2007 Wholesale Power Rate Case Final Proposal

REVENUE REQUIREMENT STUDY DOCUMENTATION

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REVENUE REQUIREMENT STUDY DOCUMENTATION, VOLUME 1

TABLE OF CONTENTS

Page

Commonly Used Acronyms iii

1. GENERATION REVENUE REQUIREMENTS 1
   1.1 Introduction 1
   1.2 Income Statement 1
   1.3 Statement of Cash Flows 2

2. COSTS OF SERVICES 9
   2.1 Introduction 9
   2.2 Cost Components of COSA Resource Pools 9
   2.3 Generation Inputs to Ancillary Services 10

3. GENERATION EXPENSES 45
   3.1 Introduction 45
   3.2 Expenses 45

4. FCRPS GENERATION INVESTMENT BASE 57
   4.1 Introduction 57
   4.2 Methodology 57

5. PROJECTED CASH BALANCES/INTEREST CREDITS 77
   5.1 Introduction 77
   5.2 Interest credits on projected cash balances 77
   5.3 Interest income (repayment program calculation) 77

6. INTEREST RATES FOR TREASURY SOURCES OF CAPITAL AND PRICE DEFLATORS 83
   6.1 Introduction 83
   6.2 Source of Forecasts 83
   6.3 Interest Rate Projections 83
   6.4 Deflators 83

7. PROJECTED BONDS ISSUED TO TREASURY 105
   7.1 Introduction 105
   7.2 Issuing Bonds 105

8. CAPITALIZED CONTRACTS AND OTHER LONG-TERM RESOURCE ACQUISITION OBLIGATIONS 119
8.1 Introduction 119
8.2 Methodology 119

9. IRRIGATION ASSISTANCE 131
9.1 Introduction 131
9.2 Background 131
9.3 Irrigation Repayment 131
9.4 The Limitations 132
9.5 Columbia Basin and Green Springs 132

10. REPLACEMENTS PROJECTED AFTER THE COST EVALUATION PERIOD 139
10.1 Introduction 139
10.2 Methodology 139

COMMONLY USED ACRONYMS

AC	Alternating Current
AEP	American Electric Power Company, Inc.
AER	Actual Energy Regulation
AFUDC	Allowance for Funds Used During Construction
AGC	Automatic Generation Control
aMW	Average Megawatt
Alcoa	Alcoa Inc.
AMNR	Accumulated Modified Net Revenues
ANR	Accumulated Net Revenues
AOP	Assured Operating Plan
ASC	Average System Cost
Avista	Avista Corporation
BASC	BPA Average System Cost
BiOp	Biological Opinion
BPA	Bonneville Power Administration
Btu	British thermal unit
C&R Discount	Conservation and Renewables Discount
CAISO	California Independent System Operator
CBFWA	Columbia Basin Fish & Wildlife Authority
CCCT	Combined-Cycle Combustion Turbine
CEC	California Energy Commission
CFAC	Columbia Falls Aluminum Company
Cfs	Cubic feet per second
CGS	Columbia Generating Station
COB	California-Oregon Border
COE	U.S. Army Corps of Engineers
Con Aug	Conservation Augmentation
C/M	Consumers / Mile of Line for Low Density Discount
ConMod	Conservation Modernization Program
COSA	Cost of Service Analysis
Council	Northwest Power Planning and Conservation Council
CP	Coincidental Peak
CRAC	Cost Recovery Adjustment Clause
CRC	Conservation Rate Credit
CRFM	Columbia River Fish Mitigation
CRITFC	Columbia River Inter-Tribal Fish Commission
CT	Combustion Turbine
CY	Calendar Year (Jan-Dec)
DC	Direct Current
DDC	Dividend Distribution Clause
DJ	Dow Jones
DOE	Department of Energy
DOP	Debt Optimization Program
DROD	Draft Record of Decision

DSI	Direct Service Industrial Customer or Direct Service Industry
ECC	Energy Content Curve
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EN	Energy Northwest, Inc.
Energy Northwest, Inc.	Formerly Washington Public Power Supply System (Nuclear)
EPA	Environmental Protection Agency
EPP	Environmentally Preferred Power
EQR	Electric Quarterly Report
ESA	Endangered Species Act
EWEB	Eugene Water & Electric Board
F&O	Financial and Operating Reports
FB CRAC	Financial-Based Cost Recovery Adjustment Clause
FBS	Federal Base System
FCCF	Fish Cost Contingency Fund
FCRPS	Federal Columbia River Power System
FCRTS	Federal Columbia River Transmission System
FERC	Federal Energy Regulatory Commission
FERC SR	Federal Energy Regulatory Commission Special Rule
FELCC	Firm Energy Load Carrying Capability
Fifth Power Plan	Council's Fifth Northwest Conservation and Electric Power Plan
FPA	Federal Power Act
FPS	Firm Power Products and Services (rate)
FY	Fiscal Year (Oct-Sep)
GAAP	Generally Accepted Accounting Principles
GCPs	General Contract Provisions
GEP	Green Energy Premium
GI	Generation Integration
GSR	Generation Supplied Reactive and Voltage Control
GRI	Gas Research Institute
GRSPs	General Rate Schedule Provisions
GSP	Generation System Peak
GSU	Generator Step-Up Transformers
GTA	General Transfer Agreement
GWh	Gigawatthour
HLH	Heavy Load Hour
HOSS	Hourly Operating and Scheduling Simulator
ICNU	Industrial Customers of Northwest Utilities
ICUA	Idaho Consumer-Owned Utilities Association, Inc.
IOU	Investor-Owned Utility
IP	Industrial Firm Power (rate)
IP TAC	Industrial Firm Power Targeted Adjustment Charge
IPC	Idaho Power Company
ISO	Independent System Operator
JP	Joint Party

JP1	Cowlitz County Public Utility District, Northwest Requirements Utilities and Members, Western Public Agencies Group and Members, Public Power Council, Industrial Customers of Northwest Utilities
JP2	Grant County Public Utility District No. 2, Benton County Public Utility District, Eugene Water & Electric Board, Franklin County Public Utility District No. 1, Pacific Northwest Generating Cooperative and Members, Pend Oreille County Public Utility District No. 1, Seattle City Light, City of Tacoma, Western Public Agencies Group and Members, Western Public Agencies Group and Members(Grays Harbor)
JP3	Benton County Public Utility District, Eugene Water & Electric Board, Franklin County Public Utility District No. 1, Grant County Public Utilities District No. 2, Pacific Northwest Generating Cooperative and Members, Pend Oreille County Public Utility District No. 1, Seattle City Light, Western Public Agencies Group and Members (Grays Harbor)
JP4	Cowlitz County Public Utility District, Eugene Water & Electric Board, Pacific Northwest Generating Cooperative and Members, Pend Oreille County Public Utility District No. 1, Seattle City Light, City of Tacoma, Grant County Public Utility District No. 2
JP5	Benton County Public Utility District, Cowlitz County Public Utility District, Eugene Water & Electric Board, Franklin County Public Utility District No. 1, Grant County Public Utilities District No. 2, Northwest Requirements Utilities and Members, Pacific Northwest Generating Cooperative and Members, Pend Oreille County Public Utility District No. 1, Seattle City Light, City of Tacoma, specified members of WA[1]
JP6	Avista Corporation, Idaho Power Corporation, PacifiCorp, Portland General Electric Company, Puget Sound Energy, Inc.
JP7	NONE
JP8	Northwest Energy Coalition, Save Our *Wild* Salmon
JP9	Alcoa, Inc., Industrial Customers of Northwest Utilities, Public Power Council, Northwest Requirements Utilities and Members, Pacific Northwest Generating Cooperative and Members, PacifiCorp, Western Public Agencies Group and Members, Avista Corporation, Portland General Electric Company
JP10	Alcoa, Inc., Cowlitz County Public Utility District, Industrial Customers of Northwest Utilities

[1] The members of Western Public Agencies Group and Members (WA) that are participating in the JP5 designation include: Benton REA, the cities of Ellensburg and Milton, the towns of Eatonville and Steilacoom, Washington, Alder Mutual Light Co., Elmhurst Mutual Power and Light Co., Lakeview Light and Power Co., Parkland Light and Water Co., Peninsula Light Co., the Public Utility Districts of Grays Harbor, Kittitas, Lewis and Mason Counties, the Public Utility District No. 3 of Mason County, and the Public Utility District No. 2 of Pacific County, Washington.

JP11	Cowlitz County Public Utility District, Eugene Water & Electric Board, Grant County Public Utilities District No. 2, Pacific Northwest Generating Cooperative and Members, Pend Oreille County Public Utility District No. 1, Seattle City Light, City of Tacoma
JP12	Alcoa, Inc., Industrial Customers of Northwest Utilities, Public Power Council, Western Public Agencies Group and Members, Northwest Requirements Utilities and Members, Pacific Northwest Generating Cooperative and Members
JP13	Columbia River Inter-Tribal Fish Commission, Confederated Tribes and Bands of the Yakama Nation, Nez Perce Tribe
JP14	Benton County Public Utility District, Cowlitz County Public Utility District, Eugene Water & Electric Board, Franklin County Public Utility District No. 1, Grant County Public Utilities District No. 2, Industrial Customers of Northwest Utilities, Northwest Requirements Utilities and Members , Public Power Council, Seattle City Light, City of Tacoma, Western Public Agencies Group and Members, Springfield Utility Board, Pacific Northwest Generating Cooperative and Members
JP15	Calpine Corporation, Northwest Independent Power Producers Coalition, PPM Energy, Inc., TransAlta Centralia Generation, LLC
kAf	Thousand Acre Feet
kcfs	kilo (thousands) of cubic feet per second
ksfd	thousand second foot day
kV	Kilovolt (1000 volts)
kW	Kilowatt (1000 watts)
kWh	Kilowatt-hour
LB CRAC	Load-Based Cost Recovery Adjustment Clause
LCP	Least-Cost Plan
LDD	Low Density Discount
LLH	Light Load Hour
LOLP	Loss of Load Probability
m/kWh	Mills per kilowatt-hour
MAC	Market Access Coalition Group
MAf	Million Acre Feet
MCA	Marginal Cost Analysis
Mid-C	Mid-Columbia
MIP	Minimum Irrigation Pool
MMBTUMMBtu	Million British Thermal Units
MNR	Modified Net Revenues
MOA	Memorandum of Agreement
MOP	Minimum Operating Pool
MORC	Minimum Operating Reliability Criteria
MT	Market Transmission (rate)

MVAr	Mega Volt Ampere Reactive
MW	Megawatt (1 million watts)
MWh	Megawatt-hour
NCD	Non-coincidental Demand
NWEC	Northwest Energy Coalition
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Council
NF	Nonfirm Energy (rate)
NFB Adjustment	National Marine Fisheries Service (NMFS) Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) Adjustment
NLSL	New Large Single Load
NMFS	National Marine Fisheries Service
NOAA Fisheries	National Oceanographic and Atmospheric Administration Fisheries
NOB	Nevada-Oregon Border
NORM	Non-Operating Risk Model
Northwest Power Act	Pacific Northwest Electric Power Planning and Conservation Act
NPA	Northwest Power Act
NPCC	Northwest Power and Conservation Council
NPV	Net Present Value
NR	New Resource
NR (rate)	New Resource Firm Power (rate)
NRU	Northwest Requirements Utilities
NTSA	Non-Treaty Storage Agreement
NUG	Non-Utility Generation
NWPP	Northwest Power Pool
NWPPC	Northwest Power Planning Council
OATT	Open Access Transmission Tariff
O&M	Operation and Maintenance
OMB	Office of Management and Budget
OPUC	Oregon Public Utility Commission
ORC	Operating Reserves Credit
OY	Operating Year (Aug-Jul)
PA	Public Agency
PacifiCorp	PacifiCorp
PBL	Power Business Line
PDP	Proportional Draft Points
PF	Priority Firm Power (rate)
PFR	Power Function Review
PGE	Portland General Electric Company
PGP	Public Generating Pool
PMA	Power Marketing Agencies
PNCA	Pacific Northwest Coordination Agreement
PNGC	Pacific Northwest Generating Cooperative

PNRR	Planned Net Revenues for Risk
PNW	Pacific Northwest
POD	Point of Delivery
POI	Point of Integration/Point of Interconnection
POM	Point of Metering
PPC	Public Power Council
PPLM	PP&L Montana, LLC
Project Act	Bonneville Project Act
PSA	Power Sales Agreement
PSC	Power Sales Contract
PSE	Puget Sound Energy
PSW	Pacific Southwest
PTP	Point-to-Point Transmission
PUD	Public or People's Utility District
RAM	Rate Analysis Model (computer model)
RAS	Remedial Action Scheme
Reclamation	Bureau of Reclamation
Renewable Northwest	Renewable Northwest Project
RD	Regional Dialogue
REP	Residential Exchange Program
RFP	Request for Proposal
RiskMod	Risk Analysis Model (computer model)
RiskSim	Risk Simulation Model
RL	Residential Load (rate)
RMS	Remote Metering System
ROD	Record of Decision
RPSA	Residential Purchase and Sale Agreement
RTO	Regional Transmission Operator
SCCT	Single-Cycle Combustion Turbine
Slice	Slice of the System (product)
SME	Subject Matter Expert
SN CRAC	Safety-Net Cost Recovery Adjustment Clause
SOS	Save Our *Wild* Salmon
SUB	Springfield Utility Board
SUMY	Stepped-Up Multiyear
SWPA	Southwestern Power Administration
TAC	Targeted Adjustment Charge
TBL	Transmission Business Line
Tcf	Trillion Cubic Feet
TPP	Treasury Payment Probability
Transmission System Act	Federal Columbia River Transmission System Act
TRL	Total Retail Load
Tribes	Columbia River Inter-Tribal Fish Commission, Nez Perce, Yakama Nation, collectively
UAI Charge	Unauthorized Increase Charge
UAMPS	Utah Associated Municipal Power Systems

UDC	Utility Distribution Company
UP&L	Utah Power & Light
URC	Upper Rule Curve
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
VOR	Value of Reserves
WAPA	Western Area Power Administration
WECC	Western Electricity Coordinating Council (formally called WSCC)
WMG&T	Western Montana Electric Generating and Transmission Cooperative
WPAG	Western Public Agencies Group
WPRDS	Wholesale Power Rate Development Study
WSCC	Western Systems Coordination Council (now WECC)
WSPP	Western Systems Power Pool
WUTC	Washington Utilities and Transportation Commission
Yakama	Confederated Tribes and Bands of the Yakama Nation

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1. GENERATION REVENUE REQUIREMENTS

1.1 Introduction

This chapter documents how Bonneville Power Administration's (BPA) annual generation revenue requirements are determined. Two tables are presented for each year of the rate period (FYs 2007 – 2009) and for the 7(b)(2) period (FYs 2010 – 2013). On the first table, revenue requirements for FYs 2007 through 2009 (the rate period) and 2010 through 2013 (the outyears for the 7(b)(2) Rate Test) 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. Revenue requirements are presented for both the program and 7(b)(2) cases.

1.2 Income Statement

A more detailed description of the following line items is included in Chapter 4 of the Revenue Requirement Study, WP-07-E-BPA-02. Operating expenses (lines 1-16) include: operations and maintenance expenses for Corps of Engineers (COE) and U.S. Bureau of Reclamation (BOR), and annual expenses for Energy Northwest (EN) (line 3); Colville Settlement Act payments to the Confederated Colville Tribes (line 4); decommissioning expenses for Trojan and other, unfinished nuclear plants (line 5); short-term purchases of power, both balancing power purchases and system augmentation (line 6); annual expenses associated with the Residential Exchange Program including the subscription settlement with the Investor-Owned Utilities (line 7)*;* the expense portion of BPA's energy conservation activities (including the Energy Efficiency group) and the annual write-down of BPA's capital investment in energy conservation (lines 8); Transmission acquisition and ancillary services expenses necessary to deliver energy to markets (line 9); internal operations expenses necessary to support the power function (line 10); the expense portion of BPA's funding for fish and wildlife protection, mitigation and enhancement pursuant to Section 4(h) of the Northwest Power Act and the annual write-down of BPA's capital investments in fish and wildlife (lines 11); general corporate and administrative expenses (line 12); benefits paid to DSIs (line 13); debt service on capitalized contracts and other fixed, long term contractual obligations (line 14); and annual depreciation for BPA, COE, and BOR plant-in-service (line 15).

Federal interest expense is calculated in generation repayment studies on appropriations granted by Congress for COE and BOR capital investments (line 19) and bonds that BPA issues to the U.S. Treasury (line 20). Bond interest is reduced by interest income from BPA's projected cash reserves (line 21). The capitalization adjustment and the Allowance for Funds Used During Construction (AFUDC) (lines 22-23) 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 Bonneville Appropriations Refinancing Act.

Planned net revenues (lines 27-29) are included to ensure coverage of planned amortization and irrigation assistance payments (minimum required net revenues) and to meet the Administrator's risk mitigation policy (planned net revenues for risk). *See,* Risk Analysis Study, WP-07-E-BPA-04.

1.3 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 and irrigation assistance payments. It is the amount by which these planned payments to the U.S. Treasury exceed the expenses that do not require cash outlays. Non-cash expenses include depreciation and amortization (line 4), amortization of capitalized bond premiums (line 5), the capitalization adjustment (line 6), and accrual revenues (line 7).

Cash Used for Capital Investments: Investment in utility plant (line 11) is the increase in investment for appropriated additions to plant for the COE and BOR and for capital outlays associated with BPA capital equipment and the direct-funding of COE and BOR investments. Investment in conservation (line 12) and fish and wildlife (line 13) is the annual capital outlays for these intangible assets.

Cash from Treasury Borrowing and Appropriations: Increase in bonds issued to the U.S. Treasury (line 16) is the annual increment in bonds that BPA issues to Treasury to fund capital outlays for capital equipment, BOR and COE investments that BPA plans to direct-fund, and BPA conservation and fish and wildlife investments. Repayment of bonds issued to the U.S. Treasury (line 17) is planned amortization of bonds issued to Treasury, as determined in generation repayment studies. Increase in Federal construction appropriations (line 18) is projected annual appropriations to fund new COE and BOR plant-in-service that BPA did not direct-fund with bonds issued to Treasury. Repayment of Federal construction appropriations (line 19) is planned amortization of investments associated with the COE and BOR, as determined in generation repayment studies. Payment of irrigation assistance (line 20) is the payment of appropriated capital construction costs of BOR irrigation facilities that have been determined to be beyond the ability of irrigators to pay and allocated to generation revenues for repayment.

The revenue requirements for the 7(b)(2) case reflect the required exclusion of costs associated with energy conservation, the Residential Exchange Program, and resources acquired under the authority of the Northwest Power Act. These revenue requirements are determined according to the same cost accounting methodology as those in the program case and reflect the same risk mitigation (equivalent annual cash flows) when such is specified.

Table 1A

GENERATION REVENUE REQUIREMENT
INCOME STATEMENT
($000s)

		A 2007	B 2008	C 2009
1	OPERATING EXPENSES			
2	POWER SYSTEM GENERATION RESOURCES			
3	OPERATING GENERATION RESOURCES	521,774	454,504	516,826
4	OPERATING GENERATION SETTLEMENT PAYMENTS	16,968	17,354	17,749
5	NON-OPERATING GENERATION	5,600	4,900	3,300
6	CONTRACTED POWER PURCHASES	285,679	243,431	292,210
7	RESIDENTIAL EXCHANGE/IOU SETTLEMENT BENEFITS	301,000	301,000	301,000
8	RENEWABLE AND CONSERVATION GENERATION	103,281	106,647	112,264
9	TRANSMISSION ACQUISITION AND ANCILLARY SERVICES	172,914	175,177	182,515
10	POWER NON-GENERATION OPERATIONS	56,132	57,715	59,422
11	F&W/ENVIRONMENTAL REQUIREMENTS	171,185	172,276	173,367
12	GENERAL AND ADMINISTRATIVE	61,165	61,127	67,519
13	OTHER INCOME, EXPENSES AND ADJUSTMENTS	1,800	1,800	3,600
14	NON-FEDERAL DEBT SERVICE	520,782	570,197	554,006
15	DEPRECIATION AND AMORTIZATION	189,716	198,162	205,857
16	**TOTAL OPERATING EXPENSES**	**2,407,995**	**2,364,290**	**2,489,634**
17	INTEREST EXPENSE:			
18	INTEREST ON FEDERAL INVESTMENT-			
19	APPROPRIATED FUNDS	218,538	209,571	207,904
20	BONDS ISSUED TO U.S. TREASURY	51,911	70,911	83,783
21	INTEREST CREDIT ON CASH RESERVES	(54,045)	(53,965)	(54,995)
22	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	613	613	185
23	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)	(45,937)
24	ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION	(8,000)	(8,000)	(8,000)
25	NET INTEREST EXPENSE	163,080	173,193	182,940
26	**TOTAL EXPENSES**	**2,571,076**	**2,537,483**	**2,672,574**
27	MINIMUM REQUIRED NET REVENUES 1/	61,463	26,119	35,074
28	PLANNED NET REVENUES FOR RISK	11,000	11,000	11,000
29	**TOTAL PLANNED NET REVENUES (27+28)**	**72,463**	**37,119**	**46,074**
30	**TOTAL REVENUE REQUIREMENT**	**2,643,538**	**2,574,602**	**2,718,648**

1/ SEE NOTE ON CASH FLOW STATEMENT

Table 1B

GENERATION REVENUE REQUIREMENT
STATEMENT OF CASH FLOWS
($000s)

		A 2007	B 2008	C 2009
1	CASH FROM OPERATING ACTIVITIES			
2	MINIMUM REQUIRED NET REVENUES 1/	61,463	26,119	35,074
3	NON-CASH ITEMS:			
4	DEPRECIATION AND AMORTIZATION	189,716	198,162	205,857
5	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	613	613	185
6	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)	(45,937)
7	ACCRUAL REVENUES	(3,524)	(3,524)	(3,524)
8	CASH PROVIDED BY OPERATING ACTIVITIES	202,331	175,433	191,655
9	CASH FROM INVESTMENT ACTIVITIES:			
10	INVESTMENT IN:			
11	UTILITY PLANT (INCLUDING AFUDC)	(215,621)	(195,621)	(199,425)
12	CONSERVATION	(32,000)	(32,000)	(32,000)
13	FISH & WILDLIFE	(36,000)	(36,000)	(36,000)
14	CASH USED FOR INVESTMENT ACTIVITIES	(283,621)	(263,621)	(267,425)
15	CASH FROM BORROWING AND APPROPRIATIONS:			
16	INCREASE IN BONDS ISSUED TO U.S. TREASURY	201,000	203,796	205,000
17	REPAYMENT OF BONDS ISSUED TO U.S. TREASURY	(20,000)	(104,300)	(47,990)
18	INCREASE IN FEDERAL CONSTRUCTION APPROPRIATIONS	82,621	59,825	62,425
19	REPAYMENT OF FEDERAL CONSTRUCTION APPROPRIATIONS	(182,331)	(68,183)	(137,075)
20	PAYMENT OF IRRIGATION ASSISTANCE	0	(2,950)	(6,590)
21	CASH PROVIDED BY BORROWING AND APPROPRIATIONS	81,290	88,188	75,770
22	ANNUAL INCREASE (DECREASE) IN CASH	0	0	0
23	PLANNED NET REVENUES FOR RISK	11,000	11,000	11,000
24	**TOTAL ANNUAL INCREASE (DECREASE) IN CASH**	**11,000**	**11,000**	**11,000**

1/ Line 22 must be greater than or equal to zero, otherwise net revenues will be added so that there are no negative cash flows for the year.

Table 1C

OUTYEAR GENERATION REVENUE REQUIREMENT
INCOME STATEMENT
($000s)

		A 2010	B 2011	C 2012	D 2013
1	OPERATING EXPENSES				
2	POWER SYSTEM GENERATION RESOURCES				
3	OPERATING GENERATION RESOURCES	488,254	530,357	512,481	560,750
4	OPERATING GENERATION SETTLEMENT PAYMENTS	18,153	18,566	18,988	19,421
5	NON-OPERATING GENERATION	1,900	1,900	1,951	2,004
6	CONTRACTED POWER PURCHASES	125,646	122,700	65,611	67,579
7	RESIDENTIAL EXCHANGE/IOU SETTLEMENT BENEFITS	300,000	300,000	300,000	300,000
8	RENEWABLE AND CONSERVATION GENERATION	135,029	135,641	137,549	139,486
9	TRANSMISSION ACQUISITION AND ANCILLARY SERVICES	192,789	197,469	202,963	208,518
10	POWER NON-GENERATION OPERATIONS	61,205	63,041	64,932	66,880
11	F&W/ENVIRONMENTAL REQUIREMENTS	170,195	171,349	176,489	181,784
12	GENERAL AND ADMINISTRATIVE	67,261	68,568	70,625	72,743
13	OTHER INCOME, EXPENSES AND ADJUSTMENTS	0	0	0	0
14	NON-FEDERAL DEBT SERVICE	546,980	565,923	657,130	600,211
15	DEPRECIATION AND AMORTIZATION	214,814	210,551	202,070	204,514
16	**TOTAL OPERATING EXPENSES**	**2,322,225**	**2,386,065**	**2,410,790**	**2,423,890**
17	INTEREST EXPENSE:				
18	INTEREST ON FEDERAL INVESTMENT-				
19	APPROPRIATED FUNDS	201,628	196,086	188,649	189,340
20	BONDS ISSUED TO U.S. TREASURY	93,924	106,287	119,492	132,823
21	INTEREST CREDIT ON CASH RESERVES	(55,509)	(55,244)	(54,395)	(56,408)
22	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	185	185	185	185
23	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)	(45,937)	(45,937)
24	ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION	(8,000)	(8,000)	(8,000)	(8,000)
25	NET INTEREST EXPENSE	186,291	193,377	199,995	212,003
26	**TOTAL EXPENSES**	2,508,516	2,579,442	2,610,785	2,635,893
27	MINIMUM REQUIRED NET REVENUES 1/	36,546	28,604	0	42,738
28	PLANNED NET REVENUES FOR RISK	0	0	0	0
29	TOTAL PLANNED NET REVENUES (27+28)	36,546	28,604	0	42,738
30	**TOTAL REVENUE REQUIREMENT**	**2,545,062**	**2,608,046**	**2,610,785**	**2,678,631**

1/ SEE NOTE ON CASH FLOW STATEMENT

Table 1D

OUTYEAR GENERATION REVENUE REQUIREMENT
STATEMENT OF CASH FLOWS
($000s)

		A 2010	B 2011	C 2012	D 2013
1	CASH FROM OPERATING ACTIVITIES				
2	MINIMUM REQUIRED NET REVENUES 1/	214,814	210,551	202,070	204,514
3	NON-CASH ITEMS:	185	185	185	185
4	DEPRECIATION AND AMORTIZATION	(45,937)	(45,937)	(45,937)	(45,937)
5	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	(3,524)	(3,524)	(3,524)	(3,524)
6	CAPITALIZATION ADJUSTMENT	202,084	189,879	152,794	197,976
7	ACCRUAL REVENUES				
8	CASH PROVIDED BY OPERATING ACTIVITIES				
9	CASH FROM INVESTMENT ACTIVITIES:				
10	INVESTMENT IN:				
11	UTILITY PLANT (INCLUDING AFUDC)	(236,863)	(195,412)	(269,579)	(262,288)
12	CONSERVATION	(40,000)	(40,000)	(40,000)	(40,000)
13	FISH & WILDLIFE	(36,000)	(36,000)	(36,000)	(36,000)
14	CASH USED FOR INVESTMENT ACTIVITIES	(312,863)	(271,412)	(345,579)	(338,288)
15	CASH FROM BORROWING AND APPROPRIATIONS:	0	0	0	0
16	INCREASE IN BONDS ISSUED TO U.S. TREASURY	199,000	200,000	211,000	214,000
17	REPAYMENT OF BONDS ISSUED TO U.S. TREASURY	(30,068)	(26,000)	(32,000)	(144,800)
18	INCREASE IN FEDERAL CONSTRUCTION APPROPRIATIONS	113,863	71,412	134,579	124,288
19	REPAYMENT OF FEDERAL CONSTRUCTION APPROPRIATIONS	(172,016)	(163,879)	(103,277)	(8,998)
20	PAYMENT OF IRRIGATION ASSISTANCE	0	0	(706)	(44,178)
21	CASH PROVIDED BY BORROWING AND APPROPRIATIONS	110,779	81,533	209,596	140,312
22	ANNUAL INCREASE (DECREASE) IN CASH	0	0	16,811	0
23	PLANNED NET REVENUES FOR RISK	0	0	0	0
24	**TOTAL ANNUAL INCREASE (DECREASE) IN CASH**	**0**	**0**	**16,811**	**0**

1/ Line 22 must be greater than or equal to zero, otherwise net revenues will be added so that there are no negative cash flows for the year.

Table 1E

7(b)(2) GENERATION REVENUE REQUIREMENT
INCOME STATEMENT
($000s)

		A	B	C	D	E	F	G
		2007	2008	2009	2010	2011	2012	2013
1	OPERATING EXPENSES							
2	POWER SYSTEM GENERATION RESOURCES							
3	OPERATING GENERATION RESOURCES	496,842	429,190	491,075	462,378	504,013	485,700	533,524
4	OPERATING GENERATION SETTLEMENT PAYMENTS	16,968	17,354	17,749	18,153	18,566	18,988	19,421
5	NON-OPERATING GENERATION	5,600	4,900	3,300	1,900	1,900	1,951	2,004
6	CONTRACTED POWER PURCHASES	285,679	243,431	292,210	125,646	122,700	65,611	67,579
7	RESIDENTIAL EXCHANGE/IOU SETTLEMENT BENEFITS	0	0	0	0	0	0	0
8	RENEWABLE AND CONSERVATION GENERATION	0	0	0	0	0	0	0
9	TRANSMISSION ACQUISITION AND ANCILLARY SERVICES	172,914	175,177	182,515	192,789	197,469	202,963	208,518
10	POWER NON-GENERATION OPERATIONS	49,691	51,023	52,469	54,043	55,664	57,334	59,054
11	F&W/ENVIRONMENTAL REQUIREMENTS	171,185	172,276	173,367	170,195	171,349	176,489	181,784
12	GENERAL AND ADMINISTRATIVE	52,698	52,361	58,681	58,130	59,129	60,863	62,653
13	OTHER INCOME, EXPENSES AND ADJUSTMENTS	1,800	1,800	3,600	0	0	0	0
14	NON-FEDERAL DEBT SERVICE	503,960	551,752	535,079	528,135	547,240	638,455	581,556
15	DEPRECIATION AND AMORTIZATION	137,376	142,628	146,483	150,234	148,617	145,122	149,506
16	**TOTAL OPERATING EXPENSES**	**1,894,713**	**1,841,892**	**1,956,528**	**1,761,603**	**1,826,647**	**1,853,477**	**1,865,600**
17	INTEREST EXPENSE:							
18	INTEREST ON FEDERAL INVESTMENT-							
19	APPROPRIATED FUNDS	218,538	209,817	201,078	192,093	184,521	175,474	175,923
20	BONDS ISSUED TO U.S. TREASURY	34,715	51,984	67,918	79,350	90,846	102,935	115,539
21	INTEREST CREDIT ON CASH RESERVES	(53,227)	(53,067)	(54,060)	(54,520)	(54,153)	(52,261)	(53,825)
22	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	0	0	0	0	0	0	0
23	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)
24	ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION	(8,000)	(8,000)	(8,000)	(8,000)	(8,000)	(8,000)	(8,000)
25	NET INTEREST EXPENSE	146,088	154,798	160,999	162,986	167,277	172,211	183,701
26	**TOTAL EXPENSES**	**2,040,801**	**1,996,690**	**2,117,526**	**1,924,588**	**1,993,925**	**2,025,688**	**2,049,300**
27	MINIMUM REQUIRED NET REVENUES 1/	111,017	76,301	92,862	99,831	87,301	11,698	68,215
28	PLANNED NET REVENUES FOR RISK	11,000	11,000	11,000	0	0	0	0
29	**TOTAL PLANNED NET REVENUES (27+28)**	**122,017**	**87,301**	**103,862**	**99,831**	**87,301**	**11,698**	**68,215**
30	**TOTAL REVENUE REQUIREMENT**	**2,162,818**	**2,083,991**	**2,221,388**	**2,024,419**	**2,081,225**	**2,037,387**	**2,117,516**

1/ SEE NOTE ON CASH FLOW STATEMENT

Table 1F

7(b)(2) GENERATION REVENUE REQUIREMENT
STATEMENT OF CASH FLOWS
($000s)

		A 2007	B 2008	C 2009	D 2010	E 2011	F 2012	G 2013
1	CASH FROM OPERATING ACTIVITIES							
2	MINIMUM REQUIRED NET REVENUES 1/	111,017	76,301	92,862	99,831	87,301	11,698	68,215
3	NON-CASH ITEMS:							
4	DEPRECIATION AND AMORTIZATION	137,376	142,628	146,483	150,234	148,617	145,122	149,506
5	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	0	0	0	0	0	0	0
6	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)	(45,937)
7	ACCRUAL REVENUES	(3,524)	(3,524)	(3,524)	(3,524)	(3,524)	(3,524)	(3,524)
8	CASH PROVIDED BY OPERATING ACTIVITIES	198,932	169,468	189,884	200,604	186,457	107,359	168,260
9	CASH FROM INVESTMENT ACTIVITIES:							
10	INVESTMENT IN:							
11	UTILITY PLANT (INCLUDING AFUDC)	(215,621)	(195,621)	(199,425)	(236,863)	(195,412)	(269,579)	(262,288)
12	CONSERVATION	0	0	0	0	0	0	0
13	FISH & WILDLIFE	(36,000)	(36,000)	(36,000)	(36,000)	(36,000)	(36,000)	(36,000)
14	CASH USED FOR INVESTMENT ACTIVITIES	(251,621)	(231,621)	(235,425)	(272,863)	(231,412)	(305,579)	(298,288)
15	CASH FROM BORROWING AND APPROPRIATIONS:							
16	INCREASE IN BONDS ISSUED TO U.S. TREASURY	169,000	171,796	173,000	159,000	160,000	171,000	174,000
17	REPAYMENT OF BONDS ISSUED TO U.S. TREASURY	(20,000)	0	(7,990)	(68)	0	0	(60,000)
18	INCREASE IN FEDERAL CONSTRUCTION APPROPRIATIONS	82,621	59,825	62,425	113,863	71,412	134,579	124,288
19	REPAYMENT OF FEDERAL CONSTRUCTION APPROPRIATIONS	(178,932)	(166,518)	(175,304)	(200,536)	(186,457)	(106,653)	(64,082)
20	PAYMENT OF IRRIGATION ASSISTANCE	0	(2,950)	(6,590)	0	0	(706)	(44,178)
21	CASH PROVIDED BY BORROWING AND APPROPRIATIONS	52,689	62,153	45,541	72,259	44,955	198,220	130,028
22	ANNUAL INCREASE (DECREASE) IN CASH	0	0	0	0	0	0	0
23	PLANNED NET REVENUES FOR RISK	11,000	11,000	11,000	0	0	0	0
24	**TOTAL ANNUAL INCREASE (DECREASE) IN CASH**	**11,000**	**11,000**	**11,000**	**0**	**0**	**0**	**0**

1/ Line 22 must be greater than or equal to zero, otherwise net revenues will be added so that there are no negative cash flows for the year.

2. COSTS OF SERVICES

2.1 Introduction

This chapter documents the development of the costs necessary for ratemaking from the annual generation revenue requirements. For the Cost of Service Analysis (COSA), the total generation revenue requirements (all years of both the program and 7(b)(2) cases) are assigned to each Federal Columbia River Power System (FCRPS) resource pool according to the necessary level of detail. The costs of the generation inputs to ancillary services are developed from the COSA data. Also included is the accrued expense basis for the Slice product revenue requirement.

