FitchRatings

Public Finance
Public Power
U.S.A

Bonneville Power Administration, Oregon

Rating

Long-Term Issuer Default Rating	AA–

New Issue

$380,000,000 Port of Morrow (OR) (Bonneville Cooperation Project No. 7) Transmission Facilities Revenue Bonds (Taxable), Series 2020-1	AA

Rating Outlook

Negative

Applicable Criteria

Public Sector, Revenue-Supported Entities Rating Criteria (March 2020)

U.S. Public Power Rating Criteria (March 2020)

Related Research

Deficit Borrowing in Crisis Recovery Neutral to Negative for U.S. States & Locals (June 2020)

Global Economic Outlook: Crisis Update May 2020 - Coronavirus Shock Broadens (May 2020)

U.S. Public Finance and Infrastructure: Coronavirus Response So Far (April 2020)

USPF Changes Model Assumptions Due to Coronavirus (April 2020)

Fitch Ratings Updates 2020 Sector Outlooks to Reflect Coronavirus Impact (March 2020)

New Issue Summary

Sale Date: June 16, 2020

Series: 2020-1

Purpose: Bond proceeds will refinance an existing Port of Morrow bank loan used to construct various transmission assets and pay costs of issuance.

Security: Port of Morrow owns the financed transmission assets and Bonneville Power Administration makes payments for the facilities according to a lease-purchase agreement. Bonneville's obligation to make lease payments is absolute and unconditional, and payments are made as an operating expense from the Bonneville Fund.

The revision of the Outlook to Negative from Stable broadly reflects Fitch Ratings' expectation of higher trending financial leverage at Bonneville. It incorporates slightly tighter cash levels as a result of Bonneville's anticipated suspension of its 1.5% financial reserves policy surcharge in the remaining months of fiscal 2020 and all of fiscal 2021, as well as anticipated financial performance in fiscal 2020.

Bonneville's already high debt, together with its nearly 100% debt-financed capex plans and weak liquidity profile could limit its financial flexibility to respond to increased economic uncertainty.

The financial reserve policy (FRP) adopted in 2019 was designed to enhance Bonneville's financial flexibility over a multiyear period and improve its ability to respond to volatility, whether it was hydrological, power market related or economic. The FRP surcharge represented Bonneville's effort to deliberately increase reserves other than through the happenstance of outperforming budgets.

While the foregone revenues from the 1.5% surcharge are modest at $30 million in fiscal 2021, the decision to suspend the surcharge so soon after initial implementation in December 2019 is an indication of the intense rate pressure in the region, and the potential magnitude of economic and financial uncertainty facing some of Bonneville's customers.

Bonneville's 'AA–' Issuer Default Rating (IDR) reflects its very strong revenue defensibility and very low operating cost, which support the utility's financial profile assessment of 'aa'. Bonneville's leverage ratio was 11.4x in fiscal 2019. Notwithstanding expectations that hydrological variability could result in net secondary revenues that fall below budget periodically driving leverage higher, Fitch expected leverage to decline below 10.0x over time.

Fitch's updated scenario analysis now indicates Bonneville's leverage ratio has the potential to remain consistently above 11.0x, weakening its financial profile to 'a'.

The 'AA' ratings on the nonfederal debt obligations — distinct from Bonneville's 'AA–' IDR — further reflect Bonneville's unconditional obligation to make those payments ahead of its federal debt. Bonneville's federal obligations include the structural ability to defer debt repayments and interest due in the event Bonneville's revenues are insufficient following the payment of Bonneville's other obligations, including the nonfederal debt.

The coronavirus pandemic and related government containment measures worldwide create an uncertain environment for public power utilities in the near term. While Bonneville's service territory is expansive and management reports overall sales are in line with 2019, greater than anticipated revenue disruptions could occur, depending on the magnitude and duration of the related economic effects.

Analysts

Kathy Masterson
+1 512 215-3730
kathryn.masterson@fitchratings.com

Dennis Pidherny
+1 212 908-0738
dennis.pidherny@fitchratings.com

Key Rating Drivers

Revenue Defensibility: 'aa'; Geographic and Operational Revenue Diversity: Bonneville's revenue defensibility is very strong. Long-term power sales contracts with over 125 customers and Bonneville's dominant role as the regional transmission provider result in long-term revenue security, notwithstanding some degree of renewal risk related to the power supply contracts.

