,000 |
| FY 2006 | BPA PROGRAM | 2003 2006 | 4,938 | 4,938 | 3.000% | No | No | 4,938 |
| FY 2006 | BPA PROGRAM | 2003 2006 | 20,000 | 20,000 | 2.500% | No | No | 20,000 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1962 2007 | 19,597 | 19,597 | 6.980% | No | No | 1,997 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1962 2007 | 4,877 | 4,877 | 6.980% | Yes | No | 4,877 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 29,326 | 29,326 | 7.290% | No | No | 1,309 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 21,170 | 21,170 | 7.290% | Yes | No | 21,170 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 3,980 | 3,980 | 7.290% | No | No | 3,980 |
| FY 2006 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 2,873 | 1,297 | 7.290% | Yes | No | 1,297 |
| Subtotal | | - - | \$222,500 | \$220,924 | - | Yes | No | \$175,307 |
| FY 2007 | BONNEVILLE POWER ADMINISTRATION | 1962 2007 | 19,597 | 17,600 | 6.980% | No | No | 17,600 |
| FY 2007 | BPA PROGRAM | 2004 2007 | 50,000 | 50,000 | 3.450% | No | No | 50,000 |
| FY 2007 | BPA PROGRAM | 2004 2007 | 30,000 | 30,000 | 3.100% | No | No | 30,000 |
| FY 2007 | BPA PROGRAM | 2003 2007 | 40,000 | 40,000 | 2.900% | No | No | 40,000 |
| FY 2007 | BPA PROGRAM | 2004 2007 | 32,700 | 32,700 | 2.500% | No | No | 32,700 |
| Subtotal | | - - | \$172,297 | \$170,300 | - | No | No | \$170,300 |
| FY 2008 | BONNEVILLE POWER ADMINISTRATION | 1963 2008 | 4,876 | 4,876 | 7.020% | No | No | 4,876 |
| FY 2008 | BONNEVILLE POWER ADMINISTRATION | 1963 2008 | 4,330 | 4,330 | 7.020% | Yes | No | 4,330 |
| FY 2008 | BONNEVILLE POWER ADMINISTRATION | 1963 2008 | 904 | 904 | 7.020% | No | No | 904 |
| FY 2008 | BONNEVILLE POWER ADMINISTRATION | 1963 2008 | 803 | 803 | 7.020% | Yes | No | 803 |
| FY 2008 | BPA PROGRAM | 1998 2008 | 75,300 | 75,300 | 6.000% | No | No | 75,300 |
| FY 2008 | BPA PROGRAM | 1998 2008 | 36,819 | 36,819 | 5.750% | No | No | 36,819 |
| FY 2008 | BPA PROGRAM | 2004 2008 | 25,000 | 25,000 | 3.800% | No | No | 25,000 |
| FY 2008 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 29,326 | 28,017 | 7.290% | No | No | 9,816 |
| Subtotal | | - - | \$177,358 | \$176,049 | - | Yes | No | \$157,848 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1964 2009 | 4,151 | 4,151 | 7.060% | No | No | 4,151 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1964 2009 | 5,738 | 5,738 | 7.060% | Yes | No | 5,738 |
| FY 2009 | BPA PROGRAM | 1998 2009 | 72,700 | 72,700 | 6.000% | No | No | 72,700 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1972 2017 | 29,326 | 18,202 | 7.290% | No | No | 18,202 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1973 2018 | 33,788 | 33,788 | 7.280% | No | No | 1,482 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1973 2018 | 21,656 | 21,656 | 7.280% | Yes | No | 21,656 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1973 2018 | 16,368 | 16,368 | 7.280% | No | No | 16,368 |
| FY 2009 | BONNEVILLE POWER ADMINISTRATION | 1973 2018 | 10,491 | 10,491 | 7.280% | Yes | No | 10,491 |
| Subtotal | | - - | \$194,218 | \$183,094 | - | Yes | No | \$150,787 |
| FY 2010 | BONNEVILLE POWER ADMINISTRATION | 1965 2010 | 3,706 | 3,706 | 7.090% | No | No | 3,706 |
| FY 2010 | BONNEVILLE POWER ADMINISTRATION | 1965 2010 | 7,248 | 7,248 | 7.090% | Yes | No | 7,248 |
| FY 2010 | BONNEVILLE POWER ADMINISTRATION | 1965 2010 | 5,202 | 5,202 | 7.090% | No | No | 5,202 |
| FY 2010 | BONNEVILLE POWER ADMINISTRATION | 1965 2010 | 10,171 | 10,171 | 7.090% | Yes | No | 10,171 |
| FY 2010 | ENVIRONMENT | 2001 2010 | 30,000 | 30,000 | 6.050% | No | No | 30,000 |
| FY 2010 | BPA PROGRAM | 2001 2010 | 59,932 | 59,932 | 6.050% | No | No | 59,932 |
| FY 2010 | BONNEVILLE POWER ADMINISTRATION | 1970 2015 | 24,412 | 23,551 | 7.270% | No | No | 11,224 |
| FY 2010 | BONNEVILLE POWER ADMINISTRATION | 1973 2018 | 33,788 | 32,306 | 7.280% | No | No | 32,306 |
| Subtotal | | - - | \$174,459 | \$172,116 | - | Yes | No | \$159,789 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1966 2011 | 11,830 | 11,830 | 7.130% | No | No | 11,830 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1966 2011 | 3,049 | 3,049 | 7.130% | Yes | No | 3,049 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1966 2011 | 6,647 | 6,647 | 7.130% | No | No | 6,647 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1966 2011 | 1,714 | 1,714 | 7.130% | Yes | No | 1,714 |
| FY 2011 | BPA PROGRAM | 1998 2011 | 40,000 | 40,000 | 6.200% | No | No | 40,000 |
| FY 2011 | BPA PROGRAM | 2001 2011 | 25,000 | 25,000 | 5.950% | No | No | 25,000 |
| FY 2011 | BPA PROGRAM | 2001 2011 | 50,000 | 50,000 | 5.750% | No | No | 50,000 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1970 2015 | 64,977 | 64,977 | 7.270% | No | No | 2,426 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1970 2015 | 7,995 | 7,995 | 7.270% | Yes | No | 7,995 |
| FY 2011 | BONNEVILLE POWER ADMINISTRATION | 1970 2015 | 24,412 | 12,327 | 7.270% | No | No | 12,327 |
| Subtotal | | - - | \$235,624 | \$223,539 | - | Yes | No | \$160,988 |

