

CREDIT OPINION

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 Rate this Research

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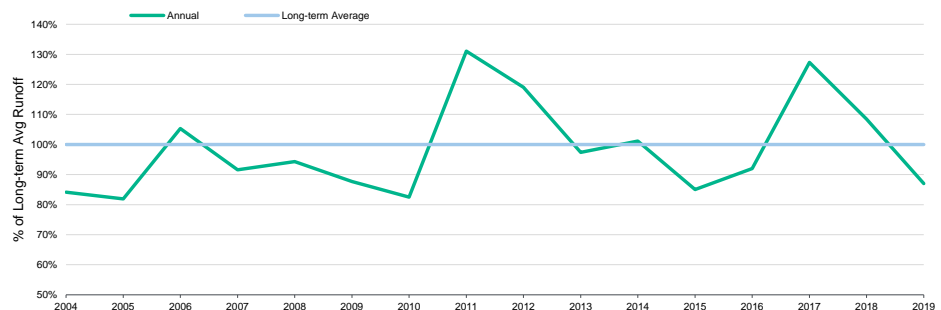
Bonneville Power Administration, OR

Credit Update Following Rating Downgrade and Change in Outlook to Stable

Summary

Bonneville Power Administration's (BPA) credit profile considers its strongly positioned and expansive network of hydro and transmission assets, access to competitive power, long-term power supply contracts with customers through 2028 and credit supportive attributes as a line agency of the Government of the United States of America (Aaa stable). Borrowing ability under the US Treasury line and the ability to defer debt service payments to the US Treasury are two of the most critical support features from the US government. The rating also acknowledges continuing credit challenges including hydrology and wholesale market price risk, a 'regulated utility' like ratemaking process, environmental burdens, and low consolidated financial metrics. Hydrology and wholesale market prices remain the greatest volatility drivers to BPA's financial performance (see exhibit 1 for Columbia River Runoff at Dalles)

Exhibit 1

Columbia River Runoff at Dalles


Source: Moody's Investors Service, BPA

Credit strengths

- » U.S. government support through US Treasury borrowing line and federal debt service deferral ability
- » Regional importance as indirect power provider for 14 million people
- » Access to 22 GW of low cost, federally owned hydro system
- » Dominant electric transmission provider in the Pacific Northwest
- » Competitive rates

- » Power sales contracts with creditworthy public power entities through September 2028
- » Low carbon transition risk

Credit challenges

- » Declining reserves for risk and availability under US Treasury Line
- » 'Regulated utility' like ratemaking process
- » Significant exposure to hydrology risk and wholesale power markets
- » Weak financial metrics for the rating category
- » Weakening of federal debt subordination via ENW debt extensions
- » Significant fish and wildlife environmental costs

Rating outlook

BPA's stable outlook considers the agency's FY2020-2021 final rates, expectations of US Treasury line net availability remaining between \$1.3 to \$1.5 billion on an adjusted basis through at least FY2021, and reserves for risk declining closer to 60 days cash on hand. The stable outlook on BPA supported bonds reflect the stable outlook on BPA and BPA's long history of honoring its contractual obligations.

Factors that could lead to an upgrade

- » BPA's rating could improve if BPA is able to maintain reserves for risk at above 90 days cash on hand and materially above \$1.75 billion of Moody's adjusted US Treasury availability on a sustained basis.
- » The rating on BPA supported bonds could be upgraded if BPA is upgraded.

