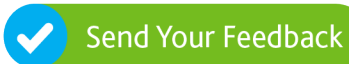


CREDIT OPINION

6 May 2022



Contacts

Clifford J Kim +1.212.553.7880
 VP-Sr Credit Officer
 clifford.kim@moodys.com

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

Philip Zielke 212-553-0511
 Associate Analyst 3
 philip.zielke@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

Grant County Public Utility District 2, WA

Update to credit factors for Grant PUD

Summary

Grant PUD's credit profile (Aa3 stable) reflects the district's ownership of highly competitive hydro generation, low retail rates, benefits of risk management actions including extensive hedging activities, and Moody's adjusted debt service coverage (DSCR) above 2.0x over the last three years. The utility's improved DSCR and expected continuation of its extensive hedging program are key positive considerations that partially offsets the district's lower liquidity that stood at 324 days cash on hand at year end 2021 versus 744 days cash on hand] in 2018.

The district's credit quality also considers exposure to wholesale power price and hydrology risk over the longer term, an elevated capital program, below average wealth levels in the service territory, and concentration of retail sales to industrial and large commercial customers. Hydrology and wholesale power price risk is largely reduced by a combination of 'slice' contracts through 2024 and a separate pooling agreement through September 2025. Depending on future industrial and large commercial load growth, the district's long power position could change towards the mid to late 2020's and lead to the need for new long term power supplies.

Credit strengths

- » Ownership of low cost, hydro plants
- » Extensive hedging
- » Take-or-pay contracts with investment grade utilities for up to 36.7% of Priest Rapids Plant's (PRP) output
- » Highly competitive retail rates
- » 'Aa' category DSCR

Credit challenges

- » Below average wealth in service area
- » Industrial load concentration
- » Long term hydrology and wholesale market risk
- » Significant capital spending

Rating outlook

The stable rating outlook considers our expectation that the district will maintain DSCR above 2.0x and Moody's adjusted liquidity above \$150 million resulting in excess of 300 days cash on hand .

Factors that could lead to an upgrade

- » Consolidated DSCR in excess of 3.0x or liquidity significantly improves on a sustained basis supported by stronger financial policies
- » Substantial improvement to service area economic strength

Factors that could lead to a downgrade

- » Consolidated DSCR materially drops below 2.0x or unrestricted liquidity materially drops below \$150 million or 300 days cash on hand on a sustained basis
- » Major load loss on a sustained basis
- » Weakening of risk management or financial policies
- » Significant operating problems at PRP
- » Large cost overruns on capital program

Key indicators

Exhibit 1

	2017	2018	2019	2020	2021
Debt Outstanding (\$'000)	1,330,270	1,298,635	1,269,395	1,200,725	1,171,430
Total Days Cash on Hand (days)	602	744	609	468	324
Debt Ratio (%)	48.6	46.1	43.0	41.2	38.3
Adjusted Debt Ratio (%)	58.8	54.5	55.5	54.6	48.3
Debt Service Coverage Ratio by Net Revenues (x) (post PILOTs)	1.77	1.99	2.02	2.15	2.32

Source: Moody's Investors Service, Audited Financial Statements

Profile

Grant PUD operates a utility system that owns approximately 2.2 GW of hydro power plants and primarily generates and delivers electricity to all of Grant County, which is located in central Washington State. The district also provides wholesale fiber-optic services. The district's service area comprises of 2,777 square miles and has an estimated population of around 100,300 as of July 2021.