| | | | | | | | | | |
|-----------------|---------------------------------|------|------|------------------|------------------|--------|------------|------------|------------------|
| FY 2012 | BONNEVILLE POWER ADMINISTRATION | 1967 | 2012 | 19,003 | 19,003 | 7.160% | No | No | 19,003 |
| FY 2012 | BONNEVILLE POWER ADMINISTRATION | 1967 | 2012 | 4,566 | 2,454 | 7.160% | Yes | No | 2,454 |
| FY 2012 | BONNEVILLE POWER ADMINISTRATION | 1970 | 2015 | 64,977 | 62,551 | 7.270% | No | No | 62,551 |
| FY 2012 | BONNEVILLE POWER ADMINISTRATION | 1974 | 2019 | 20,984 | 20,984 | 7.270% | Yes | No | 19,121 |
| FY 2012 | BONNEVILLE POWER ADMINISTRATION | 1974 | 2019 | 12,563 | 12,563 | 7.270% | No | No | 12,563 |
| FY 2012 | BONNEVILLE POWER ADMINISTRATION | 1974 | 2019 | 21,826 | 21,826 | 7.270% | Yes | No | 21,826 |
| Subtotal | | - | - | \$143,919 | \$139,381 | - | Yes | No | \$137,518 |
| FY 2013 | BONNEVILLE POWER ADMINISTRATION | 1968 | 2013 | 41,070 | 18,250 | 7.200% | No | No | 18,250 |
| FY 2013 | BONNEVILLE POWER ADMINISTRATION | 1974 | 2019 | 12,079 | 12,079 | 7.270% | No | No | 12,079 |
| FY 2013 | BONNEVILLE POWER ADMINISTRATION | 1974 | 2019 | 20,984 | 1,863 | 7.270% | Yes | No | 1,863 |
| FY 2013 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 21,916 | 21,916 | 7.250% | Yes | No | 11,377 |
| FY 2013 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 17,158 | 17,158 | 7.250% | No | No | 17,158 |
| FY 2013 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 11,742 | 11,742 | 7.250% | Yes | No | 11,742 |
| Subtotal | | - | - | \$124,949 | \$83,008 | - | Yes | No | \$72,469 |
| FY 2014 | BONNEVILLE POWER ADMINISTRATION | 1969 | 2014 | 42,237 | 19,198 | 7.230% | No | No | 19,198 |
| FY 2014 | BPA PROGRAM | 1999 | 2014 | 59,050 | 59,050 | 5.900% | No | No | 59,050 |
| FY 2014 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 32,026 | 32,026 | 7.250% | No | No | 1,165 |
| FY 2014 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 21,916 | 10,539 | 7.250% | Yes | No | 10,539 |
| Subtotal | | - | - | \$155,229 | \$120,813 | - | Yes | No | \$89,951 |
| FY 2015 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 32,026 | 30,861 | 7.250% | No | No | 30,861 |
| FY 2015 | BONNEVILLE POWER ADMINISTRATION | 1976 | 2021 | 61,025 | 61,025 | 7.230% | No | No | 59,558 |
| FY 2015 | BONNEVILLE POWER ADMINISTRATION | 1976 | 2021 | 2,212 | 2,212 | 7.230% | Yes | No | 2,212 |
| Subtotal | | - | - | \$95,263 | \$94,098 | - | Yes | No | \$92,632 |
| FY 2016 | BONNEVILLE POWER ADMINISTRATION | 1976 | 2021 | 61,025 | 1,467 | 7.230% | No | No | 1,467 |
| FY 2016 | BONNEVILLE POWER ADMINISTRATION | 1977 | 2022 | 3,948 | 3,948 | 7.210% | No | No | 3,948 |
| FY 2016 | BONNEVILLE POWER ADMINISTRATION | 1977 | 2022 | 5,380 | 5,380 | 7.210% | Yes | No | 5,380 |
| FY 2016 | BONNEVILLE POWER ADMINISTRATION | 1977 | 2022 | 33,702 | 33,702 | 7.210% | No | No | 33,702 |
