

# **Department of Energy**

## **FY 2013 Congressional Budget Request**



## **Power Marketing Administrations**

**Southeastern Power Administration**  
**Southwestern Power Administration**  
**Western Area Power Administration**  
**Bonneville Power Administration**



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## **FY 2013 Congressional**

### **Budget Request**



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**Southeastern Power Administration**  
**Southwestern Power Administration**  
**Western Area Power Administration**  
**Bonneville Power Administration**



**Southeastern Power Administration**



**Southwestern Power Administration**



**Western Area Power Administration**

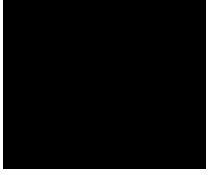


**Bonneville Power Administration**

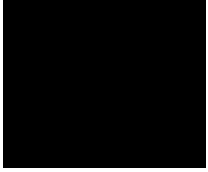




**Southeastern Power Administration**



**Southwestern Power Administration**



**Western Area Power Administration**



**Bonneville Power Administration**

**Volume 6**

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The Department of Energy's Congressional Budget justification is available on the Office of Chief Financial Officer, Office of Budget homepage at <http://www.cfo.doe.gov/crorg/cf30.htm>.





DEPARTMENT OF ENERGY  
Appropriation Account Summary  
(dollars in thousands - OMB Scoring)

	FY 2011 Current	FY 2012 Enacted <sup>1</sup>	FY 2013 Request	FY 2013 vs. FY 2012	
				\$	%
Energy And Water Development, And Related Agencies Appropriation Summary					
Energy Programs					
Energy Efficiency and Renewable Energy	1,771,721	1,809,638	2,337,000	+527,362	+29.1%
Electricity Delivery and Energy Reliability	138,170	139,103	143,015	+3,912	+2.8%
Nuclear Energy	717,817	765,391	770,445	+5,054	+0.7%
Fossil Energy Programs					
Clean Coal Technology	-16,500	0	0	0	0
Fossil Energy Research and Development	434,052	346,703	420,575	+73,872	+21.3%
Naval Petroleum and Oil Shale Reserves	20,854	14,909	14,909	0	N/A
Elk Hills School Lands Fund	0	0	15,580	+15,580	+100.0%
Strategic Petroleum Reserve	123,141	192,704	195,609	+2,905	+1.5%
Northeast Home Heating Oil Reserve	10,978	10,119	4,119	-6,000	-59.3%
<b>Subtotal, Fossil Energy Programs</b>	<b>572,525</b>	<b>564,435</b>	<b>650,792</b>	<b>+86,357</b>	<b>+15.3%</b>
Uranium Enrichment D&D Fund	497,084	472,180	442,493	-29,687	-6.3%
Energy Information Administration	95,009	105,000	116,365	+11,365	+10.8%
Non-Defense Environmental Cleanup	225,106	235,306	198,506	-36,800	-15.6%
Science	4,897,283	4,873,634	4,992,052	+118,418	+2.4%
Advanced Research Projects Agency-Energy	179,640	275,000	350,000	+75,000	+27.3%
Nuclear Waste Disposal	-2,800	0	0	0	0
Departmental Administration	48,894	126,000	122,595	-3,405	-2.7%
Inspector General	42,764	42,000	43,468	+1,468	+3.5%
Innovative Technology Loan Guarantee Program	169,660	0	0	0	0
Advanced Technology Vehicles Manufacturing Loan	9,978	6,000	9,000	+3,000	+50.0%
<b>Total, Energy Programs</b>	<b>9,362,851</b>	<b>9,413,687</b>	<b>10,175,731</b>	<b>+762,044</b>	<b>+8.1%</b>
Atomic Energy Defense Activities					
National Nuclear Security Administration:					
Weapons Activities	6,865,775	7,214,120	7,577,341	363,221	+5.0%
Defense Nuclear Nonproliferation	2,281,371	2,295,880	2,458,631	162,751	+7.1%
Naval Reactors	985,526	1,080,000	1,088,635	8,635	+0.8%
Office of the Administrator	393,293	410,000	411,279	1,279	+0.3%
<b>Total, National Nuclear Security Administration</b>	<b>10,525,965</b>	<b>11,000,000</b>	<b>11,535,886</b>	<b>+535,886</b>	<b>+4.9%</b>
Environmental and Other Defense Activities					
Defense Environmental Cleanup	4,979,165	5,002,950	5,472,001	+469,051	+9.4%
Other Defense Activities	795,670	823,364	735,702	-87,662	-10.6%
<b>Total, Environmental &amp; Other Defense Activities</b>	<b>5,774,835</b>	<b>5,826,314</b>	<b>6,207,703</b>	<b>+381,389</b>	<b>+6.5%</b>
<b>Total, Atomic Energy Defense Activities</b>	<b>16,300,800</b>	<b>16,826,314</b>	<b>17,743,589</b>	<b>+917,275</b>	<b>+5.5%</b>
Power Marketing Administration					
Southwestern Power Administration	13,050	11,892	11,892	0	0
Western Area Power Administration	109,006	95,968	96,130	+162	+0.2%
Falcon & Amistad Operating & Maintenance Fund	220	220	220	0	0
Colorado River Basins	-23,000	-23,000	-23,000	0	0
<b>Total, Power Marketing Administrations</b>	<b>99,276</b>	<b>85,080</b>	<b>85,242</b>	<b>+162</b>	<b>+0.2%</b>
<b>Subtotal, Energy And Water Development and Related Agencies</b>	<b>25,762,927</b>	<b>26,325,081</b>	<b>28,004,562</b>	<b>+1,679,481</b>	<b>+6.4%</b>
Uranium Enrichment D&D Fund Discretionary Payments	-33,633	0	-463,000	-463,000	N/A
Excess Fees and Recoveries, FERC	-36,461	-25,534	-25,823	-289	-1.1%
Rescission of Balances	0	0	-360,667	-360,667	N/A
<b>Total, Discretionary Funding by Appropriation</b>	<b>25,692,833</b>	<b>26,299,547</b>	<b>27,155,072</b>	<b>+855,525</b>	<b>+3.2%</b>

<sup>1</sup> The FY 2012 Enacted reflects a rescission of \$73,300 associated with savings from the contractor pay freeze; \$600M (\$500M Strategic Petroleum Reserve, \$100M Northeast Home Heating Oil) was rebased as mandatory after enactment.



# **Southeastern Power Administration**

# **Southeastern Power Administration**

## **Southeastern Power Administration**

### **Proposed Appropriation Language**

For necessary expenses of operation and maintenance of power transmission facilities and of marketing electric power and energy, including transmission wheeling and ancillary services, pursuant to section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), as applied to the southeastern power area, and including official reception and representation expenses in an amount not to exceed \$1,500, \$8,732,000, to remain available until expended: Provided, That notwithstanding 31 U.S.C. 3302 and section 5 of the Flood Control Act of 1944, up to \$8,732,000, collected by the Southeastern Power Administration from the sale of power and related services shall be credited to this account as discretionary offsetting collections, to remain available until expended for the sole purpose of funding the annual expenses of the Southeastern Power Administration: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2013 appropriation estimated at not more than \$0: Provided further, That, notwithstanding 31 U.S.C. 3302, up to \$87,696,000 collected by the Southeastern Power Administration pursuant to the Flood Control Act of 1944 to recover purchase power and wheeling expenses shall be credited to this account as offsetting collections, to remain available until expended for the sole purpose of making purchase power and wheeling expenditures: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred (excluding purchase power and wheeling expenses).

### **Explanation of Changes**

The proposed FY 2013 appropriation language allows up to \$1,500 in expenditures for reception and representation to facilitate stakeholder involvement.



**Southeastern Power Administration  
Overview  
Appropriation Summary by Program**

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Southeastern Power Administration			
Purchase Power and Wheeling (PPW)	85,264	114,870	103,170
Program Direction (PD)	7,638	8,428	8,732
Subtotal, Southeastern Program Level	92,902	123,298	111,902
Offsetting Collections, PPW	-70,806	-100,162	-87,696
Alternative financing, PPW	-14,458	-14,708	-15,474
Offsetting Collections, Annual Expenses	-7,638	-8,428	-8,732
Total, Southeastern Power Administration	0	0	0

**Office Overview and Accomplishments**

Southeastern Power Administration (Southeastern or SEPA) exists to carry out the functions assigned by the Flood Control Act of 1944: to market the electric power and energy generated by the Federal reservoir projects to public bodies and cooperatives in the southeastern United States in a professional, innovative, customer-oriented manner, while continuing to meet the challenges of an ever-changing electric utility environment through continuous improvement.

Southeastern contributes to the Administration’s efforts to secure America’s clean energy future by generating clean hydroelectric power without carbon emissions. Southeastern maintains and upgrades its energy infrastructure to ensure reliable and efficient delivery of federal power, which is an integral part of the Nation’s electrical grid. Southeastern promotes energy efficiency, renewable energy, and sound management of the dispatch and distribution of Federal hydroelectric power resources in the southeastern United States in a safe, affordable, and environmentally friendly manner, while also meeting national utility performance standards and balancing the diverse interests of other water resource users. This budget submission enables Southeastern to promote strategies that enhance energy efficiency and renewable energy technologies. Effective management of hydroelectric resources, combined with promotion of energy efficiency and renewable technologies, contributes to long-term solutions to the economic and environmental challenges associated with electricity demand.

Southeastern contracts to provide power from 22 federal reservoir projects, operated by the Army Corps of Engineers (Corps) to over 293 customers comprised of public power utilities and electrical co-ops, at reduced rates, which are known as preferred customers.

Within the Southeastern appropriation, there is one program, Operation and Maintenance, which includes two subprograms: Program Direction and Purchase Power and Wheeling. Program Direction supports day-to-day agency operation and Purchase Power and Wheeling supports acquisition of contractually-required transmission services and power purchases. Consistent with the authority provided in the 2010 Energy and Water Appropriations, the FY13 Budget provides funding for annual expenses (Program Direction) through discretionary offsetting collections derived from power receipts collected to recover those expenses.

**Alignment to Strategic Plan**

The Department’s Strategic Plan outlines one primary objective to which the Power Marketing Administrations (PMA) aligns their activities: 1) Deploy the Technologies We Have. The Strategic Plan identified targeted outcomes to achieving these objectives, and Southeastern is responsible for supporting Strategic Plan outcomes through its budget request.

**Explanation of Changes**

The Department requests \$111.9 million in FY 2013 for SEPA. The decrease relative to FY 2012 is primarily due to a reduction in anticipated need. The FY 2013 request decreases PPW (-\$11.7 million) and increases Program Direction (+\$0.3 million).

**Strategic Plan and Performance Measures - SEPA**

STRATEGIC GOAL: Transforming our Energy Systems		
OBJECTIVE: Deploy the Technologies We Have		
Annual Measure #1: Meet NERC Control Performance Standards (CPS) of CPS1>100 and CPS2>90 and meet or exceed industry averages. CPS1 measures a generating system’s performance at matching supply to changing demand requirements and supporting desired system frequency in one minute increments. CPS2 measures a generating system’s performance at limiting the magnitude of generation and demand imbalances in ten minute increments.		
	Target	Actual/ Met or Not Met
Budget Year (2013)	CPS1>100, CPS2>90	---- N/A
Current Year (2012)	CPS1>100, CPS2>90	---- N/A
Prior Year (2011)	CPS1>100, CPS2>90	Met. (Actual: CPS1, 243.1; CPS2, 99.9)
Analysis	SEPA provides reliable service to customers each year, thereby maintaining power system reliability.	
Annual Measure #2: Ensure timely repayment of Federal investment in accordance with DOE Order RA 6120.2 by maintaining unpaid investment (UI) equal to or less than the allowable unpaid investment (AUI).		
	Target	Actual/ Met or Not Met
Budget Year (2013)	UI/AUI ratio≤1	---- N/A
Current Year (2012)	UI/AUI ratio≤1	---- N/A
Prior Year (2011)	UI/AUI ratio≤1	Met. (Actual: repaid \$19.8 million)
Analysis	SEPA will meet repayment of the Federal investment, thereby achieving and maintaining financial integrity.	



**Purchase Power and Wheeling  
Funding Profile by Subprogram and Activity**

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Purchase Power			
Replacement Power	17,536	37,700	28,687
Russell Project pumping power	15,500	17,910	17,294
Carters Project pumping power	14,480	17,460	15,435
Jim Woodruff Project support	3,000	3,300	3,300
Wheeling			
Wheeling service charges	30,044	33,736	33,690
Ancillary Services	4,704	4,764	4,764
Total, Purchase Power and Wheeling	85,264	114,870	103,170
Alternative Financing			
Net Billing	-14,458	-14,708	-15,474
Subtotal, Purchase Power and Wheeling	70,806	100,162	87,696
Offsetting Collections Realized	-70,806	-100,162	-87,696
Total, Purchase Power and Wheeling Budget Authority	0	0	0

**Public Law Authorizations:**

Public Law 78-534, Flood Control Act of 1944  
 Public Law 95-91, DOE Organization Act of 1977, Section 302  
 Public Law 101-1-1, Title III, Continuing Fund (amended 1989)  
 Public Law 102-486, Energy Policy Act of 1992

**Overview**

The mission of Purchase Power and Wheeling (PPW) is to provide funding for acquisition of transmission services, ancillary services for the system, pumping energy for the Richard B. Russell and Carters Pumped Storage units, and support of the Jim Woodruff Project. Southeastern must purchase power on the open market when its Federal generating assets cannot provide enough power to fulfill its contracts with its customers.

Additionally, because Southeastern does not own or operate any transmission infrastructure itself, transmission expenses are based on contracts with area transmission providers to deliver specified amounts of federal power from the hydropower projects to federal power customers. Southeastern has access to a continuing fund for emergency power purchases. Southeastern has implemented a plan to repay any Purchase Power and Wheeling expenditures made through the Continuing Fund within one year.

The FY 2013 request uses customer receipts and net billing to pay for purchase power and wheeling expenses at no cost to the Federal Treasury. Some customers,

acting independently or in partnerships, acquire replacement power and transmission services directly from suppliers. Southeastern will continue to assist its customers by arranging funding for these activities through alternative financing instruments, as needed.

**Subprogram Accomplishments**

The PPW subprogram supports Southeastern’s mission to market and deliver reliable, cost-based hydroelectric power and related services. PPW enables Southeastern to wheel Federal power to preference customers, purchase replacement power, and acquire pumping energy to maximize the efficiency and benefits of Southeastern’s hydropower resources. Power and services are marketed at rates designed to provide recovery of expenses and Federal investment, as established by law.

Hydroelectric power contributes to the reduction of greenhouse gas emissions and fossil fuel usage while reducing our country’s dependence on foreign energy supplies. Annually, Southeastern produces an average of 8 billion kilowatt-hours of clean renewable hydroelectric energy. This energy production reduces emissions of carbon dioxide by 8 million tons per year, sulfur dioxide by 13,920 tons per year, and nitrogen oxides by 23,200 tons per year.

**Explanation of Changes**

Southeastern requests a decrease of \$11.7 M in FY 2013 for purchase power and wheeling, which is due to a reduction in anticipated need.

**Strategic Management**

Southeastern will implement the following strategies to meet its goals:

- Operate the Federal power system effectively and efficiently by providing training and certification to update workforce skills and by updating power system operation technologies to maintain required industry standard compliance.
- Assure power rates are adequate to repay the Federal investment by conducting annual power repayment studies.
- Conduct business process reviews to maximize efficiency.
- Provide economic benefits to the region by marketing and delivering all available hydropower, using appropriations, net billing, bill crediting, and offsetting

collections.

- Maintain a diverse and knowledgeable workforce by providing employee training, leadership development, retention programs, and recruitment activities.

These strategies will result in a well-maintained Federal power system that is in compliance with the Federal Energy Regulatory Commission and Electric Reliability Organization operating regulations and an expert workforce to operate the system in the most effective and cost-efficient manner possible. In carrying out its mission to market and deliver hydroelectric power, Southeastern coordinates operational activities with North American Electrical Reliability Corporation, other regional electric reliability councils, the Corps, customers and other stakeholders to provide the most efficient use of Federal assets.

**Service Area Map**



**Explanation of Funding Changes**

**Purchase Power**

The decrease reflects a reduction in anticipated need for pumping energy costs due to water condition factors used in calculating PPW estimates, and from lower fuel and fuel transportation expenses incurred by utilities that provide pumping energy.

**Wheeling**

Transmission cost reflects a reduction due to lower purchase power expenses. Service charges for delivery of power over non-Federal systems, and Ancillary Services

TOTAL, Purchase Power and Wheeling

(Dollars in Thousands)

FY 2012 Enacted	FY 2013 Request	FY 2013 vs FY 2012
-----------------	-----------------	--------------------

73,729      64,716      -9,013

41,141      38,454      -2,687

114,870      103,170      -11,700

**Southeastern Power Administration**

**Purchase Power and Wheeling**

**FY 2013 Congressional Budget**

## Purchase Power and Wheeling Overview

The mission of Purchase Power and Wheeling is to provide funding for acquisition of pumping energy, transmission services, and ancillary services for the system for the Richard B. Russell and Carters Pumped Storage units and firming energy for the Jim Woodruff Project. Transmission expenses are based on contracts Southeastern maintains with area transmission providers that agree to deliver specified amounts of Federal power from the hydropower projects to Federal power customers because Southeastern does not own or operate any transmission infrastructure itself.

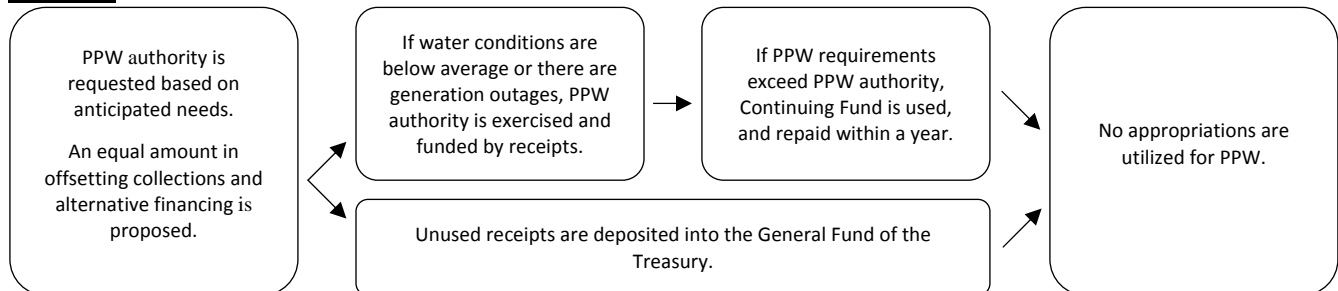
Southeastern must purchase power on the open market when its Federal generating assets cannot provide enough power to fulfill its contracts with its customers. Southeastern has access to a continuing fund for emergency power purchases in excess of PPW authority. Southeastern has a plan implemented to repay Purchase Power and Wheeling expenditures made through the Continuing Fund within one year.

The FY 2013 request uses customer receipts and net billing, which is the offset of purchase power and wheeling expenses owed to a customer against power sales revenue owed to SEPA by that same customer, to pay for purchase power expenses. Southeastern’s Federal appropriation allows customers to fund purchase power expenses in FY 2013 and subsequent years at no cost to the Federal Treasury. Some customers, acting independently or in partnerships, acquire replacement power directly from suppliers. Southeastern will continue to assist its customers by arranging funding for these activities through alternative financing instruments which are any other funding sources other than appropriations, as needed.

### Benefits

The Purchase Power and Wheeling subprograms support Southeastern’s mission to market and deliver reliable, cost-based hydroelectric power. This enables Southeastern to purchase replacement power, and acquire pumping energy to maximize the efficiency and benefits of Southeastern’s hydropower resources. Power and services are marketed at rates designed to provide recovery of expenses and Federal investment, as established by law.

### Sequence



### Funding and Activity Schedule

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	No appropriations are requested. This is authority to use offsetting collections and alternative financing only.	0
FY 2012		0
FY 2013		0
FY 2014 - 2017		0



**Program Direction**

(Dollars in Thousands/whole FTEs)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Southeastern Power Administration			
Salaries/Benefits	5,199	5,630	5,889
Travel	355	450	457
Support Services	61	100	102
Other Related Expenses	2,023	2,248	2,284
Total, Headquarters	7,638	8,428	8,732
Full Time Equivalent Employees	44	44	46

**Overview**

Program Direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of the Southeastern Power Administration. Southeastern trains its employees on a continuing basis in occupational safety and health regulations, policies and procedures, and conducts safety meetings at all levels to keep the safety culture strong. Accidents are reviewed to ensure lessons are learned and proper work protocol is in place.

**Major Program Shifts or Changes**

No major program shifts or changes.

**Explanation of Funding Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 vs FY 2012
Salaries and Benefits			
Funding supports salaries and benefits for 46 FTEs who market Federal hydropower, promote energy efficiency and renewable energy, administrative support, and increased workloads in cyber-security and operational reliability. The salary estimate is derived from the current year budgeted salaries, plus cost-of-living adjustments, promotions, within-grade increases, DOE-cascading performance awards, retirement payouts for unused leave (annual retirements of five FTEs are anticipated over the planning horizon), and overtime.	5630	5,889	+259
Travel			
Funding supports transportation and per diem expenses incurred for participation in and development of regional transmission organizations; training expenses; relocation expenses for new FTEs; contract negotiations; preference customer meetings; rate forums; hearings and meetings; Congressional hearings; site visits of existing and new projects; promotion of energy efficiency and renewable energy via workshops and meetings; and operations meetings with industry groups.	450	457	+7
Support Services			
Funding support preference customer's efforts to address energy efficiency issues, and promote development of renewable resources in support of the Energy Policy Act of 2005. Also, develops specifications for training programs, prepare program plans, conduct training, and review and evaluate contractors.	100	102	+2
Other Related Expenses			
Funding provides administrative support for the office, rent, communications, maintenance, contract services, supplies, materials, and equipment and support for cyber and physical security, training expenses for power operator certification, support for installation of electronic hardware and software for the operations center and provides maintenance to integrate real-time data from the control area and provides the data to other transmission operators and NERC	2248	2,284	+36
Total, Headquarters	8,428	8,732	+304

**Support Services by Category**

(Dollars in Thousands)

FY 2011 Current	FY 2012 Enacted	FY 2013 Request
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Management and Professional Support Services

Co-sponsored energy efficiency services and renewable energy acquisition support for municipal and cooperative utilities

61            100            102

Total, Management and Professional Support Services

61            100            102

**Other Related Expenses by Category**

(Dollars in Thousands)

FY 2011 Current	FY 2012 Enacted	FY 2013 Request
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Other Related Expenses

Communications, Utilities, Misc.

323            372            353

Equipment

208            217            285

Maintenance Agreements

134            142            144

Rent to GSA

364            405            408

Rent to Others

9            10            10

Training

121            131            132

Tuition

16            16            16

Contract Services

439            523            494

Audit of Financial Statements

256            267            273

Supplies and Materials

116            123            126

Working Capital Fund

33            37            38

Printing and Reproduction

4            5            5

**Additional Tables**

**Revenue and Receipts**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request	FY 2014 Request	FY 2015 Request	FY 2016 Request	FY 2017 Request
Gross Revenues	298,268	300,543	333,127	334,364	367,070	368,434	369,866
Net Billing (Credited as an Offsetting Receipt)	-14,458	-14,708	-15,474	-15,728	-15,996	-16,276	-16,571
<b>Total Cash Receipts</b>	<b>283,810</b>	<b>285,835</b>	<b>317,653</b>	<b>318,636</b>	<b>351,074</b>	<b>352,158</b>	<b>353,295</b>
Use of Offsetting Collections to fund PPW	-70,806	-100,162	-87,696	-92,420	-93,399	-94,432	-95,510
Use of Offsetting Collections to fund Annual Expenses	-7,638	-8,428	-8,732	-8,734	-8,728	-8,742	-8,747
<b>Total Receipts, net use of Offsetting Collections</b>	<b>205,366</b>	<b>177,245</b>	<b>221,225</b>	<b>217,482</b>	<b>248,937</b>	<b>248,984</b>	<b>249,038</b>
Cumberland Rehabilitation	-20,000	-20,000	-40,000	-40,000	-40,000	-40,000	-40,000
GA-AL-SC Rehabilitation	-15,000	-15,000	-20,000	-20,000	-20,000	-20,000	-20,000
Kerr-Philpott Rehabilitation	-600	-600	-5,000	-5,000	-5,000	-5,000	-5,000
Jim Woodruff	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000
<b>Total Proprietary Receipts</b>	<b>168,766</b>	<b>140,645</b>	<b>155,225</b>	<b>151,482</b>	<b>182,937</b>	<b>182,984</b>	<b>183,037</b>
 Percent of Sales to Preference Customers	 99%	 99%	 99%	 99%	 99%	 99%	 99%
Energy Sales and Power Marketed (megawatt-hours)	7,886,000	7,886,000	7,886,000	7,886,000	7,886,000	7,886,000	7,886,000

**Alternative Financing**

2011

	Transmission	Purchase Power	Offsetting Collections	Net Billing	Appropriated Funds
Jim Woodruff System	0	3,000	-2800	-200	0
Kerr-Philpott System	4,704	0	-7,704	0	0
GA-AL-SC System	20,457	47,516	-63,302	-4,671	0
Cumberland System	9,587	0	0	-9,587	0
	<b>34,748</b>	<b>50,516</b>	<b>-70,806</b>	<b>-14,458</b>	<b>0</b>

2012

	Transmission	Purchase Power	Offsetting Collections	Net Billing	Appropriated Funds
Jim Woodruff System	265	3,300	-3165	-400	0
Kerr-Philpott System	4,220	0	-4,220	0	0
GA-AL-SC System	24,242	73,070	-92,592	-4,720	0
Cumberland System	9,773	0	-185	-9,588	0
	<b>38,500</b>	<b>76,370</b>	<b>-100,162</b>	<b>-14,708</b>	<b>0</b>

2013

	Transmission	Purchase Power	Offsetting Collections	Net Billing	Appropriated Funds
Jim Woodruff System	265	3,300	-2765	-800	0
Kerr-Philpott System	4,061	0	-4,061	0	0
GA-AL-SC System	24,259	61,416	-80,588	-5,087	0
Cumberland System	9,869	0	-282	-9,587	0
	<b>38,454</b>	<b>64,716</b>	<b>-87,696</b>	<b>-15,474</b>	<b>0</b>

**Power Marketed, Wheeled, or Exchanged by Project**

Project	State	Plants	Installed Capacity (KW)	FY 2011 Estimated Power (GWH)	FY 2012 Estimated Power (GWH)	FY 2013 Estimated Power (GWH)
<u>Kerr-Philpott System</u>				463 *	463 *	463 *
John H. Kerr	VA-NC	1	204,000			
Philpott	VA	1	14,000			
<u>Georgia-Alabama-South Carolina System</u>				4,059 *	4,059 *	4,059 *
Allatoona	GA	1	74,000			
Buford	GA	1	86,000			
Carters	GA	1	500,000			
J. Strom Thurmond	GA-SC	1	280,000			
Walter F. George	GA-AL	1	130,000			
Hartwell	GA-SC	1	344,000			
R. F. Henry	AL	1	68,000			
Millers Ferry	AL	1	75,000			
West Point	GA-AL	1	73,375			
Richard B. Russell	GA-SC	1	600,000			
<u>Jim Woodruff Project</u>	FL-GA	1	30,000	237	237	237
<u>Cumberland System</u>				3,127 *	3,127 *	3,127 *
Barkley	KY	1	130,000			
Center Hill	TN	1	135,000			
Cheatham	TN	1	36,000			
Cordell Hull	TN	1	100,000			
Dale Hollow	TN	1	54,000			
Old Hickory	TN	1	100,000			
J. Percy Priest	TN	1	28,000			
Wolf Creek	TN	1	270,000			
Laurel	TN	1	61,000			
Total Power Marketed		22	3,392,375	7,886	7,886	7,886

**System Statistics**

	FY 2011 Actual	FY 2012 Estimate	FY 2013 Estimate
<u>Generating Capacity:</u>			
Nameplate Capacity (KW)	3,392,375	3,392,375	3,392,375
Peak Capacity (KW) <sup>a</sup>	3,710,000	3,710,000	3,710,000
<u>Generating Stations</u>			
Generating Projects (Number)	22	22	22
<u>Available Energy</u>			
Energy from Stream-flow (MWH)	7,459,272	7,459,272	7,459,272
Energy generated from Pumping (MWH)	427,128	427,128	427,128
Energy Purchased for Replacement (MWH)	75,000	75,000	75,000
Total, Energy available for marketing <sup>b</sup> (MWH)	7,961,400	7,961,400	7,961,400

\* Projects are integrated hydraulically, electrically, and financially for marketing purposes.

<sup>a</sup> Southeastern markets capacity based on nameplate plus an overload factor. NERC requires that Southeastern keep a portion of the capacity in reserve for emergency purposes and to cover losses.

<sup>b</sup> Gross amount. Transmission losses are deducted from this amount to estimate the amount of energy marketed.

**Southeastern Power Administration**

**Additional Tables**



# **Southwestern Power Administration**

# **Southwestern Power Administration**

## **Southwestern Power Administration**

### **Proposed Appropriation Language**

For necessary expenses of operation and maintenance of power transmission facilities and of marketing electric power and energy, for construction and acquisition of transmission lines, substations and appurtenant facilities, and for administrative expenses, including official reception and representation expenses in an amount not to exceed \$1,500 in carrying out section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), as applied to the Southwestern Power Administration, \$44,200,000, to remain available until expended: Provided, That notwithstanding 31 U.S.C. 3302 and section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), up to \$32,308,000 collected by the Southwestern Power Administration from the sale of power and related services shall be credited to this account as discretionary offsetting collections, to remain available until expended, for the sole purpose of funding the annual expenses of the Southwestern Power Administration: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2013 appropriation estimated at not more than \$11,892,000: Provided further, That, notwithstanding 31 U.S.C. 3302, up to \$41,000,000 collected by the Southwestern Power Administration pursuant to the Flood Control Act of 1944 to recover purchase power and wheeling expenses shall be credited to this account as offsetting collections, to remain available until expended for the sole purpose of making purchase power and wheeling expenditures: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred (excluding purchase power and wheeling expenses).



## Southwestern Power Administration

### Overview

#### Appropriation Summary by Program

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Southwestern Power Administration			
Program Direction (PD)	27,151	31,889	28,593
Operations and Maintenance (O&M)	14,918	14,346	11,505
Construction (CN)	6,386	10,772	7,931
Purchase Power and Wheeling (PPW) <sup>a</sup>	48,000	50,000	51,000
Subtotal, Southwestern Power Administration	96,455	107,007	99,029
Offsetting Collections, PD (annual expenses)	-25,933	-25,687	-26,822
Offsetting Collections, O&M (annual expenses)	-5,935	-7,431	-5,486
Offsetting Collections, PPW	-38,000	-40,000	-41,000
Alternative Financing, PD	0	-4,740	0
Alternative Financing, O&M	-1,537	-2,153	-1,829
Alternative Financing, CN	-2,000	-5,104	-2,000
Alternative Financing, PPW	-10,000	-10,000	-10,000
Total, Southwestern Power Administration	13,050	11,892	11,892

<sup>a</sup> Southwestern's budget request for the Purchase Power and Wheeling subprogram reflects anticipated needs to ensure adequate funding to fulfill its 1,200-hour peaking power contractual obligations based on volatile market prices, limited availability of energy banks, and all but the most severe hydrological conditions.

#### **Public Law Authorizations**

Public Law No. 78-534, Section 5, Flood Control Act of 1944  
 Public Law No. 95-91, Section 302, DOE Organization Act of 1977  
 Public Law No. 100-71, Supplemental Appropriations Act, 1987  
 Public Law No. 101-101, Title III, Continuing Fund (amended 1989)  
 Public Law No. 102-486, Section 721, Energy Policy Act of 1992  
 Public Law No. 108-137, Appropriations Act, FY 2004  
 Public Law No. 111-85, Appropriations Act, FY 2010

#### **Overview**

Southwestern Power Administration (Southwestern) meets its public responsibilities consistent with the Flood control Act of 1944: to market and reliably deliver Federal hydroelectric power, recover costs, and repay the Federal investment consistent with sound business principles, giving preference to public bodies and cooperatives while encouraging the most widespread use of power and implementing public policy. Southwestern participates with other water resource users in an effort to balance their diverse interests with power needs, within the broad parameters set by the U.S. Army Corps of Engineers (Corps).

Southwestern markets and delivers power at wholesale rates to 78 municipal utilities, 22 rural electric cooperatives, and 3 government entities in the six states of Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas. In turn, these customers distribute that power to almost nine million end users in the six-state area. In order to integrate the operation of the Federal hydroelectric generating plants and to transmit power from 24 multi-purpose Corps dams to customers, Southwestern operates and maintains 1,380 miles of high-voltage transmission lines, 25 substations/switchyards, and 51 microwave and very high frequency (VHF) radio sites. Southwestern operates from its Headquarters in Tulsa, Oklahoma; a Dispatch Center in Springfield, Missouri; and maintenance facilities in Jonesboro, Arkansas; Gore, Oklahoma; and Springfield, Missouri.

Southwestern's marketing efforts and delivery capability provide for recovery of all annual operational costs, including the generating agencies' hydropower related costs, and for repayment of taxpayer investment in the Federal hydropower program.

Hydroelectric power contributes to the reduction of greenhouse gas emissions and fossil fuel usage while reducing our country's dependence on foreign energy supplies. Annually, Southwestern produces an average of 5,570 gigawatt-hours of clean renewable hydroelectric energy. This energy production reduces emissions of car-

bon dioxide by 4.6 million tons per year, sulfur dioxide by 13,900 tons per year, and nitrogen oxides by 11,100 tons per year. Without the clean renewable hydropower from Southwestern, 9.2 million barrels of fuel oil, 2.7 million tons of coal, or 56.5 billion cubic feet of natural gas would be depleted each year.

Southwestern's appropriation consists of four subprograms: Operations and Maintenance; Construction; Purchase Power and Wheeling; and Program Direction. Consistent with the authority provided in the 2010 Energy and Water Appropriations, the FY 2013 Budget provides funding for annual expenses (Operations and Maintenance and Program Direction) through discretionary offsetting collections derived from power receipts collected to recover those expenses.

### **Accomplishments**

In FY 2011, Southwestern achieved three significant accomplishments. These accomplishments include:

- 1) Southwestern modified its contractual arrangements with the Southwest Power Pool Regional Transmission Organization (SPP RTO) to broaden the use of Federal transmission facilities under the SPP RTO tariff and to allow Southwestern participation in the SPP RTO transmission expansion activities which will facilitate the creation of a robust transmission grid in the Southwest that will support the integration of renewable energy generation as well as accommodate load growth.
- 2) Transmission Reliability and Availability:
  - a) Completed 100 percent of the Southwestern North American Electric Reliability Corporation (NERC) Reliability Standard mitigation plans,
  - b) no involuntary curtailments of firm load, originating on Southwestern's system,
  - c) participated in the development of all SPP RTO identified reliability upgrades to the Southwestern Federal transmission system and implemented identified upgrades subject to requisite outage availability, hydro system conditions, Federal procurement regulations, availability of necessary materials, and budgetary authority, and
  - d) ensured that Southwestern's transmission lines were not impacted by storm-related or sabotage-forced outages and were available for service at least 98% of the time.
- 3) In FY 2011, based on actual generation, Southwestern's hydropower saved 12.8 million barrels of oil and pre-

vented emissions of 6.6 million tons of greenhouse gases.<sup>b</sup>

### **Explanation of Changes**

Southwestern requests a net appropriation of \$11.9 million for FY 2013. This funding request is the same as the FY 2012 budget; however, the Operation and Maintenance activities have been reprioritized.

### **Alignment to Strategic Plan**

Southwestern supports the Department's Strategic Goal to *Transform Our Energy Systems* and has one primary objective: Deploy the Technologies We Have. Southwestern offers experience in power generation and transmission activities, and can demonstrate and deploy new technologies and capabilities into the electric grid. Southwestern also provides opportunities for transmitting and integrating renewable generated electricity into its electric systems.

### **Strategic Management**

In meeting the challenges of operating and maintaining a high voltage transmission system, Southwestern will use the following strategies:

- Market all available hydropower generated at the Corps multipurpose projects and work with the Corps, states, cooperatives, and municipalities to meet statutory requirements while balancing the interests of other water users and provide power at the lowest possible cost.
- Maintain and modernize systems and infrastructure to increase the reliability, efficiency, and use of Federal assets. This will be accomplished through the use of appropriations, Federal power receipts; alternative financing arrangements, including net billing, bill crediting, and/or reimbursable authority (customer advances).
- Conduct annual power repayment studies to ensure power rates are sufficient to repay all annual operating costs and the Federal investment with interest.
- Meet Southwestern's limited 1200-hour peaking power contractual obligations with necessary purchase power and wheeling through the use of Federal power receipts; alternative financing arrangements, including net billing, bill crediting, and/or reimbursable authority (customer advances); and the Continu-

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<sup>b</sup> Emission savings computed using 1998-2007 data from U.S. Energy Information Administration (EIA), assuming a 50/50 Coal/Natural Gas Mix as representative of replacement energy for hydropower in Southwestern's area. Fuel savings based on thermal conversion factors from EIA's Annual Energy Review-2009.

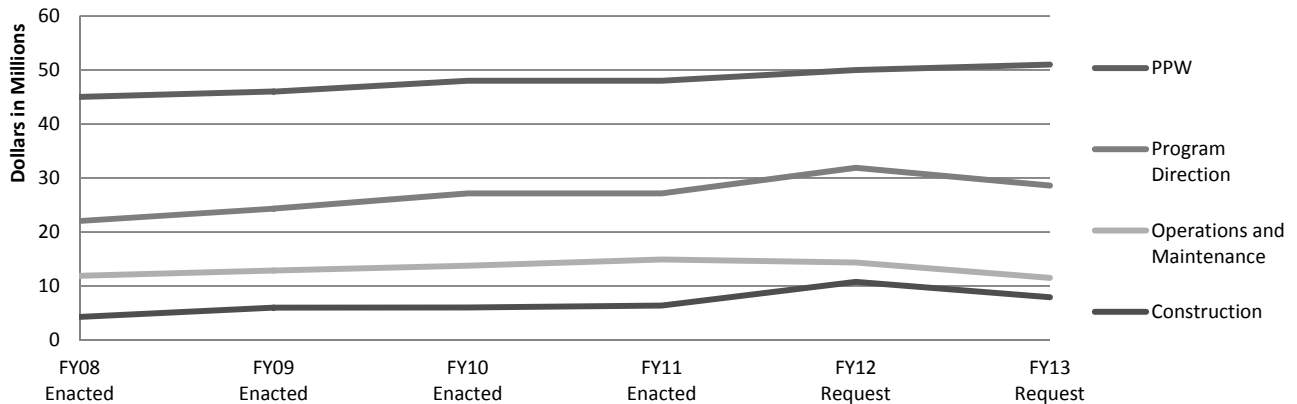
ing Fund as necessary in periods of below-average hydropower generation.

- Operate the transmission system efficiently to support the Nation’s integrated power grid.
- Meet requirements for Southwestern’s compliance with the latest NERC standards.

External factors that present the strongest impacts to the overall achievement of the programs’ strategic goal include weather, natural disasters, NERC operating standards, industry deregulation, changing electric industry organizational structure, interconnections, open access, the lack of adequate funding resources, and other unforeseen requirements. More specifically:

- The bulk of Southwestern’s transmission infrastructure is approximately 60 years old and is in constant need of repair and replacement.
- Industry efforts to improve the reliability of the Nation’s power grid are placing more requirements on our workforce to implement mandatory reliability standards.
- Southwestern is competing with the rest of the electric utility industry to attract and retain the caliber of workforce needed to provide reliable power supply and transmission services as our highly skilled workforce retires.

**Historical Funding Data**



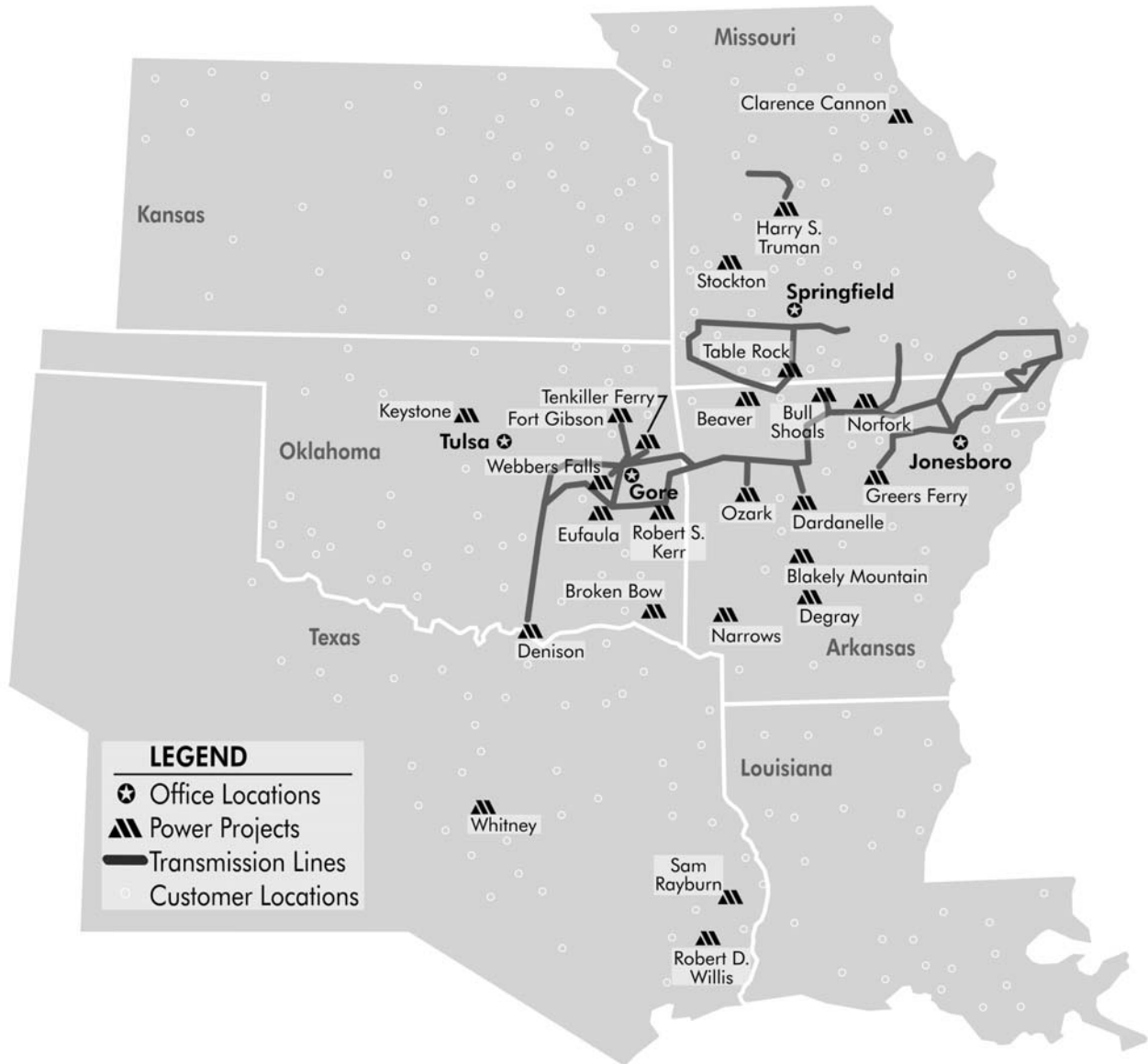
**Strategic Plan and Performance Measures - SWPA**

STRATEGIC GOAL: Transforming our Energy Systems		
OBJECTIVE: Deploy the Technologies We Have		
Annual Measure #1: Meet NERC Control Performance Standards (CPS) of CPS1>100 and CPS2>90 and meet or exceed industry averages. CPS1 measures a generating system’s performance at matching supply to changing demand requirements and supporting desired system frequency in one minute increments. CPS2 measures a generating system’s performance at limiting the magnitude of generation and demand imbalances in ten minute increments.		
	Target	Actual/ Met or Not Met
Budget Year (2013)	CPS1>100, CPS2>90	--- N/A
Current Year (2012)	CPS1>100, CPS2>90	--- N/A
Prior Year (2011)	CPS1>100, CPS2>90	Met (Actual: CPS1, 199.96; CPS2, 99.82)
Analysis	SWPA ensures the integrity of the nation’s integrated grid by operating in compliance with National Energy Reliability Standards.	

<u>Annual Measure #2: Effectively operate the transmission system to limit the number of accountable outages to no more than 3 annually.</u>		
	Target	Actual/ Met or Not Met
Budget Year (2013)	=< 3	---- N/A
Current Year (2012)	=< 3	---- N/A
Prior Year (2011)	=< 3	Met (Actual: 0)
Analysis	SWPA provides reliable service to customers each year, thereby maintaining power system reliability.	
<u>Annual Measure #3: Provide power at the lowest possible cost by keeping total operation and maintenance expense per kilowatt-hour generated below the National median for public power.</u>		
	Target	Actual/ Met or Not Met
Budget Year (2013)	<\$0.063/kWh	---- N/A
Current Year (2012)	<\$0.063/kWh	---- N/A
Prior Year (2011)	<\$0.060/kWh	Met (Actual: \$0.0163/kWh)
Analysis	SWPA will continue to control annual Operations and Maintenance costs, thereby providing power at the lowest possible cost.	
<u>Annual Measure #4: Ensure timely repayment of Federal investment in accordance with DOE Order RA 6120.2 by maintaining unpaid investment (UI) equal to or less than the allowable unpaid investment (AUI).</u>		
	Target	Actual/ Met or Not Met
Budget Year (2013)	UI<=\$1,477 million	---- N/A
Current Year (2012)	UI<=\$1,336 million	---- N/A
Prior Year (2011)	UI<=\$1,306 million	Met (Actual: \$528 million, pending final audit)
Analysis	SWPA continues to meet repayment of the federal investment, thereby achieving and maintaining financial integrity.	



**Service Area Map**



**LEGEND**

- ⊛ Office Locations
- ▲ Power Projects
- Transmission Lines
- Customer Locations



**Operations and Maintenance  
Funding Profile by Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Operations and Maintenance (O&M)			
Power Marketing	1,020	602	200
Operations	4,500	4,094	4,688
Maintenance	8,013	7,930	5,375
Capitalized Moveable Equipment	1,385	1,720	1,242
Subtotal, Operations and Maintenance	14,918	14,346	11,505
Offsetting Collections (annual expenses)	-5,935	-7,431	-5,486
Alternative Financing	-1,537	-2,153	-1,829
Total, Operations and Maintenance	7,446	4,762	4,190

**Overview**

The activities of the Operations and Maintenance subprogram are critical components in maintaining the reliability of the Federal power system, which is part of the Nation’s interconnected generation and transmission system. Through the use of renewable hydroelectric energy, Southwestern Power Administration (Southwestern) makes a meaningful contribution of clean, safe, reliable, affordable, and secure energy to our Nation. The Energy Policy Act (EPACT), the National Energy Policy (NEP), and the Department of Energy (DOE) reinforce the importance of renewable hydroelectric energy by emphasizing its significant contribution to the Nation’s past, current, and future energy supply and identifying Southwestern’s important role meeting electricity demand by supplying cost-based hydroelectric power to its customers. These entities emphasize the need to repair, maintain, and improve the transmission and generation facilities to ensure reliability of the energy infrastructure.

Consistent with EPACT, Southwestern complies with the North American Electric Reliability Corporation (NERC) standards and participates with the Southwest Power Pool Regional Transmission Organization (SPP RTO), which reinforces Southwestern’s role as part of the Nation’s interconnected electric grid. In participation with the SPP RTO, Southwestern works on regional initiatives to develop renewables in its region. During power grid emergencies, Southwestern also has the capability to provide reliable off-site power to help restore other power generation sources. As demand for the transmission of power increases, the investment in maintaining and improving the Nation’s energy infrastructure is critical for achieving energy security for present and future generations.

Southwestern’s planned Operations and Maintenance projects are subject to change based on unanticipated

**Southwestern Power Administration  
Operations and Maintenance**

equipment failure, customer needs, and weather conditions. The realities of maintaining a complex interconnected power system means unforeseen priority projects will arise periodically, causing a reprioritization of planned projects. All projects share the commonality of maintaining, repairing, and improving the aging and deteriorating infrastructure to ensure the reliability of the Federal power system.

**Subprogram Accomplishments**

In FY 2011 Southwestern achieved several significant accomplishments. Such accomplishments include:

- 1) Replacement of the Eufaula 161/138 kV Autotransformer. The old Eufaula transformer was a flowgate. The new transformer increased the capacity by 100 percent, which allows for a less constrained movement of power on the Bulk Electric System.
- 2) Replacement of terminal equipment at Dardanelle Dam on the line to Russellville. This project removed the U.S. Army Corps of Engineers limiting elements on the Dardanelle-Russellville 161 kV line, which had shown up in numerous studies as a constraint to electric power transfers on the Bulk Electric System.

**Benefits**

- Operating a reliable Federal power system in an effective, cost-efficient, and environmentally sound manner while meeting national utility performance standards and balancing the diverse interests of other water resource users,
- Delivering reliable power to customers,
- Providing regional power restoration assistance to other non-hydropower generation sources during power grid emergencies,
- Providing economic benefits to the region.

