

Energy Northwest and Bonneville Power Administration

Revenue Bonds New Issue Report

Ratings

New Issues

Approximately \$41,000,000 Project 1 Electric Rev Ref Bonds, Series 2012B	AA
Approximately \$29,000,000 Project 3 Electric Rev Ref Bonds, Series 2012B	AA
Approximately \$24,000,000 Project 1 Electric Rev Ref Bonds, Series 2012C (Taxable)	AA
Approximately \$62,000,000 Project 3 Electric Rev Ref Bonds, Series 2012C (Taxable)	AA

Outstanding Debt

\$1,570,000,000 Project 1 Bonds	AA
\$2,490,000,000 Columbia Generating Station Bonds	AA
\$1,500,000,000 Project 3 Bonds	AA
Implied Revenue Bond Rating — Bonneville Power Administration	AA

Rating Outlook

Stable

Key Utility Statistics

Fiscal Year Ended 6/30/11

System Type	Wholesale
NERC Region	WECC
No. of Customers	135
Annual Revenues (\$ Mil.)	3,284
Fuel Dependency (%)	Hydro
ENW Bond Debt Service Coverage (x)	2.3
Debt Service Coverage (x)	1.1
Days Operating Cash	219
Equity/Capitalization (%)	16

Related Research

[U.S. Public Power Peer Study — June 2011, June 20, 2011](#)

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New Issue Details

Sale Information: The 2012B and 2012C bonds are expected to price the week of March 19, 2012. At the same time, Energy Northwest (ENW) will deliver \$664.5 million in series 2012A bonds that priced in 2011 on a forward delivery basis. Proceeds from the series 2012A bonds will restructure debt service in fiscal 2012–2015 to later years for budgetary relief. Proceeds from the series 2012B and 2012C bonds will refund debt for savings. The bonds have no reserve fund.

Security: ENW bonds are secured by a payment obligation from the Bonneville Power Administration (Bonneville or BPA). BPA's payments to Energy Northwest are made as an operating expense, and are paid prior to BPA's payments to the U.S. Treasury (approximately \$7.3 billion total in Treasury bonds and federal obligations outstanding). The implied revenue bond rating for BPA reflects its ability to meet its full obligations.

Purpose: Bond proceeds will refund outstanding maturities for savings. The refunding bonds will retain the original maturity dates of the refunded bonds.

Final Maturity: 2017.

Key Rating Drivers

Competitive Wholesale Supplier: BPA has a competitive resource portfolio of more than 8,500 MW that provides wholesale electricity (primarily low-cost hydropower) and transmission access to a population of more than 12 million people in the Pacific Northwest.

Cost-Based Long-Term Contracts: Bonneville sells its resources through long-term take-and-pay contracts through 2028 that recover cost of service from its 135 preference customers. Deliveries under the new contracts began Oct. 1, 2011 and provide less operational and price risk to Bonneville than previous contracts.

Timely Rate Setting: BPA has established a two-year rate-setting cycle, with mid-period cost adjustments allowed. Bonneville also employs an annual cost recovery adjustment clause (CRAC), which adds further rate setting flexibility.

Financial Pressure: BPA's financial performance fluctuates as a result of hydrological conditions and market prices, with secondary (surplus) sales budgeted at 22% of total revenues.

Low Reserves: Financial reserves declined in the past three years due to considerably lower than projected secondary sales. Power system reserves as of Dec. 31, 2011 totaled \$129 million. This concern is mitigated by various financial and rating setting options available to BPA, along with a \$750 million federal line of credit, which provides additional liquidity support.

Large Capital Needs: Recent increases from the federal government in borrowing capacity for both long-term and short-term needs should fund a portion of Bonneville's capital needs. A regional discussion with Bonneville's stakeholders about the scope and pace of capital spending, and the identification of alternative funding sources for remaining needs is ongoing.