Data development for the COSA, generation inputs to ancillary services, and the Slice revenue requirement are derived from the annual costs identified in Table 1A - Generation Income Statement. For the COSA, costs are assigned to the resource pools primarily by direct identification, related to the rate development requirements of the Northwest Power Act. Exceptions are net interest expenses and planned net revenues, which are first split between conservation and the remainder of generation by the use of equivalent annual costs (defined below). The generation portions are then divided between the Federal Base System (FBS) Hydro, Fish & Wildlife, and BPA generation programs based on average net investment. These allocations, in turn, form the basis for the association of net interest expenses and, where applicable, planned net revenues with the ancillary services inputs. The O&M and depreciation are direct identification for the ancillary services inputs. The Slice revenue requirement is derived from the generation revenue requirement with the exclusion of certain budget line items.

2.2 Cost Components of COSA Resource Pools

FBS Operating Expenses

- Hydro: COE, BOR, and US Fish & Wildlife O&M, and depreciation; Colville payment; upstream benefits.

- Fish and Wildlife: BPA F&W direct program O&M and amortization of F&W direct program capital investments.

- Remaining FBS items: Contractual costs associated with Trojan, CGS, WNP-1 and -3 (excluding WNP 3 investor owned utility (IOU) settlement costs); balancing (short-term) power purchases and potential system augmentation purchases.

New Resources Operating Expenses

- Contractual obligations associated with energy acquired under the long-term generating projects and renewable generation programs, including the renewables rate credit.

Residential Exchange Operating Expenses

- Financial settlement with IOUs as part of subscription.

Conservation Operating Expenses

- Operating expenses associated with PBL's generation conservation programs and PBL conservation support.
- Amortization of BPA capital investments in Legacy conservation, ConAug and Conservation acquisitions.
- Third party debt service in conservation programs backed by BPA.
- Conservation rate credit.

Other Generation Costs Operating Expenses

- BPA programs are expense programs, including Power Marketing and Business Support, Power Scheduling, PBL System Operations, CSRS Pension expense, agency Administrative & Support Services, DSI benefit payments and the Planning Council; depreciation associated with investment in capital equipment (office furniture & fixtures, data processing hardware and software) for PBL and Corporate.

Transmission Costs

- TBL transmission is estimated costs of BPA transmission service acquired when necessary for delivery of BPA wholesale power.

- Ancillary services are estimated annual costs of BPA Generation Integration transmission facilities (Note: while these are not specifically ancillary service product costs, this is the program under which this interbusiness line expense currently is being reported).

- General Transfer Agreements are annual expenses associated with General Transfer Agreements for delivery of BPA wholesale power and non-BPA wheeling acquired for same.

Equivalent annual costs are used to prorate net interest expense and planned net revenues between conservation and the remainder of generation, are calculated as levelized principal and interest payments (mortgage basis) using completed plant and projected additions. A weighted average interest rate is used for the historical plant and projected interest rates for additions. The prorating is based on the sum of all calculated proxy-payments for COE, BOR, and BPA plant and BPA fish and wildlife investment (generation) and all BPA conservation investments (conservation). The generation portion is then allocated between FBS and other generation based on average net plant investment.

2.3 Generation Inputs to Ancillary ServicesOperating Reserves

All Hydro Projects

- O&M: sum of generation O&M for each hydro project, including Colville payment (associated with Columbia Basin), less F&W related O&M at projects.

- Depreciation: depreciation expense associated with generation investments at each hydro project.

- Net Interest Expense/Planned Net Revenues: suballocation from COSA table Hydro line based on generation net plant investment from hydro projects.

- Fish & Wildlife O&M: sum of BPA direct program, US F&W Service (Lower Snake River Compensation Plan) and F&W portion of O&M at individual COE projects, including Columbia River Bypass.

- Amortization/Depreciation: annual write-down of F&W investments from BPA direct program, Lower Snake River Compensation Plan (LSRCP), and Columbia River Bypass (CRB). Net Interest Expense/Planned Net Revenues: suballocation from COSA table Hydro line based on net plant investment from LSRCP and CRB plus amounts in COSA table Fish & Wildlife line.

- A&G Expense: generation revenue requirement O&M for Power Marketing, Power Scheduling, Generation Oversight, (one-half of) Planning Council, and BPA Administrative and Support Services.

- Revenue Credits: offsetting revenues associated with funding for BPA F&W program (4h10C) and annual Colville settlement payments (Colville payment Treasury credit).

Regulation

- All components identical to operating reserves except that data associated with the top 10 COE/BOR hydro plants (Columbia Basin, Bonneville, John Day, The Dalles, Chief Joseph, Ice Harbor, Lower Granite, Lower Monumental, Little Goose, and McNary) is used instead of all COE/BOR projects.

Reactive

- O&M at each COE/BOR project allocated to electric portion by identified percent (COE = 43%, BOR = 44%).

- A&G: Power Scheduling and Generation Oversight O&M from generation revenue requirement.

- Depreciation derived from percent of electric plant investment at each project (separate percentages for historical and projected investments) applied to calculated depreciation.

- WNP-2: identified percent of electric plant (0.74%) applied to debt service and O&M (exclusive of nuclear insurance, fuel and revenue-financed capital additions).

- Net Interest/Minimum Required Net Revenues: sub-allocation from COSA table Hydro line of net interest and required net revenues portion of total planned net revenues based on electric net plant investment.

- Synchronous Condenser Annual Costs (Revenue Credit) from identified investment in synchronous condensers, depreciation expense is calculated and suballocation of interest

and required net revenues from Hydro line in COSA table, based on ratio of synchronous condenser net investment to total COE/BOR net plant investment.

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2007	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	4,955,805	136,816	60,793	370,385	567,994
4. BPA FISH & WILDLIFE PROGRAM	140,228	3,871	1,720	171,903	177,494
5. TROJAN				14,005	14,005
6. WNP #1				148,141	148,141
7. CGS				459,359	459,359
8. WNP #3				151,724	151,724
9. SYSTEM AUGMENTATION				169,090	169,090
10. BALANCING POWER PURCHASES				55,000	55,000
11. TOTAL FEDERAL BASE SYSTEM	**5,096,033**	**140,687**	**62,513**	**1,539,606**	**1,742,806**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,089	14,089
15. OTHER NEW RESOURCES PURCHASES				46,764	46,764
16. TOTAL NEW RESOURCES				**60,853**	**60,853**
17. RESIDENTIAL EXCHANGE SETTLEMENT				301,000	301,000
18. CONSERVATION		21,184	9,413	151,430	182,027
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	43,785	1,209	537	182,192	183,938
21. WNP #3 PLANT				0	0
22. TOTAL OTHER GENERATION COSTS	**43,785**	**1,209**	**537**	**182,192**	**183,938**
23. TOTAL GENERATION COSTS	**5,139,818**	**163,080**	**72,463**	**2,235,081**	**2,470,624**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				124,614	124,614
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,300	1,300
27. GENERAL TRANSFER AGREEMENTS				47,000	47,000
28. TOTAL TRANSMISSION COSTS				**172,914**	**172,914**
29. TOTAL PBL REVENUE REQUIREMENT		**163,080**	**72,463**	**2,407,995**	**2,643,538**

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2008

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	4,971,786	145,229	31,126	380,709	557,064
4. FISH AND WILDLIFE	156,170	4,562	978	173,574	179,114
5. TROJAN				12,588	12,588
6. WNP #1				166,116	166,116
7. CGS				406,544	406,544
8. WNP #3				160,092	160,092
9. SYSTEM AUGMENTATION				118,024	118,024
10. BALANCING POWER PURCHASES				64,693	64,693
11. TOTAL FEDERAL BASE SYSTEM	**5,127,956**	**149,791**	**32,104**	**1,482,340**	**1,664,235**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,078	14,078
15. OTHER NEW RESOURCES PURCHASES				53,147	53,147
16. TOTAL NEW RESOURCES				**67,225**	**67,225**
17. RESIDENTIAL EXCHANGE SETTLEMENT				301,000	301,000
18. CONSERVATION		22,354	4,791	154,173	181,318
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	35,876	1,048	224	184,374	185,647
21. WNP #3 PLANT					
22. TOTAL OTHER GENERATION COSTS	**35,876**	**1,048**	**224**	**184,374**	**185,647**
23. TOTAL GENERATION COSTS	**5,163,832**	**173,193**	**37,119**	**2,189,113**	**2,399,425**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				126,877	126,877
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,300	1,300
27. GENERAL TRANSFER AGREEMENTS				47,000	47,000
28. TOTAL TRANSMISSION COSTS				**175,177**	**175,177**
29. TOTAL PBL REVENUE REQUIREMENT	**5,163,832**	**173,193**	**37,119**	**2,364,290**	**2,574,602**

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2009

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,028,112	153,037	38,543	391,777	583,357
4. FISH AND WILDLIFE	170,827	5,199	1,309	174,856	181,364
5. TROJAN				3,100	3,100
6. WNP #1				163,482	163,482
7. CGS				461,669	461,669
8. WNP #3				153,030	153,030
9. SYSTEM AUGMENTATION				169,926	169,926
10. BALANCING POWER PURCHASES				61,570	61,570
11. TOTAL FEDERAL BASE SYSTEM	**5,198,939**	**158,236**	**39,852**	**1,579,409**	**1,777,497**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,089	14,089
15. OTHER LONG-TERM POWER PURCHASES				60,110	60,110
16. TOTAL NEW RESOURCES				**74,199**	**74,199**
17. RESIDENTIAL EXCHANGE SETTLELMENT				301,000	301,000
18. CONSERVATION		23,893	6,018	157,908	187,819
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	26,604	811	204	194,603	195,618
21. WNP #3 PLANT					
22. TOTAL OTHER GENERATION COSTS	**26,604**	**811**	**204**	**194,603**	**195,618**
23. TOTAL GENERATION COSTS	**5,225,543**	**182,940**	**46,074**	**2,307,119**	**2,536,133**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				131,515	131,515
26. 3RD PARTY TRANS/ANCILLARY SERVICES				3,000	3,000
27. GENERAL TRANSFER AGREEMENTS				48,000	48,000
28. TOTAL TRANSMISSION COSTS				**182,515**	**182,515**
29. TOTAL PBL REVENUE REQUIREMENT		**182,940**	**46,074**	**2,489,634**	**2,718,648**

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2010

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,111,893	155,360	30,479	404,086	589,925
4. FISH AND WILDLIFE	184,568	5,609	1,100	171,224	177,933
5. TROJAN				1,700	1,700
6. WNP #1				159,459	159,459
7. CGS				432,093	432,093
8. WNP #3				142,783	142,783
9. SYSTEM AUGMENTATION				0	
10. BALANCING POWER PURCHASES				64,604	64,604
11. TOTAL FEDERAL BASE SYSTEM	**5,296,461**	**160,969**	**31,579**	**1,375,948**	**1,568,496**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,110	14,110
15. OTHER LONG-TERM POWER PURCHASES				81,035	81,035
16. TOTAL NEW RESOURCES				**95,145**	**95,145**
17. RESIDENTIAL EXCHANGE SETTLELMENT				300,000	300,000
18. CONSERVATION		24,817	4,868	165,478	195,163
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	16,581	505	99	192,866	193,469
21. WNP #3 PLANT					0
22. TOTAL OTHER GENERATION COSTS	**16,581**	**505**	**99**	**192,866**	**193,469**
23. TOTAL GENERATION COSTS	**5,313,042**	**186,291**	**36,546**	**2,129,437**	**2,352,273**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				135,069	135,069
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,120	1,120
27. GENERAL TRANSFER AGREEMENTS				56,600	56,600
28. TOTAL TRANSMISSION COSTS				**192,789**	**192,789**
29. TOTAL PBL REVENUE REQUIREMENT		**186,291**	**36,546**	**2,322,225**	**2,545,062**

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2011

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,156,309	161,785	23,931	414,565	600,281
4. FISH AND WILDLIFE	197,616	6,200	917	172,125	179,242
5. TROJAN				1,700	1,700
6. WNP #1				161,661	161,661
7. CGS				458,629	458,629
8. WNP #3				168,250	168,250
9. SYSTEM AUGMENTATION				0	0
10. BALANCING POWER PURCHASES				61,330	61,330
11. TOTAL FEDERAL BASE SYSTEM	**5,353,925**	**167,985**	**24,848**	**1,438,260**	**1,631,093**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,163	14,163
15. OTHER LONG-TERM POWER PURCHASES				82,321	82,321
16. TOTAL NEW RESOURCES				**96,484**	**96,484**
17. RESIDENTIAL EXCHANGE SETTLELMENT				300,000	300,000
18. CONSERVATION		25,127	3,717	162,934	191,778
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	8,422	265	39	190,918	191,222
21. WNP #3 PLANT					0
22. TOTAL OTHER GENERATION COSTS	**8,422**	**265**	**39**	**190,918**	**191,222**
23. TOTAL GENERATION COSTS	**5,362,347**	**193,377**	**28,604**	**2,188,596**	**2,410,577**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				138,519	138,519
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,150	1,150
27. GENERAL TRANSFER AGREEMENTS				57,800	57,800
28. TOTAL TRANSMISSION COSTS				**197,469**	**197,469**
29. TOTAL PBL REVENUE REQUIREMENT		**193,377**	**28,604**	**2,386,065**	**2,608,046**

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2012

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,253,437	169,619	0	425,954	595,573
4. FISH AND WILDLIFE	210,353	6,792	0	176,563	183,355
5. TROJAN				1,751	1,751
6. WNP #1				187,660	187,660
7. CGS				504,117	504,117
8. WNP #3				161,778	161,778
9. SYSTEM AUGMENTATION				0	0
10. BALANCING POWER PURCHASES				63,170	63,170
11. TOTAL FEDERAL BASE SYSTEM	**5,463,790**	**176,411**	**0**	**1,520,993**	**1,697,404**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,216	14,216
15. OTHER LONG-TERM POWER PURCHASES				83,575	83,575
16. TOTAL NEW RESOURCES				**97,791**	**97,791**
17. RESIDENTIAL EXCHANGE SETTLELMENT				300,000	300,000
18. CONSERVATION		23,408	0	159,522	182,930
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	5,448	176	0	129,521	129,697
21. WNP #3 PLANT					0
22. TOTAL OTHER GENERATION COSTS	**5,448**	**176**	**0**	**129,521**	**129,697**
23. TOTAL GENERATION COSTS	**5,469,238**	**199,995**	**0**	**2,207,827**	**2,407,822**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				142,245	142,245
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,185	1,185
27. GENERAL TRANSFER AGREEMENTS				59,534	59,534
28. TOTAL TRANSMISSION COSTS				**202,963**	**202,963**
29. TOTAL PBL REVENUE REQUIREMENT		**199,995**	**0**	**2,410,790**	**2,610,785**

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2013

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,399,067	181,120	36,512	438,787	656,419
4. FISH AND WILDLIFE	222,686	7,470	1,506	182,002	190,978
5. TROJAN				1,804	1,804
6. WNP #1				283,394	283,394
7. CGS				376,259	376,259
8. WNP #3				176,703	176,703
9. SYSTEM AUGMENTATION				0	0
10. BALANCING POWER PURCHASES				65,065	65,065
11. TOTAL FEDERAL BASE SYSTEM	**5,621,753**	**188,590**	**38,018**	**1,524,013**	**1,750,621**
12. NEW RESOURCES					
13. IDAHO FALLS				0	0
14. COWLITZ FALLS				14,262	14,262
15. OTHER LONG-TERM POWER PURCHASES				84,836	84,836
16. TOTAL NEW RESOURCES				**99,098**	**99,098**
17. RESIDENTIAL EXCHANGE SETTLELMENT				300,000	300,000
18. CONSERVATION		23,233	4,684	159,192	187,109
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	5,355	180	36	133,069	133,285
21. WNP #3 PLANT					
22. TOTAL OTHER GENERATION COSTS	**5,355**	**180**	**36**	**133,069**	**133,285**
23. TOTAL GENERATION COSTS	**5,627,108**	**212,003**	**42,738**	**2,215,371**	**2,470,112**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				145,978	145,978
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,220	1,220
27. GENERAL TRANSFER AGREEMENTS				61,320	61,320
28. TOTAL TRANSMISSION COSTS				**208,518**	**208,518**
29. TOTAL PBL REVENUE REQUIREMENT		**212,003**	**42,738**	**2,423,890**	**2,678,631**

Table 2B

Allocation of Net Interest and Planned Net Revenues for COSA
($000s)

	FY 2007	Generation	Conservation	Total Generation
1	Equivalent Annual Costs	534,967	79,867	614,833
2	Percent	87.01%	12.99%	100%
3	Net Interest Expense	141,896	21,184	163,080
4	Planned Net Revenues	63,050	9,413	72,463
	FY 2008			
1	Equivalent Annual Costs	551,124	81,675	632,800
2	Percent	87.09%	12.91%	100%
3	Net Interest Expense	150,839	22,354	173,193
4	Planned Net Revenues	32,328	4,791	37,119
	FY 2009			
1	Equivalent Annual Costs	575,592	86,471	662,062
2	Percent	86.94%	13.06%	100%
3	Net Interest Expense	159,047	23,893	182,940
4	Planned Net Revenues	40,056	6,018	46,074
	FY 2010			
1	Equivalent Annual Costs	584,123	89,773	673,897
2	Percent	86.68%	13.32%	100%
3	Net Interest Expense	161,474	24,817	186,291
4	Planned Net Revenues	31,678	4,868	36,546

Table 2B

Allocation of Net Interest and Planned Net Revenues for COSA
($000s)

	FY 2011	Generation	Conservation	Total Generation
1	Equivalent Annual Costs	588,548	87,896	676,444
2	Percent	87.01%	12.99%	100%
3	Net Interest Expense	168,250	25,127	193,377
4	Planned Net Revenues	24,887	3,717	28,604
	FY 2012			
1	Equivalent Annual Costs	619,581	75,509	695,090
2	Percent	59945187.87%	7946061.28%	67891249%
		0.882958977	0	1
3	Net Interest Expense			
		176586.75	23,408	199994.75
4	Planned Net Revenues			
		0	0	0
	FY 2013			
1	Equivalent Annual Costs	617,025	75,942	692,967
2	Percent	89.04%	10.96%	100%
3	Net Interest Expense	188,770	23,233	212,003
4	Planned Net Revenues	38,054	4,684	42,738

Table 2C

Equivalent Annual Costs
($000s)

	A AVG SERV LIFE	B COMP PLANT 9/30/2007	C WT AV INT RATE	D 2007 EQ ANN COSTS	E COMP PLANT 9/30/2008	F WT AV INT RATE	G 2008 EQ ANN COSTS
Corps of Engineers/Bureau of Reclamation	75	7,608,471	6.28%	$482,823	7,700,811	6.36%	$494,623
BPA F&W	15	315,650	5.31%	$31,051	319,560	5.66%	$32,176
PBL General Plant	6	108,393	4.52%	$21,093	119,643	5.90%	$24,325
TOTAL GENERATION				$534,967			$551,124
CONSERVATION	16	818,365	5.59%	$79,867	782,984	5.58%	$81,675
PBL							
OFFICE FURNITURE & FIXTURES							
DATA PROCESSING EQUIPMENT							
DATA PROCESSING SOFTWARE							
TOTAL GENERAL PLANT - PBL	6	108,393	18,128	6	119,643	20,190	6
CONSERVATION							
LEGACY							
CONAUG							
CONSERVATION ACQUISITION							
TOTAL CONSERVATION	16	818,365	52,340	14	782,984	55,534	13

Table 2C

Equivalent Annual Costs
($000s)

	H COMP PLANT 9/30/2009	I WT AV INT RATE	J 2009 EQ ANN COSTS	K COMP PLANT 9/30/2010	L WT AV INT RATE	M 2010 EQ ANN COSTS	N COMP PLANT 9/30/2011	O WT AV INT RATE	P 2011 EQ ANN COSTS
Corps of Engineers/Bureau of Reclamation	7,926,506	6.43%	$514,478	8,078,027	6.40%	$521,971	8,229,468	6.37%	$529,373
BPA F&W	335,073	5.93%	$34,342	338,587	6.00%	$34,862	348,541	6.06%	$36,028
PBL General Plant	130,893	6.09%	$26,772	142,143	6.46%	$27,290	153,393	6.52%	$23,147
TOTAL GENERATION			$575,592			$584,123			$588,548
CONSERVATION	760,664	5.94%	$86,471	758,845	5.58%	$89,773	764,750	5.69%	$87,896
PBL									
OFFICE FURNITURE & FIXTURES									
DATA PROCESSING EQUIPMENT									
DATA PROCESSING SOFTWARE									
TOTAL GENERAL PLANT - PBL	130,893	20,853	7	142,143	21,692	9	153,393	17,125	15
CONSERVATION									
LEGACY									
CONAUG									
CONSERVATION ACQUISITION									
TOTAL CONSERVATION	760,664	59,374	12	758,845	64,580	12	764,750	61,934	11

Table 2C

Equivalent Annual Costs
($000s)

	Q COMP PLANT 9/30/2012	R WT AV INT RATE	S 2012 EQ ANN COSTS	T COMP PLANT 9/30/2013	U WT AV INT RATE	V 2013 EQ ANN COSTS
Corps of Engineers/Bureau of Reclamation	8,491,047	6.35%	$544,561	8,745,335	6.34%	$560,026
BPA F&W	356,477	6.11%	$36,968	370,482	6.15%	$38,521
PBL General Plant	164,643	6.57%	$17,923	175,893	6.60%	$18,478
TOTAL GENERATION			$599,452			$617,025
CONSERVATION	650,533	5.80%	$79,461	596,382	5.88%	$75,942
PBL						
OFFICE FURNITURE & FIXTURES						
DATA PROCESSING EQUIPMENT						
DATA PROCESSING SOFTWARE						
TOTAL GENERAL PLANT - PBL	164,643	11,324	15	175,893	11,361	
CONSERVATION						
LEGACY						
CONAUG						
CONSERVATION ACQUISITION						
TOTAL CONSERVATION	650,533	56,948	11	596,382	55,008	

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2007

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	4,955,805	140,858	117,648	370,385	628,891
4. BPA FISH & WILDLIFE PROGRAM	140,228	3,986	3,329	171,903	179,218
5. TROJAN				14,005	14,005
6. WNP #1				148,141	148,141
7. CGS				459,359	459,359
8. WNP #3				151,724	151,724
9. SYSTEM AUGMENTATION				169,090	169,090
10. BALANCING POWER PURCHASES				55,000	55,000
11. TOTAL FEDERAL BASE SYSTEM	**5,096,033**	**144,844**	**120,977**	**1,539,606**	**1,805,427**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER NEW RESOURCES PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLEMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	43,785	1,244	1,040	182,192	184,476
21. WNP #3 PLANT				0	0
22. TOTAL OTHER GENERATION COSTS	**43,785**	**1,244**	**1,040**	**182,192**	**184,476**
23. TOTAL GENERATION COSTS	**5,139,818**	**146,088**	**122,017**	**1,721,799**	**1,989,904**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				124,614	124,614
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,300	1,300
27. GENERAL TRANSFER AGREEMENTS				47,000	47,000
28. TOTAL TRANSMISSION COSTS				**172,914**	**172,914**
29. TOTAL PBL REVENUE REQUIREMENT		**146,088**	**122,017**	**1,894,713**	**2,162,818**

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2008

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	4,971,786	149,041	84,054	380,709	613,804
4. FISH AND WILDLIFE	156,170	4,682	2,640	173,574	180,896
5. TROJAN				12,588	12,588
6. WNP #1				166,116	166,116
7. CGS				406,544	406,544
8. WNP #3				160,092	160,092
9. SYSTEM AUGMENTATION				118,024	118,024
10. BALANCING POWER PURCHASES				64,693	64,693
11. TOTAL FEDERAL BASE SYSTEM	**5,127,956**	**153,723**	**86,694**	**1,482,340**	**1,722,757**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER NEW RESOURCES PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLEMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	35,876	1,075	607	184,374	186,056
21. WNP #3 PLANT					
22. TOTAL OTHER GENERATION COSTS	**35,876**	**1,075**	**607**	**184,374**	**186,056**
23. TOTAL GENERATION COSTS	**5,163,832**	**154,798**	**87,301**	**1,666,715**	**1,908,814**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				126,877	126,877
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,300	1,300
27. GENERAL TRANSFER AGREEMENTS				47,000	47,000
28. TOTAL TRANSMISSION COSTS				**175,177**	**175,177**
29. TOTAL PBL REVENUE REQUIREMENT	**5,163,832**	**154,798**	**87,301**	**1,841,892**	**2,083,991**

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2009

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,028,112	154,916	99,938	391,777	646,631
4. FISH AND WILDLIFE	170,827	5,263	3,395	174,856	183,514
5. TROJAN				3,100	3,100
6. WNP #1				163,482	163,482
7. CGS				461,669	461,669
8. WNP #3				153,030	153,030
9. SYSTEM AUGMENTATION				169,926	169,926
10. BALANCING POWER PURCHASES				61,570	61,570
11. TOTAL FEDERAL BASE SYSTEM	**5,198,939**	**160,179**	**103,333**	**1,579,409**	**1,842,921**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER LONG-TERM POWER PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLELMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	26,604	820	529	194,603	195,952
21. WNP #3 PLANT					
22. TOTAL OTHER GENERATION COSTS	**26,604**	**820**	**529**	**194,603**	**195,952**
23. TOTAL GENERATION COSTS	**5,225,543**	**160,999**	**103,862**	**1,774,013**	**2,038,873**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				131,515	131,515
26. 3RD PARTY TRANS/ANCILLARY SERVICES				3,000	3,000
27. GENERAL TRANSFER AGREEMENTS				48,000	48,000
28. TOTAL TRANSMISSION COSTS				**182,515**	**182,515**
29. TOTAL PBL REVENUE REQUIREMENT		**160,999**	**103,862**	**1,956,528**	**2,221,388**

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2010

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,111,893	156,815	96,051	404,086	656,952
4. FISH AND WILDLIFE	184,568	5,662	3,468	171,224	180,354
5. TROJAN				1,700	1,700
6. WNP #1				159,459	159,459
7. CGS				432,093	432,093
8. WNP #3				142,783	142,783
9. SYSTEM AUGMENTATION				0	
10. BALANCING POWER PURCHASES				64,604	64,604
11. TOTAL FEDERAL BASE SYSTEM	**5,296,461**	**162,477**	**99,519**	**1,375,948**	**1,637,944**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER LONG-TERM POWER PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLELMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	16,581	509	312	192,866	193,686
21. WNP #3 PLANT					0
22. TOTAL OTHER GENERATION COSTS	**16,581**	**509**	**312**	**192,866**	**193,686**
23. TOTAL GENERATION COSTS	**5,313,042**	**162,986**	**99,831**	**1,568,814**	**1,831,631**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				135,069	135,069
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,120	1,120
27. GENERAL TRANSFER AGREEMENTS				56,600	56,600
28. TOTAL TRANSMISSION COSTS				**192,789**	**192,789**
29. TOTAL PBL REVENUE REQUIREMENT		**162,986**	**99,831**	**1,761,603**	**2,024,419**

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2011

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,156,309	160,850	83,946	414,565	659,361
4. FISH AND WILDLIFE	197,616	6,165	3,217	172,125	181,507
5. TROJAN				1,700	1,700
6. WNP #1				161,661	161,661
7. CGS				458,629	458,629
8. WNP #3				168,250	168,250
9. SYSTEM AUGMENTATION				0	0
10. BALANCING POWER PURCHASES				61,330	61,330
11. TOTAL FEDERAL BASE SYSTEM	**5,353,925**	**167,015**	**87,163**	**1,438,260**	**1,692,438**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER LONG-TERM POWER PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLELMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	8,422	262	138	190,918	191,318
21. WNP #3 PLANT					0
22. TOTAL OTHER GENERATION COSTS	**8,422**	**262**	**138**	**190,918**	**191,318**
23. TOTAL GENERATION COSTS	**5,362,347**	**167,277**	**87,301**	**1,629,178**	**1,883,756**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				138,519	138,519
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,150	1,150
27. GENERAL TRANSFER AGREEMENTS				57,800	57,800
28. TOTAL TRANSMISSION COSTS				**197,469**	**197,469**
29. TOTAL PBL REVENUE REQUIREMENT		**167,277**	**87,301**	**1,826,647**	**2,081,225**

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2012

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,253,437	165,416	11,237	425,954	602,607
4. FISH AND WILDLIFE	210,353	6,623	450	176,563	183,636
5. TROJAN				1,751	1,751
6. WNP #1				187,660	187,660
7. CGS				504,117	504,117
8. WNP #3				161,778	161,778
9. SYSTEM AUGMENTATION				0	0
10. BALANCING POWER PURCHASES				63,170	63,170
11. TOTAL FEDERAL BASE SYSTEM	**5,463,790**	**172,039**	**11,687**	**1,520,993**	**1,704,719**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER LONG-TERM POWER PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLELMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	5,448	172	11	129,521	129,704
21. WNP #3 PLANT					0
22. TOTAL OTHER GENERATION COSTS	**5,448**	**172**	**11**	**129,521**	**129,704**
23. TOTAL GENERATION COSTS	**5,469,238**	**172,211**	**11,698**	**1,650,514**	**1,834,423**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				142,245	142,245
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,185	1,185
27. GENERAL TRANSFER AGREEMENTS				59,534	59,534
28. TOTAL TRANSMISSION COSTS				**202,963**	**202,963**
29. TOTAL PBL REVENUE REQUIREMENT		**172,211**	**11,698**	**1,853,477**	**2,037,387**

Table 2D

Generation Revenue Requirements by Resource Pool
7B2 CASE
($000s)

FY 2013

	A INVEST BASE	B NET INT	C NET REVS	D OPER EXP	E TOTAL (B+C+D)
1. GENERATION COSTS					
2. FEDERAL BASE SYSTEM					
3. HYDRO	5,399,067	176,256	65,451	438,787	680,494
4. FISH AND WILDLIFE	222,686	7,270	2,700	182,002	191,972
5. TROJAN				1,804	1,804
6. WNP #1				283,394	283,394
7. CGS				376,259	376,259
8. WNP #3				176,703	176,703
9. SYSTEM AUGMENTATION				0	0
10. BALANCING POWER PURCHASES				65,065	65,065
11. TOTAL FEDERAL BASE SYSTEM	**5,621,753**	**183,526**	**68,151**	**1,524,013**	**1,775,690**
12. NEW RESOURCES					
13. IDAHO FALLS					0
14. COWLITZ FALLS					0
15. OTHER LONG-TERM POWER PURCHASES					0
16. TOTAL NEW RESOURCES					**0**
17. RESIDENTIAL EXCHANGE SETTLELMENT					0
18. CONSERVATION					0
19. OTHER GENERATION COSTS					
20. BPA PROGRAMS	5,355	175	64	133,069	133,308
21. WNP #3 PLANT					
22. TOTAL OTHER GENERATION COSTS	**5,355**	**175**	**64**	**133,069**	**133,308**
23. TOTAL GENERATION COSTS	**5,627,108**	**183,701**	**68,215**	**1,657,081**	**1,908,998**
24. TRANSMISSION COSTS					
25. TBL TRANSMISSION/ANCILLARY SERVICES				145,978	145,978
26. 3RD PARTY TRANS/ANCILLARY SERVICES				1,220	1,220
27. GENERAL TRANSFER AGREEMENTS				61,320	61,320
28. TOTAL TRANSMISSION COSTS				**208,518**	**208,518**
29. TOTAL PBL REVENUE REQUIREMENT		**183,701**	**68,215**	**1,865,600**	**2,117,516**

Table 2E

Regulation
Power Revenue Requirement for
Big Ten Hydroelectric Projects and F&W
($000s)

		2007	2008	2009
1	**Big 10 Dams**			
2	O&M	160,382	166,535	173,109
3	Depreciation	66,258	66,691	67,835
4	Net Interest	88,395	87,117	91,336
5	Planned Net Revenues	37,002	18,671	23,003
6	Subtotal	352,037	339,014	355,283
7	**Fish & Wildlife**			
8	O&M	208,543	208,938	209,134
9	Amortization/Depreciation	33,692	36,273	38,162
10	Net Interest	31,332	35,263	38,565
11	Planned Net Revenues	13,922	7,558	9,712
12	Subtotal	287,489	288,032	295,573
13	A&G Expense 1/	90,271	92,815	93,962
14	Total Revenue Requirement	729,796	719,862	744,817
15	Revenue Credits:			
16	4(h)(10)(C) (non-operations)	39,917	39,917	39,917
17	Colville payment Treas. Credit	4,600	4,600	4,600
18	**Net Revenue Requirement**	**685,279**	**675,345**	**700,300**

1/ Power Marketing, Power Scheduling, Generation Oversight, Corporate Expense and 1/2 Planning Council

Table 2E

Regulation
Power Revenue Requirement for
Big Ten Hydroelectric Projects and F&W
($000s)

		2007	2008	2009
A	Big 10 average net plant	3,016,400	2,982,362	3,000,890
B	Total COE/BOR av net plt	4,955,805	4,971,786	5,028,112
C	Percent of total	60.87%	59.99%	59.68%
D	O&M by project			
E	Columbia Basin	67,244	69,664	71,983
F	Bonneville	19,061	19,558	20,108
G	John Day	17,758	18,222	18,735
H	The Dalles	15,420	15,823	16,269
I	Chief Joseph	17,759	18,224	18,737
J	Ice Harbor	8,640	8,866	9,115
K	Lower Granite	12,721	13,054	13,421
L	Lower Monumental	9,997	10,259	10,548
M	Little Goose	8,723	8,951	9,203
N	McNary	16,541	16,974	17,451
O	Total O&M	193,864	199,595	205,570
P	**COE/USFW F&W COSTS**			
Q	O&M: USFW	18,600	19,500	20,400
R	COE	37,700	36,900	36,000
S	Depreciation	14,374	15,475	16,273
T	Interest	27,461	30,701	33,366
U	Planned Net Revenues	12,202	6,580	8,403
V	Average Net Plant	994,710	1,051,008	1,096,259
W	Percent of total	20.07%	21.14%	21.80%
X	F&W O&M in Big 10 Projects	29,282	28,660	27,961
Y	F&W O&M in Col Basin O&M	4,200	4,400	4,500
	4(h)(10)(C) non-operations			
	Direct Program Expense	143,000	143,000	143,000
	Direct Program Capital	36,000	36,000	36,000
	Credit @ 22.3%	39,917	39,917	39,917

Table 2F

Operating Reserves
Power Revenue Requirement for
All Hydroelectric Projects and F&W
($000s)

		2007	2008	2009
1	**All Hydro Projects**			
2	O&M	207,928	216,107	224,699
3	Depreciation	85,556	86,164	87,468
4	Net Interest	107,797	112,796	117,643
5	Planned Net Revenues	48,004	24,285	29,751
6	Total Revenue Requirement	449,285	439,352	459,561
7	**Fish & Wildlife**			
8	O&M	208,543	208,938	209,134
9	Amortization/Depreciation	33,692	36,273	38,162
10	Net Interest	31,332	35,263	38,565
11	Planned Net Revenues	13,922	7,558	9,712
12	Subtotal	287,489	288,032	295,573
13	A&G Expense 1/	90,271	92,815	93,962
14	Total Revenue Requirement	827,044	820,200	849,095
15	Revenue Credits			
16	4(h)(10)(C) (non-operations)	39,917	39,917	39,917
17	Colville payment Treas. Credit	4,600	4,600	4,600
18	**Net Revenue Requirement**	**782,527**	**775,683**	**804,578**

1/ Power Marketing, Power Scheduling, Generation Oversight, Corporate Expense and 1/2 Planning Council

Table 2G

Reactive - Electric Portion of
Power Revenue Requirement for Federal Base System Generating Units
($000s)

		2007	2008	2009
1	O&M	80,329	83,595	87,072
2	A&G Expense 1/	14,395	14,789	15,198
3	Depreciation	27,342	27,037	27,408
4	CGS	3,399	3,008	3,416
5	Net Interest Expense	35,052	35,623	37,139
6	Minimum Required Net Revenues	13,211	5,372	7,121
7	Total Revenue Requirement	173,728	169,424	177,354

1/ Power Scheduling and Generation Project Coordination

Calculations

		2007	2008	2009
1	Total Electric Average Net Plant	1,269,676	1,219,505	1,220,230
2	Total Corps/Bureau Average Net Plant	4,955,805	4,971,786	5,028,112
3	**percent electric**	25.62%	24.53%	24.27%
4	Corps/Bureau Net Interest	136,816	145,229	153,037
5	**Electric Net Interest**	35,052	35,623	37,139
6	Corps/Bureau MRNR	51,565	21,902	29,341
7	**Electric MRNR**	13,211	5,372	7,121
8	Total COE O&M 1/	123,760	128,782	134,345
9	**COE Electric O&M @ 42%**	51,979	54,088	56,425
10	Total BOR O&M 2/	63,000	65,571	68,105
11	**BOR Electric O&M @ 45%**	28,350	29,507	30,647
12	CGS costs 3/	459,359	406,544	461,669
13	**CGS Electric @ 0.74%**	3,399	3,008	3,416

1/ Excludes Lower Snake F&W and O&M attributable in the aggregate to F&W at projects.
2/ Excludes payment to Colville Tribes, shown elsewhere in Columbia Basin O&M and F&W.
3/ Debt service and O&M (excludes nuclear insurance, fuel and revenue-financed capital).