Factors that could lead to a downgrade

- » BPA's ratings could be lowered if we expect reserves for risk falls below 45 days cash on hand, if the adjusted availability under the US Treasury line declines significantly below \$1.25 billion on a sustained basis or if BPA experiences delays in receiving full recovery of costs. Other factors that could lead to a downgrade include any sign of waning federal government support or a material decline in the proportion of subordinated, deferrable debt owed to the US Treasury.
- » The ratings on BPA supported bonds could be downgraded if BPA is downgraded or if the underlying contractual arrangement is violated.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Key indicators

	2014	2015	2016	2017	2018	2019
Total Sales (MWh)	89,325,720	81,599,400	84,463,920	85,672,800	84,069,720	76,448,520
Debt Outstanding (\$' 000)	15,571,590	16,089,851	15,641,400	15,300,400	15,032,000	14,468,100
US Treasury Line Borrowing Availability (adjusted for deferred borrowing) (\$' 000)	3,340,960	2,897,000	2,702,000	2,198,300	1,831,400	1,836,000
Adjusted Debt ratio (%)	95.7%	94.5%	90.5%	88.2%	86.0%	80.0%
Total Days Cash on Hand (days)	136	152	103	92	89	73
Total Debt Service Coverage Ratio	1.19	1.17	0.62	0.82	1.30	0.95
Total Debt Service Coverage Ratio (adjusting for deferred payments)	1.19	1.17	0.75	1.12	1.04	1.13
Non Federal Debt Service Coverage Ratio	3.46	4.34	3.76	3.83	3.99	3.63

Source: Moody's Investors Service, BPA

Profile

BPA was created in 1937 by an act of the US Congress and is one of four regional power marketing agencies within the US Department of Energy. BPA is primarily responsible for 22 GW of federally owned hydro generation and 15,000 miles of electric transmission assets in the US Pacific Northwest spanning all or parts of eight states. The US Army Corps of Engineers and the Bureau of Reclamation own and operate the hydro projects. BPA's obligations are not backed by the full faith and credit of the US government and its cash payments are limited to funds available in the Bonneville Fund.

Recent Developments

The recent downgrade of BPA's rating to Aa2 reflects the steady erosion of BPA's internal and external liquidity since 2015 and expectation of continued declines. Over the last four years, BPA's reserves for risk has steadily declined to 73 days cash on hand at FY2019 which is less than half of the 152 days cash on hand at the end of FY2015. Looking forward, we expect continued deterioration of this metric trending to around BPA's minimum objective of 60 days cash on hand given BPA's plans to use a net \$51 million of its reserves for risk over the FY2020-2021 rate period. The low forecasted reserves for risk results in a high probability that BPA will breach its 60 days cash on hand target in an adverse situation such as below average hydrology. The downgrade further considers depletion of BPA's net availability under its US Treasury line on an adjusted basis (netting out deferred borrowing) to \$1.84 billion available at the end of FY2019 compared to \$3.34 billion at FY2014 and BPA's forecast that net availability is likely to decline below the \$1.5 billion quantitative threshold previously outlined in past research for consideration of a downward rating action. Diminished net availability under the US Treasury line weakens a key US government support feature, reduces BPA's access to capital and lowers overall financial resiliency.

The downgrade also factors in BPA's extension of non-federal debt in exchange for the accelerated payment of debt owed to the federal government that effectively undermines the defacto subordination of federal debt to non-federal debt. Since 2013, BPA has accelerated the repayment of a net \$2.7 billion of higher cost subordinated, federal appropriations debt while extending maturing debt on the Energy Northwest's (ENW) nuclear projects. On the look forward basis, we expect BPA will continue to extend the ENW debt as part of a broader plan to lessen the depletion of the US Treasury line availability.

The downgrade of BPA supported debt obligations is driven by the downgrade of BPA's issuer rating and BPA's payment obligations under a long term contract such as a lease, net billing or power purchase agreement that serves as the primary source of cash flow for the applicable bonds.

Detailed credit considerations

Revenue Generating Base

Major Power and Transmission Provider to the Pacific Northwest

BPA derives its revenues from the sale of power and transmission services from its dominant hydroelectric generation and electric transmission assets in the Pacific Northwest. BPA has roughly 75% of the Pacific Northwest's bulk electric transmission consisting of 15,000 miles of high voltage transmission lines and 261 substations and other facilities located in BPA's service area. Additionally, BPA's power supply represents around 27% of the total regional power supply and consists of 22 GW of mostly federally owned hydro plants, the 1.2 GW Columbia Generating Station (CGS) nuclear plant, and market and contract purchases. The federal hydro projects also serve numerous purposes, including irrigation, navigation, recreation, municipal and industrial water supply, and fish and wildlife protection.