Bonneville establishes its own rates, although rate flexibility is constrained by a lengthy and rigid process. The purchaser credit quality of Bonneville's wholesale customers is strong. The largest customers exhibit favorable service area characteristics and very strong financial profiles.

Operating Risk: 'aa'; Hydroelectric Dominant Power Supply: Operating costs are very low, largely due to a predominantly hydroelectric generation fleet. Capital needs relate to reinvestment in aging generation assets and transmission investment across the six-state service area.

Financial Profile: 'aa'; Highly Leveraged; Weak Liquidity Profile: Bonneville's liquidity is under 60 days' cash on hand for the power business line (Bonneville's own target), and its leverage ratio remains at the high end of the 'aa' category assessment. Transmission business lines are able to support slightly higher leverage than the power business line, resulting in Fitch's tolerance for leverage trending slightly higher than the 10.0x 'aa' threshold given Bonneville's revenue defensibility and operating risk assessments.

Given planned capital spending and debt issuance, Fitch had expected Bonneville's leverage ratio to decline to the 9.0x–10.0x range over the next five years. Based on expected fiscal 2020 results, suspended collection of the financial reserve policy surcharge and headwinds created by regional economic uncertainty, leverage has the potential to trend above 11.0x for consecutive years in the near term.

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
AA–	Affirmed	Negative	6/3/20
AA–	Assigned	Stable	4/30/19

IDR – Issuer Default Rating.
Source: Fitch Ratings.

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade:

- Outperformance to budget in fiscal 2021 that increases reserves and improves financial flexibility.
- Rate case 2021–2023 approval that improves trajectory toward Bonneville's adopted financial reserves and leverage policies.

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade:

- Declines in consolidated system liquidity.
- Leverage trending consistently above 11.0x with limited expectation of reduction.
- A potential dilution of revenue defensibility over the medium term that reduces Bonneville's ability to support existing leverage at the current rating. The potential for dilution could occur from reductions in load served to Bonneville's power customer base or more permissive contract terms that might emerge during the contract-renewal process expected in the next few years.

Credit Profile

Energy Northwest (ENW) owns and operates the Columbia Generating Station (CGS), the Packwood Lake Hydroelectric Project and the Nine Canyon Wind Project. ENW also has financial responsibility for Projects 1 and 3, its terminated nuclear projects. Bonneville is responsible for the repayment of ENW costs, including debt service, related to CGS and Projects 1 and 3 through the terms of net billing agreements. Bonneville pays CGS, Project 1 and Project 3 costs to ENW under a direct-pay agreement. The direct-pay agreement permits ENW net billing participants — Bonneville's preference customers — to purchase power from and make payments directly to Bonneville without making net billing payments to ENW to receive bill credits from Bonneville, as outlined under the net billing agreements.

Given Bonneville's unconditional payment obligation for the debt under the net billing agreements, Bonneville and ENW agreed to a regional debt cooperation program that optimizes debt across the two entities for the lowest overall cost and access to capital considerations.

Bonneville provides wholesale power to a population of more than 14 million in the Pacific Northwest through a resource portfolio consisting of low-cost hydropower and nuclear generation. Transmission services are provided to a similar six-state region, but to a broader number of utilities. Bonneville is the largest of four federal power-marketing administrations within the U.S. Department of Energy. Bonneville's predominantly hydroelectric generation portfolio — 86% of total owned capacity — results in hydrology risk and a variable energy supply.

Low market energy prices in the region place practical competitive pressure on Bonneville to keep rate increases as low as possible and drove Bonneville's net secondary revenues (short-term sales made outside its long-term contracts) lower over the past decade. These factors coupled with declining power demand from Bonneville's wholesale customers resulted in a tightening of Bonneville's financial profile.

Financial Reserve Policy Suspension

Bonneville and its customers worked for three years to adopt the FRP in advance of the 2020 rate case to address the declining trend in power business line reserves. The FRP established a minimum threshold of 60 days' reserves for risk at each business line individually and for both business lines collectively. The threshold targets are approximately $300 million for power and $100 million for transmission.

