

CREDIT OPINION

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Contacts

Clifford J Kim +1.212.553.7880

VP-Sr Credit Officer
clifford.kim@moodys.com

Julia Ponte +55.11.3043.7339
Lead Ratings Associate
julia.ponte@moodys.com

A. J. Sabatelle +1.212.553.4136
Associate Managing Director
angelo.sabatelle@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653
Asia Pacific 852-3551-3077
Japan 81-3-5408-4100
EMEA 44-20-7772-5454

Bonneville Power Administration, OR

Credit update following outlook change to negative and affirmation of Aa1 issuer rating

Summary

Bonneville Power Administration's (BPA: Aa1 negative) 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 negative). 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 credit challenges including hydrology and wholesale market price risk, a 'regulated utility' like rate-making process, environmental burdens, and low consolidated financial metrics relative to peers. 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 Aa1 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 obligations, and BPA's Aa1 issuer rating.

Exhibit 1

Columbia River Runoff at The Dalles



Source: Moody's Investors Service, BPA

For FY 2023, BPA's financial performance was negatively affected by low hydrology at around 76% of average and sizable customer credits that reduced revenues by around \$363 million. The latter followed an exceptionally strong FY 2022, which resulted in reserves for risk increasing to \$1.51 billion and well above BPA's liquidity goals. Given the credit back to customers and low hydrology, BPA's reserves for risk decreased to \$1.287 billion as of FY

2023. For FY 2024, we understand BPA could issue more customer credits that could reduce revenues and the decision on such credits (if any) will be made in December 2023.

BPA's negative outlook reflects the rating action on the United States of America (US: Aaa, negative) where the US government's Aaa rating was affirmed and the outlook was revised to negative from stable (see press release dated November 10, 2023) and acknowledges BPA's close linkages with the US government given its role as a line agency of the US Department of Energy. BPA's most prominent connections with the US government are the \$13.7 billion borrowing line with the US Treasury (increasing to \$17.7 billion after FY2027), ability to defer debt service payments to the US Treasury, US Treasury holding onto BPA's cash in the Bonneville Fund, and ownership by other parts of the US government of most of the BPA associated hydropower assets. Furthermore, BPA employees are part of the pension plan for US federal civil service employees and most valid legal claims against BPA are paid by the separate US Judgement Fund. Given BPA's extensive dependence on the US government, the US government's credit quality serves as a constraint to BPA's overall rating with a one notch differential that considers BPA's weaker stand-alone credit profile.

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 rate-making process
- » Significant exposure to hydrology risk and wholesale power markets
- » DSCR and debt ratio low for the rating category
- » Weakening of federal debt subordination via ENW debt extensions
- » Significant fish and wildlife environmental costs

Rating outlook

BPA's negative outlook considers the negative outlook on the US government. The outlook on Project 1, CGS, and Project 3 reflects the negative outlook on BPA.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Factors that could lead to an upgrade

- » BPA's rating is unlikely to be upgraded given the negative outlook. However, BPA could be upgraded if the US government's rating is affirmed at Aaa and outlook revised to stable and BPA significantly improves its financial policies leading to sustained consolidated DSCR above 1.50x, internal liquidity in excess of 250 days cash on hand, and minimum net borrowing capacity under the US Treasury line in excess of \$6 billion.
- » The rating on BPA supported bonds could be upgraded if BPA is upgraded.

Factors that could lead to a downgrade

- » BPA's rating could be downgraded if the US government's rating is downgraded, its financial policies are weakened or if its availability under the US Treasury line is severely diminished.
- » 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

	2019	2020	2021	2022	2023
Debt Outstanding (\$ millions)	14,468	14,513	14,615	14,690	14,773
US Treasury Line Borrowing Availability (adjusted for deferred borrowing) (\$ millions)	1,836	1,676	1,792	7,875	7,671
Adjusted Debt ratio (%)	84.0%	83.3%	82.1%	80.1%	81.1%
Total Days Cash on Hand (days)	73	118	125	216	142
Total Debt Service Coverage Ratio	0.90	1.30	1.21	1.41	0.74
Non Federal Debt Service Coverage Ratio	3.48	3.20	4.77	5.04	2.52

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 revenue 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 259 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 preference customers typically are between 55% to 60% of total revenue in a typical year

