

# Power Business Line - Operating Expense

## Funding Schedule by Activity (Accrued Expenditures)

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Production . . . . .	1,578,930	1,733,078	1,771,108	+38,030	+2.2%
Associated Projects Costs.	215,248	235,739	241,900	+6,161	+2.6%
Fish & Wildlife . . . . .	146,798	138,834	138,834	0	0.0%
Residential Exchange . . .	143,967	143,802	143,802	0	0.0%
NW Power & Conservation Council . . . . .	8,005	8,500	8,700	+200	+2.4%
Conservation and Energy Efficiency . . . . .	57,679	63,113	63,090	-23	0.0%
<b>Total, Power Services - Operating Expense . . . . .</b>	<b>2,150,626</b>	<b>2,323,066</b>	<b>2,367,434</b>	<b>+44,368</b>	<b>1.9%</b>

## Description

Production includes all Bonneville strategic resource planning and business development, short and long-term power purchases, wheeling, electric utility marketing of resources, hedging-related costs, generation and oversight costs including a large thermal nuclear project. These activities identify the Administrator's load obligations, develop product plans and services to meet the needs of Bonneville customers and stakeholders, and acquire resources as needed. As a means of mitigating power market risk, Bonneville's Hedging Policy allows the use of financial instruments in the power, natural gas, and aluminum markets to hedge the price of electricity and reduce Bonneville's exposure to market fluctuations and certain index sales contract provisions.

Associated Projects provide funding for operation and maintenance costs for the FCRPS; minor additions, improvements, and replacements, and liabilities of the Corps and Bureau 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 Lower Snake River Compensation Plan (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 the protection, enhancement and mitigation of Columbia River Basin fish and wildlife due to losses attributed to the development and operation of hydroelectric projects on the Columbia River and its tributaries. Bonneville satisfies a major portion of its fish and wildlife responsibilities pursuant to Section 4(h) of the Northwest Power Act by funding projects and activities designed to be consistent with the Northwest Power and Conservation Council's (formerly the Northwest Power Planning Council) Fish and Wildlife Program. Bonneville is also mandated to implement measures under the Endangered Species Act (ESA). These measures are part of the biological opinions issued in December 2000 by NOAA

Fisheries and the USFWS to address the effects of the operation of the FCRPS on threatened and endangered salmon and ESA listed sturgeon and bull trout. The biological opinions require the Action Agencies (Corps, Bureau and Bonneville) to implement actions throughout the Columbia River Basin that comprehensively address all the life stages of ESA-listed fish. The Action Agencies released a Final FY 2003-2007 Implementation Plan for the FCRPS on November 6, 2002, that identifies and describes the specific measures that the three agencies plan to implement in FY 2003-2007 and addresses the actions called for in the NOAA Fisheries and USFWS 2000 Biological Opinions for the FCRPS. The Implementation Plan, together with projects undertaken to address mitigation for non-listed species under the Northwest Power Act, form the basis for BPA's planned expenditures of \$139 million per year. This is within the range of \$109 - \$179 million of accrued expenses assumed in the May 2000 power rate proposal for FYs 2002-2006, prior to the biological opinions and Implementation Plan. Bonneville worked with the Council and regional fisheries managers to develop an agreed-upon set of protocols to be used in managing the costs of the program for the FY 2004-2006 period. The objective is to keep Bonneville's expenditures to an annual average of \$139 million, while allowing contractors both funding stability and the flexibility needed to accomplish the work while being responsive to environmental conditions.

Bonneville's fish and wildlife expenditures funds will focus on activities that benefit Columbia River Basin fish and wildlife resources including projects designed to:

- 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 and use hatcheries to contribute to conservation and recovery of ESA-listed and non-listed fish;
- reduce harvest-related mortality on ESA-listed and non-listed fish and support sustainable fisheries; and,
- support a disciplined and well-coordinated research, monitoring, and evaluation program.

To the extent possible, Bonneville is integrating the actions implemented in response to the 2000 FCRPS Biological Opinions with projects implemented under the Council's Fish and Wildlife Program implementing an Integrated Fish and Wildlife Program. The Council's Provincial Review and subbasin planning processes are the primary vehicle for soliciting project proposals to address biological opinion actions. Provincial Review project solicitations identify specific biological opinion implementation needs in conjunction with the broader non-ESA Northwest Power Act priorities. Bonneville also may use targeted solicitations if biological opinion requirements are not fully satisfied through the Provincial Review's solicitations.

