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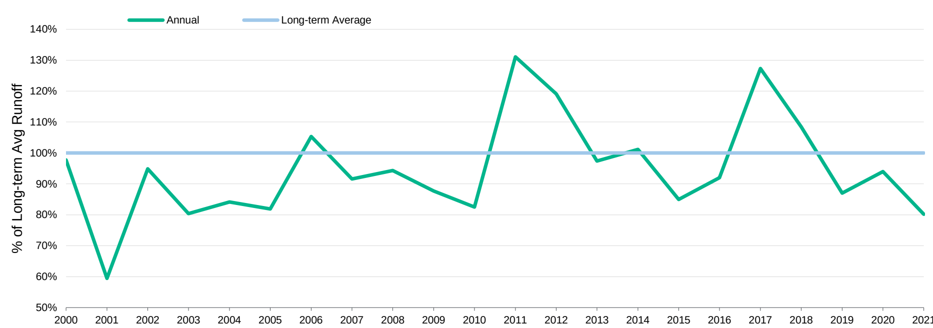
# Bonneville Power Administration, OR

## Update following rating affirmation and revised positive outlook

## Summary

BPA's Aa2 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 credit profile 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 The Dalles dam).
The Aa2 rating on BPA supported obligations like lease financings and Energy Northwest's Project 1, Project 3, and Columbia Generating station (CGS) revenue bonds considers BPA's contractual obligation to pay including debt service, BPA's long history of meeting its contractual obligations, and BPA's Aa2 issuer rating.

Exhibit 1
**Columbia River Runoff at The Dalles**




*Source: Moody's Investors Service, BPA*

The recent change in outlook to positive from stable reflects the substantial increase to the borrowing line between BPA and the US Treasury that provides long term capital funding certainty and more closely ties BPA to the Government of the United States of America (Aaa, stable). Under the Infrastructure Investment and Jobs Act of 2021, BPA received an aggregate $10 billion increase to its borrowing authority with the US Treasury on top of its existing $7.7 billion borrowing line leading to a gross borrowing line of $17.7 billion ($5.63

billion outstanding as of FY21) after FY2027 (Sept 30). Effectively, the $10 billion increase is allocated over time with the first $6 billion available through FY2027 and the full $10 billion thereafter. Since BPA cannot issue direct external debt, the borrowing line serves as a core source of long-term capital for BPA to fund ongoing capital spending for both its power and transmission systems. The $750 million sub-limit within the borrowing line that is available for operating expenses has not changed. Moody's cites governance as a key driver of this rating action as part of our environmental, social and governance (ESG) considerations owing to the credit positive action taken by the US government which supports BPA's ability to fund its long-term capital projects.

To a lesser extent, the positive outlook also acknowledges BPA's improved financial performance over the last two years with rising reserves for risk. Since reaching a low of $484 million in FY2019, BPA's reserves for risk have improved to $825 million as of FY2021. Given robust wholesale power prices relative to prices assumed in BPA's rate case and near average hydro conditions, BPA expects strong financial performance in FY2022 with reserves for risk increasing to $1.1 billion, which would be at its highest level in the last 13 years. Under average hydro conditions, BPA is a major seller of power at market rates in addition to its long term contracted sales at tariffs set under its rate case.

By the end of FY2022, BPA is required to submit an updated financial plan under the law that authorized the borrowing line increase and we will assess how the increased borrowing authority will affect BPA's strategic goals, capital spending plans, and financial policies. Since 2018, BPA has implemented policies that sought to improve or stabilize BPA's standalone credit strength. Such policies and goals include but are not limited to the establishment of a financial reserve policy, a long-term goal to reduce BPA's debt to asset ratio to around the 60% to 70% range, and partial rate funding of capital expenditures. We see these goals and policies as an important foundation to the turnaround of BPA's financial performance since 2019 and a material weakening of these credit support features could offset the benefits of the borrowing line increase.

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.moodys.com for the most updated credit rating action information and rating history.