Determination of Synchronous Condensor Annual Costs

1	Synchronous Condensers Avg Net Plt	6,885	6,782	6,679
2	Total Corps/Bureau Average Net Plant	4,955,805	4,971,786	5,028,112
3	**percent**	0.14%	0.14%	0.13%
4	Corps/Bureau Net Interest	136,816	145,229	153,037
5	**Sync Cond Net Interest**	190	198	203
6	Corps/Bureau MRNR	51,565	21,902	29,341
7	**Sync Cond MRNR**	72	30	39
8	**Sync Cond Depreciation**	103	103	103
9	**Total Sync Cond Costs**	**365**	**331**	**345**

Table 2H

Synchronous Condensers
Net Plant Calculation
($000s)

Life	Project	plant-in-service 1999	Annual Deprec	Accumulated Depreciation 2001	2002	2003	2004	2005	2006	2007	2008	2009
75.0	John Day	3,956	53	133	186	239	292	345	398	451	504	557
75.0	The Dalles	3,753	50	125	175	225	275	325	375	425	475	525
		7,709	103	258	361	464	567	670	773	876	979	1,082
		net plant investment		7,451	7,348	7,245	7,142	7,039	6,936	6,833	6,730	6,627
		average net plant			7,400	7,297	7,194	7,091	6,988	6,885	6,782	6,679

Table 2I

Investment, Accumulated Depreciation, Depreciation Expense by Project Assigned to Reactive

($000s)

Service Lives = 75 yrs	9/30/05 gross	acc dep	depr exp	9/30/06 gross	acc dep	depr exp
Bureau of Reclamation						
BOISE	29,179	8,710	389			
historic reactive	15,144	4,520	202	15,144	4,722	202
projected				410	3	3
COLUMBIA BASIN	1,224,791	384,977	16,331			
1st and 2nd						
historic reactive	612,396	192,489	8,166	612,396	200,655	8,166
projected				1,442	10	10
GREEN SPRINGS	11,162	8,521	149			
historic reactive	2,043	1,559	27	2,043	1,586	27
projected				-	-	-
HUNGRY HORSE	119,591	48,598	1,595			
historic reactive	30,376	12,344	405	30,376	12,749	405
projected				4,102	27	27
MINIDOKA-PALISADES	110,217	23,959	1,470			
historic reactive	55,329	12,027	738	55,329	12,765	738
projected				-	-	-
YAKIMA	6,115	3,132	82			
historic reactive	3,675	1,882	49	3,675	1,931	49
projected	-			614	4	4
Total Bureau	2,190,839	694,008	29,214	725,531	234,452	9,631

Table 2I

Investment, Accumulated Depreciation, Depreciation Expense by Project Assigned to Reactive

($000s)

Service Lives = 75 yrs	9/30/07			9/30/08			9/30/09		
	gross	acc dep	depr exp	gross	acc dep	depr exp	gross	acc dep	depr exp
Bureau of Reclamation									
BOISE									
historic reactive	15,144	4,924	202	15,144	5,126	202	15,144	5,328	202
projected	-	6	3	-	6	-	-	6	-
COLUMBIA BASIN									
1st and 2nd									
historic reactive	612,396	208,821	8,166	612,396	216,987	8,166	612,396	225,153	8,166
projected	2,944	39	29	5,682	97	58	73,246	623	526
GREEN SPRINGS									
historic reactive	2,043	1,613	27	2,043	1,640	27	2,043	1,667	27
projected	-	-	-	-	-	-	-	-	-
HUNGRY HORSE									
historic reactive	30,376	13,154	405	30,376	13,559	405	30,376	13,964	405
projected	240	56	29	1,002	64	8	-	71	7
MINIDOKA-PALISADES									
historic reactive	55,329	13,503	738	55,329	14,241	738	55,329	14,979	738
projected	483	3	3	-	6	3	-	6	-
YAKIMA									
historic reactive	3,675	1,980	49	3,675	2,029	49	3,675	2,078	49
projected	1,354	17	13	-	26	9	-	26	-
Total Bureau	723,983	244,116	9,664	725,647	253,781	9,665	792,209	263,901	10,120

Table 2I

Investment, Accumulated Depreciation, Depreciation Expense by Project Assigned to Reactive

($000s)

Service Lives = 75 yrs	9/30/05 gross	acc dep	depr exp	9/30/06 gross	acc dep	depr exp
Corps of Engineers						
ALBENI FALLS	43,239	21,721	577			
historic	13,404	6,734	179	13,404	6,913	179
projected				1,952	13	13
BONNEVILLE	961,873	316,631	12,825			
historic	336,656	110,821	4,489	336,656	115,310	4,489
projected				4,001	27	27
CHIEF JOSEPH	574,919	230,980	7,666			
historic	172,476	69,294	2,300	172,476	71,594	2,300
projected				4,110	27	27
COUGAR	72,804	8,590	971			
historic	3,640	430	49	3,640	479	49
projected				5,342	36	36
DETROIT-BIG CLIFF	43,810	24,151	584			
historic	9,638	5,313	128	9,638	5,441	128
projected				5,779	39	39
DWORSHAK	292,417	98,974	3,899			
historic	20,469	6,928	273	20,469	7,201	273
projected				2,143	14	14
GREEN PETER-FOSTER	55,614	20,955	742			
historic	7,786	2,934	104	7,786	3,038	104
projected				-	-	-
HILLS CREEK	19,683	10,099	262			
historic	2,952	1,515	39	2,952	1,554	39
projected				310	2	2
ICE HARBOR	165,052	70,313	2,201			
historic	54,467	23,203	726	54,467	23,929	726
projected				1,369	9	9
JOHN DAY	506,555	187,352	6,754			
historic	131,704	48,712	1,756	131,704	50,468	1,756
projected				5,169	34	34

Table 2I

Investment, Accumulated Depreciation, Depreciation Expense by Project Assigned to Reactive

($000s)

Service Lives = 75 yrs	9/30/07			9/30/08			9/30/09		
	gross	acc dep	depr exp	gross	acc dep	depr exp	gross	acc dep	depr exp
Corps of Engineers									
ALBENI FALLS									
historic	13,404	7,092	179	13,404	7,271	179	13,404	7,450	179
projected	-	26	13	-	26	-	-	26	-
BONNEVILLE									
historic	336,656	119,799	4,489	336,656	124,288	4,489	336,656	128,777	4,489
projected	2,615	71	44	3,967	115	44	-	141	26
CHIEF JOSEPH									
historic	172,476	73,894	2,300	172,476	76,194	2,300	172,476	78,494	2,300
projected	2,102	68	41	-	82	14	-	82	-
COUGAR									
historic	3,640	528	49	3,640	577	49	3,640	626	49
projected	249	73	37	-	75	2	-	75	-
DETROIT-BIG CLIFF									
historic	9,638	5,569	128	9,638	5,697	128	9,638	5,825	128
projected	2,483	94	55	-	111	17	-	111	-
DWORSHAK									
historic	20,469	7,474	273	20,469	7,747	273	20,469	8,020	273
projected	348	31	17	1,485	43	12	858	59	16
GREEN PETER-FOSTER									
historic	7,786	3,142	104	7,786	3,246	104	7,786	3,350	104
projected	858	6	6	-	12	6	-	12	-
HILLS CREEK									
historic	2,952	1,593	39	2,952	1,632	39	2,952	1,671	39
projected	248	6	4	-	8	2	187	9	1
ICE HARBOR									
historic	54,467	24,655	726	54,467	25,381	726	54,467	26,107	726
projected	-	18	9	-	18	-	1,525	28	10
JOHN DAY									
historic	131,704	52,224	1,756	131,704	53,980	1,756	131,704	55,736	1,756
projected	4,938	101	67	-	134	33	-	134	-

Table 2I

Investment, Accumulated Depreciation, Depreciation Expense by Project Assigned to Reactive

($000s)

Service Lives = 75 yrs	9/30/05 gross	acc dep	depr exp	9/30/06 gross	acc dep	depr exp
Corps of Engineers						
LIBBY	433,679	132,919	5,782			
historic	69,389	21,267	925	69,389	22,192	925
projected				4,183	28	28
LITTLE GOOSE	212,666	92,511	2,836			
historic	63,800	27,753	851	63,800	28,604	851
projected				1,358	9	9
LOOKOUT POINT	59,931	38,487	799			
historic	14,383	9,237	192	14,383	9,429	192
projected				-	-	-
LOST CREEK	27,138	9,947	362			
historic	5,428	1,989	72	5,428	2,061	72
projected				884	6	6
LOWER GRANITE	336,476	120,939	4,486			
historic	74,025	26,607	987	74,025	27,594	987
projected				3,406	23	23
LOWER MONUMENTAL	232,606	99,110	3,101			
historic	65,130	27,751	868	65,130	28,619	868
projected				3,763	25	25
MCNARY	312,291	176,552	4,164			
historic	90,564	51,200	1,208	90,564	52,408	1,208
projected				1,325	9	9
THE DALLES	357,152	175,010	4,762			
historic	150,004	73,504	2,000	150,004	75,504	2,000
projected	980	7	7	13,071	101	94
Total Corps	5,951,561	2,328,719	79,349	1,344,080	532,740	17,541
Total Corps and Bureau	**8,142,400**	**3,022,727**	**108,563**	**2,069,611**	**767,192**	**27,172**

Table 2I

Investment, Accumulated Depreciation, Depreciation Expense by Project Assigned to Reactive

($000s)

Service Lives = 75 yrs	9/30/07 gross	acc dep	depr exp	9/30/08 gross	acc dep	depr exp	9/30/09 gross	acc dep	depr exp
Corps of Engineers									
LIBBY									
historic	69,389	23,117	925	69,389	24,042	925	69,389	24,967	925
projected	-	56	28	-	56	-	-	56	-
LITTLE GOOSE									
historic	63,800	29,455	851	63,800	30,306	851	63,800	31,157	851
projected	-	18	9	1,987	31	13	496	48	17
LOOKOUT POINT									
historic	14,383	9,621	192	14,383	9,813	192	14,383	10,005	192
projected	1,952	13	13	114	27	14	260	29	2
LOST CREEK									
historic	5,428	2,133	72	5,428	2,205	72	5,428	2,277	72
projected	-	12	6	-	12	-	380	15	3
LOWER GRANITE									
historic	74,025	28,581	987	74,025	29,568	987	74,025	30,555	987
projected	6,601	90	67	2,889	153	63	-	172	19
LOWER MONUMENTAL									
historic	65,130	29,487	868	65,130	30,355	868	65,130	31,223	868
projected	-	50	25	1,895	63	13	495	79	16
MCNARY									
historic	90,564	53,616	1,208	90,564	54,824	1,208	90,564	56,032	1,208
projected	-	18	9	-	18	-	3,749	43	25
THE DALLES									
historic	150,004	77,504	2,000	150,004	79,504	2,000	150,004	81,504	2,000
projected	2,331	204	103	-	220	16	4,444	250	30
Total Corps	1,310,640	550,439	17,699	1,298,252	567,834	17,395	1,298,309	585,145	17,311
Total Corps and Bureau	**2,034,623**	**794,555**	**27,363**	**2,023,899**	**821,615**	**27,060**	**2,090,518**	**849,046**	**27,431**

Table 2J

COE/BOR Transmission Costs
($000s)

		2007	2008	2009
1	O&M	3,596	3,892	4,228
2	Depreciation	977	1,028	1,141
3	Interest Expense	1,558	1,732	2,028
4	MRNR	587	261	389
5	Total COE/BOR Trans Costs	6,131	6,652	7,397
6	Average Net Tx Plant	56,423	59,281	66,634
7	Total Average Net Plant	4,955,805	4,971,786	5,028,112
8	percent Tx	1.14%	1.19%	1.33%
	(applied to FBS Hydro allocations of Interest and MRNR)			

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3. GENERATION EXPENSES

3.1 Introduction

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

3.2 Expenses

Table 3A displays the expenses used in the revenue requirement income statement and statement of cash flows of the Study. (*See* Revenue Requirement Study, WP-07-FS-BPA-02, Tables 5A and 5B.) Table 3B displays the expense statement used in the revised revenue test in the Study. (*Id.* Tables 6A through 9*.)* Table 3B includes some expenses that are revised as a result of the rate development process, depicted in Figure 1 of the Study. (*Id*. at 7)

O&M program expenses are from the Power Function Review I and II with revisions. (*Id. at* Appendix A.) Federal Projects Depreciation calculations are found in Chapter 4 of this document. Interest expense is summarized here from the results of the annual generation repayment studies. The calculation of AFUDC is also shown in this chapter.

Debt service for Energy Northwest (EN) projects are based on the tables found in Chapter 8, Capitalized Contract Obligations, of this document. The EN debt service categories for WNP-1, CGS, and WNP-3 were adjusted to include a minor correction and a late, unexpected cost reduction. The three categories share a total $500,000 increase in debt service associated with unredeemed bearer bonds that was inadvertently left out of the database used in the final repayment studies. Also, the expenses for WNP-1 and WNP-3 were reduced by a total of $18 million caused by an unanticipated cash carry-over from FY 2006 into FY 2007. EN will amend its FY 2007 budget by this amount which will reduce BPA's expenses.

COE and BOR O&M must be functionalized between generation and the transmission component that will be included in transmission rates. The functionalization, as has been done previously, is based on average gross investment at the individual project level.

Depreciation expense, calculated using the straight-line method, is functionalized according to the associated investment used in the calculations as identified in Chapter 4 of this document.

Interest expense is calculated in the repayment studies for generation using the generation capital appropriations and BPA revenue bonds issued to Treasury at individual interest rates. Generation AFUDC is associated with BPA's direct funding of COE and BOR power-related capital projects.

Table 3A

Power Business Line Program Spendng Levels
($000s)

		Rate Period			7b2 Period			
		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
1	**Operating Expenses**							
2	**Power System Generation Resources**							
3	**Operating Generation**							
4	COLUMBIA GENERATING STATION (WNP-2)	263,669	188,688	242,902	206,000	241,100	214,900	254,600
5	BUREAU OF RECLAMATION	71,654	74,760	77,766	79,666	81,252	83,690	86,200
6	CORPS OF ENGINEERS	161,519	165,742	170,407	176,712	181,661	187,111	192,724
7	LONG-TERM CONTRACT GENERATING PROJECTS	24,932	25,314	25,751	25,876	26,344	26,781	27,225
8	**Sub-Total**	**521,774**	**454,504**	**516,826**	**488,254**	**530,357**	**512,481**	**560,750**
9	**Operating Generation Settlement Payment**							
10	COLVILLE GENERATION SETTLEMENT	16,968	17,354	17,749	18,153	18,566	18,988	19,421
11	SPOKANE GENERATION SETTLEMENT	-	-	-				
12	**Sub-Total**	**16,968**	**17,354**	**17,749**	**18,153**	**18,566**	**18,988**	**19,421**
13	**Non-Operating Generation**							
14	TROJAN DECOMISSIONING	5,400	4,700	3,100	1,700	1,700	1,751	1,804
15	WNP-1&3 DECOMISSIONING	200	200	200	200	200	200	200
16	**Sub-Total**	**5,600**	**4,900**	**3,300**	**1,900**	**1,900**	**1,951**	**2,004**
17	**Contracted Power Purchases**							
18	PNCA HEADWATER BENEFIT	1,714	1,714	1,714	2,042	2,370	2,441	2,514
19	HEDGING/MITIGATION	875	-	-	-	-	-	-
20	DSI MONETIZED POWER SALE	59,000	59,000	59,000	59,000	59,000		
21	OTHER POWER PURCHASES (short term)	55,000	64,693	61,570	64,604	61,330	63,170	65,065
22	**Sub-Total**	**116,589**	**125,407**	**122,284**	**125,646**	**122,700**	**65,611**	**67,579**
23	**Augmentation Power Purchases**							
24	AUGMENTATION POWER PURCHASES	169,090	118,024	169,926			-	-
25	CONSERVATION AUGMENTATION	-	-	-	-	-		
25	**Residential Exchange/IOU Settlement Benefits**							
26	PUBLIC RESIDENTIAL EXCHANGE				-	-	-	-
27	IOU RESIDENTIAL EXCHANGE	**301,000**	**301,000**	**301,000**	**300,000**	**300,000**	**300,000**	**300,000**
28	**Renewable Generation**	**31,368**	**35,801**	**41,917**	**62,783**	**63,734**	**64,685**	**65,636**
29	**Generation Conservation**							
30	LOW INCOME WEATHERIZATION & TRIBAL	5,000	5,000	5,000	5,000	5,000	5,150	5,305
31	ENERGY EFFICIENCY DEVELOPMENT	12,885	12,908	12,933	12,958	12,985	13,374	13,776
32	ENERGY WEB	1,000	1,000	1,000	1,000	1,000	1,030	1,061
33	**LEGACY (Until 11/1/03 this was included with line 72)**	3,728	2,638	2,114	1,988	1,622	1,671	1,721
34	MARKET TRANSFORMATION	10,000	10,000	10,000	10,000	10,000	10,300	10,609
35	TECHNOLOGY LEADERSHIP	1,300	1,300	1,300	1,300	1,300	1,339	1,379
36	INFRASTRUCTURE SUPPORT AND EVALUATION	1,000	1,000	1,000	1,000	1,000	1,000	1,000
37	BI-LATERAL CONTRACT ACTIVITY	1,000	1,000	1,000	1,000	1,000	1,000	1,000
38	**Sub-Total**	**35,913**	**34,846**	**34,347**	**34,246**	**33,907**	**34,864**	**35,850**
39	CONSERVATION RATE CREDIT	36,000	36,000	36,000	38,000	38,000	38,000	38,000
40	**Power System Generation Sub-Total**	**1,234,301**	**1,127,836**	**1,243,349**	**1,068,982**	**1,109,164**	**1,036,581**	**1,089,239**

Table 3A

Power Business Line Program Spendng Levels
($000s)

		Rate Period			7b2 Period			
		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
41								
42	**PBL Transmission Acquisition and Ancillary Services**							
43	**PBL Transmission Acquisition and Ancillary Services**							
44	PBL - TRANSMISSION & ANCILLARY SERVICES	115,952	118,215	122,853	125,908	129,358	132,809	136,259
45	3RD PARTY GTA WHEELING	47,000	47,000	48,000	56,600	57,800	59,534	61,320
46	PBL - 3RD PARTY TRANS & ANCILLARY SVCS	1,300	1,300	3,000	1,120	1,150	1,185	1,220
47	RESERVE & OTHER SERVICES	8,462	8,462	8,462	8,000	8,000	8,240	8,487
48	TELEMETERING/EQUIP REPLACEMT	200	200	200	1,161	1,161	1,196	1,232
49	**PBL Trans Acquisition and Ancillary Services Sub-Total**	**172,914**	**175,177**	**182,515**	**192,789**	**197,469**	**202,963**	**208,518**
50								
51	**Power Non-Generation Operations**							
52	**PBL System Operations**							
53	EFFICIENCIES PROGRAM	-						
54	INFORMATION TECHNOLOGY	-	-	-	-	-	-	-
55	GENERATION PROJECT COORDINATION	5,637	5,738	5,844	6,020	6,200	6,386	6,578
56	SLICE IMPLEMENTATION	2,400	2,400	2,400	2,472	2,546	2,623	2,701
57	**Sub-Total**	**8,037**	**8,138**	**8,244**	**8,492**	**8,746**	**9,009**	**9,279**
58	**PBL Scheduling**							
59	OPERATIONS SCHEDULING	8,758	9,051	9,353	9,634	9,923	10,221	10,527
60	OPERATIONS PLANNING	5,202	5,358	5,521	5,687	5,857	6,033	6,214
61	**Sub-Total**	**13,960**	**14,409**	**14,874**	**15,321**	**15,780**	**16,254**	**16,741**
62	**PBL Marketing and Business Support**							
63	SALES & SUPPORT	15,884	16,278	16,745	17,247	17,765	18,298	18,847
64	PUBLIC COMMUNICATION & TRIBAL LIAISON	-	-	-				
65	STRATEGY, FINANCE & RISK MGMT	10,965	11,359	11,771	12,125	12,488	12,863	13,249
66	EXECUTIVE AND ADMINISTRATIVE SERVICES	845	840	834	859	885	911	939
67	CONSERVATION SUPPORT (EE staff costs)	6,441	6,692	6,953	7,162	7,376	7,598	7,826
68	**Sub-Total**	**34,136**	**35,168**	**36,303**	**37,392**	**38,514**	**39,670**	**40,860**
69	**Power Non-Generation Operations Sub-Total**	**56,132**	**57,715**	**59,422**	**61,205**	**63,041**	**64,932**	**66,880**
70								
71	**Fish and Wildlife/USF&W/Planning Council**							
72	**BPA Fish and Wildlife (includes F&W Shared Services)**							
73	FISH & WILDLIFE	143,000	143,000	143,000	139,000	139,000	143,170	147,465
74	F&W HIGH PRIORITY ACTION PROJECTS							
75	**Sub-Total**	**143,000**	**143,000**	**143,000**	**139,000**	**139,000**	**143,170**	**147,465**
76	**PBL-USF&W Lower Snake Hatcheries**							
77	USF&W LOWER SNAKE HATCHERIES	18,600	19,500	20,400	21,600	22,500	23,175	23,870
78	**PBL - Planning Council**							
79	PLANNING COUNCIL	9,085	9,276	9,467	9,595	9,849	10,144	10,449
80	**PBL - ENVIRONMENTAL REQUIREMENTS**							
81	ENVIRONMENTAL REQUIREMENTS	500	500	500			-	-
82	**Fish and Wildlife/USF&W/Planning Council Sub-Total**	**171,185**	**172,276**	**173,367**	**170,195**	**171,349**	**176,489**	**181,784**
83								

Table 3A

Power Business Line Program Spendng Levels
($000s)

		Rate Period			7b2 Period			
		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
84	**BPA Internal Support**							
85	**CSRS/FERS**							
86	ADDITIONAL POST-RETIREMENT CONTRIBUTION	10,550	9,000	15,375	15,375	15,375	15,836	16,311
87	**Corporate Support - G&A (excludes direct project support)**							
88	CORPORATE G&A	50,247	51,753	51,764	51,500	52,800	54,384	56,016
89	**Corporate Support - Shared Services (excluded direct project support)**							
90	SHARED SERVICES	-	-	-	-	-	-	-
91	**Sub-Total Corporate Support Services**	**50,247**	**51,753**	**51,764**	**51,500**	**52,800**	**54,384**	**56,016**
92	**TBL Supply Chain - Shared Services**	368	374	380	386	393	404	417
93	**General and Administrative/Shared Services Sub-Total**	**61,165**	**61,127**	**67,519**	**67,261**	**68,568**	**70,625**	**72,743**
94								
95	**Bad Debt Expense**							
96	**Other Income, Expenses, Adjustments**	1,800	1,800	3,600	-	-	-	-
97	**Non-Federal Debt Service**							
98	**Energy Northwest Debt Service**							
99	COLUMBIA GENERATING STATION DEBT SVC	195,690	217,856	218,767	226,093	217,529	289,217	121,659
100	WNP-1 DEBT SVC	147,941	165,916	163,282	159,259	161,461	187,460	283,194
101	WNP-3 DEBT SVC	151,724	160,092	153,030	142,783	168,250	161,778	176,703
102	EN RETIRED DEBT							
103	EN LIBOR INTEREST RATE SWAP							
104	**Sub-Total**	**495,355**	**543,864**	**535,079**	**528,135**	**547,240**	**638,455**	**581,556**
105	**Non-Energy Northwest Debt Service**							
106	TROJAN DEBT SVC	8,605	7,888	-	-	-	-	-
107	CONSERVATION DEBT SVC	5,203	5,198	5,188	5,079	4,924	4,923	4,917
108	COWLITZ FALLS DEBT SVC	11,619	11,583	11,571	11,566	11,563	11,559	11,546
109	WASCO DEBT SVC	-	1,664	2,168	2,200	2,196	2,193	2,192
110	**Sub-Total**	**25,427**	**26,333**	**18,927**	**18,845**	**18,683**	**18,675**	**18,655**
111	**Non-Federal Debt Service Sub-Total**	**520,782**	**570,197**	**554,006**	**546,980**	**565,923**	**657,130**	**600,211**
112	**Depreciation**	118,058	121,829	124,594	127,605	125,341	121,873	125,418
113	**Amortization**	71,658	76,332	81,263	87,209	85,210	80,197	79,096
114	**Total Operating Expenses**	**2,407,995**	**2,364,289**	**2,489,634**	**2,322,225**	**2,386,065**	**2,410,790**	**2,423,890**

Table 3B

Power Business Line Program Spendng Levels for Revised Revenue Test
($000s)

		FY 2007	FY 2008	FY 2009
1	**Operating Expenses**			
2	**Power System Generation Resources**			
3	**Operating Generation**			
4	COLUMBIA GENERATING STATION (WNP-2)	263,669	188,688	242,902
5	BUREAU OF RECLAMATION	71,654	74,760	77,766
6	CORPS OF ENGINEERS	161,519	165,742	170,407
7	LONG-TERM CONTRACT GENERATING PROJECTS	24,932	25,314	25,751
8	**Sub-Total**	**521,774**	**454,504**	**516,826**
9	**Operating Generation Settlement Payment**			
10	COLVILLE GENERATION SETTLEMENT	16,968	17,354	17,749
11	SPOKANE GENERATION SETTLEMENT	-	-	-
12	**Sub-Total**	**16,968**	**17,354**	**17,749**
13	**Non-Operating Generation**			
14	TROJAN DECOMISSIONING	5,400	4,700	3,100
15	WNP-1&3 DECOMISSIONING	200	200	200
16	**Sub-Total**	**5,600**	**4,900**	**3,300**
17	**Contracted Power Purchases**			
18	PNCA HEADWATER BENEFIT	1,714	1,714	1,714
19	HEDGING/MITIGATION	875	-	-
20	DSI MONETIZED POWER SALE	59,000	59,000	59,000
21	OTHER POWER PURCHASES (short term)	55,000	64,693	61,570
22	**Sub-Total**	**116,589**	**125,407**	**122,284**
23	**Augmentation Power Purchases**			
24	AUGMENTATION POWER PURCHASES	169,090	118,024	169,926
25	CONSERVATION AUGMENTATION	-	-	-
25	**Residential Exchange/IOU Settlement Benefits**			
26	PUBLIC RESIDENTIAL EXCHANGE	35,699	35,861	36,320
27	IOU RESIDENTIAL EXCHANGE	**301,000**	**301,000**	**301,000**
28	**Renewable Generation**	**31,368**	**35,801**	**41,917**
29	**Generation Conservation**			
30	LOW INCOME WEATHERIZATION & TRIBAL	5,000	5,000	5,000
31	ENERGY EFFICIENCY DEVELOPMENT	12,885	12,908	12,933
32	ENERGY WEB	1,000	1,000	1,000
33	**LEGACY (Until 11/1/03 this was included with line 72)**	3,728	2,638	2,114
34	MARKET TRANSFORMATION	10,000	10,000	10,000
35	TECHNOLOGY LEADERSHIP	1,300	1,300	1,300
36	INFRASTRUCTURE SUPPORT AND EVALUATION	1,000	1,000	1,000
37	BI-LATERAL CONTRACT ACTIVITY	1,000	1,000	1,000
38	**Sub-Total**	**35,913**	**34,846**	**34,347**
39	CONSERVATION RATE CREDIT	36,000	36,000	36,000
40	**Power System Generation Sub-Total**	**1,270,000**	**1,163,697**	**1,279,669**
41				
42	**PBL Transmission Acquisition and Ancillary Services**			
43	**PBL Transmission Acquisition and Ancillary Services**			
44	PBL - TRANSMISSION & ANCILLARY SERVICES	115,952	123,215	117,853
45	3RD PARTY GTA WHEELING	47,000	47,000	48,000
46	PBL - 3RD PARTY TRANS & ANCILLARY SVCS	1,300	1,300	3,000
47	RESERVE & OTHER SERVICES	8,462	8,462	8,462
48	TELEMETERING/EQUIP REPLACEMT	200	200	200
49	**PBL Trans Acquisition and Ancillary Services Sub-Total**	**172,914**	**180,177**	**177,515**
50				

Table 3B

Power Business Line Program Spendng Levels for Revised Revenue Test
($000s)

		FY 2007	FY 2008	FY 2009
51	**Power Non-Generation Operations**			
52	**PBL System Operations**			
53	EFFICIENCIES PROGRAM	-		
54	INFORMATION TECHNOLOGY	-	-	-
55	GENERATION PROJECT COORDINATION	5,637	5,738	5,844
56	SLICE IMPLEMENTATION	2,400	2,400	2,400
57	**Sub-Total**	**8,037**	**8,138**	**8,244**
58	**PBL Scheduling**			
59	OPERATIONS SCHEDULING	8,758	9,051	9,353
60	OPERATIONS PLANNING	5,202	5,358	5,521
61	**Sub-Total**	**13,960**	**14,409**	**14,874**
62	**PBL Marketing and Business Support**			
63	SALES & SUPPORT	15,884	16,278	16,745
64	PUBLIC COMMUNICATION & TRIBAL LIAISON	-	-	-
65	STRATEGY, FINANCE & RISK MGMT	10,965	11,359	11,771
66	EXECUTIVE AND ADMINISTRATIVE SERVICES	845	840	834
67	CONSERVATION SUPPORT (EE staff costs)	6,441	6,692	6,953
68	**Sub-Total**	**34,136**	**35,168**	**36,303**
69	**Power Non-Generation Operations Sub-Total**	**56,132**	**57,715**	**59,422**
70				
71	**Fish and Wildlife/USF&W/Planning Council**			
72	**BPA Fish and Wildlife (includes F&W Shared Services)**			
73	FISH & WILDLIFE	143,000	143,000	143,000
74	F&W HIGH PRIORITY ACTION PROJECTS			
75	**Sub-Total**	**143,000**	**143,000**	**143,000**
76	**PBL-USF&W Lower Snake Hatcheries**			
77	USF&W LOWER SNAKE HATCHERIES	18,600	19,500	20,400
78	**PBL - Planning Council**			
79	PLANNING COUNCIL	9,085	9,276	9,467
80	**PBL - ENVIRONMENTAL REQUIREMENTS**			
81	ENVIRONMENTAL REQUIREMENTS	500	500	500
82	**Fish and Wildlife/USF&W/Planning Council Sub-Total**	**171,185**	**172,276**	**173,367**
83				
84	**BPA Internal Support**			
85	**CSRS/FERS**			
86	ADDITIONAL POST-RETIREMENT CONTRIBUTION	10,550	9,000	15,375
87	**Corporate Support - G&A (excludes direct project support)**			
88	CORPORATE G&A	50,247	51,753	51,764
89	**Corporate Support - Shared Services (excluded direct project support)**			
90	SHARED SERVICES	-	-	-
91	**Sub-Total Corporate Support Services**	**50,247**	**51,753**	**51,764**
92	**TBL Supply Chain - Shared Services**	368	374	380
93	**General and Administrative/Shared Services Sub-Total**	**61,165**	**61,127**	**67,519**
94				
95	**Bad Debt Expense**			
96	**Other Income, Expenses, Adjustments**	1,800	1,800	3,600
97	**Non-Federal Debt Service**			
98	**Energy Northwest Debt Service**			
99	COLUMBIA GENERATING STATION DEBT SVC	195,690	217,856	218,767
100	WNP-1 DEBT SVC	147,941	165,916	163,282
101	WNP-3 DEBT SVC	151,724	160,092	153,030
102	EN RETIRED DEBT			
103	EN LIBOR INTEREST RATE SWAP			
104	**Sub-Total**	**495,355**	**543,864**	**535,079**
105	**Non-Energy Northwest Debt Service**			
106	TROJAN DEBT SVC	8,605	7,888	-
107	CONSERVATION DEBT SVC	5,203	5,198	5,188
108	COWLITZ FALLS DEBT SVC	11,619	11,583	11,571
109	WASCO DEBT SVC	-	1,664	2,168
110	**Sub-Total**	**25,427**	**26,333**	**18,927**
111	**Non-Federal Debt Service Sub-Total**	**520,782**	**570,197**	**554,006**
112	**Depreciation**	118,058	121,829	124,594
113	**Amortization**	71,658	76,332	81,263
114	**Total Operating Expenses**	**2,443,694**	**2,405,150**	**2,520,954**

Table 3C

FUNCTIONALIZATION OF COE/BOR O&M
($000s)

	A	B	C	D	E	F	G	H	I
	Average Investment 2007	Percent	O&M 2007	Average Investment 2008	Percent	O&M 2008	Average Investment 2009	Percent	O&M 2009
1 **BOISE**									
2 GENERATION		100%	4,208		100%	4,391		100%	4,567
3 **COLUMBIA BASIN**									
4 GENERATION	1,229,773	94.88%	50,276	1,237,145	94.62%	52,310	1,304,605	94.31%	54,234
5 TRANSMISSION	66,297	5.12%	2,710	70,282	5.38%	2,972	78,720	5.69%	3,272
6 TOTAL	1,296,070	100%	52,986	1,307,427	100%	55,282	1,383,325	100%	57,506
7 **GREEN SPRINGS**									
8 GENERATION		100%	917		100%	957		100%	995
9 **HUNGRY HORSE**									
10 GENERATION	126,808	98.08%	3,350	127,870	98.10%	3,495	128,726	98.11%	3,636
11 TRANSMISSION	2,477	1.92%	65	2,477	1.90%	68	2,477	1.89%	70
12 TOTAL	129,285	100%	3,415	130,347	100%	3,563	131,203	100%	3,706
13 **MINIDOKA-PALISADES**									
14 GENERATION	110,630	98.56%	6,926	111,042	98.57%	7,229	111,042	98.57%	7,520
15 TRANSMISSION	1,614	1.44%	762	1,614	1.43%	792	1,614	1.43%	824
16 TOTAL	112,244	100%	7,688	112,656	100%	8,021	112,656	100%	8,344
17 **YAKIMA**									
18 GENERATION		100%	2,440		100%	2,546		100%	2,648
19 GENERATION 1/			84,168			87,325			90,354
20 TRANSMISSION			3,537			3,832			4,166
21 TOTAL BOR			**87,705**			**91,157**			**94,520**
1/ INCLUDES COLVILLE PAYMENT OF			16,968			17,354			17,749
22 **BONNEVILLE**									
23 GENERATION	970,947	99.69%	19,061	976,573	99.69%	19,558	979,964	99.69%	20,108
24 TRANSMISSION	3,000	0.31%	59	3,000	0.31%	60	3,000	0.31%	62
25 TOTAL	**973,947**	**100%**	**19,120**	**979,573**	**100%**	**19,618**	**982,964**	**100%**	**20,170**
26 **OTHER PROJECTS**									
27 CORPS - GENERATION ONLY			142,399			146,124			150,237
28 USF&W (LSRCP)			18,600			19,500			20,400
29 GENERATION			180,060			185,182			190,745
30 TRANSMISSION			59			60			62
31 TOTAL CORPS			**180,119**			**185,242**			**190,807**

Table 3D

Allocation of Total O&M to Projects for COE and BOR based on actual data
($000s)