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

Detailed credit considerations

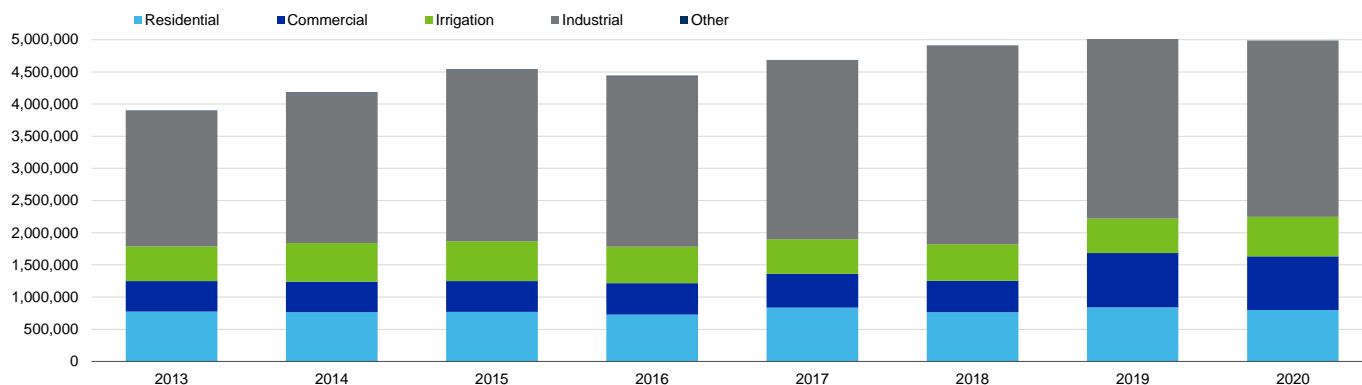
Revenue Generating Base

Retail Energy Sales (Approximately 60% to 65% of revenues)

Retail electric sales represent Grant PUD's largest revenue stream. Its service area in Grant County, WA has a socio-economic indicators that are weaker than the national average given its historically rural economy. Grant County, WA's median family income was around 84% of the US and poverty levels are at 14.5% (US average of 12.8%). The unemployment rate is also above the US at 6.4% average for the last twelve months ending February 2022 (5% for the US). The major economic activities in the county are historically agriculture and food processing; however since 2013, data centers and manufacturing have expanded substantially (see exhibit 1). Power intensive businesses like data centers are attracted to the region owing to the district's low retail rates that are around 50% below the state average.

Exhibit 2

Industrial and large commercial customers have driven retail sales growth (MWh)



Source: Issuer

The district's top ten industrial/commercial customers primarily consist of manufacturing, data centers and food processing and provided 40% of total retail revenue in 2020. We view some of the customers as having low credit quality. Grant PUD's high industrial load concentration exposes the district to sudden load declines if a customer leaves or shuts down although this is partially mitigated by the district's low cost power, ability to sell into the wholesale market, and relatively strong liquidity. Looking forward, Grant PUD forecasts continued strong continued growth in industrial and large commercial customers that has allowed the district to not implement retail rate increases from 2019 through 2022.

Wholesale Revenue Exposure (Approximately 20% to 25% of revenues)

Historically, Grant PUD's financial results were materially impacted by hydrology in the Columbia River Basin and wholesale power prices in the region since Grant PUD wholesale power sales have historically represented 20% to 25% of consolidated revenues and was a much more volatile source of revenues. The district manages this risk through a combination of slice and pooling agreements that shifts hydrology and wholesale price risk to its counterparties. These agreements have been renewed or replaced over time and the district's pooling agreement expires in September 2025 and slice contracts expire between December 2023 and 2024.

Take-or-Pay Contracts (Approximately 5% to 10% of revenues)

Grant PUD sells up to 36.7% of PRP's original nameplate output to a collection of seventeen load serving utilities and public power entities (PPA Purchasers) under cost based, take-or-pay power purchase agreements (PPAs) maturing in April 1, 2052. As the district's retail load have grown, the PPA Purchasers' effective share of PRP have declined given the District's Estimated Unmet Load (EUDL) feature under the contracts. For example, revenues under the take-or-pay arrangement have decreased to 6.7% in 2021 from around 20% in 2014.