Fitch views the FRP as supportive of an improved liquidity profile because it provides Bonneville with the authority to increase rates solely to meet the objective of increased cash reserves for the first time. If either business line has reserves lower than the 60-day target at the end of each fiscal year, rate increases will be implemented at specified amounts, even if they are mid-rate case. Power business line reserves ended fiscal 2019 at $203 million (approximately 40 days cash on hand), which was below the 60-day target of approximately $300 million. Power rates were consequently increased by a surcharge of 1.5% beginning on Dec. 1, 2019 to recover an additional $30 million to add to power business line reserves. This would not have brought reserves up to the 60-day target, and the surcharge was consequently expected to trigger again in fiscal 2021. Transmission reserves were above the 60-day threshold.

Bonneville announced on May 29, 2020 its intent to suspend the surcharge for the remainder of fiscal 2020 and all of fiscal 2021. The suspension is designed to provide rate relief to address significant economic challenges and uncertainty weighing on northwest communities as a result of the coronavirus pandemic and unprecedented economic shock. The suspension would reduce revenue collections and reserves by $30 million in fiscal 2021 and up to $9 million in fiscal 2020, depending on when approval from the Federal Energy Regulatory Commission (FERC) for the rate change is received. In addition to the surcharge suspension, Bonneville also offered customers the ability to apply for extended payment agreements on a case-by-case basis.

Declining Trend in Reserve

Bonneville's combined cash reserves provided Fitch-calculated 116 days' cash at the end of fiscal 2019, down steadily from 213 days' cash at the end of fiscal 2015. Cash reserves play a key role in managing aspects of Bonneville's revenue variability related to hydrology risk and wholesale energy sales. The trajectory and pace of recent declines in the power business line's reserves are an ongoing weakness. Power and transmission business line reserves are comingled in the Bonneville Fund. Combined reserves are adequate, but the declines indicate the extent of under-recovery in the power business due to underperformance of net secondary sales and declining preference customer load.

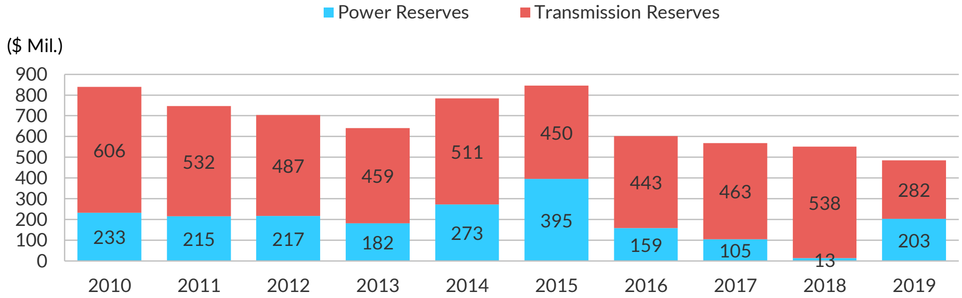
Power reserves received a one-time boost from the reallocation of $182.3 million from transmission reserves in fiscal 2019. The result was an increase in available power reserves to

Outstanding Debt

Energy Northwest (WA) (Columbia Generating Station) Electric Revenue and Refunding Bonds	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue and Refunding Bonds (Taxable)	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Bonds	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Bonds (Taxable Build America Bonds — Direct Payment)	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Bonds (Taxable)	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Refunding (Taxable) Bonds	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Refunding Bonds	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Refunding Bonds (Taxable Build America Bonds)	AA
Energy Northwest (WA) (Columbia Generating Station) Electric Revenue Refunding Bonds (Taxable)	AA
Energy Northwest (WA) (Proj 1) Electric Revenue Refunding Bonds	AA
Energy Northwest (WA) (Proj 3) Electric Revenue Refunding Bonds	AA
Energy Northwest (WA) (Proj 1) Electric Revenue Refunding Bonds (Taxable)	AA
Energy Northwest (WA) (Proj 3) Electric Revenue Refunding Bonds (Taxable)	AA
Energy Northwest (WA) (Proj 1) Electric Revenue Refunding Bonds	AA
Energy Northwest (WA) (Proj 1) Electric Revenue Refunding Bonds (Taxable)	AA
Idaho Energy Resources Authority (ID) (Bonneville Cooperation Project No. 1) Transmission Facilities Revenue Bonds (Taxable)	AA
Idaho Energy Resources Authority (ID) Transmission Facilities Revenue Bonds	AA
Lewis County Public Utility District No. 1 (WA) (Cowlitz Falls Hydroelectric Project) Revenue Refunding Bonds	AA
Port of Morrow (OR) (Bonneville Cooperation Project No. 1) transmission Facilities Revenue Bonds	AA