**Explanation of Change**

The Operations and Maintenance subprogram reflects an overall decrease. The major changes are that a reduced number and scope of studies will be performed, an auto-transformer will not be procured in FY 2013, funding for vehicles reduced, and the quantity of parts and materials, equipment, and fuel will be reduced.

**Explanation of Funding Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
Power Marketing			
The decrease in funding reflects a reduction in the number and scope of studies to be performed.	602	200	-402
Operations			
• Communications: The decrease reflects a slight reduction in hardware upgrades.	2,953	2,939	-14
• Environmental, Safety, and Health: The increase reflects additional funding for grounding and drainage.	835	951	+116
• Other Transmission: The increase reflects additional physical security requirements.	306	798	+492
Maintenance			
• Substation Maintenance: Decrease results from not procuring a transformer in FY 2013.	6,747	4,550	-2,197
• Transmission Line Maintenance: Decrease reflects a reduction in parts and materials, equipment, and fuel.	1,183	825	-358
• Capitalized Moveable Equipment: Decrease reflects the number and/or type of vehicles being purchased.	1,720	1,242	-478
<b>TOTAL Funding Change, Operations and Maintenance</b>	<b>14,346</b>	<b>11,505</b>	<b>-2,841</b>

**Power Marketing  
Overview**

The Power Marketing activity funds technical and economic studies to support Southwestern’s transmission planning, water resources, and communications activities. Technical and economic studies provide data to analyze and evaluate the impacts of proposed operational changes and decision-making based on cost/benefit analysis. Funding is also required for Southwestern’s participation in the SPP RTO and to provide regional power restoration assistance to other non-hydropower generation sources during power grid emergencies. The National Electric Transmission Congestion Study identified constraints in the Nation’s interconnected electrical grid which could impede power flows. Studies to identify any constraints on Southwestern’s system will continue to be conducted. These studies show how the marketing and delivery of power is operationally impacted. The funding level for this activity is derived from Southwestern’s engineering plan, negotiated architect/engineering contracts, and the number of studies required per year.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Conduct studies for transmission planning, line sag survey, water resources, communications, and maintenance activities	<b>1,020</b>
FY 2012	Studies will continue, reduction reflects the completion of the line sag survey.	<b>602</b>
FY 2013	Fewer studies will be conducted.	<b>200</b>

## Operations Overview

The Operations activity funds communication activities associated with the dispatch and delivery of power; environmental, safety, and health activities; and other transmission activity costs such as physical security, cyber security, and day-to-day power dispatch functions.

### Communications

This subactivity funds telemetering improvements, technical support to protect cyber infrastructure, Supervisory Control and Data Acquisition/Energy Management System maintenance agreements, an e-tagging system that electronically schedules power for customers, load forecasting, digital test equipment, the fee for spectrum, and supplies and materials. The telemetering improvements include replacement of obsolete power and energy accounting equipment and modification of existing remote terminal units that improve the reliability of the power system, specifically in the areas of monitoring and control. Funding is required for upgrades that enable Southwestern to meet the goals of the EPACT, NEP, NERC and DOE's Strategic Plan by replacing deteriorating infrastructure while assuring reliability and continuing to actively participate in the SPP RTO. The funding level for communications maintenance is derived from maintenance history, the age of equipment, expected life span, annual diagnostic maintenance testing, and historical pricing information.

### Environmental, Safety, and Health

This subactivity funds environmental activities including waste disposal/clean-up of oil and polychlorinated biphenyl contaminants from old circuit breakers and transformers, grounding and drainage, cultural resource reviews, environmental assessments for threatened and endangered species, property transfers, wetland assessments, environmental library access, Toxic Substance Control Act and Resource Conservation Recovery Act compliance, contractor services, and requirements of the Environmental Protection Program as identified in DOE Order 450.1. The Safety and Health Program activities require funding for aviation safety, industrial hygiene, medical examinations, medical officer, wellness program, safety equipment, and first aid supplies.

### Other Transmission

This subactivity funds physical security, field utility costs, and day-to-day power expenses of the dispatch center. The increase in funding for this subactivity reflects additional physical security requirements as outlined in Homeland Security Presidential Directive 12.

### **Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	The Operations activity funds communications activities, environmental, safety and health, security and day to day expenses related to the dispatch of power.	<b>4,500</b>
FY 2012	The Other Transmission subactivity delays some physical security requirements.	<b>4,094</b>
FY 2013	Other Transmission physical security requirements are resumed. Increased efforts in Communications, Environmental, Safety, and Health.	<b>4,688</b>

**Maintenance  
Overview**

The Maintenance activity funds routine repair, maintenance, and improvement of Southwestern’s 25 substations/switchyards and 1,380 miles of high-voltage transmission lines, and ensures delivery of reliable, efficient, and clean power to its customers. Southwestern’s initial facilities, which were built approximately 60 years ago, are constantly evaluated. The funding level is derived from age of equipment, risk of failure, life cycle of equipment, and through field crew evaluation. Internal and external factors include obsolescence of technology and lack of replacement parts. This budget request reflects Southwestern’s assessment of the funding required to ensure continued reliability of the Federal power system and to fulfill the NERC operational criteria. By replacing aging equipment and removing constraints that impede power flows, Southwestern is meeting the expectations of the National Transmission Grid Study, the Administration’s initiative to provide energy efficiencies, and DOE’s Strategic Goal of deploying the technologies we have to transform our energy systems. The maintenance activity includes two subactivities:

Substation Maintenance

This subactivity funds power circuit breakers, disconnect switches, instrument transformers, protective relays and related equipment, computer aided drafting and design, revenue meters, vehicle maintenance, fuel, and other equipment to reliably perform general maintenance projects while maintaining the Federal power system as required by Southwestern’s participation in a regional electric reliability council and to comply with NERC requirements. The funding level for this subactivity is derived from an internal maintenance information system, which includes age and condition of the existing equipment.

Transmission Line Maintenance

This subactivity funds the purchase and maintenance of wood and steel structures, crossarms and braces, right-of-way (ROW) clearing, herbicide application, aerial patrol of the transmission system to identify maintenance needs, routine vehicle repair and maintenance, tractor-trailers, heavy equipment, and fuel. The number of steel or wood poles and crossarms and high-voltage insulators is derived from an internal maintenance information system. Emphasis continues to be placed on ROW clearing since NERC identified improper/insufficient ROW clearing as a major factor in potential blackouts. The funding level is appropriate for the number of structures and components to be replaced and the miles of ROW to be cleared as set forth by Southwestern’s maintenance plan in meeting the goals of the EPACK, NEP, NERC, and DOE’s Strategic Plan to maintain a reliable transmission system.

Funding and Activity Schedule

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	This activity continues the replacement of aging poles, hardware, and substation equipment.	<b>8,013</b>
FY 2012	The decrease reflects a reduction in the number of poles and hardware purchased, offset by an increase in substation equipment.	<b>7,930</b>
FY 2013	The decrease reflects a reduction in both the substation maintenance and transmission line maintenance subactivities. The emphasis is being shifted to funding transmission line replacements in the Construction subprogram.	<b>5,375</b>

**Capitalized Moveable Equipment  
Overview**

This activity funds the replacement of vehicles, tractor-trailers, and heavy equipment used for the maintenance and repair of the transmission system and facilities. The replacement criteria Southwestern utilizes for specialized equipment needed to maintain 1,380 miles of transmission line exceeds the General Services Administration (GSA) and DOE guidelines. These vehicles exceed their useful lives and require high levels of maintenance. The vehicle cost estimates are derived from GSA pricing schedules.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	The number and types of vehicles and equipment being replaced change on a yearly basis. In order to reduce costs, Southwestern has adopted a policy that far exceeds the GSA and DOE replacement guidelines.	<b>1,385</b>
FY 2012		<b>1,720</b>
FY 2013		<b>1,242</b>



**Construction  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Construction			
Transmission System	6,386	10,772	7,931
Subtotal, Operations and Maintenance	6,386	10,772	7,931
Alternative Financing	-2,000	-5,104	-2,000
Total, Construction	4,386	5,668	5,931

**Overview**

The activities of the Construction subprogram enable Southwestern to market and deliver Federal hydropower in the most reliable, safe, efficient, and cost-effective manner to meet the operational criteria required by the North American Electric Reliability Corporation (NERC) and as a participant in the National electrical grid while avoiding transmission infrastructure deterioration. The Energy Policy Act, the National Energy Policy, and the Department of Energy’s Strategic Plan reinforce the importance of renewable hydroelectric energy by emphasizing its ongoing significant contribution to the Nation’s past, present, and future energy supply and Southwestern’s important role meeting electricity demand by supplying cost-based hydroelectric power to its customers. Southwestern’s participation in the Southwest Power Pool Regional Transmission Organization (SPP RTO), reinforces Southwestern’s role as an integral part of the Nation’s interconnected generation and transmission system. In participation with the SPP RTO, Southwestern works on regional initiatives to develop renewables in our region. As the demand for the transmission of power increases, the investment in improving the Nation’s energy infrastructure, by providing improvements, replacements, and interconnections, is critical in assuring reliable delivery of power, fulfilling energy security for the present as well as for future generations.

Southwestern’s planned construction projects are subject to change based on unanticipated equipment failure, customer needs, and weather conditions. The realities of maintaining a complex interconnected power system means unforeseen priority projects will arise periodically, causing a reprioritization of planned projects. All projects share the commonality of replacing aging and deteriorating infrastructure necessary to maintain the reliability of the Federal power system.

**Subprogram Accomplishments:**

In FY 2011 Southwestern achieved several significant accomplishments. Such accomplishments include:

- 1) Completed replacement of bus and substation equipment at Bull Shoals Dam, including bus constrained flow on a 161 kV flowgate. Upgrading the bus and equipment allows for less constrained movement of power on the Nation’s power grid.
- 2) Design and procurement of materials and structures to rebuild 22 miles of 161 kV line. This transmission line was identified as a reliability concern for future years due to thermal overloading of the line during contingency conditions. Rebuilding the line with a larger conductor will increase its capacity by 63 percent.
- 3) Survey of approximately 250 miles of 161 kV line using air based LiDAR. The survey is part of a project to more accurately identify the thermal operating capabilities of Southwestern’s transmission lines. Analysis of the survey data will be used to comply with NERC FAC-009 requirements.

**Benefits**

- Enables operation of the Federal electric power grid in a safe and reliable manner as required by NERC.
- Strengthens electric transmission system reliability and the Nations integrated transmission infrastructure.
- Increases capacity on transmission lines, where practical, which will accommodate increased loads in Southwestern’s service area.

**Explanation of Changes**

The construction subprogram reflects a decrease in the number of tower and radio replacements.

**Explanation of Funding Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
Communication Equipment The decrease reflects a reduction in the number of tower and radio re- placements.	6,049	3,107	-2,942
Transmission Upgrades The increase reflects additional funding needed to replace 35 miles of transmission line.	4,723	4,824	+101
<b>TOTAL Funding Change, Construction</b>	<b>10,772</b>	<b>7,931</b>	<b>-2,841</b>

## Transmission System Overview

This activity funds all construction projects that require expansion of or additions to existing facilities. Southwestern ensures system reliability by replacing aging and deteriorating equipment and removing constraints that limit power flows. The projects outlined below reflect Southwestern’s efforts to reduce the risk of extended service outages, avoid more costly replacements in the future, and support the increased transmission system usage. The funding level for this activity is derived from internal and external management decisions and field crew observations regarding system age, risk of equipment failure, life cycles, obsolescence of technology, and availability of spare parts, budget constraints, cost, and demand for more capacity. These variables are assessed and incorporated into Southwestern’s ten-year construction plan. The transmission system activity contains three subactivities:

### Communications Equipment

This subactivity funds all communication equipment and microwave radio and tower replacements that are planned to provide improved system reliability and reduce future maintenance and equipment costs. This subactivity also provides funding for microwave radios and microwave tower additions, replacements, and modifications that will allow Southwestern to complete an important communication ring within its network that will increase the reliability of communications with the generating plants and substations in the Oklahoma region. The communication system provides for the transfer of voice and data traffic to allow monitoring and control of power system generation and transmission assets.

### Spectrum Relocation

The Commercial Spectrum Enhancement Act of 2004 (CSEA, Title II of P.L. 108-494) created the Spectrum Relocation Fund (SRF) to streamline the relocation of Federal systems from existing spectrum bands to accommodate commercial use by facilitating reimbursement to affected agencies of relocation costs. Southwestern received \$25.8 million in spectrum relocation funds, as approved by the Office of Management and Budget, and as reported to the Congress. These funds are mandatory and will remain available until expended, and agencies will return to the SRF any amounts received in excess of actual relocation costs. Spectrum relocation activities were funded from spectrum auction proceeds; thus, no funding is provided in this subactivity.

### Transmission Upgrades

This subactivity funds transmission system upgrades. Much of the conductor and static wire on Southwestern’s transmission line is reaching or has already exceeded its service life of 45 years. With this assumed service life, the conductor, static wire and structures will need to be replaced on 30 to 40 miles of transmission line each year. As we replace the conductor, we will use the opportunity to increase the capacity of the lines where practical to accommodate increased loads in the region.

### **Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Microwave Tower and Radio Replacements/Additions	2,736
FY 2012	Microwave Tower and Radio Replacements/Additions	6,049
FY 2013	Microwave Tower and Radio Replacements/Additions	3,107

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Transmission Line Structures/Conductor/Static Wire Replacement	3,650
FY 2012	Transmission Line Structures/Conductor/Static Wire Replacement	4,723
FY 2013	Transmission Line Structures/Conductor/Static Wire Replacement	4,824

**Purchase Power and Wheeling  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Purchase Power and Wheeling <sup>c</sup>			
System Support	44,500	46,500	47,500
Other Contractual Services	3,500	3,500	3,500
Subtotal, Purchase Power and Wheeling	48,000	50,000	51,000
Offsetting Collections (PPW)	-38,000	-40,000	-41,000
Alternative Financing Needed	-10,000	-10,000	-10,000
Total, Purchase Power and Wheeling	0	0	0

<sup>c</sup> Southwestern’s budget request for the Purchase Power and Wheeling subprogram reflects anticipated needs to ensure adequate funding to fulfill its 1,200-hour peaking power contractual obligations based on volatile market prices, limited availability of energy banks, and all but the most severe hydrological conditions.

**Overview**

In supporting the Secretary’s Strategic Goal to *Transform Our Energy Systems*, Southwestern markets and delivers Federal hydropower at the lowest cost-based rates possible, consistent with sound business practices to over 100 wholesale customers in a six-state area. In turn, Southwestern’s customers distribute that power to almost nine million end users in a six-state area. Southwestern’s marketing efforts and delivery capability provide for recovery of annual operating costs, including the generating agencies’ hydropower related costs, and repayment of taxpayer investment in the Federal hydropower program.

The Purchase Power and Wheeling (PPW) subprogram provides for the purchase of energy to meet peaking power contractual obligations and the delivery of Federal power. Southwestern Power Administration’s (Southwestern) power sales contracts provide for 1200-hours of peaking power per year, representing only a portion of its customers’ firm load requirements. The customers provide their own resources and/or purchases for the remainder of their firm loads. Southwestern must purchase power when the generating projects cannot produce our 1200-hour contract obligations. Above average purchases are required in times of severe drought or instances of multiple project outages that limit our power production. Purchases of power are generally made in the open spot market and with public entities. Delivery of purchase power to our system is made via the Southwest Power Pool Regional Transmission Organization or our own transmission system. All such power purchases are blended with the available Federal hydroelectric power to provide a more beneficial and reliable product while ensuring repayment of the Federal investment plus interest.

Southwestern will continue to use Federal power receipts and alternative financing methods, including net billing, bill crediting, and/or reimbursable authority (customer advances), to fund this subprogram. When hydropower generation falls significantly below normal due to severe drought conditions, Southwestern will utilize the Continuing Fund for emergency PPW expenses.

The activities of the PPW subprogram provide for the purchase of energy to fulfill limited peaking power contractual obligations to ensure the marketability of the Federal resource and repayment of the Federal investment. This subprogram also provides for wheeling services that deliver Federal power to optimize the operation of the hydroelectric facilities marketed by Southwestern. The Energy Policy Act, the National Energy Policy, and the North American Electric Reliability Corporation reinforce the importance of domestic, renewable hydroelectric energy by emphasizing its ongoing significant contribution to the Nation’s past, present, and future energy supply and identify Southwestern’s important role in meeting electricity demand by supplying cost-based hydroelectric power to its customers. This subprogram enhances the reliability of the electrical transmission grid.

**Subprogram Accomplishments**

In FY 2011 Southwestern achieved several significant accomplishments. Such accomplishments include:

- Continued firm clean renewable hydropower resource
- Provided a reliable cost-based power and related services
- Ensured cost recovery and repayment of the Federal investment

**Explanation of Changes**

The FY 2013 request provides for continuation of PPW receipt funded activities at the estimated level necessary to meet contractual firming needs. No appropriated funding is necessary due to offsetting collections.

**Explanation of Funding Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
System Support			
The increase in system support reflects anticipated needs based on projected increase in market prices.	46,500	47,500	+1,000
Other Contractual Services			
No change.	3,500	3,500	0
<b>TOTAL Funding Change, Purchase Power and Wheeling</b>	<b>50,000</b>	<b>51,000</b>	<b>+1,000</b>

**Purchase Power and Wheeling  
Overview**

Southwestern’s budget request for the Purchase Power and Wheeling subprogram reflects anticipated needs to ensure adequate funding to fulfill its 1200-hour peaking power contractual obligations based on volatile market prices, limited availability of energy banks, and all but the most severe hydrological conditions. PPW includes two subactivities:

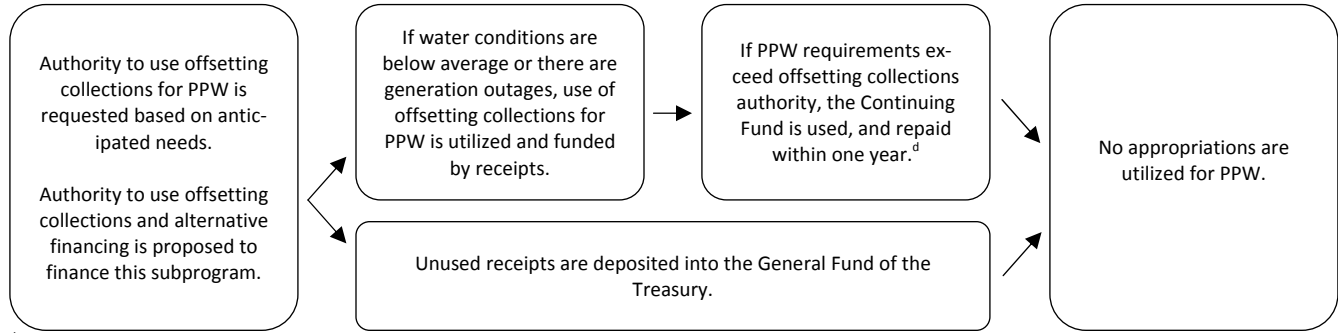
**System Support**

This activity funds purchase power requirements of the hydroelectric power system needed to fulfill all 1200-hour contractual peaking power obligations with customers. System support requirements depend on the conditions of the hydroelectric power system which is affected by weather, volatile market prices, and limited availability of energy banks. In prior years, inadequate funding for PPW and hydrological fluctuations required constant requests to access the Continuing Fund in order to ensure sufficient funding was available to fulfill Southwestern’s 1200-hour peaking power contractual obligations. In FY 2008, Southwestern requested, and Congress approved, an increase in its authority to use Federal power receipts (offsetting collections). The use of this authority will be dependent upon the hydrological conditions realized during the fiscal year which, under average conditions, will be less than half of the authority requested. Since the rates charged to its customers are based on full cost recovery, Southwestern has a built-in incentive to minimize expenditures for purchase power. This authority ensures greater flexibility in times of below average generation and volatile market prices, and will decrease dependence on the Continuing Fund under all but the most severe hydrological conditions.

**Other Contractual Services**

This activity funds other contractual services that provide for wheeling associated with the purchase of transmission service to meet limited peaking power obligations and for the integration of projects for the delivery of Federal power. The funding level is derived from contractual wheeling requirements. Southwestern will continue to use Federal power receipts and alternative financing methods, including net billing, bill crediting, and/or reimbursable authority (customer advances), to meet wheeling requirements. The FY 2013 funding request reflects the projected cost for wheeling services based on contractual pricing and delivery terms.

**Sequence**



<sup>d</sup> Beginning in 2008, on a phased in approach, OMB required the PMAs to repay all future unplanned emergency PPW costs from the Continuing Fund within one year or less.

**Benefits**

- Market and deliver power at the lowest cost-based rates possible, consistent with sound business practices.
- Repaying the American taxpayers’ investments in the Federal power system.
- Repaying the costs of operation of the Federal hydropower system with revenues from power customers.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	No appropriations are requested. This is authority to use offsetting collections and alternative financing only.	0
FY 2012	No appropriations are requested. This is authority to use offsetting collections and alternative financing only.	0
FY 2013	No appropriations are requested. This is authority to use offsetting collections and alternative financing only.	0

**Program Direction  
Funding Profile by Category**

(Dollars in Thousands/Whole FTEs)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Southwestern Power Administration			
Salaries and Benefits	21,288	22,233	22,297
Travel	1,045	1,050	1,299
Support Services	2,580	2,745	2,765
Other Related Expenses	2,238	5,861	2,232
Subtotal, Southwestern Power Administration	27,151	31,889	28,593
Offsetting Collections (annual expenses)	-25,933	-25,687	-26,822
Alternative Financing	0	-4,740	0
Total, Southwestern Power Administration	1,218	1,462	1,771
Full Time Equivalents	174	188	194

**Overview**

The Program Direction subprogram ensures continued reliability of the Federal power system by utilizing Federal staffing resources and associated funds required to provide overall direction and execution of Southwestern Power Administration's (Southwestern) Operation and Maintenance Program.

The Program Direction subprogram provides compensation and all related expenses for 194 Federal personnel who market, deliver, operate, maintain, and administer Southwestern's high-voltage interconnected power system and associated facilities. Southwestern will use appropriations; appropriations offset by receipts; and alternative financing arrangements, including net billing, bill crediting, and/or reimbursable authority (customer advances), with customers and others who provide services or funds to ensure a dependable and reliable Federal power system.

**Salaries and Benefits**

This activity funds salaries and benefits for 194 skilled Federal employees who market and deliver Federal hydropower by operating and maintaining Southwestern's high-voltage interconnected power system with its associated facilities and providing support for these functions. The funding level for salaries is derived from the current year budgeted salaries, promotions, and within-grade increases. The funding level for benefits is derived from a percentage of budgeted salaries. The benefits for FERS employees are higher than CSRS. As more and more CSRS employees retire, the benefit costs will continue to increase.

The FY 2013 level supports 194 Federal employees: 54 percent of the employees are General Schedule (GS) and subject to the Administration's proposed cost-of-living adjustment; salaries of the remaining 46 percent (craft workers and power system dispatchers) are determined through union negotiations and wage surveys. This activity also includes overtime, awards, relocation, workers' compensation, recruitment bonuses, retention pay, and advanced in-hire rates. By the end of FY 2013, approximately 27 percent of Southwestern's staff will be eligible for retirement. Southwestern will continue to invest in its current employees, emphasizing strong development programs, completing skills gap analyses, and pursuing aggressive recruitment and retention efforts as identified in its Human Capital Management Workforce Plan.

**Travel**

This activity funds all related travel and per diem expenses for mission-related travel to maintain the integrity and reliability of Southwestern's geographically dispersed power system. The funding level for this activity is primarily derived from the daily requirement of the field maintenance personnel to maintain 1,380 miles of transmission line, 25 substations/switchyards, 51 microwave/radio sites, communication equipment, and the Supervisory Control and Data Acquisition network. Travel for the performance of general and administrative functions is also included.

Support Services

This activity funds contracted management support services including information technology, E-Government, and administrative/records management support. The funding level for this activity is derived from the most recent negotiated contract for support services essential to achieve Southwestern’s mission.

Other Related Expenses

This activity funds rental space, facility security, the financial audit, services of the Power Marketing Liaison Office, the working capital fund, technology refresh in the areas of personal computers, hardware and software, printing and reproduction, and training and tuition fees in support of workforce planning and required training to meet the North American Electric Reliability Corporation (NERC) emergency operations requirement. Rental space costs assume the GSA inflation factor. Other costs are based on the historical usage and actual cost of similar items.

Explanation of Funding Changes

(Dollars in Thousands)

FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
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Salaries and Benefits -- Increase reflects survey-based wage determinations, union-negotiated and Administratively Determined pay adjustments, salary, planned promotions, and within grade increases.	22,233	22,297	+64
Travel – Increase reflects rising per diem costs, increase in Gov Trip usage fees, and travel related to Industry related issues.	1,050	1,299	+249
Support Services – Increase reflects inflationary increase per negotiated contract.	2,745	2,765	+20
Other Related Expenses – Decrease reflects planned completion of the Financial Management System upgrade.	5,861	2,232	-3,629
<b>Total Funding Change, Program Direction</b>	<b>31,889</b>	<b>28,593</b>	<b>-3,296</b>

Support Services by Category

(Dollars in Thousands)

FY 2011 Current	FY 2012 Enacted	FY 2013 Request
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Management Support Services			
Reports and Analyses Management and General Administrative Support	2,580	2,745	2,765
<b>Total, Management Support Services</b>	<b>2,580</b>	<b>2,745</b>	<b>2,765</b>

Other Related Expenses by Category

(Dollars in Thousands)

FY 2011 Current	FY 2012 Enacted	FY 2013 Request
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Other Related Expenses			
Rent to Others	700	715	720
Communication, Utilities, Misc.	200	225	200
Printing and Reproduction	50	85	75
Other Services	228	3,425	220
Training	150	231	150
Power Marketing Liaison	100	140	60
Financial Audit	350	450	400
Supplies and Materials	200	220	147
Equipment	100	200	100
Working Capital Fund	160	170	160
<b>Total, Other Related Expenses</b>	<b>2,238</b>	<b>5,861</b>	<b>2,232</b>



### Revenues and Receipts

(Dollars in Thousands)

	FY 2011 Actual	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	FY 2016 Estimate	FY 2017 Estimate
Gross Revenues							
Sale and Transmission of Electric Energy	155,869	206,600	208,400	209,400	210,400	211,300	212,000
Total, Gross Revenues	155,869	206,600	208,400	209,400	210,400	211,300	212,000
Alternative Financing Credited as an Offsetting Receipt, Net Billing/Bill Crediting	--51,232	-60,900	-57,100	-60,600	-63,200	-64,100	-62,400
Offsetting Collections, Southwestern							
Annual Expenses (Net Zero)	-31,868	-33,118	-32,306	-33,552	-34,137	-35,857	-36,940
Offsetting Collections Realized, Purchase Power and Wheeling	-9,331	-40,000	-41,000	-42,000	-43,000	-43,900	-44,600
White River Minimum Flows Legislation	13,436	0	0	0	0	0	0
Adjustments not otherwise Classified	16,705	0	0	0	0	0	0
Continuing Fund Usage for PPW	0	0	0	0	0	0	0
Total Proprietary Receipts	93,579	72,582	77,994	73,248	70,063	67,443	68,060
Percent of Sales to Preference Customers	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Energy Sales from Power Marketed (billions of kilowatt hours)	5.4	5.4	5.4	5.4	5.4	5.4	5.4

**System Statistics**

	FY 2011 Actual	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	FY 2016 Estimate	FY 2017 Estimate
<b>Generating Capacity (kilowatts)</b>							
Installed Capacity	2,173,800	2,173,800	2,173,800	2,173,800	2,173,800	2,173,800	2,173,800
Peak Capacity	2,052,500	2,052,500	2,052,500	2,052,500	2,052,500	2,052,500	2,052,500
<b>Generating Stations</b>							
<b>Generating Projects</b>							
(Number)	24	24	24	24	24	24	24
<b>Substations/Switchyards</b>							
(Number)	25	25	25	25	25	25	25
<b>Substations/Switchyards</b>							
(kVA Capacity)	1,026,900	1,026,900	1,026,900	1,026,900	1,026,900	1,026,900	1,026,900
<b>Available Energy (Megawatt-hours)</b>							
Energy Generated	3,894,822	5,346,600	5,444,900	5,444,900	5,444,900	5,444,900	5,444,900
Energy Received	155,170	221,500	209,700	209,700	209,700	209,700	209,700
Total, Energy Available for Marketing	4,049,992	5,568,100	5,654,600	5,654,600	5,654,600	5,654,600	5,654,600
<b>Transmission Lines (Circuit-Miles)</b>							
161-KV	1,117	1,117	1,117	1,117	1,117	1,117	1,117
138-KV	164	164	164	164	164	164	164
69-KV	99	99	99	99	99	99	99
Total, Transmission Lines	1,380	1,380	1,380	1,380	1,380	1,380	1,380

**Power Marketed, Wheeled, or Exchanged by Project**

	Number of Plants	Installed Capacity (kW)	FY 2011 Actual Energy (GWh)	FY 2012 Estimated Energy (GWh)	FY 2013 Estimated Energy (GWh)	FY 2014 Estimated Energy (GWh)	FY 2015 Estimated Energy (GWh)	FY 2016 Estimated Energy (GWh)	FY 2017 Estimated Energy (GWh)
<b>Power Marketed</b>									
<b>Interconnected</b>									
System	Missouri	4	463,200	1,453	1,941	1,974	1,974	1,974	1,974
	Arkansas	9	1,037,100	824	980	996	996	996	996
	Oklahoma	7	514,100	862	1,062	1,080	1,080	1,080	1,080
	Texas	2	100,000	345	452	459	459	459	459
	Louisiana	0	0	283	346	352	352	352	352
	Kansas	0	0	338	403	409	409	409	409
Subtotals		22	2,114,400	4,105	5,184	5,270	5,270	5,270	5,270
<b>Isolated:</b>									
<b>Robert D. Willis Project</b>									
<b>Sam Rayburn Project</b>									
	50% to Texas	2	59,400	15	76	76	76	76	76
	50% to Louisiana	0	0	15	76	76	76	76	76
Subtotals		2	59,400	30	152	152	152	152	152
Total, Power Marketed		24	2,173,800	4,135	5,336	5,422	5,422	5,422	5,422
<b>Power Wheeled/Exchanged</b>									
Wheeled (MW)			1,134	1,232	1,238	1,238	1,238	1,238	1,238
Exchanged (GWh)			16	0	0	0	0	0	0

# **Western Area Power Administration**

# **Western Area Power Administration**

## **Construction, Rehabilitation, Operation and Maintenance**

### **Western Area Power Administration**

#### **Proposed Appropriation Language**

For carrying out the functions authorized by title III, section 302(a)(1)(E) of the Act of August 4, 1977 (42 U.S.C. 7152), and other related activities including conservation and renewable resources programs as authorized, including official reception and representation expenses in an amount not to exceed \$1,500; \$291,920,000, to remain available until expended, of which \$281,702,000 shall be derived from the Department of the Interior Reclamation Fund: Provided, That notwithstanding 31 U.S.C. 3302, section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), and section 1 of the Interior Department Appropriation Act, 1939 (43 U.S.C. 392a), up to \$195,790,000 collected by the Western Area Power Administration from the sale of power and related services shall be credited to this account as discretionary offsetting collections, to remain available until expended, for the sole purpose of funding the annual expenses of the Western Area Power Administration: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2013 appropriation estimated at not more than \$96,130,000, of which \$85,912,000 is derived from the Reclamation Fund: Provided further, That of the amount herein appropriated, not more than \$3,375,000 is for deposit into the Utah Reclamation Mitigation and Conservation Account pursuant to title IV of the Reclamation Projects Authorization and Adjustment Act of 1992: Provided further, That notwithstanding 31 U.S.C. 3302, up to \$242,858,000 collected by the Western Area Power Administration pursuant to the Flood Control Act of 1944 and the Reclamation Project Act of 1939 to recover purchase power and wheeling expenses shall be credited to this account as offsetting collections, to remain available until expended for the sole purpose of making purchase power and wheeling expenditures: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred (excluding purchase power and wheeling expenses).



## Falcon and Amistad Operating and Maintenance Fund

### Proposed Appropriation Language

For operation, maintenance, and emergency costs for the hydroelectric facilities at the Falcon and Amistad Dams, \$5,555,000, to remain available until expended, and to be derived from the Falcon and Amistad Operating and Maintenance Fund of the Western Area Power Administration, as provided in section 2 of the Act of June 18, 1954 (68 Stat. 255) as amended: Provided, That notwithstanding the provisions of that Act and of 31 U.S.C. 3302, up to \$5,335,000 collected by the Western Area Power Administration from the sale of power and related services from the Falcon and Amistad Dams shall be credited to this account as discretionary offsetting collections, to remain available until expended for the sole purpose of funding the annual expenses of the hydroelectric facilities of these Dams and associated Western Area Power Administration activities: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2013 appropriation estimated at not more than \$220,000: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred.





**Western Area Power Administration**

**Overview**

**Appropriation Summary by Program**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Western Area Power Administration			
Construction, Rehabilitation, Operation and Maintenance (CROM)			
Operation and Maintenance	50,845	72,863	71,855
Construction and Rehabilitation	109,887	110,449	83,475
Purchase Power and Wheeling	543,622	471,535	422,225
Program Direction	192,205	205,247	204,227
Utah Mitigation and Conservation	7,569	3,375	3,375
Subtotal, CROM-Gross Program	904,128	863,469	785,157
Alternative Financing	-293,906	-266,207	-245,280
Offsetting Collections from Colorado River Dam Fund	-3,879	-4,821	-5,099
Offsetting Collections, annual Operation and Maintenance and Program Direction	-147,530	-189,932	-195,790
Offsetting Collections, Purchase Power and Wheeling	-349,807	-306,541	-242,858
Total, CROM	109,006	95,968	96,130
Falcon and Amistad Operating and Maintenance Fund	2,568	4,169	5,555
Offsetting Collections, annual Operation and Maintenance	-2,348	-3,949	-5,335
Total, Falcon and Amistad	220	220	220
Colorado River Basins Power Marketing Fund (CRBPMF)	227,303	220,397	196,993
Offsetting Collections	-250,303	-243,397	-219,993
Total, CRBPMF	-23,000	-23,000	-23,000
Total, Western Area Power Administration	86,226	73,188	73,350

**Public Law Authorizations:**

Public Law 57-161, "The Reclamation Act of 1902"  
 Public Law 78-534, "Flood Control Act of 1944"  
 Public Law 95-91, "Department of Energy Organization Act" (1977)  
 Public Law 102-486, "Energy Policy Act of 1992"  
 Public Law 66-389, "Sundry Civil Appropriations Act" (1922)  
 Public Law 76-260, "Reclamation Project Act of 1939"  
 Public Law 80-790, "Emergency Fund Act of 1948"  
 Public Law 102-575, "Reclamation Projects Authorization and Adjustment Act of 1992"  
 "Economy Act" of 1932, as amended (41 stat. 613)  
 "Interior Department Appropriation Act of 1928" (44 stat. 957)  
 Public Law 70-642, "Boulder Canyon Project Act" (1928)

Public Law 75-756, "Boulder Canyon Project Adjustment Act" (1940)  
 Public Law 98-381, "Hoover Power Plant Act of 1984"  
 Public Law 75-529, "The Fort Peck Project Act of 1938"  
 Public Law 84-484, "The Colorado River Storage Project Act of 1956"  
 Public Law 90-537, "The Colorado River Basin Project Act of 1968"  
 Public Law 103-236, "Foreign Relations Authorization Act, Fiscal Years 1994 and 1995"  
 The Act of June 18, 1954 (68 Stat. 255)

## **Program Overview**

The Department of Energy leads a critical effort to transform the Nation's energy system and secure U.S. leadership in clean energy technologies. Western Area Power Administration (Western), in conjunction with the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation and the Department of State's International Boundary and Water Commission, strongly supports this effort in managing the multipurpose operation of the Federal Power Program and maintaining its high-voltage, integrated transmission system to reliably deliver renewable energy.

Western's mission in the marketing and delivery of reliable, cost-based Federal hydroelectric power and related services spans a 1.3-million-square-mile area serving a diverse group of 682 wholesale customers, including municipalities, cooperatives, public utility and irrigation districts, Federal and state agencies and Native American tribes. In turn, Western's customers provide service to millions of retail consumers.

Western's base program is funded through three appropriation accounts: 1) the Construction, Rehabilitation, Operation and Maintenance Account (CROM); 2) Falcon and Amistad Operating and Maintenance Fund; and 3) Colorado River Basins Power Marketing Fund (CRBPMF). Within these three accounts, there are eight subprograms; five in the CROM Account, one in the Falcon and Amistad Operating and Maintenance Fund and two in CRBPMF.

The FY13 Budget provides funding for annual expenses (Operations and Maintenance and Program Direction) through discretionary offsetting collections derived from power receipts collected to recover those expenses.

### **American Recovery and Reinvestment Act (Recovery Act) of 2009:**

- Provided Western \$10 million in nonreimbursable appropriations to remain available until expended to support implementation of activities authorized in section 402 of the Act.
- Expanded Western's role, as a complement to its core mission, giving Western the responsibility and permanent authority to further efforts to diversify America's energy supply and modernize energy infrastructure by allowing Western to borrow up to \$3.25 billion from the U. S. Treasury to finance the development of transmission lines to facilitate the delivery of power generated by new renewable energy resources.

## **Accomplishments**

FY 2011 was a strong year for water conditions. Western expects to meet its power marketing and contractual power delivery obligations at lower cost with continued high marks for reliability.

Revenues collected from customers to recover the costs of the Federal Power Program were sufficient to provide for Western's FY 2011 annual expenses for the power systems in the CROM, CRBPMF, and the Falcon and Amistad Operating and Maintenance Fund.

Net mandatory receipts returned to Treasury in FY 2011 exceeded \$300 million.

Within our authorities, Western continues to work with customers to obtain alternative financing to compliment the limited appropriated resource when needed to cover critical mission annual or capital activities.

## **Alignment to Strategic Plan**

Western contributes to the Department's efforts to transform the Nation's energy system and secure U.S. leadership in clean energy technologies in promoting the development of higher capacity, more expansive U.S. energy infrastructure to support the development and delivery of renewable resources in securing the Nation's energy needs and to ensure efficient energy markets. Specifically, Western is maintaining and modernizing facilities to ensure flexible and reliable operations to accommodate industry change, interconnections and increasing interest in renewable resources; while partnering with industry to expand infrastructure to deliver developing sources of renewable energy as envisioned in the Recovery Act.

## **Strategic Management**

To effectively address ongoing challenges and industry trends in operating and maintaining a high voltage transmission system, Western will:

- Maintain and modernize systems and infrastructure to increase the reliability, efficiency, value and use of Federal assets.
- Meet the increasing demands on maintenance for aging infrastructure from transmission growth and evolving transmission and regulatory reliability compliance standards.
- Operate the transmission system efficiently to support the Nation's integrated power grid.
- Manage power delivery costs.
- Continue to provide open access to Western's transmission system to further industry restructuring and to support local and regional utilities in the delivery of electricity to their customers.

The following external factors present the strongest impacts to the overall achievement of Western's strategic goal:

- Western's transmission infrastructure continues to age, despite an ongoing replacement program.
- Many of the best sites for renewable generating sources--wind, solar and biomass--are located in parts of the West and Midwest that are not near load centers, and nearby transmission lines lack available capacity to transport this energy.
- Industry efforts to improve the reliability of the bulk power grid are placing more requirements on our workforce to implement mandatory reliability standards.
- Western's highly skilled technical workforce continues to age as we compete within the electric utility industry to attract and retain the caliber of workforce needed to provide reliable power supply and transmission services.

### **Explanation of Changes**

The Department requests a net appropriation of \$73.4 million in FY 2013 for Western Area Power Administration, roughly the same as the FY 2012 level.

The FY 2013 request prioritizes the Operation and Maintenance activities of Western, including the capital components of that program and the associated Program Direction requirements. The day-to-day Operation and Maintenance activities are critical and essential to Western's ability to deliver power to customers.

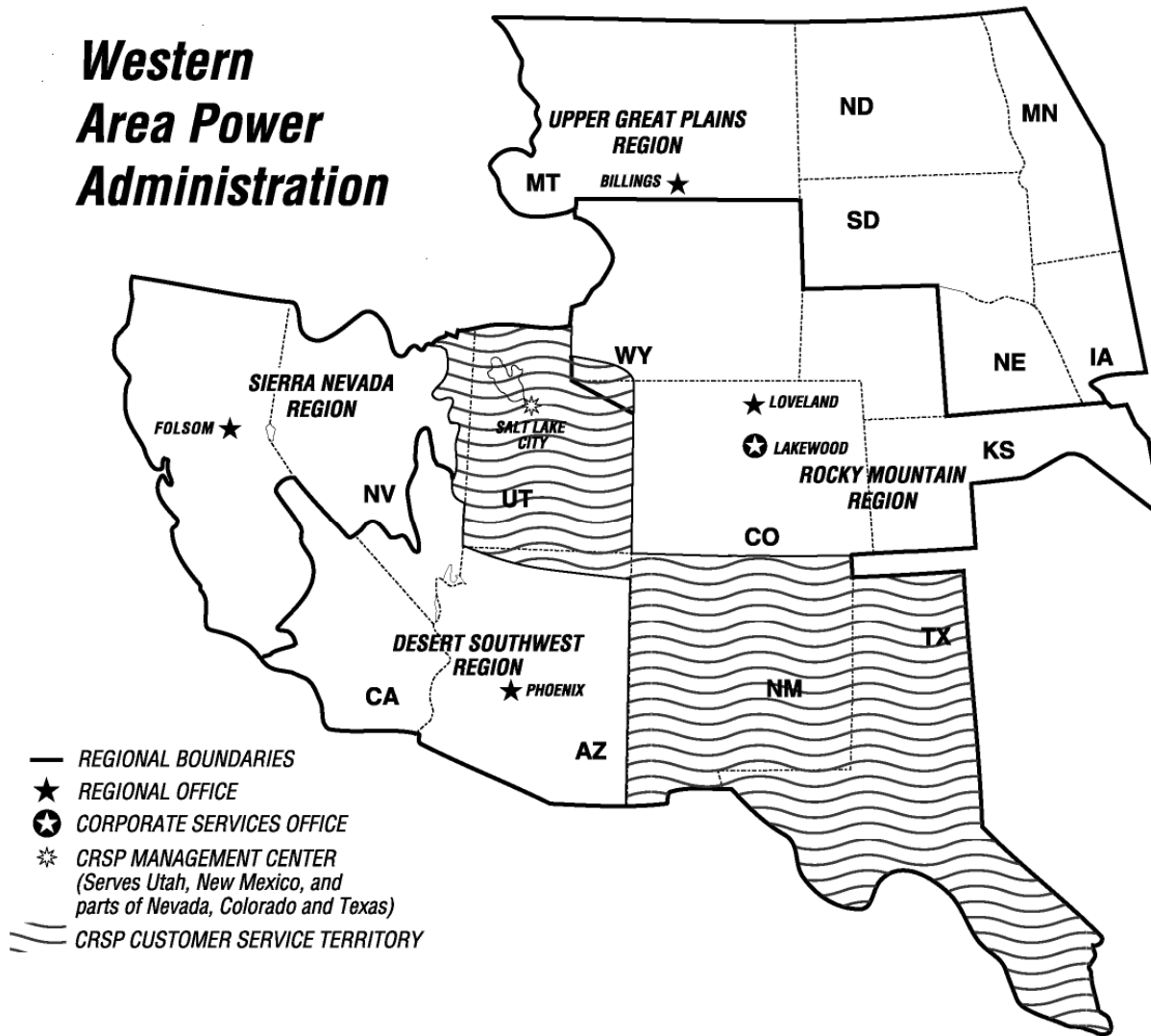
The FY 2013 request increases the Construction and Rehabilitation appropriation request (+\$3.9 million), placing greater focus on critical substation, communication, and other smaller miscellaneous infrastructure needs. Investments needed to combat the aging transmission infrastructure will be dependent on Western's ability to secure alternative financing from customers.

Note: FY 2013 is the final year of Western's contribution to the Utah Reclamation Mitigation and Conservation Account, as legislated in Title II, Sec 214 of Public Law 108-137.

**Strategic Plan and Performance Measures - WAPA**

STRATEGIC GOAL: Transforming our Energy Systems		
OBJECTIVE: Deploy the Technologies We Have		
Annual Measure #1: Meet North American Electric Reliability Corporation Control Performance Standards (CPS) of CPS1>100 and CPS2>90 and meet or exceed industry averages. CPS1 measures a generating system's performance at matching supply to changing demand requirements and supporting desired system frequency in one-minute increments. CPS2 measures a generating system's performance at limiting the magnitude of generation and demand imbalances in ten-minute increments.		
	Target	Actual/ Met or Not Met
Budget Year (2013)	CPS1>100, CPS2>90	---- N/A
Current Year (2012)	CPS1>100, CPS2>90	---- N/A
Prior Year (2011)	CPS1>100, CPS2>90	Met. (Actual: CPS1, 164.16; CPS2, 91.38)
Analysis	Western will continue to ensure the stability of the nation's integrated grid by operating it's system in compliance with National Energy Reliability Standards.	
Annual Measure #2: Ensure unpaid investment (UI) is equal to or less than the allowable unpaid investment (AUI) in accordance with DOE Order RA 6120.2 and Reclamation Law.		
	Target	Actual/ Met or Not Met
Budget Year (2013)	UI≤\$8,594	---- N/A
Current Year (2012)	UI≤\$8,692	---- N/A
Prior Year (2011)	UI≤\$8,520	Met. (Actual: \$6,136 million)
Analysis	Western will continue to ensure power rates are adequate to repay the Federal investment.	
Annual Measure #3: Provide power at the lowest possible cost by keeping total operation and maintenance expense per kilowatt-hour generated below the national median for public power.		
	Target	Actual/ Met or Not Met
Budget Year (2013)	<\$0.063/kWh	---- N/A
Current Year (2012)	<\$0.063/kWh	---- N/A
Prior Year (2011)	<\$0.060/kWh	Met. (Actual: \$.019/kWh)
Analysis	Western will continue to manage operation and maintenance costs to ensure stable rates and the provision of low cost power to customers.	

# Western Area Power Administration





**Operation and Maintenance  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Operation and Maintenance			
Regular Operation and Maintenance	25,137	39,573	39,385
Replacements and Additions	25,708	33,290	32,470
Total, Operation and Maintenance	50,845	72,863	71,855
Alternative Financing	-3,900	-4,600	0
Use of Receipts from Colorado River Dam Fund	-867	-1,033	-1,116
Offsetting Collections	-20,222	-33,323	-36,087
Total, Operation and Maintenance (Budget Authority)	25,856	33,907	34,652

**Overview**

The Operation and Maintenance (O&M) subprogram is to assure continued reliability of the Federal power system by operating and maintaining Western’s transmission system at or above industry standards, including replacement of aging equipment and removal of constraints that would impede power flows.

**Benefits**

- Replacement and upgrading of existing electrical system infrastructure to sustain reliable power delivery to our customers.
- Support a stable and reliable interconnected power system.
- Contain annual maintenance expenses.
- Retain the value of our assets.

**Subprogram Accomplishments**

In FY 2011, Western continued to implement the Operation Consolidation Project within the Rocky Mountain and Desert Southwest Regions. This consolidation has improved efficiencies and assisted in controlling Western and customer costs by consolidating tool sets and facilities between these two regions. Western is also studying other operation areas for potential efficiencies and cost reductions for future implementation.

**Explanation of Changes**

The FY 2013 request provides for the continuation of Western’s Operation and Maintenance funded activities at the estimated level necessary to meet scheduled requirements. The slight decrease in total program request is attributable to decreases to non-capitalized equipment and capitalized moveable equipment purchases. The increase in budget authority supports an increase in non-reimbursable activity funded in this subprogram.

**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
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**Regular Operation and Maintenance**

- The slight decrease in regular O&M is attributed to decrease in planned purchases for non-capitalized equipment for planned maintenance activities.

39,573              39,385              -188

**Replacements and Additions**

- The decrease in replacements and additions is primarily attributable to a decrease in capitalized moveable equipment purchases.

33,290              32,470              -820

TOTAL Funding Change, Operation and Maintenance

72,863              71,855              -1,008

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## Regular Operation and Maintenance Overview

Supplies and materials necessary to respond to routine and emergency situations in Western’s high-voltage interconnected transmission system will be purchased. This includes miscellaneous equipment and software used for power billing, transmission planning, e-tagging, and energy scheduling, as well as supplies and materials such as wood poles (individual pole replacement only; excludes whole line replacements), instrument transformers, meters, relays, etc. The request includes approximately \$1.1 million for activities in the Boulder Canyon Project, funded directly through receipts from the Colorado River Dam Fund.

The continuing maintenance of Western’s transmission system at or above industry standards supports DOE and Western missions by minimizing sudden failure, unplanned outages, and possible regional power system disruptions. Safe working procedures are discussed before work begins to optimize safety for the public, Western’s staff, and equipment. The request is based on projected work plans for activities funded from this account. Estimates are based on historical data of actual supplies needed to operate and maintain the transmission system and recent procurement of similar items. This request includes approximately \$2.2 million for appropriated O&M annual expenses that are required to fund Western’s Salinity and Levee non-reimbursable power systems.