Energy Northwest Rating History

Rating	Action	Outlook/ Watch	Date
AA	Affirmed	Stable	3/14/12
AA	Affirmed	Stable	6/1/11
AA	Affirmed	Stable	2/28/11
AA	Affirmed	Stable	12/9/10
AA	Affirmed	Positive	2/19/10
AA	Upgraded	Positive	3/4/09
AA-	Rev Outlook	Positive	3/9/08
AA-	Affirmed	Stable	3/12/04
AA-	Downgraded	Stable	3/12/03
AA	Affirmed	Stable	3/19/02
AA	Upgraded		5/3/00
AA-	Downgraded		8/17/95
AA	Affirmed		9/8/92

Implied Revenue Bond — Bonneville Power Administration Rating History

Rating	Action	Outlook/ Watch	Date
AA	Affirmed	Stable	3/14/12
AA	Affirmed	Stable	6/1/11
AA	Affirmed	Stable	2/28/11
AA	Assigned	Stable	12/9/10

Credit Profile

ENW, formerly known as the Washington Public Power Supply System, was created in 1957. ENW has 28 members, consisting of 23 public utility districts and the cities of Centralia, Port Angeles, Richland, Seattle, and Tacoma, WA. ENW owns and operates the Columbia Generating Station (CGS), the Packwood Lake Hydroelectric Project, and the Nine Mile Canyon Wind Project. ENW provides electric service to a population of more than 1.5 million in the region.

Bonneville utilizes the energy from CGS as part of its overall power supply portfolio (approximately 10% of Bonneville's total capacity), and is obligated to pay debt service on the ENW bonds related to CGS, a 1,157-MW operating nuclear plant, and Project 1 and Project 3, non-operating nuclear plants. The other projects owned by ENW (wind and hydroelectric) are separately secured and not supported by Bonneville.

Bonneville is the largest of the regional federal power marketing agencies within the Department of Energy. Bonneville was created by Congress in 1937 to market electric power from the Bonneville Dam. Congress has since designated BPA to market power from 31 federally owned hydro projects in the Pacific Northwest. Bonneville accounts for approximately 33% of the electricity consumed and 75% of the transmission infrastructure in the region. Bonneville's overall portfolio of resources from which it markets power is approximately 8,757 MW, as estimated under low water conditions. Under high water conditions, the fleet may generate more than 12,000 MW.

Recent Developments

Reliance on Hydroelectric Generation and Secondary Revenues

Bonneville faces financial pressure related to lower than average hydrological conditions and sustained low electricity market prices for its secondary sales being driven by overall weakened economic conditions. Bonneville's rate setting takes into account anticipated secondary sales. Secondary sales fell to between 8.0%–9.5% of revenues in fiscal 2009 and 2010, but improved slightly to 14.2% in fiscal 2011.

Secondary sales revenues are derived from the portion of the federal system not allocated under preference contracts. Cost-based rates are established using extensive modeling of potential hydrological conditions but assume some level of secondary revenues based on average water conditions and forecast market prices. These revenues may likely be lower than projected in a low water year, requiring the use of cash reserves to replace lost revenues and eventually a rate adjustment to customers.

Fitch Ratings anticipates that hydrological variability will be an ongoing credit characteristic that drives Bonneville's financial performance. To reduce this variability, Bonneville made changes

Related Criteria

[Revenue-Supported Rating Criteria, June 20, 2011](#)

[U.S. Public Power Rating Criteria, Jan. 11, 2011](#)

Wholesale Revenue Summary

(\$000, Fiscal Years Ended Sept. 30)	2011	2010	2009	2008	2007	2006
Total Revenues	3,284,774	3,055,131	2,870,284	3,036,618	3,268,640	3,419,369
Wholesale Revenues	466,493	243,356	273,545	603,891	460,656	691,508
Wholesale Sales as % of Total Revenues	14.2	8.0	9.5	19.9	14.1	20.2

Source: Bonneville Power Administration.

to its assumptions beginning in the fiscal 2012/2013 rate case, which should reduce its overall reliance on secondary revenues from approximately 22% to around 14%.

Pressured Financial Performance in Fiscal 2010 and 2011

Financial performance in fiscal 2010 was low due to the factors described in the previous section. Revenues fell well below budgeted revenues, and produced negative operating cash flow that resulted in a spend-down in cash reserves. Total coverage of all obligations, including the repayment of federal debt, was below 1.0x, at 0.7x. Unencumbered cash reserves for the power supply business declined to \$233 million from \$516 million.