| FY 2016 | BONNEVILLE POWER ADMINISTRATION | 1977 | 2022 | 4,981 | 4,981 | 7.210% | Yes | No | 4,981 |
| FY 2016 | BPA PROGRAM | 2007 | 2042 | 259,628 | 259,628 | 6.900% | No | No | 36,470 |
| Subtotal | | - | - | \$368,664 | \$309,106 | - | Yes | No | \$85,947 |
| FY 2017 | BPA PROGRAM | 2007 | 2042 | 259,628 | 223,158 | 6.900% | No | No | 67,104 |
| Subtotal | | - | - | \$259,628 | \$223,158 | - | No | No | \$67,104 |
| FY 2018 | BONNEVILLE POWER ADMINISTRATION | 1973 | 2018 | 33,788 | -0 | 7.280% | No | No | -0 |
| FY 2018 | BPA PROGRAM | 2007 | 2042 | 259,628 | 156,054 | 6.900% | No | No | 50,135 |
| Subtotal | | - | - | \$293,416 | \$156,054 | - | No | No | \$50,135 |
| FY 2019 | BONNEVILLE POWER ADMINISTRATION | 1974 | 2019 | 20,984 | 0 | 7.270% | Yes | No | 0 |
| FY 2019 | BPA PROGRAM | 2004 | 2019 | 65,000 | 65,000 | 6.640% | No | Yes | 65,000 |
| FY 2019 | BPA PROGRAM | 2007 | 2042 | 259,628 | 105,919 | 6.900% | No | No | 85,613 |
| Subtotal | | - | - | \$345,612 | \$170,919 | - | Yes | Yes | \$150,613 |
| FY 2020 | BONNEVILLE POWER ADMINISTRATION | 1975 | 2020 | 21,916 | -0 | 7.250% | Yes | No | -0 |
| FY 2020 | BPA PROGRAM | 2000 | 2020 | 40,000 | 40,000 | 6.690% | No | Yes | 40,000 |
| FY 2020 | BPA PROGRAM | 2004 | 2020 | 65,000 | 65,000 | 6.680% | No | Yes | 65,000 |
| FY 2020 | BPA PROGRAM | 2003 | 2020 | 25,000 | 25,000 | 6.670% | No | Yes | 25,000 |
| FY 2020 | ENVIRONMENT | 2005 | 2020 | 11,919 | 11,919 | 5.800% | No | No | 11,919 |
| FY 2020 | ENVIRONMENT | 2006 | 2021 | 4,670 | 4,670 | 6.050% | No | No | 4,627 |
| FY 2020 | BPA PROGRAM | 2007 | 2042 | 259,628 | 20,306 | 6.900% | No | No | 6,254 |
| Subtotal | | - | - | \$428,133 | \$166,894 | - | Yes | Yes | \$152,799 |
| FY 2021 | BONNEVILLE POWER ADMINISTRATION | 1976 | 2021 | 61,025 | -0 | 7.230% | No | No | -0 |
| FY 2021 | BPA PROGRAM | 2003 | 2021 | 40,000 | 40,000 | 6.730% | No | Yes | 40,000 |
| FY 2021 | BPA PROGRAM | 1997 | 2021 | 111,254 | 111,254 | 6.700% | No | Yes | 111,254 |
| FY 2021 | ENVIRONMENT | 2006 | 2021 | 4,670 | 43 | 6.050% | No | No | 43 |
| Subtotal | | - | - | \$216,949 | \$151,297 | - | No | Yes | \$151,297 |
| FY 2022 | BPA PROGRAM | 2002 | 2022 | 100,000 | 100,000 | 6.760% | No | Yes | 100,000 |
| FY 2022 | ENVIRONMENT | 2007 | 2022 | 4,836 | 4,836 | 6.190% | No | No | 4,836 |
| FY 2022 | BPA PROGRAM | 2007 | 2042 | 259,628 | 14,052 | 6.900% | No | No | 14,052 |
| FY 2022 | BPA PROGRAM | 2008 | 2043 | 125,044 | 125,044 | 6.900% | Yes | No | 28,698 |
| Subtotal | | - | - | \$489,508 | \$243,932 | - | Yes | Yes | \$147,587 |
| FY 2023 | BPA PROGRAM | 2003 | 2023 | 75,000 | 75,000 | 6.800% | No | Yes | 75,000 |
| FY 2023 | BPA PROGRAM | 2002 | 2023 | 60,000 | 60,000 | 6.790% | No | Yes | 60,000 |
| FY 2023 | BPA PROGRAM | 2008 | 2043 | 125,044 | 96,346 | 6.900% | Yes | No | 11,517 |
| Subtotal | | - | - | \$260,044 | \$231,346 | - | Yes | Yes | \$146,517 |

