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Chelan County Public Util. Dist 1, WA

Update to Key Credit Factors

Summary

Chelan PUD's strong credit profile rating is supported by the district's strong liquidity position at around 615 days cash on hand at year end 2017, robust risk management including ongoing hedging program, and almost 50% debt reduction since 2009. Additional credit supportive considerations include debt service coverage ratios (DSCR) exceeding 2.0x achieved in 2016 and 2017, continued debt reduction through at least 2021, low retail rates, and highly competitive hydro generation. The utility's substantial debt reduction over the last 8 years remains a major positive development that has served to balance against credit negative events such as the credit deterioration of a major long term customer, weakening wholesale market conditions, and the mixed operational performance of the district's hydro electric plants. Low wholesale market conditions and volatile hydrology conditions remain district's most significant long term risk especially as the utility relies on non-retail revenue to subsidize its retail business.

Credit strengths

» High liquidity

» Strong risk management including hedging

» Substantial debt reduction since 2009

» Highly competitive, hydro generation

» DSCR above 2.0x

» Low retail rates

Credit challenges

» Long term hydrology and wholesale price exposure

» Offtaker concentration

» Likely declining net revenues over the next five years as hedges expire

» Mixed history of willingness to raise rates

» Operational issues at hydro dams

Rating outlook

The stable outlook considers the district's forecast of liquidity well in excess of 300 days cash on hand, expected debt service ratio well above 2.0x through 2019, ongoing deleveraging, 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

» Significant decline in liquidity 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

	2013	2014	2015	2016	2017
Debt Outstanding ($'000)	827,341	743,604	619,456	595,515	542,000
Debt Ratio (%)	58.2	48.0	40.3	36.4	34.8
Adjusted Days Liquidity on Hand (incl. Bank Lines)(days)	543	421	456	562	615
Adjusted Debt Service Coverage (x) (Post Transfers/PILOTs - All Debt)	2.2	1.3	1.8	2.6	2.8

Source: Moody's Investors Services 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 50,680 retail customers in Chelan county (not rated), which is located in the central part of Washington state. The county has a median family income of $62K, which is modestly below the US median of $67K. Major economic activities in the Chelan/Douglas county area are agriculture, healthcare, data centers, and manufacturing.

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 2009 as it has not raised electric rates since 2009. The last retail electric change was in 2012 which resulted in a net 6.5% electric rate decrease. 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 has implemented a moratorium on new high load and we incorporate the assumption that the district will implement conservative policies to address the cryptocurrency demand while protecting the utility's credit quality.

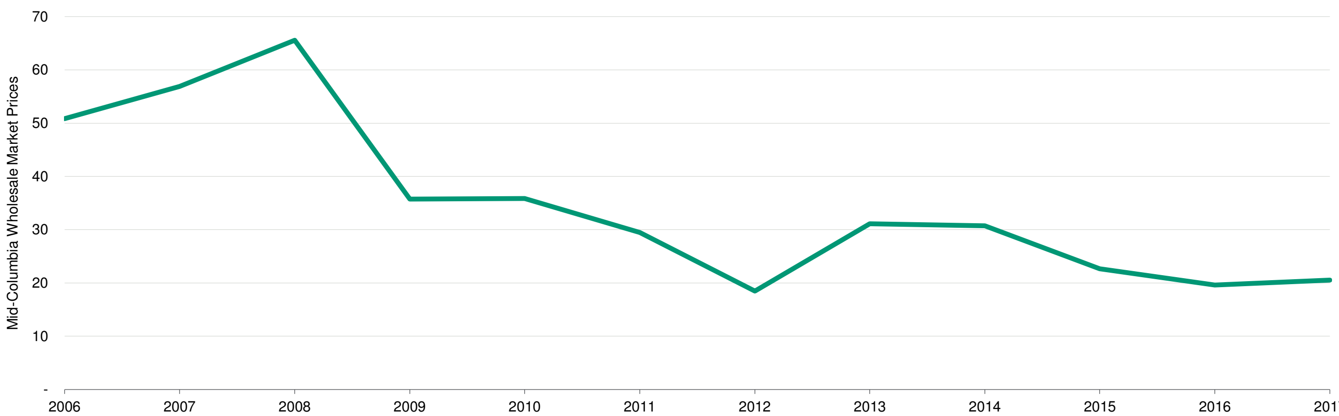
The utility's ability to subsidize its retail rates is driven mostly by profits earned from the wholesale business.

Wholesale Business (40% 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. Additionally, regional hydrology has been volatile ranging from around 60% to 130% of average since 2000.

Mid-Columbia Market Prices

Exhibit 2
Wholesale market power prices have declined steeply since 2008



Source: SNL Power Market Prices

Since 2009, Chelan PUD has implemented 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 almost 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 (30% to 35% 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. is rated 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 2021 with four 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 credit deterioration since 2012 and decision to idle its Wenatchee smelter in December 2015 are credit negative and represent a material credit risk for the district. Partially mitigating this risk are the district's low costs and Alcoa's posted collateral totaling around $83 million. We note Alcoa remains obligated under its contract even through the smelter is idled. Recent US tariffs on aluminum imports increases the possibility of a restart although Alcoa has not made a decision.