Power sales represent the largest portion at typically 70% of total revenue and the majority of these sales are made under long-term power sales contracts (Preference Contracts) maturing in 2028 with 133 municipally owned utilities, cooperatively owned utilities, and federal agencies. Sales to these customers totaled approximately \$2.2 billion in FY2019 and represent BPA's largest revenue segment at around 60% of total revenues (see Exhibit 3 for major customers). Power rates charged by BPA are competitive on a national basis and BPA's average tier 1 rate for the FY2020-2021 period is around \$37/MWh including the financial reserves surcharge. State level decarbonization requirements such as Washington State's requirement that all retail electricity sales be met by zero carbon power source by 2045 further enhances the attractiveness of BPA's power services.

Exhibit 3

Top 10 Customers

Power Customer Name	Type	Rating	% of Power Sales	Transmission Customer Name	Rating	% of Transmission Sales
Snohomish County P.U.D. 1, WA Electric Ent.	Preference	Aa2	9%	Puget Sound Energy, Inc.	Baa1	13%
Pacific Northwest Generating Coop	Preference	NR	7%	PacifiCorp	A3	11%
Seattle (City of) WA Electric Enterprise	Preference	Aa2	6%	Portland General Electric Company	A3	10%
Cowlitz County Public Utility District 1, WA	Preference	A1	6%	Powerex Corp.*	NR	8%
Tacoma Power, WA	Preference	Aa3	5%	Snohomish County P.U.D. 1, WA Electric Ent.	Aa2	5%
Clark County Public Utility District 1, WA	Preference	Aa3	4%	Seattle (City of) WA Electric Enterprise	Aa2	5%
Eugene Water & Electric Board, OR	Preference	Aa2	3%	Avangrid Renewables LLC	NR	4%
Benton County Public Utility District 1, WA	Preference	Aa3	2%	Pacific Northwest Generating Coop	NR	3%
Flathead Electric Cooperative, Inc.	Preference	NR	2%	Clark County Public Utility District 1, WA	Aa3	2%
Transalta Energy Marketing (US), Inc	Power Marketer	NR	2%	Cowlitz County Public Utility District 1, WA	A1	2%
Total			46%	Total		63%

*Subsidiary of British Columbia Hydro & Power Authority (Aaa)

Source: Moody's Investors Service, BPA

After power services, transmission services is BPA's next largest revenue contributor at over 25% of total revenues in a typical year and represents a low risk and stable business.

'Regulated Utility' Like Rate Making Process Could Delay Timely Recovery

Unlike a traditional public power utility, BPA's ratemaking procedure for power and transmission rates charged to its customers involves an extensive, two-year process that shares similarities with a rate regulated utility that often create complications and delays in timely and full recovery of BPA's costs. The Northwest Power Act contains specific ratemaking procedures for BPA, mandates justification and reasons in support of such rates, and requires a hearing. The BPA Administrator ultimately decides the power and transmission rates based on the hearing record including all information submitted. Rates established by BPA are subject to approval by FERC. In a stress situation, BPA could file an expedited rate with FERC and the whole process could take several months for an interim rate approval. We see BPA's rate setting process as materially weaker than peers such as Tennessee Valley Authority (Aaa stable) that have unfettered, self-regulated rate setting. On October 1, 2019, BPA's implemented its rates for FY2020-2021 subject to further FERC approval and

refund. The new rates had a zero base rate increase for power customers and a 3.6% base rate increase for transmission customers for the two year period.