Operational and Financial Performance

Pooling Agreement Reduces Risk of Hydro Dependent Supplies

Grant PUD benefits from ownership of around 2.2 GW of nameplate hydro generation capacity primarily comprising of the 1,222 MW Wanapum hydroelectric plant (Wanapum) and the 950 MW Priest Rapids Plant (together with Wanapum, PRP). PRP's all-in-costs including debt service attributable to PRP are highly competitive at around \$18/MWh in 2020 and substantially below market prices. Grant PUD's Electric System retains 63.3% of PRP's output and the remaining output is sold to the PPA Purchasers. The district has the ability to effectively benefit from up to 93.3% of PRP's generating capacity through physical and financial settlements to meet the Electric System's load requirements and is responsible for 93% of PRP's costs under the EUDL feature. The district also has various, small long-term contracts for less than 2% of its power supply.

A risk mitigation against hydrology and market risk is the pooling agreement that expires in September 2025. Under a pooling agreement, the counterparty receives rights to the actual output of 33.3% of the PRP, which will vary with water conditions. In return, the counterparty provides firm power to meet Grant PUD's load, regardless of the actual output of PRP, and certain scheduling services. The district continues to largely retain operating risk.

A weakness to the district's reliance on hydro is the concentration in two large plants. This risk was highlighted in February 2014, when the district discovered a fracture at the Wanapum dam that resulted in reduced power generation and repair work. Wanapum reached normal operations in March 2015 and the direct and indirect cost of the fracture totaled approximately \$78 million before insurance.

Towards the mid to late 2020's, the district's long power position could change and lead to the need for new long term power supplies depending primarily on the growth of industrial and large commercial customers. According to the district's integrated resource plan, Grant PUD is considering contracts with renewables and gas fired power providers to meet its growing load requirements. The district has also entered into a memorandum of understanding with NuScale Power to study small modular nuclear reactor technology.

Capital spending remains elevated

Grant PUD's capital spending for 2021 totaled \$151 million, which was above the historical 5 year average of \$138 million and remains elevated given the district's significant capital programs. Grant PUD has multiple ongoing capital projects at the electric system including fiber buildout, electrical system upgrades, transformer purchases, power cable purchases, and substation and distribution line construction projects. Improvements at the PRP system include restoration or replacement of generators, turbine upgrades, unit controls, the station service and substation circuit breakers, bearings, and coating systems for spillway gates. Capital spending with ongoing dam safety initiatives also include Priest Rapids Dam's right embankment upgrade, assessment of Wanapum Dam's left embankment, and seismic evaluation of concrete structures at both dams.

'Aa' category DSCR

Since 2019, Grant PUD achieved consolidated DSCR averaging above 2.0x and in 2021, the district had DSCR of around 2.32x as scheduled debt service declined after peaking in 2017. These metrics are commensurate with a 'Aa' scoring. On a look forward basis, we expect the district generally maintain DSCR above 2.0x

LIQUIDITY

An important historical mitigant to Grant PUD's exposure to key risks like industrial load concentration and wholesale market risk has been its strong liquidity. The district's strong liquidity served to cushion Grant PUD during the 2008 recession and the Wanapum dam fracture event in 2014. At year end 2021, the district had a Moody's adjusted liquidity of \$164 million (339 days cash on hand) that has declined from a robust \$279 million as of year end 2018 (744 days cash on hand). The decline reflects the district's plan to use its internal liquidity to fund a portion of capital spending. Looking forward, we assume Grant PUD will maintain Moody's adjusted liquidity above \$150 million.

Debt and Other Liabilities

DEBT STRUCTURE

Most of the district's \$1.17 billion of debt consist of traditional fixed rate, amortizing bonds (including those with sinking funds) except for \$50 million of variable rate debt and around \$95 million of mandatory put bonds. For the privately issued \$50 million Series 2021-

T bonds, we note it contains a rating trigger whereby a rating downgraded to or below Baa1/BBB+/BBB+ results in an event of default. Such a rating trigger is credit negative, although we acknowledge the trigger level is at least 4 notches away from its current rating.