**Benefits:**

- Western’s Regular O&M activity ensures reliable electric power in a safe, cost-effective manner, and achieves continuity of service throughout its 15-state service territory by maintaining its power system at or above industry maintenance standards, rapidly restoring service following any system disturbance, mitigating adverse environmental impacts, performing clean-up activities, and maximizing revenues gained from non-firm energy and transmission sale.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Regular O&M activity continues to ensure reliable electric power in a safe, cost-effective manner. In addition, in FY 2011, Western utilized prior year balances in the amount of \$6.7 million to meet core mission requirements.	25,137
FY 2012	Regular O&M activity continues to meet mission requirements.	39,573
FY 2013	Regular O&M activity continues to meet mission requirements.	39,385



## **Replacements and Additions Overview**

Western's planned replacements and additions activity is based on an assessment of condition and criticality of equipment, maintenance/frequency of problems on individual items of equipment, availability of replacement parts, safety of the public and Western's personnel, environmental concerns and an orderly work plan. Cost estimates are based on an analysis of system operation/maintenance requirements and concerns, customer-coordinated work plans, actual costs of recent similar projects, and bottom-up budgeting techniques. Planned activity is detailed by category below.

### Electrical Equipment

Electrical equipment, such as circuit breakers, transformers, relays, batteries and chargers, reactors, meters, buses, surge arresters, capacitor banks and disconnect switches, will replace obsolete equipment at facilities throughout Western's 15-state area. Test equipment used by maintenance crews, such as metering and relaying test sets, pentameters, Ohm testers, oil dielectric testers, battery load testers, and specialized communication and environmental control test equipment is also included. Examples of specific requests include the replacement of a power transformer manufactured in 1956 and has exceeded its useful life at the Fargo substation; replacement of old electromechanical relays due to age and obsolescence; replacement of aging substation equipment at Flanagan and Folsom; replacement of reactive devices used in the electrical power system for voltage control; Gila Valley transmission line upgrade; Edgeley to Forman 69/115 kV line upgrade; Fargo and Devils Lake 115 kV replacements; replacement of the Lusk Rural to Podolak and Lusk to Podolak transmission lines with lines designed for 69kV operation; and, the Box Butte-Dunlap 115 kV line rebuild. Also included in this request is funding for Western's wood pole replacement program. This is a continuing program to replace aging wood transmission line structures, line hardware, and repair damaged conductors and static wires. Many of Western's wood transmission line structures were built in the 1950's and 1960's with the facilities approaching 40 to 50 years old. Due to age, woodpecker damage, vibratory fatigue, and general deterioration, the system requires constant maintenance upgrades and repairs in order to eliminate the weak links and improve the reliability to our customers.

### Communications Equipment

Key to system reliability, replacement of remote terminal units, telephone systems, microwave links, and aged 7 GHz analog radio systems with digital radio and fiber optics continues. Manufacturers have discontinued support of the obsolete analog equipment and there is inadequate channel capacity to support Western's needs. The staged movement to narrow-band communications for UHF radios as directed by the National Telecommunications and Information Administration (NTIA) continues. Western's communication systems are currently made up of approximately 9 percent fiber optics, 79 percent fixed radio, and 12 percent mobile radio. Western currently has 1,246 radio frequency authorizations for fixed radio bands, of which 248, or 20 percent, are analog. This funding will not be used to replace equipment impacted by the Spectrum Relocation initiative.

In addition, Western will continue to upgrade its existing supervisory control and data acquisition (SCADA) systems which control Western's electric power system. These hardware and software upgrades improve grid reliability by allowing the main computer to communicate with remote terminal units in over 300 substations across Western's territory, thus allowing the dispatcher to operate a device in any of these substations to make changes rapidly to respond to power industry requirements or system emergencies. Other specific examples requested in this estimate include the replacement of ground wire between the Sterling to Sidney Converter Station (additional 39 miles), between the Sidney and Gering substations, and between the Stegall and Laramie River Station with optical ground wire; installation of fiber multiplex equipment as fiber optic cables are installed on key backbone routes; replacement of existing joint microwave systems that have reached the end of their lifecycle; replacement of digital crossconnect equipment that have also reached the end of their useful lifespan; replacement of communication facilities as necessary to maintain reliability; installation of upgraded communication system to support the Operations Consolidation Project, replacement of phone lines with VoIP technology; replacement of communication generators; and, installation of fiber multiplex equipment.

### Spectrum Relocation Equipment

The Commercial Spectrum Enhancement Act (CSEA, Title II of P.L. 108-494) of 2004, created the Spectrum Relocation Fund (SRF) to streamline the relocation of Federal systems from specific radio spectrum bands. These spectrum bands will accommodate commercial users and the SRF will facilitate reimbursement to affected agencies for relocation costs. The Fed-

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eral Communications Commission has allocated this spectrum for Advanced Wireless Services. Funds have been made available to agencies from the crediting of auction receipts to the SRF during fiscal year 2007 and system relocation efforts are underway. Western received \$108.2 million for this effort. This amount includes Western's estimated relocation costs, as approved by the Office of Management and Budget, and as reported to the Congress by the Department of Commerce in December 2005. Since receipt of these funds, Western has completed the preliminary and final design work including radio path analysis, tower load analysis, communication building upgrades and replacements, acquiring radio frequency authorizations, and completing a majority of the radio and other communication equipment purchases. Structural loading analyses for both radio and fiber optic systems were completed in FY 2009. The first construction year for the Spectrum Relocation Fund was during FY 2008 with the beginning of building replacement installations. The phased replacement of 2 GHz radio systems continues in FY 2011, with a small amount carrying over into FY 2012. System clean-up, which includes removal of old equipment, buildings, and all associated systems, is anticipated to continue in FY 2012 and 2013, with project closing activity in FY 2014. The funding for the Spectrum Fund is mandatory and will remain available until expended, and agencies will return to the SRF any amounts received in excess of actual relocation costs. No appropriations are being requested for this activity.

**Capitalized Movable Equipment**

The majority of these funds will be used to purchase and lease the fleet of standard and specialized vehicles required for Western's O&M activities. Although Western prefers to lease its vehicles from GSA, GSA cannot always provide the necessary specialized vehicles, especially in the Upper Great Plains Region and the Desert Southwest Region, where they must be equipped for extreme weather and terrain conditions. In these instances, Western is forced to purchase its specialized vehicles. This request includes capitalized hardware for Western's financial system upgrade. Also included is special equipment such as pole trailers, road graders, bucket trucks, rough terrain crane, digger trucks, tractors, utility trucks, skid-steer loaders, man lifts, snow cats, front-end loaders, and caterpillars. All sedans, vans, SUVs, and light trucks are leased from GSA. Western uses 733 vehicles, 429 (59 percent) of which are leased from GSA. Western replaces government-owned vehicles according to the Federal Management Regulations guidelines, the same guidelines used by GSA. Other capitalized movable equipment in this estimate includes substation test equipment, brush chipper, map board replacement; security equipment such as perimeter intrusion detection devices, card readers and associated software, security cameras and recording devices at various sites throughout Western's service area; Information Technology equipment such as server and router replacements, firewalls, cyber security upgrades, encryptors for the operation offices, LAN upgrades, network equipment replacements, storage upgrades, upgrades to Western's power system simulator equipment for training purposes, auto-CAD workstation replacements, and helicopter equipment replacements that add value to the helicopter or extend the service life, such as engine, rotor blades, avionics, airframe, and other major components.

Replacement needs are based on age, reliability, and safety of equipment, customer-coordinated review, cost analysis of rebuild versus replacement, availability of replacement parts, and obsolescence of diagnostic maintenance tools. Estimates are determined using actual costs of similar items.

**Benefits:**

- Replacement of aged power system components maximizes the reliability and availability of Western's system by reducing the risk of equipment failure, unplanned outages, and possible regional power system distributions. Removing environmental hazards and replacement of aged equipment eliminates safety hazards for the public and Western's personnel.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Western's O&M replacement and additions activities include replacement and upgrading of existing system infrastructure to sustain reliable power deliver to Western's customers, to support a stable and reliable interconnected power system, and to retain the value of our assets.	25,708
FY 2012	Continued replacement and additions activities to ensure reliable electric power delivery.	33,290
FY 2013	Continued replacement and additions activities to ensure reliable electric power delivery.	32,470

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**Construction and Rehabilitation  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Construction and Rehabilitation			
Transmission Lines and Terminal Facilities	60,656	67,087	40,529
Substations	46,275	36,115	36,851
Other	2,956	7,247	6,095
Subtotal, Construction and Rehabilitation	109,887	110,449	83,475
Alternative Financing	-72,843	-93,313	-62,413
Total, Construction and Rehabilitation (Budget Authority)	37,044	17,136	21,062

**Overview**

The Construction and Rehabilitation (C&R) subprogram supports the Department of Energy and Western’s missions by emphasizing the replacement and upgrade of aging electrical system infrastructure to sustain reliable power delivery to our customers, support a stable and reliable interconnected power system, contain annual maintenance expenses, and retain the value of its assets. Replacement and upgrade of aged power system components are crucial to system reliability, and communications improvements maintain vital control over system operations. Both contribute to attaining or exceeding performance standards established by the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) by reducing the risk of equipment failure, unplanned outages, and possible local and regional power system disruptions. C&R subprogram activities support the repayment of Federal power investment by promoting a well-planned C&R program with a relatively stable budget over the long term, by avoiding additional costs of emergency “breakdown maintenance,” and by preventing outages which could impact power deliveries, purchase power costs, and power revenues. Reducing the hazards associated with worn or aging equipment, combating obsolescence, and replacing deteriorated wood poles which present a serious climbing hazard to linemen, minimizes Western’s exposure to unsafe conditions. The C&R program also contributes to public safety by avoiding or minimizing the dangers involved in unplanned outages and downed transmission lines.

The C&R request incorporates the most current information to identify and schedule necessary C&R projects. Western assigns the highest program priority to those situations that pose the highest risk to safety and system reliability, while meeting the mandates for open access to our transmission system. If conditions change, Western will shift funding as necessary to ensure the highest program priorities continue to be met to maintain the reliability and integrity of Western’s power transmission system.

Western’s transmission system has more than 17,000 circuit-miles. About half, more than 8,000 miles, of the transmission system is supported by wood poles. Fifty-nine percent of those wood pole lines exceed the service life of 50 years. Western is continually testing, treating, and replacing individual wood poles and hardware to extend the life delay the need for replacing an entire transmission line.

Western’s transmission system has more than 300 substations. As substation equipment (such as power transformers, circuit breakers, and control equipment) ages, maintenance costs increase, replacement parts become unavailable, risk of outages increase, and system reliability declines. The normal service life for power transformers and circuit breakers is 40 years and 35 years, respectively. While replacement of this equipment is systematically planned over 10 years, actual replacement varies depending on condition and criticality. All replacement and rehabilitation plans are coordinated with customers to help establish the timing and scope of work at specific substations. When upgrades or additional capacity are required, Western actively pursues opportunities to partner with neighboring utilities to jointly finance activities, which result in cost savings and increased efficiencies for all participants.

Financing of the FY 2013 C&R budget, planned at \$83.5 million, will continue to rely heavily on customer participation in alternative financing methods. Approximately 75 percent of the program funding, or \$62.4 million, will be requested from customers.

Personnel costs and related expenses for the workforce to plan, collect field data, write specifications, design facilities, award construction contracts, and purchase government-furnished equipment for the C&R activity are combined with other personnel costs and related expenses for the O&M activity and are reflected in the Program Direction section of Western’s budget request.

Costs incurred within the C&R program are capitalized. In rare cases where a C&R project is abandoned, associated costs may be expended. Unless otherwise provided by law, all C&R costs are recovered from ratepayers; not taxpayers, with interest over the useful life of the asset.

**Benefits**

- Promotes firm clean renewable hydropower resource.
- Provides reliable power delivery and strengthens the grid.
- Protects employee and public safety.

**Explanation of Funding Changes**

**Transmission Lines and Terminal Facilities**

The 40 percent decrease extends and defers rehabilitation of Western’s aging transmission infrastructure. Reliance on Alternative Financing has also been reduced to reflect more realistic assumptions on the availability of non-appropriated customer financing. No appropriations are requested for these activities in FY 2013. All \$40.5 million required for ongoing and new transmission line rehabilitation projects are dependent on customer financing.

**Substations**

Continues rehabilitation and reliability work. Approximately \$17.7 million in appropriations are planned for the most critical ongoing substation rehabilitation activities in FY 2013, including Mead, Liberty, Hayden and Gila substations. Additional planned work of \$19.2 million at other substations is dependent on securing alternative customer financing.

**Other**

The requirement for Other construction and rehabilitation activities decreases 15 percent. The \$6.1 million provides for enhancement of communication systems, replacement of aging water and fire protection at the critical Mead Substation, and replacement of key demolished buildings. \$3.4 million in appropriations are planned for FY 2013; the remaining \$2.7 million required will be sought through customer advances.

Total Funding Change, Construction and Rehabilitation

- Ensures long-term cost recovery and repayment of Federal investment.

**Subprogram Accomplishments**

In FY 2011, Western made progress on several reliability concerns; including:

- Sacramento area voltage support;
- Northern Colorado area voltage support;
- Pick-Sloan Missouri Basin load growth;
- Desert Southwest region aging infrastructure.

**Explanation of Changes**

The FY 2013 C&R program is substantially below the FY 2012 level reflecting constraints to the alternatively financed customer funding resources. The FY 2013 appropriated program increases from FY 2012 by \$3.9 million. The increase lowers the reliance on advanced customer funding to more achievable levels. The limited appropriations are focused on critical substation equipment necessary to maintain the grid; and other critical communication and miscellaneous infrastructure needs. Investment in the aging transmission lines is dependent on our ability to secure alternative financing from customers for these activities.

(Dollars in Thousands)

FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
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67,087      40,529      -26,558

36,115      36,851      +736

7,247      6,095      -1,152

110,449      83,475      -26,974

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## **Transmission Lines and Terminal Facilities Overview**

Western's transmission infrastructure, which was primarily constructed in the 1940s-1960s, continues to age. Thousands of miles of transmission line already exceed their design life. For FY 2013, there is continued focus on replacement and upgrade of aging infrastructure across Western's service area using non-appropriated alternative financing, with increasing emphasis on deteriorating transmission lines in the Parker-Davis systems in Arizona. In addition, activities are underway to address voltage support problems in the Colorado front-range, and growing loads in the Pick-Sloan Missouri Basin service territory. The funding level is determined by estimating the cost to complete each project and breaking out these costs by fiscal year. The estimates are based on recent actual costs to complete similar projects, updated individual project requirements, and past experience. The Transmission Lines and Terminal Facilities activity is broken into two subactivities:

### Continuing Work

This activity funds the continuation of modifications and rehabilitation of Western's transmission lines (TL) to ensure power system reliability and stability. The FY 2013 request does not include any appropriations to continue ongoing rehabilitation work. Western will pursue alternative financing from its customers to fund all on-going transmission line rehabilitation efforts estimated at \$21.7 million in FY 2013. Funding for these projects is not guaranteed, however, because alternative financing is voluntary. The ongoing activities dependent on customer financing are:

- Davis-MEC Kingman Tap (Arizona) – Rebuild existing 27.3-mile Davis Switchyard to MEC Kingman Tap transmission line. The 60 year old line is well beyond its engineered life span and is showing significant deterioration. The line lacks overhead ground wire protection from lightning strikes which are common in the area. The condition of the line, operated radially from Davis Substation, is a reliability concern for several utilities; it's also a safety concern for maintenance crews and residential and commercial areas encroaching on the existing right-of-ways.
- Elverta (California) – Realignment of the O'Banion-Elverta #2, and the Elverta-Roseville #2 transmission lines with each other to insure that one of the lines servicing load and providing generation will be in service during an east or west bus outage at Elverta substation. Under the current configuration, a catastrophic event at Elverta substation could trigger a larger scale power outage and/or load diversion event within the greater Sacramento and western Placer counties. The realignment improves long term reliable service and transfer capability, conforms to applicable mandatory NERC and WECC reliability standards, and avoids the potential for significant service interruptions to residential and industrial customers.
- Flatiron-Estes (Colorado) – Rebuild the 16.7 mile, 60-year old, 115-kV transmission line from Estes to Flatiron Substation and coordinate right-of-way with the Estes-Pole Hill transmission line for improved maintenance and vegetation management. The aging transmission structures are unsafe due to core rot and cracking. A failure would critically overload the only other transmission line into the substation.
- Lovell-Yellowtail (Wyoming) – Rebuild a 15-mile section each of the Lovell-Yellowtail No. 1 and No. 2 115-kV transmission lines on the Crow Reservation. The rebuild of the 55- and 45-year old lines, respectively, are needed to improve reliability and system capability. Inspections show an increasing percentage of deteriorating structures. This project also includes renewing the right-of-way for Lovell-Yellowtail #2 line.
- Pinnacle Peak-Rodgers (Arizona) – Renew right-of-way for operation and maintenance of the Pinnacle Peak-Rodgers 230-kV transmission line across the Salt River Pima-Maricopa Indian Community. The lack of easement rights would restrict Western's ability to maintain this portion of the line, create a reliability issue, and constrain the delivery of electrical power south of the Pinnacle Peak Substation.
- Shasta-Flanagan-Keswick (California) – Replace the existing conductor on the 8.7 mile, 61-year old Shasta-Flanagan-Keswick 230-kV transmission line with a larger, higher capacity conductor and replace the associated substation equipment necessary to accommodate the increase in power flows. The reconductoring allows for maximum hydro-power generation at the Shasta Powerplant during periods of high energy demand and high power flows. Without reconductoring, a remedial action scheme must be deployed under demanding operating conditions that would idle two of the Shasta generator units and lead to increased purchase power costs for Western's customers.

## Rehabilitation Starts

This activity funds transmission line and terminal facility rehabilitation starts to address additional system reliability risks or operational problems. The FY 2013 request does not include any appropriations for these new requirements. Western will pursue alternative financing from its customers to fund all new transmission line rehabilitation efforts estimated at \$18.8 million in FY 2013. Funding for these projects is not guaranteed, however, because alternative financing is voluntary. The new transmission line rehabilitation activities dependent on customer financing are:

- Big Bend-Lower Brule (South Dakota) – Construction of a new 2.5 mile 230-kV transmission line between Big Bend Dam and the proposed Lower Brule Substation. The transmission line is required to support increased pump station loads in the Witten, SD area, and to improve reliability of a customer’s 69-kV system near Reliance, SD.
- Coolidge-Valley Farms (Arizona) – Rebuild the 115-kV transmission line built in early 1940s that reaches from central Arizona to the southeast part of the state and feeds the Bureau of Indian Affairs and multiple regional utilities. The bulk of wood H-frame structures are past their engineered lifespan and are exhibiting condition-related deterioration such as advanced external shell rot, weathering and large cracks. Shell rot introduces reliability and safety concerns due to reduction of the amount of wood available to bear the load of the conductors and hardware.
- East Morrill Tap-Wildcat (Nebraska) – Construct 3 miles of new 69-kV line on new ROW from East Morrill Tap to Wildcat substation as part of the Platte Valley Voltage Conversion Project to increase operating voltage and eliminate severe low voltage problems in the Platte Valley area and increase operational flexibility for switching configurations.
- Electrical District No. 2-Electrical District No. 4 (Arizona) – Rebuild of 115-kV-230kV transmission line built in 1948 which runs through central Arizona. The bulk of the wood structures are long past their engineered lifespan and display symptoms of advanced external shell rot, weathering and large cracks which impact reliability as well as make it unsafe for line personnel to climb poles for maintenance. Replacing wood structures and conductors will increase reliability of service by dramatically reducing risk of line outages due to structure and support failures, while safety of maintenance personnel will be improved. New line will also be designed to accommodate growth in the area.
- ED5-Saguaro North (Arizona) – Rebuild 17 mile northern section of the 115-kV transmission line. Built in 1948, supported by wood H-frame structures, the line runs through southern Arizona. The wood structures are past their engineered lifespan and are exhibiting condition-related deterioration consistent with age and low desert environment. Replacement/upgrade will increase reliability of service and decrease cost of maintenance while accommodating area growth.
- ED5-Saguaro South (Arizona) – Rebuild the 17 mille southern section of the 115-kV transmission line also built in 1948. The wood H-frame structures running through southern Arizona are past their engineered lifespan and are exhibiting condition-related deterioration consistent with age and low desert environment. Replacement/upgrade will increase reliability of service and decrease cost of maintenance while accommodating area growth.
- New Underwood-Rapid City (South Dakota) – Construct new 24 mile 115-kV transmission line between New Underwood and Rapid City substations. Existing transmission network is not adequate to serve network loads under prior outage conditions. Proposed third 115kV transmission, along with additions at New Underwood Substation, would eliminate the lack of network transmission capacity in the Rapid City area.
- Wildcat-Sievers Rural Tap (Nebraska) – Construct 8 miles of new 69-kV line from Wildcat to Sievers Rural Tap. As part of the Platte Valley Voltage Conversion Project, the new line will help to eliminate severe low voltage issues and add operational flexibility for switching configurations.

### Benefits:

- Promotes firm clean renewable hydropower resource.
- Provides reliable power delivery and strengthens the grid.
- Protects employee and public safety.
- Ensures long-term cost recovery and repayment of Federal investment.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Continue rehabilitation and construction required on Western transmission lines and terminal facilities to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety.	60,656
FY 2012	Continue rehabilitation and construction required on Western transmission lines and terminal facilities to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety.	67,087
FY 2013	Continue rehabilitation and construction required on Western transmission lines and terminal facilities to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety. Net budget authority requested is \$0.	40,529

## **Substations Overview**

Western plans to allocate appropriated funds primarily in this area to continue ongoing work addressing reliability concerns at key critical substations, including Mead, Liberty, Hayden, and Gila. In addition, Western is seeking substantial alternative customer funds to combat aging infrastructure issues at several other substations across its 15-state service territory. The funding level is determined by estimating the cost to complete each project and breaking out these costs by fiscal year. The estimates are based on recent actual costs to complete similar projects, updated individual project requirements, and past experience. The Substations activity is divided into two sub activities:

### Continuing Work

This activity funds the continuation of modifications and rehabilitation of Western's substations to ensure power system reliability and stability. The FY 2013 request includes \$17.7 million in appropriations to continue the following ongoing rehabilitation work:

- Coolidge Substation (Arizona) – Renewal of the transmission line Right-of-Way between the Rogers and Coolidge Substations was agreed to by Western and the Gila River Indian Community. The agreement requires Western to provide and install a 230/69-kV transformer in the Coolidge Substation to serve the Gila River Indian Community.
- Gila Substation (Arizona) – Rebuild the 1940s vintage Gila 34.5-kV/69-kV Switchyard that provides station power and service to the Yuma Area Irrigation District pumping loads. The advanced age of this equipment is impacting system reliability. Aging symptoms include broken disconnects, oil leaks, and disintegrating foundations. Over 10,000 gallons of oil reside in the old transformers and circuit breakers at the facility which sits immediately adjacent to an irrigation canal. Rebuilding the facility is necessary to ensure reliability, safety, and to reduce hazards to the environment.
- Hayden Substation (Colorado) – One of two transformers failed catastrophically at the Hayden Substation as a result of age and increasing loading conditions. Replace the failed transformer and the operating, but undersized, transformer and associated control and protection equipment to restore the transmission system capability, improve reliability, and provide greater operational flexibility.
- Liberty Substation (Arizona) – Replace the 345-kV transformer at Liberty Substation in western Phoenix supporting the critical 345-kV Liberty to Peacock transmission line. Testing on the 43-year old transformer indicates both internal and external deterioration, including extensive leaking from several areas of the transformer. Replacement is necessary to avoid catastrophic failure and/or lengthy outage on the heavily loaded Liberty-Peacock transmission line.
- Mead Substation (Nevada) – Replace the 345-kV transformer at Mead Substation south of Boulder City that provides the sole feed from Mead Substation to the heavily loaded Mead-Peacock 345-kV transmission line. Testing on this 45-year old transformer indicates both internal and external deterioration, including leaking, bushing and insulation degradation. Replacement will improve reliability of this critical component of the Mead to Peacock system, dramatically reducing the risk of failure and line outage.

Western will pursue alternative financing from its customers to fund the remaining on-going substation rehabilitation efforts estimated at \$12.0 million in FY 2013. Funding for these projects is not guaranteed, however, because alternative financing is voluntary. The ongoing activities dependent on customer financing are:

- Cheyenne Substation (Wyoming) – Addition of redundant 230/115-kV transformer at Cheyenne Substation is necessary to mitigate voltage deviations arising from the loss or maintenance of the primary transformer. The addition provides for greater reliability of the transmission system in southeastern Wyoming.
- Edgeley Substation (North Dakota) – Replace the aging 1952 transformer KY1A at Edgeley Substation and add equipment for improved protection, reliability, and operating flexibility.
- New Underwood-Rapid City (South Dakota) – Addition of 230/115-kV 200MVA transformer and associated equipment. The 1960's New Underwood substation provides the majority of the network transmission capacity to serve Rapid City area loads. Addition of transformer and bus sectionalizing breakers will provide the network capacity to serve customer loads for several different system outage conditions.

**Western Area Power Administration  
Construction, Rehabilitation, Operation and Maintenance  
Construction and Rehabilitation**

**FY 2013 Congressional Budget**



- O’Neill Substation (California) - Rebuild the 43 year old substation to improve the reliability of the electrical supply facilities for the O’Neil pump/generating station. The substation is the sole source of power to six large pump/generation units operated by the U.S. Bureau of Reclamation as part of the San Luis Water Project. The aging equipment requires excessive manpower and resources to assure the facility continues to operate reliably. Replacement of the aging and environmentally-hazardous oil-filled breakers which are in close proximity to one of California’s main water export facilities will remove a significant threat to the water supply of millions of water users.
- Sioux Falls Substation (South Dakota) – Replace the Sioux Falls transformers KV3A (230/115 33.3 MVA) and KV5A (230/115 33.3 MVA) with 250 MVA 3-phase autotransformers to improve system reliability. System studies identify capacity deficiencies in the existing transformers as a result of significant commercial and residential load growth.
- Bouse Tap (Arizona) – Rebuild the Bouse Tap as a three breaker ring bus to improve system reliability by restoring remote operating and emergency line-break capability to this segment of the Parker-Kofa 161-kV transmission line. The existing switchyard, constructed in the early 1950’s, has exceeded its useful life and can no longer support remote operations.

#### Rehabilitation Starts

Several substation rehabilitation activities are planned to begin in FY 2013. The FY 2013 request does not include any appropriations for these activities. Western will pursue alternative financing from its customers to fund all the substation rehabilitation starts estimated at \$7.2 million in FY 2013. Funding for these projects is not guaranteed, however, because alternative financing is voluntary. The new substation rehabilitation activities dependent on customer financing are:

- Belfield Substation (North Dakota) – Addition of a second 345/230-kV transformer, shunt capacitor bank, reactor, and associated control and protection equipment to the Belfield Substation is required due to increasing loads at this major interconnection point for the high-voltage transmission system serving eastern Montana and western North Dakota. The additions will improve reliability and operating flexibility.
- Granite Falls Substation (North Dakota) – Replace the aging 1959 115/69-kV transformer KY2A at the Granite Falls Substation to support increased load growth in the area. The transformer is at increased risk for near term overloading conditions and needs to be replaced to ensure continued reliability.
- Lingle Substation (Wyoming) – Addition of a new 69-kV switchyard, including 115/69-kV transformer and associated control and protection equipment is required at or near Lingle Substation to combat severe low voltage problems in the Platte Valley area.
- Rapid City Substation (South Dakota) – Addition of a customer-furnished 115/69 kV transformer to Western’s Rapid City Substation to provide greater reliability and operating flexibility necessary to meet substantial load growth in the area.
- Rugby Substation (North Dakota) – Replace 115/69-kV transformer and other substation upgrade/additions. The 60-year old transformer was installed in 1952 and has significantly exceeded its expected service life of 40 years placing reliability at risk. The addition of a power circuit breaker for a dedicated transformer bay will add protection, reliability, and operating flexibility to substation.
- Torrington Substation (Wyoming) – Addition of a new 69-kV switchyard, including 115/69-kV transformer, 69/34.5-kV transformer and associated control and protection equipment is needed to improve reliability impacted by severe low voltage problems in the Platte Valley area.
- Tucson Substation (Arizona) – Upgrade the obsolete 1952 vintage Tucson Substation bus structure and antiquated equipment to increase reliability, safety, and maintainability of the Parker-Davis Power System.

#### Benefits:

- Promotes firm clean renewable hydropower resource.
- Provides reliable power delivery and strengthens the grid.
- Protects employee and public safety.
- Ensures long-term cost recovery and repayment of Federal investment.

#### **Western Area Power Administration**

#### **Construction, Rehabilitation, Operation and Maintenance**

#### **Construction and Rehabilitation**

**FY 2013 Congressional Budget**

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Continue rehabilitation and construction required at Western substations to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety.	46,275
FY 2012	Continue rehabilitation and construction required at Western substations to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety.	36,115
FY 2013	Continue rehabilitation and construction required at Western substations to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety. Net budget authority requested is \$17.7 million.	36,851

## **Other Construction and Rehabilitation Overview**

The Other category includes construction and rehabilitation activities not otherwise included within the Substation or Transmission Lines and Terminal Facilities categories. These activities include two sub activities; communication equipment and miscellaneous which covers items like construction or major rehabilitation of maintenance facilities, access roads, and facility decommissioning and removal costs.

### Communications Systems

This activity funds work to replace, modernize, and expand communication systems (microwave, fiber optic, global information system, and telecommunication) in the Central Valley Project and the Pick-Sloan Missouri Basin Program to operate and control the transmission system. Replacement parts for obsolete communications systems are often difficult to obtain. With technological advances in the communications field, increased use of remote control of facilities, and the need for greater integration of the Federal system with the rest of the grid, maintaining secure and reliable communications is crucial to Western's mission. The FY 2013 request does not include any appropriations. Western will pursue alternative financing from its customers in order to complete additional planned communication system (microwave, fiber optic, global information system, and telecommunication) improvements in the Central Valley Project and the Pick-Sloan Missouri Basin Program estimated at approximately \$2.0 million.

Note: the equipment requested here is not included in the Spectrum Relocation Fund initiative.

### Miscellaneous

The FY 2013 request includes appropriations of \$3.4 million for:

- Watertown Maintenance/Marketing Facility (South Dakota) – Replace demolished buildings to provide for consolidated 240x80 space to house maintenance and marketing groups, equipment/material storage, house vehicles and provide shop areas. Previous buildings were demolished due to safety concerns.
- The Elverta Maintenance Facility (California) is in serious need of rehabilitation to be brought in line with building codes and to correct water seepage issues. In conjunction with the rehabilitation of the facility, the interior will be modified to provide space for a functional alternate control center for both the operations and marketing functions. This project will provide an efficient and safe work environment, and a geographically diverse Alternate Control Center location to conform to prudent utility practices recommended by NERC and WECC.
- Continue Western's power facility development activities that provide technical products in support of the construction and rehabilitation program activities.

Western will pursue alternative financing from its customers to fund the remaining miscellaneous efforts estimated at \$0.7 million in FY 2013. Funding for these projects is not guaranteed, however, because alternative financing is voluntary.

- Mead Substation (Nevada) – Replace the domestic water and fire protection supply system. Corrosion in the system has raised concerns of limited life expectancy for certain water system elements. Replacing the aging and defective components will improve the reliability and robustness of this critical substation.

### Benefits:

- Promotes firm clean renewable hydropower resource.
- Provides reliable power delivery and strengthens the grid.
- Protects employee and public safety.
- Ensures long-term cost recovery and repayment of Federal investment.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Continue other rehabilitation and construction required at Western to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety.	2,956
FY 2012	Continue rehabilitation and construction required at Western substations to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety.	7,247
FY 2013	Continue rehabilitation and construction required at Western substations to cost-effectively market and deliver clean-renewable Federal hydropower and promote a strong record of reliability and safety. Net budget authority requested is \$3.4 million.	6,095

**Purchase Power and Wheeling  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Request	FY 2013 Request
Purchase Power and Wheeling			
Central Valley	293,721	300,584	295,209
Pick-Sloan Missouri Basin and Other Programs	249,901	170,951	127,016
Subtotal, Purchase Power and Wheeling	543,622	471,535	422,225
Alternative Financing Needed	-193,815	-164,994	-179,367
Offsetting Collections	-349,807	-306,541	-242,858
Total, Purchase Power and Wheeling (Budget Authority)	0	0	0

**Overview**

The Purchase Power and Wheeling (PPW) subprogram supports Western’s marketing efforts and delivery capability which spans a 1.3-million-square-mile area serving a diverse group of 682 wholesale customers, including municipalities, cooperatives, public utility and irrigation districts, Federal and state agencies and Native American tribes. The PPW subprogram provides for Western’s long-term firm power sale contractual agreements, including wheeling over non-Federal transmission lines as necessary to deliver the firm hydropower resource to customers.

**Benefits**

- Firm clean renewable hydropower resource.
- Reliable cost-based power and related services.
- Avoids Federal duplication of transmission resources.
- Ensures cost recovery and repayment of Federal investment.

**Subprogram Accomplishments**

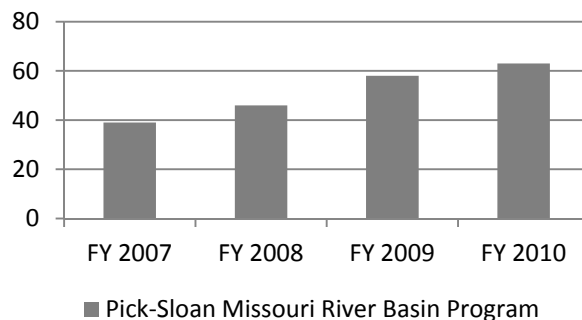
In FY 2011, the PPW subprogram continued to support Western’s power marketing effort by providing for power purchases to firm the variable hydropower resource and securing transmission services as necessary to meet its contractual power delivery obligations.

**Explanation of Changes**

The FY 2013 request provides for continuation of PPW receipt funded activities at the estimated level necessary to meet contractual firming needs. No appropriated budget authority is necessary. The lower request for receipt authority reflects improving water conditions in the drought-stricken Pick-Sloan Missouri River Basin.

**Pick-Sloan improving water conditions**

**Reservoir Storage**  
(million acre-feet)



**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
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Central Valley Project

- The gross PPW requirement of \$295.2 million in FY 2013 decreases 1.8 percent from the \$300.6 million level anticipated in FY 2012. The decrease reflects a reduction in anticipated purchases to meet marketed requirements.
- Note: The PPW amounts are for offsetting collection authority and alternative financing; no direct appropriations are necessary.

	300,584	295,209	-5,375
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Pick-Sloan Missouri Basin and Other Programs

- The gross PPW requirement of \$127.0 million in FY 2013 decreases \$43.9 million from the \$171.0 million estimated for FY 2012 in anticipation of improving water conditions in the drought stricken Pick-Sloan Missouri Basin region.
- Note: The PPW amounts are for offsetting collection authority and alternative financing; no direct appropriations are requested for this activity.

	170,951	127,016	-43,935
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TOTAL Funding Change, Purchase Power and Wheeling

	471,535	422,225	-49,310
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**Purchase Power and Wheeling  
Overview**

The Purchase Power and Wheeling (PPW) subprogram supports Western’s mission to market and deliver reliable, cost-based hydroelectric power and related services. These services are marketed at rates sufficient to recover expenses and Federal investment as established by law. To maximize the marketability of Western’s products, Western has entered into long-term contracts with customers of the Central Valley Project (CVP), Pick-Sloan Missouri Basin Program, as well as other projects, to deliver power based on the normal (average over the long-term) amount of power and/or capacity available from each of the power systems. By its nature, hydropower is a variable resource; it is affected by reservoir storage, drought conditions, powerplant maintenance and other project purposes. Variations occur between load and the hydro-generation hour-by-hour or even minute-by-minute. Western buys power and related transmission services to fulfill its firm power-sale contractual commitments. Western also buys transmission services, as needed, to provide the benefits of the Federal hydropower resource to numerous Federal, state, municipal, and other preference customers not directly connected to Western’s system. Contracting for transmission services encourages the widespread use principle of the Flood Control Act of 1944 and avoids unnecessary Federal duplication of available transmission resources. The acquisition of non-Federal power and transmission services meets Western’s power marketing contract provisions which place responsibilities on Western to provide firm power to customers of the Central Valley Project, Pick-Sloan Missouri Basin Program-Eastern Division, Loveland Area Projects and Parker-Davis Project.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Purchase Power and Wheeling (net budget authority)	0
FY 2012	Purchase Power and Wheeling (net budget authority)	0
FY 2013	Purchase Power and Wheeling (net budget authority)	0

**Other Information**

(dollars in thousands)

FY 2011	FY 2012	FY 2013
<b>132,679</b>	<b>147,965</b>	<b>135,848</b>

**Central Valley Project**

No appropriations are requested. This is authority to use offsetting collections only.

<b>Central Valley Project, Program Requirement</b>	<b>293,721</b>	<b>300,584</b>	<b>295,209</b>
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In FY 2013, Western continues to deliver on its contractual power commitments to customers under the Central Valley Project’s Post 2004 Marketing Plan. The budget request assumes current full load service customers will continue to choose service from Western through “Custom Product” contractual arrangements. Western also purchases power to support variable resource customers on a pass-thru basis. If project net generation is not sufficient, Western may also purchase to support project use load, First Preference Customer load, and sub-control area reserve requirements.

<b>Central Valley Project, Alternative/Customer Financing</b>	<b>-161,042</b>	<b>-152,619</b>	<b>-159,361</b>
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Contractual arrangements have been made with customers providing opportunities for alternative financing of the purchase power requirements. Alternative financing methods include net billing, bill crediting, energy exchanges, and direct customer funding.

<b>Pick-Sloan Missouri Basin and Other Programs</b>	<b>217,128</b>	<b>158,576</b>	<b>107,010</b>
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No appropriations are requested. This is authority to use offsetting collections only.

**Western Area Power Administration  
Construction, Rehabilitation, Operation and Maintenance  
Purchase Power and Wheeling**

**FY 2013 Congressional Budget**

▪ <b>Pick-Sloan Missouri Basin and Other Programs, Program Requirement</b>	<b>249,901</b>	<b>170,951</b>	<b>127,016</b>
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In FY 2013, the request continues to support long-term firm power commitments to customers of the Eastern and Western divisions of the Pick-Sloan Missouri Basin Program, the Fryingpan-Arkansas Project, and the Parker-Davis Project commensurate with the levels of average firm hydroelectric energy marketed by Western. The request also provides transmission support for the Pacific Northwest-Southwest Intertie Project. The total program estimates shown for FY 2013 are based primarily on market pricing of short-term firm energy, negotiated transmission rates, and Western and generating agency's forecasts. The FY 2013 program forecasts reduced purchases.

▪ <b>Pick-Sloan Missouri Basin and Other Programs, Alternative/Customer Financing</b>	<b>-32,773</b>	<b>-12,375</b>	<b>-20,006</b>
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Western will use alternative financing methods negotiated with customers to provide this offset to the total program receipt financing requirement. Alternative financing methods include net billing, bill crediting, energy exchanges, and direct customer funding.

<b>Total, Purchase Power and Wheeling (Spending authority for offsetting collections)</b>	<b>349,807</b>	<b>306,541</b>	<b>242,858</b>
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**Program Direction  
Funding Profile by Category**

(Dollars in Thousands/Whole FTEs)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Program Direction			
Salaries and Benefits	132,610	134,016	140,772
Travel	9,421	10,500	10,248
Support Services	27,152	30,830	21,998
Other Related Expenses	23,022	29,901	31,209
Total, Program Direction	192,205	205,247	204,227
Use of Alternative Financing	-23,348	-3,300	-3,500
Use of Receipts from Colorado River Dam Fund	-3,012	-3,788	-3,983
Offsetting Collections, Other Expenses	-127,308	-156,609	-159,703
Total, Program Direction Budget Authority	38,537	41,550	37,041
Full Time Equivalents	1,107	1,118	1,138

**Overview**

Western’s Program Direction subprogram provides compensation and all related expenses for its workforce, including those employees that operate and maintain Western’s high-voltage interconnected transmission system and associated facilities; those that plan, design, and supervise the construction of replacements, upgrades and additions (capital investments) to the transmission facilities; those that market the power and energy produced to repay annual expenses and capital investment; and, those that administratively support these functions.

The Program Direction subprogram supports DOE and Western missions. To attain reliability performance, dispatchers match generation to load minute-by-minute to meet or exceed performance levels established by NERC. Energy schedulers maximize revenues from non-firm energy sales and power rates are reviewed and adjusted to support repayment of the Federal investment. Western trains its employees on a continuing basis in occupational safety and health regulations, policies and procedures, and conducts safety meetings at employee, supervisory and management levels to keep the safety culture strong. Accidents are reviewed to ensure lessons are learned and proper work protocol is in place.

The Program Direction subprogram further supports Western’s Human Capital Management (HCM) Workforce Plan. HCM Workforce Plan activities include: exploring ways to increase Human Resource efficiency through consolidation; the development and/or expansion of intern/apprenticeship programs in the occupations of energy marketing, dispatcher, lineman, and electrician; introduction of an under-study program in Power Marketing, prior to an incumbent retiring; rotational training programs for engineers; strategic use of knowledge sharing and training events in critical occupations; and, succession planning development programs for mid- to upper-level graded Federal positions. By design, costs for these HCM programs will be minimal as local area expertise and facilities are used to the maximum extent possible. The HCM Workforce Plan noted that no new A-76 studies were required and/or anticipated at this time.

In concert with its customers, Western reviews required replacements and upgrades to its existing infrastructure to sustain reliable power delivery to its customers and to contain annual maintenance expenses. The timing and scope of these replacements and upgrades are critical to assure that Western’s facilities do not become the “weak link” in the interconnected system. Western pursues opportunities to join with neighboring utilities to jointly finance activities, which avoid redundant facilities and result in realized cost savings and/or increased efficiencies for all participants.

**Major Program Shifts or Changes**

No major program shifts or changes.

**Western Area Power Administration  
Construction, Rehabilitation, Operation and Maintenance  
Program Direction**

**FY 2013 Congressional Budget**

**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
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**Salaries and Benefits**

The increase to salary and benefits includes Western’s request for an increase of 20 FTE and the remaining FTE financed in this account, to include those salaries determined through negotiations. Changes in Western's FTE include an increase of 1 FTE for the Boulder Canyon Project funded through a reimbursable agreement with DOI, Bureau of Reclamation for maintenance activities, plus an increase of 19 FTE to support mission related activities. The FTE increase included in this request are funded predominantly through Reimbursable activity to include Western's Alternative Financing agreements; CROM; an indirect account which is distributed to a mixture of fund sources including Reimbursable and CROM; and, Western's ARRA, in which Western's Administrator has authority to hire as required to meet the mission needs of the Act. The following positions and number of FTE are requested: Accountant (2); Attorney-Advisor (1); Procurement Analyst (1); Human Resource personnel (2); Contract Specialist (1); Information Technology Specialist (1); Electrical Engineer (1); various Craftsman (i.e., meter and electronic) (4); Project Manager/Facility Engineer (2); Reliability Compliance Specialist (1); Energy Management & Marketing Specialist (1); Maintenance NERC Compliance Coordinator (1); Field Engineer (1); and a Compliance Specialist (1).

134,016      140,772      +6,756

**Travel**

The decrease is attributable to a decrease in planned travel for meetings, offset slightly for inflation in planned travel in support of Western’s mission-related operation and maintenance activities to service over 17 thousand miles of Western’s interconnected transmission system.

10,500      10,248      -252

**Support Services**

The decrease to this activity is primarily attributable to the completion of a contract performance period for specific economic and environmental analysis requirements, a decrease to general administrative and ADP support, and a slight decrease to training and education.

30,830      21,998      -8,832

**Other Related Expenses**

The increase is primarily attributable to architectural and engineering services required to support Western’s mission capital requirements. Also included are increases to equipment purchases, and rental space. Western’s cost share from the DOE’s Working Capital Fund has also increased. DOE is working to achieve economies of scale through an enhanced Working Capital Fund (WCF). The WCF increase covers certain shared, enterprise activities including enhanced cybersecurity architecture, employee health and testing services, and consolidated training and recruitment initiatives.

Other increases are attributable to inflationary factors. The increases are offset by a decrease to contractual maintenance of equipment support, estimated reimbursements of college tuition courses, supplies and materials and slight decrease to communication costs.

29,901      31,209      +1,308

**Total Funding Change, Program Direction**

205,247      204,227      -1,020

**Western Area Power Administration  
Construction, Rehabilitation, Operation and Maintenance  
Program Direction**

**FY 2013 Congressional Budget**

**Functional Transfers**

The FY 2013 budget request reflects no functional transfer.

**Support Services by Category**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Technical Support Services			
Feasibility of Design Considerations	0	0	0
Development of Specifications	0	0	0
System Definition	0	0	0
System Review and Reliability Analysis	0	0	0
Trade-Off Analysis	0	0	0
Economic and Environmental Analysis	5,066	5,200	3,223
Test and Environmental Studies	0	0	0
Surveys or Reviews of Technical Operations	0	0	0
Total, Technical Support Services	0	0	0
	5,066	5,200	3,223
Management Support Services			
Analysis of Workload and Workflow	0	0	0
Directive Management Studies	0	0	0
Automated Data Processing	6,513	7,865	5,737
Manpower Systems Analysis	0	0	0
Preparation of Program Plans	0	0	0
Training and Education	1,485	1,523	1,422
Analysis of DOE Management Processes	0	0	0
Reports and Analyses Management and General Administrative Support	14,088	16,242	11,616
Total, Management Support Services	22,086	25,630	18,775
Total, Support Services	27,152	30,830	21,998

**Other Related Expenses by Category**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Other Related Expenses			
Rent to GSA	2,373	2,451	2,567
Rent to Others	0	0	0
Communication, Utilities, Misc.	4,747	4,900	4,702
Printing and Reproduction	116	126	129
Other Services	6,384	12,583	15,086
Training	449	86	53
Purchases from Gov. Accounts	572	531	522
Operation and Maintenance of Equipment	2,444	2,127	984
Supplies and Materials	2,961	3,085	2,992
Equipment	1,859	2,585	2,684
Working Capital Fund	1,117	1,427	1,490
Total, Other Related Expenses	23,022	29,901	31,209

**Western Area Power Administration  
Construction, Rehabilitation, Operation and Maintenance  
Program Direction**



**Utah Mitigation and Conservation  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Western Area Power Administration Utah Mitigation and Conservation Budget Authority	7,569	3,375	3,375
<b>Total, Utah Mitigation and Conservation Budget Authority</b>	<b>7,569</b>	<b>3,375</b>	<b>3,375</b>

**Overview**

The Reclamation Projects Authorization and Adjustment Act of 1992, Title IV, established the Utah Reclamation Mitigation and Conservation Account (Account) in the Treasury of the United States. The purpose of the account is to ensure that the level of environmental protection, mitigation and enhancement achieved in connection with projects identified in the Act and elsewhere in the Colorado River Storage Project in the State of Utah is preserved and maintained. Western's Administrator is authorized to deposit funds into the Account each year, through fiscal year 2013.

**Benefits**

- Satisfies statutory requirements for support of environment.
- Does not directly support Western's Mission.

**Explanation of Changes**

Fiscal Year 2013 is the final year of Western's contribution to this fund, as legislated in Title II, Sec 214 of Public Law 108-137.

**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
<b>Utah Mitigation and Conservation</b>			
▪ DOE has identified the Utah Mitigation and Conservation Program as a low-priority program because it does not directly support Western's mission, and has subsequently reduced its funding request.	3,375	3,375	0
<b>TOTAL Funding Change, Utah Mitigation and Conservation Budget Authority</b>	<b>3,375</b>	<b>3,375</b>	<b>0</b>

**Utah Mitigation and Conservation  
Overview**

The Reclamation Projects Authorization and Adjustment Act of 1992, Title IV, established the Utah Reclamation Mitigation and Conservation Account (Account) in the Treasury of the United States. The purpose of this account is to ensure that the level of environmental protection, mitigation, and enhancements achieved in connection with projects identified in the Act and elsewhere in the Colorado River Storage Project in the State of Utah is preserved and maintained. Western’s Administrator is authorized to deposit funds into the Account each year, through fiscal year 2013. Such expenditures are to be considered non-reimbursable and non-returnable. The Utah Reclamation Mitigation and Conservation Commission (Commission) established under Title III of the Act, is authorized to administer all funds deposited into this Account. Public Law 108-137, Sec 214 provided for the contributions of Western to the Utah Reclamation Mitigation and Conservation Account to expire ten fiscal years from the date of enactment, thereby providing for the sunset of Western’s contribution in fiscal year 2013. At such time as Western’s contributions end, the Act authorizes the Commission to utilize interest earned and accrued to the Account.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Full deposit made to Utah	7,569
FY 2012	Deposit will be made to Utah	3,375
FY 2013	Deposit will be made to Utah	3,375

**Falcon and Amistad Operating and Maintenance Fund  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Western Area Power Administration Falcon and Amistad Operating and Maintenance Fund	2,568	4,169	5,555
Less Offsetting Collections	-2,348	-3,949	-5,335
Total, Falcon and Amistad Operating and Maintenance Fund	220	220	220

**Overview**

The Falcon/Amistad Project consists of two international dams located on the Rio Grande River between Texas and Mexico. The United States and Mexico operate separate power plants on each side of the Rio Grande River; the power output is divided evenly between the two countries. The Operating and Maintenance Fund was established in the Treasury of the United States and is administered by Western’s Administrator for use by the Commissioner of the U. S. Section of the International Boundary and Water Commission (IBWC) to defray administrative, O&M, replacement, and emergency costs for the hydroelectric facilities at the Falcon and Amistad Dams.