Notwithstanding the 'regulated utility' like ratemaking process that BPA operates under, we recognize that BPA has raised rates in difficult situations. Additionally, under its financial reserves policy, BPA can implement a financial reserves surcharge up to \$30 million per year for the FY2020-2021 period and \$40 million per year thereafter if reserves for risk at either line of business drops below the minimum 60 days cash on hand target. A larger surcharge is allowed if necessary to ensure BPA's achieves its a 95% treasury payment probability or if financial reserves for risk drop below zero subject to a maximum of an annual limit of \$300 million for the power business and \$100 million for transmission. While these provisions adds some flexibility within BPA's two-year rate periods, the annual basis of the test and the low trigger points limit the benefit.

Regional Hydrology and Wholesale Price Risk Are BPA's Biggest Volatility Drivers

BPA's financial results can be materially impacted by hydrology in the Columbia River Basin and wholesale power prices since market based power sales can represent roughly 10-15% of total revenues. In the worst case, BPA could be required to purchase high priced power if hydro generation is low and electricity demand is strong similar to the 2000/2001 energy crisis. Since 2001, hydrology has been very volatile with high and low around 130% and 60%, respectively, of the long-term average. Similarly, power prices have generally remained low since 2008 and currently forward prices are in the \$20-30/MWh range which is lower the \$34/MWh average price for 2018 and 2019. These factors, which are outside of BPA's control, have contributed heavily to periods of underperformance and represent BPA's biggest driver of cash flow volatility since power sales under long-term contracts and transmission sales are much more stable and predictable. The volatility of wholesale revenues emphasizes the importance of maintaining significant liquidity.

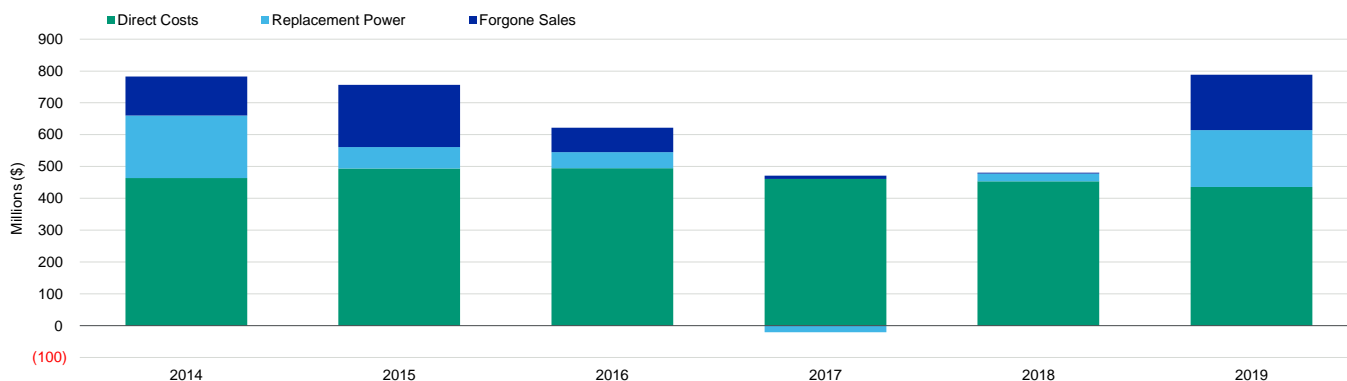
Operational and Financial Performance

Environmental Costs Are Material

BPA faces conflicting uses of the Columbia River and environmental regulations, such as the Endangered Species Act (ESA), that contributes significantly to BPA's costs and weighs heavily on BPA's cash flows. Biological opinions prepared by National Oceanic and Atmospheric Administration Fisheries Service and the US Fish and Wildlife Service mandate actions to protect fish species resulting in direct costs such as hatcheries and indirect loss of revenue from hydro dam operational changes. For FY2019, BPA estimates total direct fish and wildlife costs at approximately \$436 million and recently BPA has been able to stem the long term trend of increasing direct costs although a combination of below average hydrology, new spill requirements and strong winter demand significantly drove up indirect costs like replacement power purchases (see exhibit 4). Looking forward, BPA will face upward pressure on costs which BPA will have to manage in their broader strategic goal of keeping cost growth within inflation.