## 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

- 'Regulated utility' like ratemaking process
- Historically low internal liquidity relative to peers
- 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 positive outlook considers BPA's increased borrowing authority under the US treasury and expectations for better than expected financial performance in FY2022. The outlook on Project 1, Project 3, and CGS reflects the positive outlook on BPA.

## Factors that could lead to an upgrade

- BPA's rating is likely to be upgraded if BPA maintains or expands its credit supportive goals and policies under its new financial plan, while having access to the larger borrowing line.
- The rating on BPA supported bonds could be upgraded if BPA is upgraded.

## Factors that could lead to a downgrade

- Given the positive outlook, a downgrade is not likely. However, BPA's outlook could be revised to stable if BPA materially diminishes its credit supportive policies and goals.
- The outlook associated with BPA's supported bonds could be revised to stable if BPA's outlook is revised to stable. The ratings on BPA supported bonds could be downgraded if BPA is downgraded or if the underlying contractual arrangement is violated.

## Key indicators

Exhibit 2

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Total Sales ( 000s MWh) | 85,673 | 84,070 | 83,316 | 89,702 | 84,683 |
| Debt Outstanding ($ millions) | 15,300 | 15,032 | 14,468 | 14,513 | 14,615 |
| US Treasury Line Borrowing Availability (adjusted for deferred borrowing) ($ millions) | 2,198 | 1,831 | 1,836 | 1,676 | 1,792 |
| Adjusted Debt ratio (%) | 88.8% | 87.1% | 84.0% | 83.3% | 82.1% |
| Total Days Cash on Hand (days) | 92 | 89 | 73 | 118 | 125 |
| Total Debt Service Coverage Ratio | 0.82 | 1.24 | 0.90 | 1.23 | 1.21 |
| Non Federal Debt Service Coverage Ratio | 3.80 | 3.99 | 3.48 | 3.20 | 4.77 |

*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 administrations 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.

## 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 owns a large majority of the Pacific Northwest's bulk electric transmission consisting of 15,000 miles of high voltage transmission lines and 262 substations and other facilities located in BPA's service area. Also, BPA represents around 28% of the total regional power supply and BPA's sources of power 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 September 2028 with 133 municipally owned utilities, cooperatively owned utilities, and federal agencies. Sales to these customers totaled approximately $2.1 billion in FY2021 and represent BPA's largest revenue segment at around 57% 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 FY2022-2023 period is around $34.93/MWh. 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 | Type2 | Rating | % of Transmission Sales |
|---|---|---|---|---|---|---|---|
| Snohomish County P.U.D. 1, WA Electric Ent. | Preference | Aa2 | 9% | Puget Sound Energy, Inc. | IOU | Baa1 | 12% |
| Seattle (City of) WA Electric Enterprise | Preference | Aa2 | 6% | PacifiCorp | IOU | A3 | 10% |
| Pacific Northwest Generating Coop | Preference | NR | 5% | Portland General Electric Company | IOU | A3 | 10% |
| Cowlitz County Public Utility District 1, WA | Preference | A1 | 5% | Powerex Corp.* | Power Marketer | NR | 9% |
| Tacoma Power, WA | Preference | Aa3 | 4% | Snohomish County P.U.D. 1, WA Electric Ent. | Preference | Aa2 | 5% |
| Clark County Public Utility District 1, WA | Preference | Aa3 | 4% | Seattle (City of) WA Electric Enterprise | Preference | Aa2 | 4% |
| Eugene Water & Electric Board, OR | Preference | Aa2 | 3% | Avangrid Renewables LLC | Developer | NR | 4% |
| Transalta Energy Marketing (U.S.) Inc | Power Marketer | NR | 2% | Clark County Public Utility District 1, WA | Preference | Aa3 | 2% |
| Benton County Public Utility District 1, WA | Preference | Aa3 | 2% | Pacific Northwest Generating Coop | Preference | NR | 2% |
| Flathead Electric Cooperative, Inc. | Preference | NR | 2% | Morgan Stanley Capital Group, Inc | Power Marketer | Aa3 | 2% |
| Total | | | 42% | Total | | | 60% |

*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 stable, low risk 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 July 30, 2021, BPA submitted to FERC its proposed final rates for FY2022-2023 that took effect on October 1, 2021 subject refund. FERC approved these rates in March 2022. The new average power rate decreased 2.5% on average for the average Tier 1 rate (versus no change) while transmission rates increased by an average 6.1% (versus 11.6% originally proposed).