**Benefits**

- Firm clean renewable hydropower resource.
- Reliable cost-based power and related services.
- Provides power to rural electric cooperatives through Western.

- Ensures cost recovery and repayment of Federal investment.

**Subprogram Accomplishments**

Performed Physical Security Assessments to improve security at both plants. Access control activities were implemented, with additional actions scheduled for FY12 and beyond.

Provided critical additional power generation to the Electric Reliability Council of Texas network during excessive inclement weather incidents during the summer and winter months.

Reorganized the Operations and Maintenance division; streamlining reporting by combining direct supervision of both Amistad and Falcon power plants into one position filled by one experienced power plant engineer.

**Major Program Shifts or Changes**

No major program shifts or changes

**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
<b>Salaries and Benefits</b>			
<ul style="list-style-type: none"> <li>The increase to this activity is due to additional employee positions: 3.5 at Falcon Dam and 2.0 at Amistad Dam. The positions include Supervisory Security Guards, High Voltage Technician and Maintenance Workers. Within grade increases and promotions are also contributing factors to the increase in this category.</li> </ul>	2,662	3,080	+418
<b>Routine Services</b>			
<ul style="list-style-type: none"> <li>The increase is due to a rise in required operations and maintenance activities charged to this account. Items such as Lighting Panel Upgrade, annunciation system replacement, and SCADA system replacement fall within this activity.</li> </ul>	1,272	2,199	+927
<b>Miscellaneous Expenses</b>			
<ul style="list-style-type: none"> <li>Under this activity, the increase is attributed to recertification training requirements and security training, as well as industry conference attendance. Remaining increase is due to inflation of costs such as phone services; cell, landline and satellite.</li> </ul>	219	259	+40
<b>Marketing, Contract, Repayment Studies</b>			
<ul style="list-style-type: none"> <li>Increase is due to inflation.</li> </ul>	16	17	+1
<b>TOTAL Funding Change, Falcon and Amistad Operating and Maintenance Fund</b>	<b>4,169</b>	<b>5,555</b>	<b>+1,386</b>



**Falcon and Amistad Operating and Maintenance Fund  
Overview**

The Falcon and Amistad Operating and Maintenance fund (Maintenance Fund) was established in the Treasury of the United States as directed by the Foreign Relations Authorization Act, Fiscal Years 1994 and 1995. The Maintenance Fund is administered by Western's Administrator for use by the Commissioner of the U. S. Section of the International Boundary and Water Commission (IBWC) to defray administrative, O&M, replacement, and emergency costs for the hydroelectric facilities at the Falcon and Amistad Dams. IBWC owns and operates the U.S. portion of the projects, and federal staff funded under this program continues to be allocated to the U.S. Section of IBWC by the Department of State. The Falcon/Amistad project supports Western's program goals by providing power to rural electric cooperatives through Western. With the exception of monies received from the Government of Mexico, all revenues collected from the sale of electric power generated at the Falcon and Amistad Dams are credited to the Maintenance Fund. Monies received from the Government of Mexico are credited to the General Fund of the U.S. Treasury. Revenues collected in excess of operating expenses are used to repay, with interest, the cost of replacements and original investments. Full funding will support 24-hour/day operation and maintenance of the two power plants to ensure response to ever-changing water conditions, customer demand, and continual coordination with operating personnel of the Government of Mexico.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Appropriations requested for capital costs; balance of funding is authority to use offsetting collections	220
FY 2012	Appropriations requested for capital costs; balance of funding is authority to use offsetting collections	220
FY 2013	Appropriations requested for capital costs; balance of funding is authority to use offsetting collections	220

**Other Information**

(dollars in thousands)

FY 2011	FY 2012	FY 2013
<b>2,019</b>	<b>2,662</b>	<b>3,080</b>

**Salaries and Benefits**

Funding to support salaries and benefits provided for Federal staff positions of the U.S. Section of the IBWC allocated to operate and maintain two power plants on a 24-hour/day basis. The work includes planned maintenance activities, safety services, and emergency response to flood operations and /or equipment failure.

<b>Routine Services</b>	<b>392</b>	<b>1,272</b>	<b>2,199</b>
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Routine services such as inspections and repairs to miscellaneous safety and fire suppression systems, elevators, and HVAC systems, calibration of test equipment, rebuilding electric motors and repairs to obsolete equipment when replacement parts are no longer available. The request in this category includes capitalized estimates of \$220,000 to cover the partial expenses for Lighting Panel Upgrade, Upgrade of Governor Controls, SCADA System Replacement, Synchronous Condensing, and Updates to Access Control.

<b>Miscellaneous Expenses</b>	<b>142</b>	<b>219</b>	<b>259</b>
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Funding for IBWC employees and technical advisors including travel, training, communications, utilities, printing, and office supplies/materials. Training activities include that which are essential to comply with standards of the Interagency Commission on Dam Safety, Occupational Safety and Health Administration, and the National Dam Safety Act.

<b>Marketing, Contract, Repayment Studies</b>	<b>15</b>	<b>16</b>	<b>17</b>
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Costs for marketing power, administration of power contract, and preparation of rate and repayment studies.

<b>Total, Falcon and Amistad Operating and Maintenance Fund</b>	<b>2,568</b>	<b>4,169</b>	<b>5,555</b>
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**Colorado River Basins Power Marketing Fund  
Funding Profile by Subprogram and Activity**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Colorado River Basins Power Marketing Fund			
Equipment, Contracts and Related Expenses			
Supplies, Materials, and Services	13,088	22,868	16,818
Purchase Power Costs	140,070	122,041	98,884
Capitalized Equipment	16,185	9,876	16,222
Interest/Transfers	5,391	9,717	9,661
Total, Equipment, Contracts and Related Expenses	174,734	164,502	141,585
Program Direction	52,569	55,895	55,408
Total, Operating Expenses from new authority	227,303	220,397	196,993
Offsetting Collections Realized	-250,303	-243,397	-219,993
Total, Obligational Authority	-23,000	-23,000	-23,000

**Overview**

Western operates and maintains the transmission system for the projects funded in this account to ensure an adequate supply of reliable electric power in a clean and environmentally safe, cost-effective manner. The Colorado River Basins Power Marketing Fund Program is comprised of three power systems: the Colorado River Storage Project, including the Dolores and Seedskaelee Projects; the Fort Peck Project; and the Colorado River Basin Project. Western is responsible for construction, maintenance, and operation of facilities for transmitting and marketing the electrical energy generated in these power systems.

**Benefits**

- Replacement and upgrading of existing electrical system infrastructure to sustain reliable power delivery to our customers.

**Explanation of Funding AND/OR Program Changes**

**Supplies, Materials, and Services**

- The decrease is due to cyclical maintenance requirements and includes procurements of non-capitalized substation equipment, durable equipment, and miscellaneous services.

**Purchase Power Costs**

- Purchase power costs decrease in FY 2013 as a result of the anticipated improvement of water conditions and a decrease in the costs of purchase power.

- Support a stable and reliable interconnected power system.
- Revenues from the sale of electric energy, capacity and transmission services replenish the fund and are available for expenditure for operation, maintenance, power billing and collection, program direction, purchase power and wheeling, interest, emergencies, and other power marketing expenses.
- Retain the value of our assets.

**Explanation of Changes**

The FY 2013 request provides for the continuation of Western's revolving funded activities at the estimated level necessary to meet mission requirements.

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
Supplies, Materials, and Services	22,868	16,818	-6,050
Purchase Power Costs	122,041	98,884	-23,157

**Capitalized Equipment**

- The increase in capitalized equipment purchases is attributed inflationary factors, offset by fewer purchases associated with planned replacement of structural substations.

9,876	16,222	+6,346
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**Interest**

- Projected decrease in FY 2013 is primarily due to a slight decrease in investment and an increase in principal payments made from the prior years' estimated Power Repayment Study.

9,717	9,661	-56
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**TOTAL Funding Change, Equipment, Contracts and Related Expenses**

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164,502	141,585	-22,917
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## **Equipment, Contracts and Related Expenses Overview**

Western's equipment, contracts and related expenses are necessary to operate and maintain this activity. Revenues from the sale of electric energy, capacity and transmission services replenish the fund and are available for expenditure for operation, maintenance, power billing and collection, program direction, purchase power and wheeling, interest, emergencies, and other power marketing expenses.

This activity funds the procurement of supplies, materials, and services necessary to respond to routine and emergency situations in the transmission system, and the continuation of reimbursements to the U.S. Army Corps of Engineers for operation and maintenance of the Fort Peck Powerplant. Estimates are based on recent actual costs for supplies needed to maintain transmission system reliability,

### Purchase Power Costs

This activity funds the procurement of electrical power, transmission capacity and wheeling services on the open market. The request anticipates the results of continued low-steady-flow tests conducted at Glen Canyon Dam, as required by the Glen Canyon Dam Environmental Impact Statement Record of Decision. Additionally, the request includes obligation authority to accommodate replacement power purchases for customers served by the Colorado River Storage Project. The replacement power purchases, a provision of the Salt Lake City Area Integrated Projects electric power contracts, are made at the request of power customers at times when Western lacks sufficient generation to meet its full contract commitment. The funds for the replacement power purchases are advanced by the requesting customers prior to the purchase.

### Capitalized Equipment

This activity funds the procurement of capitalized equipment including circuit breakers, transformers, relays, switches, transmission line equipment, microwave, SCADA, and other communication and control equipment to assure reliable service to Western's customers. Replacement and upgrade of aged power system components are crucial to system reliability and transmission services. Planned communications equipment purchases include replacing existing ground wire with fiber optic ground wire between Montrose Substation to Blue Mesa Switchyard, upgrade the conductor on the Wolf Point to Circle 115 kV line, a maintenance free building to house communication equipment, replacement of the mobile radio system infrastructure in the Rocky Mountain Region. Included also is funding for the continuation of the project to replace analog microwave with fiber optic ground wire and fiber optic terminal. Cost comparisons have shown that fiber optics have a significant lower life cycle cost and higher bandwidth capacity than digital microwave.

Transmission line estimates include the purchase of poles, crossarms, conductors, fusion splicers, line switches, overhead ground wire and hardware for the continued transmission line rebuilds. This estimate includes line rebuilds for the Harve-Rainbow line as the equipment has reached the end of its expected life and is in need of replacement. Western anticipates the completion of 10 miles a year.

Planned substation estimates include the Glen Canyon 69 kV substation upgrade, replacement of breakers and circuit switches for Fort Peck, and replacement of transformers, test equipment, as well as other aged equipment at various substations. Western is beginning the seventh year of a ten-year program to replace older electro-mechanical relays with microprocessor relays. The microprocessor relays will assist in finding faults faster in order to more efficiently restore service to customers. Other miscellaneous items required for substation replacements include surge arrestors, batteries and chargers, and monitoring equipment.

Planned movable capitalized property estimates include replacements of special purpose trucks, a crane for Ft. Peck to allow the employees to safely set 230 structures, replacement of generators to maintain the reliability and backup power to the communications system, and replacement of outdated test and recording equipment. Other estimates include the replacement of outdated test equipment, and test equipment to troubleshoot the new digital microwave radio system. Ongoing replacement is also planned for aging information technology support systems and routers. Other requests include funding for the continuation of the SCADA Upgrade program, as well as other minor enhancements that provide for the ease of maintenance, protection of equipment and materials, and environmental compliance.

Interest/Transfers

This activity funds interest payments to the U.S. Treasury. Estimates are based on Power Repayment Studies for the Projects funded in this account.

Benefits:

- Western achieves continuity of service by maintaining its power systems at or above industry standards, rapidly restoring service following any system disturbance, mitigating adverse environmental impacts, performing clean-up activities, and maximizing the revenues gained from non-firm energy sales.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Total, Equipment, Contracts and Related Expenses	174,734
FY 2012	Total, Equipment, Contracts and Related Expenses	164,502
FY 2013	Total, Equipment, Contracts and Related Expenses	141,585

**Program Direction  
Funding Profile by Category**

(Dollars in Thousands/Whole FTEs)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Program Direction			
Salaries and Benefits	38,200	37,356	39,685
Travel	2,793	2,756	2,871
Support Services	5,466	7,775	5,625
Other Related Expenses	6,110	8,008	7,227
Total, Program Direction Budget Authority	52,569	55,895	55,408
Full Time Equivalents	315	290	297

**Overview**

Program Direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of the Colorado River Basins Power Marketing Fund. Western trains its employees on a continuing basis in occupational safety and health regulations, policies and procedures, and conducts safety meetings at employee, supervisory and management levels to keep the safety culture strong. Accidents are reviewed to ensure lessons are learned and proper work protocol is in place.

**Major Program Shifts or Changes**

No major program shifts or changes.

**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

	FY 2012 Enacted	FY 2013 Request	FY 2013 Request vs FY 2012 Enacted
Salaries and Benefits			
The increase in salaries and benefits is due to salary and within grade increases, including salaries determined by prevailing rates in the electric utility industry. This request includes an increase of 7 FTE for the planned maintenance and operation activities included in this Fund.	37,356	39,685	+2,329
Travel			
The increase is attributable to inflationary factors and a slight increase in planned mission-related maintenance activity travel.	2,756	2,871	+115
Support Services			
The decrease is primarily attributed to a decrease to ADP support and administrative services, offset by a slight increase in training for inflationary factors.	7,775	5,625	-2,150
Other Related Expenses			
The request reflects a decrease for architectural and engineering contractual service, communication and utility costs, rental payments to GSA, equipment maintenance, and training. These decreases are offset by slight increases to purchases from Government accounts, and equipment purchases, and DOE's Working Capital Fund. Other increases are predominantly inflationary in nature.	8,008	7,227	-781
Total Funding Change, Program Direction	55,895	55,408	-487

**Functional Transfers**

The FY 2013 budget request reflects no functional transfer.

**Support Services by Category**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Technical Support Services			
Feasibility of Design Considerations	0	0	0
Development of Specifications	0	0	0
System Definition	0	0	0
System Review and Reliability Analysis	0	0	0
Trade-Off Analysis	0	0	0
Economic and Environmental Analysis	0	0	0
Test and Environmental Studies	0	0	0
Surveys or Reviews of Technical Operations	0	0	0
Total, Technical Support Services	0	0	0
Management Support Services			
Analysis of Workload and Workflow	0	0	0
Directive Management Studies	0	0	0
Automated Data Processing	1,259	2,447	849
Manpower Systems Analysis	0	0	0
Preparation of Program Plans	0	0	0
Training and Education	319	358	365
Analysis of DOE Management Processes	0	0	0
Reports and Analyses Management and General Administrative Support	3,888	4,970	4,411
Total, Management Support Services	5,466	7,775	5,625
Total, Support Services	5,466	7,775	5,625

**Other Related Expenses by Category**

(Dollars in Thousands)

	FY 2011 Current	FY 2012 Enacted	FY 2013 Request
Other Related Expenses			
Rent to GSA	813	979	800
Rent to Others	0	0	0
Communication, Utilities, Misc.	1,217	1,411	1,307
Printing and Reproduction	26	30	31
Other Services	1,589	3,276	2,631
Training	28	46	35
Purchases from Gov. Accounts	179	120	282
Operation and Maintenance of Equipment	657	572	264
Supplies and Materials	796	829	836
Equipment	500	444	721
Working Capital Fund	305	301	320
Total, Other Related Expenses	6,110	8,008	7,227

**Western Area Power Administration  
Colorado River Basins Power Marketing Fund  
Program Direction**

**FY 2013 Congressional Budget**



**Estimate of Gross Revenues <sup>a</sup>**

(dollars in thousands)

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Boulder Canyon Project	88,884	98,238	100,501	100,067	104,117	105,314	98,811
Central Valley Project	358,769	413,134	405,400	411,002	424,300	424,300	424,300
Central Arizona Project <sup>b</sup>	130,589	130,589	130,589	130,589	130,589	130,589	130,589
Falcon-Amistad Project	5,411	5,591	7,892	8,074	8,264	8,461	8,668
Fryingpan-Arkansas Project	19,203	20,027	19,562	19,562	19,562	19,537	19,537
Pacific Northwest-Southwest Intertie Project	31,018	31,448	32,308	33,167	34,027	34,882	34,882
Parker-Davis Project	57,851	60,408	60,449	60,491	60,532	80,055	90,119
Pick-Sloan Missouri Basin Program	587,538	552,427	504,175	499,051	500,692	523,449	535,384
Provo River Project	311	292	300	308	316	316	316
Washoe Project	822	822	822	822	822	497	497
Salt Lake City Area Integrated Projects	194,637	194,068	194,197	194,427	195,139	195,146	195,148
<b>Total, Gross Revenues</b>	<b>1,481,834</b>	<b>1,513,845</b>	<b>1,462,996</b>	<b>1,464,361</b>	<b>1,485,161</b>	<b>1,529,347</b>	<b>1,545,052</b>

<sup>a</sup> For most power systems, amounts are based on the FY 2010 Final Power Repayment Studies (PRS). The Falcon-Amistad Project and the Central Arizona Project (CAP) amounts shown are estimated projections.

<sup>b</sup> Western has contracted with the Salt River Project (SRP) to act as the scheduling entity and operating agent for CAP's portion of the Navajo Generating Station's output (547 MW). In return, as Western retains marketing responsibility, SRP agreed to pay monthly costs to cover annual expenses.

**Estimate of Proprietary Receipts**

(dollars in thousands)

	FY 2011 Actual	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
<b>MANDATORY</b>							
Falcon Amistad Maintenance Fund, 89517810	251	220	220	220	220	220	220
Sale and transmission of electric power, Falcon and Amistad Dams, 89224500	2,500	1,213	2,337	2,336	2,334	2,333	2,331
Sale of Power and Other Utilities Not Otherwise Classified, 89224900	39,833	30,000	30,000	30,000	30,000	30,000	30,000
Sale of Power–Western–Reclamation Fund, 89500027	309,977	130,721	189,194	171,187	167,978	185,241	184,692
<b>Total, Mandatory Receipts</b>	<b>352,561</b>	<b>162,154</b>	<b>221,751</b>	<b>203,743</b>	<b>200,532</b>	<b>217,794</b>	<b>217,243</b>
<b>DISCRETIONARY</b>							
Offsetting Collections from the recovery of power related expenses – Western – 895068	124,722	306,541	242,858	261,397	271,288	278,355	287,259
Less Purchase Power and Wheeling expenses	-124,722	-306,541	-242,858	-261,397	-271,288	-278,355	-287,259
<b>Subtotal, 895068</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Offsetting Collections from the recovery of annual expenses – Western - 895068	147,530	189,932	195,790	200,944	206,794	212,900	219,345
Less Operating and Maintenance expenses	-37,038	-33,323	-36,087	-36,466	-37,207	-37,735	-38,521
Less Program Direction expenses	-110,492	-156,609	-159,703	-164,478	-169,587	-175,165	-180,824
<b>Subtotal, 895068</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Offsetting Collections from the recovery of power related expenses – Falcon Amistad Maintenance – 895178	2,348	3,949	5,335	5,518	5,710	5,908	6,117
Less Operating and Maintenance expenses	-2,348	-3,949	-5,335	-5,518	-5,710	-5,908	-6,117
<b>Subtotal, 895178</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Subtotal, Discretionary Receipts</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL, PROPRIETARY RECEIPTS</b>	<b>352,561</b>	<b>162,154</b>	<b>221,751</b>	<b>203,743</b>	<b>200,532</b>	<b>217,794</b>	<b>217,243</b>

**Status of Treasury Borrowing**

(dollars in millions)

	Direct Financing with Treasury		
	FY 2011	FY 2012	FY 2013
Total Legislated Treasury Borrowing Authority	3,250	3,250	3,250
Start-of-Year – Total Borrowing Authority Available	3,103	2,966	2,966
Annual Activity			
Annual Borrowing Plan	-137	0	-180
Repayment	0	0	10
Subtotal, Annual Activity	-137	0	-170
Total, Remaining Treasury Borrowing Authority	2,966	2,966	2,796

**The accompanying notes are an integral part of the table.**

Western’s estimate for the use of borrowing authority includes funding for the construction of projects selected to date, as impacted by interest rates, and other cash management factors. In executing our mandate under the Recovery Act, Western will update estimates in subsequent reporting periods as projects are added to reflect an accurate balance of legislated borrowing authority.

Borrowing authority will fund the construction of infrastructure by external partners(s) or Western. When work is performed by our partners, Western will report only the direct financing with Treasury. When work is performed internally, Western will use existing financial system and related accounting/business rules to isolate project obligations and expenditures, and will expand the table to incorporate this information. Western will also isolate project revenues in the same manner. Any/all reporting will be available at the individual project level, but reported cumulatively in the table above.

Note: Borrowing forecasts are based on early stages of project development and are to be regarded as non-binding representations subject to change.



# **Bonneville Power Administration**

# **Bonneville Power Administration**

## **Bonneville Power Administration**

### **Proposed Appropriations Language**

Expenditures from the Bonneville Power Administration Fund, established pursuant to Public Law 93-454, are approved for construction of, or participating in the construction of, a high voltage line from Bonneville's high voltage system to the service areas of requirements customers located within Bonneville's service area in southern Idaho, southern Montana and western Wyoming; and such line may extend to, and interconnect in, the Pacific Northwest with lines between the Pacific Northwest and the Pacific Southwest, and for John Day Reprogramming and Construction, the Columbia River Basin White Sturgeon Hatchery, and Kelt Reconditioning and Reproductive Success Evaluation Research and, in addition, for official reception and representation expenses in an amount not to exceed \$5,000. Provided, that during fiscal year 2013, no new direct loan obligations may be made.

### **Explanation of Changes**

The proposed appropriations language restricts new direct loans in FY 2013 as in FY 2012. This bill language is drafted consistent with the Credit Reform Act of 1990.

**Please Note - The FY 2013 Bonneville Power Administration Congressional Budget submission includes FY 2012 budget estimates.**

Bonneville finances its operations with a business-type budget under the Government Corporation Control Act, 31 U.S.C 9101-10, on the basis of the self-financing authority provided by the Federal Columbia River Transmission Act of 1974 (Transmission Act) (Public Law 93-454) and the U.S. Treasury borrowing authority provided by the Transmission Act, the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Pacific Northwest Power Act) (Public Law 96-501) for energy conservation, renewable energy resources, investment in capital fish facilities, and other purposes, the American Recovery and Reinvestment Act of 2009 (Public Law 111-5), and other legislation. Authority to borrow from the U.S. Treasury is available to the Bonneville on a permanent, indefinite basis. The amount of U.S. Treasury borrowing outstanding<sup>1/</sup> at any time cannot exceed \$7.70 billion. Bonneville finances its approximate \$4.5 billion annual cost of operations and investments primarily using power and transmission revenues and borrowing from the U.S. Treasury at rates comparable to borrowings at open market rates for similar issues.

This budget has been prepared in accordance with the Statutory Pay-As-You-Go Act (PAYGO) of 2010. Under PAYGO, all Bonneville budget estimates are treated as mandatory and are not subject to the discretionary caps included in the Budget Control Act of 2011. These estimates support activities which are legally separate from discretionary activities and accounts. Thus, any changes to Bonneville estimates cannot be used to affect any other budget categories which have their own legal dollar caps. Because Bonneville operates within existing legislative authority, Bonneville is not subject to a "pay-as-you-go" test regarding its revision of current-law funding estimates.

<sup>1/</sup> Amount of total bonds outstanding can be found on table BP-4 in the Additional Tables section



**Bonneville Power Administration**

**Funding Profile by Subprogram <sup>1/</sup>**

(Accrued Expenditures in Thousands of Dollars)

	Fiscal Year			
	2011 (EOY Actuals)	2012 Original <sup>2/</sup>	2012 Revised <sup>2/</sup>	2013 Proposed
Capital Investment Obligations				
Associated Project Costs <sup>3/</sup>	201,436	N/A	233,368	250,029
Fish & Wildlife	90,817	N/A	59,785	67,145
Conservation & Energy Efficiency <sup>3/</sup>	161,754	N/A	88,637	94,547
Subtotal, Power Services	454,007	N/A	381,789	411,721
Main Grid	123,093	N/A	235,851	299,552
Area & Customer Service	10,196	N/A	19,767	10,975
Upgrades & Additions	72,590	N/A	166,709	271,112
System Replacements	94,967	N/A	172,459	200,626
Transmission Services Total	300,845	N/A	594,785	782,265
Capital Equipment & Bond Premium	44,161	N/A	64,252	52,512
Total, Capital Obligations <sup>3/</sup>	799,012	937,196	1,040,827	1,246,498
Expensed and Other Obligations				
Expensed	2,655,281	2,464,963	2,790,637	2,946,314
Projects Funded in Advance	213,527	94,989	91,532	101,297
Total, Obligations	3,667,820	3,497,148	3,922,995	4,294,109
Capital Transfers (cash)	409,528	877,573	393,110	179,174
Bonneville Total	4,077,349	4,374,721	4,316,105	4,473,283
Bonneville Net Outlays	468,000		(9,000)	(7,000)
Full-time Equivalent (FTEs)	3,058	3,064	3,117	3,117

**Public Law Authorizations include:**

Bonneville Project Act of 1937, Public Law No. 75-329, H.R. 7642

Federal Columbia River Transmission Act of 1974, Public Law No. 93-454 S. 3362

Regional Preference Act of 1964, Public Law No. 88-552

Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Northwest Power Act), Public Law No. 96-

### Outyear Funding Profile by Subprogram <sup>1/</sup>

(Accrued Expenditures in Thousands of Dollars)

Fiscal Year

	2014	2015	2016	2017
Capital Investment Obligations				
Associated Project Costs <sup>3/</sup>	268,624	269,329	291,175	297,809
Fish & Wildlife	60,275	41,807	36,650	30,795
Conservation & Energy Efficiency <sup>3/</sup>	100,490	129,234	159,972	168,890
Subtotal, Power Services	429,389	440,370	487,797	497,493
Main Grid	316,115	201,764	127,255	96,573
Area & Customer Service	11,963	14,492	14,321	22,241
Upgrades & Additions	234,999	163,514	132,196	60,704
System Replacements	211,741	200,303	207,402	224,223
Transmission Services	774,818	580,073	481,173	403,742
Capital Equipment & Bond Premium	47,791	48,389	49,623	51,285
Total, Capital Obligations <sup>3/</sup>	1,251,999	1,068,832	1,018,592	952,520
Expensed and Other Obligations				
Expensed	3,095,097	3,220,160	3,301,760	3,451,141
Projects Funded in Advance	38,878	26,598	27,902	31,375
Total, Obligations	4,385,974	4,315,590	4,348,254	4,435,036
Capital Transfers (cash)	128,094	134,882	73,189	45,350
BPA Total	4,514,067	4,450,472	4,421,443	4,480,386
Bonneville Net Outlays	(10,000)	(10,000)	(10,000)	(10,000)
Full-time Equivalent (FTEs)	3,175	3,175	3,175	3,175

**These notes are an integral part of the preceding tables.**

- 1/ This budget has been prepared in accordance with the Statutory Pay-As-You-Go Act (PAYGO) of 2010. Under PAYGO all Bonneville budget estimates are treated as mandatory and are not subject to the discretionary caps included in the Budget Control Act of 2011. These estimates support activities which are legally separate from discretionary activities and accounts. Thus, any changes to Bonneville estimates cannot be used to affect any other budget categories which have their own legal dollar caps. Because Bonneville operates within existing legislative authority, Bonneville is not subject to a "pay-as-you-go" test regarding its revision of current-law funding estimates.
- 2/ Original estimates reflect BPA's FY 2013 Congressional Budget Submission. Revised estimates, consistent with Bonneville's annual near-term funding review process, provide notification to the Administration and Congress of updated capital and expense funding levels for FY 2012.
- 3/ Includes infrastructure investments designed to address the long-term needs of the Northwest and to reflect significant changes affecting BPA's power and transmission markets.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

The cumulative amount of actual advance amortization payments as of the end of FY 2011 is \$2,672 million.

Refer to 16 USC Chapters 12B, 12G, 12H, and BPA's other organic laws, including P.L. 100-371, Title III, Sec. 300, 102 Stat. 869, July 18, 1988 regarding BPA's ability to obligate funds.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

Net Outlay estimates are based on current cost savings to date and anticipated cash management goals. They are expected to follow anticipated management decisions throughout the rate period that, along with actual market conditions, will impact revenues and expenses. Actual Net Outlays are volatile and are reported in Report on Budget Execution and Budgetary Resources (SF-133). Estimated Net Outlays could change due to changing market conditions, streamflow variability, and continuing restructuring of the electric industry.

Revenues, included in the Net Outlay formulation, are calculated consistent with cash management goals and assume a combination of adjustments. Assumed adjustments include the use of a combination of tools, including upcoming rate adjustment mechanisms, a net revenue risk adjustment, debt service refinancing strategies and/or short-term financial tools to manage net revenues and cash. Some of these potential tools will reduce costs rather than generate revenue, causing the same Net Outlay result. Adjustments for depreciation and 4(h)(10)(C) credits of the Northwest Power Act are also assumed.

FTE outyear data are estimates and may change.

#### Major Outyear Considerations

Bonneville's outyear estimates reflect its ongoing efforts to achieve its long-term mission and strategic direction. The outyear estimates are developed with consideration of and support of BPA's multi-year performance targets that lay out the course for achieving BPA's long-term objectives. Outyear capital investment levels support BPA's infrastructure program, hydro efficiency program, conservation and energy efficiency projects, and its fish and wildlife mitigation projects.

With passage of the Energy Policy Act of 2005, Bonneville continues to incorporate the various aspects of the legislation related to its business, in particular the energy supply, conservation and new energy technologies for the future that are highlighted in the legislation.

## **Overview and Accomplishments**

Bonneville provides electric power, transmission, and energy efficiency throughout the Pacific Northwest. Bonneville serves a 300,000 square mile area including Oregon, Washington, Idaho, Western Montana, and parts of Northern California, Nevada, Utah, and Wyoming with a population of about 12.3 million people. Bonneville markets the electric power produced from 31 operating Federal hydro projects in the Pacific Northwest owned by the U.S. Army Corps of Engineers (Corps) and the U.S. Department of Interior, Bureau of Reclamation (Reclamation) – known as Associated Projects. Bonneville also acquires non-Federal power, including the power from the nuclear power plant, Columbia Generating Station (CGS), to meet the needs of its customer utilities. Bonneville maintains and operates 15,215 circuit miles of transmission lines, 259 substations and associated power system control and communications facilities over which this electric power is delivered. Bonneville has capital leases for certain transmission facilities. Bonneville also supports the protection and enhancement of fish and wildlife, and provides leadership in conservation and renewables development, as part of its efforts to preserve and balance the economic and environmental benefits of the Federal Columbia River Power System (FCRPS).

The organization of Bonneville's FY 2013 Budget reflects Bonneville's business services basis for utility enterprise activities. Bonneville's two major areas of activity on a consolidated budget and accounting basis include Power Services (PS) and Transmission Services (TS) with administrative costs included. The PS includes line items for Fish and Wildlife, Conservation and Energy Efficiency, Residential Exchange Program (REP), Associated Projects Operations & Maintenance (O&M) Costs, and Northwest Power and Conservation Council (Planning Council or Council).

The mission of Bonneville as a public service organization is to create and deliver the best value for its customers and constituents as it acts in concert with others to assure the Pacific Northwest, (1) An adequate, efficient, economical and reliable power supply; (2) An open access transmission system that is adequate for integrating and transmitting power from Federal and non-Federal generating units, providing service to Bonneville's customers, providing interregional interconnections, and maintaining electrical reliability and stability; and (3) Mitigation of the FCRPS impacts on fish and wildlife. Bonneville is legally obligated to provide cost-based rates and public and regional preference in its marketing of power. Bonneville will set its rates as low as possible consistent with sound

## **Bonneville Power Administration**

### **Overview**

business principles and sufficient to ensure the full recovery of all of its costs, including timely repayment of the Federal investment in the system. Bonneville's vision is to provide (1) High reliability; (2) Low rates consistent with sound business principles; (3) Responsible environmental stewardship; and (4) Accountability to the region. Bonneville pursues this vision consistent with its three core values of trustworthy stewardship of the FCRPS, collaborative relationships, and operational excellence.

## **Alignment to Strategic Plan**

Bonneville contributes to the Administration's clean energy goals and aligns to Goal 1 of Department of Energy's (DOE) Strategic Plan to "Transform our Energy Systems: Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies." As part of its responsibilities, BPA also promotes energy efficiency, renewable resources and new technologies.

To validate and verify program performance, Bonneville conducts various internal and external reviews and audits. Bonneville conducts extensive review within the region of both capital and expense programs. In addition, Bonneville's programmatic activities are subject to review by Congress, the U.S. Government Accountability Office (GAO), the DOE's Inspector General, and other governmental entities. Bonneville's financial statements are audited annually by an independent external auditor. Bonneville has received an unqualified audit opinion since the mid-1980s and no material weaknesses have been identified in controls over financial reporting.

## **Legislative History**

The Bonneville Project Act of 1937 provides the statutory foundation for Bonneville's utility responsibilities and authorities. In 1974, passage of the Federal Columbia River Transmission System Act (Transmission Act) applied provisions of the Government Corporation Control Act (31 U.S.C. §§ 9101-9110) to Bonneville. The Transmission Act legislation provided Bonneville with "self-financing" authority, established the Bonneville Fund (a permanent, indefinite appropriation) allowing Bonneville to use its revenues from electric power and transmission ratepayers to directly fund all programs, and authorized Bonneville to sell bonds to the Treasury to finance the region's high-voltage electric transmission system requirements.

In 1980, enactment of the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) expanded Bonneville's obligations and

responsibilities to: encourage electric energy conservation to meet regional electric power loads placed on Bonneville; develop renewable energy resources; and protect, mitigate and enhance the fish and wildlife of the Columbia River and its tributaries. In support of these responsibilities, Bonneville's Treasury borrowing authority was expanded to allow the sale of bonds to finance conservation and other resources and to carry out fish and wildlife related capital improvements.

By 2002, Bonneville's cumulative authority in bonds outstanding to the Treasury was \$3.75 billion. Bonneville received an additional \$700 million in available Treasury financing through the Consolidated Appropriations Act, 2003 (P.L. 108-7, title VII, Section 701; 117 Stat. 551, 2003) to help assure a sufficient level of infrastructure planning. The FY 2003 Appropriations Act increased to \$4.45 billion the aggregate amount of bonds Bonneville was authorized by statute to sell to the Treasury and have outstanding at any one time. In 2009, the American Recovery and Reinvestment Act (ARRA) increased Bonneville's line of credit with the Treasury by \$3.25 billion to the current authority of \$7.7 billion.

#### **ARRA**

In the ARRA, Section 401 provided for an increase in the amount of Bonneville's Treasury bonds that may remain outstanding at any given time under the Transmission System Act. This \$3.25 billion increase in the limit on Bonneville's available Treasury bonds gave Bonneville the certainty of sufficient access to capital to proceed with planned new projects and ensures that existing capital projects will be able to proceed as planned.

Bonneville has identified up to \$2 billion in major projects for which it will use bonds authorized under ARRA and through FY 2011 has spent \$810 million on these projects. The projects will enhance transmission and hydro system infrastructure, create hundreds of new jobs, implement energy efficiency and construct fish hatcheries. The projects identified for ARRA financing are being developed now or are scheduled to be initiated or undergo environmental review in the next two years.

Bonneville is committed to assuring that its actions contribute to and support the Administration's goals under ARRA. Integration of renewable energy sources onto the electrical grid helps the economic recovery efforts through clean, secure and affordable energy sources. See the DOE Recovery website (<http://www.energy.gov/recovery/index.htm>) as a source for up-to-date information.

#### **Bonneville Power Administration Overview**

#### **The Columbia River Treaty**

The Columbia River Treaty (CRT) is a marvel of international cooperation enabling a wide range of related benefits that affect British Columbia and the Pacific Northwest. Signed in 1961 and ratified in 1964, the CRT is known throughout the world as one of the best and most successful examples of a transboundary water treaty. The CRT includes a unilateral right for either country to terminate beginning in 2024 with 10 years' notice provided. The U.S. Entity for the CRT, consisting of Bonneville and the Corps, has initiated the process to discuss with the region's state governments and tribes, as well as non-governmental entities, issues related to the continuation of the CRT. The CRT was designed to provide flood control and hydropower benefits in both countries, but we understand that values in the region have changed in the last 50 years and issues need to be considered that were not part of the debate 50 years ago. Flood control benefits were paid through 2024 but not beyond. The U.S. Entity is establishing management structures to engage fellow Federal agencies, regional sovereigns and non-sovereign stakeholders in order to develop a recommendation to be provided to the State Department in the Fall of calendar year 2013.

#### **Judicial and Regulatory Activity**

The Residential Exchange Program was created by the Northwest Power Act to extend the benefits of low-cost Federal power to the residential and small farm customers of Pacific Northwest electric utilities that meet certain conditions. In 2000, Bonneville and the region's six investor-owned utilities (IOUs) signed settlement agreements (2000 REP Settlements) that attempted to replace the traditional method for determining REP benefits with a negotiated formula for a period of 10 years. These agreements were challenged in court. In May 2007, the U.S. Court of Appeals for the Ninth Circuit (Ninth Circuit) held that the 2000 REP Settlements were not consistent with the Northwest Power Act.

Bonneville responded to the Ninth Circuit's decisions by initiating a special rate proceeding, the WP-07 Supplemental rate case (WP-07S rate case), to revise power rates for FY 2009 and reestablish the traditional method for calculating REP payments to regional IOUs. Bonneville also determined in the WP-07S rate case the amount by which the region's IOUs received overpayments in REP benefits due to the unlawful 2000 REP Settlements, and the method and manner of returning those overpayments to Bonneville's other customers as refunds. Following the WP-07S rate case, Bonneville initiated the WP-10 rate case to establish rates and REP benefit payments for FY's 2010 and 2011.

Many parties filed challenges in the Ninth Circuit seeking review of Bonneville's refund determinations and REP implementation decisions established in the WP-07S and WP-10 rate cases. Throughout 2010, the litigants met to participate in a region-wide mediation of the REP-related litigation. As a result of the mediation, most of the litigants reached a settlement on the outstanding REP-related litigation and presented such settlement (referred to as the 2012 REP Settlement) to the Bonneville Administrator in December of 2010. The Administrator agreed to review the 2012 REP Settlement in a special rate proceeding, the REP-12 proceeding. At the conclusion of the REP-12 proceeding, the Bonneville Administrator decided to sign the 2012 REP Settlement in a Record of Decision issued on July 26, 2011.

Bonneville believes that the 2012 REP Settlement should resolve all outstanding litigation related to the REP as implemented in the WP-07S and WP-10 rate cases. However, one Bonneville customer and a group of retail end-user consumers of Bonneville's utilities' customers have challenged the 2012 REP Settlement and oppose Bonneville's and the settling litigants' efforts to dismiss the pending REP litigation. Consequently, whether the 2012 REP Settlement will result in complete dismissal of all outstanding REP litigation is uncertain at this time.

The Energy Policy Act of 2005 authorized the Federal Energy Regulatory Commission (FERC) to approve and enforce mandatory electric reliability standards with which users, owners and operators of the bulk power system, including Bonneville, are required to comply. These standards became enforceable on June 18, 2007, and compliance is monitored by NERC and the regional reliability organizations. DOE has taken the position that financial penalties may not be imposed on federal agencies for violations of electric reliability standards.

#### **Fish and Wildlife Program Overview**

Bonneville is committed to continue funding its share of the region's efforts to protect listed Columbia River Basin fish and wildlife. To the extent possible, Bonneville is integrating the actions implemented in response to the FCRPS Biological Opinions (BiOps), including the National Oceanic and Atmospheric Administration (NOAA) Willamette River BiOp and the United States Fish and Wildlife Service's (USFWS) 2006 Libby Dam BiOp, with projects implemented under the Council's Fish and Wildlife Program (Council's Program). Sub-basin plans that include prioritized strategies for mitigation actions will help guide project selection to meet both BPA's Endangered Species Act (ESA) and Northwest Power Act responsibilities.

#### **Bonneville Power Administration Overview**

Bonneville's Fish and Wildlife program provides for extensive protection, mitigation, and enhancement of Columbia River Basin fish and wildlife adversely affected by the development and operation of Federal hydroelectric projects on the Columbia River and its tributaries from which Bonneville markets power. Bonneville satisfies a major portion of its fish and wildlife responsibilities by funding projects and activities consistent with the Council's Program developed pursuant to Section 4(h) of the Northwest Power Act. Through the Program Bonneville also implements measures addressed to the protection of fish in the Columbia River and its tributaries, listed as threatened or endangered under the ESA. Bonneville pursues a comprehensive approach to integrate the ESA requirements of the FCRPS BiOps with the broad resource protection, mitigation and enhancement objectives of the Council's Program.

Bonneville, the Corps and Reclamation signed historic 10-year agreements, known as the Columbia Basin Fish Accords, with five Columbia Basin Indian tribes and two states in 2008. In 2009, an agreement was signed with the state of Washington and federal agencies (the state of Washington Estuary agreement). These agreements provide specific hydro, habitat, hatchery and other measures that will address protection needs and provide measurable biological benefits for fish. The agreements set a course of action for protection of salmon and steelhead listed for protection under the ESA and other important non-listed populations.

Included with the budget schedules section of this budget document is the current tabulation of Bonneville's fish and wildlife costs from FY 2000 through FY 2011.

#### **Infrastructure Investment**

Bonneville is moving forward with infrastructure investments in the Pacific Northwest to meet Northwest transmission needs that will also continue to support a competitive wholesale market in the Western Interconnection, which encompasses 14 western states, two Canadian provinces and one Mexican State. Construction of the 79 mile McNary-John Day line and three additional proposed transmission lines will add more than 220 miles of lines to the Northwest transmission grid, improving reliability and allowing Bonneville to provide service to about 3,881 MWs of requests for Bonneville transmission, including service for 3,138 MWs of additional green energy. The proposed transmission lines include Bonneville's I-5 Corridor Reinforcement Project, which is currently undergoing

environmental review. If built, that project would meet growing local and regional energy demands and help address the Bonneville transmission system critical regional reliability issues.

These efforts will help meet the increasing demand for Bonneville's service to meet regional greenhouse gas reduction and environmental goals of western states. In support of these goals and as part of the Regional Dialogue implementation, Bonneville is working with stakeholders to determine its role in the development and use of energy efficiency for the post-2012 period. Bonneville is continuing to target transmission investments in those areas with reliability needs. Bonneville conducted the first Network Open Season (NOS) in 2008 and completed the second NOS in May 2009. A third NOS process occurred in 2010. The NOS process is designed to ensure the region will have sufficient transmission infrastructure available for customers seeking capacity on Bonneville's transmission system network. Many of the customer capacity requests have been for delivery of wind-generated electricity.

Bonneville has recently experienced significant growth within its balancing area of installed variable renewable generation, primarily in the form of wind generation. Since 2001, installed wind generation has grown from 115 MW to 3,800 MW as of December 2011. Bonneville estimates as much as 6,200 MW could be in place by 2013. This substantial increase in variable renewable generation has resulted in additional uncertainties in the balance between load and generation required for maintaining a reliable grid. While wind generation is a sustainable resource that has zero emissions and zero fuel costs, it is a variable resource that is a non-dispatchable source of energy, meaning it cannot be relied upon for capacity. As a result Bonneville has initiated studies of mature and developing technologies that have the potential to provide tools for integrating this variable generation. Pumped storage is one such mature technology, and BPA has capability in this area with an existing pumped storage project located within the Bonneville balancing area, Reclamation's John W Keys III Pump-Generating Plant (Keys PGP) at the Grand Coulee Project. Bonneville is currently studying the feasibility of further developing pump storage capabilities at the Keys PGP.

Bonneville considers other strategies to sustain funding for its infrastructure investment requirements as well. These additional strategies include reserve financing of some amount of transmission investments, and seeking, when feasible, third party financing sources. See the **BP-Bonneville Power Administration Overview**

5 Potential Third Party Financing Transparency table in the budget schedules section of this budget. This FY 2013 Budget assumes \$15 million of annual reserve financing in FYs 2012-2017 for transmission infrastructure capital that is included in this budget in Projects Funded In Advance.

### **Financial Mechanisms**

Bonneville's program is treated as mandatory and nondiscretionary. Bonneville is "self-financed" by the ratepayers of the Pacific Northwest and is not annually appropriated by Congress. Under the Transmission Act, Bonneville funds the expense portion of its budget and repays the Federal investment with revenues from electric power and transmission sales. Bonneville's revenues fluctuate primarily in response to market prices for fuels and stream flow variations in the Columbia River System due to weather conditions and fish recovery needs. Through FY 2011, Bonneville has returned approximately \$27.2 billion to the Treasury of which about \$3.1 billion was for payment of FCRPS O&M and other costs, \$13.3 billion for interest, and \$10.3 billion for amortization of appropriations and bonds.

In this FY 2013 Budget, the term Bonneville "bonds" refers to the debt instruments under which Bonneville receives advances of funds from the Treasury. This reference is consistent with section 13(a) of the Transmission Act (P.L. Law 93-454), which defines Bonneville bonds as all bonds, notes, and other evidences of indebtedness issued and sold to the Treasury.

Bonneville and Treasury have a comprehensive banking arrangement that covers Bonneville's short- and long-term Federal borrowings and establishes a phased-in approach to a market-based investing program. This provides Bonneville with the ability to borrow to finance assets and, on a short term basis, to cover Northwest Power Act-related operating expenses. This latter ability provides Bonneville with much needed liquidity to help manage within-year cash flow needs and mitigate risk. Access to this use of borrowing authority has been incorporated into and relied upon in Bonneville's rate-setting process.

### **Treasury Payments and Budget Overview**

Bonneville made its full planned FY 2011 payment of \$830 million to the Treasury (and included \$70 million in advanced amortization as part of Bonneville debt optimization program). Total 4(h)(10)(C) credits associated with fish recovery and applied toward Bonneville's Treasury payment, were about \$85.3 million for FY 2011. For FY 2012, Bonneville plans to pay the

Treasury \$805 million: \$393 million to repay investment principal, \$376 million for interest, and \$35 million for Associated Project costs and pension and post-retirement benefits, plus \$346 million in advanced amortization. The FYs 2013 and 2014 Treasury payments are currently estimated at \$692 million and \$705 million, respectively. The FYs 2012-2014 4(h)(10)(C) credits are estimated at \$91 million, \$96 million, and \$101 million, respectively.

Estimates of interest and amortization levels for outyear Treasury payments are based on estimates from the 2012 final transmission and power rate case proposals. Bond and Appropriations Interest will continue to be revised based on upcoming capital investments and debt management actions. These estimates may change due to revised capital investment plans and actual Treasury borrowing. In recent years, Bonneville has made amortization payments in excess of those scheduled in its FERC-approved rate filings resulting in a balance of advance repayment. The cumulative amount of advance amortization payments as of the end of FY 2011 is about \$2,672 million. Amortization estimates in this FY 2013 Budget include planned amortization in advance of scheduled amortization (due to earlier EN debt optimization refinancing) in FYs 2011 and 2012 of \$70 million and \$53 million, respectively, consistent with rate case documentation.

Starting in FY 1997, Bonneville began direct funding Reclamation's Pacific Northwest power costs, and in FY 1999, Bonneville began direct funding the Corps' Pacific Northwest power costs. Bonneville began direct funding the USFWS in FY 2001 to pay for O&M costs of the Lower Snake River Compensation Plan (LSRCP) facilities. Bonneville's direct funding arrangement with the Corps and Reclamation includes the power related portion of O&M and capital investments. Direct funded capital costs, previously funded through appropriations, are now being paid through Bonneville borrowing from the Treasury. Bonneville's total direct funding was \$438 million in FY 2010.

This FY 2013 Budget proposes Bonneville accrue expenditures of \$2,946 million for operating expenses, \$101 million for Projects Funded in Advance (PFIA), \$1,246 million for capital investments, and \$179 million for capital transfers in FY 2013. The budget has been prepared on the basis of Bonneville's major areas of activity, power and transmission. This reporting structure arose as a response to FERC Orders requiring Bonneville to employ separate repayment studies for its generation and transmission functions to determine the repayment requirements for each.

## **Bonneville Power Administration Overview**

The estimated spending levels in this budget are still subject to change to accommodate competitive dynamics in the region's energy markets, debt management strategies, and the continued restructuring of the electric industry.

### **Current Financial Status**

Bonneville is striving to enhance its competitive, cost-effective delivery of utility products and services and continued delivery of the public benefits of its operations, while ensuring its ability to make its payments to the Treasury on time and in full. Bonneville employs a strategic planning process using the balanced scorecard model to align all business units around specific goals and align resources to achieve these goals. Results from these efforts include continued efficiency gains, performance integration improvements, and a high assurance for repayment of Treasury borrowing.