The FY 1997 Energy and Water Development 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 projects proposed to be funded through that portion of Bonneville Power Administration's fish and wildlife budget that implements the Council's fish and wildlife program." And, "... 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." The Conference Report on the FY 1999 Energy and Water Development Appropriations Act included a new assignment for the ISRP and the Council. The ISRP was to review the fish and wildlife projects, programs, or measures included in Federal agency budgets that are reimbursed, and/or directly funded, by Bonneville and to make funding recommendations to Congress. The ISRP was directed to

determine whether the proposals are consistent with the scientific criteria in the Northwest Power Act as amended in 1996, and provide a report to the Council by April 1 of each year. The Council, in turn, must report to the Congress annually by May 15. Consequently, projects funded under Bonneville's Integrated Fish and Wildlife Program will be reviewed and prioritized as part of the Council initiative process.

Consistent with the principles of the Federal Caucus' *Final Basinwide Salmon Recovery Strategy* (All-H Strategy), Bonneville is implementing much of the off-site mitigation actions required by the year 2000 Biological Opinions through the Council's Fish and Wildlife Program. Under the Northwest Power Act, the Fish and Wildlife Program is tasked with protecting and rebuilding the Columbia River Basin fish and wildlife affected by the development and operation of the FCRPS. The Provincial Review process, sponsored by the Council, provides the mechanism for integrating activities under the existing Fish and Wildlife Program with the measures focused on ESA-listed fish stocks in the NMFS and USFWS Biological Opinions.

The Northwest Power Act created the Residential Exchange Program (REP) 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. The 1996 Comprehensive Regional Review recommended that Bonneville engage in settlement discussions regarding the Residential Exchange. Bonneville then developed a Subscription Strategy based on the recommendations of the Comprehensive Review. That strategy proposed a comprehensive settlement of the REP for Investor-Owned Utilities (IOUs) in the Pacific Northwest, which has resulted in new contracts with regional IOUs that provide power and monetary benefits to their residential and small farm customers.

To settle the REP with the IOUs, IOU customers were offered 1900 aMW in power and monetary benefits for the FY 2002-2006 rate period. The power is sold at a price equivalent to the priority firm power rate. The monetary benefits are calculated based on the forecast of the cost of purchasing the power in the market that was used in the June 2001 Supplemental Rate Proposal, less the rate used for sale of power to the IOU customers adjusting for the cost recovery adjustment clauses. All 6 regional IOUs signed contracts in the fall of 2000 implementing this settlement of the Residential Exchange. They originally were to receive 1000 aMW of power and 900 aMW in monetary benefits for FY 2002-2006, but two IOUs subsequently sold 619 aMW of power back to Bonneville as part of Bonneville's rate mitigation efforts for FY 2002. In addition, 3 other IOUs triggered the clause in their contracts to convert their power purchases to financial payments. In FY 2007 the total amount of settlement benefits changes to 2200 aMW. Under the Subscription Strategy, Bonneville stated its intent for all of these benefits to be provided as power; however, Bonneville may provide either power or monetary benefits under the terms of the settlement agreements.

Bonneville's preference utilities, or public agency utilities, have been eligible to execute new Residential Exchange Program contracts since October 2001, except for the nine utilities that previously executed settlement agreements for terms ending July 1, 2011. These customers have been forecasted to have average system costs that are lower than the Exchange Program rate and thus would not qualify for these benefits.

The Northwest Power Act directs that expenses of the Northwest Power and Conservation Council (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. Its 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) and a Columbia River Basin Fish and Wildlife Program of loss mitigation and resource enhancement actions.

The competitive market situation is driving the need for alternatives to the traditional approaches to developing conservation resources. The PBL will acquire conservation in accordance with the Council’s guidance and act as a catalyst for energy efficiency and direct application renewables. These resources will provide a vital component of PBL’s diversified resource portfolio that will: (1) meet conservation targets; (2) achieve a least cost resource mix; (3) dampen 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; (6) build the region’s resource portfolio with conservation and direct application renewables. Bonneville also is exploring how best to integrate demand-side management, distributed generation, and other leading edge technologies (i.e. Energy Web program and non wires solutions) into its transmission planning process.

### **Detailed Justification**

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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<b>Production .....</b>	<b>1,578,930</b>	<b>1,733,078</b>	<b>1,771,108</b>
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- **Power Purchases/Pacific Northwest Coordination Agreement (PNCA) Interchange:**  
Includes purchase power for efficient operation of the power system, fish mitigation and resale. Due to higher and more volatile market prices in 2001, Bonneville was subject to much greater demand for service from its customers for FY 2002-2006. This increase in load required that Bonneville make substantially greater power purchases in the market. In order to mitigate a larger rate increase, FY 2004 and FY 2005 expenses include \$274 million, and \$311 million, respectively; in IOU and DSI load buy downs. See additional discussion of the evolving power market included in “Significant Program Shifts” included in the Overview section of this budget.
  