	FY 2004		FY 2003		FY 2002					
	Joint	Specific	Joint	Specific	Oper	Maint	AVERAGE	FY 2007	FY 2008	FY 2009
BOISE	1,050,289	2,098,003	961,618	2,409,720	1,144,380	1,567,888	3,077,299	4,208	4,391	4,567
COLUMBIA BASIN	9,628,976	28,504,375	12,174,990	27,061,935	13,146,567	25,716,296	38,744,380	52,986	55,282	57,506
HUNGRY HORSE	646,901	1,570,451	726,527	2,161,495	739,526	1,646,381	2,497,094	3,415	3,563	3,706
MINIDOKA PALISADES	603,115	4,834,361	2,593,950	3,526,333	2,277,278	3,029,434	5,621,490	7,688	8,021	8,344
GREEN SPRINGS	206,492	635,093	304,133	330,013	211,486	324,863	670,693	917	957	995
YAKIMA	912,473	1,073,286	880,809	909,292	549,735	1,027,270	1,784,288	2,440	2,546	2,648
Total BOR							**52,395,245**	**71,654**	**74,760**	**77,766**
ALBENI FALLS	1,437,665	1,766,547	1,642,877	1,895,786	2,130,264	813,893	3,229,011	4,098	4,205	4,323
BONNEVILLE	7,962,788	6,872,475	7,211,656	7,947,514	8,371,401	6,828,797	15,064,877	19,120	19,618	20,170
CHIEF JOSEPH	9,117,269	4,501,691	9,378,876	5,598,521	6,895,677	6,488,900	13,993,644	17,759	18,224	18,737
COUGAR	477,400	177,088	456,071	279,173	358,049	224,264	657,349	834	856	880
DETROIR BIG CLIFF	1,451,290	717,406	1,550,423	877,083	1,464,232	352,295	2,137,576	2,713	2,784	2,862
DWORSHAK	2,225,375	4,505,777	2,075,051	9,040,974	8,164,230	470,123	8,827,177	11,203	11,495	11,819
GREEN-PETER FOSTER	1,459,175	640,655	1,547,252	786,336	1,611,624	591,473	2,212,172	2,807	2,881	2,962
HILLS CREEK	355,886	95,575	378,653	115,054	331,323	(31,767)	414,908	527	540	556
ICE HARBOR	3,030,295	4,032,626	2,118,886	3,748,509	6,229,171	1,263,504	6,807,664	8,640	8,866	9,115
JOHN DAY	7,471,477	5,610,993	8,023,100	6,828,668	8,093,948	5,949,590	13,992,592	17,758	18,222	18,735
LIBBY	1,992,258	2,962,720	2,066,026	3,309,826	3,224,548	2,589,768	5,381,716	6,830	7,009	7,206
LITTLE GOOSE	2,260,499	3,794,612	1,772,507	4,044,038	6,933,801	1,814,889	6,873,449	8,723	8,951	9,203
LOOKOUT POINT DEX	1,808,829	2,068,397	2,088,141	882,943	1,676,710	644,707	3,056,576	3,879	3,981	4,093
LOST CREEK	1,430,695	236,112	1,247,959	269,231	1,103,395	320,689	1,536,027	1,949	2,000	2,057
LOWER GRANITE	4,242,206	4,904,376	4,279,643	4,858,406	8,137,787	3,649,132	10,023,850	12,721	13,054	13,421
LOWER MONUMENT	2,311,587	4,328,233	1,189,091	6,111,525	8,377,560	1,314,787	7,877,594	9,997	10,259	10,548
MCNARY	4,622,794	8,016,963	4,961,296	7,308,825	13,655,685	535,500	13,033,688	16,541	16,974	17,451
THE DALLES	8,978,200	3,039,907	9,552,577	3,690,969	6,508,885	4,680,487	12,150,342	15,420	15,823	16,269
Total COE							**127,270,211**	**161,519**	**165,742**	**170,407**

Table 3E

FEDERAL COLUMBIA RIVER POWER SYSTEM
SUMMARY OF GENERATION CURRENT REPAYMENT STUDY DATA
($000s)

		A	B	C	D	E	F	G
		2007	2008	2009	2010	2011	2012	2013
1	INTEREST EXPENSE (GROSS)							
2	CORPS	158,866	149,915	148,310	142,034	136,556	132,220	135,648
3	BUREAU	43,207	43,191	43,128	43,128	43,064	39,963	37,226
4	LOWER SNAKE RIVER COMPENSATION PLAN	16,466	16,466	16,466	16,466	16,466	16,466	16,466
5	TOTAL APPROPRIATIONS	218,538	209,571	207,904	201,628	196,086	188,649	189,340
6	BONDS ISSUED TO TREASURY	51,911	70,911	83,783	93,924	106,287	119,492	132,823
7	TOTAL INTEREST EXPENSE	270,449	280,482	291,687	295,552	302,374	308,141	322,163
8	PLANNED AMORTIZATION							
9	CORPS	182,102	67,316	137,075	171,122	120,573	64,990	-
10	BUREAU	229	867	-	894	43,307	38,287	8,998
11	LOWER SNAKE RIVER COMPENSATION PLAN	-	-	-	-	-	-	-
12	TOTAL APPROPRIATIONS	182,331	68,183	137,075	172,016	163,879	103,277	8,998
13	LONG-TERM DEBT	20,000	104,300	47,990	30,068	26,000	32,000	144,800
14	TOTAL GENERATION AMORTIZATION	202,331	172,483	185,065	202,084	189,879	135,277	153,798
15	IRRIGATION ASSISTANCE	-	2,950	6,590	-	-	706	44,178
16	TOTAL AMORTIZATION/IRRIGATION	202,331	175,433	191,655	202,084	189,879	135,983	197,976

Table 3F

FEDERAL COLUMBIA RIVER POWER SYSTEM
SUMMARY OF 7(b)(2) CASE REPAYMENT STUDY DATA
($000s)

		A	B	C	D	E	F	G
		2007	2008	2009	2010	2011	2012	2013
1	INTEREST EXPENSE (GROSS)							
2	CORPS	158,866	150,161	141,484	132,499	128,092	126,202	126,651
3	BUREAU	43,207	43,191	43,128	43,128	39,963	32,807	32,807
4	LOWER SNAKE RIVER COMPENSATION PLAN	16,466	16,466	16,466	16,466	16,466	16,466	16,466
5	TOTAL APPROPRIATIONS	218,538	209,817	201,078	192,093	184,521	175,474	175,923
6	BONDS ISSUED TO TREASURY	34,715	51,984	67,918	79,350	90,846	102,935	115,539
7	TOTAL INTEREST EXPENSE	253,253	261,801	268,996	271,443	275,367	278,409	291,463
8	PLANNED AMORTIZATION							
9	CORPS	178,703	165,651	175,304	156,335	86,362	106,653	24,381
10	BUREAU	229	867	-	44,201	100,095	-	39,701
11	LOWER SNAKE RIVER COMPENSATION PLAN	-	-	-	-	-	-	-
12	TOTAL APPROPRIATIONS	178,932	166,518	175,304	200,536	186,457	106,653	64,082
13	LONG-TERM DEBT	20,000	-	7,990	68	-	-	60,000
14	TOTAL GENERATION AMORTIZATION	198,932	166,518	183,294	200,604	186,457	106,653	124,082
15	IRRIGATION ASSISTANCE	-	2,950	6,590	-	-	706	44,178
16	TOTAL AMORTIZATION/IRRIGATION	198,932	169,468	189,884	200,604	186,457	107,359	168,260

Table 3G

Federal Projects Depreciation Summary
($000s)

		2007	2008	2009	2010	2011	2012	2013
1	BPA (PBL + CORP GP)	18,128	20,190	20,853	21,692	17,125	11,324	11,361
2	Corps	78,791	80,316	81,394	82,369	83,887	84,840	86,634
3	Bureau	21,160	21,346	22,370	23,567	24,352	25,732	27,446
4	Total Depreciation 1/	118,058	121,829	124,594	127,605	125,341	121,873	125,418
5	Amortization of Legacy Conservation	33,049	29,843	27,283	25,289	23,439	20,948	17,408
6	Amortization of Conservation Augmentation	16,091	16,091	16,091	16,091	7,295	-	-
7	Amortization of Conservation Acquisitions	3,200	9,600	16,000	23,200	31,200	36,000	37,600
8	Amortization of Fish & Wildlife	19,318	20,798	21,889	22,629	23,276	23,249	24,088
9	Total Amortization	71,658	76,332	81,263	87,209	85,210	80,197	79,096
10	Total Federal Projects Depreciation	189,716	198,162	205,857	214,814	210,551	202,070	204,514
	1/ excludes depreciation from investments paid for by TBL	21	23	23	23	23	23	23

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4. FCRPS GENERATION INVESTMENT BASE

4.1 Introduction

This chapter documents the development of the FCRPS generation investment base by year for the rate approval period and the outyears. The investment data are the source of depreciation calculations and provide certain inputs to the generation repayment studies. It is also the basis for allocations of net interest expense and planned net revenues in the development of the COSA tables and the generation inputs to ancillary services.

4.2 Methodology

The FCRPS plant investment information is separately compiled for the COE, BOR, and BPA, including BPA conservation and fish and wildlife investments. BPA generation (general) plant investment consists of office furniture and fixtures and data processing software and hardware associated with the Power Business Line, including the Energy Efficiency Group. Historical investment data are taken from the supporting documents of FCRPS financial statements. All plant investment is depreciated and intangible plant is amortized using the straight-line method.

For BPA facilities, forecasted depreciation expense is calculated consistent with the group concept methodology used for plant accounting records. For general plant categories, average service lives incorporate an adjustment for salvage applicable to the individual groups. Both historical investment and forecasted additions are depreciated according to their adjusted group life.

BPA conservation investments use three different amortization schedules depending on when the investment occurred. Legacy investments, made before 2002, are amortized over 20 years. Conservation augmentation investments, made from 2002 through 2006, use a declining 10 year ending in 2011. Conservation acquisition investments, made after 2006, are amortized over 5 years.

BPA fish and wildlife investments are amortized over 15 years.

COE and BOR investments are depreciated according to the weighted-average service lives of the individual projects.

Projected investments and projected depreciation expenses are accumulated with historical amounts to provide projected cumulative investments and accumulated depreciation for each forecasted year.

The investment base is calculated for each year of the rate period and outyears as an annual average.

Table 4A

FCRPS INVESTMENT BASE
FY 2007
($000s)

		A BALANCE-AS-OF 9/30/2006	B 9/30/2007	C AVERAGE 2007
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	5,885,349	6,010,234	5,947,792
4	TRANSMISSION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	5,888,349	6,013,234	5,950,792
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,016,110	2,094,861	2,055,486
8	TRANSMISSION	240	280	260
9	TOTAL ACCUMULATED DEPRECIATION	2,016,350	2,095,141	2,055,746
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,869,239	3,915,373	3,892,306
12	TRANSMISSION	2,760	2,720	2,740
13	TOTAL NET COMPLETED PLANT	3,871,999	3,918,093	3,895,046
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,512,282	1,520,864	1,516,573
17	TRANSMISSION	66,402	74,373	70,388
18	TOTAL COMPLETED PLANT	1,578,684	1,595,237	1,586,961
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	497,987	518,208	508,098
21	TRANSMISSION	16,066	17,005	16,536
22	TOTAL ACCUM DEPRECIATION	514,053	535,213	524,634
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,014,295	1,002,656	1,008,475
25	TRANSMISSION	50,336	57,368	53,852
26	TOTAL NET COMPLETED PLANT	1,064,631	1,060,024	1,062,327
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	883,983	818,365	851,174
29	ACCUM PREPAID EXPENSE	611,514	566,236	588,875
30	NET CONSERVATION	272,469	252,129	262,299
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	276,076	300,898	288,487
33	ACCUM PREPAID EXPENSE	144,189	152,328	148,259
34	NET FISH AND WILDLIFE	131,887	148,570	140,228
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	97,143	108,393	102,768
37	ACCUMULATED DEPRECIATION	49,918	68,047	58,983
38	NET BPA PLANT INVESTMENT	47,225	40,346	43,785
39	**TOTAL NET PLANT INVESTMENT**	5,388,211	5,419,162	5,403,685

Table 4B

FCRPS INVESTMENT BASE
FY 2008
($000s)

		A BALANCE-AS-OF 9/30/2007	B 9/30/2008	C AVERAGE 2008
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	6,010,234	6,091,149	6,050,692
4	GEN INTEGRATION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	6,013,234	6,094,149	6,053,692
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,094,861	2,175,137	2,134,999
8	GEN INTEGRATION	280	320	300
9	TOTAL ACCUMULATED DEPRECIATION	2,095,141	2,175,457	2,135,299
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,915,373	3,869,239	3,915,693
12	GEN INTEGRATION	2,720	2,760	2,700
13	TOTAL NET COMPLETED PLANT	3,918,093	3,871,999	3,918,393
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,520,864	1,532,289	1,526,577
17	GEN INTEGRATION	74,373	74,373	74,373
18	TOTAL COMPLETED PLANT	1,595,237	1,606,662	1,600,950
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	518,208	538,562	528,385
21	GEN INTEGRATION	17,005	17,997	17,501
22	TOTAL ACCUM DEPRECIATION	535,213	556,559	545,886
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,002,656	993,727	998,192
25	GEN INTEGRATION	57,368	56,376	56,872
26	TOTAL NET COMPLETED PLANT	1,060,024	1,050,103	1,055,064
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	818,365	782,984	800,675
29	ACCUM PREPAID EXPENSE	566,236	554,389	560,312
30	NET CONSERVATION	252,129	228,595	240,363
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	300,898	319,560	310,229
33	ACCUM PREPAID EXPENSE	152,328	155,789	154,059
34	NET FISH AND WILDLIFE	148,570	163,771	156,170
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	108,393	119,643	114,018
37	ACCUMULATED DEPRECIATION	68,047	88,237	78,142
38	NET BPA PLANT INVESTMENT	40,346	31,406	35,876
39	**TOTAL NET PLANT INVESTMENT**	5,419,162	5,345,874	5,405,866

Table 4C

FCRPS INVESTMENT BASE
FY 2009
($000s)

		A BALANCE-AS-OF 9/30/2008	B 9/30/2009	C AVERAGE 2009
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	6,091,149	6,174,761	6,132,955
4	GEN INTEGRATION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	6,094,149	6,177,761	6,135,955
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,175,137	2,256,491	2,215,814
8	GEN INTEGRATION	320	360	340
9	TOTAL ACCUMULATED DEPRECIATION	2,175,457	2,256,851	2,216,154
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,916,012	3,915,373	3,917,141
12	GEN INTEGRATION	2,680	2,720	2,660
13	TOTAL NET COMPLETED PLANT	3,918,692	3,918,093	3,919,801
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,532,289	1,657,496	1,594,893
17	GEN INTEGRATION	74,373	91,249	82,811
18	TOTAL COMPLETED PLANT	1,606,662	1,748,745	1,677,704
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	538,562	559,827	549,195
21	GEN INTEGRATION	17,997	19,102	18,550
22	TOTAL ACCUM DEPRECIATION	556,559	578,929	567,745
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	993,727	1,097,669	1,045,698
25	GEN INTEGRATION	56,376	72,147	64,261
26	TOTAL NET COMPLETED PLANT	1,050,103	1,169,816	1,109,959
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	782,984	760,664	771,824
29	ACCUM PREPAID EXPENSE	554,389	559,443	556,916
30	NET CONSERVATION	228,595	201,221	214,908
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	319,560	335,073	327,317
33	ACCUM PREPAID EXPENSE	155,789	157,190	156,490
34	NET FISH AND WILDLIFE	163,771	177,883	170,827
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	119,643	130,893	125,268
37	ACCUMULATED DEPRECIATION	88,237	109,091	98,664
38	NET BPA PLANT INVESTMENT	31,406	21,802	26,604
39	**TOTAL NET PLANT INVESTMENT**	5,392,567	5,488,815	5,442,099

Table 4D

FCRPS INVESTMENT BASE
FY 2010
($000s)

		A BALANCE-AS-OF 9/30/2009	B 9/30/2010	C AVERAGE 2010
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	6,174,761	6,288,624	6,231,693
4	GEN INTEGRATION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	6,177,761	6,291,624	6,234,693
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,256,491	2,338,820	2,297,656
8	GEN INTEGRATION	360	400	380
9	TOTAL ACCUMULATED DEPRECIATION	2,256,851	2,339,220	2,298,036
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,918,270	3,916,012	3,934,037
12	GEN INTEGRATION	2,640	2,680	2,620
13	TOTAL NET COMPLETED PLANT	3,920,910	3,918,692	3,936,657
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,657,496	1,695,154	1,676,325
17	GEN INTEGRATION	91,249	91,249	91,249
18	TOTAL COMPLETED PLANT	1,748,745	1,786,403	1,767,574
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	559,827	582,177	571,002
21	GEN INTEGRATION	19,102	20,319	19,711
22	TOTAL ACCUM DEPRECIATION	578,929	602,496	590,713
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,097,669	1,112,977	1,105,323
25	GEN INTEGRATION	72,147	70,930	71,538
26	TOTAL NET COMPLETED PLANT	1,169,816	1,183,907	1,176,861
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	760,664	758,845	759,755
29	ACCUM PREPAID EXPENSE	559,443	582,204	570,823
30	NET CONSERVATION	201,221	176,641	188,932
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	335,073	338,587	336,830
33	ACCUM PREPAID EXPENSE	157,190	147,333	152,262
34	NET FISH AND WILDLIFE	177,883	191,254	184,568
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	130,893	142,143	136,518
37	ACCUMULATED DEPRECIATION	109,091	130,783	119,937
38	NET BPA PLANT INVESTMENT	21,802	11,360	16,581
39	**TOTAL NET PLANT INVESTMENT**	5,491,632	5,481,854	5,503,599

Table 4E

FCRPS INVESTMENT BASE
FY 2011
($000s)

		A BALANCE-AS-OF 9/30/2010	B 9/30/2011	C AVERAGE 2011
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	6,288,624	6,360,036	6,324,330
4	GEN INTEGRATION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	6,291,624	6,363,036	6,327,330
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,338,820	2,422,667	2,380,744
8	GEN INTEGRATION	400	440	420
9	TOTAL ACCUMULATED DEPRECIATION	2,339,220	2,423,107	2,381,164
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,949,804	3,918,270	3,943,586
12	GEN INTEGRATION	2,600	2,640	2,580
13	TOTAL NET COMPLETED PLANT	3,952,404	3,920,910	3,946,166
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,695,154	1,775,183	1,735,169
17	GEN INTEGRATION	91,249	91,249	91,249
18	TOTAL COMPLETED PLANT	1,786,403	1,866,432	1,826,418
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	582,177	605,312	593,745
21	GEN INTEGRATION	20,319	21,536	20,928
22	TOTAL ACCUM DEPRECIATION	602,496	626,848	614,673
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,112,977	1,169,871	1,141,424
25	GEN INTEGRATION	70,930	69,713	70,321
26	TOTAL NET COMPLETED PLANT	1,183,907	1,239,584	1,211,745
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	758,845	764,750	761,798
29	ACCUM PREPAID EXPENSE	582,204	610,043	596,123
30	NET CONSERVATION	176,641	154,707	165,675
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	338,587	348,541	343,564
33	ACCUM PREPAID EXPENSE	147,333	144,563	145,948
34	NET FISH AND WILDLIFE	191,254	203,978	197,616
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	142,143	153,393	147,768
37	ACCUMULATED DEPRECIATION	130,783	147,908	139,346
38	NET BPA PLANT INVESTMENT	11,360	5,485	8,422
39	**TOTAL NET PLANT INVESTMENT**	5,515,566	5,524,663	5,529,624

Table 4F

FCRPS INVESTMENT BASE
FY 2012
($000s)

		A BALANCE-AS-OF 9/30/2011	B 9/30/2012	C AVERAGE 2012
1	CORPS OF ENGINEERS			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	6,360,036	6,494,615	6,427,326
4	GEN INTEGRATION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	6,363,036	6,497,615	6,430,326
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,422,667	2,507,467	2,465,067
8	GEN INTEGRATION	440	480	460
9	TOTAL ACCUMULATED DEPRECIATION	2,423,107	2,507,947	2,465,527
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,937,369	3,949,804	3,962,259
12	GEN INTEGRATION	2,560	2,600	2,540
13	TOTAL NET COMPLETED PLANT	3,939,929	3,952,404	3,964,799
14	BUREAU OF RECLAMATION			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,775,183	1,902,183	1,838,683
17	GEN INTEGRATION	91,249	91,249	91,249
18	TOTAL COMPLETED PLANT	1,866,432	1,993,432	1,929,932
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	605,312	629,827	617,570
21	GEN INTEGRATION	21,536	22,753	22,145
22	TOTAL ACCUM DEPRECIATION	626,848	652,580	639,715
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,169,871	1,272,356	1,221,113
25	GEN INTEGRATION	69,713	68,496	69,104
26	TOTAL NET COMPLETED PLANT	1,239,584	1,340,852	1,290,217
27	CONSERVATION			
28	CUMULATIVE INVESTMENT	764,750	650,533	707,642
29	ACCUM PREPAID EXPENSE	610,043	512,774	561,409
30	NET CONSERVATION	154,707	137,759	146,233
31	FISH AND WILDLIFE			
32	CUMULATIVE INVESTMENT	348,541	356,477	352,509
33	ACCUM PREPAID EXPENSE	144,563	139,748	142,156
34	NET FISH AND WILDLIFE	203,978	216,729	210,353
35	BPA PLANT (PBL)			
36	CUMULATIVE INVESTMENT	153,393	164,643	159,018
37	ACCUMULATED DEPRECIATIO	147,908	159,232	153,570
38	NET BPA PLANT INVESTMENT	5,485	5,411	5,448
39	TOTAL NET PLANT INVESTMENT	5,543,682	5,653,155	5,617,050

Table 4G

FCRPS INVESTMENT BASE
FY 2013
($000s)

		A BALANCE-AS-OF 9/30/2012	B 9/30/2013	C AVERAGE 2013
1	CORPS OF ENGINEERS			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	6,494,615	6,618,903	6,556,759
4	GEN INTEGRATION	3,000	3,000	3,000
5	TOTAL COMPLETED PLANT	6,497,615	6,621,903	6,559,759
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	2,507,467	2,594,061	2,550,764
8	GEN INTEGRATION	480	520	500
9	TOTAL ACCUMULATED DEPRECIATION	2,507,947	2,594,581	2,551,264
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	3,987,148	3,937,369	4,005,995
12	GEN INTEGRATION	2,520	2,560	2,500
13	TOTAL NET COMPLETED PLANT	3,989,668	3,939,929	4,008,495
14	BUREAU OF RECLAMATION			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,902,183	2,032,183	1,967,183
17	GEN INTEGRATION	91,249	91,249	91,249
18	TOTAL COMPLETED PLANT	1,993,432	2,123,432	2,058,432
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	629,827	656,056	642,942
21	GEN INTEGRATION	22,753	23,970	23,362
22	TOTAL ACCUM DEPRECIATION	652,580	680,026	666,304
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,272,356	1,376,127	1,324,241
25	GEN INTEGRATION	68,496	67,279	67,887
26	TOTAL NET COMPLETED PLANT	1,340,852	1,443,406	1,392,128
27	CONSERVATION			
28	CUMULATIVE INVESTMENT	650,533	596,382	623,458
29	ACCUM PREPAID EXPENSE	512,774	473,631	493,203
30	NET CONSERVATION	137,759	122,751	130,255
31	FISH AND WILDLIFE			
32	CUMULATIVE INVESTMENT	356,477	370,482	363,480
33	ACCUM PREPAID EXPENSE	139,748	141,841	140,794
34	NET FISH AND WILDLIFE	216,729	228,641	222,686
35	BPA PLANT (PBL)			
36	CUMULATIVE INVESTMENT	164,643	175,893	170,268
37	ACCUMULATED DEPRECIATION	159,232	170,593	164,913
38	NET BPA PLANT INVESTMENT	5,411	5,300	5,355
39	TOTAL NET PLANT INVESTMENT	5,690,419	5,740,027	5,758,919

PBL GENERAL PLANT INVESTMENT (INCLUDING CORPORATE ALLOCATION)
($000s)

Table 4H

FERC ACCOUNT 391.1 OFFICE FURNITURE AND FIXTURES

ASL, Remaining Life, Annual Percent=5.18% **9.9% as of FY 2006**

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
2005		-	-	213	782	2,137	1,355
2006		-	-	213	995	1,758	763
2007		-	-	213	1,209	1,758	549
2008		-	-	213	1,422	1,758	336
2009		-	-	213	1,636	1,758	122
2010		-	-	122	1,758	1,758	(0)
2011		-	-		1,758	1,758	(0)
2012		-	-		1,758	1,758	(0)
2013		-	-		1,758	1,758	(0)

Table 4I

FERC ACCOUNT 391.2 DATA PROCESSING EQUIPMENT

ASL, Remaining Life, Annual Percent=20% **18.07% as of FY 2006**

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
2004	5,176		935	935	3,371	5,176	1,805
2005	8,830	798	1,596	2,531	5,281	14,006	8,725
2006		-	-	2,531	7,812	14,006	6,194
2007		-	-	2,531	10,343	14,006	3,663
2008		-	-	2,531	12,874	14,006	1,132
2009		-	-	1,132	14,006	14,006	-
2010		-	-		14,006	14,006	-
2011		-	-		14,006	14,006	-
2012		-	-		14,006	14,006	-
2013		-	-		14,006	14,006	-

Table 4J

FERC ACCOUNT 391.3 DATA PROCESSING SOFTWARE
18.33% as of FY 2006

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
2004	57,450		10,531	10,531	24,150	57,450	33,300
2005	10,416	955	1,909	11,486	26,129	67,866	41,737
2006	8,932	819	1,637	13,259	39,388	76,798	37,410
2007	11,250	1,031	2,062	15,108	54,496	88,048	33,552
2008	11,250	1,031	2,062	17,170	71,666	99,298	27,632
2009	11,250	1,031	2,062	19,232	90,898	110,548	19,650
2010	11,250	1,031	2,062	21,294	112,192	121,798	9,606
2011	11,250	1,031	2,062	16,849	129,041	133,048	4,007
2012	11,250	1,031	2,062	11,048	140,089	144,298	4,209
2013	11,250	1,031	2,062	11,109	151,198	155,548	4,350

Table 4K

FERC ACCOUNT 397 COMMUNICATION EQUIPMENT
ASL, Remaining Life, Annual Percent=6.02%

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
2004	4,581		276	276	1,261	4,581	3,320
2005		0	0	276	1,447	4,581	3,134
2006		0	0	276	1,723	4,581	2,858
2007		0	0	276	1,999	4,581	2,582
2008		0	0	276	2,275	4,581	2,306
2009		0	0	276	2,551	4,581	2,030
2010		0	0	276	2,827	4,581	1,754
2011		-	0	276	3,103	4,581	1,478
2012		-	0	276	3,379	4,581	1,202
2013		-	0	252	3,631	4,581	950

Table 4L

SUMMARY - PBL GENERAL PLANT

FY	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
2005	14,506	33,639	88,590	54,951
2006	16,279	49,918	97,143	47,225
2007	18,128	68,047	108,393	40,346
2008	20,190	88,237	119,643	31,406
2009	20,853	109,091	130,893	21,802
2010	21,692	130,783	142,143	11,360
2011	17,125	147,908	153,393	5,485
2012	11,324	159,232	164,643	5,411
2013	11,361	170,593	175,893	5,300

Table 4M

BPA FISH & WILDLIFE INVESTMENT
($000s)

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST
1985	4,318	138	288	138	138	4,318
1986	5,590	220	373	508	646	9,908
1987	4,709	113	314	774	1,419	14,617
1988	7,727	167	515	1,141	2,561	22,344
1989	8,267	227	551	1,717	4,277	30,611
1990	16,193	337	1,080	2,378	6,655	46,804
1991	17,680	520	1,179	3,640	10,295	64,484
1992	11,178	310	745	4,609	14,904	75,662
1993	17,338	484	1,156	5,528	20,433	93,000
1994	20,487	638	1,366	6,838	27,271	113,487
1995	32,486	932	2,166	8,498	35,768	145,973
1996	26,046	519	1,736	10,251	46,019	172,019
1997	28,064	1,210	1,871	12,678	58,697	200,083
1998	21,995	900	1,466	14,239	72,936	222,078
1999	14,748	902	983	15,707	88,643	236,826
2000	13,898	692	927	16,495	105,138	250,724
2001	16,493	89	1,100	15,725	110,955	257,309
2002	6,102	70	407	18,253	129,208	263,411
2003	11,156	47	744	17,023	133,743	262,079
2004	5,849	28	390	17,276	142,465	259,374
2005	14,575	733	972	17,710	143,982	257,756
2006	36,000	1,200	2,400	17,886	144,189	276,076
2007	36,000	1,200	2,400	19,318	152,328	300,898
2008	36,000	1,200	2,400	20,798	155,789	319,560
2009	36,000	1,200	2,400	21,889	157,190	335,073
2010	36,000	1,200	2,400	22,629	147,333	338,587
2011	36,000	1,200	2,400	23,276	144,563	348,541
2012	36,000	1,200	2,400	23,249	139,748	356,477
2013	36,000	1,200	2,400	24,088	141,841	370,482

Table 4N

BPA LEGACY CONSERVATION INVESTMENT
($000s)

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST
1982	61,940	1,418	3,097	1,418	1,418	61,940
1983	204,092	2,067	10,205	5,164	6,582	266,032
1984	66,783	334	3,339	13,636	20,218	332,815
1985	103,067	945	5,153	17,586	37,804	435,882
1986	97,618	1,312	4,881	23,106	60,910	533,500
1987	67,381	969	3,369	27,644	88,554	600,881
1988	54,320	2,396	2,716	32,440	120,994	655,201
1989	41,819	301	2,091	33,061	154,055	697,020
1990	34,095	145	1,705	34,996	189,051	731,115
1991	45,714	320	2,286	36,876	225,927	776,829
1992	62,151	730	3,108	39,572	265,499	838,980
1993	96,717	2,060	4,836	44,010	309,509	935,697
1994	115,030	2,274	5,752	49,060	358,569	1,050,727
1995	72,428	1,259	3,621	53,797	412,366	1,123,155
1996	39,450	889	1,973	57,048	469,414	1,162,605
1997	20,329	494	1,016	58,626	528,040	1,182,934
1998	14,308	506	715	59,654	587,694	1,197,242
1999	13,716	335	686	60,198	647,892	1,210,958
2000	347	225	6	60,774	708,666	1,211,305
2001	57			60,555	769,221	1,211,362
2002				59,794	829,015	1,211,362
2003				54,918	821,993	1,149,422
2004		-	-	46,430	664,331	945,330
2005		-	-	42,637	640,185	878,547
2006		-	-	37,552	574,670	775,480
2007		-	-	33,049	510,101	677,862
2008		-	-	29,843	472,563	610,481
2009		-	-	27,283	445,526	556,161
2010		-	-	25,289	428,996	514,342
2011		-	-	23,439	418,340	480,247
2012				20,948	393,574	434,533
2013				17,408	348,831	372,382

Table 4O

BPA CONSERVATION AUGMENTATION INVESTMENT
($000s)

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST
2002	28,227	2,827	2,822	2,827	2,827	28,227
2003	22,900	2,847	2,507	5,669	8,496	51,127
2004	19,432	2,205	2,461	7,534	16,030	70,559
2005	22,500	1,200	3,550	8,990	25,020	93,059
2006	44,000	-	8,800	11,340	36,360	137,059
2007		-	-	20,140	56,500	137,059
2008		-	-	20,140	76,639	137,059
2009		-	-	20,140	96,779	137,059
2010		-	-	20,140	116,919	137,059
2011		-	-	20,140	137,059	137,059
2012						
2013						

Table 4P

BPA CONSERVATION ACQUISITIONS INVESTMENT
($000s)

FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST
2007	32,000	3,200	6,400	3,200	3,200	32,000
2008	32,000	3,200	6,400	9,600	12,800	64,000
2009	32,000	3,200	6,400	16,000	28,800	96,000
2010	40,000	4,000	8,000	23,200	52,000	136,000
2011	40,000	4,000	8,000	31,200	83,200	176,000
2012	40,000	4,000	8,000	36,000	119,200	216,000
2013	40,000	4,000	8,000	37,600	124,800	224,000

Table 4Q

Bureau of Reclamation: Investment and Depreciation
($000s)

	A 2004 ACCUM DEPR	B INVESTMENT 9/30/04	C 2005 ADDTNS	D 2005 DEPR EXP	E 2005 ACCUM DEPR	F INVESTMENT 9/30/05	G 2006 ADDTNS	H 2006 DEPR EXP	I 2006 ACCUM DEPR	J INVESTMENT 9/30/06	K 2007 ADDTNS	L 2007 DEPR EXP
1 **BOISE**												
2 GENERATION	8,491	27,576	350	378	8,710	29,179	700	394	9,104	29,879		398
3 **COLUMBIA BASIN**												
4 GENERATION	368,839	1,195,979	34,199	16,138	384,977	1,224,791	2,465	16,347	401,324	1,227,256	5,033	16,397
5 TRANSMISSION /DELIVERY	13,118	42,536	19,775	699	13,817	62,311		831	14,648	62,311	7,971	884
6 TOTAL	381,957	1,238,515	53,974	16,837	390,902	1,287,102	2,465	17,178	415,972	1,289,567	13,004	17,281
7 **GREEN SPRINGS**												
8 GENERATION	8,481	11,175		149	8,521	11,162		149	8,670	11,162		149
9 **HUNGRY HORSE**												
10 GENERATION	47,025	119,508	400	1,594	48,598	119,591	7,012	1,641	50,239	126,603	410	1,691
11 TRANSMISSION /DELIVERY	975	2,477		33	1,008	2,477		33	1,041	2,477		33
12 TOTAL	48,000	121,985	400	1,627	49,606	122,068	7,012	1,674	51,280	129,080	410	1,724
13 **MINIDOKA-PALISADES**												
14 GENERATION	22,819	110,474	127	1,471	23,959	110,217		1,470	25,429	110,217	825	1,475
15 TRANSMISSION /DELIVERY	333	1,614		22	355	1,614		22	377	1,614		22
16 TOTAL	23,152	112,088	127	1,493	24,314	111,831	-	1,492	25,806	111,831	825	1,497
17 **YAKIMA**												
18 GENERATION	3,051	6,127		82	3,132	6,115	1,050	89	3,221	7,165	2,314	111
19 TOTAL USBR	473,132	1,517,466	54,851	20,566	485,185	1,567,457	11,227	20,976	514,053	1,578,684	16,553	21,160
20 GENERATION	458,706	1,470,839		19,812	477,897	1,501,055		20,090	497,987	1,512,282		20,221
21 TRANSMISSION	14,426	46,627		754	15,180	66,402		886	16,066	66,402		939
22 TOTAL	473,132	1,517,466		20,566	493,077	1,567,457		20,976	514,053	1,578,684		21,160

Table 4Q

Bureau of Reclamation: Investment and Depreciation
($000s)

	M	N	O	P	Q	R	S	T	U	V	W	X
	2007 ACCUM DEPR	INVESTMENT 9/30/07	2008 ADDTNS	2008 DEPR EXP	2008 ACCUM DEPR	INVESTMENT 9/30/08	2009 ADDTNS	2009 DEPR EXP	2009 ACCUM DEPR	INVESTMENT 9/30/09	2010 ADDTNS	2010 DEPR EXP
1 **BOISE**												
2 GENERATION	9,502	29,879		398	9,900	29,879		398	10,298	29,879		398
3 **COLUMBIA BASIN**												
4 GENERATION	417,721	1,232,289	9,712	16,495	434,216	1,242,001	125,207	17,395	451,611	1,367,208	37,658	18,480
5 TRANSMISSION /DELIVERY	15,532	70,282		937	16,469	70,282	16,876	1,050	17,519	87,158		1,162
6 TOTAL	433,253	1,302,571	9,712	17,432	450,685	1,312,283	142,083	18,445	469,130	1,454,366	37,658	19,642
7 **GREEN SPRINGS**												
8 GENERATION	8,819	11,162		149	8,968	11,162		149	9,117	11,162		149
9 **HUNGRY HORSE**												
10 GENERATION	51,930	127,013	1,713	1,705	53,635	128,726		1,716	55,351	128,726		1,716
11 TRANSMISSION /DELIVERY	1,074	2,477		33	1,107	2,477		33	1,140	2,477		33
12 TOTAL	53,004	129,490	1,713	1,738	54,742	131,203	-	1,749	56,491	131,203	-	1,749
13 **MINIDOKA-PALISADES**												
14 GENERATION	26,904	111,042		1,481	28,385	111,042		1,481	29,866	111,042		1,481
15 TRANSMISSION /DELIVERY	399	1,614		22	421	1,614		22	443	1,614		22
16 TOTAL	27,303	112,656	-	1,503	28,806	112,656	-	1,503	30,309	112,656	-	1,503
17 **YAKIMA**												
18 GENERATION	3,332	9,479		126	3,458	9,479		126	3,584	9,479		126
19 TOTAL USBR	535,213	1,595,237	11,425	21,346	556,559	1,606,662	142,083	22,370	578,929	1,748,745	37,658	23,567
20 GENERATION	518,208	1,520,864		20,354	538,562	1,532,289		21,265	559,827	1,657,496		22,350
21 TRANSMISSION	17,005	74,373		992	17,997	74,373		1,105	19,102	91,249		1,217
22 TOTAL	535,213	1,595,237		21,346	556,559	1,606,662		22,370	578,929	1,748,745		23,567