After many years of sustained effort, Bonneville recovered from the financial effects of the 2000-2001 West Coast power crisis. Continued cost management efforts helped Bonneville regain adequate financial reserve levels despite mostly below-average water years. These gains are helping Bonneville continue its efforts to assure full recovery of its costs and to assure long-term financial stability while meeting its overall responsibilities to the Pacific Northwest and the U.S. taxpayer.

Rate proposals for FY 2012-2013 Power and Transmission rates were filed with FERC Aug 1, 2011 and reflect Bonneville's Long-Term Regional Dialogue Policy and Record of Decision (Regional Dialogue Policy) in July 2007. The Regional Dialogue Policy helped define how Bonneville will market its wholesale power after FY 2011 and to ensure it does so in a way that meets key regional and national energy goals and ensures Bonneville's ability to meet its Treasury obligations.

Bonneville and 135 of its Northwest utility customers signed new power sales contracts in 2008 under which power deliveries began in October 2011. Bonneville has proposed a Resource Program to identify any gaps in its power supply and suggest types and amounts of resources to fill those gaps, as guided by the Council's Northwest Power Plan.

### **Budget Estimates and Planning**

This FY 2013 Budget includes capital and expense estimates based on Bonneville's Integrated Program Review (IPR) final report. FY 2011 costs are based on Bonneville's FY 2011 audited actual financial results.



Capital funding levels reflect Bonneville's capital asset management process and external factors such as the significant changes affecting the West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region and national energy security goals.

Capital investment levels in this FY 2013 Budget reflect executive management decisions from Bonneville's Capital Allocation Board (CAB) and the associated capital review process. Bonneville utilizes a structured capital project selection process requiring submission of a standardized business case for review by Bonneville. Each business case consists of a description of the project, a clear statement of objectives, description and mitigation of risks, and a rigorous analysis of project costs including a status quo assumption and preferred alternatives. In addition, both annual and end of project targets are set for each project covering cost, scope, and schedule. Progress reports on these targets are provided to Bonneville's senior executives at least quarterly.

The FYs 2012-2017 revenue estimates in this budget, included in the Net Outlay formulation, are calculated consistent with cash management goals. The revenue estimates reflect assumed adjustments, which include the use of a combination of tools; for example, upcoming rate adjustment mechanisms, reduced cost estimates, a net revenue risk adjustment, debt management strategies, and/or short-term financial tools to manage net revenues and cash. The revenue estimates also include depreciation and Treasury repayment credit assumptions. These Treasury repayment credits offset, among other things, Bonneville's fish and wildlife program costs allocable to the non-power project purposes of the FCRPS, consistent with the Northwest Power Act. Net Outlay estimates reflect current cost saving actions taken to date and anticipated cash management goals. Net Outlay estimates are expected to reflect anticipated management decisions throughout the rate period that, along with actual market conditions, will impact revenues and expenses.

#### **Overview of Detailed Justifications**

Bonneville's Detailed Justification Summaries, included in this FY 2013 Budget, follow present budget requirements for budget line items on the basis of accrued expenditures. Accrued expenditure is the basis of presenting Bonneville's program funding levels in the power and transmission rate making processes and the basis upon which Bonneville managers control their resources to provide products and services. Accrued expenditures relate period costs to period performance. Traditional budget obligation requirements for

#### **Bonneville Power Administration**

#### **Overview**

Bonneville's budget are assumed on the Program and Financing Summary Schedule prepared in accordance with OMB Circular A-11.

The organization of Bonneville's FY 2013 Budget and these performance summaries reflect Bonneville's business services basis for utility enterprise activities. Bonneville's major areas of activity on a consolidated budget and accounting basis include power and transmission with administrative costs included. PS includes line items for Fish and Wildlife, Conservation and Energy Efficiency, REP, Associated Projects O&M Costs, and the Council. Environmental activities are shown in the relevant PS and TS sections, as are reimbursable costs. Bonneville's interest expense, pension and post-retirement benefits and capital transfers to the Treasury are shown by program.

The first section of performance summaries, Capital Investments, includes accrued expenditures for investments in electric utility and general plant associated with the FCRPS generation and transmission services, conservation and energy efficiency services, fish and wildlife, and capital equipment. These capital investments will require budget obligations and expected use of \$1,246 million in bonds to be sold to the U.S. Treasury in FY 2013.

The near-term forecast capital funding levels have undergone an extensive internal review as a result of the capital asset management strategy. These capital reviews encompass project cost management initiatives, capital investment assessments, and categorization of capital projects to be funded based on risk and other factors. Consistent with BPA's near-term capital funding review process and Bonneville's standard operating budget process, this FY 2013 Budget includes updated capital funding levels for FY 2012. Utilizing this review process helps Bonneville in its efforts to compete in the deregulated wholesale energy market. Bonneville will continue to work with the Corps and Reclamation to optimize the best mix of projects.

In addition to its extensive internal management assessment of capital investments, Bonneville has developed and implemented an associated external capital investment review process that provides significant benefits to Bonneville. The combined internal and external processes add value by both improving direction on what the FCRPS invests in (tying investments more closely to agency strategy) and by improving how those investments are made (more detailed analysis and review of capital investments and their alternatives).

Bonneville's second section of the performance summaries, entitled Annual Operating Expenses, includes accrued expenditures for services and program activities financed by power sales revenues, transmission services revenues and projects funded in advance. For FY 2013,

budget expense obligations are estimated at \$2,946 million. The total program requirements of all Bonneville programs include estimated budget obligations of \$4,294 million in FY 2013.

**Strategic Plan and Performance Measures - BPA**

STRATEGIC GOAL: Transforming our Energy Systems		
OBJECTIVE: Deploy the Technologies We Have		
<p><b>Annual Measure #1:</b> Attain average North American Electric Reliability Corporation (NERC) compliance ratings for the following NERC Control Performance Standards (CPS) measuring the balance between power generation and load, including support for system frequency: (1) CPS1, which measures generation/load balance on one-minute intervals (rating &gt; or =100); and (2) CPS2, which limits any imbalance magnitude to acceptable levels (rating &gt; or =90). Note: As a participant in the Western Electricity Coordinating Council (WECC) field trial of NERC's Reliability Based Control (RBC) draft standard beginning in FY 2010, BPA will not report CPS-2 because the RBC and CPS-2 standards are mutually exclusive (only one of these standards can be in effect at the same time). The use of CPS-2 will be reevaluated after the RBC field trial.</p>		
	Target	Actual/ Met or Not Met
Budget Year (2013)	CPS1>100, CPS2>90	---- N/A
Current Year (2012)	CPS1>100, CPS2>90	---- N/A
Prior Year (2011)	CPS1>100, CPS2>90	Met (Actual: CPS-1, 137.9%)
Analysis	Meeting this target demonstrates BPA's ongoing commitment and ability to provide reliable transmission for the region.	
<p><b>Annual Measure #2:</b> Meet planned annual repayment of principal on Federal power investments.</p>		
	Target	Actual/ Met or Not Met
Budget Year (2013)	Meet 100% of planned annual repayment of principal on Federal power investments	---- N/A
Current Year (2012)	\$393 million	---- N/A
Prior Year (2011)	\$367 million	Met (Actual: \$410 million)
Analysis	BPA met this performance target for the 28th straight year, demonstrating BPA's ongoing commitment to meeting its obligations to U.S. taxpayers. BPA made a total annual payment of \$830 million, of which \$410 million was principal amortization.	
<p><b>Annual Measure #3 :</b> Achieve &gt; or = 97.5% Heavy-Load-Hour Availability (HLHA) through efficient performance of Federal hydro-system processes and assets, including joint efforts of BPA, Army Corps of Engineers, and Bureau of Reclamation. HLHA is actual machine capacity available during heavy-load hours (0700-2200 Monday-Saturday), divided by planned available capacity during heavy-load hours.</p>		
	Target	Actual/ Met or Not Met
Budget Year (2013)	>=97.5%	---- N/A
Current Year (2012)	>=97.5%	---- N/A
Prior Year (2011)	>=97.5%	Met (Actual: 100.6%)
Analysis	Meeting this target demonstrates BPA's commitment and ability to provide reliable power to the region. By optimizing planned maintenance and taking into consideration expected forced outages, BPA's heavy load hour performance ensured that BPA had the system capacity to serve its system load.	



**Power Services - Capital  
Funding Schedule by Activity**

	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Power Services - Capital			
Associated Project Costs	200,436	233,386	250,029
Fish & Wildlife	90,817	59,785	67,145
Conservation & Energy Efficiency	161,754	88,637	94,547
<b>Total, Power Services - Capital</b>	<b>453,007</b>	<b>381,789</b>	<b>411,721</b>

**Outyear Funding Schedule**

	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
Total, Power Services - Capital	429,389	440,370	487,797	497,493

**Program Overview**

Associated Project Costs provide for direct funding of additions, improvements and replacements of existing Reclamation and Corps hydroelectric projects in the Pacific Northwest that provide for increased performance and availability of generating units. The FCRPS hydro projects produce electric power that is marketed by Bonneville.

Maintaining the availability and increasing the efficiency of the FCRPS is critical to ensuring that the region has an adequate, reliable and low-cost power system. The FCRPS represents about 80 percent of Bonneville’s firm power supply and is comprised of 31 operating Federal hydroelectric projects with over 200 generating units. These projects have an average age of about 50 years, with some that exceed 60 years of age. Through direct funding and the cooperation of the Corps and Reclamation, Bonneville uses its Treasury borrowing authority to make investments needed to restore generation availability and improve efficiency, reducing demand on Corps and Reclamation appropriations for power-related investments.

Since the beginning of direct funding, Bonneville, along with these joint operating partners, has improved system performance. In 1999, at the direction of Congress, Bonneville issued a report that it soon began to implement called the “Asset Management Strategy for the FCRPS.” Bonneville concluded in this report that it needed to invest nearly \$1 billion in the projects over the ensuing 12-15 years. Without these investments, which are focused on restoring and maintaining the reliability of

the system, history indicates that unit availability may initially decline at a rate of about 1.5 percent per year. Supplementary analyses and experience with the system have revealed additional investment needs above and beyond the levels originally planned under the Asset Management Strategy for this and the next several rate periods. In late 2008, Bonneville completed a System Asset Plan that effectively updated the 1999 Asset Management Strategy and refined the long-term capital investment needs to preserve the performance of the system.

These planned investments, included in the FY 2013 Budget estimates, will maintain the generation performance of the FCRPS. Moving forward with the cost-effective opportunities to expand the generation and to preserve and enhance the capability of the Federal system is a smart economic and environmental decision when compared to purchasing power from the market to serve growing Pacific Northwest electricity needs.

Bonneville’s fish and wildlife capital program is directed at activities that increase numbers of Columbia River Basin fish and wildlife resources, including projects designed to increase juvenile and adult fish passage in tributaries and at mainstem dams; to increase fish production and survival through construction of hatchery and acclimation facilities; land acquisitions for resident fish and wildlife that follow Bonneville’s Capital Policy; and fish monitoring facilities. Capital project funding will focus on integrating ESA-related priorities with the region’s Columbia River Basin Fish and Wildlife Program in order to efficiently meet the regional costs of both

salmon and steelhead recovery and the mitigation of hydrosystem impacts to other Columbia River Basin fish and wildlife.

The 1996 Energy and Water Appropriations Act added section 4(h)(10)(D) to the Northwest Power Act, directing the Council to appoint an Independent Scientific Review Panel (ISRP) “to review a sufficient number of projects” proposed to be funded through Bonneville’s fish and wildlife budget “to adequately ensure that the list of prioritized projects recommended is consistent with the Council’s program.” The Northwest Power Act further states that “. . . in making its recommendations to Bonneville, the Planning Council shall consider the impact of ocean conditions on fish and wildlife populations; and shall determine whether the projects employ cost effective measures to achieve program objectives.” Today, most mitigation projects funded by Bonneville receive ISRP review as part of the Council recommendation process. The Council has shifted to a multi-year project review cycle during which the ISRP will review categories of projects grouped together; e.g., all terrestrial wildlife projects were recently reviewed. The Council plans to continue this review cycle in 2013.

Under the Northwest Power Act, the Council must develop a fish and wildlife program that protects, mitigates and enhances Columbia River Basin fish and wildlife affected by any hydroelectric project in the basin. To the extent possible, Bonneville is integrating the actions implemented in response to the FCRPS BiOps with projects implemented under the Council’s Program. Sub-basin plans that include prioritized strategies for mitigation actions will help guide project selection that meets both Bonneville’s ESA and Northwest Power Act responsibilities. In order to address the *in lieu* provision of the Northwest Power Act, which prohibits Bonneville from funding mitigation that other entities are authorized or required to undertake, 16 U.S.C. § 839b(h)(10)(A), Bonneville continues its ongoing work with the Council and the regional fish and wildlife managers, customers, and tribes to review projects to ensure ratepayers fund appropriate mitigation.

Fish and Wildlife Program costs provide funding to implement measures to aid in the recovery of fish in the Columbia River and its tributaries that are listed as threatened or endangered under the ESA and the protection, mitigation, and enhancement, of fish and wildlife impacted by the development and operation of the FCRPS, from which Bonneville markets power.

Bonneville continues a comprehensive approach to integrate the ESA requirements of the FCRPS Biological  
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Opinions with the broad resource protection, mitigation and enhancement objectives of the Council’s Program, adopted by the Council pursuant to the Northwest Power Act. Bonneville satisfies a major portion of its fish and wildlife responsibilities by funding projects and activities that implement the Program. This includes a number of wildlife mitigation settlements for dam impacts, most recently a 2010 agreement addressing the Willamette Basin in Oregon. It includes the construction and operation of hatcheries to offset fish lost from the development and operation of the FCRPS. Bonneville also implements measures addressed to avoid jeopardizing listed salmon and steelhead as required under the ESA.

The ESA measures are part of the most recent BiOps issued by NOAA and USFWS.

- In February 2006, USFWS issued a new BiOp for Libby Dam for the Kootenai River white sturgeon and bulltrout.
- In May 2008, NOAA issued a new FCRPS BiOp for salmon and steelhead, augmented in a 2010 Supplemental BiOp and Adaptive Management Implementation Plan, which continue to be challenged in Oregon District Court. A court decision occurred in 2011.
- In July 2008, USFWS and NOAA issued Willamette River BiOps to address impacts from 13 federal dams on salmon, steelhead, Oregon chub, and bull trout.
- On August 2, 2011 Federal District Judge Redden issued an opinion and order rejecting the 2008/2010 BiOp because it failed to identify specific and verifiable mitigation plans beyond 2013. But he left the BiOp in place through 2013 while ordering a new supplemental BiOp by January 1, 2014.

These BiOps collectively require the action agencies (Corps, Reclamation, and Bonneville) to implement hydro, habitat, and hatchery actions throughout the Columbia River Basin to address impacts stemming from the operation of the Federally operated hydro-dams on ESA-listed fish, and to ensure that operations of the federal dams do not jeopardize the continued existence of the listed species or adversely modify their designated critical habitat.

In addition to the 2008 NOAA FCRPS BiOp, the action agencies also signed the 2008 Columbia Basin Fish Accords (Fish Accords) with five Northwest Tribes, and the states of Idaho and Montana. In 2009, an agreement was signed with the state of Washington and federal agencies (the state of Washington Estuary agreement).

The Fish Accords supplement the activities encompassed within the 2008 BiOp and the Council's Program by providing firm commitments to mitigation actions and securing funding for the next 10 years. As a result of the new BiOp and the Accords, as discussed below, expenditures above and beyond those planned in FY 2009 are required in FY 2011 and beyond.

These BiOps and Fish Accord commitments, and other projects undertaken to implement the Council's Program pursuant to the Northwest Power Act, are the basis for the Bonneville Fish and Wildlife Division's planned capital investment.

Conservation is an important part of Bonneville's diverse portfolio of resources that provides a reliable approach to meeting Bonneville's load obligations. When acquiring resources to meet planned future loads, the Northwest Power Act requires the Administrator to first consider and acquire cost-effective conservation that the Administrator determines is consistent with the Council's Power Plan. The Council's 6<sup>th</sup> Power Plan, finalized in February 2010, recommended that the region target 1,200 aMW of conservation in 2010 through 2014. Bonneville, in collaboration with its Public Power Customers, is responsible for approximately 40 percent (504 aMW) of that target. Bonneville anticipates that between 175 and 300 aMW of this amount will be acquired under its capital conservation acquisition program. Beginning in FY 2012 at least 70% of this conservation budget will be allocated to utilities to fund conservation incentives with the remainder going to support regional programs and completion of a utility conservation reporting system (EE Central). Program performance measurements (\$/aMW) indicate that Bonneville is realizing value for these investments as benchmarked against other utilities across the nation.

Long-term investments in energy efficiency help buffer the FCRPS against future resource uncertainties. During periods of price volatility, conservation also helps reduce financial risk associated with relying on the market for energy purchases in the future. The demand for more energy efficiency is driven by potential climate change initiatives, the high cost of new generation, and citizens and businesses wanting to reduce costs and to avoid environmental impact.

#### **Accomplishments**

- Filed final rate proposal for FYs 2012-2013 with FERC
- Achieved over 100 aMW Energy Efficiency in FY 2011

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- Facilitated integration of over 3,800 MW of wind generation to date
- Completed transformer installations at McNary and The Dalles
- Completed governor replacement at Albeni Falls
- Completed generator winding replacements at Lower Granite
- Completed units 1-18 turbine runner replacements at Grand Coulee and continue the pre-overhaul capital work in the Grand Coulee Third Power Plant
- The returns of adult salmon and steelhead to Bonneville dam between 2009-2011 vary by species, but many stocks (e.g., Snake River fall Chinook, and Snake River sockeye) have enjoyed returns that have been among the highest seen in recent years. These returns are a combination of wild and hatchery fish. The survival of juvenile salmon and steelhead migrating through the Snake and Columbia Rivers is also much improved over recent years.
- Conducted analysis and demonstrations of Demand Response on a cost share basis with our utility customers.

#### **Explanation of changes**

Bonneville's budget includes \$411 million in Fiscal Year 2013 for Power Services capital which is a 7.8% increase over the FY 2012 forecasted level. The FY 2013 level reflects a continuing need for investment in the hydro electric system assets including a ramp up of the pre-overhaul capital work in the Grand Coulee Third Power Plant, funding necessary to implement the BiOp, Fish Accords, Columbia Basin Fish and Wildlife activities, and a focus on energy conservation initiatives within the region.

The FY13 budget increases the levels for Associated Projects (+\$ 16 million), Conservation & Energy Efficiency (+ \$ 5.9 million) Fish & Wildlife (+\$ 7.4million).

#### **Strategic Management**

Bonneville provides electric power while supporting the achievement of its vital responsibilities for fish and wildlife, energy conservation, renewable resources and low-cost power in the Pacific Northwest. Bonneville will continue to implement the following strategies to serve the region:

1. Bonneville coordinates its power operational activities with the Corps, Reclamation, NERC, regional electric reliability councils, its

customers, and other stakeholders to provide the most efficient use of Federal assets.

2. Ongoing work with the Corps and Reclamation is focused on improving the reliability of the FCRPS, increasing its generation efficiency, and optimization of hydro facility operation.
3. Bonneville is committed to continue funding efforts to protect listed fish and wildlife species in the Columbia Basin under the ESA and to work closely with the Council, regional fisheries managers, and other Federal agencies to prioritize and manage fish and wildlife program projects.
4. Private and public sector partners have been and continue to be an important part of

Bonneville's collaborative efforts to promote and foster efficient use of energy.

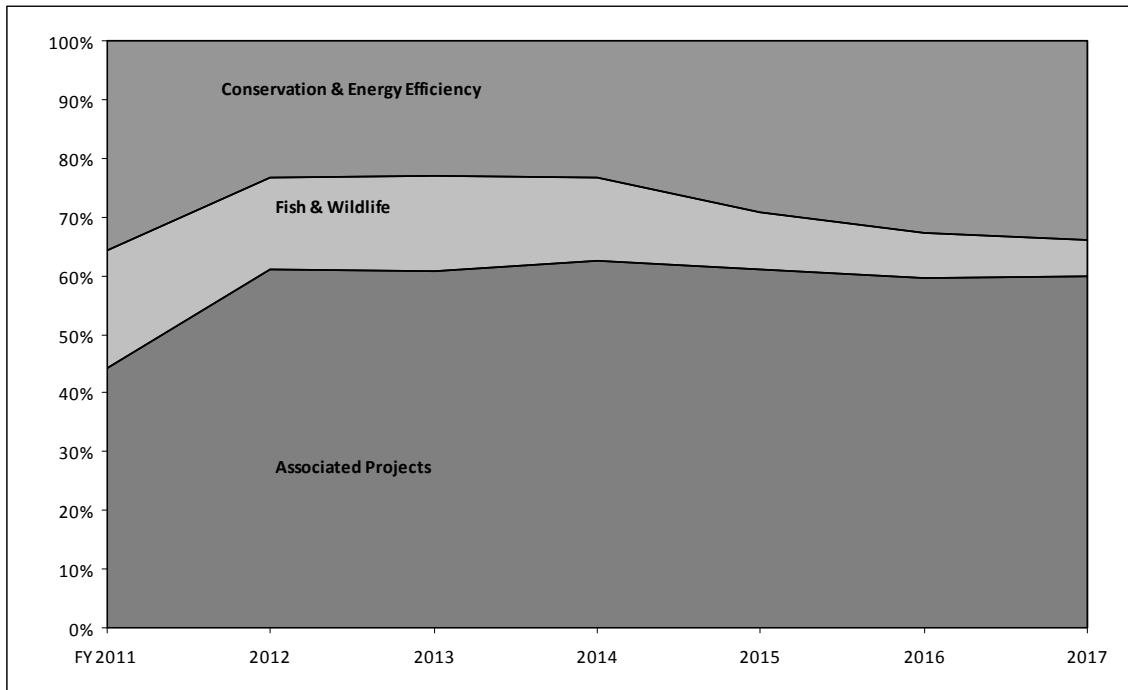
5. Bonneville has partnered and assisted with a DOE Wind Power crosscutting initiative to strengthen energy security by adding alternative sources of renewable energy.

The following external factors present the strongest impact to overall achievement of the program's strategic goal:

1. Continually changing economic and institutional conditions
2. Competitive dynamics
3. Ongoing changes in the electric industry



**Relative Outyear Funding Priorities in Power Services Capital**



**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

FY 2012	FY 2013	FY 2013 vs FY 2012
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**Associated Projects**

The increase from \$233,368,000 to \$250,029,000 reflects the continuing need for investment in the hydro electric system assets.

233,368	250,029	+16,661
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**Fish & Wildlife**

The increase from \$59,785,000 to \$67,145,295 reflects a reshaping of funding necessary to implement the BiOp, Fish Accords, Columbia River Basin Fish and Wildlife activities.

59,785	67,145	+7,360
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**Conservation & Energy Efficiency**

The increase from \$88,637,000 to \$94,547,000 reflects a continuing focus on energy conservation initiatives within the region.

88,637	94,547	+5,910
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**TOTAL Funding Change, Power Services Capital**

387,789	411,174	+29,932
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**Associated Projects  
Overview**

Bonneville will work with both the Corps and Reclamation to reach mutual agreement on those capital improvement projects that need to be budgeted and scheduled, are cost-effective and provide system or site-specific enhancements, increase system reliability, or provide generation efficiencies.

The work is focused on improving the reliability of the FCRPS, increasing its generation efficiency or capacity through turbine runner replacements, optimizing hydro facility operation and new unit construction. Also, limited investments may be made in joint use facilities that are beneficial to both the FCRPS operations and to other Corps and Reclamation project purposes.

**Funding and Activity Schedule**

**Corps of Engineers (known projects to date)**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Continued hydro optimization investigations and equipment installations at selected projects through the power plant efficiency improvements project and continued pursuing governor design and replacement at multiple plants.</li> <li>• For Bonneville, completed HVAC upgrade, exciter installation, gantry crane replacement, Powerhouse Unit 1 rehabilitation, DC and preferred AC upgrades, and continued protective relay replacement, station service upgrades, main unit breakers, headgate refurbishment/replacements, fire protection upgrades, additional crane and deck refurbishments, and elevator replacement.</li> <li>• For John Day, completed exciter replacements and oil/water separator, and continued fire protection upgrades, governor replacements, protective relay replacements, bridge crane refurbishment, Powerhouse Unit 11 repair, and elevator rehabilitation.</li> <li>• For The Dalles, completed the transformer T2 replacement, oil/water separator development, and station service improvements, and heat pump replacement, and continued governor replacement, spare 230 kV transformer purchase, DC system upgrades, fire protection design and upgrades, elevator rehabilitation, and powerhouse roof replacement.</li> <li>• For the Willamette plants, completed fire protection upgrades at Lost Creek, protective relay replacements at Cougar, Hills Creek, Lookout Point, and Dexter. Also, completed remote control upgrades, winding replacements, and emergency engine installation at Detroit. Continued protective relay replacements at Green Peter and Foster, electric reliability upgrades at Detroit, turbine runner replacements at Hills Creek and Lookout Point, penstock roller gate repair at Lookout Point and spillway tainter gate repair at Dexter and Big Cliff. Continued transformer oil/water separation at Cougar and Hills Creek, and bridge crane refurbishment at Hills Creek. Begin governor replacements at Foster, Green Peter, Hills Creek, and Lost Creek.</li> <li>• For Albeni Falls, completed governor replacement project, continued hi-lift pump replacement, auxiliary board upgrades, DC system boards and breaker replacement, and intake and spillway crane modernization.</li> <li>• For Libby, completed several elevator refurbishments and, HVAC controls and rehabilitation, spare transformer, and selective withdrawal crane refurbishment and continued exciter replacement.</li> <li>• For Chief Joseph, completed generator cooling system upgrades, and continued 480-V upgrade/SQ0 substation replacement, CO2 system replacement, exciter replacements, protective relay replacements, automatic synchronizer replacement, DC and preferred AC upgrades and turbine replacements.</li> </ul>	127,899

Fiscal Year	Activity	Funding (Dollars in Thousands)
	<ul style="list-style-type: none"> <li>• For McNary, completed T1, T2, T4 and T5 transformer installations. Continued station service governor replacements, generator winding replacements, protective relay replacements, station service rehabilitation, levee drainage pump station upgrades and heat pump replacement. Start fishway exit cranes replacements, turbine design and replacement, and potable water system upgrade.</li> <li>• For Dworshak, completed powerhouse bridge crane refurbishments, emergency notification upgrade and elevator upgrades. Begin unit 3 standby generator guide bearing and oil cooler assemblies and powerhouse HVAC upgrade.</li> <li>• For Ice Harbor, completed emergency notification upgrade, potable water system replacement, and project storage building. Continued units 2 and 3 runner replacements, T6 transformer replacement, and tailrace crane rehabilitation. Start low voltage switchgear SQ board upgrades and DC system upgrade.</li> <li>• For Little Goose, completed HVAC control upgrade, emergency notification upgrade, and wastewater treatment plant upgrade. Continued diesel generator replacement, exciter replacements, thrust bearing shoes, thrust runner, and oil assemblies. Start powerhouse bridge crane rehabilitation and intake crane replacement.</li> <li>• For Lower Granite, completed generator winding replacements, emergency notification upgrade, and elevator refurbishments. Continued diesel generator replacement, exciter replacements, SQ2 replacement, intake crane replacement, emergency notification upgrade, and spillway emergency diesel generator switch replacement. Start powerhouse bridge crane rehabilitation, HVAC upgrade, and sewage treatment plant upgrade.</li> <li>• For Lower Monumental, complete bridge crane refurbishment, and emergency notification upgrade. Continue diesel generator replacement, exciter replacements, SQ2 replacement, unit 1 linkage repair, and intake crane refurbishment/replacement.</li> <li>• In addition, new investments will be pursued per the Asset Plan and replacements of failed units will occur as needed to restore availability.</li> </ul>	
FY 2012	<ul style="list-style-type: none"> <li>• Continue hydro optimization investigations and equipment installations at selected projects through the power plant efficiency improvements project.</li> <li>• For Bonneville, complete elevator replacement, and continue main unit breakers, station service upgrades, headgate refurbishment/replacements, fire protection upgrades, protective relay replacements, and additional crane and deck refurbishments. Begin governor replacements.</li> <li>• For John Day, complete powerhouse unit 11 repair, continue fire protection upgrades, protective relay replacements, bridge crane refurbishment, governor replacements, and elevator rehabilitation.</li> <li>• For The Dalles, complete spare 230 kV transformer purchase, DC system upgrades, and elevator rehabilitation and continue powerhouse roof replacement governor replacement and fire protection upgrades.</li> <li>• For the Willamette plants, complete protective relay replacements at Green Peter and Foster, bridge crane refurbishment at Hills Creek and fire protection upgrades at Lost Creek. Also, complete remote control upgrades, winding replacements and electric reliability upgrades at Detroit. Continue transformer oil/water separation at Cougar and Hills Creek. Continue governor replacement at Foster, Hills Creek, Green Peter, and Lost Creek. Continue turbine runner replacements at Hills Creek and Lookout Point, penstock roller gate repair at Lookout Point and spillway tainter gate repair at Dexter and Big Cliff fire protection upgrades at Lost Creek. Begin governor replacements at Big Cliff, Cougar, Detroit, and Dexter.</li> <li>• For Albeni Falls, complete auxiliary board upgrades and hi-lift pump replacement, continue DC system boards and breaker replacement, and intake and spillway crane</li> </ul>	132,768

Fiscal Year	Activity	Funding (Dollars in Thousands)
	<p>modernization.</p> <ul style="list-style-type: none"> <li>• For Libby, complete exciter replacement and continue governor replacement design.</li> <li>• For Chief Joseph, continue 480-V upgrade/SQ0 substation replacement, CO2 system replacement, exciter replacements, protective relay replacements, automatic synchronizer replacement, DC and preferred AC upgrades and turbine replacements.</li> <li>• For McNary, complete protective relay replacements and station service governor replacements. Continue generator winding replacements, station service rehabilitation, and heat pump replacement. Continue fishway exit cranes replacement, potable water system upgrade, turbine design and replacement, and levee drainage pump station upgrades.</li> <li>• For Dworshak, complete unit 3 standby generator guide bearing and oil cooler assemblies and continue powerhouse HVAC upgrade. .</li> <li>• For Ice Harbor, complete tailrace crane rehabilitation, and continue units 2 and 3 runner replacements and T6 transformer replacement. Continue low voltage switchgear SQ board replacements and DC system upgrade. Start main unit 4-6 governor installation and drainage and dewatering pump upgrade.</li> <li>• For Little Goose, complete thrust bearing shoes, runner and oil coolers replacement and diesel generator replacement. Continue exciter replacements, powerhouse bridge crane rehabilitation, and intake crane replacement.</li> <li>• For Lower Granite, complete SQ2 replacement, and continue diesel generator replacement, exciter replacements, intake crane replacement, and powerhouse bridge crane refurbishment, powerhouse HVAC upgrade, and sewage treatment plant upgrade.</li> <li>• For Lower Monumental, complete intake crane refurbishment/replacement, SQ2 replacement, diesel generator replacement, and exciter replacements. Continue unit 1 linkage repair.</li> <li>• In addition, new investments will be pursued as set out in the Asset Plan and replacements of failed units will occur as needed to restore availability.</li> </ul>	
FY 2013	<ul style="list-style-type: none"> <li>• Continue hydro optimization investigations and equipment installations at selected projects through the power plant efficiency improvements project. For Bonneville, complete protective relay replacements, governor replacements, headgate refurbishment/replacements and additional crane and deck refurbishments, and continue main unit breakers, gantry crane rehabilitation, and fire protection upgrades.</li> <li>• For John Day, complete protective relay replacements, bridge crane refurbishment, and elevator rehabilitation and continue governor replacements and fire protection upgrades.</li> <li>• For The Dalles, complete fire protection design and upgrades and powerhouse roof replacement, and continue governor replacements.</li> <li>• For the Willamette plants, complete penstock roller gate repair at Lookout Point and transformer oil/water separation at Cougar and Hills Creek. Continue turbine runner replacements at Hills Creek and Lookout Point, continue spillway tainter gate repair at Big Cliff and Dexter. Continue governor replacements at Big Cliff, Cougar, Dexter, Detroit, Foster, Green Peter, Hills Creek, and Lost Creek. Begin governor replacement at Lookout Point.</li> <li>• For Albeni Falls, complete DC system boards and breaker replacement, and spillway crane modernization, and continue intake crane modernization.</li> <li>• For Libby, continue governor replacement design.</li> </ul>	144,471

Fiscal Year	Activity	Funding (Dollars in Thousands)
	<ul style="list-style-type: none"> <li>• For Chief Joseph, complete 480 kV upgrade/SQ0 substation replacement, auto synchronizer replacement and DC and preferred AC upgrades, and continue CO2 system replacement, exciter replacements, protective relay replacements and turbine replacements.</li> <li>• For McNary, complete fishway exit cranes replacement, .continue generator winding replacements, station service rehabilitation, heat pump replacement, turbine design and replacement, potable water upgrade and levee drainage pump station upgrades.</li> <li>• For Dworshak, continue powerhouse HVAC upgrade.</li> <li>• For Ice Harbor, complete T6 transformer replacement, low voltage switchgear SQ board replacements and DC system upgrade.</li> <li>• Continue units 2 and 3 runner replacements and main units 4-6 governor installation.</li> <li>• For Little Goose, complete exciter replacements and continue intake crane replacement and powerhouse bridge crane rehabilitation.</li> <li>• For Lower Granite, complete diesel generator replacement, exciter replacements, and intake crane replacement. Continue powerhouse bridge crane refurbishment, powerhouse HVAC upgrade, and sewage treatment plant upgrade.</li> <li>• For Lower Monumental, continue unit 1 linkage repair.</li> <li>• In addition, new investments will be pursued as set out in the Asset Plan and replacement of failed units will occur as needed to restore availability.</li> </ul>	
FY 2014-2017	<ul style="list-style-type: none"> <li>• Continue planned investment in FCRPS infrastructure</li> </ul>	647,156

**Bureau of Reclamation (known projects to date)**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• For Grand Coulee, completed units 1-18 turbine runner replacements, 11.95 kV switchgear replacement, and fixed wheel gate chamber modifications. Continued SCADA replacement, 500 kV switchyard relay replacements, air housing cooler replacements, several transformer replacements, third power plant exciter replacements, third power plant governor replacement, left power plant spare transformer purchases, third power plant high voltage cable replacement, units 19-20 upgrades including winding replacements, purchase of another left and right powerhouse spare winding, third power plant crane rehabilitation, third power plant elevator rehabilitation, construction of a material storage building, and hydro optimization investigations with related equipment installations.</li> <li>• For Hungry Horse, completed main unit breaker replacements. Continued SCADA replacement and powerhouse roof replacement. Started main transformer fire protection system replacement and SS and MCC upgrades.</li> <li>• For the five Upper Snake River plants continued an area microwave system upgrade.</li> <li>• For Palisades, continued turbine runner replacement.</li> <li>• For Chandler, completed exciter replacement and continued transformer replacement.</li> <li>• For Green Springs, continued transformer replacement.</li> <li>• For Black Canyon, continued additional unit, and started units 1 and 2 upgrades and install trash rake system.</li> </ul>	72,537

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2012	<ul style="list-style-type: none"> <li>• For Keys PGP, started plant modernization and upgrades.</li> <li>• For Grand Coulee, complete air housing cooler replacements, K10 transformer replacement, and material storage building. Continue SCADA replacement, 500 kV switchyard relay replacements, , several transformer replacements, third power plant exciter replacements, third power plant governor replacement, left power plant spare transformer purchases, third power plant high voltage cable replacement, units 19-20 upgrades including winding replacements, purchase of another left and right powerhouse spare winding, third power plant crane rehabilitation, third power plant elevator rehabilitation, and hydro optimization investigations with related equipment installations. Start units 19-24 wear ring replacements.</li> <li>• For Hungry Horse, complete powerhouse roof replacement, and continue SCADA replacement, main unit transformer fire protection system replacement, and SS and MCC upgrades.</li> <li>• For the five Upper Snake River plants, completed an area microwave system upgrade.</li> <li>• For Palisades, continue turbine runner replacement.</li> <li>• For Chandler, continue transformer replacement.</li> <li>• For Green Springs, complete transformer replacement.</li> <li>• For Black Canyon, continued additional unit, units 1 and 2 upgrades, and install trash rake system.</li> <li>• For Keys PGP, continued plant modernization and upgrades.</li> <li>• In addition, new investments will be pursued as set out in the Asset Plan and replacements of failed units will occur as needed to restore availability.</li> </ul>	100,600
FY 2013	<ul style="list-style-type: none"> <li>• For Grand Coulee, complete 500 kV switchyard relay replacements, third power plant high voltage cable replacement, purchase of another left and right powerhouse spare winding, third power plant elevator rehabilitation and third powerplant exciter replacements.</li> <li>• Continue SCADA replacement, third power plant transformer replacement, third power plant governor replacements, left power plant spare transformer purchases, units 19-20 upgrades including winding replacements, third power plant crane rehabilitation, and hydro optimization investigations with related equipment installations.</li> <li>• For Hungry Horse, continue SCADA replacement, main unit transformer fire protection system replacement, and SS and MCC upgrades.</li> <li>• For Palisades, continue turbine runner replacement.</li> <li>• For Chandler, complete transformer replacement.</li> <li>• For Black Canyon, continued additional unit, units 1 and 2 upgrades, and install trash rake system.</li> <li>• For Keys PGP, continued plant modernization and upgrades.</li> <li>• In addition, new investments will be pursued as set out in the Asset Plan and replacement of failed units will occur as needed to restore availability.</li> </ul>	105,558
FY 2014-2017	<ul style="list-style-type: none"> <li>• Continue planned investment in FCRPS infrastructure.</li> </ul>	479,781

## **Fish & Wildlife Overview**

Bonneville continues to build budgets based on the suite of mitigation projects it adopted in FY 2007 on recommendations from the Council. Bonneville reaffirmed many project-specific commitments in FY 2008 through both BiOp and Fish Accords. These decisions were based upon the management objectives and priorities in the Council's Program as well as an integration of ESA responsibilities as described in the NOAA Fisheries and USFWS's FCRPS BiOp. Coordination continues among Bonneville, Council, Federal resource management agencies, states, tribes and others to plan for additional projects to fill specific gaps in Bonneville's mitigation portfolio through expansion of existing projects and targeted solicitations.

The following fish facilities have been submitted for Congressional approval for FY 2013 as authorized by the Northwest Power Act for new fish and wildlife facilities of at least \$1 million and an economic life greater than 15 years (PL 96-501, sec.4(h)(10)(B)): John Day Reprogramming and Construction, Columbia River Basin White Sturgeon Hatchery, and Kelt Reconditioning and Reproductive Success Evaluation Research. See Proposed Appropriations Language included earlier in this FY 2013 budget.

Bonneville intends to continue implementation of the projects listed below. These facilities are based upon the best available science and are regionally important in that they provide high priority mitigation and recovery actions for fish and wildlife populations as affected by the construction and operation of the FCRPS power facilities, under the auspices of the Northwest Power Act and the ESA, and other laws. Projects and facilities listed below deliver direct on-the-ground benefits to both ESA listed and non-listed fish and wildlife throughout the Columbia River Basin and have been evaluated and coordinated with the Northwest Power and Conservation Council, state, Federal and tribal fish and wildlife resource managers, local governments, watershed and environmental groups and other interested parties.

Bonneville's efforts include continued implementation of the Council's Program in an integrated fashion, in particular proceeding with high priority ESA-related projects and activities associated with the currently operative NOAA and USFWS BiOps and Fish Accords. These capital facilities are typically planned in the Council's three-step process, which includes development of a Master Plan, environmental compliance, and review by the Independent Science Review Panel, among other analyses.

Implementation of reforms to FCRPS hatchery programs that help reduce impacts upon ESA-listed populations will be done following ESA consultations with NOAA and after information on the types of changes to these facilities are established through the Bonneville funded hatchery genetic management plans and priorities are developed for sequencing implementation.

Bonneville also may capitalize the investment in some fish and wildlife habitat acquisitions provide such investment provides a creditable and quantifiable benefit against a defined obligation for Bonneville and follows Bonneville's Capitalization Policy.

The five types of capital are as follows:

- 1) Tributary passage -- Activities that enhance fish passage to tributary rivers. For the purpose of this policy, a tributary is defined by the Council designated sub-basin of the tributary. Functionally interdependent work elements could contain the following: wells, ladders, screens, pumping, culverts, diversion (irrigation) consolidation, piping to reduce water loss, irrigation efficiencies (drip irrigation), lining of ditches (seepage reduction), removal of damming objects or pushup dams in conjunction with related construction, and construction related habitat restoration.
- 2) Gas abatement -- Projects that reduce or eliminate the super-saturation of gaseous nitrogen in water beneath dam spillways.
- 3) Hatchery facility construction -- Projects and activities relating to the construction of fish hatcheries, including related satellite facilities (acclimation ponds and collection weirs). This may also include construction-related habitat restoration.
- 4) Mainstem passage -- Projects and activities which benefit fish passage in the mainstem of Columbia River or Snake River. Capital projects include: ladders, removable spillway weirs, collection facilities, PIT tag facilities, etc.
- 5) Land acquisition -- Land acquisition projects protect, enhance, and maintain instream wetland and riparian habitat and

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**Fish & Wildlife – Capital**

**FY 2013 Congressional Budget**

provide credit to Bonneville, such as habitat units (HUs) for wildlife or instream miles for resident fish to fulfill the legal obligation of Bonneville to mitigate the impacts from construction and operation of the FCRPS power facilities.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	See Detailed Description Below	90,817
FY 2012	See Detailed Description Below	59,785
FY 2013	See Detailed Description Below	67,145
FY 2014- 2017	See Detailed Description Below	169,527

**Detailed Justification**

Anadromous fish supplementation, production and related facilities that may require capital funds in FY 2013 include the following:

**Requesting Expenditure Authority Bill Language**

- John Day Reprogramming and Construction: This project is being proposed by the Columbia River Inter-Tribal Fish Commission (CRITFC) to work on the appropriate balance between upriver and down river salmon hatchery production mitigating for John Day and The Dalles Dams. Final reprogramming facilities and locations are still being analyzed. The project area encompasses the mainstem Columbia River from the base of McNary Dam downstream to The Dalles Dam. Capital dollars from this project will help fund designing and constructing additions to existing FCRPS hatchery facilities to accommodate the reprogramming of hatchery fish. Final design and construction is expected to begin Fiscal Year 2014 and be completed by Fiscal Year 2017.

- Columbia River Basin White Sturgeon Hatchery: The Columbia River Basin White Sturgeon Hatchery, proposed by the Columbia River Intertribal Fisheries Commission (CRITFC), will mitigate for white sturgeon population declines due to consistent poor recruitment upstream of Bonneville Dam. Expected production at a new or existing facility will be 15,000 - 20,000 yearling white sturgeon per year. The final project may include broodstock collection and holding, rearing juveniles, and acclimating juveniles prior to release. A location for the facility has not yet been determined, but it will likely be located within 60 miles of the confluence of the Columbia and Snake Rivers. Construction of the facility could start as early as July, 2013.

- Kelt Reconditioning and Reproductive Success Evaluation Research: The Columbia River Inter-Tribal Fish Commission (CRITFC) is proposing a relatively small holding tank facility to recondition female steelhead (kelts) after they have spawned. The capital portion of the project is expected to be constructed in the Snake River Basin, most likely at Lower Granite Dam. Bonneville will implement the kelt reconditioning plan to improve the productivity of Snake River basin B-run steelhead populations which are listed for protection under the ESA. NOAA’s analysis of Prospective Actions indicates that a combination of transportation, kelt reconditioning, and in-stream passage improvements (e.g. spill-flow modifications) could increase kelt returns enough to increase the number of returning Snake River B-run steelhead spawners to Lower Granite Dam by about 6%. The expected start date is October 2013 and the completion date is September 2014.

**Ongoing Projects**

- Kootenai River Native Fish Conservation Aquaculture Program: The Kootenai Tribe of Idaho is proposing to construct a new hatchery on Tribal owned land at the confluence of the Moyie and Kootenai rivers. A new facility at this location will address current physical space limitations that make expansion of the existing Tribal Sturgeon Hatchery infeasible. The Twin Rivers site offers high quality ground and surface water needed to support the program’s aquaculture objectives for Kootenai River white sturgeon and burbot. This location may also help to extend the river reaches where Kootenai sturgeon imprint and ultimately return to reproduce.

Proposed facilities include dual water supplies and filtration, incubation rooms, juvenile rearing tanks and ponds, spawning channels, administrative/ biological support facilities and staff housing. The Tribe is also proposing the experimental use of

**Bonneville Power Administration**

**Fish & Wildlife – Capital**



remote streamside incubation and early rearing facilities to imprint Kootenai sturgeon upstream of the new hatchery site. The improvements the Tribe is proposing for the existing Tribal Sturgeon Hatchery near Bonners Ferry would enhance sturgeon handling and rearing capabilities. A new spawning room would eliminate the need to relocate large fish from one building to another. A safer means to transport large adults to and from the river would be provided, in addition to a number of measures to improve fish culture practices and program efficiency and success.

- Lolo Creek Permanent Weir Facility: To be constructed on Lolo Creek, tributary to the Clearwater River in north-central Idaho. The weir will be used as a monitoring and evaluation tool to collect adult return information on steelhead and Chinook salmon as well as the collection of Chinook salmon hatchery broodstock for the Nez Perce Tribal Hatchery spring Chinook salmon supplementation program.

- Improving anadromous fish production on the Warm Springs Reservation: The Warm Springs River Watershed, located on the Confederated Tribes of the Warm Springs Reservation, supports the majority of natural production of spring Chinook in the Deschutes River Basin. Wild spring Chinook adult returns to the Warm Springs River have been variable over the past three decades, but generally have exhibited a declining trend. This declining trend has decreased harvest opportunities for Warm Springs tribal members. The project would: 1) analyze existing environmental and biological data to identify factors limiting natural production throughout the life cycle of Warm Springs River spring Chinook; 2) calculate current and potential juvenile and adult carrying capacity for the Warm Springs River and its tributaries; and 3) build a facility to enhance natural production to meet the long term goal of supplying the tribal membership with sustainable, harvestable populations of wild spring Chinook in the Deschutes River Basin in perpetuity.

- Okanogan Basin Locally Adapted Steelhead Supplementation Program: This project will expand Cassimer Bar Hatchery to meet the estimated production level of 200,000 summer steelhead smolts to supplement natural production within the Okanogan River Basin. The goal is to increase abundance and accelerate recovery of endangered steelhead in the Basin. The Colville Tribes will operate the hatchery program using locally-adapted broodstock collected at weirs. This Accord project will require development, review and approval of a Master Plan and completion of the other steps of the Council's 3-Step Review Process.

- Leaburg Dam Fish Sorter Project: The upper Willamette Spring Chinook of the McKenzie basin are listed as a threatened species under the Endangered Species Act. The Willamette Biological Opinion identifies the need to minimize the spawning of hatchery-reared salmon in habitat that is reserved for natural-origin (wild) salmon. This project is located at River Mile 39 on the McKenzie River, and its purpose is to minimize the straying and spawning of McKenzie hatchery-reared Chinook in the natural spawning areas of the McKenzie Basin. The project will help ensure that greater than 90% of the natural spawning population in the upper McKenzie River basin is comprised of wild spring Chinook. The NOAA Fisheries, Action Agencies (US Army Corps of Engineers and Bonneville Power Administration) and Oregon Department of Fish and Wildlife completed a final review of preferred alternatives by late Fall 2011, and determine whether a fish sorter alternative (one of three alternatives) will remain the preferred alternative to manage the proportion (< 0.10) of hatchery-reared fish that spawn in the wild. The three alternatives under consideration are: (1) collection/sorter at Leaburg Dam, (2) enhanced attraction/homing of hatchery fish to McKenzie Hatchery, and (3) reprogramming-reduction of non-mitigation spring Chinook releases from McKenzie Hatchery. The completion of a preferred alternative or combination of alternatives is anticipated in late winter of 2014.

- Crystal Springs Hatchery Facilities: This project may develop facilities for rearing and out-planting resident and anadromous fish in central and southern Idaho. The facility is located near the American Falls Reservoir in Idaho. Resident fish that may be produced include Yellowstone Cutthroat. The anadromous fish may include Snake River spring Chinook salmon Snake River steelhead, and Snake River sockeye. The facility is sponsored by the Shoshone-Bannock Tribes under their Accord, who are expected to operate and manage the facility once it is complete. The project will require development, review and approval of a Master Plan, completion of environmental analysis (including possibly a full EIS) and completion of other steps of the Council's 3-Step Review Process, including review by the ISRP.

- Yakima River Spring Chinook Supplementation Facility (Located in Cle Elum, Washington): The central facilities for this project in Cle Elum are complete. The remaining work under this project is for final design and construction of a monitoring

and evaluation building at the Nelson Springs site near Yakima, Washington, for on-going fisheries research and data analysis. The Nelson Springs M&E facilities construction was completed in FY 2011.

