

RatingsDirect®

Summary:

Chelan County Public Utility District No. 1, Washington; Wholesale Electric

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Credit Profile

Chelan Cnty Pub Util Dist #1 WHLELC (Rocky Reach)		
<i>Long Term Rating</i>	AA/Stable	Affirmed
Chelan Cnty Pub Util Dist #1 WHLELC (Rock Island)		
<i>Long Term Rating</i>	AA-/Stable	Affirmed
Chelan Cnty Pub Util Dist #1 WHLELC (Rock Island) (MBIA) (National)		
<i>Unenhanced Rating</i>	AA(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

Rationale

S&P Global Ratings affirmed its 'AA' long-term rating and underlying rating (SPUR) on Chelan County Public Utility District No. 1 (Chelan, or the district), Wash.'s series 1997A senior-lien Rock Island hydroelectric system revenue bonds and its 'AA' long-term rating on the district's series 2009A Rocky Reach hydroelectric system revenue bonds. At the same time, we affirmed our 'AA-' long-term rating on the district's series 2009A subordinate-lien Rock Island hydroelectric system revenue bonds. The outlook is stable.

The series 2009A Rock Island hydroelectric system revenue bonds are subordinate to the series 1997A senior-lien Rock Island hydroelectric system revenue bonds. Although the senior lien is closed, 97% of the debt outstanding is on the senior lien.

The respective project's output secures each project's debt.

The ratings reflect our view of the two projects':

- Historical production costs that are extremely low and that we expect to remain highly competitive, even in the event of below-average streamflow conditions;
- Strong operating performance and flexibility from their multiple turbines, which together partly mitigate single-asset risk;
- Ability to pass through 100% of costs to offtakers, which have signed take-or-pay contracts; and
- Ability to reassign or remarket surplus energy in the event of payment default by a contractual offtaker.

Securing the bonds are project revenue from long-term contracts with contracted offtakers as well as payments by project owner Chelan (AA+/Stable consolidated system bonds rating) on behalf of its electric distribution system. Project costs, including debt service, are passed through to Chelan and to the offtakers.

The business profile score for each project is '3' on a 10-point scale on which '1' is the strongest. The business profile scores reflect our view of each project's superior competitiveness, somewhat shallow economics, take-or-pay offtaker contracts for most of its capacity, strong management, and physical attributes and operational practices that substantially mitigate the risk of production curtailment resulting from unit outage or environmental requirements.

Bond provisions under the master bond resolution are weak, in our view, and include a 1x debt service coverage (DSC) additional bonds test based on operating revenue and a 1x DSC rate covenant based on net revenue adjusted for contingency funds withdrawals and deposits. The district is required to fund a debt service reserve at maximum annual interest.

The Rock Island hydroelectric project had approximately \$213 million in direct debt outstanding, including \$207 million in senior-lien debt and \$6 million in subordinate-lien debt as of Dec. 31, 2017, not including interfund loans due to the consolidated system totaling an additional \$110 million. Chelan's capital improvement plan (CIP) indicates an annual average of \$49 million in spending at the project during fiscal years 2018 to 2022, a sizable increase from \$30 million annually from 2016 to 2020.

The Rocky Reach hydroelectric project had approximately \$13 million in direct debt outstanding as of Dec. 31, 2017, all senior-lien debt, not including interfund loans due to the consolidated system totaling an additional \$138 million. Chelan's CIP indicates an annual average of \$6 million in spending at the project during fiscal years 2018 to 2022, a slight decline from about \$10 million per year in the 2016-2020 period.

The district will fund both projects' capital needs largely from available and recurring net revenue. No additional debt is planned over the next five years except for a potential \$42 million borrowing in 2022.

Rocky Reach project

The Rocky Reach project is a "run-of-the-river" hydroelectric project located on the Columbia River, and has a maximum capability of 1,300 megawatts (MW). Its high number of turbine generators, 11 in all, provides significant operational flexibility and enhances project availability. The average cost of production, including debt service, was 14 mills per kilowatt-hour (kWh) in 2017, compared with 12 mills per kWh in 2013. The district operates the Rocky Reach facility under a long-term license from the Federal Energy Regulatory Commission (FERC) that the commission renewed in 2009 and extends to 2052.

We believe the Rocky Reach project's extremely strong project economics provide strong assurance of cost recovery from the project's direct offtakers. Production costs have averaged about 14 mills per kWh over the past five years. The availability factor was 79% in 2017 and averaged 80% over the 2013-2017 period. Production costs are still competitive even in years of low streamflow, as the 14-mills-per-kWh cost of production in 2001, a year of extremely poor water conditions, would indicate. The project's 11 turbine-generator units operate independently, allowing continued operations even in the event of forced outage at one or multiple units.

We view the project's financial risk profile as very strong. DSC of direct system debt, treating interfund loans as deductions to net revenue, was 13.7x in fiscal 2017, and DSC for all direct debt and loans was 1.47x in fiscal 2017. Debt to capitalization has moderated in recent years, declining to 47% in 2017 from 66% in 2013. Debt per kW of installed capacity was \$126 in 2017, down from \$197 in 2013.