Table 4Q

Bureau of Reclamation: Investment and Depreciation
($000s)

	Y 2010 ACCUM DEPR	Z INVESTMENT 9/30/10	AA 2011 ADDTNS	AB 2011 DEPR EXP	AC 2011 ACCUM DEPR	AD INVESTMENT 9/30/11	AE 2012 ADDTNS	AF 2012 DEPR EXP	AG 2012 ACCUM DEPR	AH INVESTMENT 9/30/12	AI 2013 ADDTNS	AJ 2013 DEPR EXP	AK 2013 ACCUM DEPR	AL INVESTMENT 9/30/13
1 **BOISE**														
2 GENERATION	10,696	29,879		398	11,094	29,879		398	11,492	29,879		398	11,890	29,879
3 **COLUMBIA BASIN**														
4 GENERATION	470,091	1,404,866	80,029	19,265	489,356	1,484,895	127,000	20,645	510,001	1,611,895	130,000	22,359	532,360	1,741,895
5 TRANSMISSION /DELIVERY	18,681	87,158		1,162	19,843	87,158		1,162	21,005	87,158		1,162	22,167	87,158
6 TOTAL	488,772	1,492,024	80,029	20,427	509,199	1,572,053	127,000	21,807	531,006	1,699,053	130,000	23,521	554,527	1,829,053
7 **GREEN SPRINGS**														
8 GENERATION	9,266	11,162		149	9,415	11,162		149	9,564	11,162		149	9,713	11,162
9 **HUNGRY HORSE**														
10 GENERATION	57,067	128,726		1,716	58,783	128,726		1,716	60,499	128,726		1,716	62,215	128,726
11 TRANSMISSION /DELIVERY	1,173	2,477		33	1,206	2,477		33	1,239	2,477		33	1,272	2,477
12 TOTAL	58,240	131,203	-	1,749	59,989	131,203	-	1,749	61,738	131,203	-	1,749	63,487	131,203
13 **MINIDOKA-PALISADES**														
14 GENERATION	31,347	111,042		1,481	32,828	111,042		1,481	34,309	111,042		1,481	35,790	111,042
15 TRANSMISSION /DELIVERY	465	1,614		22	487	1,614		22	509	1,614		22	531	1,614
16 TOTAL	31,812	112,656	-	1,503	33,315	112,656	-	1,503	34,818	112,656	-	1,503	36,321	112,656
17 **YAKIMA**														
18 GENERATION	3,710	9,479		126	3,836	9,479		126	3,962	9,479		126	4,088	9,479
19 TOTAL USBR	602,496	1,786,403	80,029	24,352	626,848	1,866,432	127,000	25,732	652,580	1,993,432	130,000	27,446	680,026	2,123,432
20 GENERATION	582,177	1,695,154		23,135	605,312	1,775,183		24,515	629,827	1,902,183		26,229	656,056	2,032,183
21 TRANSMISSION	20,319	91,249		1,217	21,536	91,249		1,217	22,753	91,249		1,217	23,970	91,249
22 TOTAL	602,496	1,786,403		24,352	626,848	1,866,432		25,732	652,580	1,993,432		27,446	680,026	2,123,432

Table 4R

Corps of Engineers: Investment and Depreciation
($000s)

	A 2004 ACCUM DEPR	B INVESTMENT 9/30/04	C 2005 ADDTNS	D 2005 DEPR EXP	E 2005 ACCUM DEPR	F INVESTMENT 9/30/05	G 2006 ADDTNS	H 2006 DEPR EXP	I 2006 ACCUM DEPR	J INVESTMENT 9/30/06	K 2007 ADDTNS	L 2007 DEPR EXP
1 BONNEVILLE												
2 GENERATION	276,945	924,603	18,566	12,577	316,631	961,873	6,839	12,871	329,502	968,712	4,470	12,946
3 TRANSMISSION	160	3,000		40	200	3,000		40	240	3,000		40
4 TOTAL	277,105	927,603	18,566	12,617	316,831	964,873	6,839	12,911	329,742	971,712		12,986
5 OTHER PROJECTS												
6 (GENERATION ONLY)												
7 ALBENI FALLS	19,443	43,126		576	21,721	43,239	3,336	599	22,320	46,575		621
8 CHIEF JOSEPH	206,648	571,149	9,360	7,640	230,980	574,919	7,025	7,712	238,692	581,944	3,594	7,783
9 COUGAR	7,549	36,314	1,485	727	8,590	72,804	9,131	1,032	9,622	81,935	425	1,095
10 DETROIT-BIG CLIFF	22,138	41,220	2,804	567	24,151	43,810	9,878	650	24,801	53,688	4,244	744
11 DWORSHAK	97,871	316,782	1,299	4,061	98,974	292,417	3,663	3,923	102,897	296,080	595	3,952
12 GREEN PETER-FOSTER	17,547	50,955	2,362	710	20,955	55,614		742	21,697	55,614	1,467	751
13 HILLS CREEK	9,186	18,463	992	254	10,099	19,683	530	266	10,365	20,213	424	272
14 ICE HARBOR	58,283	159,247	7,468	2,162	70,313	165,052	2,340	2,216	72,529	167,392		2,232
15 JOHN DAY	165,287	494,244	929	6,672	187,352	506,555	8,836	6,813	194,165	515,391	8,441	6,928
16 LIBBY	122,064	433,212	1,863	5,779	132,919	433,679	7,151	5,830	138,749	440,830		5,878
17 LITTLE GOOSE	77,555	212,068	1,621	2,832	92,511	212,666	2,321	2,851	95,362	214,987		2,866
18 LOOKOUT POINT-DEXTER	34,869	50,192	3,388	734	38,487	59,931		799	39,286	59,931	3,337	821
19 LOST CREEK	8,497	26,972		361	9,947	27,138	1,511	372	10,319	28,649		382
20 LOWER GRANITE	98,013	332,599	2,949	4,461	120,939	336,476	5,822	4,525	125,464	342,298	11,283	4,639
21 LOWER MONUMENTAL	84,096	230,564	3,369	3,088	99,110	232,606	6,433	3,144	102,254	239,039		3,187
22 MCNARY	145,014	300,736	6,188	4,087	176,552	312,291	2,265	4,179	180,731	314,556		4,194
23 THE DALLES	154,192	308,487	1,676	4,438	175,010	357,152	22,343	4,911	179,921	379,495	3,984	5,086
24 LOWER SNAKE F&W	22,286	256,193		3,416	26,903	256,203		3,416	30,319	256,203		3,416
25 COLUMBIA R. FISH BYPASS	50,621	376,958	134,139	5,026	81,404	428,342	393,475	5,711	87,115	821,817	82,621	10,958
26 TOTAL OTHER	1,401,159	4,259,481	181,892	57,591	1,626,917	4,430,577	486,060	59,691	1,686,608	4,916,637	120,415	65,805
27 TOTAL CORPS	1,678,264	5,187,084	200,458	70,208	1,943,748	5,395,450	492,899	72,602	2,016,350	5,888,349	120,415	78,791
28 GENERATION	1,678,104	5,184,084		70,168	1,943,548	5,392,450		72,562	2,016,110	5,885,349		78,751
29 TRANSMISSION	160	3,000		40	200	3,000		40	240	3,000		40
30 TOTAL	1,678,264	5,187,084		70,208	1,943,748	5,395,450		72,602	2,016,350	5,888,349		78,791

Table 4R

Corps of Engineers: Investment and Depreciation
($000s)

	M 2007 ACCUM DEPR	N INVESTMENT 9/30/07	O 2008 ADDTNS	P 2008 DEPR EXP	Q 2008 ACCUM DEPR	R INVESTMENT 9/30/08	S 2009 ADDTNS	T 2009 DEPR EXP	U 2009 ACCUM DEPR	V INVESTMENT 9/30/09	W 2010 ADDTNS	X 2010 DEPR EXP
1 BONNEVILLE												
2 GENERATION	342,448	973,182	6,782	13,021	355,469	979,964		13,066	368,535	979,964		13,066
3 TRANSMISSION	280	3,000		40	320	3,000		40	360	3,000		40
4 TOTAL	342,728	976,182		13,061	355,789	982,964		13,106	368,895	982,964		13,106
5 OTHER PROJECTS												
6 (GENERATION ONLY)												
7 ALBENI FALLS	22,941	46,575		621	23,562	46,575		621	24,183	46,575		621
8 CHIEF JOSEPH	246,475	585,538		7,807	254,282	585,538		7,807	262,089	585,538		7,807
9 COUGAR	10,717	82,360		1,098	11,815	82,360		1,098	12,913	82,360		1,098
10 DETROIT-BIG CLIFF	25,545	57,932		772	26,317	57,932		772	27,089	57,932		772
11 DWORSHAK	106,849	296,675	2,539	3,973	110,822	299,214	1,466	3,999	114,821	300,680		4,009
12 GREEN PETER-FOSTER	22,448	57,081		761	23,209	57,081		761	23,970	57,081		761
13 HILLS CREEK	10,637	20,637		275	10,912	20,637	320	277	11,189	20,957		279
14 ICE HARBOR	74,761	167,392		2,232	76,993	167,392	2,606	2,249	79,242	169,998		2,267
15 JOHN DAY	201,093	523,832		6,984	208,077	523,832		6,984	215,061	523,832		6,984
16 LIBBY	144,627	440,830		5,878	150,505	440,830		5,878	156,383	440,830		5,878
17 LITTLE GOOSE	98,228	214,987	3,396	2,889	101,117	218,383	848	2,917	104,034	219,231		2,923
18 LOOKOUT POINT-DEXTER	40,107	63,268	195	845	40,952	63,463	444	849	41,801	63,907		852
19 LOST CREEK	10,701	28,649		382	11,083	28,649	650	386	11,469	29,299		391
20 LOWER GRANITE	130,103	353,581	4,938	4,747	134,850	358,519		4,780	139,630	358,519		4,780
21 LOWER MONUMENTAL	105,441	239,039	3,240	3,209	108,650	242,279	847	3,236	111,886	243,126		3,242
22 MCNARY	184,925	314,556		4,194	189,119	314,556	6,409	4,237	193,356	320,965		4,280
23 THE DALLES	185,007	383,479		5,113	190,120	383,479	7,597	5,164	195,284	391,076		5,214
24 LOWER SNAKE F&W	33,735	256,203		3,416	37,151	256,203		3,416	40,567	256,203		3,416
25 COLUMBIA R. FISH BYPASS	98,073	904,438	59,825	12,059	110,132	964,263	62,425	12,857	122,989	1,026,688	113,863	13,689
26 TOTAL OTHER	1,752,413	5,037,052	74,133	67,255	1,819,668	5,111,185	83,612	68,288	1,887,956	5,194,797	113,863	69,263
27 TOTAL CORPS	2,095,141	6,013,234	74,133	80,316	2,175,457	6,094,149	83,612	81,394	2,256,851	6,177,761	113,863	82,369
28 GENERATION	2,094,861	6,010,234		80,276	2,175,137	6,091,149		81,354	2,256,491	6,174,761		82,329
29 TRANSMISSION	280	3,000		40	320	3,000		40	360	3,000		40
30 TOTAL	2,095,141	6,013,234		80,316	2,175,457	6,094,149		81,394	2,256,851	6,177,761		82,369

Table 4R

Corps of Engineers: Investment and Depreciation
($000s)

	Y 2010 ACCUM DEPR	Z INVESTMENT 9/30/10	AA 2011 ADDTNS	AB 2011 DEPR EXP	AC 2011 ACCUM DEPR	AD INVESTMENT 9/30/11	AE 2012 ADDTNS	AF 2012 DEPR EXP	AG 2012 ACCUM DEPR	AH INVESTMENT 9/30/12	AI 2013 ADDTNS	AJ 2013 DEPR EXP	AK 2013 ACCUM DEPR	AL INVESTMENT 9/30/13
1 BONNEVILLE														
2 GENERATION	381,601	979,964		13,066	394,667	979,964		13,066	407,733	979,964		13,066	420,799	979,964
3 TRANSMISSION	400	3,000		40	440	3,000		40	480	3,000		40	520	3,000
4 TOTAL	382,001	982,964		13,106	395,107	982,964		13,106	408,213	982,964		13,106	421,319	982,964
5 OTHER PROJECTS														
6 (GENERATION ONLY)														
7 ALBENI FALLS	24,804	46,575		621	25,425	46,575		621	26,046	46,575		621	26,667	46,575
8 CHIEF JOSEPH	269,896	585,538		7,807	277,703	585,538		7,807	285,510	585,538		7,807	293,317	585,538
9 COUGAR	14,011	82,360		1,098	15,109	82,360		1,098	16,207	82,360		1,098	17,305	82,360
10 DETROIT-BIG CLIFF	27,861	57,932		772	28,633	57,932		772	29,405	57,932		772	30,177	57,932
11 DWORSHAK	118,830	300,680		4,009	122,839	300,680		4,009	126,848	300,680		4,009	130,857	300,680
12 GREEN PETER-FOSTER	24,731	57,081		761	25,492	57,081		761	26,253	57,081		761	27,014	57,081
13 HILLS CREEK	11,468	20,957		279	11,747	20,957		279	12,026	20,957		279	12,305	20,957
14 ICE HARBOR	81,509	169,998		2,267	83,776	169,998		2,267	86,043	169,998		2,267	88,310	169,998
15 JOHN DAY	222,045	523,832		6,984	229,029	523,832		6,984	236,013	523,832		6,984	242,997	523,832
16 LIBBY	162,261	440,830		5,878	168,139	440,830		5,878	174,017	440,830		5,878	179,895	440,830
17 LITTLE GOOSE	106,957	219,231		2,923	109,880	219,231		2,923	112,803	219,231		2,923	115,726	219,231
18 LOOKOUT POINT-DEXTER	42,653	63,907		852	43,505	63,907		852	44,357	63,907		852	45,209	63,907
19 LOST CREEK	11,860	29,299		391	12,251	29,299		391	12,642	29,299		391	13,033	29,299
20 LOWER GRANITE	144,410	358,519		4,780	149,190	358,519		4,780	153,970	358,519		4,780	158,750	358,519
21 LOWER MONUMENTAL	115,128	243,126		3,242	118,370	243,126		3,242	121,612	243,126		3,242	124,854	243,126
22 MCNARY	197,636	320,965		4,280	201,916	320,965		4,280	206,196	320,965		4,280	210,476	320,965
23 THE DALLES	200,498	391,076		5,214	205,712	391,076		5,214	210,926	391,076		5,214	216,140	391,076
24 LOWER SNAKE F&W	43,983	256,203		3,416	47,399	256,203		3,416	50,815	256,203		3,416	54,231	256,203
25 COLUMBIA R. FISH BYPASS	136,678	1,140,551	71,412	15,207	151,885	1,211,963	134,579	16,160	168,045	1,346,542	124,288	17,954	185,999	1,470,830
26 TOTAL OTHER	1,957,219	5,308,660	71,412	70,781	2,028,000	5,380,072	134,579	71,734	2,099,734	5,514,651	124,288	73,528	2,173,262	5,638,939
27 TOTAL CORPS	2,339,220	6,291,624	71,412	83,887	2,423,107	6,363,036	134,579	84,840	2,507,947	6,497,615	124,288	86,634	2,594,581	6,621,903
28 GENERATION	2,338,820	6,288,624		83,847	2,422,667	6,360,036		84,800	2,507,467	6,494,615		86,594	2,594,061	6,618,903
29 TRANSMISSION	400	3,000		40	440	3,000		40	480	3,000		40	520	3,000
30 TOTAL	2,339,220	6,291,624		83,887	2,423,107	6,363,036		84,840	2,507,947	6,497,615		86,634	2,594,581	6,621,903

5. PROJECTED CASH BALANCES / INTEREST CREDITS

5.1 Introduction

This chapter documents the projection of the generation interest income (credited to interest expense) to be earned during the rate approval period and the outyears on BPA's projected cash balances and on funds attributable to generation to be returned to Treasury at year-end.

5.2 Interest credits on projected cash balances

The ToolKit model provides the annual cash balances for the rate approval period. In the outyears, the internal cash flows from revenue requirements are added to the ending rate period cash balances separately for the program and 7(b)(2) cases and averaged. The projected interest earnings rate, the projected weighted average interest rate on outstanding bonds from the end of the previous year, is multiplied by the average cash balance to determine the annual interest income. The resulting interest income is applied as a credit against interest expense in the generation revenue requirements.

5.3 Interest income (repayment program calculation)

The interest income rates listed in this chapter are calculated and used in repayment studies to determine an interest income credit on funds collected during each year for year-end payment of amortization and interest on COE and BOR appropriations and bonds BPA issued to Treasury. The repayment program assumes that cash accumulates at a uniform rate throughout the year, except for interest paid on bonds issued to Treasury at mid-year.

Table 5A

Interest Income from Projected Cash Balances
Generation Revenue Requirement
($000s)

	2006	2007	2008	2009	2010	2011	2012	2013
1 Annual Cash Surplus/(Deficit)		11,000	11,000	11,000	-	-	16,811	-
2 SOY Cash Balance		895,000	906,000	917,000	922,500	922,500	922,500	939,311
3 EOY Cash Balance	895,000	906,000	917,000	928,000	922,500	922,500	939,311	939,311
4 Average Cash Balance		900,500	911,500	922,500	922,500	922,500	930,905	939,311
5 Interest Income Rate		4.88%	4.88%	4.88%	4.88%	4.88%	4.88%	4.88%
6 Repayment Study Interest Income		10,101	9,484	9,977	10,491	10,226	8,967	10,570
7 Annual Interest Income		54,045	53,965	54,995	55,509	55,244	54,395	56,408

Table 5B

Interest Income from Projected Cash Balances
Generation Current Revenue Test
($000s)

		2006	2007	2008	2009
1	Annual Cash Surplus/(Deficit)		(272,597)	(216,118)	(377,952)
2	SOY Cash Balance		895,000	622,403	406,284
3	EOY Cash Balance	895,000	622,403	406,284	28,332
4	Average Cash Balance	447,500	758,701	514,344	217,308
5	Interest Income Rate		4.88%	4.88%	4.88%
6	Repayment Study Interest Income		10,101	9,484	9,977
7	Annual Interest Income	43,676	47,126	34,584	20,582

Table 5C

Interest Income from Projected Cash Balances
Generation Revised Revenue Test
($000s)

		2006	2007	2008	2009
1	Annual Cash Surplus/(Deficit)		5,418	3,182	13,529
2	SOY Cash Balance		895,000	900,418	903,600
3	EOY Cash Balance	895,000	900,418	903,600	917,129
4	Average Cash Balance		897,709	902,009	910,364
5	Interest Income Rate		4.88%	4.88%	4.88%
6	Repayment Study Interest Income		10,421	11,016	7,921
7	Annual Interest Income	43,676	54,229	55,034	52,347

Table 5D

Interest Income from Projected Cash Balances
7(b)(2) Generation Revenue Requirement
($000s)

	2007	2008	2009	2010	2011	2012	2013
1 Annual Cash Surplus/(Deficit)	11,000	11,000	11,000	-	-	-	-
2 SOY Cash Balance	895,000	906,000	917,000	922,500	922,500	922,500	922,500
3 EOY Cash Balance	906,000	917,000	928,000	922,500	922,500	922,500	922,500
4 Average Cash Balance	900,500	911,500	922,500	922,500	922,500	922,500	922,500
5 Interest Income Rate	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%
6 Repayment Study Interest Income	9,823	9,133	9,595	10,055	9,688	7,796	9,360
7 Annual Interest Income	53,227	53,067	54,060	54,520	54,153	52,261	53,825

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6. INTEREST RATES FOR TREASURY SOURCES OF CAPITAL AND PRICE DEFLATORS

6.1 Introduction

Interest rates on bonds issued by BPA to Treasury and interest rates for COE and BOR appropriations 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.

6.2 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.

6.3 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 2007-2009 period the 30-year rate reflects a markup of 90 basis points.

Interest rates on projected capital investments funded by appropriations are also based on GI's projections of Treasury yield curves. The yield curves used for appropriations do not include the 32 to 90 basis point markup.

6.4 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:

$[(FY_1/100) \times 0.5] + 1 = \text{Cumulative Price Deflator}_1$

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.

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

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 2007-2009 spending levels they are based on the price deflators from the First Quarter 2005 GI forecast.

DOE F 1325.8e Electronic Form Approved by CILR – 10/08/2002
(08-89)

United States Government Department of Energy

Bonneville Power Administration

memorandum

DATE: April 28, 2006

REPLY TO ATTN OF: KFW

SUBJECT: FY 2006 Agency Borrowing Rate and Inflation Forecasts

TO: See Attached

BPA borrowing rate and inflation forecasts for the period FY 2006 through 2035 are attached. The FY 2006 forecast is summarized in the following tables:

- Table 1: 30-year term (2006 Forecast)
- Table 2: 30-year term (Comparison of 2006 and 2005 Forecasts)
- Table 3: 20-year term (2006 Forecast)
- Table 4: 15-year term (2006 Forecast).
- Table 5: Appropriations
- Table 6: BPA Treasury borrowing
- Table 7: Municipal taxable borrowing
- Table 8: Municipal tax-exempt borrowing
- Table 9: Projected change in the GDP price deflator
- Table 10: Summary of equivalent cumulative discount rates for alternative base years

These forecasts provide an internally consistent basis for BPA decisions regarding: debt management, budget formulation, and other financial analyses, as well as capital budgeting, and strategic planning efforts. The projected near-term increase in the cost of BPA borrowing compared to our last forecast reflects a consensus expectation that interest rates will rise significantly over the next four years. However, beyond 2010, the FY 2006 projections are generally lower than the FY 2005 forecast.

FY 2006 Borrowing Rate and Inflation Forecasts

The FY 2006 forecast of BPA cost of funds and inflation expectations is based on the Global Insight (GI) February 2006 First Quarter Long-Term Economic Outlook.

Table 1 illustrates the basis of BPA's Treasury borrowing rate. GI calendar year (CY) projections of 30-year Treasury bond yields are shown in Column A. BPA fiscal year projections are shown in Column B. Column C reflects BPA's Treasury borrowing rate. This rate includes a mark-up over the Treasury yield curve that the Treasury Department assigns to BPA Treasury borrowing. The markup reflects the Government Agency spread over the Treasury yield curve, and, when appropriate, an adder for call options in BPA Treasury borrowings. The mark-up ranges from 23 basis points (bp) over the 1-year Treasury note to 90 bp over the 30-year Treasury bond. The estimated Treasury markup is a value derived from: (1) the historical Government Agency/Treasury yield curve spreads, (2) past BPA Treasury borrowings, and (3) the knowledge and experience gained from previous Treasury borrowings.

BPA inflation assumptions reflect projected changes in the U.S. Gross Domestic Product (GDP) 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 2006-2035 on a calendar year basis and in column B by BPA fiscal year. Column C provides the cumulative price index projections. The forecast expresses fiscal year dollar values as mid-year dollar values.

BPA Borrowing Forecasts

The FY 2006 forecast begins in an environment of transition from historically low interest rates to a significantly higher long-term equilibrium. The Federal Reserve Board (Fed) increased interest rates in 2005 at every meeting of the Federal Open Market Committee (FOMC). Although the Fed increased short term interest rates from 1.00 percent in 2004 to 4.75 percent by December 2005, the U.S. economy has continued to perform well with solid growth in most sectors. In addition to rapidly rising interest rates the U.S. economy withstood the economic buffeting of hurricane Katrina and an explosive spike in energy prices.

Notwithstanding future random events, monetary policy will remain an important determinant for interest rates in 2006 and the near-term. The Fed's major concern is that the pace of economic expansion will ignite inflationary pressures. However, the Fed will at the same time, be forward looking on policy as rate increases already sanctioned will not have their main impact until later in 2006. As a consequence, the Fed will likely be more responsive to ongoing economic trends in 2006, and will not tighten in the same mechanical fashion of 2005.

Although most forecasters believe the steady increase in Fed rate hikes is coming to an end, just when this occurs is problematic. In February 2006, GI believed the last rate hike would occur at the Fed's March meeting. It now appears that inflationary risks associated with the economy's continued robust strength will require additional Fed tightening of monetary policy. However, given the net risks to the economy, GI believes it is unlikely the Fed will tighten beyond the CY second quarter (June 2006).

The 2-year Treasury note rate is projected to increase 76 bp, from 4.51 percent in FY 2006 to 5.27 percent in 2009. The 10-year Treasury bond rate is projected to increase 80 bp from 4.68 percent to 5.48 percent while the 30-year Treasury bond rate is projected to increase 87 bp from 4.86 percent to 5.73 percent.

This outlook suggests BPA borrowing rates will increase significantly over all funding sources. BPA borrowing rate forecasts are a direct reflection of the Treasury yield curve. Most of the increase is expected to occur over the next four years. By 2010, BPA's 10-year borrowing rate from the U.S. Treasury is expected to increase 103 bp from 5.23 percent in FY 2006 to 6.26 percent while the municipal taxable 10-year rate rises 128 bp from 5.61 percent to 6.89 percent. The municipal tax-exempt 10-year rate is expected to increase 86 bp from 4.17 percent to 5.03 percent. Beyond 2010, BPA borrowing rates are expected to remain flat.

The assumptions underlying the FY 2006 forecast of BPA borrowing costs, as well as how the current forecast differs from the FY 2005 forecast are described in the attached appendix.

Inflation Forecast

The GDP Price Deflator is the broadest measure of inflation in the U.S. economy. GDP reflects the value of all 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 real GDP calculations reflect both the changing mix of the components in GDP, and the relative price changes in these components.

The GI February 2006 Trend forecast assumes inflation will remain subdued over the next 30 years. The U.S economy grows more slowly than the FY 2005 forecast. Greater slack in the economy reduces inflationary pressures.

GI expects the rate of GDP inflation in 2006 will remain close to 2005 levels. Inflation slips to 2.68 percent in 2006 from a 2.75 percent rate in 2005. Beyond 2006 the forecast assumes a significantly lower rate of inflation. In 2007, inflationary pressures drop to a 1.82 percent annual rate. This rate rises slightly to a long-term average equilibrium rate of approximately 2.00 percent by 2008 and does not change significantly thereafter. Overall, the annual rate of inflation in the February 2006 forecast is approximately half a percent lower than the 2005 projection beyond 2011 (See Table 9).

Note: As a broad measure of inflation, the GDP price deflator is a reasonable approximation of BPA Agency-wide inflation. However, it will likely be less representative of inflation associated with specific components of BPA's budget. For example, GDP inflation may not be the best measure for estimating the annual increase in labor costs. We are currently investigating the development of a more representative measure.

The attached appendix: (1) provides a general description of the specific assumptions underlying FY 2006 expectations regarding future trends in BPA cost of capital and inflation, (2) documents differences from the FY 2005 forecast, as well as limiting assumptions and risks, (3) provides a basis for evaluating the adequacy and required frequency of forecasts of commonly shared financial assumptions, and (4) provides an understanding that supports on-going efforts to develop financial forecasts that are of interest to BPA decision-makers.

We are interested in feedback that would: (1) enhance the effectiveness of forecasts supporting common financial assumptions used throughout the Agency, and (2) help identify gaps between available forecasts and the decision-support information needs of the Agency.

If you have any questions, feedback, or suggestions concerning the FY 2006 borrowing rate and inflation forecasts, please contact Robert Mealey 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.

Robert Mealey
Economist

2 Attachments
Appendix
Tables

cc:
See Front List
Official File – KFW (FI-21-12)

Appendix – Forecast Assumptions/Source of Change

This appendix provides a general description of the assumptions underlying BPA FY 2006 expectations regarding future trends in BPA cost of capital and inflation. The FY 2006 forecast includes borrowing costs associated with four sources of capital. Agency assumptions regarding the expected cost of BPA and third-party debt financing are projected for: (1) BPA borrowing from the U.S. Treasury, (2) Congressional Appropriations, (3) third-party municipal taxable BPA-backed borrowings, and (4) third-party municipal tax-exempt BPA-backed borrowings. Agency inflation assumptions are represented by a single broad-based price index.

The Global Insight (GI) February 2006 Long-term Economic Outlook Base Case is a trend forecast. It is the integration of the GI short-term (10-Year) economic outlook and the GI long-term outlook (30-year focus). The short end of the forecast accounts for more of the variability associated with future interest and inflation rates, while the long end describes their general direction. These expectations have changed significantly since the BPA FY 2005 forecast.

Core Forecast Assumptions

The FY 2006 forecast is based on several core assumptions that are shared with the FY 2005 forecast. Both forecasts assume:

- There are no internal imbalances associated with the current growth path of the U.S. economy.
- The retirement of a generation of Baby Boomers will not create relative labor force scarcities that increase long-term inflationary pressures in the economy.
- Federal budget deficits will decline from current record-setting levels. GI believes the reduction of Federal budget deficits will be sufficient to reduce the public/private competition for available capital and mitigate upward pressure on interest rates.
- Capital formation from domestic savings along with necessary large and rapidly expanding inflows of foreign capital are sufficient to support the development of new technologies required to raise labor productivity and support projected rates of economic growth. Domestic U.S. savings rates will increase from very low levels. American households will reform their spendthrift habits and become savers.
- The U.S. economy avoids significant external shocks and recessionary cycles over the next 30 years.

FY 2006 Forecast Differences

The GI long-term forecast normally changes little from one year to the next. However in 2006 there were some significant differences from the 2005 long-term forecast.

- Restrictive monetary policy, over the past year, has continued longer than anticipated by the FY 2005 forecast. The FY 2005 GI forecast assumed that the short-term Federal Funds rate would peak at 4.07 percent in 2007. The February FY 2006 GI forecast estimates that the Fed will now push the Federal Funds rate up to 4.75 percent.

- Interest rates, over the next four years are expected to move higher, beyond FY 2005 expectations.

  Near-term inflationary worries have risen in the FY 2006 forecast. The inflationary expectations ignited in 2005 by high world oil prices have persisted. Over the past year, crude oil prices have more than doubled. Although the U.S. economy has been more tolerant of both higher energy prices and rising short-term interest rates, stronger growth in CY 2006 has aggravated inflation worries.

- GI is less concerned about the long run. The GI 2006 forecast reflects a general belief that inflation is more contained than was reflected in the FY 2005 forecast. The U.S. economy is projected to grow more slowly over the long run. Slower growth will help to mitigate inflationary pressures on interest rates.

- Beyond 2010 interest rates are scaled back from levels projected in the FY 2005 forecast.

- Lower inflationary expectations and interest rate projections in the FY 2006 forecast also assumes the Fed will do a better job managing the U.S. economy and inflation. The new Fed Chairman is expected to dispel some of the uncertainty surrounding monetary policy with greater transparency and explicit inflation targets. Explicit targets will focus monetary policy on inflation risks. If the Fed is successful in enhancing the effectiveness of monetary policy, the need to step on the interest rate brake will diminish with slack in the economy.

FY 2006 Forecast Risks

Risks associated with the FY 2006 GI forecast include the following.

- Escalating energy price shocks that persist over an extended period could raise the rate of inflation. Natural disasters, geopolitical events, and regional conflicts that would disrupt the supply of fossil fuels could generate significant price shocks.

  GI believes that, while energy price shocks might raise the level of inflation, these shocks would not be sustained. Once the economy adjusted to higher energy costs, the rate of inflation would settle back to a long-term equilibrium rate.

- A more serious threat to the forecast might emerge from the accelerating energy demands of emerging economies such as China and India. These rapidly expanding economies could cause global demand to outpace the rate of new oil discoveries and the world supply of fossil fuels over an extended period. GI believes that over the long run, new fuel efficiency (new vehicle CAFÉ standards) should help contain the growth of energy demands.

- The likelihood of ballooning Federal budget deficits could increase significantly. In the near-term the Iraq war and hurricane Katrina have been budget busters. While GI believes the Federal budget deficit will begin to decline over the next five years, the likelihood of

international conflagrations, as well as the growing health care and retirement needs of senior citizens may raise the level of deficit spending above current expectations.

- Over a 30 year forecast, the impacts of global warming cannot be ignored. Climate change could dramatically affect agricultural production, commodity markets, the location of industrial production, and acerbate inflationary pressures. This is a qualitative risk that while beyond our ability to fully understand, measure and predict with any confidence, illustrates the expanding range of possible future scenarios.

- Productivity is an important assumption in the forecast and is a significant risk to the forecast. A key determinant of total productivity is technological productivity. It's a measure of how much productivity contributes to the real GDP growth. Between 1990 and 2000, the economy grew 3.5 percent annually. Of this rate 1.1 percent was due to technology. Between 2005 and 2020 GI projects the economy will grow 3.2 percent per year. Of this, 1.3 percent is attributed to technological productivity. The rate at which productivity increases is dependent on the growth of capital formation and investment. Given a low domestic savings rate, the rate at which productivity and the U.S. economy grows is heavily dependent on the continued availability of foreign sources of capital. If the attractiveness of the U.S. dollar as an international reserve currency and the relative attractiveness of U.S. investments were to diminish, interest rates and the cost of capital in the U.S. economy would rise significantly, productivity would fall, and the rate of inflation would accelerate. The most common risk associated with economic forecasts is lower than expected productivity.

GI has given the likelihood of their FY 2006 Trend Forecast an 80 percent probability. However, the range of possible scenarios is bounded by an expanding set of possible futures. A subset of these futures is captured in the GI optimistic and pessimistic forecast scenarios. GI has assigned a 20 percent probability to alternative scenarios that would fall outside this range.