| | | | | | | | | | |
|--------------------|-----------------|------|------|---------------------|--------------------|--------|------------|------------|--------------------|
| FY 2024 | BPA PROGRAM | 2002 | 2024 | 108,010 | 108,010 | 6.830% | No | Yes | 108,010 |
| FY 2024 | BPA PROGRAM | 2008 | 2043 | 125,044 | 84,828 | 6.900% | Yes | No | 35,023 |
| | Subtotal | - | - | \$233,054 | \$192,838 | - | Yes | Yes | \$143,033 |
| FY 2025 | BPA PROGRAM | 2008 | 2043 | 125,044 | 49,805 | 6.900% | Yes | No | 49,805 |
| FY 2025 | BPA PROGRAM | 2009 | 2044 | 129,009 | 129,009 | 6.900% | Yes | No | 86,510 |
| | Subtotal | - | - | \$254,053 | \$178,814 | - | Yes | No | \$136,315 |
| FY 2026 | BPA PROGRAM | 2009 | 2044 | 129,009 | 42,499 | 6.900% | Yes | No | 42,499 |
| FY 2026 | BPA PROGRAM | 2010 | 2045 | 132,886 | 132,886 | 6.900% | Yes | No | 90,326 |
| | Subtotal | - | - | \$261,895 | \$175,385 | - | Yes | No | \$132,825 |
| FY 2027 | BPA PROGRAM | 1998 | 2028 | 50,000 | 50,000 | 6.650% | No | No | 33,057 |
| FY 2027 | BPA PROGRAM | 2010 | 2045 | 132,886 | 42,560 | 6.900% | Yes | No | 42,560 |
| FY 2027 | BPA PROGRAM | 2011 | 2046 | 136,618 | 136,618 | 6.900% | Yes | No | 54,452 |
| | Subtotal | - | - | \$319,504 | \$229,178 | - | Yes | No | \$130,070 |
| FY 2028 | BPA PROGRAM | 1998 | 2028 | 50,000 | 16,943 | 6.650% | No | No | 16,943 |
| FY 2028 | BPA PROGRAM | 1998 | 2028 | 112,300 | 112,300 | 5.850% | No | No | 112,300 |
| | Subtotal | - | - | \$162,300 | \$129,243 | - | No | No | \$129,243 |
| FY 2029 | BPA PROGRAM | 2006 | 2041 | 248,948 | 248,948 | 6.820% | No | No | 5,209 |
| FY 2029 | BPA PROGRAM | 2011 | 2046 | 136,618 | 82,166 | 6.900% | Yes | No | 82,166 |
| FY 2029 | BPA PROGRAM | 2012 | 2047 | 140,354 | 140,354 | 6.900% | Yes | No | 29,528 |
| | Subtotal | - | - | \$525,920 | \$471,468 | - | Yes | No | \$116,904 |
| FY 2030 | BPA PROGRAM | 1998 | 2032 | 98,900 | 98,900 | 6.700% | No | No | 3,643 |
| FY 2030 | BPA PROGRAM | 2006 | 2041 | 248,948 | 243,739 | 6.820% | No | No | 109,314 |
| | Subtotal | - | - | \$347,848 | \$342,639 | - | No | No | \$112,956 |
| FY 2031 | BPA PROGRAM | 1998 | 2031 | 106,600 | 106,600 | 8.290% | No | Yes | 106,600 |
| FY 2031 | BPA PROGRAM | 1998 | 2032 | 98,900 | 95,257 | 6.700% | No | No | 2,743 |
| FY 2031 | BPA PROGRAM | 2006 | 2041 | 248,948 | 134,425 | 6.820% | No | No | 1 |
| | Subtotal | - | - | \$454,448 | \$336,282 | - | No | Yes | \$109,344 |
| FY 2032 | BPA PROGRAM | 1998 | 2032 | 98,900 | 92,514 | 6.700% | No | No | 92,514 |
| FY 2032 | BPA PROGRAM | 2004 | 2034 | 40,000 | 40,000 | 5.600% | No | No | 12,092 |
| | Subtotal | - | - | \$138,900 | \$132,514 | - | No | No | \$104,606 |
| FY 2033 | BPA PROGRAM | 2003 | 2033 | 40,000 | 40,000 | 5.550% | No | No | 40,000 |
| FY 2033 | BPA PROGRAM | 2004 | 2034 | 40,000 | 27,908 | 5.600% | No | No | 27,908 |
| FY 2033 | BPA PROGRAM | 2006 | 2041 | 248,948 | 134,424 | 6.820% | No | No | 2 |
| | Subtotal | - | - | \$328,948 | \$202,333 | - | No | No | \$67,910 |
| FY 2034 | BPA PROGRAM | 2006 | 2041 | 248,948 | 134,423 | 6.820% | No | No | 2 |
| | Subtotal | - | - | \$248,948 | \$134,423 | - | No | No | \$2 |
| FY 2035 | BPA PROGRAM | 2006 | 2041 | 248,948 | 134,421 | 6.820% | No | No | 79,540 |
| | Subtotal | - | - | \$248,948 | \$134,421 | - | No | No | \$79,540 |
| FY 2036 | BPA PROGRAM | 2005 | 2040 | 221,179 | 221,179 | 5.630% | No | No | 34,790 |
| FY 2036 | BPA PROGRAM | 2006 | 2041 | 248,948 | 54,881 | 6.820% | No | No | 36,701 |
| | Subtotal | - | - | \$470,127 | \$276,060 | - | No | No | \$71,490 |
| FY 2037 | BPA PROGRAM | 2005 | 2040 | 221,179 | 186,389 | 5.630% | No | No | 62,414 |
| | Subtotal | - | - | \$221,179 | \$186,389 | - | No | No | \$62,414 |
| FY 2038 | BPA PROGRAM | 2005 | 2040 | 221,179 | 123,976 | 5.630% | No | No | 52,256 |
| | Subtotal | - | - | \$221,179 | \$123,976 | - | No | No | \$52,256 |
| FY 2039 | BPA PROGRAM | 2005 | 2040 | 221,179 | 71,719 | 5.630% | No | No | 41,530 |
| | Subtotal | - | - | \$221,179 | \$71,719 | - | No | No | \$41,530 |
| FY 2040 | BPA PROGRAM | 2005 | 2040 | 221,179 | 30,189 | 5.630% | No | No | 30,189 |
| FY 2040 | BPA PROGRAM | 2006 | 2041 | 248,948 | 18,180 | 6.820% | No | No | 4 |
| | Subtotal | - | - | \$470,127 | \$48,369 | - | No | No | \$30,193 |
| FY 2041 | BPA PROGRAM | 2006 | 2041 | 248,948 | 18,176 | 6.820% | No | No | 18,176 |
| | Subtotal | - | - | \$248,948 | \$18,176 | - | No | No | \$18,176 |
| FY 2042 | BPA PROGRAM | 2007 | 2042 | 259,628 | -0 | 6.900% | No | No | -0 |
| FY 2042 | BPA PROGRAM | 2012 | 2047 | 140,354 | 110,826 | 6.900% | Yes | No | 5,673 |
| | Subtotal | - | - | \$399,982 | \$110,826 | - | Yes | No | \$5,673 |
| Grand Total | | - | - | \$10,295,227 | \$6,887,378 | - | Yes | Yes | \$4,019,070 |