Rock Island project

The Rock Island project is a "run-of-the-river" hydroelectric project on the Columbia River and has a capacity of 629 MW. We believe its 19 turbine generators provide significant operational flexibility and enhance project availability. The average cost of production was substantially higher than that of Rocky Reach at about 27 mills per kWh in 2017, compared with 24 mills in 2013, and these figures fluctuate based on streamflow conditions. The district operates the facility under a long-term license from FERC that extends to Dec. 31, 2028.

The Rock Island project's strong project economics provide strong assurance of cost recovery from the project's direct offtakers. Production costs averaged about 27 mills per kWh over the past five years, and availability factors about 75%, although project availability dipped to 59% in 2017 from 90% in 2013 and 81% in 2015 as a result of several units' being out of service for repair or turbine replacement. As with Rocky Reach, the project's units operate independently, allowing continued operations even in the event of forced outage at one or multiple units. Capacity factor was 51% in fiscal 2017 versus an average of 52% from 2013 to 2017.

The project's financial profile is solid, in our opinion. DSC of both senior- and subordinate-lien debt, treating interfund loans as deductions to net revenue, was 1.91x in fiscal 2017, and DSC for all debt and loans was 1.54x. Debt to capitalization remains high at 84% in fiscal 2017 but has improved over the years, from 105% in 2013. Debt per kW of installed capacity was \$558 in 2017, down from \$681 in 2013.

Contract terms

Rocky Reach has power sales contracts with purchasers as follows:

- Puget Sound Energy Inc. (25% share through 2031)
- Alcoa (26% share through 2028)
- Douglas County Public Utility District No. 1 (5.54% share through 2021, subject to extensions)

Rock Island has power sales contracts with purchasers as follows:

- Puget Sound Energy Inc. (25% share through 2031)
- Alcoa (26% share through 2028)

Chelan will use the remaining output in its own retail electric system or sell it into the market, including "slice" sales out up to 10 years with various counterparties that are designed to reduce wholesale revenue volatility and uncertainty.

The contracts with Puget Sound Energy and Alcoa are cost-plus, take-or-pay contracts that recoup operating and debt costs, 15% excess coverage, and capital recovery costs. This provides the district financing flexibility and full operational control. There is a mandatory step-up by purchasers if another defaults. Regardless, should one or more of the power purchasers default, the low-cost power can readily be resold into the wholesale power markets, ensuring adequate funds for debt service. The "plus" components of the contracts include various charges for debt reduction and pay-as-you-go capital. In addition, the district has already received upfront capacity reservation payments totaling \$112 million from Puget and Alcoa. Furthermore, the district's contract with Alcoa contains financial penalties, should

the company fail to meet specified production levels at its Wenatchee smelter.

Alcoa curtailment

Alcoa Inc., the former parent company of Alcoa Corp., curtailed operations at Wenatchee Works smelter in December 2015, and about 425 employees were laid off in connection with the shutdown. When Alcoa separated from its former parent company, it kept its main aluminum operation, which includes the local Wenatchee Works smelter. The district assigned the existing power contract for the smelter to the new company in November 2016, when the separation occurred, after receiving additional performance assurances including a minimum collateral requirement of \$40 million. In May 2017, given Alcoa's and the district's desire to preserve the prospect for a future restart (as a benefit to the local economy), the district's commission approved a one-year deferral of what is known as the Shutdown Settlement Amount to June 2018. This contract amendment required that Alcoa pay the district \$7.3 million in June 2017. If the plant remains curtailed in June 2018, Alcoa will owe a \$62 million Shutdown Settlement payment. These funds would count toward the district's unrestricted cash balance. Even if Alcoa remains shut down, it is contractually obligated to pay its share of monthly operating costs and debt service, although any revenue generated by the sale of its share of power would be netted against such payments. In addition, the district continues to hold \$83 million in collateral for protection against default. Alcoa has not yet notified the district of its operational plans for June 2018 but a decision is expected soon.

Outlook

The stable outlook reflects our view of the projects' strong operating performance and low production costs, with costs particular low at Rocky Reach. Long-term contracts provide a stable revenue stream, and strong project economics provide credit stability and mitigate credit risks regarding regulation, environmental mandates, and offtaker credit quality. We anticipate that the projects will remain competitive with other generators or resource options in the region, even at Rock Island, where particularly high capital investments are required over the next five years.

Upside scenario

For Rock Island, given significant capital needs, which could drive up per-unit power costs, and given high project debt, and we do not anticipate raising the ratings during the next two years. Also limiting rating upside is our expectation that DSC is unlikely to materially improve.

For Rocky Reach, although leverage is favorable and capital spending needs are relatively low, we also don't anticipate raising the rating given our expectation that DSC is unlikely to materially improve.

Downside scenario

We do not anticipate lowering the ratings for either projects' bonds over the next two years, given the competitive cost of power from both projects, but we could do so in the unlikely event that costs are no longer competitive on a sustained basis, such as if market prices in the region continue their recent decline and materially disrupt project competitiveness.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors,

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