Exhibit 4

Direct and indirect fish and wildlife mitigation costs



Source: BPA

While BPA's fish and wildlife mitigation costs are considerable, BPA's federally and non-federally owned generation are emissions free since they consist of hydro and nuclear generation. As such, BPA remains insulated from new federal regulations including those for greenhouse gases and BPA could benefit if new emissions regulations increase the market price of power.

Financial Metrics Are Low for the Rating

On a fully consolidated basis including federal debt, BPA's historical financial metrics range from the Ba to Baa category scoring under our methodology. Total DSCR has averaged around 1.0x over the last three years, which is commensurate with a 'Ba' scoring, while BPA's 3 year average debt ratio is high at of 85%, which is commensurate with a 'Baa' scoring. While BPA generally sets rates to achieve around 1.0x DSCR, a major driver of the below 1.0x DSCR in FY2017 and FY2016 is the Regional Cooperation Debt program that deferred \$717 million of payments owed to Energy Northwest for CGS, Project 1, and Project 3 for these two years. After adjusting for the deferral, BPA's DSCR would average around 1.0x over the last five years.

Separately, non-federal DSCR have been in the 3.5x to 4.0x range since principal payments for CGS, Project 1, and Project 3 have been pushed out to the future resulting in mostly an interest only coverage ratio for non-federal DSCR.

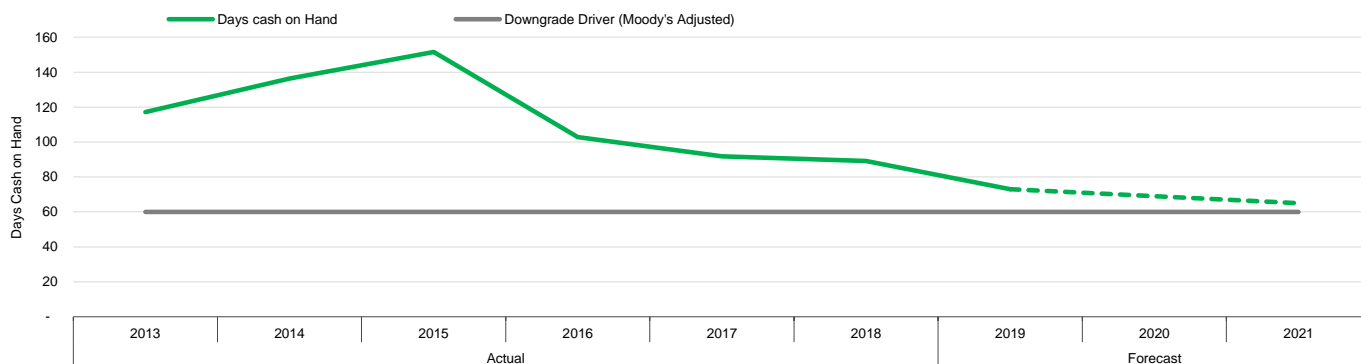
Looking forward, BPA's rates are generally set at around 1.0x DSCR on a forecasted basis. However, actual performance can deviate especially if hydrology and market prices are different from expectations.

LIQUIDITY

BPA liquidity has steadily declined since FY2015 that has served as a key driver of the recent rating downgrade. For FY 2019, BPA had reserves for risk, a measure of liquidity, totaling \$484 million (73 days cash on hand), which is commensurate with a 'Baa' category, and is less than half of the 152 days cash on hand at the end of FY2015. Looking forward, we expect the reserves for risk to trend towards BPA's minimum objective of 60 days cash on hand. An important driver of the decline is the recently implemented FY2020-2021 rates that incorporates using a net \$52 million of reserves for risk comprising of \$112 million of reserve usage for the transmission business partially offset by \$60 million of reserve surcharges on the power business (see exhibit 5).