$203 million at the end of fiscal 2019, up from $13 million at the end of fiscal 2018. The reallocation occurred after an internal study and record of decision reached by Bonneville regarding the misallocation of reserves between the two business lines. The reallocation reduced transmission reserves to $282 million in fiscal 2019 from $538 million in fiscal 2018. Results at the end of 2Q20 indicate power and transmission reserves for risk are projected to end fiscal 2020 at $271 million and $250 million, respectively, although this will be slightly lower if $9 million less is collected toward power reserves from the FRP surcharge. Additional short-term liquidity flexibility is provided by Bonneville's $750 million line of credit with the U.S. Treasury that can be drawn for any purpose.

Reserves for Risk



Note: 2019 includes $182.3 million re-allocation from Transmission to Power.
Source: Bonneville Power Administration, Oregon.

Revenue Defensibility

Bonneville exhibits very strong revenue source characteristics, as 100% of its revenues come from power and transmission services. Bonneville is required by statute to sell power at cost-based rates, with a preference to public utility districts and cooperatives. The publicly and cooperatively owned utilities — Bonneville's preference customers — account for around 88% of power sales and are required to purchase nearly all their energy from Bonneville pursuant to power sales contracts that extend through 2028.

Power Supply Contract Term Considerations

Bonneville's power supply contracts expire in 2028, which is well before the final maturity of Bonneville's debt and represents an asymmetric rating factor. However, Fitch's concern regarding the remaining terms of Bonneville's 20-year power supply contracts is partially mitigated by the regional depth of the existing customer base and the likelihood that many of the existing preference customers will elect to re-sign new contracts. Bonneville's ability to offer competitively priced power supply services will be a key factor during the extension of its power sales contracts, with negotiations expected to occur between 2021 and 2026. A material reduction of purchaser load under long-term contract or a notable change in contract terms could result in a dilution of Bonneville's revenue-source characteristics.

Transmission Revenues

Bonneville's transmission business line is becoming a larger share of its consolidated operations. Transmission revenues accounted for 23% of total operating revenues in fiscal 2019, up from 16% in fiscal 2008. Transmission customers represent a wider group than Bonneville's preference customers and include investor-owned utilities and power generators in the region. While transmission customers do not have long-term contracts, Fitch believes this business provides strong revenue defensibility given the monopolistic nature of high-voltage transmission and the absence of excess transmission capacity.

Rate Flexibility

Bonneville establishes its own power and transmission rates, and rate flexibility is viewed as very strong. However, determining a final record of decision on each rate case is a lengthy and rigid process, imposing practical limitations on Bonneville's ability to adjust rates outside the rate case process compared with public power peers. FERC reviews and approves Bonneville's rates, but regulatory concerns are mitigated, as the FERC provides oversight to ensure full cost recovery and revenue sufficient to pay debt service on U.S. Treasury obligations. FERC

Outstanding Debt (Continued)

Port of Morrow (OR) (Bonneville Cooperation Project No. 2) Transmission Facilities Revenue Bonds (Taxable)	AA
Port of Morrow (OR) (Bonneville Cooperation Project No. 3) Transmission Facilities Revenue Bonds (Taxable)	AA
Port of Morrow (OR) (Bonneville Cooperation Project No. 4) Transmission Facilities Revenue Bonds (Taxable)	AA
Port of Morrow (OR) (Bonneville Cooperation Project No. 5) Transmission Facilities Revenue Bonds (Taxable)	AA
Port of Morrow (OR) (Bonneville Cooperative Project No. 6) Transmission Facilities Revenue Bonds (Taxable)	AA

regulates transmission rates to further ensure they are nondiscriminatory, as well as just and reasonable.

Bonneville establishes its power and transmission rates for two-year periods. The most recent rate increases, effective Oct. 1, 2019, consisted of a 0.0% average base power rate increase and a 3.6% average increase in transmission rates. The transmission rate increase primarily reflects increased capital costs to build new transmission interconnections and reinvest in existing transmission in the region.

Purchaser Credit Quality

Purchaser credit quality is strong. Power and transmission customers are geographically and operationally diverse, reflecting a service area extending across Idaho, Oregon, Washington and portions of Montana, Wyoming, Nevada, Utah and California. Bonneville's system accounts for approximately 27% of the electricity sold in the region and 75% of the transmission infrastructure.

