MOODY'S
INVESTORS SERVICE

CREDIT OPINION
22 June 2020

Rate this Research

Contacts

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

Jeff Sauray +1.212.553.1718
Associate Analyst
jeff.sauray@moodys.com

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

Chelan County Public Util. Dist 1, WA

Update to Key Credit Factors

Summary

Chelan PUD's (Aa3 stable) strong credit profile rating is supported by the district's robust liquidity position at around 657 days cash on hand at year end 2019, comprehensive risk management including ongoing hedging program, and more than 50% debt reduction since 2009. Additional credit supportive considerations include debt service coverage ratios (DSCR) exceeding 2.0x achieved since 2016, low retail rates, and highly competitive hydro generation. Forward looking metrics indicate DSCR declining to around 2.0x as operating costs increase while liquidity drops to a range between 250-300 days cash on hand after 2021 as the district uses its liquidity to partially fund its large capital program.

The utility's credit quality also considers the speculative grade credit quality of a major long term customer, volatile wholesale market conditions, and the mixed operational performance of the district's hydro electric plants. Low wholesale market conditions and volatile hydrology conditions remain the district's most significant long term risk especially as the utility relies on non-retail revenue to subsidize its retail business.

Credit strengths

- High historical liquidity
- Strong risk management including hedging
- Substantial debt reduction since 2009
- Highly competitive, hydro generation
- Expected DSCR around 2.0x
- Low retail rates

Credit challenges

- Long term hydrology and wholesale price exposure
- Offtaker concentration
- Decline net revenues
- Mixed history of willingness to raise rates
- Large capital spending

Rating outlook

The stable outlook considers the district's forecast of maintaining at least 250 days cash on hand, expected debt service ratio of around 2.0x through 2023, and the continuation of its risk management policies including hedging.

Factors that could lead to an upgrade

» Maintenance of high liquidity and DSCR comfortably exceeding 3.0x on a sustained basis

» Execution of additional long-term contracts with creditworthy counterparties that mitigates hydrology and market price risk

Factors that could lead to a downgrade

» Liquidity declining below 250 days cash on hand or debt service coverage below 1.5x on a sustained basis

» Weakening of the district's risk management

» Major operational problems

» Significant decline in counterparty credit quality or termination of major, long-term contracts

Key indicators

Exhibit 1

CHELAN COUNTY PUBLIC UTILITY DISTRICT 1, WA

	2015	2016	2017	2018	2019
Debt Outstanding ($'000)	619,456	595,515	542,000	517,315	476,011
Debt Ratio (%)	40.5	36.8	32.3	28.4	30.8
Adjusted Debt Ratio (%)	58.8	51.9	49.1	42.0	48.5
Adjusted Days Liquidity on Hand (incl. Bank Lines)(days)	456	562	615	718	657
Adjusted Debt Service Coverage (x) (Post Transfers/PILOTs - All Debt)	1.7	2.5	2.6	2.6	2.5

Source: Moody's Investors Service and Audited Financial Statements

Profile

Chelan County Public Utility District is a public power utility that provides electric, water, wastewater and fiber-optic services in Chelan county (unrated), Washington. The combined electric and hydro systems represent nearly all of the revenues and assets of the consolidated enterprise. The utility owns three hydro projects totaling 1,988 MW.

Detailed credit considerations

Revenue Generating Base

Retail Business (15%-20% of revenues)

Chelan PUD's retail utility business delivers electricity to approximately 52,146 retail customers (December 2019) in Chelan county (not rated), which is located in the central part of Washington state. The county has a median household income of $56K, which is moderately below the US median of $62K. Major economic activities in the Chelan/Douglas county area are agriculture, healthcare, data centers, and manufacturing. We understand that social distancing measures due to COVID19 have not materially affected the district's retail load. Also, while past due receivables have increased, it remains a very small fraction of total revenues or availability liquidity and overall credit impact has been modest.

While the district's rate process is not regulated by the state regulatory board, Chelan PUD has shown a mixed history of its willingness to raise rates since it has not raised electric rates from 2009 through 2019. During this period, the last retail electric change was in

2012 which resulted in a net 6.5% electric rate decrease. For 2020-2024 period, the utility approved a 3% per year increase for retail customers starting on December 1, 2020 which includes a delay for residential customers owing to the COVID19 related economic downturn.