Exhibit 5

Reserves for risk continues to decline



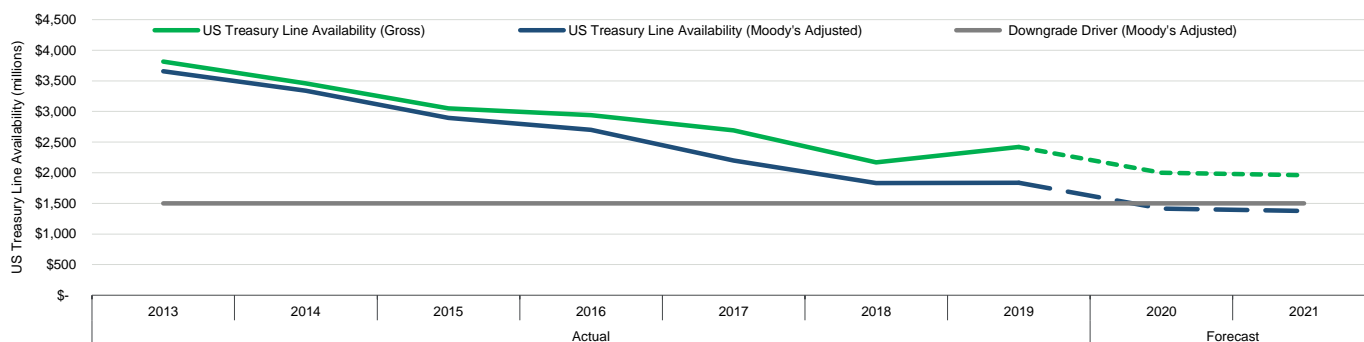
Source: Moody's Investors Service, BPA

Supplementing BPA's liquidity is availability under the US Treasury line. As of September 30, 2019, Moody's adjusted availability was \$1.836 billion (\$2.42 billion gross). Moody's adjusts BPA's reported availability to net out the portion classified as "deferred borrowings" since this portion is also included in the reserves for risk. Most of the borrowing line's availability can be borrowed for capital expenditures while up to \$750 million can be used to fund operating expenses. The \$750 million sub-limit is renewed on an ongoing basis and any draw needs to be repaid within one year. In October of 2019, BPA borrowed \$100 million for intra-year working capital needs that was subsequently repaid in December 2019. Availability under the US Treasury line has steadily declined over time from \$3.34 billion in FY 2014 on an adjusted basis and the decline is a key driver of the recent downgrade. On a look forward basis, BPA's FY2020-2021 rates incorporate further borrowings from the US Treasury line that is expected to result in net availability declining below the \$1.5 billion quantitative threshold previously outlined in past research for consideration of a downward rating action (see

exhibit 6). We currently do not assume any increase to the gross \$7.7 billion US Treasury line since it requires an Act of Congress. The last US Treasury line increase occurred in February 2009 as part of the American Recovery and Reinvestment Act.

Exhibit 6

US Treasury Line Availability is Also Declining



Source: Moody's Investors Service, BPA

In 2018, BPA published a new strategic plan that represented a positive step towards creating, among other things, objectives for leverage and US treasury line availability that did not exist previously. The plan seeks a debt ratio in the 75% to 85% range through 2028, maintaining \$1.5 billion of US treasury line availability (gross basis), and incorporates BPA's reserve targets ranging from 60 to 120 days. However, the implementation of the new strategic goals in the FY2020-2021 rate proposal mostly lessens the decline of BPA's credit quality and generally does not reverse the trend of BPA's weakening financial strength that has occurred since 2015. Additionally, the plan includes 'deferred borrowings' figure into both the US Treasury line availability and the reserves for risk. The deferred borrowing portion has grown over time to \$584 million at FY2019 compared to only \$117 million in FY2014.