(see Exhibit 3 for major customers). Power rates charged by BPA are highly competitive on a national basis and BPA's average tier 1 rate for the FY 2024-2025 period is around \$35/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	Туре	Rating	% of Power Sales	s Transmission Customer Name	Type2	Rating	% of Transmissio Sales
Snohomish County P.U.D. 1, WA Electric Ent.	Preference	Aa2	7%	Puget Sound Energy, Inc.	IOU	Baa1	11%
Cowlitz County Public Utility District 1, WA	Preference	A1	4%	PacifiCorp	IOU	A3	10%
Portland General Electric Company	IOU	A3	4%	Portland General Electric Company	IOU	A3	9%
Transalta Energy Marketing (U.S.) Inc	Power Marketer	NR	4%	Powerex Corp.*	Power Marketer	NR	9%
Pacific Northwest Generating Coop	Preference	NR	4%	Seattle (City of) WA Electric Enterprise	Preference	Aa2	5%
Seattle (City of) WA Electric Enterprise	Preference	Aa2	4%	Snohomish County P.U.D. 1, WA Electric Ent.	Preference	Aa2	5%
Tacoma Power, WA	Preference	Aa3	4%	Avangrid Renewables LLC	Developer	NR	4%
California Independent System Operator Corp.	Power Marketer	A1	3%	Morgan Stanley Capital Group, Inc	Power Marketer	Aa3	3%
Clark County Public Utility District 1, WA	Preference	Aa3	3%	Clark County Public Utility District 1, WA	Preference	Aa3	2%
PacifiCorp	IOU	A3	3%	Umatilla Electric Cooperative	Preference	N/A	2%
Total			40%	Total			60%

Note: *Subsidiary of British Columbia Hydro & Power Authority (Aaa). Percentage of sales is for FY 2022. Source: Moody's Investors Service, BPA

After power services, transmission services is BPA's next largest revenue contributor at over 25% of total revenue 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 rate-making 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 rate-making 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. In July 2023, BPA finalized its FY 2024-2025 rates which holds flat the average Tier 1 power and all transmission rates.

Notwithstanding the 'regulated utility' like rate-making 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 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.

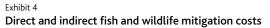
Regional Hydrology and Wholesale Price Risk Are BPA's Biggest Volatility Drivers

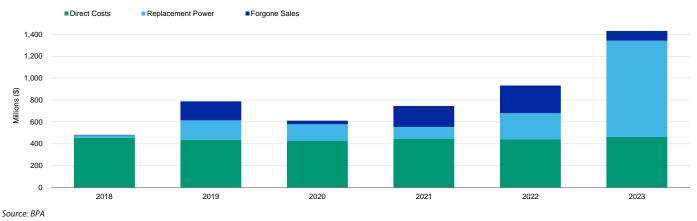
BPA's financial results can be materially impacted by hydrology in the Columbia River Basin and wholesale power prices since market based power sales can represent roughly 10-15% of total revenue. In the worst case, BPA could be required to purchase high priced power if hydro generation is low and electricity demand is robust similar to the 2000/2001 energy crisis. Hydrology has been very volatile with the high and low since 2001 being 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 revenue emphasizes the importance of maintaining significant liquidity. For FY2023, BPA's financial performance was hindered by low hydrology at around 76% of average and \$362.9 million of credits paid back to power and transmission customers. The latter was due to strong financial performance in FY2022 that led to reserves being above BPA's liquidity target range. Given these factors, reserves for risk declined to \$1.287 billion at the end of FY2023 compared to \$1.511 billion at the end of FY2022.

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 flow. 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 FY2023, BPA estimates total direct fish and wildlife costs at approximately \$463 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 FY 2019 through FY 2023 (see exhibit 4). A large potential downside for BPA is the possible breaching of the four hydro dams along the lower Snake River that total around 3.5 GW of capacity. The removal of these dams would likely cost billions of costs and would deprive BPA of a significant amount of zero carbon emitting, low cost energy and capacity. An important mitigant to this risk is our understanding that US congressional authorization is required to breach these federally owned hydro dams. No such authorization has been provided. Looking forward, we assume BPA will face upward pressure on environmental costs which BPA will have to manage within their broader strategic goal of keeping cost growth within inflation.





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 typically range from the A to Baa category scoring under our methodology. Total DSCR has averaged around 1.12x over the last three years while BPA's 3-year average debt ratio is high at of 81%, which is within 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 modestly above 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 FY2023, BPA's DSCR was 0.74x based on below average hydrology and \$363 million of customer credits that reduced revenues.

Separately, non-federal DSCR has typically ranged in the 3.0x to 4.0x range and for FY2023, non-federal DSCR was around 2.5x given the aforementioned reasons that drove down BPA's consolidated metrics. 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 sets its rates modestly above 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 or if BPA credits back excess reserves to customers.