Performance in fiscal 2011 was slightly better than fiscal 2010 due to higher streamflows, which led to higher secondary energy sales, even though wholesale market prices remained low. However, the power supply reserves still declined, though not as drastically as was anticipated by the fiscal 2011 budget. Power supply reserves for risk ended the year at \$215 million (9.3% of expenditures), although \$75 million of this amount is reserved for Residential Exchange Program repayment. Reserves are assumed to stay in this range through the next rate case period (fiscal 2012–2013). However, Bonneville has additional liquidity support in its federal line of credit and robust transmission reserves (\$532 million at the end of fiscal 2011) that Bonneville can borrow for power business liquidity, if needed.

Fiscal 2012–2013 Rates Implemented

Bonneville is now in the practice of establishing rates for two-year periods, which is substantially shorter than its previous five-year rate periods. Bonneville implemented new rates for the period Oct. 1, 2011–Sept. 30, 2013 (fiscal 2012–2013). Power rates increased by 7.8% to \$28.90 per megawatt-hour (MWh) for the Tier 1 rate, which is used to serve the majority of BPA's customers.

The increase in revenues will fund investments in the existing generation system. The proposed rate case does not contemplate substantial improvement in power system reserve levels, unless performance exceeds the forecast.

The two-year rate case does not prevent Bonneville from adjusting rates in the interim period. The principal mechanism for rate adjustments during the rate period is the CRAC. The adjustment triggers automatically based on a variety of factors, including forecast year-end net revenues or to recover any borrowing that may be done from Treasury for liquidity purposes.

Large Future Capital Investments Needed

As with many utilities across the county, Bonneville faces the issue of aging infrastructure and delayed capital reinvestment. Bonneville has a statutory debt limit with the U.S. Federal Treasury of \$7.7 billion, complicating capital funding decisions. Bonneville currently has \$2.9 billion outstanding in Treasury bonds. Of the \$7.7 billion debt limit, \$6.45 billion is available for transmission projects, with the remaining \$1.25 billion available for conservation and energy efficiency spending and renewable resources, including capital investment at the Federal System hydroelectric facilities. Bonneville and its customers face the challenge of funding upgrades and improvements to the valuable fleet of aging hydroelectric facilities, owned by the Bureau of Reclamation and U.S. Corp of Engineers.

Bonneville and its customers are conducting a capital investment review process that will evaluate a range of capital spending needs. The goal of the process is to identify and prioritize

projects over the next 10 years and establish spending levels to include in the 2014–2015 rate case. More than half of the very preliminary \$10 billion in identified potential capital projects (\$5.7 billion) is related to transmission. Approximately \$2.4 billion is related to reinvestment in hydroelectric assets. Spending in recent years has trended between \$130 million and \$200 million annually for these projects. Bonneville estimates it will increase to around \$268 million in fiscal 2012.

Oversupply Management Protocol (Environmental Redispatch)

Historically, during periods of high runoff, Bonneville generates significant excess energy during off-peak hours. Bonneville has a long-standing practice of asking thermal generators to shut down and accept free federal hydropower. Bonneville has limitations on how much water it can spill over the dams without generating before it begins harming endangered fish species by increasing dissolved gas levels in the rivers.

Now that approximately 4,131 MW of wind generation is connected in the region, the wind power has become significant enough that Bonneville needs to adopt the same practice with wind generators. The wind generators may be in a position to lose production tax credits or other financial benefits if they shut down and accept free hydro-power to meet load requirements. The federal hydro-power is also not considered renewable energy. Wind generators would like Bonneville to pay them the lost production tax credits, and are advocating with the northwest delegation to achieve this.

Bonneville adopted an interim policy of environmental discharge for all generators in 2011. The policy proposed to curtail nonfederal generation in its balancing authority at no cost, when federal hydropower exceeded load in the region. Several wind generators filed a complaint with the Federal Energy Regulatory Commission (FERC) and FERC found the interim policy to be unduly discriminatory or preferential.