DEBT STRUCTURE

Since BPA is not allowed to issue direct external debt, BPA's \$14.5 billion of debt obligations consists of \$7.6 billion of non-federal debt created via operating contracts and \$6.9 billion of federal debt, which is debt owed by BPA to the federal government. BPA's rated, non-federal debt benefit from the pledges described below:

- » Net-billed debt: Energy Northwest's Project 1, Project 3 and Columbia Generating Station's debt benefit from project specific net billing agreements. Under these tri-party agreements, BPA is ultimately responsible to pay for an applicable project's costs including debt service irrespective of whether the project is operable or operating.
- » Transmission facilities debt: The Port of Morrow, Idaho Energy Resources Authority, and Northwest Infrastructure Financing Corp serve as conduit issuers for transmission facilities revenue bonds secured by bond specific leasing agreements that obligate BPA to make unconditional lease payments directly to the bond trustee. The lease payments have been sized to include debt service and are due irrespective of whether the leased assets are operable or operating.
- » Power purchase agreement (PPA) debt: The Cowlitz Falls hydroelectric project revenue bonds issued by Lewis County Public Utility District 1, WA are backed by a PPA that obligates BPA to pay for all costs including debt service irrespective of whether the project is operable or operating. BPA directly pays the bond trustee for the debt service portion of total costs.

Since these obligations are treated as an operational expense of BPA, they have a priority over BPA's direct debt obligation to the US Treasury and BPA can defer payments to US Treasury, if necessary. This deferral ability provides BPA a major source of financial flexibility under extreme situations although BPA has not deferred such payments since 1983 and any deferral is likely to have significant negative political ramifications. The significantly higher non-federal DSCR previously described above also highlights the substantial benefits of the federal debt's effective subordination to non-federal debt.

We see BPA's 1st regional cooperation debt program as undermining the benefits of the federal debt's subordination, since the program resulted in a substantial extension of non-federal debt in exchange for the accelerated repayment of federal appropriations

debt totaling a net \$2.7 billion. While we recognize the cost savings benefits for this strategy, the benefits primarily accrue to BPA's customers at the expense of the non-federal creditors. Energy Northwest's debt funding of interest and O&M expenses to accelerate repayment of federal appropriations debt further undermines the subordination and is credit negative. On the look forward basis, we expect BPA will continue to extend the ENW debt as part of a broader plan to prevent an even greater depletion of the US Treasury line availability than currently expected.

DEBT-RELATED DERIVATIVES

BPA indirectly has interest rate derivative like exposure mostly tied to its lease financed transmission assets. We understand there are no collateral posting requirements under any conditions for these derivatives.

PENSIONS AND OPEB

BPA employees are part of the US government's post-retirement benefit programs for all federal civil employees. The post-retirement benefits are overseen by the United States Office of Personnel Management (OPM), an independent agency that manages the civil service of the federal government. As such, BPA does not record any accumulated plan assets or liabilities related to the administration of a retirement plan.

Management and Governance

US Government Support is a Major Strength

While BPA's obligations do not benefit from the full faith and credit of the United States Government, BPA benefits from significant explicit and implicit support elements from the US Government. The key support elements consist of BPA's borrowing line (\$2.42 billion gross available / \$1.84 billion net available as of September 30, 2019) with the US Treasury and ability to defer payments to the US Treasury. That said, BPA forecasts the US Treasury line availability shrinking over time which we see as weakening a key support element a key driver of the recent rating downgrade.

A strong qualitative consideration for implicit support include BPA's role as a line agency of the US Department of Energy. As a line agency of the US DOE, the BPA Administrator reports to the US Secretary of Energy and BPA has numerous linkages with other federal agencies. For example, the US Army Corp of Engineers and the US Bureau of Reclamation own and operate the federal dams while BPA markets the power output and pays for all of the associated operating and capital costs. Furthermore, tort claims for property damage, personal injury or death are claims against the United States and successful claims are paid out from the federal Judgement Fund.