Table 1

30 YEAR TREASURY YIELDS

FY 2006 FORECAST OF BPA TREASURY BORROWING RATES

Calendar/Fiscal Years 2006 - 2035

YEAR	(A) BOND RATE 1/ Calendar Year	(B) BOND RATE Fiscal Year	(C) BPA RATE 2/ Fiscal Year
2006	4.95	4.86	5.76
2007	5.15	5.10	6.00
2008	5.52	5.42	6.32
2009	5.80	5.73	6.63
2010	6.00	5.95	6.85
2011	6.00	6.00	6.90
2012	6.00	6.00	6.90
2013	6.00	6.00	6.90
2014	6.00	6.00	6.90
2015	6.00	6.00	6.90
2016	6.00	6.00	6.90
2017	6.00	6.00	6.90
2018	6.01	6.00	6.90
2019	6.01	6.01	6.91
2020	6.01	6.01	6.91
2021	6.01	6.01	6.91
2022	6.01	6.01	6.91
2023	6.01	6.01	6.91
2024	6.01	6.01	6.91
2025	6.01	6.01	6.91
2026	6.01	6.01	6.91
2027	6.01	6.01	6.91
2028	6.01	6.01	6.91
2029	6.01	6.01	6.91
2030	6.01	6.01	6.91
2031	6.01	6.01	6.91
2032	6.01	6.01	6.91
2033	6.01	6.01	6.91
2034	6.01	6.01	6.91
2035	6.01	6.01	6.91

1/ BPA Forecast April 2006, Global Insight CY 2006.Q1 long-term outlook.
The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

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

Table 2

30 YEAR TREASURY YIELDS

FY 2006 COMPARISON OF BPA BORROWING RATE FORECASTS

Fiscal Years 2006 - 2035

YEAR	(A) FY 2006 FORECAST 1/ BPA RATE	(B) FY 2005 FORECAST 2/ BPA RATE	(C) DIFFERENCE (A-B)
2006	5.76	6.36	-0.60
2007	6.00	6.67	-0.67
2008	6.32	6.98	-0.66
2009	6.63	7.22	-0.59
2010	6.85	7.52	-0.67
2011	6.90	7.59	-0.69
2012	6.90	7.57	-0.67
2013	6.90	7.55	-0.65
2014	6.90	7.54	-0.64
2015	6.90	7.54	-0.64
2016	6.90	7.55	-0.65
2017	6.90	7.60	-0.70
2018	6.90	7.66	-0.76
2019	6.91	7.73	-0.82
2020	6.91	7.77	-0.86
2021	6.91	7.79	-0.88
2022	6.91	7.79	-0.88
2023	6.91	7.77	-0.86
2024	6.91	7.78	-0.87
2025	6.91	7.77	-0.86
2026	6.91	7.75	-0.84
2027	6.91	7.75	-0.84
2028	6.91	7.74	-0.83
2029	6.91	7.74	-0.83
2030	6.91	7.76	-0.85
2031	6.91	7.76	-0.85
2032	6.91	7.76	-0.85
2033	6.91	7.76	-0.85
2034	6.91	7.76	-0.85
2035	6.91	7.76	-0.85

1/ BPA Forecast April 2006, Global Insight CY 2006.Q1 long-term outlook.
The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

2/ BPA Forecast May 2005, Global Insight CY 2005.Q3 long-term outlook.
The U.S. Economy: 25-Year Focus, February 2005 Core Forecast

Table 3

20 YEAR TREASURY YIELDS

FY 2006 FORECAST OF BPA TREASURY BORROWING RATES

Calendar/Fiscal Years 2006 - 2035

YEAR	(A) BOND RATE 1/ Calendar Year	(B) BOND RATE Fiscal Year	(C) BPA RATE Fiscal Year
2006	4.88	4.77	5.59
2007	5.06	5.02	5.84
2008	5.40	5.31	6.13
2009	5.67	5.61	6.43
2010	5.88	5.82	6.64
2011	5.87	5.87	6.69
2012	5.87	5.87	6.69
2013	5.88	5.88	6.70
2014	5.88	5.88	6.70
2015	5.88	5.88	6.70
2016	5.88	5.88	6.70
2017	5.88	5.88	6.70
2018	5.88	5.88	6.70
2019	5.88	5.88	6.70
2020	5.88	5.88	6.70
2021	5.88	5.88	6.70
2022	5.88	5.88	6.70
2023	5.88	5.88	6.70
2024	5.88	5.88	6.70
2025	5.88	5.88	6.70
2026	5.88	5.88	6.70
2027	5.88	5.88	6.70
2028	5.88	5.88	6.70
2029	5.88	5.88	6.70
2030	5.88	5.88	6.70
2031	5.88	5.88	6.70
2032	5.88	5.88	6.70
2033	5.88	5.88	6.70
2034	5.88	5.88	6.70
2035	5.88	5.88	6.70

1/ BPA Forecast April 2006, Global Insight CY 2006.Q1 long-term outlook.
The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

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

Table 4

15 YEAR TREASURY YIELDS

FY 2006 FORECAST OF BPA TREASURY BORROWING RATES

Calendar/Fiscal Years 2006 - 2035

YEAR	(A) BOND RATE 1/ Calendar Year	(B) BOND RATE Fiscal Year	(C) BPA RATE Fiscal Year
2006	4.84	4.72	5.41
2007	5.02	4.98	5.67
2008	5.34	5.26	5.95
2009	5.61	5.55	6.24
2010	5.81	5.76	6.45
2011	5.81	5.81	6.50
2012	5.81	5.81	6.50
2013	5.81	5.81	6.50
2014	5.81	5.81	6.50
2015	5.81	5.81	6.50
2016	5.81	5.81	6.50
2017	5.81	5.81	6.50
2018	5.81	5.81	6.50
2019	5.81	5.81	6.50
2020	5.81	5.81	6.50
2021	5.81	5.81	6.50
2022	5.81	5.81	6.50
2023	5.81	5.81	6.50
2024	5.81	5.81	6.50
2025	5.81	5.81	6.50
2026	5.81	5.81	6.50
2027	5.81	5.81	6.50
2028	5.81	5.81	6.50
2029	5.81	5.81	6.50
2030	5.81	5.81	6.50
2031	5.81	5.81	6.50
2032	5.81	5.81	6.50
2033	5.81	5.81	6.50
2034	5.81	5.81	6.50
2035	5.81	5.81	6.50

1/ BPA Forecast April 2006, Global Insight CY 2006.Q1 long-term outlook.
The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

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

Table 5

FY 2006.Q3 BPA APPROPRIATIONS BORROWING RATE FORECAST 1/

FORECAST PREPARED APRIL 28, 2006

BPA Fiscal Years 2006 - 2035

MATURITY

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
2006 2/	3.88	4.00	4.00	4.00	4.00	4.00	4.13	4.13	4.13	4.25	4.25	4.25	4.25	4.38	4.38	4.38	4.38	4.50
2007	4.79	4.80	4.82	4.84	4.85	4.87	4.88	4.90	4.92	4.93	4.94	4.95	4.96	4.97	4.98	4.98	4.99	5.00
2008	4.96	5.01	5.04	5.07	5.10	5.12	5.14	5.16	5.18	5.20	5.21	5.22	5.23	5.25	5.26	5.27	5.28	5.29
2009	5.18	5.27	5.30	5.33	5.37	5.39	5.41	5.44	5.46	5.48	5.50	5.51	5.52	5.53	5.55	5.56	5.57	5.58
2010	5.36	5.47	5.50	5.53	5.56	5.59	5.62	5.65	5.67	5.70	5.71	5.73	5.74	5.75	5.76	5.78	5.79	5.80
2011	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.77	5.79	5.80	5.81	5.82	5.84	5.85
2012	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.77	5.79	5.80	5.81	5.82	5.84	5.85
2013	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.81	5.83	5.84	5.85
2014	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.77	5.79	5.80	5.81	5.82	5.84	5.85
2015	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.77	5.79	5.80	5.81	5.82	5.84	5.85
2016	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.77	5.79	5.80	5.81	5.82	5.84	5.85
2017	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.81	5.83	5.84	5.85
2018	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.81	5.83	5.84	5.85
2019	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.81	5.83	5.84	5.85
2020	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.85
2021	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2022	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.85
2023	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2024	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2025	5.40	5.51	5.54	5.57	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2026	5.41	5.51	5.54	5.58	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2027	5.41	5.51	5.54	5.58	5.61	5.64	5.66	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2028	5.41	5.51	5.55	5.58	5.61	5.64	5.67	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2029	5.41	5.52	5.55	5.58	5.61	5.64	5.67	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2030	5.42	5.52	5.55	5.58	5.61	5.64	5.67	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2031	5.42	5.52	5.55	5.58	5.61	5.64	5.67	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2032	5.42	5.52	5.55	5.58	5.61	5.64	5.67	5.69	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2033	5.43	5.53	5.56	5.58	5.61	5.64	5.67	5.70	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2034	5.43	5.53	5.56	5.59	5.61	5.64	5.67	5.70	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.86
2035	5.43	5.53	5.56	5.59	5.61	5.64	5.67	5.70	5.72	5.75	5.76	5.78	5.79	5.80	5.82	5.83	5.84	5.85

1/ Global Insight CY 2006.Q1 long-term outlook. The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

2/ FY 2006 Appropriation rates are determined in accordance with BPA Appropriations Refinancing Act, 16 U.S.C. 838l enacted on April 26, 1996, and are independent of the Global Insight Treasury Yield forecasts.

19 Year	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
4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	**2006 2/**
5.01	5.02	5.03	5.03	5.04	5.05	5.06	5.07	5.08	5.08	5.09	5.10	5.10	**2007**
5.30	5.31	5.32	5.34	5.35	5.36	5.37	5.38	5.39	5.40	5.41	5.42	5.42	**2008**
5.59	5.61	5.62	5.63	5.64	5.65	5.67	5.68	5.69	5.70	5.71	5.73	5.73	**2009**
5.81	5.82	5.84	5.85	5.86	5.87	5.89	5.90	5.91	5.92	5.94	5.95	5.95	**2010**
5.86	5.87	5.89	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.00	**2011**
5.86	5.87	5.89	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.00	**2012**
5.86	5.88	5.89	5.90	5.91	5.93	5.94	5.95	5.96	5.98	5.99	6.00	6.00	**2013**
5.86	5.87	5.89	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.00	**2014**
5.86	5.87	5.89	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.00	**2015**
5.86	5.87	5.89	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.00	**2016**
5.86	5.88	5.89	5.90	5.91	5.93	5.94	5.95	5.96	5.98	5.99	6.00	6.00	**2017**
5.86	5.88	5.89	5.90	5.92	5.93	5.94	5.95	5.97	5.98	5.99	6.00	6.00	**2018**
5.87	5.88	5.89	5.90	5.92	5.93	5.94	5.96	5.97	5.98	6.00	6.01	6.01	**2019**
5.87	5.88	5.89	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2020**
5.87	5.88	5.89	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2021**
5.87	5.88	5.89	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2022**
5.87	5.88	5.89	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2023**
5.87	5.88	5.90	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2024**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2025**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2026**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.97	5.99	6.00	6.01	6.01	**2027**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2028**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2029**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2030**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2031**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2032**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2033**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2034**
5.87	5.88	5.90	5.91	5.92	5.94	5.95	5.96	5.98	5.99	6.00	6.01	6.01	**2035**

Table 6

BPA FY 2006 BPA TREASURY BORROWING YIELD CURVE FORECAST 1/

FORECAST PREPARED APRIL 28, 2006

BPA Fiscal Years 2006 - 2035

MATURITY

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
2006	4.69	4.88	4.92	4.96	5.00	5.04	5.09	5.14	5.19	5.23	5.27	5.30	5.34	5.37	5.41	5.44	5.47	5.51
2007	5.02	5.17	5.21	5.25	5.28	5.32	5.36	5.41	5.45	5.49	5.52	5.56	5.59	5.63	5.66	5.69	5.73	5.76
2008	5.19	5.38	5.43	5.49	5.53	5.58	5.62	5.67	5.71	5.76	5.80	5.83	5.87	5.91	5.94	5.98	6.02	6.05
2009	5.41	5.64	5.69	5.75	5.80	5.85	5.90	5.94	5.99	6.04	6.08	6.12	6.16	6.19	6.23	6.27	6.31	6.34
2010	5.59	5.83	5.89	5.94	5.99	6.05	6.10	6.15	6.21	6.26	6.30	6.33	6.37	6.41	6.45	6.49	6.52	6.56
2011	5.63	5.88	5.93	5.99	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2012	5.63	5.88	5.93	5.99	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2013	5.63	5.88	5.93	5.99	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2014	5.63	5.88	5.93	5.99	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2015	5.63	5.88	5.93	5.99	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2016	5.63	5.88	5.93	5.99	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2017	5.63	5.88	5.93	5.98	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2018	5.63	5.88	5.93	5.98	6.04	6.09	6.14	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.57	6.61
2019	5.63	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.61
2020	5.63	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2021	5.63	5.88	5.93	5.98	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2022	5.63	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2023	5.63	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2024	5.63	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2025	5.63	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2026	5.64	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2027	5.64	5.88	5.93	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2028	5.64	5.88	5.94	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.39	6.42	6.46	6.50	6.54	6.58	6.62
2029	5.64	5.88	5.94	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.39	6.42	6.46	6.50	6.54	6.58	6.62
2030	5.65	5.89	5.94	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.39	6.42	6.46	6.50	6.54	6.58	6.62
2031	5.65	5.89	5.94	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.39	6.42	6.46	6.50	6.54	6.58	6.62
2032	5.65	5.89	5.94	5.99	6.04	6.09	6.15	6.20	6.25	6.31	6.35	6.39	6.42	6.46	6.50	6.54	6.58	6.62
2033	5.66	5.90	5.95	6.00	6.04	6.10	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2034	5.66	5.90	5.95	6.00	6.04	6.10	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62
2035	5.66	5.90	5.95	6.00	6.04	6.10	6.15	6.20	6.25	6.31	6.35	6.38	6.42	6.46	6.50	6.54	6.58	6.62

1/ Global Insight CY 2006.Q1 long-term outlook. The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

19 Year	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
5.54	5.59	5.60	5.62	5.64	5.65	5.67	5.69	5.70	5.72	5.74	5.76	5.76	**2006**
5.80	5.84	5.85	5.87	5.89	5.90	5.92	5.94	5.95	5.97	5.98	6.00	6.00	**2007**
6.09	6.13	6.15	6.17	6.19	6.21	6.23	6.25	6.27	6.29	6.31	6.32	6.32	**2008**
6.38	6.43	6.45	6.47	6.49	6.51	6.53	6.55	6.57	6.59	6.61	6.63	6.63	**2009**
6.60	6.64	6.67	6.69	6.71	6.73	6.75	6.77	6.79	6.81	6.83	6.85	6.85	**2010**
6.65	6.69	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2011**
6.65	6.69	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2012**
6.65	6.69	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2013**
6.65	6.69	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2014**
6.65	6.69	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2015**
6.65	6.69	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2016**
6.65	6.70	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2017**
6.65	6.70	6.72	6.74	6.76	6.78	6.80	6.82	6.84	6.86	6.88	6.90	6.90	**2018**
6.65	6.70	6.72	6.74	6.76	6.78	6.80	6.82	6.85	6.87	6.89	6.91	6.91	**2019**
6.65	6.70	6.72	6.74	6.76	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2020**
6.66	6.70	6.72	6.74	6.76	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2021**
6.66	6.70	6.72	6.74	6.76	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2022**
6.66	6.70	6.72	6.74	6.76	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2023**
6.66	6.70	6.72	6.74	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2024**
6.66	6.70	6.72	6.74	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2025**
6.66	6.70	6.72	6.74	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2026**
6.66	6.70	6.72	6.74	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2027**
6.66	6.70	6.72	6.74	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.91	6.91	**2028**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2029**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2030**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2031**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2032**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2033**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2034**
6.66	6.70	6.72	6.75	6.77	6.79	6.81	6.83	6.85	6.87	6.89	6.92	6.92	**2035**

Table 7

BPA FY 2006 MUNI TAXABLE BORROWING RATE FORECAST 1/

FORECAST PREPARED APRIL 28, 2006

BPA Fiscal Years 2006 - 2035

MATURITY

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
2006	5.03	5.15	5.23	5.30	5.37	5.42	5.47	5.52	5.57	5.61	5.63	5.64	5.66	5.67	5.69	5.70	5.72	5.73
2007	5.40	5.54	5.61	5.69	5.76	5.81	5.85	5.90	5.94	5.99	6.00	6.02	6.03	6.05	6.06	6.07	6.09	6.10
2008	5.58	5.77	5.86	5.96	6.05	6.10	6.15	6.20	6.25	6.30	6.32	6.34	6.36	6.37	6.39	6.41	6.43	6.45
2009	5.82	6.05	6.15	6.25	6.36	6.41	6.47	6.52	6.58	6.64	6.66	6.67	6.69	6.71	6.73	6.75	6.77	6.79
2010	6.02	6.27	6.37	6.48	6.58	6.64	6.70	6.77	6.83	6.89	6.91	6.93	6.95	6.97	6.99	7.01	7.03	7.05
2011	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2012	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2013	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2014	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2015	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2016	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2017	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2018	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2019	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2020	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2021	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2022	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2023	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2024	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2025	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2026	6.06	6.32	6.42	6.53	6.63	6.69	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2027	6.07	6.32	6.43	6.53	6.63	6.70	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2028	6.07	6.32	6.43	6.53	6.63	6.70	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2029	6.07	6.33	6.43	6.53	6.63	6.70	6.76	6.82	6.88	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2030	6.08	6.33	6.43	6.53	6.63	6.70	6.76	6.82	6.89	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2031	6.08	6.33	6.43	6.53	6.63	6.70	6.76	6.82	6.89	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2032	6.08	6.33	6.44	6.54	6.64	6.70	6.76	6.82	6.89	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2033	6.09	6.34	6.44	6.54	6.64	6.70	6.76	6.82	6.89	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2034	6.09	6.34	6.44	6.54	6.64	6.70	6.76	6.82	6.89	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11
2035	6.10	6.34	6.44	6.54	6.64	6.70	6.76	6.82	6.89	6.95	6.97	6.99	7.01	7.03	7.05	7.07	7.09	7.11

1/ Global Insight CY 2006.Q1 long-term outlook. The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

19 Year	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
5.75	5.76	5.77	5.79	5.80	5.82	5.83	5.85	5.86	5.88	5.89	5.91	5.91	**2006**
6.12	6.13	6.15	6.16	6.17	6.19	6.20	6.22	6.23	6.24	6.26	6.27	6.27	**2007**
6.46	6.48	6.50	6.52	6.53	6.55	6.57	6.59	6.60	6.62	6.64	6.66	6.66	**2008**
6.81	6.83	6.85	6.86	6.88	6.90	6.92	6.94	6.96	6.98	7.00	7.02	7.02	**2009**
7.07	7.09	7.11	7.13	7.14	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.28	**2010**
7.13	7.15	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2011**
7.13	7.15	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2012**
7.13	7.15	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2013**
7.13	7.15	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2014**
7.13	7.15	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2015**
7.13	7.15	7.16	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2016**
7.13	7.15	7.17	7.19	7.21	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.34	**2017**
7.13	7.15	7.17	7.19	7.21	7.23	7.25	7.27	7.29	7.31	7.33	7.35	7.35	**2018**
7.13	7.15	7.17	7.19	7.21	7.23	7.25	7.27	7.29	7.31	7.33	7.35	7.35	**2019**
7.13	7.15	7.17	7.19	7.21	7.23	7.25	7.27	7.30	7.32	7.34	7.36	7.36	**2020**
7.13	7.15	7.17	7.19	7.21	7.23	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2021**
7.13	7.15	7.17	7.19	7.21	7.23	7.25	7.28	7.30	7.32	7.34	7.36	7.36	**2022**
7.13	7.15	7.17	7.19	7.21	7.23	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2023**
7.13	7.15	7.17	7.19	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2024**
7.13	7.15	7.17	7.19	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2025**
7.13	7.15	7.17	7.19	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2026**
7.13	7.15	7.17	7.19	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2027**
7.13	7.15	7.17	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2028**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2029**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2030**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2031**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2032**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2033**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2034**
7.13	7.15	7.18	7.20	7.22	7.24	7.26	7.28	7.30	7.32	7.34	7.36	7.36	**2035**

Table 8

BPA FY 2006 MUNI TAX-EXEMPT BORROWING RATE FORECAST 1/

FORECAST PREPARED APRIL 28, 2006

BPA Fiscal Years 2006 - 2035

MATURITY

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
2006	3.35	3.49	3.57	3.66	3.75	3.84	3.92	4.00	4.08	4.17	4.19	4.22	4.25	4.27	4.30	4.33	4.36	4.38
2007	3.58	3.74	3.82	3.91	3.99	4.07	4.15	4.22	4.30	4.38	4.40	4.43	4.45	4.48	4.51	4.53	4.56	4.58
2008	3.70	3.89	3.99	4.09	4.19	4.27	4.36	4.44	4.52	4.60	4.63	4.66	4.69	4.72	4.75	4.78	4.81	4.84
2009	3.85	4.08	4.19	4.29	4.40	4.49	4.58	4.66	4.75	4.84	4.87	4.91	4.94	4.97	5.00	5.03	5.06	5.09
2010	3.98	4.22	4.33	4.44	4.55	4.65	4.74	4.84	4.93	5.03	5.06	5.09	5.12	5.16	5.19	5.22	5.25	5.28
2011	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2012	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2013	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2014	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2015	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2016	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2017	4.01	**4.26**	**4.37**	**4.48**	4.58	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2018	4.01	**4.26**	**4.37**	**4.48**	4.58	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.26	5.30	5.33
2019	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2020	4.01	**4.26**	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2021	4.01	**4.26**	**4.37**	**4.48**	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2022	4.01	**4.26**	**4.37**	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2023	4.01	**4.26**	**4.37**	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2024	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2025	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2026	4.01	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2027	4.02	4.26	4.37	4.48	4.59	4.68	4.78	4.87	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2028	4.02	4.26	4.37	4.48	4.59	4.68	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2029	4.02	4.26	4.37	4.48	4.59	4.68	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2030	4.02	4.26	4.37	4.48	4.59	4.68	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2031	4.02	4.27	4.37	4.48	4.59	4.68	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2032	4.03	4.27	4.38	4.48	4.59	4.68	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2033	4.03	4.27	4.38	4.48	4.59	4.69	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2034	4.03	4.27	4.38	4.48	4.59	4.69	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33
2035	4.03	4.27	4.38	4.48	4.59	4.69	4.78	4.88	4.97	5.07	5.10	5.13	5.17	5.20	5.23	5.27	5.30	5.33

1/ Global Insight CY 2006.Q1 long-term outlook. The U.S. Economy: 30-Year Focus, February 2006 Forecast, Base Case

9 Year	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
4.41	4.44	4.46	4.49	4.52	4.54	4.57	4.60	4.62	4.65	4.68	4.71	4.71	**2006**
4.61	4.63	4.66	4.69	4.71	4.74	4.76	4.79	4.82	4.84	4.87	4.89	4.89	**2007**
4.87	4.90	4.93	4.96	4.98	5.01	5.04	5.07	5.10	5.13	5.16	5.19	5.19	**2008**
5.12	5.16	5.19	5.22	5.25	5.28	5.31	5.34	5.37	5.41	5.44	5.47	5.47	**2009**
5.32	5.35	5.38	5.41	5.45	5.48	5.51	5.54	5.58	5.61	5.64	5.67	5.67	**2010**
5.36	5.39	5.43	5.46	5.49	5.52	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2011**
5.36	5.39	5.43	5.46	5.49	5.52	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2012**
5.36	5.39	5.43	5.46	5.49	5.52	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2013**
5.36	5.39	5.43	5.46	5.49	5.52	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2014**
5.36	5.39	5.43	5.46	5.49	5.52	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2015**
5.36	5.39	5.43	5.46	5.49	5.52	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2016**
5.36	5.39	5.43	5.46	5.49	5.53	5.56	5.59	5.62	5.66	5.69	5.72	5.72	**2017**
5.36	5.40	5.43	5.46	5.49	5.53	5.56	5.59	5.63	5.66	5.69	5.72	5.72	**2018**
5.36	5.40	5.43	5.46	5.50	5.53	5.56	5.60	5.63	5.66	5.69	5.73	5.73	**2019**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.66	5.70	5.73	5.73	**2020**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2021**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2022**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2023**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2024**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2025**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2026**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2027**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2028**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2029**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2030**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2031**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2032**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2033**
5.37	5.40	5.43	5.47	5.50	5.53	5.57	5.60	5.63	5.67	5.70	5.73	5.73	**2034**
5.37	5.40	5.43	5.47	5.50	5.53	5.56	5.60	5.63	6.67	5.70	5.73	5.73	**2035**

TABLE 9

FY 2006.Q2 FORECAST OF INFLATION TRENDS
CHANGE IN GROSS DOMESTIC PRODUCT PRICE DEFLATOR

Calendar/Fiscal Years 2006.Q2 vs. 2005.Q3

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	FY 2006.Q2 1/ CALENDAR YEAR GDP DEFLATOR (% Change)	FY 2006.Q2 1/ FISCAL YEAR GDP DEFLATOR (% Change)	FY 2006.Q2 2/ CUMULATIVE GDP DEFLATOR (Base Year 2005)	FY 2005.Q3 3/ FISCAL YEAR GDP DEFLATOR (% Change)	FY 2005.Q3 3/ CUMULATIVE GDP DEFLATOR (Base Year 2005)	CHANGE IN GDP DEFLATOR (% Change)	CHANGE IN GDP DEFLATOR
2006	2.68%	2.69%	1.013	1.74%	1.027	0.96%	-0.014
2007	1.82%	2.03%	1.034	1.85%	1.046	0.19%	-0.012
2008	2.05%	1.99%	1.055	2.04%	1.068	-0.04%	-0.013
2009	2.01%	2.02%	1.076	2.07%	1.090	-0.06%	-0.014
2010	2.05%	2.04%	1.098	2.18%	1.113	-0.14%	-0.016
2011	1.93%	1.96%	1.119	2.35%	1.140	-0.39%	-0.020
2012	2.05%	2.02%	1.142	2.45%	1.168	-0.43%	-0.026
2013	2.01%	2.02%	1.165	2.41%	1.196	-0.40%	-0.031
2014	1.82%	1.86%	1.187	2.36%	1.224	-0.50%	-0.037
2015	1.86%	1.85%	1.209	2.36%	1.253	-0.52%	-0.044
2016	1.90%	1.89%	1.231	2.40%	1.283	-0.51%	-0.052
2017	1.86%	1.87%	1.255	2.44%	1.314	-0.56%	-0.060
2018	1.90%	1.89%	1.278	2.48%	1.347	-0.59%	-0.069
2019	1.93%	1.92%	1.303	2.49%	1.380	-0.57%	-0.078
2020	1.96%	1.96%	1.328	2.47%	1.414	-0.51%	-0.086
2021	1.93%	1.93%	1.354	2.47%	1.449	-0.53%	-0.095
2022	1.95%	1.95%	1.380	2.47%	1.485	-0.52%	-0.105
2023	1.98%	1.97%	1.408	2.48%	1.522	-0.50%	-0.114
2024	2.01%	2.00%	1.436	2.49%	1.560	-0.49%	-0.124
2025	2.03%	2.02%	1.465	2.48%	1.598	-0.46%	-0.134
2026	1.99%	2.00%	1.494	2.48%	1.638	-0.48%	-0.144
2027	2.07%	2.05%	1.525	2.49%	1.679	-0.44%	-0.154
2028	2.02%	2.03%	1.556	2.49%	1.721	-0.45%	-0.165
2029	2.10%	2.08%	1.588	2.49%	1.763	-0.41%	-0.175
2030	2.11%	2.11%	1.621	2.50%	1.808	-0.39%	-0.186

1/ Source: Global Insight, First Quarter 2006 Long Term Economic Outlook, Trend Forecast

2/ Fiscal Year Cumulative Price Deflator escalates to midyear dollars. The first year, 2006, is determined as follows: 1.0013 = [(2.694/100)*.5] + 1. An example of subsequent year cumulative growth such as in 2006 is found as: 1.0341 = [1+ (2.033/100)]*1.0135

3/ Source: Global Insight, Second Quarter 2005 Long Term Economic Outlook, Trend Forecast

TABLE 10

FY 2006.Q2 INFLATION FORECAST COMPARISONS
GROSS DOMESTIC PRODUCT PRICE DEFLATOR INDEXES 1/

BPA Fiscal Year

YEAR	(A) FY 2006.Q2 2/ CUMULATIVE PRICE DEFLATOR INDEX (Base Year 2005)	(B) FY 2005.Q3 3/ CUMULATIVE PRICE DEFLATOR INDEX (Base Year 2005)	(C) (A - B) DIFFERENCE
2006	1.013	1.027	-0.014
2007	1.034	1.046	-0.012
2008	1.055	1.068	-0.013
2009	1.076	1.090	-0.014
2010	1.098	1.113	-0.016
2011	1.119	1.140	-0.020
2012	1.142	1.168	-0.026
2013	1.165	1.196	-0.031
2014	1.187	1.224	-0.037
2015	1.209	1.253	-0.044
2016	1.231	1.283	-0.052
2017	1.255	1.314	-0.060
2018	1.278	1.347	-0.069
2019	1.303	1.380	-0.078
2020	1.328	1.414	-0.086
2021	1.354	1.449	-0.095
2022	1.380	1.485	-0.105
2023	1.408	1.522	-0.114
2024	1.436	1.560	-0.124
2025	1.465	1.598	-0.134
2026	1.494	1.638	-0.144
2027	1.525	1.679	-0.154
2028	1.556	1.721	-0.165
2029	1.588	1.763	-0.175
2030	1.621	1.808	-0.186

1/ Source: Global Insight, First Quarter 2006 Long Term Economic Outlook, Trend Forecast

2/ Fiscal Year Cumulative Price Deflator escalates to midyear dollars. The first year, 2006, is determined as follows: 1.0013 = [(2.694/100)*.5] + 1. An example of subsequent year cumulative growth such as in 2006 is foun 1.0341 = [1+ (2.033/100)]*1.0135

3/ Source: Global Insight, Second Quarter 2005 Long Term Economic Outlook, Trend Forecast

7. PROJECTED BONDS ISSUED TO TREASURY

7.1 Introduction

This chapter documents the bonds that BPA projects it will issue to the U.S. Treasury to finance BPA capital investments and BOR/COE investments that will be direct-funded by BPA.

7.2 Issuing Bonds

BPA primarily funds capital outlays by issuing new long-term debt in the form of bonds issued to Treasury. BPA issues four types of bonds for PBL: Construction, Conservation, Fish and Wildlife/Environment, and BOR/COE direct - funded. Construction bonds included in the generation study are the portions of bonds that fund furniture, ADP hardware and software for PBL. (Construction bonds are also issued to fund capital expenditures of the Transmission Business Line including ADP hardware and software and furniture.) Conservation bonds are issued to fund the capital portion of BPA's conservation program. Fish and Wildlife bonds are issued to fund the capital portion of BPA's Fish and Wildlife program. *See,* Chapter 13. Environment bonds are issued to fund work done by the Transmission Business Line and are not included in the generation repayment study. BPA also issues bonds to fund BOR/COE generation efficiency and reliability improvements. All bonds projected for issuance have been entered into the generation repayment study.

BOR/COE direct funding bonds are entered in the repayment program with a maximum period to maturity of 45 years. Construction bonds are given a maximum repayment period of 40 years, Fish and Wildlife bonds are entered with a period to maturity of 15 years, and Conservation is given a maturity of 5 years.

New bonds for the cost evaluation period (FYs 2005 - 2009) and projected borrowing for the 7(b)2 rate test period (FYs 2010-13) are based on projected BPA and BOR/COE capital program outlays. Maturities reflect the average services lives of the assets. The assignment practices for interest rates are discussed in Chapter 2 of the Study . The interest rates used are in Chapter 6 of this document.

Table 7A

Bonneville Power Administration
Total Bonds Issued
($ in millions)

Date	Type	Amount Issued	Interest Rate	Term	Maturity Date	----1st Call---- Date	Price	Refinanced Bonds Date	Amount	Amortized Bonds Date	Amount	Call Price	Out-Stand	Interest Due	Semiannual Interest
9/30/1978	C	50.0	8.95%	35	2013	9/30/1983	107.64			9/30/1991	(50.0)	105.53	0.0	Mar/Sep	0
6/30/1979	C	75.0	9.45%	35	2014	6/30/1984	108.10			9/30/1985/86/91	(75.0)	various	0.0	Dec/Jun	0
9/30/1979	C	50.0	9.90%	35	2014	9/30/1984	108.49			9/30/1985	(50.0)	108.20	0.0	Mar/Sep	0
9/30/1980	C	115.0	13.00%	35	2015	9/30/1985	111.14			9/30/1985	(115.0)	111.14	0.0	Mar/Sep	0
9/30/1981	C	175.0	16.60%	35	2016	9/30/1986	114.23			9/30/1986	(175.0)	114.23	0.0	Mar/Sep	0
12/31/1981	C	50.0	14.40%	35	2016	12/31/1986	112.34			2/28/1987	(50.0)	112.34	0.0	Jun/Dec	0
4/30/1982	C	100.0	14.40%	35	2017	4/30/1987	112.34			4/30/1987	(100.0)	112.34	0.0	Oct/Apr	0
7/31/1982	C	85.0	14.15%	35	2017	7/31/1987	112.13	7/31/1987	(85.0)			112.13	0.0	Jan/Jul	0
11/30/1982	C	40.0	10.85%	35	2017	11/30/1987	109.30	2/29/1988	(40.0)			109.30	0.0	May/Nov	0
6/30/1983	C	30.0	11.70%	35	2018	6/30/1988	110.03			11/30/1988	(30.0)	110.03	0.0	Dec/Jun	0
9/30/1983	C	45.0	12.25%	35	2018	9/30/1988	110.50			9/30/1988	(45.0)	110.50	0.0	Mar/Sep	0
9/30/1983	K	140.0	12.20%	20	2003	9/30/1988	109.15			9/30/1988	(140.0)	109.15	0.0	Mar/Sep	0
11/30/1983	C	30.0	12.30%	35	2018	11/30/1988	110.54			11/30/1988	(30.0)	110.54	0.0	May/Nov	0
9/30/1984	C	60.0	13.05%	35	2019	9/30/1989	111.19			9/30/1989	(60.0)	111.19	0.0	Mar/Sep	0
9/30/1984	K	150.0	13.05%	20	2004	9/30/1989	109.79	9/30/1989	(120.0)	9/30/1989	(30.0)	109.79	0.0	Mar/Sep	0
6/30/1985	C	100.0	11.25%	45	2030	6/30/1990	110.00			6/30/1990	(100.0)	110.00	0.0	Dec/Jun	0
9/30/1985	K	50.0	10.15%	5	1990	none	none			9/30/1990	(50.0)	none	0.0	Mar/Sep	0
3/31/1986	C	100.0	8.15%	10	1996	none	none			3/31/1996	(100.0)	none	0.0	Sep/Mar	0
3/31/1986	K	50.0	8.15%	10	1996	none	none			3/31/1996	(50.0)	none	0.0	Sep/Mar	0
3/31/1986	K	50.0	7.80%	5	1991	none	none			3/31/1991	(50.0)	none	0.0	Sep/Mar	0
6/30/1986	C	300.0	8.95%	45	2031	6/30/1991	107.96	8/31/92,5/31/94	(240.0)	9/30/1991/94	(60.0)	various	0.0	Dec/Jun	0
4/30/1987	C	100.0	9.30%	45	2032	4/30/1992	108.27	4/30/1992	(100.0)			108.27	0.0	Oct/Apr	0
4/30/1987	K	75.0	9.30%	20	2007	4/30/1992	106.98	7/31/1992	(75.0)			106.98	0.0	Oct/Apr	0
6/30/1987	C	100.0	8.35%	5	1992	none	none			6/30/1992	(100.0)	none	0.0	Dec/Jun	0
6/30/1987	K	50.0	8.35%	5	1992	none	none			6/30/1992	(50.0)	none	0.0	Dec/Jun	0
7/31/1987	C	95.0	9.55%	30	2017	7/31/1992	107.96			9/30/1992	(95.0)	107.96	0.0	Jan/Jul	0
7/31/1987	C	50.0	9.55%	45	2032	7/31/1992	108.49			7/31/1993	(50.0)	108.49	0.0	Jan/Jul	0
2/29/1988	C	150.0	9.50%	45	2033	2/28/1993	108.44	10/31/93,5/31/94	(150.0)			various	0.0	Aug/Feb	0
2/29/1988	C	43.7	9.50%	30	2018	2/28/1993	107.92			9/30/1993	(43.7)	107.92	0.0	Aug/Feb	0
4/30/1988	K	90.0	9.90%	20	2008	4/30/1993	107.43			5/31/1993	(90.0)	107.43	0.0	Oct/Apr	0
6/30/1988	C	40.0	9.90%	45	2033	6/30/1993	108.80			6/30/1993	(40.0)	108.80	0.0	Dec/Jun	0
5/31/1989	F	25.0	8.95%	10	1999	none	none			5/31/1999	(25.0)	none	0.0	Nov/May	0
5/31/1989	C	75.0	8.95%	10	1999	none	none	5/31/1999	(26.2)	5/31/1999	(48.8)	none	0.0	Nov/May	0
7/31/1989	K	40.0	8.55%	20	2009	none	none						40.0	Jan/Jul	1,710,000
9/30/1989	K	66.0	8.60%	6	1995	none	none			9/30/1995	(66.0)	none	0.0	Mar/Sep	0
9/30/1989	K	66.0	8.65%	13	2002	none	none			9/30/2002	(66.0)	none	0.0	Mar/Sep	0
1/31/1990	C	50.0	9.25%	40	2030	1/31/2000	106.94	1/31/2000	(50.0)			106.94	0.0	Jul/Jan	0
2/28/1991	C	60.0	7.55%	4	1995	none	none			2/28/1995	(60.0)	none	0.0	Aug/Feb	0
5/31/1991	F	50.0	7.95%	5	1996	none	none			5/31/1996	(50.0)	none	0.0	Nov/May	0
4/30/1992	C	150.0	8.80%	40	2032	4/30/1997	107.70	8/31/1997	(103.3)	7/31/1997	(46.7)	107.70	0.0	Oct/Apr	0
4/30/1992	C	50.0	7.00%	5	1997	none	none			4/30/1997	(50.0)	none	0.0	Oct/Apr	0
4/30/1992	C	80.0	6.20%	3	1995	none	none			4/30/1995	(80.0)	none	0.0	Oct/Apr	0
4/30/1992	C	28.3	7.00%	5	1997	none	none			4/30/1997	(28.3)	none	0.0	Oct/Apr	0
7/31/1992	C	150.0	8.13%	40	2032	7/31/1997	107.11	4/30 & 5/31/98	(138.2)	5/31/1998	(11.8)	107.11	0.0	Jan/Jul	0
7/31/1992	K	100.0	7.14%	15	2007	7/31/1997	104.76	9/30/1998	(100.0)			104.28	0.0	Jan/Jul	0
7/31/1992	K	80.2	5.80%	5	1997	none	none			7/31/1997	(80.2)	none	0.0	Jan/Jul	0
8/31/1992	C	107.8	6.60%	8	2000	none	none	8/31/2000	(15.3)	8/31/2000	(92.5)	none	0.0	Feb/Aug	0