LEGAL SECURITY

Electric System's bonds have a pledge of net electric system revenues and a rate covenant of 1.25x DSCR for senior debt and 1.10x for junior lien debt. Draws and deposits from the R&C fund can be used to smooth the DSCR rate covenant. The additional bonds test is 1.25x DSCR. The debt service reserve is sized to the lower of 125% of average annual debt service, maximum annual debt service or 10% of initial principal. Funding of the reserve consists of a surety from Assured Guaranty Municipal Corp (Assured; A1 stable) and cash.

PRP bondholders benefit from a pledge of net revenues of the combined Wanapum and Priest Rapids hydro projects and a 1.15x rate covenant. The Electric System has also covenanted to pay for all of PRP's costs including debt service whether or not PRP produced or is capable of producing power and energy. The Electric System's payment obligation to PRP is senior to the Electric System's debt service if PRP produces power and on parity if PRP no longer produces power. The PRP bonds have a debt service reserve account sized to twelve months maximum interest net of any federal interest subsidy. These provisions are weaker than typical issuers with debt service reserves in the rating category. PRP's debt service reserve is funded by a combination of cash and sureties. Separately, PRP must also maintain a minimum \$12 million in the Renewal, Replacement, and Contingency fund.

DEBT-RELATED DERIVATIVES

The district does not have debt-related derivative exposure.

PENSIONS AND OPEB

The district participates in Washington State's statewide, multiple employer Public Employees Retirement System (PERS) pension plan. Moody's calculates the district's adjusted net pension liability (ANPL) for FY 2021 relating to its proportionate share of PERS to be around \$246 million, compared to the utility's reported proportionate share of the net pension asset of around \$58.9 million for the electric and generation systems. Moody's adjusts the reported pension liabilities of entities that report under governmental accounting standards, to enhance comparability across all rated issuers. Under governmental pension accounting, liabilities are discounted using an assumed rate of investment return on plan assets. Under our adjustments, we value liabilities using a market based discount rate for high quality taxable bonds, a proxy for the risk of pension benefits. The district also reported OPEB liability of \$24 million as of year end 2021.

Management and Governance

The district's governing body is comprised of a five-member board of commissioners. Two commissioners-at-large each serve four-year terms and the remaining three commissioners serve six-year terms. The terms are staggered so that two members of the board are elected every two years.

ESG Considerations

Environmental

Grant PUD's overall moderate environmental risk that 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 in operating around 2.2 GW of hydroelectric power plants whose power output is subject to regional hydrology conditions. These are partially offset by positive carbon transition exposure since the utility has most of its power supplies coming from carbon emissions free resources. These considerations are further balanced by neutral-to-low risk for waste & pollution and natural capital.

Social

Grant PUD's has neutral-to-low risk considerations across customer relations, human capital, demographic & societal trends, health & safety, and responsible production.

Governance

Grant PUD has neutral-to-low risk considerations across financial strategy and risk management, management credibility & track record, organizational structure, compliance & reporting, and board structures and policies

Rating methodology and scorecard factors

Moody's evaluates Grant PUD under the US Public Power Electric Utilities with Generation Ownership Exposure methodology, and, as depicted below, the grid indicated outcome is Aa3, which is the same as the Aa3 assigned rating.

Exhibit 3

Scorecard

Factor	Subfactor	Score	Metric
1. Cost Recovery Framework Within Service Territory		A	
2. Willingness and Ability to Recover Costs with Sound Financial Metrics		Aa	
3. Generation and Power Procurement Risk Exposure		A	
4. Competitiveness	Rate Competitiveness	Aaa	
5. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Aaa	467
	b) Adjusted Debt ratio (3-year avg) (%)	Aa	53%
	c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x)	Aa	2.16x
Preliminary Grid Indicated Outcome from Grid factors 1-5		Aa3	
		Notch	
6. Operational Considerations		0.0	
7. Debt Structure and Reserves		0.0	
8. Revenue Stability and Diversity		-0.5	
Grid Indicated Outcome:		Aa3	

Source: Moody's Investors Service

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