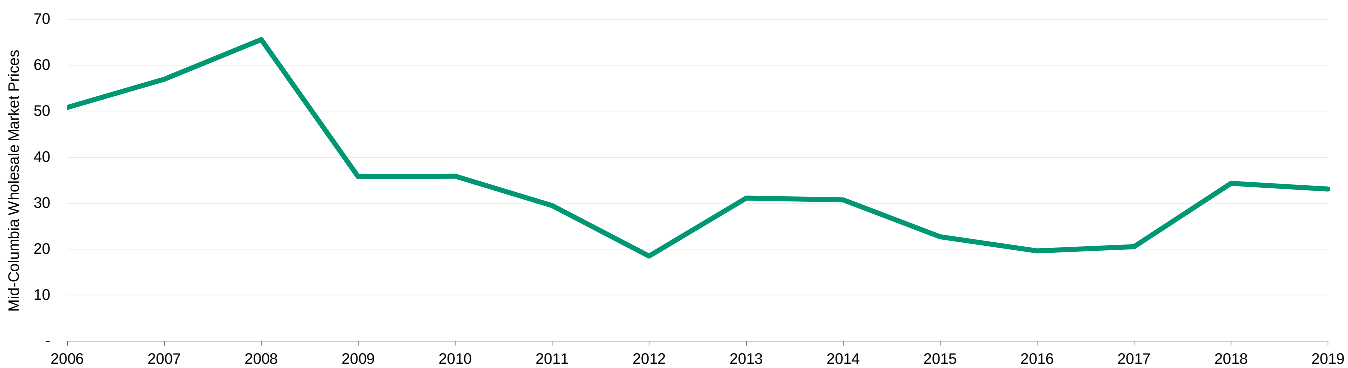
Chelan PUD's electric rates are substantially below the state average that has contributed to increased demand from large load customers like data centers and cryptocurrency operators. For the latter, we see cryptocurrency operators as an emerging source of risk for the utility given cryptocurrencies's high price volatility, uncertain regulatory environment, short history, and miner's relative easy ability to relocate. The district implemented conservative policies to address the cryptocurrency demand while protecting the utility's credit quality.

The utility's ability to subsidize its retail rates is driven mostly by profits earned from the wholesale business.

Wholesale Business (35% to 45% of revenues)

Chelan PUD's net share of its hydroelectric generation greatly exceeds the needs of its retail customers, which results in substantial excess power sales into the wholesale market. The district significantly relies on wholesale energy sales to mainly subsidize its retail businesses and the combined hydrology and wholesale price uncertainty remains one of the most significant risks for the district. For example, power prices have fallen steeply to modestly above $20/MWH over the last two years compared to a peak of around $60/MWH in 2008 due to low natural gas prices and growing renewable energy (see exhibit 2 below for historical prices). Additionally, regional hydrology has been volatile ranging from around 60% to 130% of average since 2000.

Exhibit 2
Mid Columbia historical power prices



Source: SNL

Chelan PUD has a robust risk management plan to manage wholesale and hydrology exposure. Key mitigation measures include power hedges and 'slice' auctions of the district's hydro system output on a rolling forward basis. The district seeks to have less than 5% of the total hydro output completely exposed to price and hydro volatility in the prompt year. While firm energy sales only transfers price risk, 'slice' sales transfer operational, hydrology and price risk to the counterparty resulting in greater cash flow certainty. While the robust hedging provides revenue predictability over a 3 to 5 year horizon, prices for recent entered hedges are substantially lower than legacy hedges and we expect the district to have lower revenue as the more attractively priced legacy hedges roll off starting in 2020. As part of its risk management, the district also retains robust liquidity and has paid down debt by more than 50% since 2009 (see 'Major Debt Reduction Leads to Strong Debt Service Coverage Ratios' and 'Liquidity' sections for further details).

Long-Term, Take Or Pay Contracts (35% to 40% of revenues)

Chelan PUD sells power from the combined Rocky Reach (1,300 MW) and Rock Island (629 MW) hydroelectric power plants under long-term, take or pay 'plus' contracts with a 25% share sold to Puget Sound Energy, Inc (PSE, Baa1 stable) until 2031 and a 26% share sold to Alcoa Corporation (Alcoa, not rated. Alcoa Nederland Holding B.V., Ba1 corporate family rating) until 2028. The district also sells 5.54% of Rocky Reach's output to Douglas County Public Utility District 1, WA (Douglas PUD, Aa3 stable) until 2031 with three 10-year extension options. Under the PSE and Alcoa contracts, the off-takers are responsible for their proportionate share of costs including assumed debt service payments and also are subject to various charges at the district's discretion. While the contracts provide stable cash flows, Alcoa's speculative grade characteristics represent a material credit risk for the district, especially since Alcoa is reviewing its portfolio of assets that could lead to a closure or a divestment of mining assets. Partially mitigating this risk are the district's low costs and Alcoa's posted collateral totaling around $49 million as of December 2019. We note Alcoa remains obligated under its contract even though the smelter is currently idled.