Table 7A

Bonneville Power Administration
Total Bonds Issued
($ in millions)

Date	Type	Amount Issued	Interest Rate	Term	Maturity Date	----1st Call---- Date	Price	Refinanced Bonds Date	Amount	Amortized Bonds Date	Amount	Call Price	Out-Stand	Interest Due	Semiannual Interest
8/31/1992	C	107.7	7.25%	15	2007	8/31/1997	104.83	8/31/1998	(107.7)				0.0	Feb/Aug	0
10/31/1992	C	50.0	6.05%	5	1997	none	none			10/31/1997	(50.0)	none	0.0	Apr/Oct	0
10/31/1992	K	50.0	8.05%	20	2012	10/31/1997	106.04			5/31/1998	(50.0)	106.04	0.0	Apr/Oct	0
10/31/1992	C	100.0	8.35%	40	2032	10/31/1997	107.31			5/31/1998	(100.0)	107.31	0.0	Apr/Oct	0
2/28/1993	F	20.0	6.95%	15	2008	2/28/1998	104.63			9/30/2002	(20.0)	102.78	0.0	Aug/Feb	0
2/28/1993	K	50.0	7.40%	20	2013	2/28/1998	105.55	9/30/1998	(50.0)				0.0	Aug/Feb	0
2/28/1993	C	130.0	7.80%	40	2033	2/28/1998	106.83	5/31/1998	(130.0)				0.0	Aug/Feb	0
4/30/1993	C	100.0	7.50%	40	2033	4/30/1998	106.56	8/31/1998	(100.0)				0.0	Oct/Apr	0
8/31/1993	C	110.0	6.95%	40	2033	8/31/1998	106.08			9/30/2003	(110.0)	105.21	0.0	Feb/Aug	0
8/31/1993	K	40.0	6.75%	20	2013	8/31/1998	105.06			9/30/2002	(40.0)	103.71	0.0	Feb/Aug	0
10/31/1993	C	108.4	6.85%	40	2033	10/31/1998	105.99			9/30/2003	(108.4)	105.31	0.0	Apr/Oct	0
10/31/1993	C	50.0	6.85%	40	2033	10/31/1998	105.99			9/30/2003/1/31/2004	(50.0)	105.31	0.0	Apr/Oct	0
1/31/1994	K	50.0	6.75%	20	2014	1/31/1999	105.06			9/30/2002/2003	(50.0)	103.71	0.0	Jul/Jan	0
1/31/1994	C	50.0	7.05%	40	2034	1/31/1999	106.17			9/30/2003	(50.0)	105.46	0.0	Jul/Jan	0
5/31/1994	C	50.0	8.20%	40	2034	5/31/1999	107.18			6/30/1999	(50.0)	107.18	0.0	Nov/May	0
5/31/1994	K	50.0	7.10%	4	1998	5/31/1995	100.00	5/31/98	(37.7)	9/30/1996	(12.3)	100.00	0.0	Nov/May	0
5/31/1994	C	97.1	7.10%	4	1998	5/31/1995	100.00			9/30/1995	(97.1)	100.00	0.0	Nov/May	0
9/30/1994	C	55.0	7.65%	5	1999	9/30/1995	100.00			9/30/1995	(55.0)	100.00	0.0	Mar/Sep	0
9/30/1994	F	20.0	7.65%	5	1999	9/30/1995	100.00			9/30/1995	(20.0)	100.00	0.0	Mar/Sep	0
1/31/1995	C	55.0	8.35%	6	2001	1/31/1996	100.00			3/31/1996	(55.0)	100.00	0.0	Jul/Jan	0
5/31/1995	K	85.0	7.50%	20	2015	5/31/2000	105.63			5/31/2000	(85.0)	105.63	0.0	Nov/May	0
5/31/1995	B	35.0	7.50%	20	2015	5/31/2000	105.63			9/30/2001	(35.0)	105.25	0.0	Nov/May	0
7/31/1995	C	50.0	7.70%	30	2025	7/31/2000	106.42			9/30/2001/2002/2003	(50.0)	105.14	0.0	Jan/Jul	0
8/31/1995	C	65.0	7.70%	30	2025	8/31/2000	106.42			9/30/2002	(65.0)	106.90	0.0	Feb/Aug	0
8/31/1995	F	35.0	7.20%	15	2010	8/31/2000	104.80			9/30/2001	(35.0)	104.32	0.0	Feb/Aug	0
1/31/1996	C	60.0	5.90%	7	2003	none	none			1/31/2003	(60.0)	none	0.0	Jul/Jan	0
1/31/1996	K	30.0	6.70%	15	2011	1/31/2001	104.47			1/31/2004	(30.0)	103.13	0.0	Jul/Jan	0
8/31/1996	C	70.0	7.05%	10	2006	none	none						70.0	Feb/Aug	2,467,500
11/30/1996	K	40.0	7.20%	20	2016	11/30/2001	105.40			9/30/2002	(40.0)	105.04	0.0	May/Nov	0
11/30/1996	E	40.0	6.95%	15	2011	11/30/2001	104.63			1/31/2004	(40.0)	103.71	0.0	May/Nov	0
1/31/1997	C	30.0	6.80%	7	2004	none	none			1/31/2004	(30.0)	none	0.0	Jul/Jan	0
5/31/1997	C	80.0	6.90%	8	2005	none	none			5/31/2005	(80.0)	none	0.0	Nov/May	0
5/31/1997	B	50.0	6.50%	3	2000	none	none			5/31/2000	(50.0)	none	0.0	Nov/May	0
8/31/1997	C	111.3	6.65%	10	2007	none	none						111.3	Feb/Aug	3,700,725
1/31/1998	F	60.0	6.10%	15	2013	none	none						60.0	Jul/Jan	1,830,000
04/30/98	C	75.3	6.00%	10	2008	none	none						75.3	Oct/Apr	2,259,000
04/30/98	C	50.0	6.65%	30	2028	4/30/2008	104.43						50.0	Oct/Apr	1,662,500
04/30/98	B	25.0	6.00%	10	2008	none	none						25.0	Oct/Apr	750,000
05/31/98	C	72.7	6.00%	11	2009	none	none						72.7	Nov/May	2,181,000
05/31/98	C	40.0	6.20%	13	2011	none	none						40.0	Nov/May	1,240,000
05/31/98	C	98.9	6.70%	34	2032	5/31/2008	104.73						98.9	Nov/May	3,313,150
05/31/98	K	37.7	6.00%	11	2009	none	none						37.7	Nov/May	1,131,000
08/31/98	C	106.5	5.85%	30	2028	none	none						106.5	Feb/Aug	3,115,125
08/31/98	C	112.3	5.85%	30	2028	none	none						112.3	Feb/Aug	3,284,775
08/31/98	C	40.0	5.75%	10	2008	none	none						40.0	Feb/Aug	1,150,000
09/30/98	K	104.3	5.30%	10	2008	none	none						104.3	Mar/Sep	2,763,950
09/30/98	K	52.8	5.60%	15	2013	none	none						52.8	Mar/Sep	1,478,400

Table 7A

Bonneville Power Administration
Total Bonds Issued
($ in millions)

Date	Type	Amount Issued	Interest Rate	Term	Maturity Date	----1st Call---- Date	Price	Refinanced Bonds Date	Amount	Amortized Bonds Date	Amount	Call Price	Out-Stand	Interest Due	Semiannual Interest
02/28/99	C	60.0	5.90%	15	2014	none	none						60.0	Aug/Feb	1,770,000
05/31/99	C	26.2	5.95%	5	2004	none	none			5/31/2004	(26.2)	none	0.0	Nov/May	0
09/30/99	C	40.0	6.20%	3	2002	none	none			9/30/2002	(40.0)	none	0.0	Mar/Sep	0
09/30/99	F	20.0	6.30%	4	2003	none	none	9/30/2003	(20.0)				0.0	Mar/Sep	0
09/30/99	B	20.0	6.40%	5	2004	none	none			9/30/2004	(20.0)	none	0.0	Mar/Sep	0
11/30/99	C	40.0	6.40%	3	2002	none	none			11/30/2002	(40.0)	none	0.0	May/Nov	0
01/31/00	C	53.5	7.15%	5	2005	none	none			1/31/2005	(53.5)	none	0.0	Jul/Jan	0
04/30/00	B	40.0	6.85%	3	2003	none	none	4/30/2003	(40.0)				0.0	Oct/Apr	0
07/31/00	K	32.0	6.95%	3	2003	none	none			7/31/2003	(32.0)	none	0.0	Jan/Jul	0
07/31/00	C	50.0	7.00%	4	2004	none	none			7/31/2004	(50.0)	none	0.0	Jan/Jul	0
08/31/00	C	15.3	6.85%	3	2003	none	none			8/31/2003	(15.3)	none	0.0	Feb/Aug	0
09/30/00	C	40.0	6.75%	6	2006	none	none						40.0	Mar/Sep	1,350,000
09/30/00	B	20.0	6.70%	5	2005	none	none			9/30/2005	(20.0)	none	0.0	Mar/Sep	0
1/31/2001	C	20.0	5.65%	4	2005	none	none			1/31/2005	(20.0)	none	0.0	Jul/Jan	0
1/31/2001	F	25.0	5.65%	4	2005	none	none			1/31/2005	(25.0)	none	0.0	Jul/Jan	0
1/31/2001	E	30.0	6.05%	9	2010	none	none						30.0	Jul/Jan	907,500
1/31/2001	C	60.0	6.05%	9	2010	none	none						60.0	Jul/Jan	1,815,000
6/30/2001	B	50.0	4.75%	3	2004	none	none			6/30/2004	(50.0)	none	0.0	Jun/Dec	0
6/30/2001	C	25.0	5.95%	10	2011	none	none						25.0	Jun/Dec	743,750
8/31/2001	C	50.0	5.75%	10	2011	none	none						50.0	Aug/Feb	1,437,500
3/31/2002	C	110.0	4.60%	3	2005	none	none			3/31/2005	(110.0)	none	0.0	Mar/Sep	0
3/31/2002	B	30.0	4.60%	3	2005	none	none			3/31/2005	(30.0)	none	0.0	Mar/Sep	0
6/30/2002	C	60.0	3.75%	3	2005	none	none			6/30/2005	(60.0)	none	0.0	Jun/Dec	0
6/30/2002	K	40.0	3.75%	3	2005	none	none			6/30/2005	(40.0)	none	0.0	Jun/Dec	0
9/30/2002	C	100.0	3.05%	4	2006	none	none						100.0	Mar/Sep	1,525,000
9/30/2002	E	30.0	3.05%	4	2006	none	none						30.0	Mar/Sep	457,500
9/30/2002	B	20.0	3.05%	4	2006	none	none						20.0	Mar/Sep	305,000
10/31/2002	C	50.0	3.00%	3	2005	none	none						50.0	Oct/Apr	750,000
11/30/2002	C	40.0	2.80%	3	2005	none	none						40.0	Nov/May	560,000
12/31/2002	B	40.0	3.05%	4	2006	none	none						40.0	Jun/Dec	610,000
4/30/2003	B	40.0	2.40%	3	2006	none	none						40.0	Apr/Oct	480,000
4/30/2003	B	25.0	2.40%	3	2006	none	none						25.0	Apr/Oct	300,000
4/30/2003	C	40.0	2.90%	4	2007	none	none						40.0	Apr/Oct	580,000
4/30/2003	C	40.0	5.55%	30	2033	4/30/2008	104.63						40.0	Apr/Oct	1,110,000
7/31/2003	C	75.0	2.30%	3	2006	none	none						75.0	Jul/Jan	862,500
7/31/2003	B	30.0	2.30%	3	2006	none	none						30.0	Jul/Jan	345,000
7/31/2003	C	25.0	2.95%	4	2007	none	none						25.0	Jul/Jan	368,750
9/30/2003	C	20.0	2.50%	3	2006	none	none						20.0	Mar/Sep	250,000
9/30/2003	B	25.0	2.50%	3	2006	none	none						25.0	Mar/Sep	312,500
9/30/2003	F	20.0	3.10%	4	2007	none	none						20.0	Mar/Sep	310,000
1/31/2004	C	60.0	2.50%	3	2007	none	none						60.0	Jul/Jan	750,000
1/31/2004	C	65.0	2.95%	4	2008	none	none						65.0	Jul/Jan	958,750
1/31/2004	K	30.0	2.95%	4	2008	none	none						30.0	Jul/Jan	442,500
1/31/2004	B	25.0	2.50%	3	2007	none	none						25.0	Jul/Jan	312,500
4/30/2004	C	65.0	2.95%	3	2007	none	none						65.0	Apr/Oct	958,750
4/30/2004	B	35.0	2.95%	3	2007	none	none						35.0	Apr/Oct	516,250
7/31/2004	C	50.0	3.45%	3	2007	none	none						50.0	Jul/Jan	862,500

Table 7A

Bonneville Power Administration
Total Bonds Issued
($ in millions)

Date	Type	Amount Issued	Interest Rate	Term	Maturity Date	----1st Call---- Date	Price	Refinanced Bonds Date	Amount	Amortized Bonds Date	Amount	Call Price	Out-Stand	Interest Due	Semiannual Interest
7/31/2004	B	25.0	3.45%	3	2007	none	none						25.0	Jul/Jan	431,250
7/31/2004	C	25.0	3.80%	4	2008	none	none						25.0	Jul/Jan	475,000
9/30/2004	B	30.0	3.10%	3	2007	none	none						30.0	Mar/Sep	465,000
9/30/2004	C	30.0	3.10%	3	2007	none	none						30.0	Mar/Sep	465,000
9/30/2004	C	40.0	5.60%	30	2034	9/30/2009	104.67						40.0	Mar/Sep	1,120,000
11/30/2004	C	35.0	3.75%	4	2008	none	none						35.0	Nov/May	656,250
11/30/2004	B	20.0	3.50%	3	2007	none	none						20.0	Nov/May	350,000
1/31/2005	C	40.0	5.40%	30	2035	1/31/2010	104.50						40.0	Jul/Jan	1,080,000
1/31/2005	B	20.0	3.60%	3	2008	none	none						20.0	Jul/Jan	360,000
4/30/2005	C	40.0	5.50%	30	2035	4/30/2010	104.58						40.0	Apr/Oct	1,100,000
6/30/2005	B	30.0	3.95%	3	2008	none	none						30.0	Jul/Jan	592,500
6/30/2005	C	40.0	4.00%	4	2009	none	none						40.0	Jul/Jan	800,000
9/30/2005	C	45.0	5.25%	30	2035	30-Sep-35	104.38						45.0	Jul/Jan	1,181,250
9/30/2005	B	25.0	4.25%	3	2008	none	none						25.0	Jul/Jan	531,250
9/30/2005	F	20.0	4.25%	3	2008	none	none						20.0	Jul/Jan	425,000
TOTAL		**$9,189.0**							**($1,728.4)**		**($4,683.8)**		**$2,776.8**		**66,020,875**

Weighted average interest rate for outstanding bonds **4.76%**

*Net amount issued $7,460.6

C= Transmission Construction
K= Conservation
F= Fish and Wildlife
B= Corps and Bureau
E= Environment

Table 7B

FEDERAL COLUMBIA RIVER POWER SYSTEM (FCRPS)
PROJECTED CAPITAL FUNDING REQUIREMENTS FOR THE POWER BUSINESS LINE
2007 RATE PROPOSAL
($ in Millions)

	Rate Period				7(b)(2) Period				
	FY 2007	FY 2008	FY 2009	Average FYs '07-'09	FY 2010	FY 2011	FY 2012	FY 2013	Average FYs '10-'13
POWER									
Capital Requirements for Revenue Producing Investments									
Corps & Bureau Additions/Replacements - Direct Funded	133.0	145.0	137.0	138.3	123.0	124.0	135.0	138.0	130.0
Corps & Bureau Additions/Replacements - Appropriations[1]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PBL Capital Equipment	12.1	13.9	12.3	12.8	12.3	12.2	12.3	12.3	12.3
Capitalized Bond Premium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CGS: Additions/Replacements[2,3]	27.5	25.6	27.7	26.9	0.0	0.0	0.0	0.0	0.0
CGS: Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Non - Federal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Annual Capital Requirements for Revenue Producing Investments	**172.6**	**184.5**	**177.0**	**178.0**	**135.3**	**136.2**	**147.3**	**150.3**	**142.3**
Cumulative Capital Requirements for Rev Producing Investments	**172.6**	**357.1**	**534.1**		**135.3**	**271.5**	**418.8**	**569.1**	
Capital Requirements for Non-Revenue Producing and Public Benefit Investments									
Energy Conservation	32.0	32.0	32.0	32.0	40.0	40.0	40.0	40.0	40.0
Fish Investment									
BPA Fish and Wildlife Investment	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
Corps & Bureau Fish Investment - Appropriations	82.6	59.8	62.4	68.3	113.8	71.4	134.6	124.3	111.0
Total Fish Investment	118.6	95.8	98.4	104.3	149.8	107.4	170.6	160.3	84.0
Other Third - Party	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Annual Capital Req. for Non-Rev. & Public Benefit Invests.	**150.6**	**127.8**	**130.4**	**136.3**	**189.8**	**147.4**	**210.6**	**200.3**	**187.0**
Cumulative Capital Req. for Non-Rev. & Public Benefit Invest.	**150.6**	**278.4**	**408.9**		**189.8**	**337.2**	**547.8**	**748.1**	
ANNUAL FUNDING REQUIREMENTS FOR POWER	**323.2**	**312.3**	**307.4**	**314.3**	**325.1**	**283.6**	**357.9**	**350.6**	**329.3**
CUMULATIVE FUNDING REQUIREMENTS FOR POWER	**323.2**	**635.5**	**942.9**		**325.1**	**608.7**	**966.6**	**1,317.2**	

FOOTNOTES:

[1] Reflects plant in service, including IDC, not expenditures.

[2] CGS new capital requirements were revenue-financed prior to FY 2002. For FY 2002-2006 these costs are debt-financed. The bond amount is shown for each year.

[3] FY 2003 includes the amount of capital for which bonds were issued for the Independent Spent Fuel Storage Installation Facility (ISFSI) project and other capital additions for Energy Northwest FY 2002, FY 2003, and FY 2004;

FY 2004 includes the amount of capital for which bonds were issued for Energy Northwest FY 2005 capital additions;

FY 2006 includes the following amounts of capital for which bonds will be issued: $4.9M for Energy Northwest FY 2006 and $26.1M for Energy Northwest FY 2007;

FY 2007 includes the amount of capital for which bonds will be issued for Energy Northwest FY 2008.

FY 2008 includes the amount of capital for which bonds will be issued for Energy Northwest FY 2009;

FY 2009 includes the amount of capital for which bonds will be issued for Energy Northwest FY 2010.

Table 7C
Association of Transmission Construction Functionalized to Generation Funded By Bonds 1/
FY 1995 - 2005
($ Thousands)

(A)	(B)	(C)	(D)	(J)	(E)	(F)	(G)	(H)	(I)
								Refinancing	
Fiscal Year	Plant in Service 2/	Amount Funded by Bonds	Generation Amount Outstanding	Amount of Bond Sales 3/	Interest Rate	Term	Year Due	Date	Amount
1993	38	38	0	100,000	8.35	40	2033		
1995	67	67	0	50,000	7.70	30	2025		
1996	5,622	5,622	0	5,622	5.90	7	2003		
1997	7,400	7,400	0	30,000	6.80	7	2004		
1998	3,181	3,181	3,181	40,000	5.75	10	2008		
1999	950	950	950	60,000	5.90	15	2014		
2000	10,948	10,948	10,948	50,000	7.00	4	2004		
2001	68	68	68	60,000	6.05	10	2010		
2002	1,990	1,990	0	110,000	4.60	15	2005		
2003	45,062	45,062	45,062	50,000	3.00	3	2006		
2004	10,346	10,346	13,357	60,000	2.50	3	2007		
2005	25,977	7,990	7,990	35,000	3.75	4	2009		

1/ These investments are funded out of Transmission Construction bonds, and have an estimated average service life of 40 years and a maximum repayment period of 40 years.
2/ Data comes from Dan Hays, Plant Accounting.

Table 7D

Association of Conservation Investment Funded by Bonds [1/]
FY 1982 - 2005
($000s)

(A) Fiscal Year	(B) Plant in Service [2/]	(C) Amount Funded by Bonds	(D) Amount of Bond Sales	(E) Amount Outstanding	(F) Interest Rate	(G) Term	(H) Year Due	(I) Refinancing Date	(J) Refinancing Amount
1982	61,357	61,357							
1983	204,092	78,643	140,000	0	12.20	20	2003		
		125,449							
		204,092							
1984	66,783	24,551	150,000	0	13.05	20	2004	9/30/1989	66,000 [3/]
								9/30/1989	66,000 [4/]
		42,232							
		66,783							
1985	103,067	7,768	50,000	0	10.15	5	1990		
		50,000							
		45,299							
		103,067							
1986	97,618	4,701	50,000	0	8.15	10	1996		
		75,000	50,000	0	7.80	5	1991		
		17,917							
		97,618							
1987	65,958	32,083	75,000	0	9.30	20	2007	7/31/1992	80,200 [5/]
		33,875	50,000	0	8.35	5	1992		
		65,958							
1988	52,485	52,485	90,000	0	9.90	20	2008		
1989	37,167	3,640	40,000	40,000	8.55	20	2009		
		33,527							
		37,167							
1990	33,776	6,473							
		27,303							
		33,776							
1991	45,593	45,593							
		45,593							
1992	74,668	27,104	100,000	104,300	7.14	15	2007	9/30/1998	104,300 [6/]
		47,564							
		74,668							
1993	97,910	2,436	50,000	0	8.05	20	2013		
		50,000	50,000	52,800	7.40	20	2013	9/30/1998	52,800 [7/]
		40,000	40,000	0	6.75	20	2013		
		5,474							
		97,910							
1994	113,488	44,526	50,000	0	6.75	20	2014		
		50,000	50,000	37,700	7.10	4	1998	5/31/1998	37,700 [8/]
		18,962							
		113,488							
1995	73,507	66,038	85,000	0	7.50	20	2015		

Table 7D

Association of Conservation Investment Funded by Bonds [1/]
FY 1982 - 2005
($000s)

(A) Fiscal Year	(B) Plant in Service [2/]	(C) Amount Funded by Bonds	(D) Amount of Bond Sales	(E) Amount Outstanding	(F) Interest Rate	(G) Term	(H) Year Due	(I) Refinancing Date	(J) Refinancing Amount
		7,469							
		73,507							
1996	38,726	22,531	30,000	0	6.70	15	2011		
		16,195							
		38,726							
1997	20,336	20,336	40,000	0	7.20	20	2016		
		20,336							
1998	14,154	3,469							
		10,685							
		3,469							
1999	12,424	12,424							
2000	0	0	32,000	0	6.95	3	2003		
2001	141	141							
2002	25,344	8,750	40,000	0	3.75	3	2005		
		16,594							
		25,344							
2003	25,458	23,406							
		2,052							
		25,458							
2004	16,876	16,876	30,000	30,000	2.95	4	2008		
		16,876							
2005	59,903	11,072							
		48,831 [9/]							
		59,903							

1/ Investments through 2005 have an estimated average service life of 20 years.
2/ The plant in service amounts come from Plant Accounting.
3/ Refinanced on 9/30/89 with $66,000 issued at 8.60%, 6 year term, due in 1995.
4/ Refinanced on 9/30/89 with $66,000 issued at 8.65%, 13 year term, due in 2002.
5/ Refinanced on 7/31/92 with $80,200 issued at 5.80%, 5 year term, due in 1997.
6/ Refinanced on 9/30/98 with $104,300 issued at 5.30% 10 year term, due in 2008.
7/ Refinanced on 9/30/98 with $52,800 issued at 5.60% 15 year term, due in 2013.

Table 7E

Association of Fish and Wildlife Investment Funded by Bonds [1/]
FY 1985 - 2005
($000s)

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Fiscal Year	Plant in Service [2/]	Amount Funded by Bonds	Amount of Bond Sales	Amount Outstanding	Interest Rate	Term	Year Due	Refinancing Date	Refinancing Amount
1985	4,318	4,318							
1986	5,590	5,590							
1987	4,710	4,710							
1988	7,726	7,726							
1989	8,267	2,656	25,000	0	8.95	10	1999		
		5,611							
		8,267							
1990	16,193	16,193							
1991	17,680	17,680	50,000	0	7.95	5	1996		
1992	11,178	10,516							
		662							
		11,178							
1993	17,338	17,338	20,000	0	6.95	15	2008		
1994	20,487	2,000	20,000	0	7.65	5	1999		
		18,487							
		20,487							
1995	32,486	1,513	35,000	0	7.20	15	2010		
		30,973							
		32,486							
1996	26,046	4,027	15,000 [3/]						
		15,000							
		7,019							
		26,046							
1997	28,064	28064							
1998	21,995	21,995	60,000	60,000	6.10	15	2013		
1999	14,748	2,922	20,000	0	6.30	4	2003	9/30/2003	20,000 [4/]
		11,826							
		14,748							
2000	13,898 [5/]	8,174							
		5,724							
		13,898							

Table 7E

Association of Fish and Wildlife Investment Funded by Bonds [1/]
FY 1985 - 2005
($000s)

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Fiscal Year	Plant in Service [2/]	Amount Funded by Bonds	Amount of Bond Sales	Amount Outstanding	Interest Rate	Term	Year Due	Refinancing Date	Refinancing Amount
2001	16,494	16,494	25,000	0	5.65	4	2005		
2002	6,102	2,782							
		3,320							
		6,102							
2003	11,156	5,054							
2004	5,849	5,849							
2005	15,829	5,777	20,000	20,000	4.25	3	2008		
		10,052 [6/]							
		15,829							

1/ These investments have an estimated average service life of 15 years.
2/ Investments through 2005 have an estimated average service life of 20 years.
3/ As proposed in Revenue Requirements for 1996 in the 1995 Final Rate Proposal $15 million of Fish & Wildlife investment was financed from revenues.
4/ Refinanced on 9/30/2003 with $20,000 issued at 3.10% 4 year term, due in 2007
5/ Beginning in this year, data comes from BPA Annual Report - Statements of Cash Flows
6/ These investments have not been borrowed for.

Table 7F

Association of Corps and Bureau Direct Funded Investment [1/]
FY 1982-2005
($000s)

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Fiscal Year	Plant in Service	Amount Funded by Bonds 2/	Amount of Bond Sales	Amount Outstanding	Interest Rate	Term	Year Due	Date	Refinancing Amount
1995	35,000	35,000	35,000	0	7.50	20	2015		
1996	0								
1997	50,000	50,000	50,000	0	6.50	3	2000		
1998	25,000	25,000	25,000	25,000	6.00	10	2008		
1999	7,902 2/	7,902	20,000	0	6.40	5	2004		
2000	50,389	12,098	40,000 3/	0	6.85	3	2003	4/30/2003	40,000
		38,291	20,000	0	6.70	5	2005		
		50,389							
2001	24,725	1,709	50,000	0	4.75	3	2004		
		20,000							
		3,016							
		24,725							
2002	36,472	36,472	30,000	0	4.60	3	2005		
			20,000	20,000	3.05	4	2006		
		36,472							
2003	47,489	10,512	40,000	40,000	3.05	4	2006		
		30,000	25,000	25,000	2.40	3	2006		
		6,977	30,000	30,000	2.30	3	2006		
			25,000	25,000	2.50	3	2006		
		47,489							
2004	67,041	13,023	25,000	25,000	2.50	3	2007		
		40,000	35,000	35,000	2.95	3	2007		
		14,018	25,000	25,000	3.45	3	2007		
			30,000	30,000	3.10	3	2007		
		67,041							
2005	167,277	10,982	20,000	20,000	3.50	3	2008		
		30,000	20,000	20,000	3.60	3	2008		
		25,000	30,000	30,000	3.95	3	2008		
		25,000	25,000	25,000	4.25	3	2008		
		35,000							
		25,000							
		16,295							
		167,277							

1/ These investments have an estimated average service life of 45 years
2/ Beginning in this year, data comes from Lisa Kaiser, Actg Dept - additions to plant
3/ Refinanced on 4/30/2003 with $40,000 issued at 2.40% 3 year term, due in 2006

Table 7G

BPA Projected Generation Federal Borrowing
FY 2006 - 2009 1/
($000s)

FY Year	Description	Interest Rate	Term	Total Borrowing
2006	IT and Facilities 2/	5.76	35	7,842
	Fish, Wildlife & Environmental	5.44	15	36,000
	Conservation	5.00	5	26,000
	BOR/COE 3/	5.76	45	131,000
				224,369
2007	IT and Facilities 2/	6.00	35	12,125
	Fish, Wildlife & Environmental	5.66	15	36,000
	Conservation	5.28	5	32,000
	BOR/COE 3/	6.00	45	133,000
				213,125
2008	IT and Facilities 2/	6.32	35	13,875
	Fish, Wildlife & Environmental	5.94	15	36,000
	Conservation	5.53	5	32,000
	BOR/COE 3/	6.32	45	145,000
				226,875
2009	IT and Facilities 2/	6.63	35	12,261
	Fish, Wildlife & Environmental	6.23	15	36,000
	Conservation	5.80	5	32,000
	BOR/COE 3/	6.63	45	137,000
				217,261

1/ Projected borrowing over the cost evaluation period includes FYs 2006-09.
2/ Bonds issued for this purpose are construction bonds and fund IT and facilities equipment.
3/ Bonds issued for this purpose are for direct funding efficiency and reliability.

Table 7H

September 2005 Borrowing Capacity
YTD - Information Current Through 9/30/05
($ in millions)

Program	Deferred Borrowing	Cap. Expenditures	YTD Borrowing	Total
Construction (Note 1)	$30.0	140.5	192.0	($21.5)
Environment	8.1	5.8	0.0	13.9
Fish & Wildlife	11.4	12.2	20.0	3.6
Conservation/Con-Aug	0.7	15.3	0.0	16.0
Bureau/Corps	0.7	88.5	95.0	(5.8)
Generation (Note 2)	0.0	8.0	8.0	0.0
Total	**$50.9**	**270.3**	**315.0**	**$6.2**

Capital Expenditures through: September 30, 2005
YTD Borrowing through: September 30, 2005

1/ Excludes $15.0M of TBL Cash Reserves Financing and all other PFIA. Includes one half of Corporate capital.

2/ Includes Power capital not reported in another category above and one half of Corporate capital..

8. CAPITALIZED CONTRACTS AND OTHER LONG TERM RESOURCE ACQUISITION OBLIGATIONS

8.1 Introduction

This chapter documents the data on third party debt service or payment costs associated with capitalized contracts and other long-term, fixed contractual obligations.

8.2 Methodology

To determine debt service streams for EN Nuclear Projects WNP-1, Columbia Generating Station (CGS), and WNP-3, a bond model specifically developed for EN debt is used, and streams are based on the amount of EN debt outstanding. The debt service streams reflect all EN refinancings to date. Debt service streams for other capitalized contracts are derived from such sources as Official Statements, Agency agreements, Agency contracts, and budgetary data. The data used in the repayment study is shown in the attached tables.

Debt service for the Northern Wasco project is also included in this chapter. After the bond issuance, BPA decided to cancel its participation in the project. The debt service goes from 1999 to 2025. It will be paid from the construction fund until it is exhausted in 2007. The debt service in the repayment study is zero from 1999 to 2007. From 2008 to 2025, the repayment study reflects the data on Table 8G.