The largest power and transmission customers, accounting for approximately 40% of Bonneville's total operating revenues, include Snohomish County Public Utility District No. 1 (AA–/Stable), Seattle City Light (not rated by Fitch), Eugene Water & Electric Board (AA–/Stable), Tacoma (AA–/Stable), Benton County Public Utility District No. 1 (AA–/Stable), Cowlitz County Public Utility District No. 1 (A/Stable) and Puget Sound Energy, Inc. (BBB+/Stable). Most of these utilities have independent rate-setting authority, favorable service area characteristics, competitive rates and very strong financial profiles.

Reliance on Wholesale Energy Sales

Bonneville relies on uncontracted wholesale energy sales for a portion of its revenue. While this reliance is inherent to the variable nature of its hydroelectric power supply, it creates heightened revenue variability that informs Fitch's assessment of revenue defensibility. For rate-making and financial planning purposes, Bonneville considers the additional energy production available for sale under average water conditions. These wholesale sales, netted against market purchases Bonneville makes during certain months to shape the output of the federal system, compose net secondary-system revenue.

There is revenue risk in this budgeting practice. Revenues can be lower than budget if water conditions are below average, or water conditions could be modestly above average but market prices fall below assumed levels. Net secondary revenues were lower than budgeted in four of the last five years due to below average water conditions and declining market energy prices given low natural gas prices and growing renewable energy supplies. These results are primary factors behind the decline in financial reserves for the power business over the same time frame.

Operating Risk

Bonneville sells energy produced by 31 low-cost hydroelectric plants owned and operated by the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation. The federal hydroelectric projects were constructed between 1941 and 1975. Bonneville has direct-funding agreements with both agencies to pay operating and capex costs. The direct funding of capital improvements allows Bonneville to direct decision making and prioritization of reinvestment in the hydroelectric fleet. Bonneville also markets energy from nonfederal projects, the largest of which is the CGS, a 1,157MW nuclear plant that entered commercial operation in December 1984. CGS accounts for around 10% of Bonneville's power supply. Bonneville's resources, even under low water conditions, are sufficient to meet projected preference customer loads.

Bonneville's operating cost burden is very low — between 3 cents per kWh and 4 cents per kWh over the past five years. The cost burden includes payments related to the residential exchange program. Bonneville is legally required to provide power to meet the residential load within the Pacific Northwest, including load served by investor-owned utilities. Bonneville makes financial payments, in lieu of supplying physical power, to investor-owned utilities with retail load in the region to comply with this obligation.

Operating Cost Flexibility

The reliance on hydroelectric power for over 80% of the power supply contributes to weak operating flexibility, given the dominance of a single fuel type. However, Bonneville's power supply portfolio is predominantly carbon free, which positions Bonneville's customers well in terms of efforts to reduce greenhouse gas emissions. For example, Washington passed the Clean Energy Transformation Act in 2019, requiring the state power supply to be free of carbon emissions by 2045. Bonneville's generation portfolio is relatively stable and not expected to change or grow aside from efficiency investments.

Capital Planning and Management

Bonneville's capital planning and management is adequate, evidenced by an average plant age of 14 years and capital spending as a percentage of depreciation averaging 158% annually over the past five years. However, Bonneville faces issues such as aging infrastructure, delayed capital reinvestment in its hydroelectric fleet and growth needs in the transmission business line. Capital needs over the next five years are estimated at $4.2 billion, with 55% of spending, or around $2.3 billion, occurring in the transmission business line. These capital amounts do not include approximately $1.2 billion of additional capex ENW estimates CGS will need through 2030. The hydroelectric assets are owned by the U.S. Army Corp of Engineers and the U.S. Bureau of Reclamation, but Bonneville makes the funding decisions regarding the pace and scope of capital reinvestment.

New Leverage Policy

Bonneville's historical capital-funding practice is to debt finance nearly all of its capital spending. Bonneville adopted a new leverage policy in 2018 that made a modest change to this practice; it requires the transmission business line to use revenue financing for a small portion of its capital needs. Bonneville's overall goal is to reduce its debt-to-assets ratio to between 75% and 85% by 2028, from 90% in 2019. The transmission rate increase implemented in fiscal 2020 includes $26 million annually to fund a portion of capex for the transmission business line, which is minimal in relation to the total planned transmission capex. No revenue funding is included for the power business line because scheduled amortization is outpacing new debt while the debt-to-assets ratio is declining on its own. Bonneville will continue to debt finance 100% of its planned capital spending and still meet the leverage policy target.