CHAPTER 12

REPAYMENT STUDY THEORY AND OPERATION

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1. Introduction

The BPA is required to collect revenues sufficient to meet BPA's annual transmission expenses and cover the long-term obligations of the Federal Columbia River transmission system (FCRTS).

The Repayment Program is used to determine whether a given set of annual revenues is sufficient to meet a given set of annual expenses and cover a given set of long-term obligations when applied in accordance with the requirements of Department of Energy (DOE) Order RA 6120.2. The Program is also used to determine by the minimum factor future revenues can be multiplied by to obtain a new set of revenues which will be sufficient to recover amortization costs.

The revenues and the expenses of the cost evaluation year will be assigned to all future years. This will have the effect of assigning the net operating revenue of the cost evaluation year to all future years. This has the effect of leveling the long-term obligations over all future years.

2. Repayment Program Logic

The diagrams on the following pages show the flow of logic in BPA's repayment program. The first diagram shows the logic of the binary search used to locate minimum sufficient revenues. A necessary part of this search is the test for sufficiency. The logic of the test for sufficiency is shown on the remaining two diagrams.

The equations which are referred to are:

Revenue Equation: Net revenues of each year are expended on interest and payments on the principles.

Investment equation: The payments on each investment are less than or equal to the principle of that investment (and equal to the principle of that investment after the investment is due).

Predictor equation: For each future year the accumulated revenues less the accumulated interest less the accumulated investments due is equal to the accumulated payments on high interest rate investments which are not due.

3. Bond Rollover Feature

Since the 2004 Transmission Rate Case, BPA has incorporated a new data manipulation feature associated with the repayment program. This does not change any methodology of the model. It allows the user to assume that short-term bond(s) associated with assets with average service lives considerably longer than the bond maturity date are refinanced on the original maturity date, and recognizes replacement bonds with new maturity dates and corresponding interest rates. This feature reflects BPA's practice of rolling over a bond when it comes due if funds are not available to pay it at that time or if market conditions justify refinancing such bonds within the allowable repayment period of the associated assets. Reflecting this practice in the model allows a more realistic calculation of interest expense.