Bonneville released its Oversupply Management Protocol for public comment and filed revised tariffs with FERC in March 2012. Bonneville proposes to displace generation in its balancing area and compensate generators. Bonneville management estimates that it would compensate wind generators approximately \$12 million annually under the proposed policy. Costs will be paid from Bonneville's substantial transmission reserves (\$495 million as of Dec. 31, 2011) until the costs are factored into the next rate case (fiscal 2014–2015).

There does not appear to be widespread support in the region for Bonneville's proposal, and this policy is likely to continue to generate discussions and evolve over time. The issue is not currently considered a key credit factor, but it is likely to be a significant policy discussion within the region, similar in some respects to the Residential Exchange Program (REP) (see *Residential Exchange section on page 6*), and will likely consume staff time and news headlines for some time to come.

Governance and Management Strategy

ENW is governed by a 28-member board of directors, with one board member representing each of ENW's member systems. The board of directors can authorize and terminate projects, determine the salaries of the 11 executive board members (five of which are elected from the board of directors), and elect three of the six outside members on the executive board. The remaining three executive board members are appointed by the governor of Washington state.

BPA's authority is vested in the secretary of energy, who appoints and acts through the BPA administrator (currently Steve Wright). The Bonneville Fund, where BPA's revenues are deposited and from which its expenditures are paid, is a separate fund within the U.S. Treasury. Congress approves BPA's budget as a component of the U.S. Treasury's budget.

BPA's rates are regulated by FERC. FERC's regulatory oversight is based on a review to ensure that BPA's rates recover costs sufficient to repay its Treasury obligations. The Bonneville Fund is self-supporting and considered an essential service. To date, it has not been a target of proposed federal budget reductions.

BPA's Treasury bonds (\$2.9 billion outstanding as of fiscal year-end 2011) are paid from net proceeds available in the Bonneville Fund after payment of operating expenditures. Payments due to the U.S. Treasury include the repayment of certain federal investments in transmission and power generation facilities; debt service on bonds issued by BPA and sold to the Treasury; repayments of expenditures incurred by the U.S. Army Corps of Engineers and the Bureau of Reclamation for costs related to the operation and maintenance of the federal hydroelectric projects; and certain costs of irrigation projects that are required to be recovered through power sales.

Bonneville Customers — Power Sales

The Northwest Power Act (1980) requires BPA to meet certain firm loads of various preference customers and regional investor-owned utilities (IOUs) in the Pacific Northwest. Service to these customers is billed at BPA's lowest cost power rate (the preference rate). BPA does not have an obligation to meet all firm loads within the region, nor does it have an obligation to provide service to direct-service industrial customers. BPA does have an obligation to meet any load placed on it in the region, even those of the IOUs, but at a true rate, reflecting the marginal cost of acquiring power to meet that load.

New 20-Year Power Supply Contracts 2012–2028 Limit Risk

Following the western energy crisis in 2000–2001, BPA and its 135 preference customers began a process known as the Regional Dialogue in 2002. The Regional Dialogue had two parts: the first part focused on the five-year period from 2006 to 2011, and the second part focused on the period from 2012 to 2028. The first phase of the Regional Dialogue concluded in 2005 and shaped certain decisions regarding BPA's agreements and rates. The second phase of the Regional Dialogue was completed at the end of 2008 with the signing of the Tier 1 and Tier 2 power supply contracts with BPA's preference customers for the period from 2012 to 2028. Bonneville and its customers began operating under the new contract structure at the beginning of fiscal 2012 (Oct. 1, 2011).

The culmination of this process is an important credit development (and a key factor in Fitch's upgrade of ENW in early 2009) in that the new contracts provide a stable source of power sales to cover Bonneville's fixed costs, and the contract terms are designed to reduce risk to Bonneville associated with meeting load growth requirements in the region. The new contracts limit Bonneville's role as a regional provider to the allocation of the existing federal system at cost-based rates. Bonneville will not be obligated to acquire additional generation and energy to meet growth beyond what can be met through its existing resources, unless specifically requested to do so by individual members at full cost.

