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

Primary Credit Analyst:
Paul J Dyson, San Francisco (1) 415-371-5079; paul.dyson@spglobal.com

Secondary Contact:
Peter V Murphy, New York (1) 212-438-2065; peter.murphy@spglobal.com

Table Of Contents

Rationale
Outlook
Related Criteria And Research
Summary:
Chelan County Public Utility District No. 1, Washington; Wholesale Electric

Credit Profile

<table>
<thead>
<tr>
<th>Description</th>
<th>Rating</th>
<th>Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chelan Cnty Pub Util Dist #1 WHLELC (Rocky Reach)</td>
<td>AA/Stable</td>
<td>Affirmed</td>
</tr>
<tr>
<td>Chelan Cnty Pub Util Dist #1 WHLELC (Rock Island)</td>
<td>AA-/Stable</td>
<td>Downgraded</td>
</tr>
<tr>
<td>Chelan Cnty Pub Util Dist #1 (Chelan Hydroelec Cons Sys) cons sys rev</td>
<td>AA(SPUR)/Stable</td>
<td>Affirmed</td>
</tr>
</tbody>
</table>

Many issues are enhanced by bond insurance.

Rationale

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

The lowered rating on the series 2009A subordinate-lien Rock Island hydroelectric system revenue bonds reflects the application our criteria "Assigning Issue Credit Ratings Of Operating Entities," published on May 20, 2015. S&P Global Ratings published these criteria to provide additional transparency related to the assignment of issue credit ratings on U.S. public finance debt instruments of operating entities, including the assignment of issue credit ratings and on subordinated obligations of these entities. The series 2009A Rock Island hydroelectric system revenue bonds are subordinate to the series 1997A senior lien Rock Island hydroelectric system revenue bonds, and as per our revised criteria cited above, we calculate debt service coverage (DSC) on an all-in basis (combined net revenue divided by combined debt service requirements) when assigning a rating to the senior lien, and we assign a rating one notch lower to the subordinate lien. Although the senior lien is closed, 97% of the bonded debt outstanding is on the senior lien.

Securing each project's debt separately is the respective project's output.

In our opinion, the two projects' credit strengths include the following:

- Historical production costs that are very low and that we expect to remain highly competitive, even in the event of below-average stream flow conditions;
- The projects' strong operating performance and the flexibility from their multiple turbines, which together partially mitigate single asset risk;
- The ability to pass through 100% of its costs to off-takers, which have signed take-or-pay contracts; and
The district's ability to reassign or remarket surplus energy in the event of payment default by a contractual off-taker.

Securing the bonds are project revenues 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 scale from '1' to '10', with '1' being the strongest. The business profile scores reflects our view of each project's superior competitiveness, somewhat shallow economics, take-or-pay off-taker contracts for most of its capacity, strong management, and physical attributes and operational practices that substantially mitigate the risk of production curtailment due to unit outage or environmental requirements.

Bond provisions under the master bond resolution are weak, in our view, and include a 1x DSC additional bonds test based on operating revenues and a 1x DSC rate covenant based on net revenues 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 $234 million in direct debt outstanding, including $227 million in senior-lien debt and $7 million in subordinate-lien debt as of Dec. 31, 2015, not including interfund loans due to the consolidated system totaling an additional $124 million. Chelan's capital improvement plan indicates an annual average of $30 million in spending at the project during the next five years, a moderate increase from about $10 million per year in the five-year period of 2011 to 2015.

The Rocky Reach hydroelectric project had approximately $13.6 million in direct debt outstanding, all senior-lien debt, not including interfund loans due to the consolidated system totaling an additional $178 million. Chelan's capital improvement plan indicates an annual average of $10 million in spending at the project during the next five years, a significant increase from about $6 million per year in the five-year period of 2011 to 2015.

The district will fund both projects' capital needs from available and recurring revenues. No additional debt is currently planned through 2020.

**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 2015, compared with 11 mills per kWh in 2011. 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 superb project economics provide strong assurance of cost recovery from the project's direct off-takers. Production costs have averaged about 12 mills per kWh over the past five years. The availability factor was 79% in 2015 but has averaged 87% over the 2011-2015 period. Production costs are still competitive even in years of low stream flow, 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 unit.
We view the project’s financial risk profile as strong. DSC of direct system debt and treating interfund loans as deductions to net revenues was 14.9x in fiscal 2015 and is projected at no less than 12.7x through 2020. DSC for all direct debt and loans was 1.49x in fiscal 2015 and is projected at no less than 1.46x through 2020. Debt-to-capitalization has moderated in recent years, declining to 58% in 2015 from 74% in 2011. Debt per kilowatt of installed capacity was $162 in 2015, down from $224 in 2011.