Table 8A

Total WNP-1 2009 Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Expenses	Total Debt Service
2006	16,321,250	80,023,456	1,620,921	97,965,627
2007	68,880,432	87,203,801	1,676,484	157,760,717
2008	80,555,468	83,504,135	1,676,484	165,736,087
2009	82,571,266	78,853,983	1,676,484	163,101,733
2010	82,737,500	74,665,277	1,676,484	159,079,261
2011	88,970,000	70,634,134	1,676,484	161,280,618
2012	119,352,499	66,251,053	1,676,484	187,280,036
2013	209,959,237	60,127,969	1,676,484	271,763,690
2014	178,220,658	49,182,932	1,676,484	229,080,074
2015	143,298,810	39,847,181	1,676,484	184,822,475
2016	318,052,923	32,609,589	1,676,484	352,338,996
2017	323,213,679	16,609,397	1,257,363	341,080,439
Total	**1,712,133,722**	**739,512,907**	**19,643,124**	**2,471,289,753**

Total WNP-1 Debt Smoothing Assumption -- GAAP BASIS

Fiscal Year	Principal	Interest	Expenses	Total Debt Service
2006		2,488,200	(2,488,200)	0
2007		2,488,200	(2,488,200)	0
2008		2,488,200	(2,488,200)	0
2009		2,488,200	(2,488,200)	0
2010		2,488,200	(2,488,200)	0
2011		2,488,200	(2,488,200)	0
2012		2,488,200	(2,488,200)	0
2013	11,250,000	2,488,200	(2,488,200)	11,250,000
2014	38,750,000	2,057,550	(2,488,200)	38,319,350
2015	15,000,000	574,200	(2,488,200)	13,086,000
2016			(18,738,200)	(18,738,200)
2017			(50,616,150)	(50,616,150)
Total	**65,000,000**	**22,537,350**	**(94,236,350)**	**(6,699,000)**

Table 8B

Total 2009 CGS Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Expenses	Total Debt Service
2006	22,113,750	86,689,233	960,218	109,763,201
2007	97,634,328	96,505,230	1,060,622	195,200,180
2008	122,588,829	92,438,694	1,060,622	216,088,145
2009	125,541,282	89,082,643	1,060,622	215,684,547
2010	142,077,500	78,081,144	1,060,622	221,219,266
2011	138,402,500	70,736,477	1,060,622	210,199,599
2012	215,173,981	63,483,012	1,060,622	279,717,615
2013	56,016,736	51,070,498	1,060,622	108,147,856
2014	63,619,020	47,214,497	1,060,622	111,894,139
2015	88,766,225	43,986,677	1,060,622	133,813,524
2016	42,980,625	39,361,855	1,060,622	83,403,102
2017	116,001,250	37,114,175	1,060,622	154,176,047
2018	226,987,500	30,763,026	795,467	258,545,993
2019	18,066,250	19,994,003		38,060,253
2020	73,168,750	19,090,690		92,259,440
2021	76,827,500	15,432,253		92,259,753
2022	80,666,250	11,590,878		92,257,128
2023	84,706,250	7,550,690		92,256,940
2024	65,895,000	3,294,750		69,189,750
Total	**1,857,233,526**	**903,480,425**	**13,422,527**	**2,774,136,478**

Total 2009 CGS Capital Additions -- GAAP BASIS

Fiscal Year	Principal	Interest	Expenses	Total Debt Service
2006				
2007		320,113	0	320,113
2008		1,598,402	0	1,598,402
2009		2,912,637	0	2,912,637
2010		3,993,781	0	3,993,781
2011		3,993,781	0	3,993,781
2012		3,993,781	0	3,993,781
2013		3,993,781	0	3,993,781
2014		3,993,781	0	3,993,781
2015		3,993,781	0	3,993,781
2016		3,993,781	0	3,993,781
2017		3,993,781	0	3,993,781
2018		3,993,781	0	3,993,781
2019	3,662,500	3,993,781	0	7,656,281
2020	14,830,000	3,815,265	0	18,645,265
2021	15,557,500	3,091,094	0	18,648,594
2022	16,320,000	2,326,111	0	18,646,111
2023	17,128,750	1,518,550	0	18,647,300
2024	13,316,250	665,936	0	13,982,186
Total	**80,815,000**	**56,185,918**	**0**	**137,000,918**

Table 8C

Total 2009 WNP-3 Net Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Expenses	Total Debt Service
2006	15,043,933	73,779,168	2,084,574	90,907,675
2007	61,042,630	96,601,591	2,064,697	159,708,918
2008	63,675,250	94,201,962	2,064,697	159,941,909
2009	57,543,732	93,271,828	2,064,697	152,880,257
2010	51,024,970	89,543,177	2,064,697	142,632,844
2011	84,427,340	81,608,303	2,064,697	168,100,340
2012	79,662,935	79,900,583	2,064,697	161,628,215
2013	92,809,194	81,679,363	2,064,697	176,553,254
2014	91,955,874	70,675,229	2,064,697	164,695,800
2015	126,428,804	50,343,581	2,064,697	178,837,082
2016	220,423,344	45,687,676	2,064,697	268,175,717
2017	235,877,646	33,201,773	2,064,697	271,144,116
2018	264,739,319	17,573,736	1,548,523	283,861,578
Total	**1,444,654,971**	**908,067,970**	**26,344,764**	**2,379,067,705**

Table 8D

Total Energy Northwest Net Debt Service -- GAAP BASIS
Includes WNP-1 and -3, CGS, and CGS capital additions

Fiscal Year	Principal	Interest	Expenses	Total Debt Service
2006	53,478,933	242,980,057	2,177,513	298,636,503
2007	227,557,390	283,118,935	2,313,603	512,989,928
2008	266,819,547	274,231,393	2,313,603	543,364,543
2009	265,656,280	266,609,291	2,313,603	534,579,174
2010	275,839,970	248,771,579	2,313,603	526,925,152
2011	311,799,840	229,460,895	2,313,603	543,574,338
2012	414,189,415	216,116,629	2,313,603	632,619,647
2013	370,035,167	199,359,811	2,313,603	571,708,581
2014	372,545,552	173,123,989	2,313,603	547,983,144
2015	373,493,839	138,745,420	2,313,603	514,552,862
2016	581,456,892	121,652,901	(13,936,397)	689,173,396
2017	675,092,575	90,919,126	(46,233,468)	719,778,233
2018	491,726,819	52,330,543	2,343,990	546,401,352
2019	21,728,750	23,987,784	-	45,716,534
2020	87,998,750	22,905,955	-	110,904,705
2021	92,385,000	18,523,347	-	110,908,347
2022	96,986,250	13,916,989	-	110,903,239
2023	101,835,000	9,069,240	-	110,904,240
2024	79,211,250	3,960,686	-	83,171,936
Total	**5,159,837,219**	**2,629,784,570**	**(34,825,935)**	**7,754,795,854**

Table 8E

Total Cares Net Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Total Debt Service
2006	2,070,000	1,051,825	3,121,825
2007	2,175,000	945,700	3,120,700
2008	2,280,000	834,325	3,114,325
2009	2,380,000	730,788	3,110,788
2010	2,485,000	622,125	3,107,125
2011	2,600,000	495,000	3,095,000
2012	2,730,000	361,750	3,091,750
2013	2,865,000	221,875	3,086,875
2014	3,005,000	75,125	3,080,125
Total	**22,590,000**	**5,338,513**	**27,928,513**

Table 8F

Total Tacoma Net Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Total Debt Service
2006	1,256,667	577,765	1,834,432
2007	1,302,500	526,436	1,828,936
2008	1,368,333	461,773	1,830,106
2009	1,434,167	397,836	1,832,003
2010	1,495,000	338,228	1,833,228
2011	1,546,667	281,950	1,828,617
2012	1,613,333	217,880	1,831,213
2013	1,691,667	138,008	1,829,675
2014	1,775,833	54,704	1,830,537
2015	298,333	6,800	305,133
Total	**13,782,500**	**3,001,380**	**16,783,880**

Table 8G

Total N. Wasco Net Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Debt Service Reserve Fund	Total Debt Service
2006	853,333	1,352,545	(2,205,878)	0
2007	893,333	1,310,124	(2,203,458)	(1)
2008	937,500	1,264,139	(538,105)	1,663,534
2009	986,667	1,215,148	(34,189)	2,167,626
2010	1,036,667	1,163,553		2,200,220
2011	1,086,667	1,109,408		2,196,075
2012	1,140,833	1,052,606		2,193,439
2013	1,200,000	992,411		2,192,411
2014	1,264,167	928,438		2,192,605
2015	1,329,167	861,012		2,190,179
2016	1,398,333	790,097		2,188,430
2017	1,472,500	715,455		2,187,955
2018	1,547,500	636,935		2,184,435
2019	1,626,667	554,407		2,181,074
2020	1,710,833	467,632		2,178,465
2021	1,800,000	376,350		2,176,350
2022	1,894,167	280,302		2,174,469
2023	1,993,333	179,227		2,172,560
2024	2,097,500	72,865		2,170,365
2025	352,500	9,165		361,665
Total	**26,621,667**	**15,331,819**	**(4,981,630)**	**36,971,856**

Table 8H

Total Cowlitz Net Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Total Debt Service
2006	4,700,000	6,895,931	11,595,931
2007	4,930,000	6,689,494	11,619,494
2008	5,110,000	6,472,806	11,582,806
2009	5,360,000	6,211,056	11,571,056
2010	5,630,000	5,936,306	11,566,306
2011	5,915,000	5,647,681	11,562,681
2012	6,215,000	5,344,431	11,559,431
2013	6,520,000	5,026,056	11,546,056
2014	6,850,000	4,691,806	11,541,806
2015	7,190,000	4,340,806	11,530,806
2016	7,545,000	3,972,431	11,517,431
2017	7,930,000	3,585,556	11,515,556
2018	8,325,000	3,179,181	11,504,181
2019	8,740,000	2,752,556	11,492,556
2020	9,175,000	2,304,681	11,479,681
2021	9,635,000	1,834,431	11,469,431
2022	10,120,000	1,340,556	11,460,556
2023	11,035,000	811,681	11,846,681
2024	11,585,000	267,903	11,852,903
Total	**142,510,000**	**77,305,349**	**219,815,349**

Table 8I

Total Trojan Net Debt Service -- GAAP BASIS

Fiscal Year	Principal	Interest	Total Debt Service
2006	7,465,833	1,140,771	8,606,604
2007	7,837,500	767,479	8,604,979
2008	7,512,083	375,604	7,887,687
Total	**22,815,416**	**2,283,854**	**25,099,270**

Table 8J

Total Emerald PUD Net Debt Service -- GAAP BASIS

Fiscal Year	Total Debt Service
2006	253,344
2007	253,344
2008	253,344
2009	244,797
2010	138,215
Total	**1,143,044**

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9. IRRIGATION ASSISTANCE

9.1 Introduction

This chapter documents the amount of irrigation construction costs for Federal reclamation projects in the Pacific Northwest allocated to irrigation use that the FCRPS has an obligation to repay. These payments are known as irrigation assistance.

9.2 Background

In an effort to encourage settlement of the arid and semiarid lands of the Western United States, the 1902 Reclamation Act created the BOR to develop water resources for irrigation. The 1902 Reclamation Act provided that irrigators using the reclamation projects had 10 years to repay the construction costs of such projects. Title to the reclamation projects, however, remained with the Federal government even after all construction costs were repaid.

By the 1920s, a 10-year repayment period for irrigators was determined to be economically unrealistic. After several leniency acts and extensions, Congress passed the 1939 Reclamation Act, which changed the repayment period on reclamation projects to 40 years after a 10-year development period. Later revisions and project-specific legislation extended repayment periods for most reclamation projects to 50 years after a 10-year development period. However, the Kennewick project has a 66-year repayment period.

Originally, irrigators were responsible for repaying all project construction costs without interest. However, hydropower is a by-product of many reclamation projects and not all of the power generated is needed for irrigation works. As early as the Town Sites and Power Development Act (April 16, 1906, ch. 1631, 34 Stat. 116) Congress authorized BOR to lease surplus power and use the proceeds to repay part of the costs of the reclamation projects.

The concept of power revenues contributing to the repayment of BOR's multipurpose projects evolved to the current policy, in which power revenues are used to repay that portion of the project construction costs allocated to irrigation use that are beyond the irrigators' "ability to repay." Moreover, the costs to be repaid by power revenues, known as irrigation assistance, are to be repaid without interest. BOR has the responsibility to make the determination of the amount that is beyond the irrigators' "ability to repay" through a farm budget analysis. The results of this analysis are used to establish the irrigators' repayment responsibility. The irrigators, as an irrigation district, and BOR formalize this repayment responsibility in irrigation contracts.

9.3 Irrigation Repayment

In the Pacific Northwest, the Third Powerplant, Grand Coulee Dam legislation, P.L. 89-448, authorized repayment of the irrigation assistance costs from net revenues of the entire FCRPS. There are, however, limitations on the FCRPS's repayment responsibility. These limitations were added in amendment to the Third Powerplant, Grand Coulee Dam legislation, P.L. 89-561, and apply to reclamation projects, including projects not previously receiving similar assistance, which are authorized to receive such assistance, for which construction was authorized after September 7, 1966.

9.4 The Limitations

The irrigation assistance for such projects is to be paid only from net revenues of the power system. Net revenues are defined as those revenues over and above the amount needed to recover all costs allocated to power, including the cost of acquiring power by purchase or exchange, and previously authorized irrigation assistance. The construction of such projects shall be scheduled so that the repayment of the irrigation assistance associated with such projects from power revenues will not require an increase in the BPA power rate level.

The total of all irrigation assistance to be repaid from power revenues shall not average more than $30 million per year in any period of 20 consecutive years.

BOR provides BPA with data on the irrigation assistance to be repaid from each reclamation project, and estimates for future additions to such projects. The generation repayment study includes information provided in August 2004. Because irrigation assistance costs are repaid without interest and BPA repays highest interest-bearing investment first, irrigation assistance is generally scheduled to be repaid in the last year of the repayment period on each reclamation project. BPA made its first payment of $25,143 thousand in 1997. A payment of $16,560 thousand was made in 2001. Payments totaling $739 thousand were made on 9/30/2004. Payments of $2.95 million and $6.59 million are due in the 2007-2009 rate period, in 2007 and 2009, respectively.

9.5 Columbia Basin and Green Springs

At Columbia Basin, the Department of Interior issued an Interim Cost Allocation Report that resulted in a reallocation to power of plant previously associated with irrigation (directly as irrigation or indirectly as common general plant). As a result, the investment at the project for which power rates are responsible increased by $69.2 million, and there was a decrease in irrigation assistance of $98.3 million. In addition, Green Springs (Rogue River Irrigation Project), a project in southern Oregon, with investment of $11.17 million, was added to the FCRPS. Irrigation assistance was increased by $9.9 million for this project.

RECEIVED BY BPA
ADMINISTRATOR'S
OFC-LOG #: 04-0149
RECEIPT DATE: 8.2.04
DUE DATE: 8.16.04

Gone to Sandy 8-2-04

United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
1150 North Curtis Road, Suite 100
Boise, Idaho 83706-1234

IN REPLY REFER TO:

PN-3324
WTR-4.00

ASSIGN: KFR-2
cc: FO3, DC/Wash, L-7, P-6, PG-5, PGF-6, T/Ditt2, Nancy Hagen-KFRO-2

Mr. Steve Wright
Administrator
Attention: Mr. Jerry Dinan, KSRD-2
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Subject: Federal Columbia River Power System, Assistance to Authorized Bureau of Reclamation Irrigation Projects in the Pacific Northwest, Fiscal Year 2003

Dear Mr. Wright:

Enclosed are three tables which summarize the schedule for repayment of irrigation assistance from the Federal Columbia River Power System (FCRPS) to authorized irrigation projects in the Pacific Northwest Region of the Bureau of Reclamation as of September 30, 2003. This information is being furnished as requested by your letter of September 7, 1966, and your agency's annual call for project cost data on Reclamation projects that are part of the FCRPS. Table 1 is a summary, in chronological order, for all authorized projects. Table 2 contains more detailed data for all projects except the Columbia Basin Project. Table 3 contains the detailed information for the Columbia Basin Project. The data on irrigation assistance reflects Reclamation cost data for fiscal year 2003.

Please note that irrigation assistance for the Avondale, Dalton Gardens, and Rathdrum Prairie (Hayden Lake Unit) projects is due in fiscal year 2004. We have also added the assistance data for the Rogue River Project, previously furnished separately.

As shown, data for the Boise and Palisades Projects reflects that irrigation assistance was due and paid by the Bonneville Power Administration (BPA) in 1997 and 2001, respectively. Public Law 105-9, April 14, 1997, titled the Oroville-Tonasket Claim Settlement and Conveyance Act, transferred title of the irrigation works of the Oroville-Tonasket Project to the Oroville-Tonasket Irrigation District. Section 5(c) of the Act provided that the transfer of title shall not affect the timing and amount of the irrigation assistance obligation of BPA as determined by the Secretary of the Interior. Finally, data for the Columbia Basin Project reflects the current developed platted acreage (558,106 acres). Although the project is authorized to serve over a million acres, Reclamation is currently not requesting Congressional appropriations for construction of the "second half" of the project. Should conditions change, the "second half" of the project could be added to the list.

Four authorized projects are excluded from the list. These projects are the Salmon Falls Division of the Upper Snake River Project; the Merlin Division of the Rogue River Basin Project; the Touchet Division of the Walla Walla Project; and the Kennewick Division Extension of the Yakima Project. If these projects become active in the future, they will be rescheduled and added to the list.

If you have any questions about this data, please call Ms. Kay Henson at 208-378-5073.

Sincerely,

Acting for J. William McDonald
Regional Director

Enclosures - 3

TABLE 1. --SUMMARY OF FINANCIAL ASSISTANCE TO IRRIGATION - FY 2003
FEDERAL COLUMBIA RIVER POWER SYSTEM (FCRPS)
Authorized Projects, Thru Sept. 30, 2003

PROJECT	FISCAL YEAR DUE	Assistance Required	
		AMOUNT ($1,000)	CUMULATIVE ($1,000)
BOISE	paid - 1997	24,999	24,999
PALISADES	paid - 2001	16,943	41,942
AVONDALE	2004	184	42,126
DALTON GARDENS	2004	208	42,334
RATHDRUM PRAIRIE	2004	347	42,681
MANN CREEK	2008	2,950	45,631
COLUMBIA BASIN	2009	4,583	50,214
SPOKANE VALLEY	2009	2,007	52,221
COLUMBIA BASIN	2012	706	52,927
COLUMBIA BASIN	2013	44,178	97,105
COLUMBIA BASIN	2014	42,744	139,849
COLUMBIA BASIN	2015	43,752	183,601
COLUMBIA BASIN	2016	56,186	239,787
COLUMBIA BASIN	2017	54,357	294,144
GREATER WENATCHEE	2017	1,057	295,201
YAKIMA,ROZA	2017	1,053	296,254
COLUMBIA BASIN	2018	21,540	317,794
FOSTER CREEK	2018	674	318,468
YAKIMA,ROZA	2018	729	319,197
COLUMBIA BASIN	2019	52,014	371,211
FOSTER CREEK	2019	1,105	372,316
MICHAUD FLATS	2019	2,065	374,381
MICHAUD-FORT HALL	2019	2,065	376,446
YAKIMA,ROZA	2019	567	377,013
COLUMBIA BASIN	2020	30,682	407,695
CROOKED RIVER	2020	2,049	409,744
COLUMBIA BASIN	2021	12,894	422,638
YAKIMA,ROZA	2021	2,026	424,664
COLUMBIA BASIN	2022	12,670	437,334
YAKIMA,ROZA	2022	648	437,982
COLUMBIA BASIN	2023	8,422	446,404
ROGUE RIVER	2023	1,191	447,595
COLUMBIA BASIN	2024	13,530	461,125
GREATER WENATCHEE	2024	1,958	463,083
YAKIMA,KENNEWICK	2024	5,660	468,743
COLUMBIA BASIN	2025	10,050	478,793
CROOKED RIVER EXT	2025	1,184	479,977
WHITESTONE COULEE UNIT	2026	3,810	483,787
COLUMBIA BASIN	2026	10,338	494,125
GREATER WENATCHEE	2026	901	495,026
YAKIMA,ROZA	2026	3,079	498,105
COLUMBIA BASIN	2027	4,041	502,146
LOWER TETON	2027	17,793	519,939
ROGUE RIVER	2027	1,344	521,283
COLUMBIA BASIN	2028	8,516	529,799
THE DALLES	2028	4,203	534,002
BAKER	2029	4,092	538,094
LOWER TETON	2029	9,705	547,799
EAST GREENACRES	2030	2,314	550,113
COLUMBIA BASIN	2031	12,067	562,180
ROGUE RIVER	2033	7,098	569,278
COLUMBIA BASIN	2035	8,469	577,747
WHITESTONE COULEE UNIT	2036	3,660	581,407
MANSON UNIT	2036	16,163	597,570
TUALATIN	2036	9,218	606,788
EAST GREENACRES	2037	4,491	611,279
COLUMBIA BASIN	2037	17,209	628,488
TUALATIN	2039	14,417	642,905
LOWER TETON	2041	5,931	648,836
OROVILLE TONASKET	2042	73,699	722,535
LOWER TETON	2042	6,470	729,005
LOWER TETON	2043	7,009	736,014
LOWER TETON	2044	7,009	743,023
COLUMBIA BASIN	2045	21,775	764,798

Table 2 - - Irrigation Assistance -- Fiscal Year 2003
(All Projects Except Columbia Basin Project)

Project	Irrigated Acres	Initial Testing Year Calendar Year	Development Period Calendar Year	Water Users Repayment Period Calendar Year	Total Irrigation Allocation ($1,000)	Assistance Required From FCRPS ($1,000)	Year Assistance Is Due Fiscal Year
In Service as of Sept. 30, 2003							
Boise Project	390,126	--	--	--	69,629	24,999	Pd in 1997
Palisades	528,397	--	--	1961-2000	30,725	16,943	Pd in 2001
Avondale	922	--	--	1964-2003	573	184	2004
Dalton Gardens	944	--	--	1964-2003	564	208	2004
Rathdrum Prairie, Hayden Lake	5,010	--	None	1964-2003	1,233	347	2004
Mann Creek Project	5,110	1967	None	1968-2007	3,763	2,950	2008
Spokane Valley Project	7,241	1966-68	None	1969-2008	5,132	2,007	2009
Yakima Project, Roza Division							
Block 1	9,292	--	--	1942-2016	--	1,053	2017
Block 2	6,628	--	--	1943-2017	--	729	2018
Block 3	4,858	--	--	1944-2018	--	567	2019
Block 4	17,976	--	--	1946-2020	--	2,026	2021
Blocks 5 & 6	5,362	--	--	1947-2021	--	648	2022
Block 7	27,395	--	--	1951-2025	--	3,079	2026
Total	71,511				27,168	8,102	
Chief Joseph Dam Project							
Greater Wenatchee Division							
Block 1 East Unit	--	1963	1964-66	1967-2016	--	1,057	2017
Blocks 2&3 East & Howard Flat	--	1963	1964-73	1974-2023	--	1,958	2024
Block 4 Brays Landing	--	1965	1966-75	1976-2025	--	901	2026
Total	7,104				8,615	3,916	
Chief Joseph Dam Project							
Bridgeport Bar Dist.	--	1957	1958-67	1968-2017	780	674	2018
Brewster Flat Dist.	--	1958	1959-68	1969-2018	2,571	1,105	2019
Total	2,854				3,351	1,779	
Michaud Flats Project	11,000	1958	1959-68	1969-2018	4,995	2,065	2019
Michaud-Fort Hall	--	--	--	--	--	2,065	2019
Crooked River Project	20,410	--	1963-69	1970-2019	5,514	2,049	2020
Yakima Project, Kennewick Div.	19,171	1957	1958-67	1958-2023	11,798	5,660	2024
Crooked River Project							
Crooked River Extension	2,890	1967	1968-74	1975-2024	1,686	1,184	2025

Table 2 (continued)

Project	Irrigated Acres	Initial Testing Year Calendar Year	Development Period Calendar Year	Water Users Repayment Period Calendar Year	Total Irrigation Allocation ($1,000)	Assistance Required From FCRPS ($1,000)	Year Assistance Is Due Fiscal Year
In Service as of Sept. 30, 2003							
The Dalles Project							
Western Division	5,420	1965	1968-77	1978-2007	6,824	4,203	2028
Baker Project, Upper Division	18,000	1968	1969-78	1979-2028	5,502	4,092	2029
Chief Joseph Dam Project							
Chelan Division, Manson Unit	6,055	1975	1976-85	1986--2035	18,823	16,163	2036
Rathdrum Prairie Project							
East Greenacres Unit							
Block 2	1,780	1976	1977-79	1980-2029	--	2,314	2030
Block 2	3,530	1976	1977-86	1987-2036	--	4,491	2037
Total	5,310				8,211	6,805	
Chief Joseph Dam Project							
Whitestone Coulee Unit							
Block 1	1,270	1975	None	1976-2025	4,274	3,810	2026
Block 2	1,220	1975	1976-85	1986-2035	4,106	3,660	2036
Total	2,490				8,380	7,470	
Tualatin Project							
Block 1	6,670	1975	1976-85	1986-2035	--	9,218	2036
Block 2	10,330	1978	1979-88	1989-2038	--	14,417	2039
Total	17,000				31,529	23,635	
Chief Joseph Dam Project 1/						1/	
Oroville-Tonasket Unit Ext.	10,000	1987	--	1992-2041	86,054	73,699	2041
Teton Basin Project							
Lower Teton Division 2/	148,210				74,720 2/	53,917	2029
Rogue River Project							
Talent ID	16,300		1963-1972	1973-2032		7,098	2033
Medford ID	11,500			1963-2022		1,191	2023
Rogue River ID	8,049		1967-1976	1977-2026		1,344	2027
	35,849				18,069	9,633	

1/ Public Law 105-9, April 14, 1997, transferred title of the project irrigation works to the Oroville Tonasket Irrigation District. Per Section 5(c), the amount or timing of the irrigation assistance obligation by BPA is not changed.

2/ Due to the failure of Teton Dam, all construction work on the project has been terminated. Data reflect the project as scoped prior to failure. The final determination of project cost repayment has not been made.

Table 3
Columbia Basin Project - Fiscal Year 2003
Assistance To Irrigation From Federal Columbia River Power System

Block	First Develop. Year (Cal. Year)	First Year of Repayment (Cal. Year)	Irrigable Acres	Cost Allocated To Block $	Repayment From FCRPS Amount $	Repayment From FCRPS Year Due (Fiscal Year)
1	1949	1959	5,790	5,542,334	4,582,585	2,009
2	1952	1962	1,319	924,819	706,182	2,012
40,41,70,701,71,72	1953	1963	65,644	55,059,000	44,177,869	2,013
11,42,49,73	1954	1964	58,506	52,442,077	42,744,139	2,014
12,15,43,74,75	1955	1965	58,017	53,368,763	43,751,881	2,015
13,16,44,76,78	1956	1966	67,866	67,435,009	56,185,560	2,016
19,45,86,87	1957	1967	54,823	63,444,160	54,356,715	2,017
421,47,89	1958	1968	29,073	26,359,021	21,539,889	2,018
3,14,18,401,46,77,79	1959	1969	57,210	61,497,577	52,014,463	2,019
20,85	1960	1970	24,738	34,782,644	30,682,080	2,020
82,881	1961	1971	11,295	14,766,295	12,894,039	2,021
201,83,88	1962	1972	15,330	15,211,189	12,670,092	2,022
80	1963	1973	11,000	10,245,270	8,421,913	2,023
23	1964	1974	8,770	14,983,753	13,530,040	2,024
17	1965	1975	14,006	12,371,796	10,050,182	2,025
741,81	1966	1976	14,527	12,746,412	10,338,387	2,026
161	1967	1977	4,425	4,774,425	4,040,971	2,027
21,48	1968	1978	7,874	9,820,952	8,515,826	2,028
NONE	1969	1979	0	0	0	2,029
NONE	1970	1980	0	0	0	2,030
25	1971	1981	11,867	14,033,815	12,066,811	2,031
NONE	1972	1982	0	0	0	2,032
NONE	1973	1983	0	0	0	2,033
NONE	1974	1984	0	0	0	2,034
251	1975	1985	8,752	9,919,793	8,468,998	2,035
NONE	1976	1986	0	0	0	2,036
253,24	1977	1987	13,607	19,464,304	17,208,845	2,037
NONE	1978	1988	0	0	0	2,038
NONE	1979	1989	0	0	0	2,039
NONE	1980	1990	0	0	0	2,040
NONE	1981	1991	0	0	0	2,041
NONE	1982	1992	0	0	0	2,042
NONE	1983	1993	0	0	0	2,043
NONE	1984	1994	0	0	0	2,044
26,461(PART 1)	1985	1995	13,668	24,041,060	21,775,456	2,045
TOTALS			558,106	583,234,468	490,722,924	

Allocation and Assistance Summary

Allocation To Irrigation	632,730,165
Less: Master Water Service Contract Costs Recovered	($49,495,697)
Equals: Total Irrigation Costs Subject To Irrigation Assistance	$583,234,468
Repayment:	
Less: Part Time Farm Units	$500,000
Less: Average Repayment of $131.60 Per Acre	$73,446,789
Less: Contributions by; State of Washington,Irrigation, and Misc. Contributions	$18,564,755
Total Assistance Required	$490,722,924

10. REPLACEMENTS PROJECTED AFTER THE COST EVALUATION PERIOD

10.1 Introduction

This chapter documents the process used to project the amount of additional capital investment necessary to maintain an existing Federal project at its current operating level after the Cost Evaluation Period. This chapter also includes replacement costs for CGS. Replacement forecasts are included in repayment studies as required by RA 6120.2.

10.2 Methodology

The repayment study incorporates a schedule of Federal investment with the replacements that are expected to occur over the repayment period for existing generation projects. This schedule, expressed in mid-year dollars for each repayment study, FYs 2007 through 2009, is based on the amount of investment in the generating projects for the COE and BOR through the end of the cost evaluation period.

The data received from the COE and BOR are expressed in constant year dollars. The COE estimates its replacement costs for each piece of equipment by project, and by expected service life. Each piece of equipment has a life of 50 years or less as determined by engineering studies. A few years ago, Electric Power Research Institute (EPRI) worked with the COE and did a study that confirmed that the replacement years currently in place are proper.

The BOR estimates its replacements' costs by project and by expected service life to create a single figure for each service life category. The BOR's estimated costs of replacements are obtained from two sources: (1) program schedules reflecting a budget based on anticipated need and condition of facilities, and (2) computer printouts covering the long range estimates of replacements. The replacements are a product of the BOR's indexed capitalized replacement investments procedure, which provides for replacement of original facilities at current costs based on the latest cost indices. The cumulative reimbursable power investments are distributed into various FERC accounts for input into the replacement study. BOR personnel, located in the Engineering and Research Center at Denver, Colorado, compute the latest cost indices.

In order to incorporate projected replacements into the repayment study, an in-service date is calculated when the replacements for the COE and BOR are to begin. Each project's actual in-service date, for each of its respective generating units, is observed and a weighted average in-service date, for each project, is determined by weighting the number of generating units by the in-service years associated with those particular units.

A schedule of replacement investments for CGS is based on the original investment adjusted by the use of the Handy-Whitman indices for a nuclear power plant. The Handy-Whitman Index is widely used in industry for estimating replacement costs for plant. The result of this calculation was converted into a mortgage-style investment with payments sufficient to retire the replacement cost in 35 years.

Table 10A: Corps/Bureau Replacements ($000s) (FY 2007)

In Service Date	Current Principal	Interest Rate	Due Date
2008	142,159	6.670%	2053
2009	129,518	6.670%	2054
2010	121,156	6.670%	2055
2011	113,236	6.670%	2056
2012	105,740	6.670%	2057
2013	98,738	6.670%	2058
2014	99,097	6.670%	2059
2015	99,476	6.670%	2060
2016	99,852	6.670%	2061
2017	100,288	6.670%	2062
2018	100,781	6.670%	2063
2019	101,330	6.670%	2064
2020	101,927	6.670%	2065
2021	102,573	6.670%	2066
2022	103,263	6.670%	2067
2023	91,919	6.670%	2068
2024	81,959	6.670%	2069
2025	73,173	6.670%	2070
2026	65,429	6.670%	2071
2027	58,606	6.670%	2072
2028	52,531	6.670%	2073
2029	47,164	6.670%	2074
2030	42,467	6.670%	2075
2031	38,287	6.670%	2076
2032	34,598	6.670%	2077
2033	49,431	6.670%	2078
2034	49,881	6.670%	2079
2035	50,372	6.670%	2080
2036	50,848	6.670%	2081
2037	51,364	6.670%	2082
2038	51,917	6.670%	2083
2039	52,507	6.670%	2084
2040	53,079	6.670%	2085
2041	53,684	6.670%	2086
2042	54,324	6.670%	2087
2043	51,179	6.670%	2088
2044	48,220	6.670%	2089
2045	45,487	6.670%	2090
2046	42,923	6.670%	2091
2047	40,521	6.670%	2092
2048	38,275	6.670%	2093
2049	34,533	6.670%	2094
2050	31,205	6.670%	2095
2051	28,271	6.670%	2096
2052	25,675	6.670%	2097
2053	40,208	6.670%	2098
2054	40,747	6.670%	2099
2055	41,314	6.670%	2100
2056	41,911	6.670%	2101
2057	42,493	6.670%	2102

Table 10B: Corps/Bureau Replacements ($000s) (FY 2008)

In Service Date	Current Principal	Interest Rate	Due Date
2009	132,082	6.980%	2054
2010	123,554	6.980%	2055
2011	115,478	6.980%	2056
2012	107,833	6.980%	2057
2013	100,692	6.980%	2058
2014	101,059	6.980%	2059
2015	101,445	6.980%	2060
2016	101,828	6.980%	2061
2017	102,273	6.980%	2062
2018	102,776	6.980%	2063
2019	103,335	6.980%	2064
2020	103,944	6.980%	2065
2021	104,603	6.980%	2066
2022	105,307	6.980%	2067
2023	93,738	6.980%	2068
2024	83,581	6.980%	2069
2025	74,621	6.980%	2070
2026	66,724	6.980%	2071
2027	59,766	6.980%	2072
2028	53,571	6.980%	2073
2029	48,097	6.980%	2074
2030	43,307	6.980%	2075
2031	39,045	6.980%	2076
2032	35,283	6.980%	2077
2033	50,409	6.980%	2078
2034	50,868	6.980%	2079
2035	51,369	6.980%	2080
2036	51,855	6.980%	2081
2037	52,381	6.980%	2082
2038	52,944	6.980%	2083
2039	53,546	6.980%	2084
2040	54,129	6.980%	2085
2041	54,747	6.980%	2086
2042	55,399	6.980%	2087
2043	52,192	6.980%	2088
2044	49,175	6.980%	2089
2045	46,388	6.980%	2090
2046	43,772	6.980%	2091
2047	41,323	6.980%	2092
2048	39,032	6.980%	2093
2049	35,217	6.980%	2094
2050	31,823	6.980%	2095
2051	28,831	6.980%	2096
2052	26,183	6.980%	2097
2053	41,003	6.980%	2098
2054	41,553	6.980%	2099
2055	42,132	6.980%	2100
2056	42,740	6.980%	2101
2057	43,334	6.980%	2102
2058	43,955	6.980%	2103

Table 10C: Corps/Bureau Replacements ($000s) (FY 2009)

In Service Date	Current Principal	Interest Rate	Due Date
2010	126,180	7.220%	2055
2011	117,932	7.220%	2056
2012	110,125	7.220%	2057
2013	102,832	7.220%	2058
2014	103,207	7.220%	2059
2015	103,601	7.220%	2060
2016	103,993	7.220%	2061
2017	104,447	7.220%	2062
2018	104,961	7.220%	2063
2019	105,532	7.220%	2064
2020	106,154	7.220%	2065
2021	106,827	7.220%	2066
2022	107,545	7.220%	2067
2023	95,731	7.220%	2068
2024	85,358	7.220%	2069
2025	76,207	7.220%	2070
2026	68,142	7.220%	2071
2027	61,037	7.220%	2072
2028	54,710	7.220%	2073
2029	49,119	7.220%	2074
2030	44,228	7.220%	2075
2031	39,875	7.220%	2076
2032	36,033	7.220%	2077
2033	51,481	7.220%	2078
2034	51,949	7.220%	2079
2035	52,461	7.220%	2080
2036	52,957	7.220%	2081
2037	53,494	7.220%	2082
2038	54,070	7.220%	2083
2039	54,684	7.220%	2084
2040	55,280	7.220%	2085
2041	55,911	7.220%	2086
2042	56,577	7.220%	2087
2043	53,302	7.220%	2088
2044	50,220	7.220%	2089
2045	47,374	7.220%	2090
2046	44,703	7.220%	2091
2047	42,201	7.220%	2092
2048	39,862	7.220%	2093
2049	35,966	7.220%	2094
2050	32,499	7.220%	2095
2051	29,444	7.220%	2096
2052	26,740	7.220%	2097
2053	41,875	7.220%	2098
2054	42,436	7.220%	2099
2055	43,028	7.220%	2100
2056	43,649	7.220%	2101
2057	44,255	7.220%	2102
2058	44,890	7.220%	2103
2059	45,553	7.220%	2104

Table 10D

CGS Replacements -- For Repayment Study Purposes Only
($000s)

Fiscal Year	Principal	Interest	Expenses	Contingency Funds	Total Debt Service
2019	33,483	303,250	0	0	336,733
2020	35,777	301,104	0	0	336,880
2021	38,228	298,810	0	0	337,038
2022	40,846	296,360	0	0	337,206
2023	43,644	293,742	0	0	337,386
2024	46,634	290,944	0	0	337,578
2025	49,828	287,955	0	0	337,783
2026	53,242	284,761	0	0	338,003
2027	56,889	281,348	0	0	338,237
2028	60,785	277,702	0	0	338,487
2029	64,949	273,805	0	0	338,754
2030	69,398	269,642	0	0	339,040
2031	74,152	265,194	0	0	339,345
2032	79,231	260,441	0	0	339,672
2033	84,659	255,362	0	0	340,020
2034	90,458	249,935	0	0	340,393
2035	96,654	244,137	0	0	340,791
2036	103,275	237,941	0	0	341,216
2037	110,349	231,321	0	0	341,670
2038	117,908	224,248	0	0	342,156
2039	125,984	216,690	0	0	342,674
2040	134,615	208,615	0	0	343,229
2041	143,836	199,986	0	0	343,822
2042	153,689	190,766	0	0	344,454
2043	164,216	180,915	0	0	345,131
2044	175,465	170,388	0	0	345,854
2045	187,485	159,141	0	0	346,625
2046	200,327	147,123	0	0	347,450
2047	214,049	134,282	0	0	348,331
2048	228,712	120,562	0	0	349,273
2049	244,379	105,901	0	0	350,280
2050	261,118	90,237	0	0	351,355
2051	279,005	73,499	0	0	352,503
2052	298,117	55,615	0	0	353,731
2053	318,538	36,505	0	0	355,043
2054	250,970	16,087	0	0	267,057

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