Also significant is the understanding that any decline in output or capacity in the federal system, including reductions resulting from operating constraints imposed the Endangered Species Act

that could change over time, will result in a corresponding reduction in power available for sale at what are known as Tier 1 rates (see *Rates section on page 9*). The clarification of Bonneville's role and the tiered rates methodology are credit positives for Bonneville, but they were also advocated by many of Bonneville's customers.

Risk of Load Loss Borne by Bonneville

If a customer's net requirement declines, its allocation of Tier 1 power will also decline. This provides some insulation to the customers from the risk of a large customer loss, which is key in regions where a large manufacturing plant accounts for a high percentage of revenues. Although this risk is borne by Bonneville and its customers, Fitch views Bonneville as more able to mitigate the risk through the regional demands of all of its preference customers. Given the highly competitive nature of Bonneville's power portfolio, it is likely to find another purchaser for the available power in this scenario.

Three Types of Power Supply Contracts for Preference Customers

BPA's primary customer base is preference power customers, which include qualified publicly owned utilities and electric cooperatives within the Northwest region. These customers take purchasing priority from BPA's federal system power resources at BPA's lower cost rate. Power supply is currently offered to preference customers through three primary products:

- **Load Following (All or Partial Requirements)** — BPA meets any and all requirements of the customer on a real-time basis (BPA incurs the risk of balancing its resources to meet real-time demand). In the case of partial requirements, BPA provides power that meets the net requirements beyond other owned resources of the customer. In the event of load loss, BPA will reduce the amount of power provided to the customer.
- **Block Power** — Power is provided in firm amounts per month based on a customer's load profile. Bonneville incurs the risk of firming its resources to meet its monthly block power obligations, but if a customer's load is higher or lower than its fixed block amount, BPA is not financially or operationally responsible for meeting that load.
- **Slice of the System** — The customer pays for and receives a percentage of the federal system based on critical water conditions. The customer takes the risk and receives the benefits of the system's output variability based on hydrology and operational performance. No customer is permitted to use the slice product for more than 50% of its overall power supply from BPA.

Increased "Slice" Product in 2012–2028 Contracts

BPA allocated slightly more of the federal system on a slice basis. The slice product will account for approximately 27% of the output of the federal system in the contracts that begin in 2012, compared with previous contracts that accounted for 22%. Fitch views the slice product favorably in general, as it provides BPA greater cost insulation, particularly in low water years, as BPA does not have to provide firming power supply to its customers. Although Bonneville also foregoes the significant upside potential associated with surplus sales, greater stability in its expenses is viewed as a credit positive.

Residential Exchange Program

The Northwest Power Act established a program known as REP to extend the benefits of low-cost federal power to residential and small-farm customers in the region that are direct customers of IOUs. The program essentially consists of financial payments to regional IOUs

that pass any cost benefit between BPA's cost of power and the IOU's average cost of power along to the IOU's residential and small-farm customers to provide approximately the same rate advantage enjoyed by preference customers of BPA.

The level of benefits provided to the six regional IOUs has been the subject of extensive debate between BPA and its preference customers, and the subject of litigation since initially established in 2000. Until fiscal 2007, BPA had been providing REP payments to the IOUs in excess of \$300 million per year, an added cost passed through to BPA's preference customers. The REP settlement agreements with BPA were rendered invalid based on a decision by the U.S. Court of Appeals for the Ninth Circuit Court in May 2007, due to an inconsistency of the REP program with provisions of the Northwest Power Act. BPA suspended all REP payments in that year as a result.

The 2012 REP settlement was agreed to by Bonneville and most of its preference customers. The settlement includes agreed-upon methodology on the program's past overpayment amount by preference customers. The unrecouped overpayment of REP benefits is estimated at \$612 million. The remedy is essentially a method of reallocating those costs from preference customers to the regional IOUs. This will be achieved during fiscal 2012–2019, through a reduction in Bonneville's annual REP payments to the IOUs of around \$77 million per year. That amount plus amounts held by Bonneville for past overpayment by preference customers will be credited back to customers during the same fiscal 2012–2019 time frame.