- Snake River Spring Chinook Salmon artificial propagation facilities (known as the Northeast Oregon Hatchery or NEOH): to be located on the Upper Grande Ronde River near La Grande, Oregon, on Catherine Creek near Union, Oregon, and on Lostine River near Enterprise, Oregon. While design has been ongoing for this project for several years, the decision to proceed with construction is pending ESA consultations and approval by NOAA Fisheries of a Hatchery and Genetic Management Plan for the facility. This project, as a measure in the Council's Fish & Wildlife Program, would also identify and develop artificial propagation facilities to protect and enhance salmon and steelhead native to the Imnaha and Grande Ronde River Basins.

- Kootenai River Hatchery: The Kootenai River sturgeon hatchery, in Bonners Ferry, Idaho, is in need of hatchery upgrades and expansion to improve temperature control and rearing conditions that will result in the increased overall survival of ESA-listed Kootenai River white sturgeon after release from this facility. In addition this may also include development of a burbot production facility to offset the loss of natural production below Libby Dam.

- Nez Perce Tribal Hatchery: Additional rearing and acclimation facilities are requested as part of the existing Nez Perce Tribal Hatchery in Clearwater County, Idaho, for reintroduction of up to 700,000 Coho smolts into the Clearwater River in Idaho. The Clearwater Coho Restoration Project is designed to address the absence of Coho in the Clearwater subbasin where, historically, Coho salmon were one of the species making up a complex multi-species anadromous ecosystem. The project goal is to restore Coho salmon to the Clearwater sub-basin measured by 14,000 adults at Lower Granite Dam annually. Plans are to develop an integrated management plan to optimize the use of hatchery fish to meet recovery and harvest objectives. The sponsor, the Nez Perce Tribe, intends to seek an additional round of review for the Master Plan by the Council with a goal of receiving a final recommendation to initiate environmental planning and design development.

- Redfish Lake Sockeye Salmon Captive Broodstock expansion: This project continues to expand the sockeye salmon captive broodstock program by constructing new or increasing the capacity of existing facilities at Eagle Hatchery in Eagle, Idaho, Burley Creek Fish Hatchery in Kitsap County Washington, and at Oxbow Hatchery in Multnomah County, Oregon, to meet the interim goal of increasing production to 150,000 sockeye salmon smolts per year. An additional site has been acquired in Idaho to bring production annually to between 500,000 and 1,000,000 smolts as called for in the 2008 FCRPS BiOp. Precipitous declines of Snake River sockeye salmon led to their Federal listing as endangered in 1991 (56 FR 58619). In that same year, the Idaho Department of Fish and Game initiated a Captive Broodstock Program for Snake River sockeye salmon to prevent species extinction. The ultimate program goal is to reestablish sockeye salmon runs to Stanley Basin waters and to provide for sport and treaty harvest opportunities. The program's near-term goal is to prevent species extinction, slow the loss of critical population genetic diversity and heterozygosity, and increase the number of individuals in the population.

- Chief Joseph Dam Hatchery: Bonneville is funding the construction of Chief Joseph Dam Hatchery Program, primarily a comprehensive management program for supplementing Chinook salmon to increase the abundance, productivity, distribution, and diversity of naturally spawning populations of summer/fall Chinook in the Okanogan River and in the Columbia River below Chief Joseph Dam, Washington (between the confluence of the Okanogan River and Chief Joseph Dam). Project includes a new hatchery facility (at the base of the Chief Joseph Dam). In addition, the Colville Tribes as sponsor will use the facility to reintroduce extirpated spring Chinook back into the Okanogan Subbasin. This Accord project includes a new hatchery facility (at the base of the Chief Joseph Dam) and acclimation ponds (throughout the Okanogan River sub-basin), broodstock collection, egg incubation, rearing, release, and selective broodstock collection method development. Planned production levels are 2 million summer/fall chinook and 0.9 million spring chinook smolts. Bonneville has entered into an agreement with one public utility where that utility will pay a portion of the capital and operation and maintenance costs associated with this hatchery. In addition, Bonneville has agreed in principle with two other public utilities to pay a portion of the operation and maintenance costs. Construction on the hatchery facility was initiated in 2010.

Additionally, Bonneville is considering the efficacy of a weir on the lower Okanogan River. The weir would ensure cost-effective collection of hatchery broodstock, as well as provide significant benefits to management and conservation of

steelhead and other salmon species in the Okanogan River by managing the proportion of hatchery fish allowed to spawn in the wild.

- Klickitat Production Expansion: The Klickitat River Master Plan was completed by the Yakama Nation, reviewed by the ISRP, recommended by the Council, and approved by Bonneville in 2008. The plan's goal is to protect and increase naturally producing populations of spring chinook and steelhead that support harvest while protecting the biological integrity and the genetic diversity of indigenous fish stocks in the sub-basin. The Klickitat Master Plan includes three main elements: Lyle Falls Fishway replacement, Castile Falls passage improvements, and upgrades to the Klickitat hatchery with the potential for also and constructing a new facility to accommodate the ongoing production of Coho and fall Chinook. In early 2009 Bonneville completed the Lyle Falls Environmental Impact Statement (EIS) and ROD. In 2009, final designs for construction of the Lyle and Castile Falls passage improvements, the enumeration and collection facilities at Lyle and Castile, as well as certain Klickitat hatchery upgrades necessary for maintenance of existing program activities and hatchery safety concerns were completed. Limited hatchery upgrades started in late 2009, and construction at Lyle and Castile Falls began in the spring of 2010. A new Klickitat Hatchery EIS was initiated in July 2009 that will examine options for the development and operation of new supplementation facilities and acclimation alternatives, and additional upgrades to the existing hatchery facility.

- Hood River Production Facility: This project includes expansion of existing Parkdale fish facility to accommodate spring chinook rearing, construction of new Hood River adult salmonid trapping facilities, and development of alternative adult trapping sites. The Powerdale Dam Fish Trap has provided the foundation for many of the activities associated with implementation of the Hood River Production Program. These include: monitoring escapement, collecting life history characteristics, and broodstock acquisition. Powerdale Dam, which is owned and operated by PacifiCorp, began to be decommissioned during the summer of 2010. The dam formed an integral part of the Powerdale Dam Fish Trap, as fish are shunted into the fish trap as they ascend the fish ladder at the facility. Removal of the dam will also remove the fish trapping facility. In order to continue implementing the production program, alternative trapping sites will need to be developed. The Hood River Production Program has four primary goals: 1) re-establish naturally sustaining runs of spring chinook in the Hood River; 2) re-build naturally sustaining runs of summer and winter steelhead in the Hood River; 3) maintain genetic characteristics of Hood River fish populations; and 4) provide fish for sustainable harvest by both sport and tribal fishers.

- Mid Columbia Coho Restoration: Indigenous natural Coho salmon no longer occupy the mid-Columbia river basins. Columbia Coho salmon populations were decimated by the early 1900s. For several reasons, including the construction and operation of mainstem Columbia River hydropower projects, habitat degradation, release locations, harvest management, and hatchery practices and genetic guidelines, self-sustaining Coho populations have not been re-established in mid-Columbia basins. This Yakama Accord project's vision is to re-establish naturally reproducing Coho salmon populations in the Wenatchee and Methow sub-basins at biologically sustainable levels which provide significant harvest in most years. This program will construct a facility (anticipated on the Wenatchee River) for holding and spawning broodstock, incubating eggs, and rearing juveniles. Additional semi-natural ponds may also be constructed in the Wenatchee and Methow subbasins for acclimating smolts prior to their release. The phased approach, including associated facilities, incorporates development of a mid-Columbia hatchery broodstock, local adaptation to tributaries in the Wenatchee and Methow Basins, and habitat restoration that will benefit Coho as well as ESA-listed spring chinook, steelhead, and bull trout.

- Walla Walla Hatchery: Hatchery planning and design, based on the Hatchery Master Plan, is near completion. The next phase of the project, pre-design and permitting (environmental compliance) is underway. Construction for the proposed facility is scheduled to begin in FY2013. When complete, the facility will hold, spawn, incubate and rear spring Chinook on the South Fork Walla Walla River near Milton-Freewater, Oregon.

- Yakama Coho restoration: The goal of this restoration project, including associated facilities, is to restore extirpated Coho salmon to the Yakima River basin at biologically sustainable levels. Before the ocean and lower Columbia exploitation of salmon and steelhead in the late 19th century and early 20th century, and before the Yakima River valley was developed with extensive agricultural irrigation systems, the Yakima Sub-basin supported large runs of spring, summer and fall Chinook, summer steelhead, Coho and sockeye. Historical returns of Coho to the Yakima River Basin have been estimated in the range of 44,000 to more than 100,000 fish annually. Cumulative effects from the disruption of the Yakima Sub-basin

ecosystem functions and processes, out of sub-basin impacts, and harvest of salmon have resulted in a significant decline of fish and wildlife abundance from historic levels. Construction of proposed Coho facilities may begin as early as FY 2013.

Potential non-construction capital Wildlife and Resident Fish Habitat Acquisitions (including Conservation Easements) eligible for capitalization:

- Grand Coulee and Chief Joseph Wildlife Habitat Acquisitions
- Albeni Falls Wildlife Mitigation
- Palisades and Minidoka Wildlife Habitat Acquisitions
- Black Canyon, Boise Diversion, Anderson Ranch Wildlife Habitat Acquisitions
- Willamette Wildlife Habitat Acquisitions
- Libby and Hungry Horse Reservoirs Resident Fish Acquisition

## Conservation & Energy Efficiency Overview

Bonneville’s conservation acquisition program offers several ways for customers to participate in regional conservation. Program components include: (1) utility standard offer and custom programs, which result in customer proposals to conserve energy through residential weatherization, commercial lighting, Heating, Ventilation, and Air Conditioning (HVAC), industrial processes and lighting, and irrigated agriculture; (2) third party delivery programs, such as residential compact fluorescent lighting, the Energy Smart Grocer, Energy Smart Industrial, and Green Motors programs; (3) programs to help Federal installations in the region reduce energy use, which includes the Federal Hatcheries program and work at various dams to help the Corps and Reclamation in their efforts to reduce energy use; and (4) other initiatives still in the design stage.

Bonneville’s conservation budgets reflect a ramp-up in regional conservation goals and the increasing cost of the conservation measures that must be implemented to achieve the targets. Specifically, Bonneville’s conservation targets have increased from about 280 aMW under the Council’s 5<sup>th</sup> Power Plan (2005-09) to approximately 504 aMW under its 6<sup>th</sup> Power Plan (2010-14). The Council’s 6<sup>th</sup> Power Plan calls for the region to acquire approximately 1,200 aMW of conservation in 2010 through 2014. Bonneville established a five-year target to meet these goals. In FY 2011 Bonneville acquired significantly more conservation than had originally been planned for in that year. In order to maintain the five-year budget to meet the Council’s power planning goals, Bonneville currently anticipates spending its planned level for FY 2012 but less than indicated in the budget for FY 2013 and FY 2014 while still meeting the target. While Bonneville is maintaining the same five-year budget levels, the amounts acquired in FY 2011 were at a lower cost than originally planned so Bonneville will likely exceed the original aMW target. The cost of conservation is also increasing as the cost-effectiveness threshold increases and as market penetration is reached for some low-cost measures. Due to anticipated changes in federal lighting standards, for example, standard twister compact fluorescent lamps (CFLs), which were the largest single contributor to past savings, begin phasing out of the program beginning in 2012. The shift away from this particularly low-cost measure increases overall conservation costs. That cost increase is reflected in these budgets. The front-loaded shape of these budgets reflects a push to acquire as much low-cost conservation as possible before the change in lighting and other standards. In meeting its conservation goals Bonneville may employ resource acquisition agreements, authorized by Northwest Power Act section 6, to obtain non-federal funding.

### Funding and Activity Schedule

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Continued to support utility incentive programs. Continued to support regional conservation programs. Began update of a regional conservation reporting system.	161,754
FY 2012	Continue to support utility incentive programs. Continue to support regional conservation programs. Complete regional conservation reporting system. Begin supporting conservation at direct serve federal agencies.	88,637
FY 2013	Continue to support utility incentive programs. Continue to support regional conservation programs. Continue supporting conservation at direct serve federal agencies.	94,547
FY 2014- 2017	Continue to support utility incentive programs. Continue to support regional conservation programs. Continue supporting conservation at direct serve federal agencies.	558,585



**Transmission Services – Capital  
Funding Schedule by Activity**

	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Transmission Services - Capital			
Main Grid	123,093	235,851	299,552
Area & Customer Services	10,196	19,767	10,975
Upgrades & Additions	72,590	166,709	271,112
System Replacements	94,967	172,459	200,626
Projects Funded in Advance	213,527	91,532	101,297
<b>Total, Transmission Services - Capital</b>	<b>514,372</b>	<b>686,317</b>	<b>883,562</b>

**Outyear Funding Schedule**

	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
Total, Transmission Services - Capital	813,696	606,672	509,075	435,117

**Overview**

TS is responsible for about 75 percent of the Pacific Northwest’s high-voltage transmission. TS provides funding for all additions, upgrades and replacements to the Bonneville transmission system, resulting in reliable service to northwest generators and transmission customers. The Bonneville transmission system also facilitates the sale and exchange of power to and from the region.

The eastern blackout on August 14, 2003, alerted the nation to the lack of investment in utility transmission infrastructure. Bonneville has been working on infrastructure investments and operational practices to improve the transmission grid since the West Coast disturbance on August 10, 1996. TS continues to make significant infrastructure improvements and additions to the system to assure reliable transmission in the Northwest. These improvements and additions will help the Bonneville transmission system continue to comply with national reliability standards, replace aging equipment, allow for interconnection of needed new generation, and remove constraints that limit economic trade or the ability to maintain the system. Prior to beginning the infrastructure improvements, TS had built no major transmission projects since 1987. Only incremental additions were added to the system over the years.

Bonneville’s completed infrastructure investments in the last decade that further strengthen the network consist of the following projects: Puget Sound Area Additions, North of Hanford/ North of John Day, Celilo Modernization, Eastern Washington Reinforcement, Coulee-Bell, Kangley–Echo Lake, Shultz-Wautoma, and Portland Area Additions.

In 2005, with the Congressional approval of wind tax credits, a number of potential wind generation companies made requests for interconnection to the Bonneville transmission grid. By 2007, Bonneville built facilities to connect up to 2,500 MW of wind generation and connected 650 MW. In 2008, 659 MW was connected and in 2009, 795 MW was connected to the FCRPS grid. Bonneville has more than 16,000 MW in additional wind project interconnection requests, many interconnecting in the 2011 through 2016 timeframe. Bonneville integrated a total installed wind capability of 3,800 MW as of the end of calendar year 2011. In 2010, Bonneville began construction of several new large substations to meet these interconnection requests. Current projections are 6,200 MW by 2013 interconnected and possibly 8,000 MW total by 2016. Also in the interconnection queue is approximately 800 MW of natural gas, solar, bio-mass and geothermal fueled generation proposed for connection between 2012 and 2016. Much of the wind generation demand is a result of the Renewable Portfolio standards enacted by

Oregon and Washington that require an estimated 5,000 MW of renewable generation by 2015. Exports to California could add another 2,000-3,000 MW during the same time period.

In June 2008, Bonneville's first NOS received 153 requests from 28 customers for 6,410 MW of new service, about three-fourths for wind energy integration. BPA subsequently offered 1,782 MW of new transmission service on its existing system. Bonneville identified four new Main Grid capital projects from the 2008 NOS: (1) McNary-John Day 500 kV transmission line (part of West of McNary Reinforcements Group 1); (2) Big Eddy-Knight 500 kV transmission line and substation (part of West of McNary Reinforcements Group 2); (3) Central Ferry- Lower Monumental 500 kV Reinforcement (formerly Little Goose Area Reinforcement); and (4) I-5 Corridor 500 kV Reinforcement. Construction of the McNary-John Day 500 kV transmission line is complete and Bonneville will pursue Big Eddy Knight and Central Ferry – Lower Monumental projects if environmental and economic analysis warrants. The I-5 Corridor project is in the planning stage. If all four projects are constructed they will provide almost 6,000 MW of new transmission service.

Bonneville's second NOS window for new transmission service requests in 2009 resulted in 82 service requests resulting in 34 contracts totaling 1,553 megawatts. Of that, approximately 923 megawatts represent wind project interconnection requests. Bonneville has completed cluster studies for NOS 2010. These requests total 3,759 megawatts, of which 2,993 megawatts is wind. Several projects are being reviewed as a result of these studies including Colstrip West, Colstrip East and the Northern Intertie project. Bonneville elected to not hold a NOS in 2011.

As noted, Bonneville's capital program for Transmission Services includes a wide variety of specific investments that are determined after internal review and, in some cases, external review. In 2009, Bonneville's Transmission Services organization began implementing Asset Management based upon PAS 55, an Asset Management framework that provides a standardized structure and approach to Asset Management. As a result, Transmission Services Asset Strategies, which are derived from Agency Strategies, drive our Asset Plans which determine our capital and expense needs. On occasion, capital investments must be made on short notice because of unexpected needs, because of the identification of obsolete, worn out, failed, failing, or at risk systems and facilities, because of system reliability

**Bonneville Power Administration**

**Transmission Services – Capital**

requirements, and because near-term opportunities to install or construct facilities arise as outages occur or as schedules for outages change. For these and other reasons, Transmission Services capital program is fluid and subject to change. Thus, Bonneville is unable to predict with specificity many of the new capital investments in the transmission system. Nonetheless the types of investments can be identified in general. These items may include but are not limited to: arrester, bus and bus pedestal, circuit breaker, circuit switcher, communication tower, concrete pole, control center mapboard and video wall displays, control house, converter grading capacitors, converter harmonic filters, converter smoothing reactors, converter transformers, current limiting reactor, current limiting resistor, current transformer, digital fault locator, digital cross-connect system (DCS), disconnect switch, engine generator, engineered steel pole, fiber optic cable, fiber terminal, fuel dispensing facility, grounding system, grounding transformer, microwave multiplex transmitter, network management system (NMS), overhead conductor, overhead ground wire, power transformer, radio multiples transmitter, relay, revenue meter, series capacitor, shunt capacitor, shunt reactor, station service transformer, station service inverter, substation dead end tower, substation perimeter fence, switchyard lighting, thyristor, transfer switch, transmission steel tower, voltage regulator, voltage transformer, water/sewer system, wood pole and cross-arm, and other similar items consistent with Bonneville's capitalization policy determinations (such as spacer damper replacements).

Notwithstanding that the capital program for TS is subject to change, Bonneville has identified several general areas where capital program investment will occur.

Bonneville will continue to fund fiber optic communications facilities needed to meet Bonneville's projected operational needs. To the extent that these investments create temporary periods of excess fiber optic capacity, such dark fiber capacity can be made available to telecommunications providers and to non-profits to meet public benefit Internet access needs for rural areas and other needs in Bonneville's service area. Bonneville's investments in fiber optics, including the role of the private sector in building fiber optic networks, is consistent with the "Fiber Optic Cable Plan" submitted to Congress on May 24, 2000, accompanying the FY 2000 Energy and Water Development Appropriations Act. In accordance with this plan, when possible, Bonneville will establish partnerships with fiber optic facility and service providers to meet its needs.



In December 2004, the Congress passed and the President signed the Commercial Spectrum Enhancement Act (CSEA, Title II of P.L. 108-494), creating the Spectrum Relocation Fund (SRF) to streamline the relocation of Federal systems from certain spectrum bands to accommodate commercial use by facilitating reimbursement to affected agencies of relocation costs. The Federal Communications Commission has auctioned licenses for reallocated Federal spectrum, which will facilitate the provision of Advanced Wireless Services to consumers. Funds were made available to agencies in FY 2007 for relocation of communications systems operating on the affected spectrum. These funds are mandatory and will remain available until expended, and agencies will return to the SRF any amounts received in excess of actual relocation costs. The estimated Bonneville cost of this relocation is \$48.7 million. This project is approximately 75% complete.

As part of the Homeland Security Presidential Directives, Bonneville has completed a physical security assessment of all critical facilities and is implementing security enhancements at these facilities. These security enhancements increase access control to Bonneville's facilities and provide video surveillance and monitoring capabilities.

In order to centralize staff and reduce reliance on leasing a multiplicity of commercial office and related space, and to meet the evolving staff needs of Bonneville's Transmission Services, Bonneville has begun preliminary study and design of a new Transmission Services Facility to be located on Bonneville's Ross Campus. Although the future costs of this building are mentioned in the budget narrative, this building will be the subject to continuing conversations with Bonneville's customers and regional stakeholders.

#### **Accomplishments**

- Filed final rate proposal for 2012-2013 with FERC
- McNary -John Day project will be completed under budget and ahead of schedule.
- Integrated over 3,800 MW of wind to date on Bonneville's transmission system

Implementation of Asset Management Strategies for Sustain and Expand Programs

#### **Explanation of Changes**

Bonneville's budget includes \$884 million in Fiscal Year 2013 for TS (including non-borrowing authority capital) which is a 28.7% increase over the FY12 forecasted level. The increase reflects investment in Main Grid and Upgrades and Additions necessary to incorporate and deliver new generation throughout the Northwest as well as increases in System Replacements to address numerous issues with aging electric and telecom infrastructure.

The FY13 budget increases the levels for Main Grid (+\$ 64M), Upgrades & Additions (+\$ 104M), System Replacements (+\$ 28M), and PFIA (+\$ 9.7M). The budget decreases levels for Area & Customer Services (-\$ 8.7M).

#### **Strategic Management**

Bonneville provides transmission and energy services while supporting integration of renewable resources and low-cost transmission in the Pacific Northwest.

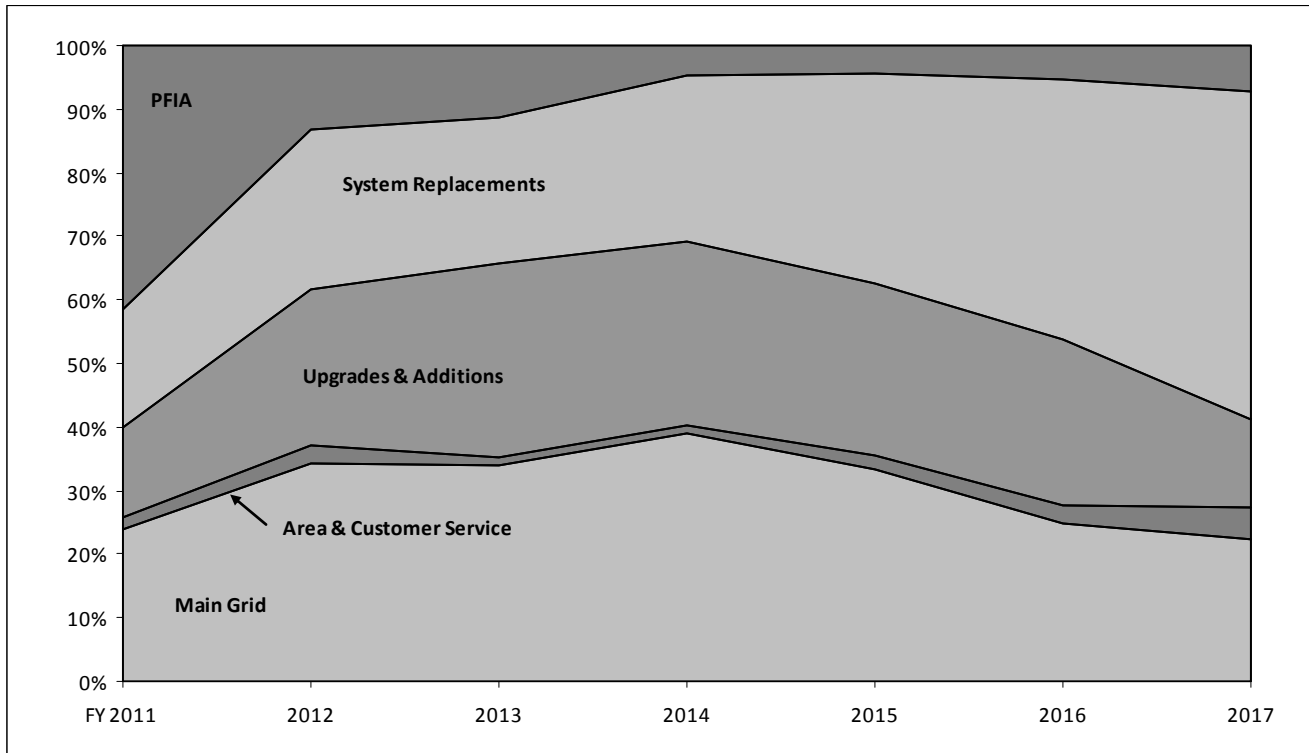
Bonneville will continue to implement the following strategies to serve the region

1. To improve system adequacy, reliability and availability, Bonneville has embarked on major transmission infrastructure projects. The projects shore up the region's transmission system and help deliver the region's future power needs. These projects address multiple challenges, such as integration of renewable energy, the need to relieve a number of congested transmission paths, the pressure to keep up with growing energy demands and the need to meet Bonneville's open access policy in support of competitive markets.
2. Bonneville will continue to replace aging assets that are vital the reliability of the existing transmission system

The following external factors present the strongest impact to overall achievement of the program's strategic goal

1. Continually changing economic and institutional conditions
2. Competitive dynamics
3. Ongoing changes in the electric industry
4. Different siting issues

**Relative Outyear Funding Priorities in Transmission Services Capital**



**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

	FY 2012	FY 2013	FY 2013 vs FY 2012
<b>Main Grid</b> The increase from \$235,851,000 to \$299,552,000 reflects increased level of funding to support Central Oregon Capacity expansion for Data Centers and NOS projects.	235,851	299,552	+63,701
<b>Area &amp; Customer Services</b> The decrease from \$19,767,000 to \$10,975,000 reflects a decrease in the number of customer required projects.	19,767	10,975	-8,791
<b>Upgrades &amp; Additions</b> The increase from \$166,709,000 to \$271,112,000 reflects the need to improve power flows to the south through the Pacific Direct Current Line (PDCI).	166,709	271,112	+104,403
<b>System Replacements</b> The Increase from \$172,459,000 to \$200,626,000 reflects the need to address aging infrastructure, especially telecom facilities.	172,459	200,626	+28,167
<b>PFIA</b> The increase from \$91,532,000 to \$101,297,000 reflects an increase funded by customers to interconnect new Wind and Solar Generation projects.	91,532	101,297	+9,766
<b>TOTAL Funding Change, TS Capital</b>	<b>686,317</b>	<b>883,562</b>	<b>+197,245</b>

**Main Grid  
Overview**

Bonneville’s strategic objectives for Main Grid projects are to assure compliance with the NERC planning standards and Western Electricity Coordinating Council (WECC) reliability criteria, provide voltage support, provide a reliable transmission system for open access, per FERC requirements, and provide for relief of transmission system congestion. During this budgeting period, projects are planned that will provide transmission reinforcement and voltage support to major load areas that are primarily west of the Cascade Mountains. In addition, transmission reinforcements are planned for load centers in central Oregon, central Washington, the Willamette Valley, and along the I-5 Corridor, as well as projects to provide transmission access for new generation projects.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Continued environmental analysis and design for the I-5 Corridor Reinforcement project.</li> <li>• McNary-John Day (West of McNary Reinforcements Group 1)-continued construction;</li> <li>• Big Eddy-Knight (West of McNary Reinforcements Group 2)-completed environmental review and design.</li> <li>• Completed construction for the Redmond 230/115 kV Bank #2.</li> <li>• Central Ferry-Lower Monumental 500 kV Reinforcement (formerly Little Goose Area Reinforcement)-completed environmental review and design.</li> <li>• Began the planning and design to add a second 500/230 kV transformer at Ponderosa substation.</li> <li>• Continued planning studies to identify needed infrastructure additions.</li> <li>• Continued planning studies to identify projects driven by NERC planning standards and WECC reliability criteria.</li> <li>• Continued planning studies to identify system reactive needs to mitigate unacceptable low or high voltage problems and other system additions.</li> <li>• Continued planning studies to relieve transmission system congestion and for integrating potential new generation facilities.</li> <li>• Continued planning studies and design for projects related to NOS.</li> </ul>	123,093
FY 2012	<ul style="list-style-type: none"> <li>• Continue environmental analysis and continue design for the I-5 Corridor Reinforcement project.</li> <li>• McNary-John Day (West of McNary Reinforcements Group 1)-complete construction;</li> <li>• Big Eddy-Knight (West of McNary Reinforcements Group 2)-complete the design and begin construction.</li> <li>• Central Ferry-Lower Monumental 500 kV Reinforcement (formerly Little Goose Area Reinforcement)-complete design and begin construction.</li> <li>• Complete design for the addition of a 2nd 500/230 kV transformer at Ponderosa substation.</li> <li>• Continue planning studies to identify needed infrastructure additions.</li> <li>• Continue planning studies to identify projects driven by NERC planning standards and WECC reliability criteria.</li> <li>• Continue planning studies to identify system reactive needs to mitigate unacceptable low or high voltage problems and other system additions.</li> <li>• Continue planning studies to relieve transmission system congestion and for integrating potential new generation facilities.</li> <li>• Continue planning studies and design for projects related to the NOS.</li> </ul>	235,851

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2013	<ul style="list-style-type: none"> <li>• Complete design and issue the Record of Decision (ROD) for the I-5 Corridor Reinforcement project.</li> <li>• Big Eddy-Knight (West of McNary Reinforcements Group 2)-complete construction</li> <li>• Central Ferry-Lower Monumental 500 kV Reinforcement (formerly Little Goose Area Reinforcement)-complete construction.</li> <li>• Continue construction of the addition of a 2nd 500/230 kV transformer at Ponderosa substation.</li> <li>• Continue planning studies to identify needed infrastructure additions.</li> <li>• Continue planning studies to identify projects driven by NERC planning standards and WECC reliability criteria.</li> <li>• Continue planning studies to identify system reactive needs to mitigate unacceptable low or high voltage problems and other system additions.</li> <li>• Continue planning studies to relieve transmission system congestion and for integrating potential new generation facilities.</li> <li>• Continue planning studies and design for projects related to the NOS.</li> </ul>	299,552
FY 2014-2017	<ul style="list-style-type: none"> <li>• Continue investment in Main Grid assets.</li> </ul>	741,707

**Area & Customer Service  
Overview**

Bonneville’s strategic objective for Area and Customer Service projects is to assure that Bonneville meets any reliability standards and our contractual obligations.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Finalized the scope and agreements between the parties and begin the design of Hooper Springs substation.</li> <li>• Began design and construction of the Madison Shunt Capacitor Addition.</li> <li>• Continued preliminary engineering and design for miscellaneous facilities required to meet contractual obligations and maintain reliable service for Bonneville’s service area.</li> </ul>	10,196
FY 2012	<ul style="list-style-type: none"> <li>• Complete the design and begin the construction of Hooper Springs substation.</li> <li>• Complete construction of the Madison Shunt Capacitor Addition.</li> <li>• Continue preliminary engineering and design for miscellaneous facilities required to meet contractual obligations and maintain reliable service for Bonneville’s service area.</li> </ul>	19,767
FY 2013	<ul style="list-style-type: none"> <li>• Continue preliminary engineering and design for miscellaneous facilities required to meet contractual obligations and maintain reliable service to Bonneville’s service area.</li> </ul>	10,975
FY2014-2017	<ul style="list-style-type: none"> <li>• Continue investment in Area &amp; Customer Service assets.</li> </ul>	63,017

## Upgrades & Additions Overview

Bonneville’s strategic objectives for Upgrades and Additions are to replace older communications and controls with newer technology including fiber optics in order to maintain or enhance the capabilities of the transmission system; to implement special remedial action control schemes to accommodate new generation and mitigate immediate operational and market constrained paths; and to support communications and remedial action schemes, among other proposals.

During this budget period, Bonneville will complete design, material acquisition, construction and activation of several fiber optics facilities to provide bandwidth capacity and high-speed data transfers to eventually replace microwave analog radios, which are technologically obsolete and nearing the end of their useful life. Temporarily, in some areas, excess fiber capacity is being offered for a term to telecommunications providers or to public entities such as public utilities, schools, libraries, and hospitals, providing them access to high-speed telecommunication services as a public benefit.

### Funding and Activity Schedule

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Completed joint use fiber project from SnoKing to Bellingham.</li> <li>• Began design of upgrading 2 miles of fiber between Bonneville Power House and Bonneville Control House.</li> <li>• Continued planning, design, material acquisition and construction of special remedial action control schemes required for interconnecting new generation projects and mitigating immediate constrained paths.</li> <li>• Continued planning, design, material acquisition and construction of various system additions and upgrades necessary to maintain a reliable system for Bonneville’s service area.</li> <li>• Continued construction of secondary fiber related projects and digital radio system upgrades to improve the operational telecommunication system.</li> <li>• Continued design and begin material procurement and construction to upgrade the main fiber optic backbone system (#KC and #NC systems).</li> <li>• Continued design of the VHF Radio System upgrade.</li> <li>• Began design of Synchrophasor project as well as construction at some of the multiple sites involved.</li> <li>• Procurement of critical spare transformers.</li> <li>• Began studies for upgrading the Pacific DC Intertie to 3,800 MW.</li> <li>• Began the design for upgrading the Ross-Schultz fiber circuit.</li> <li>• Began the design for upgrading the Bell-Boundary #DC SONET ring.</li> </ul>	72,590
FY 2012	<ul style="list-style-type: none"> <li>• Continue upgrading 2 miles of fiber between Bonneville Power House and Bonneville Control House.</li> <li>• Continue planning, design, material acquisition and construction of special remedial action control schemes required for interconnecting new generation projects and mitigating immediate constrained paths.</li> <li>• Continue planning, design, material acquisition and construction of various system additions and upgrades necessary to maintain a reliable system for Bonneville’s service area.</li> <li>• Continue construction of secondary fiber related projects and digital radio system upgrades to improve the operational telecommunication system.</li> <li>• Continue material procurement and construction to upgrade the main fiber optic backbone system (#KC and #NC systems).</li> <li>• Continue design and begin construction of the VHF Radio System upgrade.</li> <li>• Complete design and continue construction at multiple sites of the Synchrophasor</li> </ul>	166,709

Fiscal Year	Activity	Funding (Dollars in Thousands)
	<ul style="list-style-type: none"> <li>project.</li> <li>• Complete studies and begin design for the upgrading of the Pacific DC Intertie to 3,800 MW project.</li> <li>• Continue the design of the Ross-Schultz fiber circuit upgrade and begin material procurement.</li> <li>• Continue design and begin material procurement for the Bell-Boundary #DC SONET ring upgrade.</li> </ul>	
FY 2013	<ul style="list-style-type: none"> <li>• Continue upgrading 2 miles of fiber between Bonneville Power House and Bonneville Control House.</li> <li>• Continue planning, design, material acquisition and construction of special remedial action control schemes required for interconnecting new generation projects and mitigating immediate constrained paths.</li> <li>• Continue planning, design, material acquisition and construction of various system additions and upgrades necessary to maintain a reliable system for Bonneville's service area.</li> <li>• Continue construction of secondary fiber related projects and digital radio system upgrades to improve the operational telecommunication system.</li> <li>• Continue material procurement and construction to upgrade the main fiber optic backbone system (#KC and #NC systems).</li> <li>• Continue construction of the VHF Radio System upgrade.</li> <li>• Complete design and continue construction at multiple sites of the Synchrophasor project.</li> <li>• Complete design and begin construction for the upgrading of the Pacific DC Intertie to 3,800 MW project.</li> <li>• Begin construction of the Ross-Schultz fiber circuit upgrade and begin material procurement.</li> <li>• Begin construction of the Bell-Boundary #DC SONET ring upgrade.</li> </ul>	271,112
FY2014-2017	<ul style="list-style-type: none"> <li>• Continue investment in Upgrades &amp; Additions assets.</li> </ul>	623,775

## System Replacements Overview

Bonneville’s strategic objectives for the Sustain Program are to replace high-risk, obsolete, and maintenance-intensive facilities and equipment and to reduce the chance of equipment failure by: (1) replacing high voltage transformers and power circuit breakers which are at or near the end of their useful life; (2) replacing risky, outdated and obsolete control and communications equipment and systems, and includes mandated replacements due to legislation; and (3) replacing all other existing high-risk equipment and facilities affecting the safety and reliability of the transmission system.

### Funding and Activity Schedule

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<p>Non-Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continued non-electric replacements as necessary.</li> <li>• Continued the design, material acquisition, and construction for the Access Road program capital component and the Land Rights program capital component in support of the Lines and ROW Programs.</li> <li>• Began design of the Transmission Services Facility based on the results of the review and feasibility study.</li> <li>• Continued design and construction of capital improvements for identified existing facilities.</li> </ul> <p>Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continued replacement of system protection and control equipment and other substation and line facilities as needed to maintain reliability using Reliability Centered Maintenance criteria. Such replacements include relays, annunciators, oscillographs, metering and various types of communication related equipment replacing and migrating analog to digital technology and SCADA equipment.</li> <li>• Continued replacement of under-rated and high maintenance substation equipment.</li> <li>• Continued replacing spacer dampers on various 500 kV lines.</li> <li>• Continued replacing critical, operational tools and marketing business systems at the Dittmer and Munro Control Centers.</li> <li>• Continued replacing deteriorating wood pole transmission line structures, spacer dampers and insulators with NCI.</li> </ul>	94,967
FY 2012	<p>Non-Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continue non-electric replacements as necessary.</li> <li>• Continue the design, material acquisition, and construction for the Access Road program capital component and the Land Rights program capital component in support of the Lines and ROW Programs.</li> <li>• Continue design of the Transmission Services Facility.</li> <li>• Continue design and construction of capital improvements for identified existing facilities.</li> </ul> <p>Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continue replacement of system protection and control equipment and other substation and line facilities as needed to maintain reliability using Reliability Centered Maintenance criteria. Such replacements include relays, annunciators, oscillographs, metering and various types of communication related equipment replacing and migrating analog to digital technology and SCADA equipment.</li> <li>• Continue replacement of under-rated and high maintenance substation equipment.</li> </ul>	172,459



	<ul style="list-style-type: none"> <li>• Continue replacing spacer dampers on various 500 kV lines.</li> <li>• Continue replacing critical, operational tools and marketing business systems at the Dittmer and Munro Control Centers.</li> <li>• Continue replacing deteriorating wood pole transmission line structures, spacer dampers and insulators with NCI.</li> </ul>	
FY 2013	<p>Non-Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continue non-electric replacements as necessary.</li> <li>• Continue the design, material acquisition, and construction for the Access Road program capital component and the Land Rights program capital component in support of the Lines and ROW Programs.</li> <li>• Begin construction of the Transmission Services Facility.</li> <li>• Continue design and construction of capital improvements for identified existing facilities.</li> </ul> <p>Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continue replacement of system protection and control equipment and other substation and line facilities as needed to maintain reliability using Reliability Centered Maintenance criteria. Such replacements include relays, annunciators, oscillographs, metering and various types of communication related equipment replacing and migrating analog to digital technology and SCADA equipment.</li> <li>• Continue replacement of under-rated and high maintenance substation equipment.</li> <li>• Continue replacing spacer dampers on various 500 kV lines.</li> <li>• Continue replacing critical, operational tools and marketing business systems at the Dittmer and Munro Control Centers.</li> <li>• Continue replacing deteriorating wood pole transmission line structures, spacer dampers and insulators with NCI.</li> <li>• Continue replacement of aging and defective converter transformers if the decision is to replace rather than upgrade.</li> </ul>	200,626
FY 2014-2017	<p>Non-Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continue non-electric replacements as necessary.</li> <li>• Continued the design, material acquisition, and construction for the Access Road program capital component and the Land Rights program capital component in support of the Lines and ROW Programs.</li> <li>• Continue construction of the Transmission Services Facility.</li> <li>• Continue design and construction of capital improvements for identified existing facilities.</li> </ul> <p>Electric Replacements:</p> <ul style="list-style-type: none"> <li>• Continue replacement of system protection and control equipment and other substation and line facilities as needed to maintain reliability using Reliability Centered Maintenance criteria. Such replacements include relays, annunciators, oscillographs, metering and various types of communication related equipment replacing and migrating analog to digital technology and SCADA equipment.</li> <li>• Continue replacement of under-rated and high maintenance substation equipment.</li> <li>• Continue replacing spacer dampers on various 500 kV lines.</li> <li>• Continue replacing critical, operational tools and marketing business systems at the Dittmer and Munro Control Centers.</li> <li>• Continue replacing deteriorating wood pole transmission line structures, spacer dampers and insulators with NCI.</li> <li>• Continue replacement of aging and defective converter transformers if the decision is to replace rather than upgrade.</li> </ul>	843,669

**Projects Funded in Advance  
Overview**

This category includes those facilities and/or equipment where Bonneville retains control or ownership but which are funded or financed by a third party or with revenues, either in total or in part. This program also includes investments associated with the CSEA.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Continued to integrate various new generation and line/load projects into Bonneville transmission grid based on requests placed and processed in accordance with transmission tariff.</li> <li>• Continued planning studies to identify system impacts and needs regarding proposed new generation projects.</li> <li>• Engineered and began construction of several large wind generation interconnection substations.</li> <li>• Completed environmental cleanup and other work necessary for the sale of Bonneville facilities.</li> <li>• Continued the design and construction for various radio replacements at accessible sites associated with the CSEA.</li> <li>• Completed construction of the California-Oregon Intertie improvement project.</li> <li>• Central Ferry Substation– Design.</li> </ul>	213,527
FY 2012	<ul style="list-style-type: none"> <li>• Continue to integrate various new generation and line/load projects into Bonneville transmission grid based on requests placed and processed in accordance with transmission tariff.</li> <li>• Continue planning studies to identify system impacts and needs regarding proposed new generation projects.</li> <li>• Engineer and begin construction of several large wind generation interconnection substations.</li> <li>• Complete environmental cleanup and other work necessary for the sale of Bonneville facilities.</li> <li>• Complete other projects as agreed to with customers.</li> <li>• Continue the design and construction for various radio replacements at accessible sites associated with the CSEA.</li> <li>• Central Ferry Substation– Continue design.</li> </ul>	91,532
FY 2013	<ul style="list-style-type: none"> <li>• Continue to integrate various new generation and line/load projects into Bonneville transmission grid based on requests placed and processed in accordance with transmission tariff.</li> <li>• Continue planning studies to identify system impacts and needs regarding proposed new generation projects.</li> <li>• Engineer and begin construction of several large wind generation interconnection substations.</li> <li>• Complete environmental cleanup and other work necessary for the sale of Bonneville facilities.</li> <li>• Complete other projects as agreed to with customers.</li> <li>• Continue the design and construction for various radio replacements at accessible sites associated with the CSEA.</li> <li>• Central Ferry Substation– Begin construction.</li> </ul>	101,297
FY2014-2017	<ul style="list-style-type: none"> <li>• Continue PFIA program to help Bonneville meet its infrastructure investment needs.</li> </ul>	124,753

**Capital Information Technology & Equipment/Capitalized Bond Premium  
Funding Schedule by Activity**

	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Capital Information Technology (IT) & Equipment/Capitalized Bond Premium			
Capital IT & Equipment	44,161	62,252	50,512
Capitalized Bond Premium	0	2,000	2,000
<b>Total, Capital IT &amp; Equipment/Capitalized Bond Premium</b>	<b>44,161</b>	<b>64,252</b>	<b>52,512</b>

**Outyear Funding Schedule**

	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
Total, Capital IT & Equipment/Capitalized Bond Premium	47,791	48,389	49,623	51,285

**Overview**

Capital IT provides for the acquisition of general and some dedicated special purpose capital information technologies, and acquisition of special-use capital and IT equipment in support of Bonneville’s strategic objectives. This category also includes Bonneville’s on-going efforts to facilitate delivery of a highly resilient organization, able to anticipate, withstand and effectively respond to disruptive events affecting it and its partners in the Northwest region. The four main areas of resiliency focus continue to include asset management, emergency management, crisis management and continuity of operations.

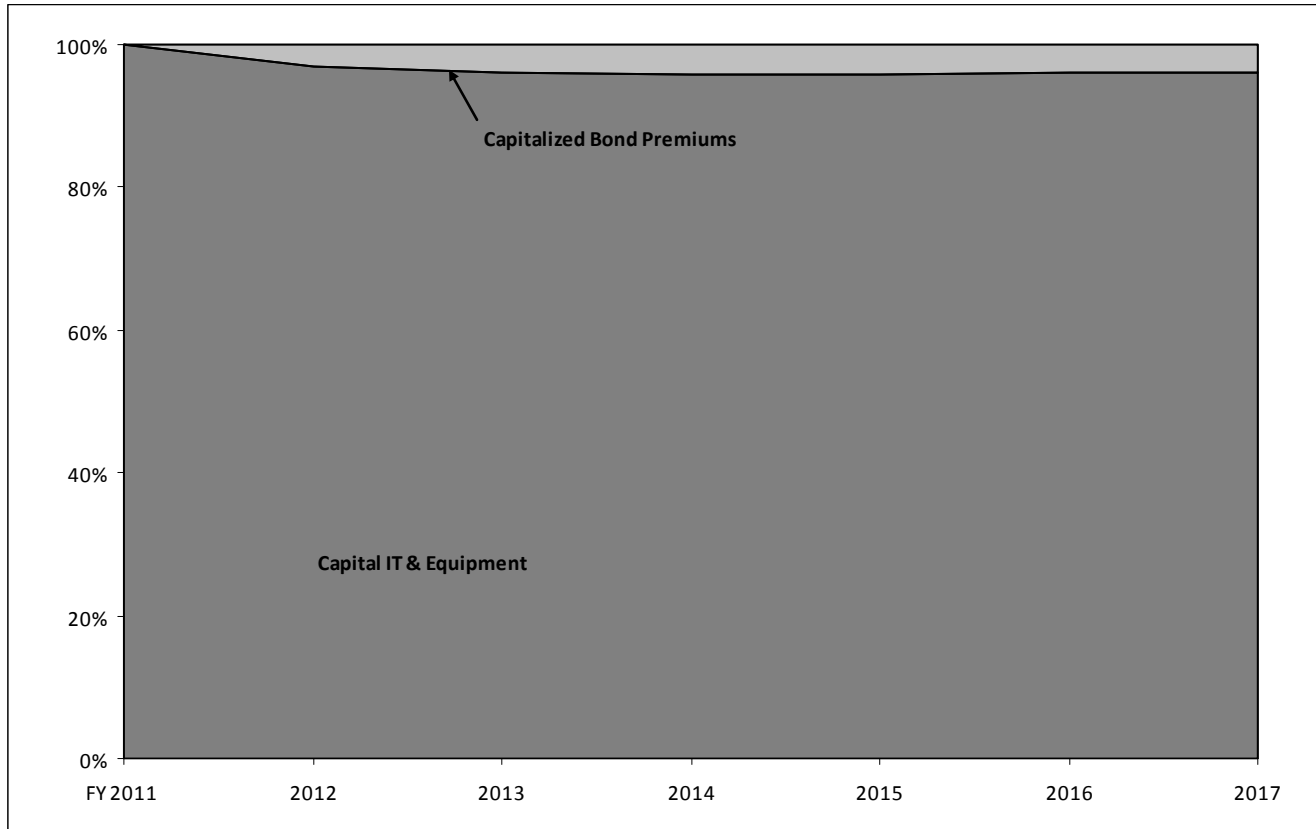
Bonneville continues to move its IT infrastructure to a more efficient architecture. This FY 2013 Budget supports this effort. IT continues to eliminate redundancies in tools and applications, establish an agency-wide IT architecture with standardized IT purchasing criteria, standardize software licensing processes and minimize agency liabilities through

stronger contracts, apply continuous improvement practices to IT project management, and implement an agency IT portfolio cost management strategy. The IT estimates in this FY 2013 Budget, under Capital IT and Equipment include all IT functions within the agency except TS grid operations. See the Capital Program – TS section of this budget for additional discussion of grid operations-related IT requirements acquisitions.

Capital equipment provides for the acquisition of general and some dedicated special purchases of capital office furniture and equipment.

Bonneville can incur a bond premium when it repays a Treasury bond before the due date. When bonds are refinanced and premiums are incurred, the bond premiums can be capitalized. Historically, Bonneville generally has chosen to finance capitalized bond premiums with bonds issued to the Treasury, as was envisioned in the Transmission Act.