Financial Profile

Bonneville's financial statements, issued as the Federal Columbia River Power System, include the accounts of Bonneville, the federal hydroelectric generating facilities of the U.S. Army Corps of Engineers and the Bureau of Reclamation dispatched by Bonneville, and the O&M costs of the U.S. Fish and Wildlife Service for the lower Snake River facilities. The statements consolidate the activity of a financing corporation that finances transmission assets leased to Bonneville.

Bonneville's leverage ratio, measured by net adjusted debt-to-adjusted funds available for debt service (FADS), declined to 9.9x in fiscal 2018 from 10.7x in fiscal 2015. Declining leverage, while slight, was driven by gradual reductions in outstanding debt and relatively stable cash flow, or FADS. FADS declined in fiscal 2019 as a result of higher purchase power costs related to below average water conditions and high market prices at times, increasing leverage to 11.4x. Total outstanding debt continued its gradual decline.

Bonneville's consolidated coverage of full obligations is typically slim at around 1.0x, but it fell below this level during the last four fiscal years, contributing to Fitch's weaker assessment of liquidity and coverage. This is due to advance repayment of nonscheduled principal as part of the regional cooperation debt strategy. Fitch's analysis of Bonneville's IDR focuses on the calculation of coverage for all obligations, including Bonneville's federal obligations, which can be deferred if revenues are insufficient.

ENW's debt service coverage (DSC) increased as a result of the regional debt cooperation strategy. Bonneville-calculated DSC is approximately 5.0x due to refunding and restructurings performed for all three ENW projects on principal payments.

Fitch Analytical Stress Test (FAST) — Base Case and Stress Case

Fitch's FAST analysis indicates Bonneville's financial performance under the base case should include leverage around 11.0x in the initial years and tighter liquidity levels. Fitch assumed YTD performance in fiscal 2020 and 0% growth in total wholesale sales in the base case. Additional assumptions used in both the base and stress cases include Bonneville's planned amounts of capital spending, debt funding of all capital spending and the resumption of the financial reserve policy surcharge in fiscals 2022 and 2023.

The stress case imposes a moderate stress based on Bonneville's historical movement in total sales, which can be large based on hydrological conditions, although the ultimate impact to revenues will be determined by wholesale market prices at the time. Fitch's stress case includes large declines in total wholesale sales in the first two years of 9.1% and 3.5%, respectively, followed by a recovery to positive sales growth. In this stress case, leverage would be elevated above 12.0x in the initial two years before returning to between 10.0x and 11.0x.

Fitch also considered a sensitized downside scenario in relation to the economic uncertainty related to the coronavirus pandemic. Demand decline was assumed at 9% in the first year, with a recovery to typical sales over the following three years. Results were similar to the stress case noted previously, although pressure on cash reserves could be more acute in the near term.

Debt Profile

Debt outstanding is split between Bonneville's federal debt and appropriations (roughly $6.9 billion at the end of fiscal 2019) and nonfederal debt (approximately $7.6 billion). Power business line debt is declining — power debt accounted for 62% of total outstanding debt ($9.0 billion) at the end of fiscal 2019, compared with 67% in fiscal 2015 ($10.7 billion).

Bonneville's federal debt and appropriations debt offer a layer of structural support to nonfederal debt. Bonneville must defer payment on its federal obligation if revenues in the Bonneville Fund are insufficient to meet its nonfederal debt. This provision provides payment flexibility. Bonneville is also engaged in a regional debt cooperation strategy that involves extension of nonfederal debt to repay greater amounts of federal debt obligations. However, the structural distinction between the two liens remains intact as a protection to nonfederal debtholders.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of Environmental, Social and Governance (ESG) credit relevance is a score of '3' – ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity.