Litigation has been filed regarding the 2012 settlement.

Power Supply

To meet its statutory obligations, BPA relies on its many generation resources and power purchases, along with its extensive transmission system. These resources are referred to as the federal system and include federal investments in regional hydro projects and transmission systems. These projects were constructed and are operated by the U.S. Army Corp of Engineers or the Bureau of Reclamation. The 31 federal hydroelectric projects account for 79% of BPA's total power supply.

BPA also receives 100% of the power from ENW's CGS, pursuant to net billing agreements. CGS is a 1,157-MW nuclear plant that commenced commercial operation in December 1984. The plant is operating well, with a cumulative capacity factor of 87.1% for the past nine years. Efforts to relicense CGS for an additional 20 years, from 2023 to 2043, are continuing. The final Nuclear Regulatory Commission relicensing application was submitted on Jan. 19, 2010. The license-renewal process takes approximately 2.5 years to complete.

BPA's resource planning focuses on the need to develop sufficient energy resources to meet firm energy loads. For planning purposes, BPA uses an assumption of below 30-year average

Bonneville's Generation Portfolio

(MW)	January Capacity (Peak MW)	High Water Flow Energy	Median Water Flow Energy	Low Water Flow Energy
Bureau of Reclamation Hydro Projects	6,653	2,981	2,669	2,122
U.S. Corps of Engineers Hydro Projects	13,942	7,508	6,216	4,724
Nonfederally Owned Projects (including CGS)	1,181	1,180	1,165	1,158
Federal Contract Purchases	1,195	772	763	753
Total Federal System Resources	22,971	12,441	10,813	8,757

Source: Bonneville Power Administration.

water conditions. BPA estimates that the total federal system will produce 8,757 MW of firm energy under low water conditions for fiscal 2012. However, the amount of energy that the federal system can produce varies on a number of conditions (weather, rain, storage conditions, fish conservation, etc.). BPA considers the additional energy that would be generated for sale under average water conditions for ratemaking and financial-planning purposes. The federal system is estimated to produce an additional 2,056 average annual MW in 2012, based on average water conditions. The surplus generated in very wet years could be as high as 3,684 average MW, while the surplus could be near zero in very low water years.

Environment, Fish, and Wildlife Costs

BPA is required to protect, mitigate, and enhance fish and wildlife resources to the extent they are affected by federal hydroelectric projects on the Columbia River and its tributaries. BPA's fish and wildlife costs fall into two main categories: direct costs and operational effects. BPA estimates that the aggregate of these direct and replacement power purchase costs totaled approximately \$493 million in fiscal 2011, and foregone power revenues were approximately \$157 million (slightly lower as a result of lower market prices). Approximately one-third of BPA's priority firm rate is costs related to fish and wildlife.

Spending related to environmental matters is included in BPA's rate to its preference customers and is included in Tier 1 rates in the new contracts, which is important for the credit rating. Legal requirements for increased spending that may be imposed in the future will be included in future rate cases for full recovery from preference customers. Furthermore, the new contracts have a CRAC that allows for additional rate recovery for fish cost increases in between rate cases.

Escalating costs associated with environmental spending remain an ongoing credit consideration. However, the developing momentum behind carbon legislation that is likely to drive future U.S. thermal market energy prices is likely to preserve the competitive pricing of BPA's federal hydroelectric resources, even with additional environmental costs.

There appears to be momentum behind a multiparty agreement regarding the Columbia River System Biological Opinion that governs, in a number of ways, operations of the system to protect certain endangered species. The National Oceanographic and Atmospheric Administration Fisheries establishes a "biological opinion" that governs the operations and environmental mitigation efforts in relation to the federal system.

The biological opinion and its environmental effects in the region have been the subject of continuous regional and political debate and litigation. In August 2011, the court upheld the biological opinion through 2013, and found that mitigation plans were adequate through that time period. The court ordered the federal fish agencies to provide better scientific support for mitigation efforts during 2014–2018, resulting in a continued level of uncertainty regarding the longer term cost of required mitigation efforts.