**Relative Outyear Funding Priorities in Capital IT & Equipment/Capitalized Bond Premium**



**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

	FY 2012	FY 2013	FY 2013 vs FY 2012
Capital IT & Equipment			
The decrease from \$62,252,000 to \$50,512,000 reflects ongoing emphasis on business resiliency efforts.	62,252	50,512	-11,740
Capitalized Bond Premiums			
Reflects possible refinancings of outstanding Federal bonds.	2,000	2,000	+0
<b>TOTAL Funding Change, Capital IT &amp; Equipment Services/Bond Premiums</b>	<b>64,252</b>	<b>52,512</b>	<b>-11,740</b>

**Capital IT & Equipment  
Overview**

This category includes enhancements to Bonneville’s information technology processes to provide cost effective efficiencies for secure, timely and accurate information. Investments will enable continued enhancements to Bonneville’s Enterprise systems that are designed to link key information systems throughout Bonneville and improve business processes. Current efforts include continued functional process improvements in areas not included in the initial development phase. Other investments include acquisition of capital office furniture and equipment, capital automated data processing (ADP) based administrative telecommunications equipment, ADP equipment (hardware), and support of capital software development for certain Bonneville programs.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Capital system developments in support of: <ul style="list-style-type: none"> <li>• Corporate IT Projects</li> <li>• IT Infrastructure Projects</li> <li>• Power IT Projects</li> <li>• Transmission Services IT Projects</li> </ul>	44,161
FY 2012	Capital system developments in support of: <ul style="list-style-type: none"> <li>• Corporate IT Projects</li> <li>• IT Infrastructure Projects</li> <li>• Power IT Projects</li> <li>• Transmission Services IT Projects</li> </ul>	62,252
FY 2013	Capital system developments in support of: <ul style="list-style-type: none"> <li>• Corporate IT Projects</li> <li>• IT Infrastructure Projects</li> <li>• Power IT Projects</li> <li>• Transmission Services IT Projects</li> </ul>	50,512
FY 2014- 2017	Capital system developments in support of: <ul style="list-style-type: none"> <li>• Corporate IT Projects</li> <li>• IT Infrastructure Projects</li> <li>• Power IT Projects</li> <li>• Transmission Services IT Projects</li> </ul>	189,088

**Capitalized Bond Premium  
Overview**

Continue to assess financial market and when cost-effective, refinance available bonds as prudent.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding
		(Dollars in Thousands)
FY 2011	Possible refinancings of outstanding Federal bonds	0
FY 2012	Possible refinancings of outstanding Federal bonds	2,000
FY 2013	Possible refinancings of outstanding Federal bonds	2,000
FY 2014- 2017	Possible refinancings of outstanding Federal bonds	8,000



**Power Services - Operating Expense  
Funding Schedule by Activity**

Power Services - Operating Expenses	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Production	1,240,994	1,202,742	1,287,118
Associated Projects Costs	318,358	371,400	387,639
Fish & Wildlife	221,048	237,394	241,384
Residential Exchange Program	184,764	201,561	201,838
NW Power & Conservation Council	8,930	10,114	10,355
Energy Conservation & Renewable Resources	98,003	84,620	85,992
<b>Total, Power Services - Operating Expenses</b>	<b>2,072,098</b>	<b>2,107,831</b>	<b>2,214,325</b>

**Outyear Funding Schedule**

Total, Power Services - Operating Expense	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
	2,274,720	2,320,674	2,319,068	2,399,388

**Overview**

Production includes all Bonneville non-Federal debt service (including Energy Northwest debt service), O&M costs for power system generation resources, including a large nuclear plant, business operations, short- and long-term power purchases (including expenses associated with the use of power financial instruments to hedge Bonneville's exposure to market price risk and certain index sales contract provisions as permitted by Bonneville's Power Transacting Risk Management Policy), electric utility marketing of power, and oversight of hydro and nuclear projects. Bonneville develops products and services to meet the needs of Bonneville customers and stakeholders, and acquires resources as needed. This FY 2013 Budget includes anticipated expenses for new long-term power purchases to meet the needs of Bonneville customers, that may include no more than 30 MW of waste energy recovery power acquired through a demonstration project testing the effectiveness of a "standard offer" approach to acquiring certified Clean Energy projects as defined in the Energy Independence and Security Act of 2007 (Public Law 110-140 December 19, 2007).

In FY 2010, Bonneville completed a long-term Resource Program to guide potential future resource acquisitions needed to meet customer loads. In the event that Bonneville does acquire a resource, Bonneville will modify its budget to reflect the acquisition.

Associated Projects represents funding for operation and maintenance costs for the FCRPS, minor additions, improvements and replacements, and liabilities of the Corps and Reclamation hydroelectric projects in the Pacific Northwest, which serve many purposes. All agencies emphasize efficient power production from existing facilities and improvement of the performance and availability of power generating units. Bonneville pays additional financing costs of the FCRPS facilities through its Interest Expense and Capital Transfer budget programs. Bonneville provides funding for the operations and maintenance costs that are part of the LSRCP hatcheries. Bonneville is responsible for annual payments to the Confederated Tribes of the Colville Reservation for their claims concerning their contribution to the production of hydropower by the Grand Coulee Dam in accordance with the Settlement Agreement between the United States and the Tribes (April 1994).

Bonneville's Fish and Wildlife program provides for extensive protection, enhancement, and mitigation of Columbia River Basin fish and wildlife adversely affected by the development and operation of Federal hydroelectric projects on the Columbia River and its tributaries from which Bonneville markets power. Bonneville satisfies a major portion of its fish and wildlife responsibilities by funding projects and activities

designed to be consistent with the Council's Program developed pursuant to Section 4(h) of the Northwest Power Act. Through the Council's Program Bonneville also implements measures to aid in the protection of fish in the Columbia River and its tributaries, listed as threatened or endangered under the ESA. Bonneville pursues a comprehensive approach to integrate the ESA requirements of the FCRPS biological opinions with the broad resource protection, mitigation and enhancement objectives of the Council's Program (see ESA discussion in the Power Capital Overview section).

Bonneville's mitigation and recovery expenditures will focus on activities that benefit Columbia River Basin fish and wildlife resources, following priorities established through ESA consultations and the Council's Program, including:

- increase survival of ESA-listed and non-listed fish at FCRPS dams and reservoirs;
- increase survival of ESA-listed and non-listed fish throughout their life cycle by protecting and enhancing important habitat areas;
- reform hatchery practices that affect ESA-listed populations and use hatcheries to contribute to conservation and recovery of ESA-listed and non-listed fish;
- provide for offsite mitigation projects for habitat, passage, and other improvements that address limiting factors for target species;
- reduce harvest-related mortality on ESA-listed and non-listed fish and support sustainable fisheries; and
- support a focused and well-coordinated research, monitoring, and evaluation program.

To the extent possible, Bonneville is integrating the actions implemented in response to the FCRPS BiOps with projects implemented under the Council's Program. Sub-basin plans that include prioritized strategies for mitigation actions will help guide project selection that meets both Bonneville's ESA and Northwest Power Act responsibilities. In order to address the *in lieu* provision of the Northwest Power Act, which prohibits Bonneville from funding mitigation that other entities are authorized or required to undertake, Bonneville continues its ongoing work with the Council and the regional fish and wildlife managers, customers, and Tribes to review projects to ensure ratepayers fund appropriate mitigation. For example, Bonneville established a cost sharing Memorandum of Understanding (MOU) with the U.S. Forest Service in 2005 that requires a programmatic 30 percent cost share for FYs 2007-2009 for fish mitigation projects funded by Bonneville on U.S. Forest Service lands. Bonneville

#### **Bonneville Power Administration Power Services - Operating Expense**

continues to operate in a cooperative manner with the U.S. Forest Service.

The Energy and Water Development Appropriations Act of 1996 added section 4(h)(10)(D) to the Northwest Power Act, directing the Council to appoint an ISRP "to review a sufficient number of projects" proposed to be funded through Bonneville's fish and wildlife budget "to adequately ensure that the list of prioritized projects recommended is consistent with the Council's Program." The Northwest Power Act further states that "in making its recommendations to Bonneville, the Council shall consider the impact of ocean conditions on fish and wildlife populations and shall determine whether the projects employ cost effective measures to achieve program objectives." Today, most mitigation projects funded by Bonneville receive ISRP review as part of the Council recommendation process. The Council has shifted to a multi-year project review cycle during which the ISRP will review categories of projects grouped together; e.g., all terrestrial wildlife projects were recently reviewed.

The Council's major activities include the periodic preparation of a Northwest Conservation and Electric Power Plan (a 20-year electric energy demand and resources forecast and energy conservation program – known as the Power Plan) and a Columbia River Basin Fish and Wildlife Program of loss mitigation and resource enhancement actions. The Northwest Power Act directs that expenses of the Council, subject to certain limits based on forecasted Bonneville power sales, shall be included in Bonneville's annual budget to Congress. Funding for the Council is provided by Bonneville and is recovered through Bonneville power rates.

Bonneville will acquire conservation resources consistent with the Council's Power Plan and act as a catalyst for energy efficiency. Such action will: 1) meet conservation targets; 2) achieve a least cost resource mix; 3) lessen the cost impacts of power purchases; 4) avoid the costs of ramping programs and infrastructure up and down; 5) extend the value of the FCRPS to customers; and 6) build the region's resource portfolio with conservation. Bonneville is also exploring how best to integrate demand-side management, distributed generation, and other leading edge technologies (i.e., Energy Web and Smart Grid applications) into its generation and transmission planning processes.

The REP was created through the Northwest Power Act to extend the benefits of low-cost Federal power to the residential and small farm customers of Pacific Northwest electric utilities that meet certain conditions.



Currently, the region's six investor-owned utilities and two of the region's consumer-owned utilities are actively participating in the REP. Payments made under the REP are based on the difference between Bonneville's utility-specific PF Exchange rates and each utility's average system cost (ASC), times the utility's residential and small farm loads. The process and calculation of ASCs are governed by the 2008 Average System Cost Methodology (ASCM). Participating utility ASCs are established in a public process that occurs prior to and during Bonneville's power rate case. Then, the rate case uses those ASCs and determines the utility-specific Priority Firm Exchange rates. Payments are made monthly based on the invoiced exchange loads.

On July 26, 2011 Bonneville adopted a landmark settlement of the REP. The settlement reduces a significant element of litigation uncertainty and risk from Bonneville's power rates for the vast majority of utilities in the region. Under the settlement, the Region's six investor-owned utilities will receive about \$4.1 billion in payments over the 17-year term of the settlement, beginning at \$182.1 million in FY 2012 and increasing to \$286.1 million in FY 2028. The parties supporting the

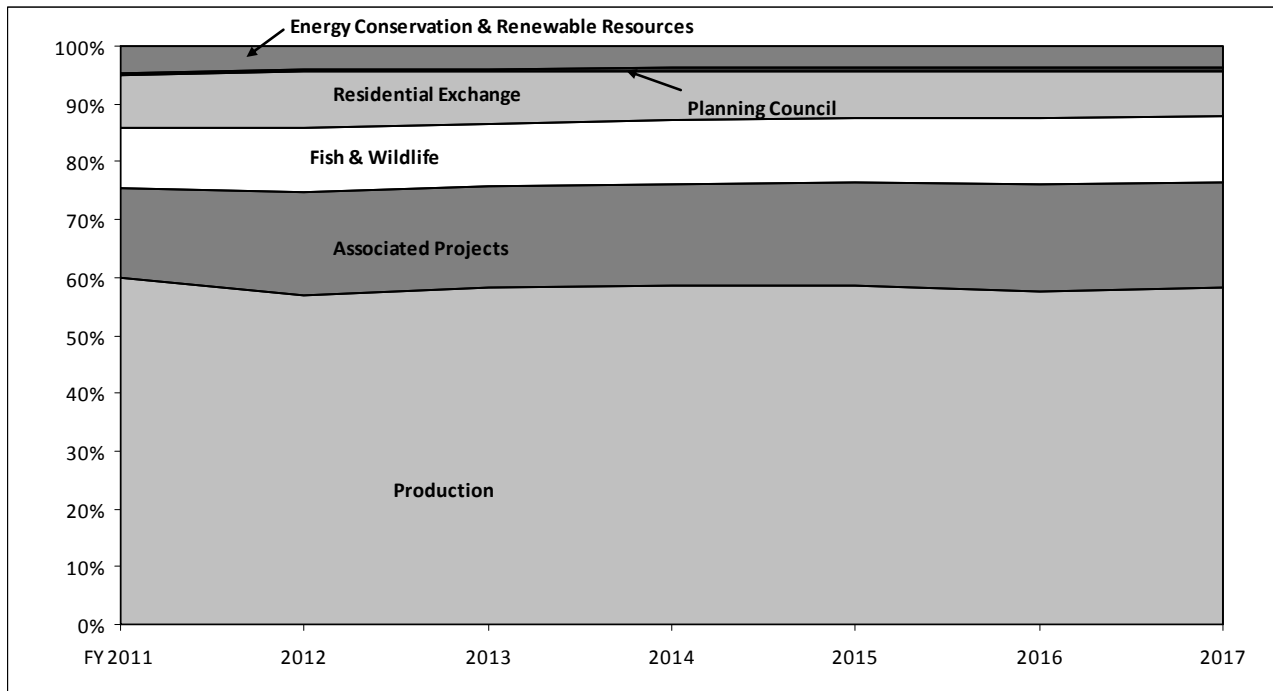
settlement include all six regional investor-owned utilities, three state utility commissions, several consumer-owned utility groups, a retail ratepayer advocacy group and consumer-owned utilities representing 88 percent of those receiving power from Bonneville. Together supporters of the settlement provide about 93 percent of power consumed in the Pacific Northwest. In addition to this settlement, Bonneville has reached related settlements with the two participating consumer-owned utilities.

#### **Explanation of Changes**

Bonneville's budget includes \$2,214 million in Fiscal Year 2013 for PS expense, which is a 5.1% increase over the FY12 forecasted level. The increase reflects continuing emphasis on operation and maintenance of hydro generation projects on the FCRPS.

The FY13 budget increases the levels for Production (+ \$ 84 million), Associated Projects (+\$ 16 million), Fish & Wildlife (+\$ 4 million), Residential Exchange (+\$ 877 thousand), Planning Council (+\$ 241 thousand), and Energy Conservation & Renewable Resources (+\$ 1.3 million).

## Relative Outyear Funding Priorities in Power Services Expense



### Explanation of Funding AND/OR Program Changes

(Dollars in Thousands)

	FY 2012	FY 2013	FY 2013 vs FY 2012
<b>Production</b> The increase from \$1,202,742,000 to \$1,287,118 reflects increased debt service and decreased power purchases.	1,202,742	1,287,118	+84,377
<b>Associated Projects</b> The increase from \$371,400,000 to \$387,639,000 reflects changes to security, biological opinion requirements, non-routine extraordinary maintenance, Western Electric Coordinating Council (WECC)/North American Energy Reliability Corporation (NERC) compliance activities, and improvements, replacements, and minor additions at the projects.	371,400	387,639	+16,238
<b>Fish &amp; Wildlife</b> The increase from \$237,394,000 to \$241,384,000 reflects funding associated with Biological Opinions, Fish Accord commitments and Northwest Power Act activities.	237,394	241,384	+3,990
<b>Residential Exchange</b> The increase from \$201,561,000 to \$201,838,000 reflects the 2012 REP settlements and settlements with two participating consumer owned utilities.	201,561	201,838	+277
<b>Planning Council</b> The increase from \$10,114,000 to \$10,355,000 reflects continuing Council program activities.	10,114	10,355	+241
<b>Energy Conservation &amp; Renewable Resources</b> The increase from \$84,620,000 to \$85,992,000 reflects the ending of the conservation rate credit.	84,620	85,992	+1,372
<b>TOTAL Funding Change, PS Expense</b>	<b>2,107,831</b>	<b>2,214,325</b>	<b>+106,494</b>

**Bonneville Power Administration**  
**Power Services - Operating Expense**

**FY 2013 Congressional Budget**

## Production Overview

**Power Purchases:** Includes purchased power to cover power supply obligations as well as balancing the hydro system. These purchases can be made in the form of long-term purchases to meet supply obligations based on long-term planning requirements or they can be made within the year due to the monthly shape of the loads and the monthly shape of the hydro electric generation. Also, purchases can be made within the month and within the day to fill shortages due to fluctuations in the hydro system and load changes.

**Power Scheduling/Marketing:** Schedule and market (buy/sell) electric energy with Bonneville customers and the Pacific Northwest's interconnected utilities. Scheduling includes Power Services' implementation of physical and memo power schedules and associated transmission schedules, implementation of Electronic Tagging (ETag) in accordance with NERC and in accordance with FERC, implementation of electronic scheduling and the Columbia Grid as it evolves.

**Columbia Generating Station (formerly WNP-2):** Continue to acquire full capability of CGS. CGS is on a 24-month fuel and outage cycle. A maintenance and refueling outage is planned for the Spring and Summer of FY 2013.

### Funding and Activity Schedule

Generation and Oversight:

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Provided oversight of all signed contracts including oversight of large thermal generating plants from which Bonneville purchases capability to ensure that all Bonneville approval rights are protected; coordinated, communicated, and administered agreements, issues, and programs between Bonneville and the project owners. Continued to provide wind resource integration services for customer wind generation.</li> <li>• Power Purchases</li> <li>• Power Scheduling/Marketing</li> </ul>	1,240,994
FY 2012	<ul style="list-style-type: none"> <li>• Continue to provide oversight of all contracts signed to date. Pursue cost-effective means to mitigate capacity demands associated with interconnecting large amounts of wind into the BPA system. Pursue acquisition of additional cost-effective renewable generation to meet load growth. Continue to provide oversight on the wind resource integration services currently purchased by public power customers and offer additional renewable resource shaping services to such customers using wind generation to serve their load.</li> <li>• Power Purchases</li> <li>• Power Scheduling/Marketing</li> </ul>	1,202,742
FY 2013	<ul style="list-style-type: none"> <li>• Continue to provide oversight of all contracts signed to date. Pursue cost-effective means to mitigate capacity demands associated with interconnecting large amounts of wind into the BPA system. Pursue acquisition of additional cost-effective renewable generation to meet load growth. Continue to provide oversight on the wind resource integration services currently purchased by public power customers and offer additional renewable resource shaping services to such customers using wind generation to serve their load.</li> <li>• Power Purchases</li> <li>• Power Scheduling/Marketing</li> </ul>	1,287,118

FY 2014-2017	<ul style="list-style-type: none"> <li>• Continue to provide oversight of all contracts signed to date. Pursue cost-effective means to mitigate capacity demands associated with interconnecting large amounts of wind into the BPA system. Pursue acquisition of additional cost-effective renewable generation to meet load growth. Continue to provide oversight on the wind resource integration services currently purchased by public power customers and offer additional renewable resource shaping services to such customers using wind generation to serve their load.</li> <li>• Power Purchases</li> <li>• Power Scheduling/Marketing</li> </ul>	5,430,218
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**Associated Projects  
Overview**

Support FCRPS project costs and work to strengthen interagency and regional relationships to improve project performance, supporting functions, and to better understand project resource requirements and costs. This helps to maintain FCRPS reliability and system performance, as well as to attain Bonneville’s strategic business objectives.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Bureau of Reclamation: <ul style="list-style-type: none"> <li>• Continued direct funding Reclamation O&amp;M power activities.</li> </ul> Corps of Engineers: <ul style="list-style-type: none"> <li>• Continued direct funding Corps O&amp;M power activities.</li> </ul>	318,358
FY 2012	Bureau of Reclamation: <ul style="list-style-type: none"> <li>• Continue direct funding Reclamation O&amp;M power activities.</li> </ul> Corps of Engineers: <ul style="list-style-type: none"> <li>• Continue direct funding Corps O&amp;M power activities.</li> </ul>	371,400
FY 2013	Bureau of Reclamation: <ul style="list-style-type: none"> <li>• Continue direct funding Reclamation O&amp;M power activities.</li> </ul> Corps of Engineers: <ul style="list-style-type: none"> <li>• Continue direct funding Corps O&amp;M power activities.</li> </ul>	387,639
FY 2014- 2017	Bureau of Reclamation: <ul style="list-style-type: none"> <li>• Continue direct funding Reclamation O&amp;M power activities.</li> </ul> Corps of Engineers: <ul style="list-style-type: none"> <li>• Continue direct funding Corps O&amp;M power activities.</li> </ul>	1,671,884

**Fish & Wildlife  
Overview**

Specific project solicitation recommendations were made by the Council in late 2006 followed by Bonneville review and funding decisions completed in early 2007 for the period FY 2007 through 2009. Bonneville, in coordination with the Council, reviews all on-going projects and reaffirms project-specific funding commitments annually, including projects under the BiOp, Fish Accords, and Washington Estuary Agreement. Bonneville bases its funding decisions on the management objectives and priorities in the Council’s Program, Sub-basin Plans, and the Accords as it integrates their implementation with actions necessary to fulfill ESA responsibilities as described in the NOAA Fisheries and USFWS BiOp. Bonneville’s fish and wildlife activities have been selected to help fulfill the Northwest Power Act purpose stated in section 2(6) to “protect, mitigate and enhance fish and wildlife including related spawning grounds and habitat on the Columbia River and its tributaries.” 16 U.S.C. § 839(6). Coordination continues among Bonneville, Council, Federal resource management agencies, states, tribes and others to plan for additional projects to fill the few specific gaps remaining in Bonneville’s mitigation portfolio through targeted solicitations.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<p>Anadromous Fish: Continue implementing both ongoing and new projects that support ESA-listed species and other measures called for under the 2008 and 2010 FCRPS BiOps, the Fish Accords, the Washington Estuary Agreement, and the Willamette Fish Agreement. Prioritize projects that address the factors that limit mitigation success as identified in the Sub-basin Plans and that fulfill Bonneville’s responsibility for mitigating the impacts from the FCRPS power facilities. Implement and develop activities that protect and enhance tributary and estuary habitat; improve mainstream habitat on an experimental basis; reduce potentially harmful hatchery practices on ESA-listed populations; and contribute to sustainable fisheries.</p> <p>Resident Fish: Implement activities to determine the impacts of the FCRPS on lamprey and bull trout and mitigate for those impacts, and promote the reproduction and recruitment of Kootenai River white sturgeon. These activities have been selected in response to the 2006 BiOp, the Council’s Program, and the Fish Accords.</p> <p>Continue mitigation using resident fish to offset anadromous fish losses (substitution); mitigate for reservoir power operation impacts to resident fish; and continue to refine, quantify, and delineate the difference between the two. Those resident fish habitat acquisition projects that meet Bonneville’s Capitalization Policy will be funded under the capital portion of Bonneville’s Fish and Wildlife budget.</p> <p>Wildlife: Use existing Bonneville policies to continue the current effort to mitigate wildlife in a manner consistent with Council’s Program and fulfill commitments in wildlife agreements such as the Willamette Wildlife Agreement. These activities have been selected in response to the Northwest Power Act requirement to protect, mitigate and enhance fish and wildlife including related spawning grounds and habitat on the Columbia River and its tributaries. Those wildlife projects that meet Bonneville’s Capitalization Policy will be funded under the capital portion of Bonneville’s Fish and Wildlife budget and credited according to Bonneville’s crediting policy and applicable mitigation contracts.</p> <p>Habitat Protection and Enhancement: Continue to protect and enhance habitat for fish and wildlife using fee acquisition, conservation easements, habitat improvement projects, and other techniques in a manner consistent with the Program. Bonneville seeks cost effective ways to implement the Program, including the BiOp and Accords, and tries to emphasize planning and management in each habitat project to reasonably integrate the mitigation needs for anadromous fish, resident fish, and wildlife.</p>	221,048
FY 2012		237,394
FY 2013		241,384
FY 2014-2017		501,774

**Residential Exchange, Northwest Power and Conservation Council, and Energy Conservation & Renewable Resources Overview**

**Residential Exchange Program**

- Includes forecasted REP benefits based on the 2011 REP Settlement.

**Northwest Power and Conservation Council**

- Continue support of the Council activities, as directed under the Northwest Power Act, including regional power plan development and maintenance, and fish and wildlife program activities.

**Energy Conservation & Renewable Resources**

- Continue close-out of the legacy conservation resource acquisition contracts, which support Bonneville’s contractual obligation to serve customer load growth.
  
- Provide credible, unbiased information, and technical and financial support to conservation purposes. As an agency with independent responsibilities based on its authorizing legislation, Bonneville has a statutory responsibility to encourage and support the development of conservation in the Pacific Northwest. Bonneville is participating with other regional entities to support market transformation and development activities that meet the needs of Bonneville customers and create business opportunities for the private sector in the Pacific Northwest. Toward that end, BPA has been helping create a delivery infrastructure to ensure conservation savings are installed efficiently and effectively throughout the region.

**Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Residential Exchange: 184,764 Northwest Power and Conservation Council: 8,930 Energy Conservation & Renewable Resources: 98,003	291,697
FY 2012	Residential Exchange: 201,561 Northwest Power and Conservation Council: 10,114 Energy Conservation & Renewable Resources: 84,620	296,295
FY 2013	Residential Exchange: 201,838 Northwest Power and Conservation Council: 10,355 Energy Conservation & Renewable Resources: 84,620	298,185
FY 2014-2017	Residential Exchange: 755,948 Northwest Power and Conservation Council: 44,520 Energy Conservation & Renewable Resources: 356,369	1,156,837





## Transmission Services - Operating Expense

### Funding Schedule by Activity

	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Transmission Services - Operating Expense			
Engineering	30,895	31,800	32,803
Operations	114,694	130,049	133,590
Maintenance	128,937	146,713	150,831
Total, Transmission Services - Operating Expense	274,526	308,562	317,224

### Outyear Funding Schedule

	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
Total, Transmission Services - Operating Expense	337,278	346,048	354,681	364,203

### Overview

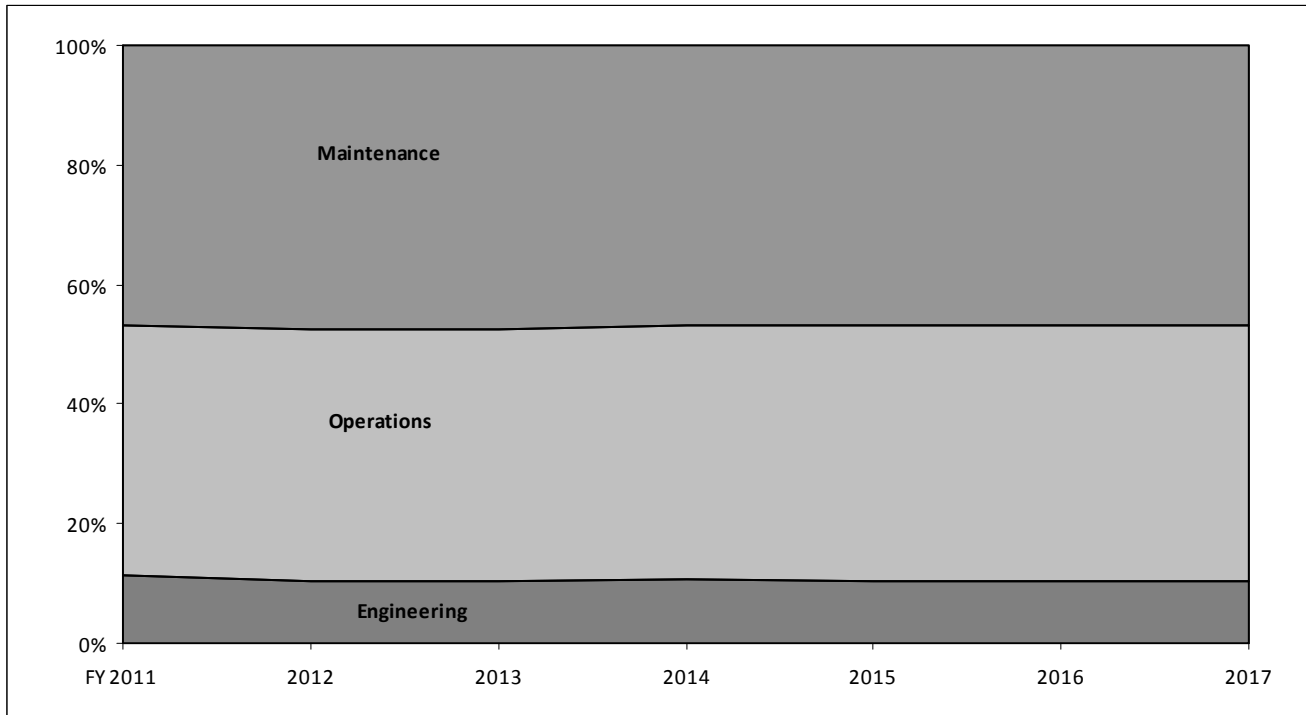
This activity provides for the transmission system services of engineering, operations, and maintenance for Bonneville's electric transmission system, consisting of over 15,238 circuit miles (24,523 circuit kilometers) of lines, 259 substations, and the associated power system control and communication facilities, with an invested cost of more than \$6.0 billion. Primary strategies of this program are: 1) maintain the safety and reliability of the transmission system; 2) increase the focus on meeting customers' needs; 3) optimize the transmission system; 4) provide open and nondiscriminatory transmission access; and 5) improve Bonneville's cost effectiveness.

### Explanation of Changes

Bonneville's budget includes \$317 million in Fiscal Year 2013 for TS expense which is a 2.8% increase over the FY12 forecasted level. The increase reflects continuing operation and maintenance of the Bonneville's transmission assets.

The FY13 budget increases the levels for Engineering (+\$ 1 million), Operation (+\$ 3.5 million), and Maintenance (+\$ 4.1 million)

**Relative Outyear Funding Priorities in Transmission Services Expense**



**Explanation of Funding AND/OR Program Changes**

(Dollars in Thousands)

	FY 2012	FY 2013	FY 2013 vs FY 2012
<b>Engineering</b>			
The increase from \$31,800,000 to \$32,803,000 reflects emphasis on system reliability improvements and research and development.	31,800	32,803	+1,003
<b>Operation</b>			
The increase from \$130,050,000 to \$133,590,000 reflects continued emphasis on reliability compliance activities, wind integration activities, security, and control center systems support.	130,050	133,590	+3,540
<b>Maintenance</b>			
The increase from \$146,713,000 to \$150,831,000 reflects implementation of facilities asset management plans, continued implementation of live-line crew, NERC/WECC compliance activities related to land rights and vegetation management, continuing maintenance program activities, including system protection, right-of-way, line maintenance, and performance improvements.	146,713	150,831	+4,118
<b>TOTAL Funding Change, Transmission Services Expense</b>	<b>308,563</b>	<b>317,224</b>	<b>+8,661</b>

## Engineering

Continue efforts to identify best methods for improving system reliability and maintenance practices, and continue cost reduction efforts by identifying opportunities for low-cost reinforcement and voltage support of the existing transmission system.

### **Funding and Activity Schedule**

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	Asset Management: Continue deploying the Asset Management approach to sustain the existing assets and expanding the system to meet Agency objectives. Asset Plans are informed by Publicly Available Specifications (PAS)-55 over three to five years	30,895
FY 2012		31,800
FY 2013		32,803
FY 2014-2017	<p>R&amp;D: Conduct research focused on technologies related to business challenges Bonneville faces including reliability, energy efficiency, and integration of renewable energy resources. Technologies of interest are identified in Bonneville's Technology Roadmaps. A portfolio of research is selected every year through Bonneville's Portfolio Decision Framework.</p> <p>Technical Support: Provide technical support activities, such as transmission system planning and studies to optimize portions of the system. Provide support for non-wires solutions studies and pilot projects.</p> <p>Capital-to-Expense Adjustments: Conduct annual analysis of Bonneville's outstanding capital work orders to assess whether they should be expensed. As obsolete inventory is identified and disposed of, it is expensed.</p> <p>Regulatory Fees: WECC dues and loop flow payments, DOC/NTIA licensing costs for radio frequencies and NERC Critical Infrastructure Protection CIP compliance program costs. Includes membership in ColumbiaGrid.</p> <p>Reimbursable Transactions: Enter into written agreements with Federal and non-Federal entities that have work or services to be performed by Bonneville staff at the expense of the benefiting entities. The projects must be beneficial, under agreed upon criteria, to Bonneville operations and to the Federal or non-Federal entity involved or otherwise be aligned with or supportive of Bonneville's strategic objectives. Additionally, these activities generally contribute to more efficient or reliable construction of the Federal transmission system or otherwise enhance electric service to the region.</p> <p>Leased and Other Costs: Includes leases and other costs of financing transmission, delivery and voltage support facilities when such arrangements are operationally feasible and cost effective to deliver power. Capitalized leases enable Bonneville to continue to invest in infrastructure to support a safe and reliable system for the transmission of power. Other costs included are the accrued interest costs associated with Large Generator Interconnection Agreements (LGIA).</p>	146,647

## Operations

**Substation Operations:** Perform operations functions necessary to provide electric service to customers and to protect the Federal investment in electric equipment and other facilities. Includes equipment adjustments, switching lines and equipment during emergencies or maintenance, isolating damaged equipment, restoring service to customers, and inspecting equipment, reading meters, etc

**Power System Dispatching and Supporting Functions:** Perform central dispatching, control, and monitoring of the electric operation of the Federal transmission system. Also includes load, frequency and voltage control of Federal generating plants, and coordinating long and short term outages of system equipment. In addition, provides technical engineering support of dispatching function and provides all technical and systems support for Dittmer Control Center (DCC) and Munro Control Center (MCC) power system control centers.

**Marketing and Sales:** Provide management and direction of transmission rates, and provide business strategy in marketing of transmission and ancillary products and services of TS. Involve customers and constituents in the process of product and rate development. Maintain accurate and complete historical records of current and past transmission agreements. Provide guidance for current and future transmission contract negotiations. Provide financial analysis of market strategies. Monitor and report on the financial health of TS. Support cost management by effective reporting and analysis of current expenditures. Ensure official budget submittals reflect current management financial strategies and adequately fund transmission programs.

**Transmission Scheduling:** Provide open access to the Bonneville transmission system consistent with the transmission tariff. Schedule and market transmission capacity to eligible Bonneville customers, including the Pacific Northwest's interconnected utilities. Manage the reservations and scheduling of all transmission services associated with the Bonneville transmission tariff. Update practices, policies and systems to accommodate large amounts of wind generation.

### Funding and Activity Schedule

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Continued to operate within parameters of NERC and WECC.</li> <li>• Continued support of increased compliance activities related to the reliability of the transmission system including cyber security.</li> <li>• Continued developing facilities, policies, procedures and implementing systems to support the integration of high levels of wind generation into the transmission grid.</li> <li>• Continued preparation for increased complexity of power system operations and dispatching including congestion management and outage scheduling as well as increased complexities in transmission scheduling.</li> <li>• Continued to address succession planning issues across key functions.</li> <li>• Continued development and implementation of business systems and tools.</li> </ul>	114,694
FY 2012	<ul style="list-style-type: none"> <li>• Continue to operate within parameters of NERC and WECC.</li> <li>• Continue support of increased compliance activities related to the reliability of the transmission system including cyber security.</li> <li>• Continue developing facilities, policies, procedures and implementing systems to support the integration of high levels of wind generation into the transmission grid.</li> <li>• Continue preparation for increased complexity of power system operations and</li> </ul>	130,050

	<p>dispatching including congestion management and outage scheduling as well as increased complexities in transmission scheduling.</p> <ul style="list-style-type: none"> <li>• Continue to address succession planning issues across key functions.</li> <li>• Continue development and implementation of business systems and tools.</li> </ul>	
FY 2013	<ul style="list-style-type: none"> <li>• Continue to operate within parameters of NERC and WECC.</li> <li>• Continue support of increased compliance activities related to the reliability of the transmission system including cyber security.</li> <li>• Continue developing facilities, policies, procedures and implementing systems to support the integration of high levels of wind generation into the transmission grid.</li> <li>• Continue preparation for increased complexity of power system operations and dispatching including congestion management and outage scheduling as well as increased complexities in transmission scheduling.</li> <li>• Continue to address succession planning issues across key functions.</li> <li>• Continue development and implementation of business systems and tools.</li> </ul>	133,590
FY 2014-2017	<ul style="list-style-type: none"> <li>• Continue to operate within parameters of NERC and WECC.</li> <li>• Continue support of increased compliance activities related to the reliability of the transmission system including cyber security.</li> <li>• Continue developing facilities, policies, procedures and implementing systems to support the integration of high levels of wind generation into the transmission grid.</li> <li>• Continue preparation for increased complexity of power system operations and dispatching including congestion management and outage scheduling as well as increased complexities in transmission scheduling.</li> <li>• Continue to address succession planning issues across key functions.</li> <li>• Continue development and implementation of business systems and tools.</li> </ul>	599,820

## Maintenance

In all aspects of maintenance, Bonneville is continuing the use of Reliability Centered Maintenance (RCM) practices. The use of RCM practices is focused on improving system reliability, increasing availability and meeting new and existing compliance regulations at lowest lifecycle costs. In addition Bonneville is deploying Asset Management to optimize maintain/replace decision making. Maintenance costs are expected to increase as Bonneville addresses the aging transmission system, meeting Reliability Standards including Vegetation Management, and environmental constraints associated with construction, enhancement, and maintenance of the system. The Bonneville transmission system encompasses 15,238 circuit miles on over 8,500 right-of-way miles (many of these miles are through rugged, inaccessible terrain).

Fiscal Year	Activity	Funding (Dollars in Thousands)
FY 2011	<ul style="list-style-type: none"> <li>• Continued to refine RCM practices in all of Bonneville’s O&amp;M regions. Implemented processes for monitoring and tracking compliance activities related to the reliability of the transmission system.</li> <li>• Continued to improve performance meeting System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) targets.</li> <li>• Continued efforts to achieve the SAIFI and SAIDI targets of no control chart violations for circuit importance categories 1-2 (highest importance), and not more than one violation for category 4. Control charts are statistically based graphs that illustrate variability in performance.</li> <li>• Continued to improve availability performance by utilizing more efficient and cost-effective maintenance work practices and outage coordination.</li> <li>• Used recruitment incentives to ensure succession of the current work force and remain competitive as an employer in the utility industry.</li> <li>• Assured a safe work environment through safety awareness and improved work practices. Increased outage scheduling planning to increase customer satisfaction.</li> <li>• Continued high levels of vegetation management and increased access road work to provide reliable access to facilities and ensure environmental compliance.</li> <li>• Deployed new technologies such as LiDAR to reliably and cost effectively manage vegetation.</li> </ul>	128,937
FY 2012	<ul style="list-style-type: none"> <li>• Continue to refine RCM practices and deploy asset management in all of Bonneville’s O&amp;M districts.</li> <li>• Continue refining processes and procedures for monitoring and tracking compliance activities related to the reliability of the transmission system.</li> <li>• Continue to improve performance to meet SAIFI and SAIDI targets as explained above.</li> <li>• Continue to improve system availability performance through new maintenance procedures and work practices.</li> <li>• Develop work practices and procedures for implementation of a new specialty crew using bare-handing practices for maintenance of high-voltage transmission lines.</li> <li>• Continue increased emphasis on replacement of line hardware (life extension programs for insulators, connectors, spacer dampers &amp; fiber optic cable hardware).</li> <li>• Continue to prepare for the impact of an expected high attrition rate among Bonneville’s aging workforce by recruiting apprentices and replacements for</li> </ul>	146,713

	<p>critical minimum crew size workload positions.</p> <ul style="list-style-type: none"> <li>• Increase outage scheduling and coordination planning to increase customer satisfaction and system availability.</li> <li>• Increase emphasis on non-electric facilities to compensate for years of deferral.</li> <li>• Continue high emphasis of vegetation management, implementation of an aggressive access road management plan to maintain roads at a level that minimizes response time, increases reliability, and ensures environmental compliance.</li> <li>• Continue improving environmental stewardship.</li> </ul>	
FY 2013	<ul style="list-style-type: none"> <li>• Continue to improve performance to meet SAIFI and SAIDI targets as explained above.</li> <li>• Continue refining processes and procedures for monitoring and tracking compliance activities related to the reliability of the transmission system.</li> <li>• Continue to improve system availability performance through new maintenance procedures and work practices.</li> <li>• Continue to develop and implement work practices and procedures for implementation of a new specialty crew using bare-handing live line practices for maintenance of high-voltage transmission lines.</li> <li>• Continue increased emphasis on replacement of line hardware (life extension programs for insulators, connectors, dampers &amp; fiber optic cable hardware).</li> <li>• Continue to prepare for the impact of an expected high attrition rate among Bonneville's aging workforce by recruiting apprentices and replacements for critical minimum crew size workload positions.</li> <li>• Increase outage-scheduling planning and coordination to increase customer satisfaction and system availability.</li> <li>• Maintain vegetation management levels to ensure system reliability.</li> <li>• Continue access road work to provide reliable access to facilities and ensure environmental compliance.</li> <li>• Continue improving environmental stewardship.</li> </ul>	150,831
FY 2014-2017	<ul style="list-style-type: none"> <li>• Continue to improve performance to meet SAIFI and SAIDI targets as explained above.</li> <li>• Continue refining processes and procedures for monitoring and tracking compliance activities related to the reliability of the transmission system.</li> <li>• Continue to improve system availability performance through new maintenance procedures and work practices.</li> <li>• Continue to develop and implement work practices and procedures for implementation of a new specialty crew using bare-handing live line practices for maintenance of high-voltage transmission lines.</li> <li>• Continue increased emphasis on replacement of line hardware (life extension programs for insulators, connectors, dampers &amp; fiber optic cable hardware).</li> <li>• Continue to prepare for the impact of an expected high attrition rate among Bonneville's aging workforce by recruiting apprentices and replacements for critical minimum crew size workload positions.</li> <li>• Increase outage-scheduling planning and coordination to increase customer satisfaction and system availability.</li> <li>• Maintain vegetation management levels to ensure system reliability.</li> <li>• Continue access road work to provide reliable access to facilities and ensure environmental compliance.</li> <li>• Continue improving environmental stewardship.</li> </ul>	655,742

**Transmission Line Maintenance:** Maintain and repair 15,238 circuit miles (24,523 km) of high voltage transmission lines, of which over 7,617 km (4,734 circuit miles) are 500 kV transmission extra-high voltage (EVH). Maintenance of EHV lines is two and one-half times more labor-intensive than maintenance of lower transmission voltages, although more efficient in transmission of power. This responsibility includes maintaining transmission rights-of-way to ensure system reliability, safety, and environmental compliance. Adopt work practices that improve system availability, reliability, and compliance.

**Right-of-Way Maintenance:** Maintain and manage vegetation from over 8,500 of Bonneville's right-of-way miles. This responsibility includes vegetation management, danger tree management, and access road maintenance to ensure system reliability, safety, and environmental compliance. Adopt procedures and processes that improve system availability, reliability, environmental compliance, and reliability compliance. Continue to deploy new technologies such as LiDAR to reliably and costs effectively manage vegetation.

**Substation Maintenance:** Maintain and repair the transmission system power equipment located in Bonneville's 259 substations. Work includes inspections, diagnostic testing and predictive and condition based maintenance.

**System Protection Maintenance:** Maintain relaying metering and remedial action scheme equipment used to control and protect the electrical transmission system and to meter energy transfers for the purpose of revenue billing. Additionally, field-engineering services provide technical advice and assure the correct operation of power system relaying and special control systems used to support interregional energy transmission capabilities.

**Power System Control Maintenance:** Test, repair, and provide field engineering support of Bonneville's highly complex equipment, communications, and control systems, including seven major microwave systems, fiber optic systems, and other critical communications and control equipment that support the power system.

**Non-Electric Plant Maintenance:** Maintain and manage Bonneville's non-electric facilities. Includes site, building, and building utility maintenance; custodial services; station utility; and other maintenance service activities, as well as, facilities asset management on Bonneville-owned or Bonneville-leased non-electric facilities.

**Maintenance Standards and Engineering:** Establish, monitor, and update system maintenance standards, policies, and procedures, and review and update long-range plans for maintenance of the electric power transmission system.



**Interest, Pension and Post-retirement Benefits -  
Operating Expense and Capital Transfers**

**Funding Schedule by Activity**

	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Interest, Pension and Post-retirement Benefits			
BPA Bond Interest (Net)	61,603	94,805	146,013
BPA Appropriation Interest	29,217	23,086	10,396
Corps of Engineers Appropriation Interest	155,900	161,907	162,756
Lower Snake River Comp Plan Interest	16,521	16,521	16,521
Bureau of Reclamation Appropriation Interest	43,437	43,437	43,437
Subtotal, Interest – Operating Expense	306,678	339,757	379,124
Additional Pension and Post-retirement Benefits	31,157	34,486	35,641
Total, Interest, Pension and Post-retirement Benefits	337,835	374,243	414,765

**Outyear Funding Schedule**

	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
Total, Interest, Pension and Post-retirement Benefits	483,099	553,438	628,012	687,550

**Operating Expense**

**Description**

Interest expense provides for the payment of interest due on Federal debt. This consists of capital investment in FCRPS hydroelectric generating and transmission facilities of Bonneville, the Corps and Reclamation. Investments were financed by Congressional appropriations and Bonneville borrowings from the Treasury. Bonneville repays Federal debt through its power sales and transmission services revenues.

Since receiving Treasury borrowing authority in 1974 under the Transmission Act, all Bonneville borrowing has been at market rates. As of October 1, 1996, all of Bonneville's repayment obligations on FCRPS appropriated investment (Corps and Reclamation FCRPS investment and Bonneville investment) financed with appropriations prior to the Transmission Act that were unpaid as of September 30, 1996, were restructured and assigned new current-market interest rates. The Bonneville Appropriations Refinancing Act of 1996 (Refinancing Act) called for resetting (reducing) the unpaid principal of FCRPS appropriations and reassigning (increasing) interest rates. New principal amounts were established as of the beginning of FY 1997 at the present value of the principal and annual interest payments Bonneville would make to the Treasury for these obligations in the absence of the legislation, plus \$100 million. The new principal amounts were assigned prevailing market interest rates as of October 1, 1996. Bonneville's outstanding repayment obligations on appropriations at the end of FY 1996 were \$6.6 billion with a weighted average interest rate of 3.4 percent. The refinancing reduced the principal amount to \$4.1 billion with a weighted average interest rate of 7.1 percent. Implementation of the refinancing took place in 1997 after audited actual financial data was available. As called for in the legislation, Bonneville submitted its calculations and interest rate assignments implementing the Refinancing Act to Treasury for its review and approval.

**Bonneville Power Administration  
Interest, Pension, and Post-Retirement Benefits –  
Operating Expense & Capital Transfers**

**FY 2013 Congressional Budget**

Treasury approved the implementation calculations in July 1997. The Refinancing Act also calls for all future FCRPS appropriations to be assigned prevailing Treasury yield curve interest rates.

Interest estimates are a direct function of costs of Treasury borrowing to Bonneville, repayment status of outstanding FCRPS investments, and projected additions to FCRPS plant in service. These estimates may change over time depending on forecasted market conditions. The interest cost estimates include the impact of Bonneville’s appropriation refinancing legislation.

Bonneville makes additional annual contributions to the General Fund of the U.S. Treasury (receipt account 892889) in order to ensure that all Federal post-retirement benefit programs provided to employees associated with the operation of the FCRPS are fully funded. These payments are consistent with the FY 2001 Administration’s budget which assumed Bonneville would prospectively cover the full unfunded liability that accrues in fiscal years after FY 1997 of the Civil Service Retirement and Disability Fund (Disability Fund), the Employees Health Benefits Fund (Health Fund), and the Employees Life Insurance Fund (Insurance Fund) that it had not covered prior to FY 1998. Cost estimates include pension and post-retirement benefits for Bonneville and the power-related portion of the Corps and Reclamation.

### Capital Transfers

#### Funding Schedule by Activity

	(Accrued Expenditures) (Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
Capital Transfers			
BPA Bond Amortization <sup>1/</sup>	370,000	275,000	165,000
Reclamation Appropriation Amortization	0	0	0
BPA Appropriation Amortization	34,865	175,110	56,374
Corps Appropriation Amortization	4,663	53,000	0
Total, Capital Transfers	409,528	503,110	221,374

#### Outyear Funding Schedule

	(Accrued Expenditures) (Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
Total, Capital Transfers	255,181	187,591	131,305	164,123

<sup>1/</sup> Bonneville "Bond(s)" in this FY 2013 Budget refers to all bonds issued by Bonneville to and advances received from the U.S. Treasury. This reference is consistent with section 13 (a) of the Transmission Act (P.L. 93-454), which defines Bonneville bonds as all bonds, notes, and other evidences of indebtedness issued and sold to the U.S. Treasury.

#### Description

This activity conveys funds to the Treasury for repayment of certain FCRPS costs not included in the Associated Project Costs budget. Since capital transfers are cash transactions, they are not considered budget obligations.

**Additional Tables**

**BONNEVILLE POWER ADMINISTRATION  
TOTAL OBLIGATIONS/OUTLAYS**

Current Services  
(in millions of dollars)  
FISCAL YEAR

BP-1 SUMMARY<sup>1/3/</sup>

	2011		2012		2013		2014	2015	2016	2017
	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Oblig.	Oblig.	Oblig.
1 Residential Exchange Program	185	185	202	202	202	202	189	189	189	189
2 Power Services <sup>2/</sup>	1,511	1,511	1,577	1,577	1,675	1,675	1,733	1,772	1,762	1,835
3 Transmission Services	575	575	903	903	1,099	1,099	1,112	926	836	768
4 Conservation & Energy Efficiency	260	260	173	173	181	181	189	218	250	259
5 Fish & Wildlife	312	312	297	297	309	309	314	302	304	305
6 Interest/ Pension <sup>4/</sup>	398	398	374	374	415	415	483	553	628	688
7 Associated Project Cost - Capital	200	200	233	233	250	250	269	269	291	298
8 Capital Equipment	44	44	62	62	51	51	46	46	48	49
9 Planning Council	9	9	10	10	10	10	11	11	11	11
10 Misc. Accounting Adjs.	0	0	0	0	0	0	0	0	0	0
11 Projects Funded in Advance	214	214	92	92	101	101	39	27	28	31
12 Capitalized Bond Premiums	0	0	2	2	2	2	2	2	2	2
13 Misc. Accounting Adjs.	0	0								
<b>TOTAL OBLIGATIONS/ OUTLAYS<sup>3/</sup></b>	<b>3,708</b>	<b>3,708</b>	<b>3,926</b>	<b>3,926</b>	<b>4,294</b>	<b>4,294</b>	<b>4,386</b>	<b>4,316</b>	<b>4,348</b>	<b>4,435</b>

**REVENUES AND REIMBURSEMENTS**

Current Services  
(in millions of dollars)

BP-1 SUMMARY

	2011		2012		2013		2014	2015	2016	2017
	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Oblig.	Oblig.	Oblig.
14 Revenues <sup>5/</sup>	3,010	3,010	3,842	3,842	4,203	4,203	4,357	4,297	4,331	4,414
15 Project Funded in Advance	214	214	92	92	101	101	39	27	28	31
16 <b>TOTAL</b>	<b>3,224</b>	<b>3,224</b>	<b>3,934</b>	<b>3,934</b>	<b>4,304</b>	<b>4,304</b>	<b>4,396</b>	<b>4,324</b>	<b>4,359</b>	<b>4,445</b>
<b>BUDGET AUTHORITY (NET) <sup>6/</sup></b>	<b>471</b>		<b>648</b>		<b>1,067</b>		<b>1,124</b>	<b>934</b>	<b>946</b>	<b>908</b>
17 <b>OUTLAYS (NET) <sup>6/7/</sup></b>		<b>468</b>		<b>(9)</b>		<b>(7)</b>	<b>(10)</b>	<b>(10)</b>	<b>(10)</b>	<b>(10)</b>

The accompanying notes are an integral part of this table.