For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Financial Summary — Bonneville Power Administration, Oregon

($000, Audited Fiscal Years Ended Sept. 30)	2015	2016	2017	2018	2019
Net Adjusted Debt to Adjusted FADS (x)	10.72	11.29	11.29	9.90	11.37
Net Adjusted Debt Calculation					
Total Short-Term Debt	118,000	—	—	10,690	277,500
Total Current Maturities of Long-Term Debt	916,515	933,700	1,481,000	1,162,510	1,043,100
Total Long-Term Debt	15,055,336	14,707,700	14,312,700	14,197,200	13,731,800
Total Debt	16,089,851	15,641,400	15,793,700	15,370,400	15,052,400
+ Capitalized Fixed Charge – Purchased Power	183,036	268,080	353,760	382,800	715,920
- Total Unrestricted Cash	1,186,644	724,400	765,700	839,600	773,100
Net Adjusted Debt	15,086,243	15,185,080	15,381,760	14,913,600	14,995,220
Adjusted FADS for Leverage Calculation					
Total Operating Revenue	3,404,432	3,432,600	3,569,800	3,710,300	3,655,900
Total Operating Expenses	2,483,521	2,608,100	2,743,100	2,765,500	2,967,200
Operating Income	920,911	824,500	826,700	944,800	688,700
+ D&A	447,984	471,100	485,000	507,300	531,000
+ Interest Income	15,345	15,400	6,100	6,300	9,800
FADS	1,384,240	1,311,000	1,317,800	1,458,400	1,229,500
+ Adjustment for Purchased Power	22,880	33,510	44,220	47,850	89,490
Coverage of Full Obligations (x)	1.01	0.88	0.90	0.80	0.83
FADS	1,384,240	1,311,000	1,317,800	1,458,400	1,229,500
+ Adjustment for Purchased Power	22,880	33,510	44,220	47,850	89,490
Full Obligations Calculation					
Cash Interest Paid	473,048	575,800	534,240	343,100	335,500
Prior-Year Current Maturities	897,829	916,515	933,700	1,481,000	1,162,510
Total Annual Debt Service	1,370,877	1,492,315	1,467,940	1,824,100	1,498,010
+ Adjustment for Purchased Power	22,880	33,510	44,220	47,850	89,490
Liquidity Cushion (Days)	347	252	245	257	228
Unrestricted Cash (Days)	213	124	124	136	116
Liquidity Calculation					
+ Total Unrestricted Cash[a]	1,186,644	724,400	765,700	839,600	773,100
+ Total Borrowing Capacity	750,000	750,000	750,000	750,000	750,000
Cash Operating Expense Calculation					
Total Operating Expense	2,483,521	2,608,100	2,743,100	2,765,500	2,967,200
- D&A	447,984	471,100	485,000	507,300	531,000
Cash Operating Expenses	2,035,537	2,137,000	2,258,100	2,258,200	2,436,200

[a]Fitch adjusts Bonneville's cash reserves to include delayed borrowing from the U.S. Treasury for certain capex, primarily for fish and wildlife. Cash reserves are additionally reduced by funds held at the U.S. Army Corps of Engineers and Bureau of Reclamation for planned expenditures. FADS – Funds available for debt service.
D&A – Depreciation and amortization.
Sources: Fitch Ratings; Fitch Solutions; Lumesis; EIA; Bonneville Power Administration, Oregon.

Key Definitions

Terms	Definition	Significance
Issuer Default Rating (IDR)	An expression of overall enterprise risk and relative vulnerability to default.	Provides an opinion of the relative ability of an entity to meet financial commitments, expressed as an ordinal measure of credit risk.
Net Adjusted Debt	Adjusted debt – unrestricted cash – funds restricted for debt service	Provides an inclusive evaluation of long-term liabilities offset by funds available for debt service.
Adjusted FADS	EBITDA + interest income + 30% of purchase power expense + operating lease expense – transfers/distributions + pension expense	Provides an indication of cash flow available for the payment of debt service, adjusting for purchased power, operating lease and pension obligations.
Net Adjusted Debt to Adjusted FADS	Net adjusted debt/adjusted FADS	Provides an indication of net total leverage position against available operating cash flow.
Full Obligations	Cash interest paid + scheduled long-term principal payments + 30% of purchase power expense	Provides an indication of inclusive fixed and debt service obligations.
Coverage of Full Obligations	(EBITDA + interest income + 30% of purchase power expense + operating lease expense – transfers/distributions)/full obligations	Provides an indication of the relative cushion of operating cash flow to fixed charges.
Base Case	The expected forward-looking case in the current macroeconomic environment.	Provides the analytical starting point in the forward-looking analysis, and also informs the rating case.
Rating Case	The potential performance under a common set of assumptions.	Illustrates how cycles affect individual issuers differently, and informs the level of rating stability and credit resiliency.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.