Transmission

The federal transmission system, owned and operated by BPA, is composed of approximately 15,000 circuit miles of high-voltage transmission lines and approximately 300 substations located in Washington, Oregon, and Idaho, and parts of Montana, Wyoming, and Northern California. The transmission system is used to deliver federal and nonfederal power resources within the Pacific Northwest, with major interties to the south and west. The rated transfer

capability of the southern intertie in the north-to-south direction is 4,800 MW of capacity, and 3,675 MW in the south-to-north direction.

BPA has historically managed the federal transmission system to maintain adequate system reliability according to local, regional, and national reliability standards. BPA has recently focused its transmission infrastructure additions on projects needed to interconnect new renewable sources of generation to the transmission grid. BPA operates its transmission business as a separate, self-supporting business line. Transmission rates are established independently from power rates, though they are subject to the same procedures and FERC oversight.

Rates

BPA's rates are reviewed by FERC to ensure BPA's full cost recovery. FERC reviews rates from the standpoint of the ultimate creditor to make sure revenues are sufficient to meet the Treasury payment (the final payment in the flow of funds). After FERC approval, rates may be reviewed by the U.S. Court of Appeals. Actions seeking such review must be filed within 90 days of a final FERC decision. FERC oversight is to ensure cost recovery for Treasury, not necessarily to protect ratepayers.

BPA's preference rate (for priority firm power deliveries) is very competitive for the region and the nation at \$28.90 per MWh. BPA's preference customers maintain competitive retail rates that are below those of their investor-owned counterparts and typically below average for the broader western region in most cases. BPA's cost of generation is generally below the cost of other market alternatives given BPA's provision of service to so much of the region, with primarily low-cost hydroelectric resources. The cost of BPA's power, which is essentially carbon-free, is expected to become even more competitive as momentum builds in individual states and the country for legislation that would require some form of a carbon tax.

Tiered Rates Methodology

The new contracts use a tiered rates methodology. This methodology allocates the output and cost recovery of the federal system resources within Tier 1 rates. These rates recover costs relating only to operation of the federal system (including fish and wildlife costs) and certain net billed projects (such as CGS, and Nuclear Projects 1 and 3). Tier 1 rates absorb the positive or negative effect from BPA's secondary sales of energy derived from the federal system. The allocation of the federal resources to preference customers at Tier 1 rates was based on each customer's net requirements as a percentage of all preference customers calculated at the end of fiscal 2010 (Sept. 30, 2010).

Any portion of a customer's net requirements not met by Tier 1 rates will be billed at Tier 2 rates (generally customer load growth requirements). The purchase of power from BPA on a Tier 2 rate will be made on a take-or-pay basis. Tier 2 rates will recover the marginal cost to BPA of acquiring resources to meet Tier 2 loads. Tier 2 rates will not receive any of the benefits attributable to the federal system, which will be contained solely in the Tier 1 rates. BPA and its customers have indicated a preference for this type of price signal to accurately reflect the cost of load growth in the region.

Customers have opted to acquire much of their own load growth power needs, given that BPA would not necessarily provide Tier 2 resources at a cost advantage to any other provider or the market. Bonneville is only obligated to provide 22 MW of Tier 2 power in fiscal 2012 and 58 MW in fiscal 2013.

The Tier 2 rate structure is favorable from a BPA credit perspective, as it passes through the risk of incremental power purchases to the customers requiring the supplemental power resources, as opposed to sharing the costs among all its preference customers. It also reduces BPA's exposure to the power price and volume risk associated with historically meeting these customers' load growth.

Security Provisions

The ENW bonds are issued on behalf of a specific project (CGS or the non-operating nuclear projects, Project 1 and Project 3), and enjoy BPA's pledge of payment if revenues from BPA's customers under the net billing agreements are insufficient. BPA's debt service payments on the \$5.8 billion in ENW debt are senior to its payment obligations to the U.S. Treasury .