- **Under terms of the PNCA, Bonneville makes interim cash payments to other generating utilities for power received as interchange energy.** Likewise, Bonneville receives interim cash payments from other generating utilities for power that Bonneville delivers as interchange energy. Interchange energy is an energy exchange between utilities to supply all or a part of any deficiency between a utility’s actual energy capability and its firm energy load carrying capability. The energy is then returned to the supplying utility at a time that it has a deficiency, and any interim cash payments made on such energy is refunded.
  
- **Power Scheduling/Marketing:** Schedule and market (buy/sell) electric energy with Bonneville customers and the Pacific Northwest’s interconnected utilities. Scheduling includes PBL’s 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 RTO as it evolves. PBL’s development of a new Transaction Scheduling System will facilitate the above needs.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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Trojan: Continue termination and decommissioning of Bonneville's 30 percent share of the Trojan Nuclear Plant. Decommissioning continues at a consistent level through FY 2005.

- Columbia Generating Station (WNP-2): Continue to acquire full capability of Columbia Generating Station (Columbia). Columbia has now completed the transition to a 24-month fuel cycle from a 12-month cycle. A maintenance and refueling outage occurred in FY 2003 and is planned again in FY 2005.
- WNP-1/WNP-3: Continue to fulfill contractual obligations for WNP-1 and WNP-3.
- Long Term Power Purchases and Wheeling:

FY 2004: Continue to acquire 100 percent of the Idaho Falls, Cowlitz Falls, Wauna and Bonneville's share of Foote Creek 1 project output. Continue contract payments on four billing credit projects. Continue to acquire 100 percent of the output of the Foote Creek 2 and 4 wind projects and a 15-kW share of the output from the Solar Ashland Project. Continue to acquire 90MWs of Stateline wind project. Continue to acquire 100 percent of the output of the Condon and Klondike wind projects. Continue to fund the White Bluffs solar project. Continue to make decisions whether to acquire a share of the output from, and/or provide resource integration services for, additional renewable generation.

FY 2005: Continue to acquire 100 percent of the Idaho Falls, Cowlitz Falls, Wauna and Bonneville's share of Foote Creeke 1 project output. Continue contract payments on four billing credit projects. Continue to acquire 100 percent of the output of the Foote Creek 2 and 4 wind projects and a 15-kW share of the output from the Solar Ashland Project. Continue to acquire 90MWs of Stateline wind project. Continue to acquire 100 percent of the output of the Condon and Klondike wind projects. Continue to fund the White Bluffs solar project. Make decisions whether to acquire output from additional renewable generation projects and /or provide resource integration services for additional renewable generation.

- Generation & Oversight:

FY 2003: Continued to provide oversight of all contracts signed to date.

FY 2004: Continue to provide oversight of all contracts signed to date. Complete the NEPA process for the Maiden Wind project. Provide oversight of large thermal generating plants from which Bonneville purchases capability to insure that all Bonneville approval rights are protected; coordinate, communicate and administer agreements, issues and programs between Bonneville and the project owners. Continue to make decisions whether to acquire a share of the output from additional renewable generation projects and or provide resource integration services for additional renewable generation.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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FY 2005: Continue to provide oversight of all contracts signed to date. Provide oversight of large thermal generating plants from which Bonneville purchases capability to insure that all Bonneville approval rights are protected; coordinate, communicate and administer agreements, issues and programs between Bonneville and the project owners. Complete NEPA process and make decisions whether to acquire renewable generation projects initiated in FY 2003.

**Associated Project Costs** ..... **215,248**    **235,739**    **241,900**

- Support FCRPS project costs and work to strengthen relationships to improve project support and better understand project costs. This helps to maintain FCRPS system integrity and to attain BPA’s strategic business objectives.
  
- Bureau of Reclamation:  
FY 2003: Continued direct funding Bureau O&M power activities.  
FY 2004: Continue direct funding Bureau O&M power activities.  
FY 2005: Continue direct funding Bureau O&M power activities.
  
- Corps of Engineers:  
FY 2003: Continued direct funding Corps O&M power activities.  
FY 2004: Continue direct funding Corps O&M power activities.  
FY 2005: Continue direct funding Corps O&M power activities.