Figure 12-1: Repayment Program (Test for Sufficiency)

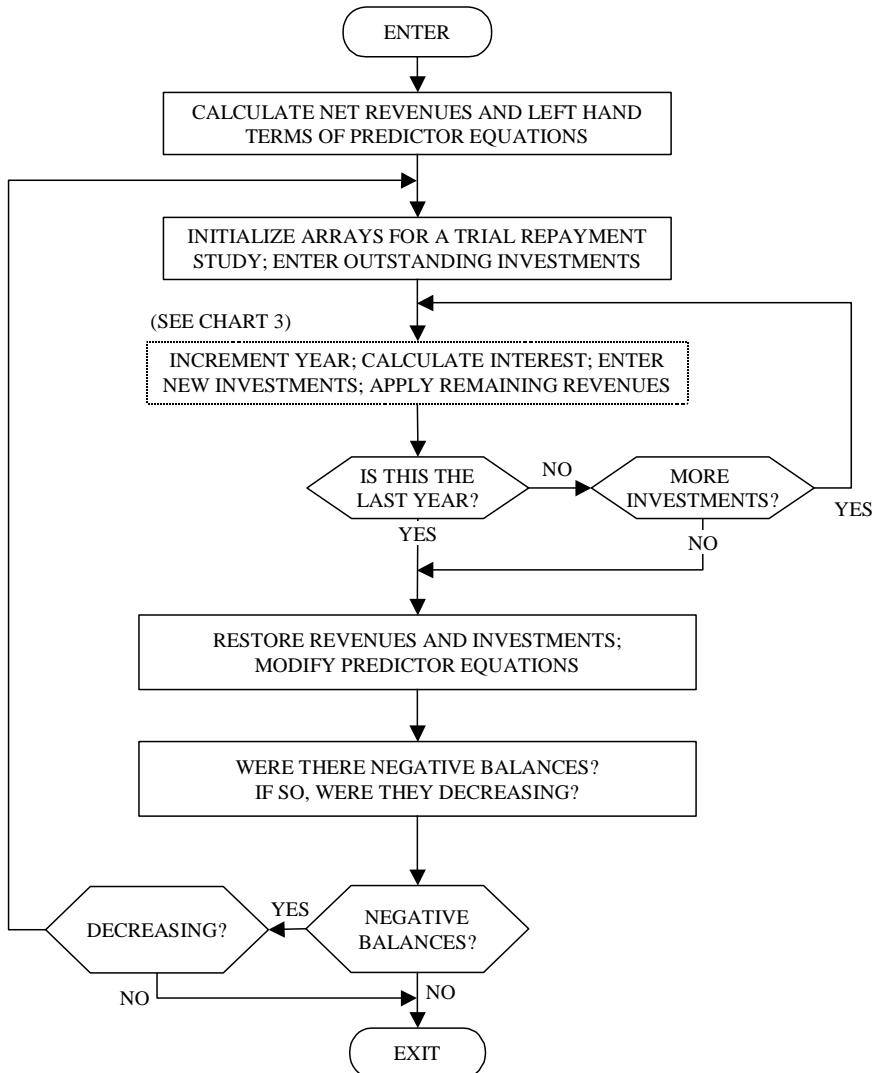
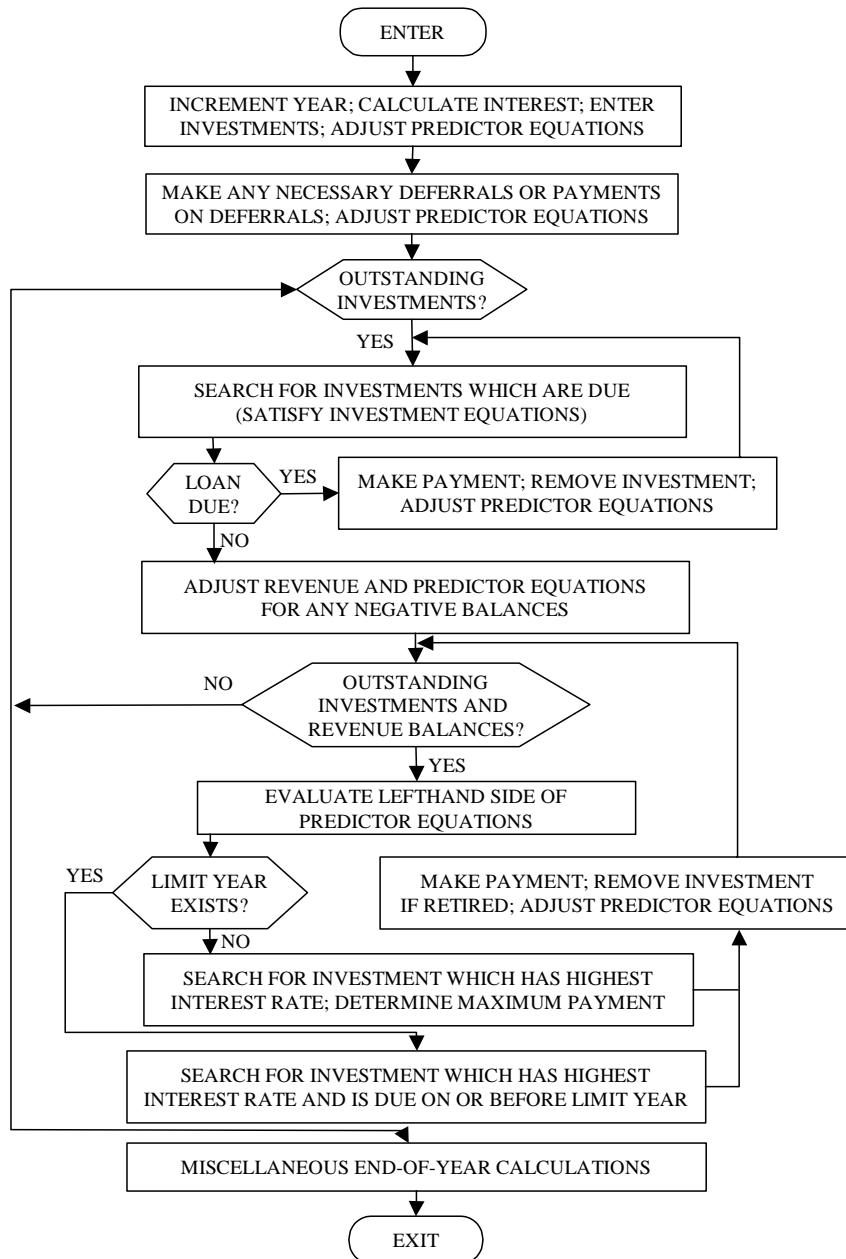