BPA receives money from the sale of power and the provision of transmission and other services at rates that are set to recover all of BPA's costs, including its required payment to the U.S. Treasury (at an assumed 95% confidence probability of making the Treasury payment). Rates are approved by FERC to be adequate for full cost recovery. Cash receipts are deposited in the Bonneville Fund, which is a separate fund within the U.S. Treasury. From this fund, BPA must first pay all costs necessary to operate and maintain the federal system, including payments on net billed bonds (i.e. ENW CGS and Projects 1 and 3). Only after these payments are made may BPA make required payments to the U.S. Treasury.

BPA's coverage of debt service on ENW bonds is in effect augmented to more than 2.0x because of the subordination of the U.S. Treasury debt service payments. BPA has not deferred its payment to the U.S. Treasury since 1983.

Direct-Pay Agreements Versus Net Billing Agreements

BPA has net billing agreements with ENW that have historically required BPA's customers to pay their initial bills in each fiscal year directly to ENW, until ENW's expenses related to the nonfederal projects (both operating and debt-related) had been satisfied. BPA offered customers a net billing credit, and once the obligation to ENW was satisfied, customers began remitting their bills directly to BPA. This practice had been viewed as a credit strength in that the funds were sent directly to ENW and were typically collected in the first few months of the fiscal years.

In 2006, BPA and ENW entered into direct-pay agreements, which allow BPA to pay ENW directly for the nonfederal projects (CGS, Project 1, and Project 3) instead of BPA customers sending payments directly to ENW in the first few months of the fiscal year. The effect to BPA is more even revenue collections, particularly during the first few months of the fiscal year. The result has improved BPA's reserves and reduced the rate effect to customers in 2007 by 5%–10%. Fitch does not view this as a material change to the credit, even though ENW collections now occur over a longer period. The rating is based on the obligation of BPA to make payments sufficient to pay the ENW debt related to the CGS, Project 1, and Project 3.

Financial Summary — Bonneville Power Administration

(\$000, Fiscal Years Ended Sept. 30)	2011	2010	2009	2008	2007
Cash Flow (x)					
Nonfederal project DSC (after payment O&M)	2.26	1.87	2.17	2.94	4.28
Total DSC of Nonfederal and Treasury Obligations	1.05	0.85	0.89	1.14	1.23
Liquidity					
Days Cash On Hand	219	212	264	370	287
Days Liquidity On Hand	352	342	399	445	287
Leverage (%)					
Debt/Funds Available for Debt Service	9.6	11.6	12.1	9.0	8.9
Equity/Capitalization	16	16	16	17	15
Equity/Adjusted Capitalization	127	128	134	137	141
Other (%)					
General Fund Transfer/Total Revenue	N.A.	N.A.	N.A.	N.A.	N.A.
Variable Rate Exposure/Capitalization	—	—	—	—	—
Income Statement					
Total Operating Revenues	3,284,774	3,055,131	2,870,284	3,036,618	3,268,640
Total Operating Expenses	2,305,761	2,339,010	2,251,538	2,064,312	2,231,364
Operating Income					
Adjustment to Operating Income for Debt Service Coverage	431,064	423,417	432,929	438,697	426,247
Funds Available for Debt Service	1,410,077	1,124,738	1,086,352	1,441,567	1,470,042
Total Annual Debt Service	1,342,777	1,330,714	1,217,907	1,262,731	1,198,469
Net Revenues	82,000	(128,581)	(101,050)	264,845	457,208
Modified Net Revenues ^a	—	(164,000)	(187,000)	157,400	217,000
Balance Sheet					
Unrestricted Funds	1,145,473	1,144,454	1,371,573	1,731,238	1,475,544
Total Cash	1,145,473	1,144,454	1,371,573	1,731,238	1,475,544
Total Debt	13,565,534	13,094,599	13,091,563	12,910,633	13,129,154
Equity and/or Retained Earnings	2,510,373	2,428,691	2,556,272	2,664,460	2,402,565

^aModified Net Revenues is a calculation done by Bonneville to reflect available cash flow after the payment of nonfederal debt service and certain payments to Treasury. The calculation does not include unrealized market to market adjustments. O&M – Operations and maintenance. N.A. – Not applicable.
Source: Bonneville Power Administration.

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