**Fish and Wildlife** ..... **146,798**    **138,834**    **138,834**

In a manner consistent with the assumptions used for the FY 2002-2006 power rate case:

Anadromous Fish: Continue implementing projects which support ESA listed species and other measures called for under the 2000 FCRPS NMFS Biological Opinion. Use the Council's Provincial Review and Sub-basin Planning processes to identify activities for implementation. Implement and develop activities that protect and enhance tributary and estuary habitat, improve mainstem habitat on an experimental basis, reduce potentially harmful hatchery practices, and contribute to sustainable fisheries. These activities have been selected in response to the Northwest Power Act section 2(6) to “protect, mitigate and enhance fish and wildlife including related spawning grounds and habitat on the Columbia River and its tributaries.”

Resident Fish: Implement activities to determine the impacts of the FCRPS on 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 2000 USFWS FCRPS Biological Opinion and the Northwest Power Act to “protect, mitigate and enhance fish and wildlife including related spawning grounds and habitat on the Columbia River and its tributaries.”

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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- Continue mitigation in resident fish for anadromous losses (substitution), mitigation for reservoir operation impacts to resident fish, and continue to refine, quantify, and delineate the difference between the two.
- Wildlife: Continue the current program including funding for wildlife actions resulting from Council Fish and Wildlife Program amendments for wildlife mitigation. These activities have been selected in response to the Northwest Power Act to “protect, mitigate and enhance fish and wildlife including related spawning grounds and habitat on the Columbia River and its tributaries.”

**Residential Exchange** ..... **143,967**    **143,802**    **143,802**

- Includes negotiated contract settlement agreement costs related to monetary benefits consistent with assumptions in the power rate case and subscription strategy.

**Northwest Power and Conservation Council** ..... **8,005**    **8,500**    **8,700**

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

**Conservation and Energy Efficiency** ..... **57,679**    **63,113**    **63,090**

- Continue close out of the Legacy conservation resource acquisition contracts, which support Bonneville’s contractual obligation to serve customer load growth. As part of the power subscription strategy and the 2002 Power Rate Case, Bonneville implemented a conservation and renewables rate credit system for utility customers.
- Provide credible, unbiased information or technical or financial support to conservation purposes. As an agency of the DOE, and with independent responsibilities based on its authorizing legislation, Bonneville has a statutory responsibility to provide support to certain conservation objectives that are governmental in nature, such as assisting in the development of emerging technologies and providing unbiased information to consumers. 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.
- Seek to make the existing energy efficiency marketplace larger by helping to remove barriers which customers face in the development of conservation projects. This opens up possibilities that have previously been foreclosed, thus serving to “grow the pie” or expand business opportunities for our private and public sector partners. This activity must be self-financing; that is, payments from customers must cover all of the costs of performing the service.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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- Create and enhance markets for energy efficiency and end-use renewables through delivery of public benefits. Promote the development and implementation of new energy efficiency technologies. Provide leadership and collaborative funding for market transformation initiatives. Continue activities being performed through the regionally funded Northwest Energy Efficiency Alliance through a multi-party agreement signed in 2000. Support the Energy Web, a program advancing innovation and deployment of new energy technologies. This program will: (1) provide benefit to the Pacific Northwest; (2) promote standards and technology development deployment to achieve business benefits for Bonneville and its customers; and (3) promote the “Green” aspects of the Energy Web. Implications of participation in Energy Web development include:
  - Improve integration and consideration of non-construction alternatives in the transmission planning process.
  - Diversify Bonneville risk hedges to include physical alternatives such as demand reductions and peak generation.
  - Demonstrate potential to reduce peak loads and transmission needs.
  - Clarify location benefits associated with peak load reduction, power and system reliability, power quality, and avoiding greenhouse gas production.

**Total, Power Business Line – Operating Expense. . .**      2,150,626    2,323,066    2,367,434

## Explanation of Funding Changes

	FY 2005 vs. FY 2004 (\$000)
<b>Production</b>	
<ul style="list-style-type: none"> <li>■ Reflects primarily an increase in power purchase activities offset by a shift in Energy Northwest Project debt service .....</li> </ul>	+38,030
<b>Associated Project Costs</b>	
<ul style="list-style-type: none"> <li>■ Increase due to security, biological opinion requirements, and improvements, replacements, and minor additions at the projects .....</li> </ul>	+6,161
<b>Fish and Wildlife</b>	
<ul style="list-style-type: none"> <li>■ No change .....</li> </ul>	0
<b>Residential Exchange</b>	
<ul style="list-style-type: none"> <li>■ No change .....</li> </ul>	0
<b>Northwest Power and Conservation Council</b>	
<ul style="list-style-type: none"> <li>■ Slight increase in Council funding .....</li> </ul>	+200
<b>Conservation and Energy Efficiency</b>	
<ul style="list-style-type: none"> <li>■ Minor change .....</li> </ul>	-23
<b>Total Funding Change, Power Business Line - Operating Expense .....</b>	<b>+44,368</b>