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 $40 million per year for the FY2022-2023 period 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 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

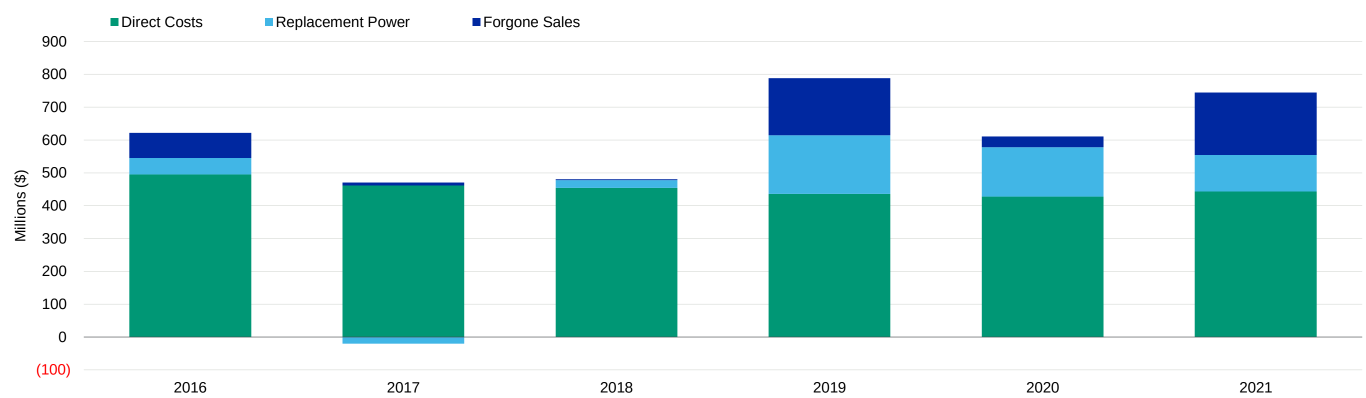
BPA's financial results can be materially impacted by hydrology in the Columbia River Basin and wholesale power prices since market based power sales can represent roughly 10-15% of total revenues. In the worst case, BPA could be required to purchase high priced power if hydro generation is low and electricity demand is robust 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 been volatile subject to natural prices and demand. 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. For FY2021, BPA is expected to benefit from the volatility with near average expected hydrology and robust power prices in its Q1 2022 (Oct to Dec) and Q4 2022 (July to Sept) periods leading to much better than expected financial performance with reserves for risk forecasted to increase to $1.1 billion from $825 million (see liquidity discussion).

## 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 FY2021, BPA estimates total direct fish and wildlife costs at approximately $443 million, and since 2017, BPA has been able to stem the long term trend of increasing direct costs. That said, below average hydrology and new spill requirements have driven up indirect costs like replacement power purchases for FY2019 through FY 2021 (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 possible new federal regulations including those for greenhouse gases and BPA indirectly benefits from state mandates for carbon free emissions power.