<sup>1/</sup> This FY 2013 budget includes capital and expense estimates based on preliminary IPR forecasted data for FYs 2011-2017.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

<sup>2/</sup> Power Services includes Fish & Wildlife, Residential Exchange Program, Planning Council, Conservation & Energy Efficiency and Associated Project Costs which have been shown separately for display purposes.

<sup>3/</sup> This budget has been prepared in accordance with the Statutory Pay-As-You-Go Act (PAYGO) of 2010. Under PAYGO all Bonneville budget estimates are treated as mandatory and are not subject to the discretionary caps included in the Budget Control Act of 2011. These estimates support activities which are legally separate from discretionary activities and accounts. Thus, any changes to Bonneville estimates cannot be used to affect any other budget categories which have their own legal dollar caps. Because Bonneville operates within existing legislative authority, Bonneville is not subject to a "pay-as-you-go" test regarding its revision of current-law funding estimates.

<sup>4/</sup> See Interest Expense, Pension and Post-retirement Benefits and Capital Transfers section of this budget for a complete discussion of these cost estimates.

<sup>5/</sup> Revenues, included in the Net Outlay formulation, are calculated consistent with cash management goals and assume a combination of adjustments. Assumed adjustments include the use of a combination of tools, including upcoming rate adjustment mechanisms, a net revenue risk adjustment, debt service refinancing strategies and/or short-term financial tools to manage net revenues and cash. Some of these potential tools will reduce costs rather than generate revenue, causing the same Net Outlay result. Adjustments for depreciation and 4(h)(10)(C) credits of the NW Power Act are also assumed.

<sup>6/</sup> BPA received \$49 million of additional budget authority in FY 2007 to accommodate the work necessary to relocate the radio spectrum consistent with the Commercial Spectrum Enhancement Act (P.L. 108-494). In subsequent years, per the assumed expenditures developed as part of BPA's work plans, outlays for the work performed are assumed.

<sup>7/</sup> Net Outlay estimates are based on current cost savings to date and anticipated cash management goals. They are expected to follow anticipated management decisions throughout the rate period that, along with actual market conditions, will impact revenues and expenses. Actual Net Outlays are volatile and are reported in Report on Budget Execution and Budgetary Resources (SF-133). Estimated Net Outlays could change due to changing market conditions, streamflow variability, and continuing restructuring of the electric industry.

**EXPENSED OBLIGATIONS/OUTLAYS 1,4/  
Current Services  
(in millions of dollars)  
FISCAL YEAR**

BP-2	2011		2012		2013		2014	2015	2016	2017
	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Oblig.	Oblig.	Oblig.
1 Residential Exchange Program	185	185	202	202	202	202	189	189	189	189
2 Power Services <sup>2/</sup>	1,511	1,511	1,577	1,577	1,675	1,675	1,733	1,772	1,762	1,835
3 Transmission Services	275	275	309	309	317	317	337	346	355	364
4 Conservation & Energy Efficiency	98	98	85	85	86	86	88	88	90	90
5 Fish & Wildlife	221	221	237	237	241	241	254	260	267	274
6 Interest/ Pension <sup>3/</sup>	398	398	374	374	415	415	483	553	628	688
7 Planning Council	9	9	10	10	10	10	11	11	11	11
8 TOTAL EXPENSE	2,697	2,697	2,794	2,794	2,946	2,946	3,095	3,220	3,302	3,451
9 Projects Funded in Advance	214	214	92	92	101	101	39	27	28	31

**CAPITAL OBLIGATIONS/OUTLAYS**

Current Services

(in millions of dollars)

**FISCAL YEAR**

BP-2 continued

	2011		2012		2013		2014	2015	2016	2017
	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Outlays	Oblig.	Oblig.	Oblig.	Oblig.
Conservation & Energy Efficiency	162	162	89	89	95	95	100	129	160	169
10 Transmission Services	301	301	595	595	782	782	775	580	481	404
11 Associated Project Cost	200	200	233	233	250	250	269	269	291	298
12 Fish & Wildlife	91	91	60	60	67	67	60	42	37	31
13 Capital Equipment	44	44	62	62	51	51	46	46	48	49
14 Capitalized Bond Premiums	0	0	2	2	2	2	2	2	2	2
15 TOTAL CAPITAL INVESTMENTS <sup>15</sup>	798	798	1,041	1,041	1,246	1,246	1,252	1,069	1,019	953
16 TREASURY BORROWING AUTHORITY TO										
17 FINANCE CAPITAL OBLIGATIONS <sup>4/</sup>	798		1,041		1,246		1,252	1,069	1,019	953

**The accompanying notes are an integral part of this table.**

<sup>1/</sup> This FY 2013 budget includes capital and expense estimates based on preliminary IPR forecasted data for FYs 2011-2017.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

<sup>2/</sup> Power Services includes Fish & Wildlife, Residential Exchange Program, Planning Council, Conservation & Energy Efficiency and Associated Project Costs which have been shown separately for display purposes.

<sup>3/</sup> See Interest Expense, Pension and Post-retirement Benefits and Capital Transfers section of this budget for a complete discussion of these cost estimates.

<sup>4/</sup> This budget has been prepared in accordance with the Statutory Pay-As-You-Go Act (PAYGO) of 2010. Under PAYGO all Bonneville budget estimates are treated as mandatory and are not subject to the discretionary caps included in the Budget Control Act of 2011. These estimates support activities which are legally separate from discretionary activities and accounts. Thus, any changes to Bonneville estimates cannot be used to affect any other budget categories which have their own legal dollar caps. Because Bonneville operates within existing legislative authority, Bonneville is not subject to a "pay-as-you-go" test regarding its revision of current-law funding estimates.

**CURRENT SERVICES**  
(in millions of dollars)

**CAPITAL TRANSFERS**

	FISCAL YEAR						
	2011 Pymts	2012 Pymts	2013 Pymts	2014 Pymts	2015 Pymts	2016 Pymts	2017 Pymts
Amortization:							
18 BPA Bonds	370	165	123	44	113	73	45
19 Reclamation Appropriations	0	0	0	0	0	0	0
20 BPA Appropriations	35	175	56	66	22	0	0
21 Corps Appropriations	5	53	0	18	0	0	0
<b>22 TOTAL CAPITAL TRANSFERS</b>	<b>410</b>	<b>393</b>	<b>179</b>	<b>128</b>	<b>135</b>	<b>73</b>	<b>45</b>

	STAFFING						
	2011 Pymts	2012 Pymts	2013 Pymts	2014 Pymts	2015 Pymts	2016 Pymts	2017 Pymts
<b>23 FULL-TIME EQUIVALENT (FTE)</b>	<b>3,058</b>	<b>3,117</b>	<b>3,117</b>	<b>3,175</b>	<b>3,175</b>	<b>3,175</b>	<b>3,175</b>

The accompanying notes are an integral part of this table.

The cumulative amount of actual advance amortization payments as of the end of FY 2011 is \$2,672 million.



**PROGRAM & FINANCING SUMMARY**

Current Services

(in millions of dollars)

Identification Code: 89-4045-0-3-271

	est.						
	2011	2012	2013	2014	2015	2016	2017
Program by activities:							
Operating expenses:							
0.01 Power Services	1,192	1,206	1,287	1,332	1,362	1,338	1,398
0.02 Residential Exchange Program	185	202	202	189	189	189	189
Associated Project Costs:							
0.05 Bureau of Reclamation	85	112	120	119	123	128	132
0.06 Corps of Engineers	191	209	216	231	237	244	251
0.07 Colville Settlement	18	22	22	22	23	23	23
0.19 U.S. Fish & Wildlife Service	24	29	30	27	29	30	31
0.20 Planning Council	9	10	10	11	11	11	11
0.21 Fish & Wildlife	221	237	241	254	260	267	274
0.23 Transmission Services	275	309	317	337	346	355	364
0.24 Conservation & Energy Efficiency	98	85	86	88	88	90	90
0.25 Interest	367	340	379	446	516	590	648
0.26 Pension and Health Benefits <sup>1/</sup>	31	34	36	37	38	38	39
0.91 <b>Total operating expenses</b> <sup>2/</sup>	<b>2,696</b>	<b>2,794</b>	<b>2,946</b>	<b>3,094</b>	<b>3,221</b>	<b>3,302</b>	<b>3,451</b>
Capital investment:							
1.01 Power Services	201	233	250	269	269	291	298
1.02 Transmission Services	301	595	782	775	580	481	404
1.03 Conservation & Energy Efficiency	162	89	95	100	129	160	169
1.04 Fish & Wildlife	91	60	67	60	42	37	31
1.05 Capital Equipment	44	62	51	46	46	48	49
1.06 Capitalized Bond Premiums	0	2	2	2	2	2	2
1.07 <b>Total Capital Investment</b> <sup>3/</sup>	<b>799</b>	<b>1,041</b>	<b>1,246</b>	<b>1,252</b>	<b>1,069</b>	<b>1,019</b>	<b>953</b>
2.01 Projects Funded in Advanced	214	92	101	39	27	28	31
10.00 <b>Total obligations</b> <sup>4/</sup>	<b>3,708</b>	<b>3,926</b>	<b>4,294</b>	<b>4,385</b>	<b>4,317</b>	<b>4,348</b>	<b>4,435</b>

**The accompanying notes are an integral part of this table.**

<sup>1/</sup> See Interest Expense, Pension and Post-retirement Benefits and Capital Transfers section of this budget for a complete discussion of these cost estimates.

<sup>2/</sup> Assumes expense obligations, not accrued expenses.

Power Services includes Fish & Wildlife, Residential Exchange Program, Planning Council, Conservation & Energy Efficiency and Associated Project Costs which have been shown separately for display purposes.

<sup>3/</sup> Assumes capital obligations, not capital expenditures.

<sup>4/</sup> This FY 2013 budget includes capital and expense estimates based on preliminary IPR forecasted data for FYs 2011-2017.

For purposes of this table, this FY 2013 budget reflects, for FY 2010, actual third party financing expense only for PFIA.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

Refer to 16 USC Chapters 12B, 12G, 12H, and BPA's other organic laws, including P.L. 100-371, Title III, Sec. 300, 102 Stat. 869, July 18, 1988 regarding BPA's ability to obligate funds.

**Program and Financing (continued)**

Current Services  
(in millions of dollars)

	est.						
	2011	2012	2013	2014	2015	2016	2017
Financing:							
21.90 Unobligated balance available, start of year. <sup>5/</sup>	21	15	6	0	0	0	0
24.40 Unobligated balance available, end of year. <sup>5/</sup>	15	6	1	0	0	0	0
<b>39.00 Budget authority (gross)</b>	<b>3,723</b>	<b>4,582</b>	<b>5,372</b>	<b>5,520</b>	<b>5,257</b>	<b>5,305</b>	<b>5,353</b>
Budget Authority:							
67.10 Permanent Authority: Authority to borrow from Treasury (indefinite) <sup>6/</sup>	910	1,041	1,246	1,252	1,069	1,019	953
Spending authority from off-setting collections	3,224	3,934	4,304	4,396	4,324	4,359	4,445
67.25 Spending authority from off-setting collections applied to contract authority	(1,153)						
69.47 Portion applied to debt reduction	(480)	(393)	(179)	(128)	(135)	(73)	(45)
<b>69.90 Spending authority from offsetting collections (adjusted)</b>	<b>3,504</b>	<b>3,541</b>	<b>4,125</b>	<b>4,268</b>	<b>4,189</b>	<b>4,286</b>	<b>4,400</b>
71.00 Total obligations	3,708	3,926	4,294	4,385	4,317	4,348	4,435
87.00 Outlays (gross)	3,708	3,926	4,294	4,385	4,317	4,348	4,435
Adjustments to budget authority and outlays:							
Deductions for offsetting collections:							
88.00 Federal funds	(32)	(90)	(90)	(90)	(90)	(90)	(90)
88.20 Interest on Federal Securities	(4)	(3)	(3)				
88.40 Non-Federal sources	(3,188)	(3,841)	(4,214)	(4,306)	(4,234)	(4,269)	(4,355)
88.90 Total, offsetting collections	(3,224)	(3,934)	(4,304)	(4,396)	(4,324)	(4,359)	(4,445)
<b>89.00 Budget authority (net)</b>	<b>471</b>	<b>648</b>	<b>1,067</b>	<b>1,124</b>	<b>934</b>	<b>946</b>	<b>908</b>
<b>90.00 Outlays (net)<sup>7/</sup></b>	<b>468</b>	<b>(9)</b>	<b>(7)</b>	<b>(10)</b>	<b>(10)</b>	<b>(10)</b>	<b>(10)</b>

**The accompanying notes are an integral part of this table.**

<sup>5/</sup> Reflects estimated cost for radio spectrum fund.

<sup>6/</sup> The Permanent Authority: Authority to borrow (indefinite) from Treasury amounts reflect both Bonneville's capital program financing needs and either the use of, or creation of, deferred borrowing. Deferred borrowing is created when, as a cash and debt management decision, Bonneville uses cash from revenues to liquidate capital obligations in lieu of borrowing from Treasury. This temporary use of cash on hand instead of borrowed funds creates the ability in future years to borrow money, when fiscally prudent. The FY 1989 Energy and Water Development Appropriations Act (P.L. 100-371 Of 7/19/88) clarified that Bonneville has authority to incur obligations in excess of Treasury borrowing authority and cash in the has authority to incur obligations in excess of Treasury borrowing authority and cash in the BPA fund. fund.

<sup>7/</sup> Net Outlay estimates are based on current cost savings to date and anticipated cash management goals. They are expected to follow anticipated management decisions throughout the rate period that, along with actual market conditions, will impact revenues and expenses. Actual Net Outlays are volatile and are reported in Report on Budget Execution and Budgetary Resources (SF-133). Estimated Net Outlays could change due to changing market conditions, streamflow variability, and continuing restructuring of the electric industry.

Revenues, included in the Net Outlay formulation, are calculated consistent with cash management goals and assume a combination of adjustments. Assumed adjustments include the use of a combination of tools, including upcoming rate adjustment mechanisms, a net revenue risk adjustment, debt service refinancing strategies and/or short-term financial tools to manage net revenues and cash. Some of these potential tools will reduce costs rather than generate revenue, causing the same Net Outlay result. Adjustments for depreciation and 4(h)(10)(C) credits of the NW Power Act are also assumed.

This budget has been prepared in accordance with the Statutory Pay-As-You-Go Act (PAYGO) of 2010. Under PAYGO all Bonneville budget estimates are treated as mandatory and are not subject to the discretionary caps included in the Budget Control Act of 2011. These estimates support activities which are legally separate from discretionary activities and accounts. Thus, any changes to Bonneville estimates cannot be used to affect any other budget categories which have their own legal dollar caps. Because Bonneville operates within existing legislative authority, Bonneville is not subject to a "pay-as-you-go" test regarding its revision of current-law funding estimates.

**BONNEVILLE POWER ADMINISTRATION**  
**BPA STATUS of TREASURY BORROWING**  
**CURRENT SERVICES**  
(in millions of dollars)

BP-4A

Fiscal Year

	2011				2012			
	Net Capital		Net Capital		Net Capital		Net Capital	
	Net Capital	Obs Subject	Net Capital	Bonds Out-	Net Capital	Obs Subject	Net Capital	Bonds Out-
	Obs	to BA	Expend.	Standing	Obs	to BA	Expend.	Standing
<b>Start-of-Year: Total</b>	1,874	1,332	2,773	2,513	2,303	1,761	3,202	2,943
<b>Plus: Annual Increase</b>								
Cum.-Annual Treasury Borrowing	799	799	799		1,042	1,042	1,042	
Treasury Borrowing (Cash)				800				1,042
<b>Less:</b>								
BPA Bond Amortization	370	370	370	370	165	165	165	165
<b>Net Increase/(Decrease):</b>	429	429	429	430	877	877	877	877
Cum.-End-of-Year: Total	2,303	1,761	3,202	2,943	3,180	2,638	4,079	3,820
<b>Total Remaining Treasury Borrowing Amount</b>				4,757				3,880
<b>Total Legislated Treasury Borrowing Amount</b>				7,700				7,700

**The accompanying notes are an integral part of this table.**

In any given year, BPA may issue less debt than forecast depending on net revenues, Treasury interests rates, and other cash management factors. In such cases, BPA accumulates a deferred borrowing balance that it accesses as necessary in the future.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

In this FY 2013 budget, BPA "bond(s)" refers to all bonds issued by Bonneville to and advances received from the U.S. Treasury. This reference is consistent with section 13 (a) of the Transmission Act (PL Law 93-454), which defines BPA bonds as all bonds, notes, and other evidences of indebtednesses issued and sold to the U.S. Treasury.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

Bonneville reserve financing of \$15 million annually is assumed as part of TS capital-PFIA for FYs 2011-2017.

The cumulative amount of actual advance amortization payments as of the end of FY 2011 is \$2,672 million.

**BONNEVILLE POWER ADMINISTRATION**  
**BPA STATUS of TREASURY BORROWING**  
**CURRENT SERVICES**  
(in millions of dollars)

BP-4B

	Fiscal Year							
	2013				2014			
	Net Capital		Net Capital		Net Capital		Net Capital	
	Net Capital Obs	Obs Subject to BA	Net Capital Expend.	Bonds Out- Standing	Net Capital Obs	Obs Subject to BA	Net Capital Expend.	Bonds Out- Standing
<b>Start-of-Year: Total</b>	3,180	2,638	4,079	3,820	4,304	3,762	5,203	4,944
<b>Plus: Annual Increase</b>								
Cum.-Annual Treasury Borrowing	1,246	1,246	1,246		1,252	1,252	1,252	
Treasury Borrowing (Cash)				1,246				1,252
<b>Less:</b>								
Total BPA Bond Amortization	123	123	123	123	44	44	44	44
<b>Net Increase/(Decrease):</b>								
Total	1,124	1,124	1,124	1,124	1,208	1,208	1,208	1,208
Cum.-End-of-Year: Total	4,304	3,762	5,203	4,944	5,512	4,970	6,411	6,152
<b>Total Remaining Treasury Borrowing Amount</b>				<u>2,756</u>				<u>1,548</u>
<b>Total Legislated Treasury Borrowing Amount</b>				7,700				7,700

**The accompanying notes are an integral part of this table.**

In any given year, BPA may issue less debt than forecast depending on net revenues, Treasury interests rates, and other cash management factors. In such cases, BPA accumulates a deferred borrowing balance that it accesses as necessary in the future.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

In this FY 2013 budget, BPA "bond(s)" refers to all bonds issued by Bonneville to and advances received from the U.S. Treasury. This reference is consistent with section 13 (a) of the Transmission Act (PL Law 93-454), which defines BPA bonds as all bonds, notes, and other evidences of indebtedness issued and sold to the U.S. Treasury.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

Bonneville reserve financing of \$15 million annually is assumed as part of TS capital-PFIA for FYs 2011-2017.

**BONNEVILLE POWER ADMINISTRATION**  
**BPA STATUS of TREASURY BORROWING**  
**CURRENT SERVICES**  
(in millions of dollars)

BP-4C

	Fiscal Year							
	2015				2016			
	Net Capital Obs	Net Capital Subject to BA Obs	Net Capital Expend.	Bonds Out- Standing	Net Capital Obs	Net Capital Subject to BA Obs	Net Capital Expend.	Bonds Out- Standing
<b>Start-of-Year: Total</b>	5,512	4,970	6,411	6,152	6,466	5,924	7,365	7,106
<b>Plus: Annual Increase</b>								
Cum.-Annual Treasury Borrowing	1,068	1,068	1,068		1,018	1,018	1,018	
Treasury Borrowing (Cash)				1,068				1,018
<b>Less:</b>								
Total BPA Bond Amortization	113	113	113	113	73	73	73	73
<b>Net Increase/(Decrease):</b>								
Total	955	955	955	955	944	944	944	944
Cum.-End-of-Year: Total	6,466	5,924	7,365	7,106	7,411	6,869	8,310	8,050
<b>Total Remaining Treasury Borrowing Amount</b>				<u>594</u>				<u>(350)</u>
<b>Total Legislated Treasury Borrowing Amount</b>				7,700				7,700

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Bonneville reserve financing of \$15 million annually is assumed as part of TS capital-PFIA for FYs 2011-2017.

**BONNEVILLE POWER ADMINISTRATION  
BPA STATUS of TREASURY BORROWING  
CURRENT SERVICES**

(in millions of dollars)

BP-4D

	Fiscal Year			
	2017			
	Net Capital Obs	Net Capital Subject to BA	Net Capital Expend.	Bonds Out- Standing
<b>Start-of-Year: Total</b>	7,411	6,869	8,310	8,050
<b>Plus: Annual Increase</b>				
Cum.-Annual Treasury Borrowing	952	952	952	
Treasury Borrowing (Cash)				952
<b>Less:</b>				
Total BPA Bond Amortization	45	45	45	45
<b>Net Increase/(Decrease):</b>				
Total	906	906	906	906
Cum.-End-of-Year: Total	8,317	7,775	9,216	8,957
<b>Total Remaining Treasury Borrowing Amount</b>				<u>(1,257)</u>
<b>Total Legislated Treasury Borrowing Amount</b>				7,700

**The accompanying notes are an integral part of this table.**

In any given year, BPA may issue less debt than forecast depending on net revenues, Treasury interests rates, and other cash management factors. In such cases, BPA accumulates a deferred borrowing balance that it accesses as necessary in the future.

Capital funding levels reflect external factors such as the significant changes affecting West Coast power and transmission markets, along with planned infrastructure investments designed to address the long-term needs of the region.

In this FY 2013 budget, BPA "bond(s)" refers to all bonds issued by Bonneville to and advances received from the U.S. Treasury. This reference is consistent with section 13 (a) of the Transmission Act (PL Law 93-454), which defines BPA bonds as all bonds, notes, and other evidences of indebtedness issued and sold to the U.S. Treasury.

Budget estimates included in this budget are subject to change due to rapidly changing economic and institutional conditions in the evolving competitive electric utility industry.

Bonneville reserve financing of \$15 million annually is assumed as part of TS capital-PFIA for FYs 2011-2017.

**BONNEVILLE POWER ADMINISTRATION  
POTENTIAL THIRD PARTY FINANCING TRANSPARENCY**  
(in millions of dollars)

BP-5

	Fiscal Year						
	2011	2012	2013	2014	2015	2016	2017
<b>Transmission Services - Capital</b>							
Requirements							
Main Grid	123	236	300	316	202	127	97
Area & Customer Services	10	20	11	12	14	14	22
Upgrades & Additions	73	167	271	235	164	132	61
System Replacements	95	172	201	212	200	207	224
Projects Funded in Advance	214	92	101	39	27	28	31
<b>Total, Transmission Services - Capital</b>	<b>514</b>	<b>686</b>	<b>884</b>	<b>814</b>	<b>607</b>	<b>509</b>	<b>435</b>

**Federal and Non-Federal Funding**

	2011	2012	2013	2014	2015	2016	2017
Sources							
Projects Funded in Advance	214	92	101	39	27	28	31
Treasury Borrowing Authority	301	595	782	775	580	481	404

**Scenario**

	2011	2012	2013	2014	2015	2016	2017
Scenario							
Projects Funded in Advance <sup>1/</sup>			100	100	100	100	100
Third Party Financing	60	93	104	125	88	70	53
Alternate Treasury Borrowing Authority	NA	502	578	550	392	311	251

The accompanying notes are an integral part of this table.

<sup>1/</sup> In this scenario the Projects Funded in Advance represents potential prepayment of Power customers' bills reimbursed by future credits and third party non-federal financing for Conservation initiatives

The table above shows both the potential use of Treasury borrowing authority for transmission capital projects based on this FY 2013 budget and the use adjusted for potential third-party financing to fund appropriate capital expenditures when feasible in lieu of Treasury borrowing. Estimates included in this FY 2013 budget are uncertain and may change due to revised capital investment plans, changing economic conditions, and an evolving financial market environment. The estimates of third-party financing included in the table show a reduction in the use of Treasury borrowing and do not reflect the actual notional third party financing commitment BPA may enter into in that particular year. The difference of reduction in use of Treasury borrowing and the actual notional third party financing commitment is primarily due to the difference in the timing of financing transactions between Treasury and third-party financing for capital projects with multi-year construction schedules.

Bonneville's Third Party Financing for Transmission Services consists primarily of lease-purchase agreements, which are capitalized leases that enable BPA to acquire the use of transmission facilities over time. BPA also undertakes the construction and installation of facilities from funds that customers advance to BPA for construction of BPA-owned facilities that assist the customers in obtaining necessary transmission service from BPA. These customers receive monetary payment credits in bills for transmission services from BPA up to the amount of funds advanced to BPA, plus interest.

BPA's historical Third Party Financing amounts may vary over time due to re-assignment of certain lease-purchase agreements to Treasury Financing.

**BPA Status of Treasury Borrowing with Potential Third Party Financing & PFIA Scenario**

With the potential use of third party financing assumed in the scenario above, BPA's total remaining Treasury Borrowing Amount would be extended to the following amounts. See BP-4 BPA Status of Treasury Borrowing- Current Services.

	Fiscal Year						
	2011	2012	2013	2014	2015	2016	2017
Start-of-Year: Total Bonds Outstanding	2,513	2,942	3,726	4,646	5,629	6,395	7,170
Plus:							
Treasury Borrowing (Cash)	799	1,042	1,246	1,252	1,068	1,018	952
Less:							
Potential Third Party Financing & PFIA	NA	93	204	225	188	170	153
BPA Bond Amortization	370	165	123	44	113	73	45
Net Increase/(Decrease) Bonds Outstanding:	429	784	920	983	767	774	753
Cum.-End-of-Year: Total	2,942	3,726	4,646	5,629	6,395	7,170	7,923
<b>Total Remaining Treasury Borrowing Amount</b>	<b>4,758</b>	<b>3,974</b>	<b>3,054</b>	<b>2,071</b>	<b>1,305</b>	<b>530</b>	<b>(223)</b>
Total Legislated Treasury Borrowing Amount	7,700	7,700	7,700	7,700	7,700	7,700	7,700

## TREASURY PAYMENTS

(in millions of dollars)

	FISCAL YEAR						
	2011	2012	2013	2014	2015	2016	2017
<b>A. INTEREST ON BONDS &amp; APPROPRIATIONS</b>							
<b>Bonneville Bond Interest</b>							
1 Bonneville Bond Interest (net)	80	95	146	211	284	351	400
2 AFUDC <sup>1/</sup>	42	36	39	41	38	35	42
<b>Appropriations Interest</b>							
3 Bonneville	29	23	10	6	2	0	0
4 Corps of Engineers <sup>2/</sup>	156	162	163	169	170	179	188
5 Lower Snake River Comp.	17	17	17	17	17	17	17
6 Bureau of Reclamation <sup>3/</sup>	43	43	43	43	43	43	43
Bond Premium paid	15						
<b>7 Total Bond and Approp. Interest</b>	<b>383</b>	<b>376</b>	<b>418</b>	<b>487</b>	<b>554</b>	<b>625</b>	<b>691</b>
<b>B. ASSOCIATED PROJECT COST</b>							
8 Bureau of Reclamation Irrigation Assistance	0	1	59	52	52	61	51
9 Bureau of Rec. O & M <sup>4/</sup>	0	0	0	0	0	0	0
10 Corps of Eng. O & M <sup>4/</sup>	4	0	0	0	0	0	0
11 L. Snake River Comp. Plan O & M <sup>4/</sup>	2	0	0	0	0	0	0
<b>12 Total Assoc. Project Costs</b>	<b>7</b>	<b>1</b>	<b>59</b>	<b>52</b>	<b>52</b>	<b>61</b>	<b>51</b>
<b>C. CAPITAL TRANSFERS</b>							
<b>Amortization</b>							
13 Bonneville Bonds <sup>6/</sup>	370	165	123	44	113	73	45
14 Bureau of Reclamation Appropriations	0	0	0	0	0	0	0
15 Corps of Engineers Appropriations	5	53	0	18	0	0	0
16 Lower Snake River Comp. Plan	0	0	0	0	0	0	0
17 Bonneville Appropriations	35	175	56	66	22	0	0
<b>Total Capital Transfers</b>	<b>410</b>	<b>393</b>	<b>179</b>	<b>128</b>	<b>135</b>	<b>73</b>	<b>45</b>
<b>D. OTHER PAYMENTS</b>							
18 Unfunded CSRS Liability <sup>5/</sup>	31	34	36	37	38	38	39
<b>21 TOTAL TREASURY PAYMENTS</b>	<b>830</b>	<b>805</b>	<b>692</b>	<b>705</b>	<b>778</b>	<b>797</b>	<b>827</b>

The accompanying notes are an integral part of this table.

- <sup>1/</sup> This interest cost is capitalized and included in BPA's Transmission System Development, System Replacements, and Associated Projects Capital programs. AFUDC is financed through the sale of bonds.
- <sup>2/</sup> Includes interest on construction funding for Corp of Engineers (Corps) fish bypass facilities at Corps dams in the Columbia River Basin, including Lower Monumental, Ice Harbor, and The Dalles.
- <sup>3/</sup> Includes payments paid by Reclamation to Treasury on behalf of Bonneville.
- <sup>4/</sup> Costs for power O&M is funded directly by Bonneville as follows (in millions):

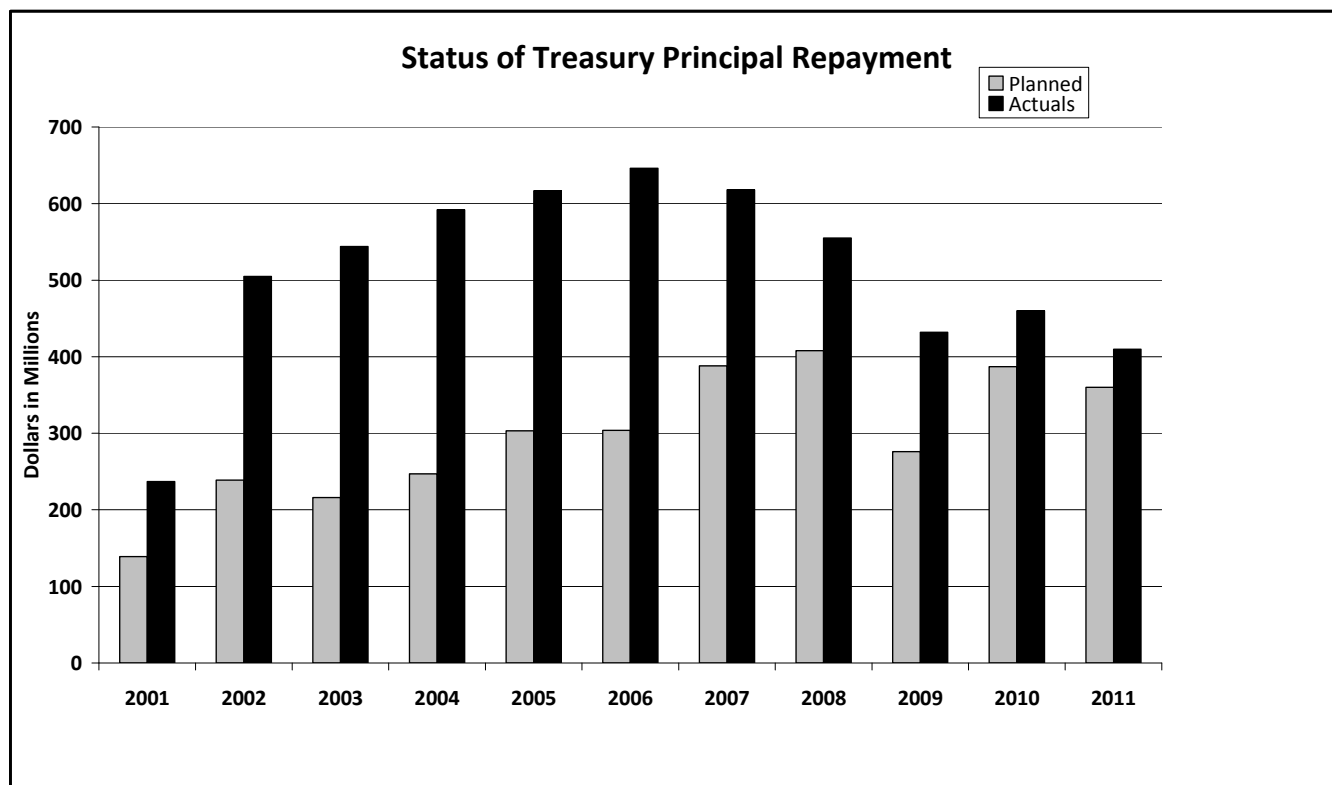
	FISCAL YEAR	2011	2012	2013	2014	2015	2016	2017
Bureau of Reclamation		85	112	120	119	123	128	132
Corps of Engineers		191	209	216	231	237	244	251
Subtotal Bureau and Corps		276	321	336	350	361	372	383
Lower Snake River Comp. Plan		24	29	30	27	29	30	31
Total		301	349	365	378	389	401	413

- <sup>5/</sup> See Interest Expense, Pension and Post-retirement Benefits and Capital Transfers section of this budget for a complete discussion of these cost estimates.
- <sup>6/</sup> In this FY 2013 budget, BPA "bond(s)" refers to all bonds issued by Bonneville to and advances received from the U.S. Treasury. This reference is consistent with section 13 (a) of the Transmission Act (PL Law 93-454), which defines BPA bonds as all bonds, notes, and other evidences of indebtedness issued and sold to the U.S. Treasury.

Does not include Treasury bond premiums on refinanced Treasury bonds.



## Treasury Repayment Table



### Chart Notes

<sup>1/</sup> This chart displays principal repayment only.

<sup>2/</sup> Treasury payment outyear estimates for planned amortization of principal are based on rate case estimates when available and planned amortization for future rate case periods. These estimates may change due to revised capital investment plans, actual Treasury borrowing, and advanced amortization payments. Bonneville made its full scheduled FY 2011 payment responsibility to the Treasury. Bonneville's aggregate Treasury payment was \$830 million, comprised of \$410 million in amortization (of which \$70 million was unscheduled advanced amortization), \$382 million in interest, and \$38 million of unfunded CSRS liabilities and other costs.

<sup>3/</sup> FYs 2000 - 2011 payments include portions of future planned amortization amounts consistent with Bonneville's capital strategy plan and the Bonneville /Energy Northwest debt optimization program.

<sup>4/</sup> Advance amortization due to sale of low-voltage transmission facilities includes \$13 million and \$5.3 million in FYs 2003 and 2006, respectively.

<sup>5/</sup> For FYs 2007 - 2009, the planned repayment of principal of Federal power investment reflects the amounts calculated in Bonneville's 2007 Power Rate Case and 2006 and 2008 Transmission Rate Cases that were scheduled to be the lowest level of amortization satisfying the repayment requirements. The rate case projections also included some amount of advanced repayment of principal to the U.S. Treasury that resulted from Bonneville's debt optimization program, which involved restructuring Energy Northwest (EN) debt, the cost of which Bonneville is obligated to pay.

**OBJECT CLASSIFICATION STATEMENT**  
(in millions of dollars) 1/

IDENTIFICATION CODE: 89-4045-0-3-271  
DIRECT OBLIGATIONS

**ESTIMATES**

	<b>2011</b>	<b>2012</b>	<b>2013</b>
11.1 Full-time permanent	123	130	138
11.3 Other than full-time permanent	55	59	62
11.5 Other personnel compensation	11	11	12
<b>11.9 Total personnel compensation</b>	<b>189</b>	<b>200</b>	<b>212</b>
12.1 Civilian personnel benefits	55	58	62
13.0 Benefits for former personnel	27	28	30
21.0 Travel and transportation of persons	15	15	16
22.0 Transportation of things	1	1	2
23.1 Rental payments to GSA	0	0	0
23.2 Rents, other	0	0	0
23.3 Communication, utilities & misc. charges	9	10	10
25.1 Consulting Services	395	419	442
25.2 Other Services	2,409	2,551	2,721
25.3 Purchases from Government Accounts	0	0	0
25.4 O&M of Facilities	0	0	0
25.5 R & D Contracts	0	0	0
26.0 Supplies and materials	275	291	401
31.0 Equipment	0	0	0
32.0 Lands and structures	53	56	61
41.0 Grants, subsidies, contributions	49	52	52
43.0 Interest and dividends	232	245	285
<b>99.0 Total obligations</b>	<b>3,708</b>	<b>3,926</b>	<b>4,294</b>

Includes object classifications developed from updated GL accounting codes consistent with implementation of BPA's business enterprise system of accounts. The object classifications are subject to change as BPA's GL accounting codes continue to evolve to more effectively meet management information needs, and meet FERC and Federal reporting requirements.

**Estimate of Receipts**  
(in millions of dollars)

	Fiscal Year						
	2011	2012	2013	2014	2015	2016	2017
Reclamation Interest	43	43	43	43	43	43	43
Reclamation Amortization	0	0	0	0	0	0	0
Reclamation O&M	1	0	0	0	0	0	0
Reclamation Irrig. Assist.	0	1	59	52	52	61	51
Revenues Collected by Reclamation Distributed in Treasury Account (credit)	-12	-7	-7	-7	-7	-7	-7
Colville Settlement (credit)	-9	-5	-5	-5	-5	-5	-5
<b>Total 1/ Reclamation Fund</b>	<b>23</b>	<b>33</b>	<b>90</b>	<b>84</b>	<b>83</b>	<b>92</b>	<b>83</b>
Corps O&M	2						
CSRS	31	34	36	37	38	38	38
<b>Total 2/ Repayments on misc.costs</b>	<b>33</b>	<b>34</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>38</b>	<b>38</b>

1/ Includes amortization of appropriations and irrigation assistance, and interest costs for Reclamation. The cost of power O&M for Reclamation is no longer included in Proprietary Receipts due to Direct Funding by Bonneville. Represents transfer to Account #895000.26

2/ The costs of power O&M for the Corps and Lower Snake Comp. Plan are no longer included in Proprietary Receipts due to Direct Funding by Bonneville. Represents transfers to Account #892889, Repayments on misc. recoverable costs, not otherwise classified. Costs for power O&M is funded directly by Bonneville as follows (in millions)

	2011	2012	2013	2014	2015	2016	2017
Bureau of Reclamation	85	112	120	119	123	128	132
Corps of Engineers	191	209	216	231	237	244	251
Lower Snake River Comp. Plan	24	29	30	27	29	30	31

See Interest Expense, Pension and Post-retirement Benefits and Capital Transfers section of this budget for a complete discussion of these cost estimates.

### Total Cost of BPA Fish & Wildlife Actions

COST ELEMENT	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>CAPITAL INVESTMENTS <sup>1/</sup></b>										
BPA FISH AND WILDLIFE	6.1	11.6	8.5	12.2	35.4	35.2	25.5	27.4	39.9	90.2
BPA SOFTWARE DEVELOPMENT COSTS	-	-	-	-	0.9	1.0	1.3	0.6	1.2	0.8
ASSOCIATED PROJECTS (FEDERAL HYDRO)	8.8	68.4	75.9	53.8	360.0	60.4	37.3	135.7	56.4	103.0
<b>TOTAL CAPITAL INVESTMENTS</b>	<b>14.9</b>	<b>80.0</b>	<b>84.4</b>	<b>66.0</b>	<b>396.3</b>	<b>96.6</b>	<b>64.2</b>	<b>163.7</b>	<b>97.5</b>	<b>193.9</b>
<b>PROGRAM EXPENSES</b>										
<b>BPA DIRECT FISH AND WILDLIFE PROGRAM</b>	137.1	140.7	137.9	135.8	137.9	139.5	148.9	177.9	199.6	221.1
SUPPLEMENTAL MITIGATION PROGRAM EXPENSES <sup>2/</sup>	7.1	6.5	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>REIMBURSABLE/DIRECT-FUNDED PROJECTS <sup>3/</sup></b>										
O & M LOWER SNAKE RIVER HATCHERIES	14.9	15.1	17.3	17.2	20.1	19.3	19.4	20.8	23.3	24.5
O & M CORPS OF ENGINEERS	28.2	30.3	32.3	32.5	31.8	32.9	34.4	34.3	36.5	40.3
O & M BUREAU OF RECLAMATION	3.8	3.1	3.9	3.9	4.5	3.9	4.3	4.5	5.2	5.0
OTHER (NW POWER AND CONSERVATION COUNCIL)	4.0	4.0	3.7	4.3	4.3	4.2	4.1	4.7	4.7	4.5
SUBTOTAL (REIMB/DIRECT-FUNDED)	50.9	52.6	57.2	57.9	60.7	60.3	62.2	64.3	69.7	74.3
<b>TOTAL OPERATING EXPENSES</b>	<b>195.1</b>	<b>199.8</b>	<b>202.9</b>	<b>193.7</b>	<b>198.6</b>	<b>199.7</b>	<b>211.1</b>	<b>242.1</b>	<b>269.3</b>	<b>295.3</b>
<b>PROGRAM RELATED FIXED EXPENSES <sup>4/</sup></b>										
INTEREST EXPENSE	48.5	49.9	53.3	56.4	53.4	76.0	76.9	78.7	80.5	79.2
AMORTIZATION EXPENSE	17.2	17.4	17.5	17.4	17.4	22.9	24.4	24.6	25.0	28.3
DEPRECIATION EXPENSE	12.5	13.2	14.6	15.9	16.7	14.0	14.9	16.7	18.0	19.6
<b>TOTAL FIXED EXPENSES</b>	<b>78.2</b>	<b>80.5</b>	<b>85.4</b>	<b>89.7</b>	<b>87.5</b>	<b>112.9</b>	<b>116.2</b>	<b>120.0</b>	<b>123.5</b>	<b>127.2</b>
<b>GRAND TOTAL PROGRAM EXPENSES</b>	<b>273.3</b>	<b>280.3</b>	<b>288.3</b>	<b>283.4</b>	<b>286.1</b>	<b>312.7</b>	<b>327.3</b>	<b>362.1</b>	<b>392.8</b>	<b>422.5</b>
<b>FOREGONE REVENUES AND POWER PURCHASES</b>										
FOREGONE REVENUES	12.6	79.2	21.7	182.1	397.4	282.6	273.5	142.8	99.4	156.7
BPA POWER PURCH. FOR FISH ENHANCEMENT	147.8	171.1	191.0	110.8	168.2	120.7	274.9	240.3	310.1	70.7
<b>TOTAL FOREGONE REVENUES AND POWER PURCHASES</b>	<b>160.4</b>	<b>250.3</b>	<b>212.7</b>	<b>292.9</b>	<b>565.6</b>	<b>403.3</b>	<b>548.5</b>	<b>383.1</b>	<b>409.5</b>	<b>227.4</b>
<b>TOTAL PROGRAM EXPENSES, FOREGONE REVENUES, &amp; POWER PURCHASES</b>	<b>433.7</b>	<b>530.6</b>	<b>501.0</b>	<b>576.3</b>	<b>851.7</b>	<b>716.0</b>	<b>875.8</b>	<b>745.3</b>	<b>802.3</b>	<b>649.9</b>
<b>CREDITS</b>										
4(h)(10)(C)	(66.4)	(73.6)	(77.0)	(57.7)	(76.4)	(66.1)	(100.5)	(99.5)	(123.1)	(85.3)
FISH COST CONTINGENCY FUND	-	(78.7)	-	-	-	-	-	-	-	-
<b>TOTAL CREDITS</b>	<b>(66.4)</b>	<b>(152.3)</b>	<b>(77.0)</b>	<b>(57.7)</b>	<b>(76.4)</b>	<b>(66.1)</b>	<b>(100.5)</b>	<b>(99.5)</b>	<b>(123.1)</b>	<b>(85.3)</b>

1/ Capital Investments include both BPA's direct Fish and Wildlife Program capital investments, funded by BPA's Treasury borrowing, and "Associated Projects", which include capital investments at Corps of Engineers' and Bureau of Reclamation projects, funded by appropriations and repaid by BPA. The negative amount in FY 1997 reflects a decision to reverse "plant-in-service" investment that was never actually placed into service. The annual expenses associated with these investments are included in "Program-Related Fixed Expenses", below.

2/ Includes High Priority and Action Plan Expenses and other supplemental programs.

3/ "Reimbursable/Direct-Funded Projects" includes the portion of costs BPA pays to or on behalf of other entities that is determined to be for fish and wildlife purposes.

4/ "Fixed Expenses" include depreciation, amortization and interest on investments on the Corps of Engineers' projects, and amortization and interest on the investments associated with BPA's direct Fish and Wildlife Program.

## GENERAL PROVISIONS

SEC. 301. *The unexpended balances of prior appropriations provided for activities in this Act may be available to the same appropriation accounts for such activities established pursuant to this title. Available balances may be merged with funds in the applicable established accounts and thereafter may be accounted for as one fund for the same time period as originally enacted.*

SEC. 302. *Funds appropriated by this or any other Act, or made available by the transfer of funds in this Act, for intelligence activities are deemed to be specifically authorized by the Congress for purposes of section 504 of the National Security Act of 1947 (50 U.S.C. 414) during fiscal year 2013 until the enactment of the Intelligence Authorization Act for fiscal year 2013.*

SEC. 303. *Not to exceed 5 percent, or \$100,000,000, of any appropriation, whichever is less, made available for Department of Energy activities funded in this Act or subsequent Energy and Water Development and Related Agencies Appropriations Acts may be transferred between such appropriations, but no such appropriation, except as otherwise provided, shall be increased or decreased by more than 5 percent by any such transfers, and any such proposed transfers shall be submitted promptly to the Committees on Appropriations of the House and Senate.*

SEC. 304. *None of the funds made available in this title shall be used for the construction of facilities classified as high-hazard nuclear facilities under 10 CFR Part 830 unless independent oversight is conducted by the Office of Health, Safety, and Security to ensure the project is in compliance with nuclear safety requirements.*

SEC. 305. *None of the funds made available in this title may be used to approve critical decision-2 or critical decision-3 under Department of Energy Order 413.3B, or any successive departmental guidance, for construction projects where the total project cost exceeds \$100,000,000, until a separate independent cost estimate has been developed for the project for that critical decision.*

SEC. 306. *(a) The set-asides included in Division C of Public Law 111-8 for projects specified in the explanatory statement accompanying that Act in the following accounts shall not apply to such funds: "Defense Environmental Cleanup", "Electricity Delivery and Energy Reliability", "Energy Efficiency and Renewable Energy", "Fossil Energy Research and Development", "Non-Defense Environmental Cleanup", "Nuclear Energy", "Other Defense Activities", and "Science". (b) The set-asides included in Public Law 111-85 for projects specified in the explanatory statement accompanying that Act in the following accounts shall not apply to such funds: "Electricity Delivery and Energy Reliability", "Energy Efficiency and Renewable Energy", "Fossil Energy Research and Development", "Nuclear Energy", and "Science".*

SEC. 307. *Of the unobligated balances from prior year appropriations available under the heading "Energy Efficiency and Renewable Energy", \$69,667,000 are hereby permanently cancelled: Provided, That no amounts may be cancelled from amounts that were designated by the Congress as an emergency requirement pursuant to the Concurrent Resolution on the Budget or the Balanced Budget and Emergency Deficit Control Act of 1985, as amended.(Energy and Water Development and Related Agencies Appropriations Act, 2012.)*

SEC. 501. *None of the funds made available by this Act may be used to enter into a contract, memorandum of understanding, or cooperative agreement with, make a grant to, or provide a loan or loan guarantee to any corporation that was convicted (or had an officer or agent of such corporation acting on behalf of the corporation convicted) of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless the agency has considered suspension or debarment of the corporation, or such officer or agent, and made a determination that this further action is not necessary to protect the interests of the Government.*

SEC. 502. *None of the funds made available by this Act may be used to enter into a contract, memorandum of understanding, or cooperative agreement with, make a grant to, or provide a loan or loan guarantee to, any corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless the agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government.*

SEC. 503. *None of the funds made available by this Act may be used in contravention of Executive Order No. 12898 of February 11, 1994 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations"). (Energy and Water Development and Related Agencies Appropriations Act, 2012.)*