Financial Operations and Position

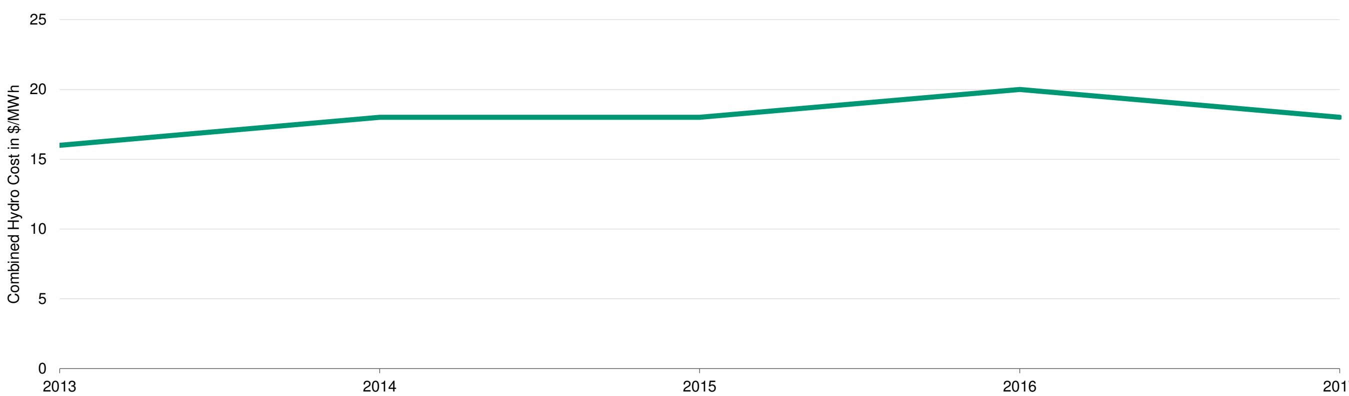
Low Cost Hydro System

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. Over the last few years, 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 $19/MWh in 2017, which is close to its five year average. That said, declining market prices have reduced the hydro fleet's competitiveness while district has significantly increased its capital spending for its hydro fleet as part of a broader $500-600 million of capital spending over the next five years.

Average Hydro System Resource Cost

Exhibit 3

Average hydro system resource cost have increased over time



Source: Audited financial statements

Major Debt Reduction Leads to Strong Debt Service Coverage Ratios

Chelan PUD's total DSCR over the last two years improved to well above 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 2017, the district had around $542 million of debt compared to over $1 billion at year-end 2009. We view the nearly 50% debt pay down over the last eight years as substantial credit positive that serves to balance against credit negative events such as the credit deterioration of a major long term customer, weakening wholesale market conditions, and the mixed operational performance of the district's hydro electric plants. Looking forward, we expect the district's DSCR will remain above 2.0x for 2018 and 2019 and then could drop to the 1.60x to 2.0x range mostly due to declining net revenue. A combination of decreasing wholesale revenue and higher forecasted operating costs are the key drivers of the lower expected net revenue post 2019.

LIQUIDITY

At year-end 2017, Chelan PUD had robust liquidity totaling 615 days cash on hand and the district's strong liquidity is supported by the district's policy target of $175 million of liquidity and 250 days of unrestricted cash and investments. 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 well north of 300 days cash on hand through 2022 as the district utilizes its liquidity for debt reduction and capital spending.

Debt and Other Liabilities

DEBT STRUCTURE

Approximately half of Chelan's debts consist of traditional fixed rate bonds. The two exceptions consist of $61 million of variable rate debt and $206.7 million of capital appreciation bonds. The former is supported by a standby bond purchase agreement (SBPA) with MUFG Union Bank, N.A.(MUFG: A2 stable) expiring on April 17, 2019. On June 22, 2018, Barclays Bank, PLC (A2 stable) is scheduled to replace MUFG and provide a substitute SBPA. Regarding the capital appreciation bonds, it accretes interest and both principal and accumulated interest are paid as the bonds amortize annually through 2029.

DEBT-RELATED DERIVATIVES

None. The district terminated its last three interest rate swaps in 2013 and paid a $15.9 million termination fee.

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 2017 relating to its proportionate share of PERS to be around $255 million, compared to the utility's reported proportionate share of the net pension liability of $50 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.

Other Considerations: Rating Factors and Scorecard

The grid indicated rating is A1, which is one notch lower than the its Aa3 rating. Chelan PUD's high liquidity position, strong risk management, and continuing debt reduction over time are factors that support the Aa3 assigned rating.

The grid is a reference tool that can be used to approximate credit profiles for public power with generation ownership in most cases. However, the grid is a summary that does not include every rating consideration. Please see US Public Power Electric Utilities with Generation Ownership Exposure for more information about the limitations inherent to grids.

Exhibit 4

Factor	Subfactor	Score	Metric
1. Cost Recovery Framework Within Service Territory		A	
2. Willingness 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	544
	b) Debt ratio (3-year avg) (%)	Aa	37%
	c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x)	Aa	2.4x
Preliminary Grid Indicated rating from Grid factors 1-5			
		Notch	
6. Operational Considerations		0	
7. Debt Structure and Reserves		0	
8. Revenue Stability and Diversity		-0.5	
Grid Indicated Rating:		**A1**	

Source: Moody's Investors Service

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