Figure 12-2: Repayment Program (Application of Revenue)



CHAPTER 13
SALES AND REVENUE FORECAST

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Table 13-1: Transmission Sales Forecast FY 2005 – FY 2007 (Megawatts)

| Rate Schedule | (A) | (B) | (C) |
|---|----------------------------|-----------------------------|----------------------------|
| | FY 2005¹ | FY 2006^{2/} | FY 2007³ |
| Network | | | |
| | | | |
| 1 Formula Power Transmission (FPT) | 3,168 | 2,707 | 2,346 |
| 2 Integration of Resources (IR) | 4,544 | 4,393 | 4,292 |
| 3 Network (NT) Base | 5,219 | 5,915 | 6,008 |
| Long-term Point to Point (PTP) | | | |
| 4 Executed Agreements (including IM) | 12,570 | 11,541 | 11,410 |
| 5 Conversions from FPT/IR | 0 | 587 | 1,049 |
| 6 Exceptions to Conversion | 0 | -178 | -187 |
| 7 Contract Renewals | 250 | 1,279 | 1,514 |
| 8 New Sales of Long-term Service | 133 | 1,103 | 1,138 |
| 9 Subtotal Long-term PTP | 12,953 | 14,331 | 14,925 |
| 10 PTP Short Term 3/ | 1,775 | 644 | 740 |
| 11 Subtotal Network | 27,659 | 27,990 | 28,310 |
| | | | |
| Southern Intertie | | | |
| | | | |
| Long-term Intertie South (IS) | | | |
| 12 Executed Agreements, North to South | 4,476 | 3,670 | 3,057 |
| 13 Executed Agreements, South to North | 471 | 271 | 271 |
| 14 Contract Renewals | 0 | 740 | 1,348 |
| 15 New Sales of Long-term IS Service | 0 | 0 | 0 |
| 16 Subtotal Long-term IS | 4,947 | 4,681 | 4,676 |
| 17 IS Short Term 3/ | 251 | 392 | 406 |
| 18 Subtotal Intertie | 5,199 | 5,073 | 5,082 |
| | | | |
| 19 NT Load Shaping | 5,532 | 6,257 | 6,350 |
| 20 Utility Delivery Charge | 262 | 194 | 197 |
| 21 Montana Intertie. | 6 | 6 | 6 |

¹ Forecast developed 04/14/2005.

² Developed 10/27/2004.

³ Includes 714 and 18 MW of redirects from long-term for Network and Intertie, respectively, FY 2005 only.

Table 13-2: TBL Revenues, Current Rates FY 2005 - FY 2007

| | (\$000) | (A) FY2005 | (B) FY2006 | (C) FY2007 |
|--|---------|---------------|---------------|---------------|
| Long-Term | | | | |
| Network | | | | |
| 1 Formula Power Transmission, one yr rate | 27,311 | 25,896 | 24,825 | |
| 2 Formula Power Transmission, three yr rate | 6,763 | 6,066 | 4,767 | |
| 3 Integration of Resources | 67,151 | 66,474 | 64,942 | |
| 4 Point to Point | 159,242 | 176,862 | 184,186 | |
| 5 Network Integration Transmission, Base Charge | 64,376 | 72,962 | 74,117 | |
| 6 Network Integration Transmission, Load Shaping | 28,215 | 31,909 | 32,386 | |
| Interties | | | | |
| 7 Intertie South Assured Delivery | 5,179 | 5,179 | 5,179 | |
| 8 Intertie South | 64,638 | 61,538 | 60,145 | |
| 9 Montana Intertie | 91 | 91 | 91 | |
| Short-Term | | | | |
| 10 Network | 24,076 | 10,772 | 12,550 | |
| 11 PSW Intertie | 4,694 | 8,371 | 8,668 | |
| Delivery | | | | |
| 12 Utility | 2,977 | 2,208 | 2,240 | |
| 13 Industry. | 1,740 | 1,715 | 1,715 | |
| Ancillary | | | | |
| 14 Scheduling Control & Dispatch | 50,396 | 52,567 | 54,058 | |
| 15 Generation Supplied Reactive | 19,608 | 21,193 | 21,792 | |
| 16 Operating Reserves | 33,955 | 30,046 | 30,046 | |
| 17 Regulation and Frequency Response | 12,847 | 12,982 | 13,177 | |
| 18 Generation and Load Imbalances | 0 | 0 | 0 | |
| Revenue Credits | | | | |
| 19 Aircraft | 496 | 373 | 373 | |
| 20 Annual Cost Rate and NFP Depreciation | 4,134 | 4,243 | 4,243 | |
| 21 Direct Corp and Bureau. | 1,354 | 954 | 954 | |
| 22 Fiber | 6,587 | 6,974 | 6,974 | |
| 23 Generation Integration Costs | 7,235 | 8,454 | 8,469 | |
| 24 Operation and Maintenance Services | 909 | 898 | 898 | |
| 25 Other Revenue | 1,687 | 2,129 | 2,129 | |
| 26 Power Factor Penalty | 4,767 | 3,640 | 3,413 | |
| 27 Remedial Action Scheme | 51 | 51 | 51 | |
| 28 Reservation Fees | 27 | 200 | 200 | |
| 29 Townsend Garrison Transmission | 9,796 | 9,796 | 9,796 | |
| 30 Unauthorized Increase Charge | 66 | 0 | 0 | |