Importance to the US Northwest region is another key qualitative factor. BPA is responsible for certain treaty responsibilities with Canada regarding the federally owned dams, significant regional environmental protection programs, and the coordination of river operations. Northwest US representation on key US House and Senate committees that deal with energy legislation is a credit strength.

Overall, we see these explicit and implicit US support as providing a multi-notch lift to BPA's standalone credit quality and represent key considerations for BPA's Aa2 rating. In a major stress scenario, Moody's expects any US Government support to BPA is likely to be provided through the established US Treasury credit line or deferral of payments to the US Treasury.

Methodology

Moody's evaluates BPA's issuer rating under the US Public Power Electric Utilities with Generation Ownership Exposure methodology, and the scorecard indicated outcome is Aa3, which is lower than its Aa2 assigned rating. BPA's close linkages with the federal government as a federal agency are supportive considerations to a higher rating than the scorecard indicated outcome.

Moody's also evaluates CGS, Project 1, and Project 3 under the US Municipal Joint Action Agencies methodology. The Aa2 rating assigned to all three projects reflects BPA's contractual obligation to pay including debt service under the project's net billing agreements, BPA's long history of meeting its contractual obligations, and BPA's Aa2 issuer rating.

Exhibit 7

BPA Methodology Scorecard

Factor	Subfactor	Score	Metric
1. Cost Recovery Framework Within Service Territory		Aa	
2. Willingness and Ability to Recover Costs with Sound Financial Metrics		A	
3. Generation and Power Procurement Risk Exposure		Aa	
4. Competitiveness	Rate Competitiveness	Aa	
5. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Baa	84
	b) Debt ratio (3-year avg) (%)	Baa	85%
	c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x)	Ba	1.0x
Preliminary Grid Indicated Outcome from Grid factors 1-5		A2	
		Notch	
6. Operational Considerations		1.0	
7. Debt Structure and Reserves		1.0	
8. Revenue Stability and Diversity		0.0	
Grid Indicated Outcome:		Aa3	

Source: Moody's Investors Service

Exhibit 8

ENW CGS Methodology Scorecard

Factor	Subfactor/Description	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	Aa2	
2. Asset Quality	a) Asset diversity, complexity and history	Baa	
3. Competitiveness	a) Cost competitiveness relative to market	Baa	
4. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Baa	43
	b) Adjusted debt ratio (3-year avg) (%)	Baa	141.00%
	c) Fixed obligation charge coverage ratio (3-year avg) (x)	Baa	1.26x
Material Asset Event Risk	Does agency have event risk?	No	
Notching Factors		Notch	
	1 - Contractual Structure and Legal Environment	0	
	2- Participant Diversity and Concentration	0	
	3 - Construction Risk	0	
	4 - Debt Service Reserve, Debt Structure and Financial Engineering	0	
	5 - Unmitigated Exposure to Wholesale Power Markets	0	
Scorecard Indicated Outcome:		Aa2	

Source: Moody's Investors Service

Exhibit 9

ENW Project's 1 and 3 Methodology Scorecard

Factor	Subfactor/Description	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	Aa2	
2. Asset Quality	a) Asset diversity, complexity and history	B	
3. Competitiveness	a) Cost competitiveness relative to market	B	
4. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Baa	30
	b) Adjusted debt ratio (3-year avg) (%)	B	1000%
	c) Fixed obligation charge coverage ratio (3-year avg) (x)	B	0.84
Material Asset Event Risk	Does agency have event risk?	No	
Notching Factors		Notch	
	1 - Contractual Structure and Legal Environment	0	
	2- Participant Diversity and Concentration	0	
	3 - Construction Risk	0	
	4 - Debt Service Reserve, Debt Structure and Financial Engineering	0	
	5 - Unmitigated Exposure to Wholesale Power Markets	0	
Scorecard Indicated Outcome:		Baa1	

Source: Moody's Investors Service

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