### Financial Metrics Are Modest for the Rating

On a fully consolidated basis including federal debt, BPA's historical financial metrics range from the A to Baa category scoring under our methodology. Total DSCR has averaged around 1.14x over the last three years while BPA's 3-year average debt ratio is high at of 83%, which is with the 75% to 85% range target through 2028 under BPA's strategic plan. Both the DSCR and debt ratio score at the 'Baa' category for those these two ratios. BPA generally sets rates to achieve around 1.0x DSCR based on its cost recovery rate setting regime although realized financial metrics can diverge depending on regional hydrology and market price conditions in addition to debt management programs such as the Regional Cooperation Debt program that deferred payments owed to Energy Northwest for CGS, Project 1, and Project 3 for several years. For FY2021, BPA's DSCR was 1.21x based on strong market prices that more than offset lower secondary sales caused by below average hydrology.

Separately, non-federal DSCR has historically ranged in the 3.0x to 4.0x range and for FY2021, non-federal DSCR was around 4.8x given stronger financial performance and lower non-federal debt service compared to the prior year. Extension of principal payments for CGS, Project 1, and Project 3 results in non-federal DSCR being a mostly interest only coverage ratio.

Over the longer term, BPA's rates are generally set at around 1.0x total DSCR on a forecasted basis and given the subordination of federal debt service, we expect ample coverage for non-federal debt service. However, actual performance can deviate especially if hydrology and market prices are different both positively or negatively from expectations.

#### LIQUIDITY

For FY2021, BPA had reserves for risk, a measure of liquidity, totaling $825 million (125 days cash on hand) compared to $708 million (118 days cash on hand) the prior year, which is commensurate with a 'A' category. For FY2022, BPA expects the reserves for risk to increase significantly to $1.1 billion given near average hydro conditions that supports excess power sales and market prices substantially higher than in the rate case. Both of these factors are expected to lead to robust wholesale power revenue that will increase internal reserves.

Supplementing BPA's liquidity is availability under the US Treasury line. As of September 30, 2021, Moody's adjusted availability was $1.79 billion ($2.07 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 figure. 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 subject to further one year extension. Under the Infrastructure Investment and Jobs Act of 2021 pass in November 2021, BPA received an aggregate $10 billion increase to its borrowing authority with the US Treasury on top of its existing $7.7 billion borrowing line leading to an aggregate of $17.7 billion ($5.63 billion outstanding as of FY21). Effectively, the $10 billion increase is allocated over time with the first $6 billion available through FY2027 and the full $10 billion thereafter. Since BPA cannot issue direct external debt, the borrowing line serves as an important source of long-term capital for BPA to fund ongoing capital spending for both its power and transmission systems. The $750 million sublimit within the borrowing line that is available for ordinary expenses such as operating expenses (if needed) has not changed.

### Debt and Other Liabilities

#### DEBT STRUCTURE

Since BPA is not allowed to issue direct external debt, BPA's $14.6 billion of debt obligations consists of $7.4 billion of non-federal debt created via operating contracts and $7.2 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 the 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 results 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, BPA has implemented its 2nd regional cooperation debt program that will continue to extend the ENW debt as part of a broader plan to minimize the depletion the US Treasury line availability.

#### 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 with the US Treasury and ability to defer payments to the US Treasury. The recent $10 billion increase to the US Treasury line is a significant credit positive and more likely links BPA to the US government.

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 credit quality. 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.

## ESG considerations

### Environmental

BPA's moderate environmental risk largely reflects highly negative exposure to physical climate risks mostly in the form of volatile weather patterns and moderately negative exposure to water management that stems from the inherent risks in operating hydro electric facilities, moderately negative exposure to natural capital because of substantial fish and wildfire protection obligations, and moderately negative exposure to waste and pollution from BPA's obligations to Energy Northwest's CGS nuclear plant. These are partially offset by positive carbon transition exposure since the power producer has around 95% of its power supplies coming from carbon emissions free resources.

### Social

BPA's exposure to social risks is moderately negative. BPA's obligation to Energy Northwest's nuclear plant heightens the risk of responsible production. This risk is balanced by neutral-to-low risk for customer relations, human capital, demographic & societal, and health & safety.