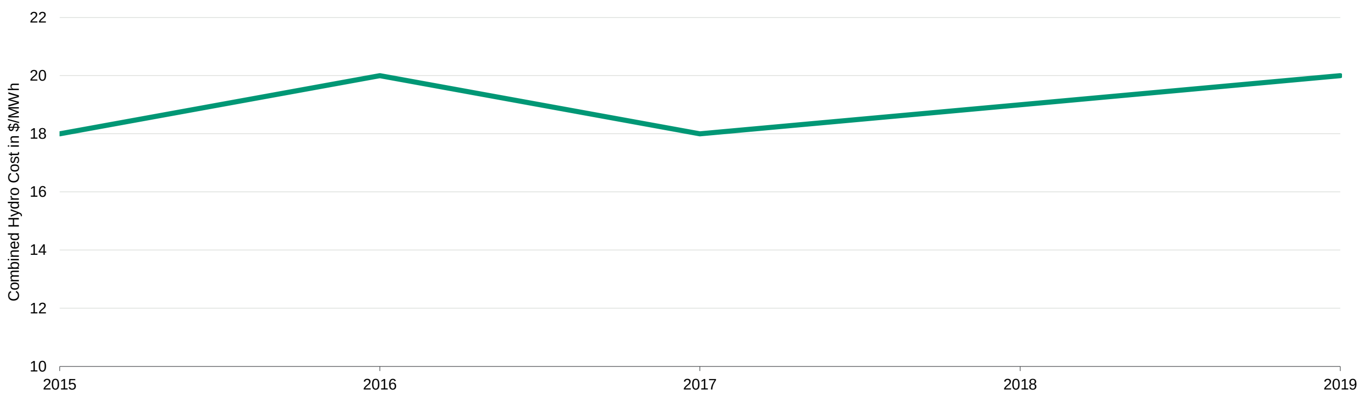
Financial Operations and Position

Low Cost Hydro System

Anchoring Chelan PUD's low costs are ownership of three hydroelectric plants totaling 1,988 MW of capacity, which also benefit as a zero emission resource. The largest hydro plant is the 1,300 MW Rocky Reach facility followed by the 629 MW Rock Island plant and lastly the 59 MW Lake Chelan plant. These plants reached commercial operations from 1920 to 1979 depending on the unit. Since 2013, the hydro plants have incurred outages due to various issues including cracked servo rods, winding failures, cracked turbine blades, and stator rotor problems. Financially, the impact of these issues have been partially mitigated through a combination of the cost sharing under the take-or-pay contracts, 'slice' contract terms, insurance proceeds, and the district's strong liquidity. Additionally, the average resource cost of the hydro fleet remained competitive at $20/MWh in 2019, which is around its five year average (see exhibit 3 for reported hydro system costs).

Exhibit 3

Reported Hydro System Costs



Source: Issuer's Annual Report

That said, declining market prices have reduced the hydro fleet's competitiveness while the district has significantly increased its capital spending for its hydro fleet as part of a broader $700 million of capital spending plan from 2020-2024.

Major Debt Reduction Leads to Strong Debt Service Coverage Ratios

Chelan PUD's total DSCR since 2016 improved to around 2.50x and excluding the mini-balloon maturities, the district had senior DSCR well above 2.0x since 2013. The recent increase in total DSCR is due to the utility's debt reduction program that has materially reduced its ongoing debt service requirements.

At year-end 2019, the district had around $476 million of debt compared to over $1 billion at year-end 2009. We view the more than 50% debt pay down as a substantial credit positive that serves to balance against credit negative events such as the credit deterioration of a major long term customer, weak wholesale market conditions, and the mixed operational performance of the district's hydro electric plants. Looking forward, we expect the district's DSCR will drop to around 2.0x through 2022 mostly due to higher operating costs.

LIQUIDITY

The district's policy target of $175 million of liquidity and 250 days of unrestricted cash and investments supports the utility's robust liquidity totaling 656 days cash on hand at year-end 2019. The utility also has cash funded debt service reserves equal to maximum annual interest across its different bond pledges.

Looking forward, we expect the district's utility will decline to around 250 to 300 days cash on hand by 2022 as the district utilizes its liquidity to fund capital spending.

Debt and Other Liabilities

DEBT STRUCTURE

More half of Chelan's debts consist of traditional fixed rate bonds. The two exceptions consist of $40 million of variable rate debt and around $184 million of capital appreciation bonds. The former is supported by a standby bond purchase agreement (SBPA) with Barclays Bank PLC (A1 stable) expiring on July 1, 2022.

DEBT-RELATED DERIVATIVES

None.

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 2019 relating to its proportionate share of PERS to be around $274 million, compared to the utility's reported proportionate share of the net pension liability of around $28 million. Moody's adjusts the reported pension liabilities of entities that report under governmental accounting standards, to enhance comparability across 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.

Management and Governance

The district's governing body is comprised of a five member independent board of commissioners who are elected under staggered four and six year terms.

Rating methodology and scorecard factors

The scorecard indicated outcome is A1, which is one notch lower than the its Aa3 rating. Chelan PUD's strong risk management actions support the Aa3 assigned rating.

Exhibit 4

Factor	Subfactor	Score	Metric
1. Cost Recovery Framework Within Service Territory		A	
2. WIlingness and Ability to Recover Costs with Sound Financial Metrics		A	
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	663
	b) Debt ratio (3-year avg) (%)	Aa	47%
	c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x)	Aaa	2.58x
Preliminary Grid Indicated rating 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 Rating:		**A1**	

Source: Moody's Investors Service

REPORT NUMBER 1220891

CLIENT SERVICES

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