| | | | | |
|----|----------------------------------|----------------|----------------|----------------|
| 31 | Use of Facilities | 7,689 | 6,921 | 6,921 |
| 32 | Wireless Personal Communications | 4,098 | 3,795 | 3,795 |
| 33 | Subtotal Network | 377,134 | 390,941 | 397,773 |
| 34 | Subtotal Interties | 74,602 | 75,178 | 74,082 |
| 35 | Subtotal Delivery | 4,717 | 3,922 | 3,955 |
| 36 | Subtotal Ancillary | 116,805 | 116,788 | 119,073 |
| 37 | Subtotal Revenue Credits | 48,897 | 48,428 | 48,216 |
| 38 | Total TBL | 622,155 | 635,258 | 643,100 |

Table 13-3: TBL Revenues, Proposed Rates FY 2006 - FY 2007

| | (\$000) | (A) FY2006 | (B) FY2007 |
|--|---------|----------------------|----------------------|
| Long-Term | | | |
| Network | | | |
| 1 Formula Power Transmission, one yr rate | 29,446 | 28,228 | |
| 2 Formula Power Transmission, three yr rate | 6,066 | 4,767 | |
| 3 Integration of Resources | 78,230 | 76,427 | |
| 4 Point to Point | 209,225 | 217,888 | |
| 5 Network Integration Transmission, Base Charge | 86,305 | 87,671 | |
| 6 Network Integration Transmission, Load Shaping | 27,554 | 27,967 | |
| Interties | | | |
| 7 Intertie South Assured Delivery | 5,333 | 5,333 | |
| 8 Intertie South | 63,369 | 61,935 | |
| 9 Montana Intertie | 89 | 89 | |
| Short-Term | | | |
| 10 Network | 12,941 | 15,072 | |
| 11 PSW Intertie | 8,684 | 8,991 | |
| Delivery | | | |
| 12 Utility | 2,611 | 2,650 | |
| 13 Industry | 1,715 | 1,715 | |
| Ancillary | | | |
| 14 Scheduling Control & Dispatch | 64,276 | 66,099 | |
| 15 Generation Supplied Reactive | 21,493 | 22,099 | |
| 16 Operating Reserves | 28,398 | 28,398 | |
| 17 Regulation and Frequency Response | 13,847 | 14,055 | |
| 18 Generation and Load Imbalances | 0 | 0 | |
| Revenue Credits | | | |
| 19 Aircraft | 373 | 373 | |
| 20 Annual Cost Rate and NFP Depreciation | 4,243 | 4,243 | |
| 21 Direct Corp and Bureau | 954 | 954 | |
| 22 Fiber | 6,974 | 6,974 | |
| 23 Generation Integration Costs | 8,454 | 8,469 | |
| 24 Operation and Maintenance Srvcs | 898 | 898 | |
| 25 Other Revenue | 2,129 | 2,129 | |
| 26 Power Factor Penalty | 3,640 | 3,413 | |
| 27 Remedial Action Scheme | 51 | 51 | |
| 28 Reservation Fees | 200 | 200 | |
| 29 Townsend Garrison Transmission | 9,796 | 9,796 | |
| 30 Unauthorized Increase Charge | 0 | 0 | |

| | | | |
|----|----------------------------------|----------------|----------------|
| 31 | Use of Facilities. | 6,921 | 6,921 |
| 32 | Wireless Personal Communications | 3,795 | 3,795 |
| 33 | Subtotal Network | 449,767 | 458,019 |
| 34 | Subtotal Intertie | 77,475 | 76,348 |
| 35 | Subtotal Delivery | 4,326 | 4,365 |
| 36 | Subtotal Ancillary | 128,014 | 130,652 |
| 37 | Subtotal Revenue Credits | 48,428 | 48,216 |
| 38 | Total TBL | 708,011 | 717,600 |

Bonneville Power Administration

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