**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 about 27 mills per kWh in 2015, compared with 24 mills in 2011, the difference largely due to stream flow conditions. The district operates the facility under a long-term license from FERC that extends to Dec. 31, 2028.

The Rock Island project's superb project economics provide strong assurance of cost recovery from the project's direct off-takers. Production costs averaged about 26 mills per kWh over the past five years, and availability factors about 88%, although project availability dipped to 82% in 2014 from 90% in 2013, and was 81% in 2015 due to several units being out of service for repair or turbine replacement. The project’s units operate independently, allowing continued operations even in the event of forced outage at one of the units. Capacity factor was 53% in fiscal 2015 versus the average from 2011-2015 of 55%.

The project's financial profile is solid, in our opinion. DSC of both senior- and subordinate-lien debt and treating interfund loans as deductions to net revenues was 1.96x in fiscal 2015 and is projected at no less than 1.76x through 2020. DSC for all debt and loans was 1.55x in fiscal 2015 and is projected at no less than 1.46x through 2020. Debt-to-capitalization remains high but has improved over the years, to 96% as of fiscal 2015 from 115% in 2011. Debt per kilowatt of installed capacity was $616 in 2015, down from $739 in 2011.

**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), and
- 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), and
- Alcoa (26% share through 2028).

Chelan will use the remaining output in its own retail electric system or sell it into the market, including five-year "slice" sales with various counterparties that are designed to reduce wholesale revenue volatility.

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 of $89 million from Puget and $22.9 million from Alcoa, which has bolstered liquidity. These funds are unrestricted from Chelan's standpoint. 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**

In November 2015, Alcoa notified Chelan of its intent to idle its Wenatchee Works plant as part of its companywide plan to shut down smelting operations. But, in 2007, when the contract with Alcoa was created, various provisions were included as incentives for Alcoa to remain in Wenatchee and maintain operations, with increased financial benefits for more production and full-employment for plant workers. Keeping good-paying industrial jobs in the local economy was a high priority for the commission at the time and remained so as news of the shutdown was delivered. In December 2015, Alcoa in fact curtailed its Wenatchee Works smelting facility. But, under terms of the power sales agreement, Alcoa must continue to pay its 26% share of the costs and charges regardless of the actual amount of energy produced or the amount of power used to operate Wenatchee Works. Per the contract's provisions addressing a shutdown event, the district is selling unused power in the wholesale market on Alcoa's behalf. After a 90-day threshold of being curtailed, the revenues from unused power sales is first applied to Alcoa's monthly contractual costs and surplus amounts over Alcoa's costs will be retained by the district, while any shortfalls will be paid by Alcoa. As such, the Alcoa shutdown is not expected to adversely impact the district's or hydro projects' finances.

If the shutdown lasts longer than 90 days, two charges may apply. The first charge is the "Initial Shutdown Amount," which could be as high as $8.6 million if the plant is idle for one year. The second charge is the "Shutdown Settlement Amount," which is the $67 million deferred capacity reservation charge that becomes due if Wenatchee Works remains shutdown for longer than 18 months. The district currently holds $86 million in collateral for protection against default. The district has the right to terminate the contract after the 18-month shutdown period is met. According to management, if the district instead sold Alcoa's power at market prices, higher revenues would likely result, but the district maintains its priority for Alcoa to restart the plant given the economic benefit of the related jobs. About 425 employees were laid off in connection with the shutdown.

**Outlook**

The stable outlook reflects our view of the projects' strong operating performance and low cost. Long-term contracts provide a stable revenue stream. Strong project economics provide credit stability and override 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 despite the high capital investment required to make improvements over the next five years.

**Upside scenario**

Given generally high project debt and capital needs, as well as the possibility of rising per-unit power costs, we do not anticipate raising the ratings during the next two years.
Downside scenario
We do not anticipate lowering the ratings over the next two years, given the competitive cost of power, but we could do so in the unlikely event that costs are no longer competitive on a sustained basis, or if other operating risks present themselves.

Related Criteria And Research

Related Criteria
- USPF Criteria: Wholesale Utilities, May 24, 2005
- Criteria: Use of CreditWatch And Outlooks, Sept. 14, 2009

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on the S&P Global Ratings public website at www.standardandpoors.com. Use the Ratings search box located in the left column.