### Governance

The influence of governance risk is positive which reflects a positive financial strategy and risk management that incorporates substantial benefits as a line agency of the US government such as the borrowing line with the US Treasury and its ability to defer payments on debt owed to the US government. Management creditability, organizational structure, and compliance & reporting are considered neutral-to-low risk. This is partially offset by moderately negative board structures and policies that stems from government control.

## 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 Aa1, which is higher than its Aa2 assigned rating and the difference is currently captured in the positive rating outlook on BPA.

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 5

**BPA Methodology Scorecard**

| Factor | Subfactor | Score | Metric |
|---|---|---|---|
| 1. Cost Recovery Framework Within Service Territory | | Aa | |
| | | | |
| 2. Wilingness 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) | A | 105 |
| | b) Debt ratio (3-year avg) (%) | Baa | 83% |
| | c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x) | Baa | 1.14 |
| | | | |
| **Preliminary Grid Indicated Outcome from Grid factors 1-5** | | **A1** | |
| | | | |
| | | **Notch** | |
| 6. Operational Considerations | | 1.0 | |
| 7. Debt Structure and Reserves | | 2.0 | |
| 8. Revenue Stability and Diversity | | 0.0 | |
| | | | |
| **Grid Indicated Outcome:** | | **Aa1** | |

*Source: Moody's Investors Service*

Exhibit 6
## 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. Liquidity | a) Adjusted days liquidity on hand (3-year avg) (days) | Baa | 79 |
| 4. Financial Strength and Liquidity | a) Adjusted Debt Ratio (3-year avg) (%) | Baa | 150% |
| | b) Fixed obligation charge coverage ratio (3-year avg) (x) | Baa | 1.01 |
| **Notching Factors** | | **Notch** | |
| | 1 - Competitiveness | 0 | |
| | 2 - Contractual Structure and Legal Environment | 0 | |
| | 3- Participant Diversity and Concentration | 0 | |
| | 4 - Construction Risk | 0 | |
| | 5 - Financing Structure | 0 | |
| | 6 - Unmitigated Exposure to Wholesale Power Markets | 0 | |
| **Scorecard Indicated Outcome:** | | **Aa2** | |

*Source: Moody's Investors Service*

Exhibit 7
## ENW Project's 1 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 | Ca | |
| 3. Liquidity | a) Adjusted days liquidity on hand (3-year avg) (days) | Baa | |
| 4. Financial Strength and Liquidity | a) Adjusted Debt Ratio (3-year avg) (%) | Ca | |
| | b) Fixed obligation charge coverage ratio (3-year avg) (x) | Baa | |
| **Notching Factors** | | **Notch** | |
| | 1 - Competitiveness | -1 | |
| | 2 - Contractual Structure and Legal Environment | 0 | |
| | 3- Participant Diversity and Concentration | 0 | |
| | 4 - Construction Risk | 0 | |
| | 5 - Financing Structure | 0 | |
| | 6 - Unmitigated Exposure to Wholesale Power Markets | 0 | |
| **Scorecard Indicated Outcome:** | | **Baa2** | |

*Source: Moody's Investors Service*

Exhibit 8
## ENW Project's 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 | Ca | |
| | | | |
| 3. Liquidity | a) Adjusted days liquidity on hand (3-year avg) (days) | Baa | |
| | | | |
| 4. Financial Strength and Liquidity | a) Adjusted Debt Ratio (3-year avg) (%) | Ca | |
| | b) Fixed obligation charge coverage ratio (3-year avg) (x) | Baa | |
| | | | |
| **Notching Factors** | | **Notch** | |
| | 1 - Competitiveness | -1 | |
| | 2 - Contractual Structure and Legal Environment | 0 | |
| | 3- Participant Diversity and Concentration | 0 | |
| | 4 - Construction Risk | 0 | |
| | 5 - Financing Structure | 0 | |
| | 6 - Unmitigated Exposure to Wholesale Power Markets | 0 | |
| | | | |
| **Scorecard Indicated Outcome:** | | **Baa2** | |

*Source: Moody's Investors Service*

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