LIQUIDITY

For FY2023, BPA had reserves for risk, a measure of liquidity, totaling \$1.287 billion (142 days cash on hand) compared to \$1.511 billion (216 days cash on hand) the prior year, which is commensurate with a 'A' category. Even with the decline, BPA's reserves are well above its targeted range of 60 to 120 days cash on hand for each business line and 60 to 90 days consolidated cash on hand for BPA overall. BPA is expected to make a decision on any further customer credits in December 2023.

Supplementing BPA's liquidity is availability under the US Treasury line. As of September 30, 2023, Moody's adjusted availability was \$7.67 billion (\$7.92 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 (\$5.78 billion outstanding as of FY 2023). Effectively, the \$10 billion increase is allocated over time with the first \$6 billion available through FY 2027 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 sub-limit 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 \$14.8 billion of debt obligations consists of \$7.4 billion of non-federal debt created via operating contracts and \$7.4 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 could lead to 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.

BPA's 1st regional cooperation debt program that ended in 2020 undermined 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 higher cost, federal appropriations debt totaling a net \$2.7 billion. Starting in 2021, BPA's implemented a 2nd regional cooperation debt program that continues to extend the ENW debt to pay off higher cost borrowings with the US Treasury.

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 closely 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 ar claims against the United States and successful claims are paid out from the federal Judgement Fund. On this aspect, we understand approximately 2,000 wildfire related claims totaling an estimated \$2 billion have been made tied to BPA's transmission lines. Any payments on these claims will be paid according to the process described above. We understand BPA does not need to reimburse the federal government for these payments.

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

Bonneville Power Administration, OR's ESG credit impact score is CIS-1

Exhibit 5

ESG credit impact score



Source: Moody's Investors Service

Bonneville Power Administration's (BPA) ESG Credit Impact Score is positive (CIS-1). Its ESG attributes are considered to have a positive impact on the current rating. BPA's CIS-1 reflects primarily reflects the benefit of BPA's borrowing line with the US Treasury and BPA's ability to defer debt service payments to the US Treasury.

Exhibit 6
ESG issuer profile scores



Source: Moody's Investors Service

Environmental

BPA's **E-3** issuer profile score (IPS) 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 both stem from the inherent risks to relying on 22 GW of hydroelectric power plants for around 85% of its power supplies and whose power output is subject to regional hydrology conditions. Additionally, the issuer has 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 obligation to pay for all of the costs of Energy Northwest's CGS nuclear plant. Nuclear power plants in the US store spent nuclear fuel on-site and have the responsibility of decommissioning. These negative considerations are partially offset by positive carbon transition exposure since the company has around 95% of its power supplies coming from carbon emissions free resources.

Social

BPA's **S-3** issuer profile score (IPS) considers the moderate risk of responsible production caused by BPA's aforementioned obligation to pay for all of the costs for Energy Northwest's CGS nuclear plant and the potential for nuclear accidents.

Governance

BPA's **G-1** issuer profile score (IPS) reflects a positive financial strategy and risk management given BPA's borrowing line with the US Treasury and its ability to defer payments on debt owed to the US government. Furthermore, board structures and policies is moderately negative given full government control.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

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 the same as the Aa1 assigned rating.

Moody's also evaluates CGS, Project 1, and Project 3 under the US Municipal Joint Action Agencies methodology. The Aa1 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 Aa1 issuer rating.

BPA Methodology Scorecard

Factor	Subfactor	Score	Metric
Cost Recovery Framework Within Service Territory		Aa	
2. Wilingness and Ability to Recover Costs with Sound Financial Metrics		А	
Generation and Power Procurement Risk Exposure		Aa	
4. Competitiveness	Rate Competitiveness	Aaa	
5. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Aa	161
	b) Debt ratio (3-year avg) (%)	Baa	81%
	c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x)	Ваа	1.12x
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

ENW CGS Methodology Scorecard

Factor	Subfactor/Description	Score
Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	Aa1
2. Asset Quality	a) Asset diversity, complexity and history	Ваа
3. Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Ваа
Financial Strength and Liquidity	a) Adjusted Debt Ratio (3-year avg) (%)	Ва
	b) Fixed obligation charge coverage ratio (3-year avg) (x)	Ваа
lotching 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
corecard Indicated Outcome:		Aa2

Source: Moody's Investors Service

ENW Project 1 and 3's Methodology Scorecard

Factor	Subfactor/Description	Score
Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	Aa1
2. Asset Quality	a) Asset diversity, complexity and history	Ca
3. Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Ваа
Financial Strength and Liquidity	a) Adjusted Debt Ratio (3-year avg) (%)	Ca
	b) Fixed obligation charge coverage ratio (3-year avg) (x)	Baa
otching 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
corecard Indicated Outcome:		Baa1

Source: Moody's Investors Service

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