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## Research Update:

# Finnish Nuclear Power Producer TVO Downgraded To 'BBB-/A-3'; Outlook Negative

### Primary Credit Analyst:

Alf Stenqvist, Stockholm (46) 8-440-5925; alf.stenqvist@standardandpoors.com

### Secondary Contact:

Lovisa Forsloef, Stockholm +4684405908; lovisa.forsloef@standardandpoors.com

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## Research Update:

# Finnish Nuclear Power Producer TVO Downgraded To 'BBB-/A-3'; Outlook Negative

## Overview

- Difficult market conditions are continuing to put pressure on Nordic electricity prices.
- Furthermore, delays in the construction of Teollisuuden Voima Oyj's (TVO's) new nuclear power plant pose the risk of higher production costs.
- We are therefore lowering our ratings on TVO to 'BBB-/A-3' from 'BBB/A-2'.
- The negative outlook indicates that we could lower the ratings further if low electricity prices and high investment costs keep weakening TVO's competitiveness and the cost advantage it offers to its shareholders.

## Rating Action

On May 28, 2015, Standard & Poor's Ratings Services lowered its long- and short-term corporate credit ratings on Finland-based nuclear power producer Teollisuuden Voima Oyj (TVO) to 'BBB-/A-3' from 'BBB/A-2'. The outlook is negative.

## Rationale

The downgrade primarily reflects our view that TVO's cost competitiveness has reduced, owing to continued deterioration in market prices and increased risk of higher production costs related to TVO's third nuclear power plant, Olkiluoto 3. In our view, this could eventually dilute the cost advantage TVO offers to its shareholders.

We believe that maintaining a cost advantage over market prices is critical to shareholders' long-term supportiveness of TVO, which sells the electricity it generates exclusively to its shareholders. Difficult market conditions in the Nordic electricity markets have continued to put pressure on electricity prices, with future prices now lower than a year ago. At the same time, the significant delays in the construction of TVO's new nuclear power plant, Olkiluoto 3, has left TVO nine years behind its original schedule, with significant increases in financing and project-management costs. As a result, uncertainty about the final production costs when Olkiluoto 3 comes into operation has increased.

That said, we still expect TVO's production costs to remain below Finnish-area electricity prices, even when production starts at Olkiluoto 3 and shareholders are charged for depreciation (including capitalized interest) and interest costs. However, we believe that TVO's cushion against a further

decline in market prices, or additional cost overruns or delays at Olkiluoto 3, has diminished. This could also reduce the economic attractiveness of TVO's business model for its owners, although we believe the owners view their stakes in TVO as long-term investments. TVO is also still in an arbitration process with its suppliers, and we consider that an unfavorable outcome would further weaken its cost competitiveness.

We continue to view TVO's business risk profile as "strong," although somewhat weaker than before. TVO's business risk profile is underpinned by its protective business model, including a full cost-cover structure backed by a long-term off-take arrangement with the owners. According to the company's articles of association, the shareholders are severally liable for TVO's annual fixed costs (accounting for about 80%-85% of total costs), including interest expenses and debt installments. They are also responsible for TVO's variable costs in proportion to their off-take. Although the shareholders are not jointly liable for TVO's costs, we believe they would have a strong interest in supporting TVO should any individual shareholder default, as long as they expect TVO's production costs to be competitive in the long term. Alternatively, we believe that TVO could sell any residual output through the Nordic spot power market and cover all, or at least a significant part, of its costs. Two of TVO's major underlying shareholders through Pohjolan Voima Oy--UPM-Kymmene and Stora Enso--have weaker credit quality than TVO. We believe this is mitigated by the high likelihood that other or new shareholders would step in if any of the existing shareholders were to default.

TVO currently has only two plants, so this small asset base exposes it to significant operational risk. That said, TVO has a strong operational track record, which contributes to competitive production costs at its existing nuclear plants. Moreover, the company's high operating efficiency is demonstrated by high capacity utilization rates, which have averaged about 95% over the past 20 years and remain above 90%, despite lengthy outages due to a turbine modernization program in recent years. TVO has modernized and upgraded its plants over the years, ensuring that they always have a remaining technical lifetime of 40 years. Continued strong operating efficiency is a key factor for the sustainability of TVO's business model and, implicitly, continued support from the shareholders.

TVO's "significant" financial risk profile is mainly based on the company's high debt leverage, which has increased due to further delays to the Olkiluoto 3 project. Because of the company's nonprofit cost-cover structure, its financial ratios are less indicative of its financial risk profile than those of profit-maximizing enterprises. Although partly equity financed, the construction of Olkiluoto 3 has significantly increased TVO's capital spending and debt in recent years. In addition, the interest costs related to the debt for Olkiluoto 3 are treated as capital expenditure in TVO's accounts and not passed on to the shareholders as production costs. This further weakens TVO's financial measures. This situation is likely to persist for the next few years, due to continued high investment needs and negative free cash flows during the completion of Olkiluoto 3.

TVO has a relatively short-dated debt-maturity profile in relation to the economic lifetime of its asset base and near-term cash flows. This increases the company's exposure to refinancing risk, although according to its articles of association, TVO can charge its shareholders its yearly fixed costs, which include installments and interest payments on loans falling due annually, in accordance with its loan agreements. That said, TVO's debt does not benefit from any guarantees.

The financial risk profile is supported by TVO's full cost-cover structure and articles of association stipulating that the shareholders are responsible for annual fixed costs, as well as other expenses resulting from the financing of the company.

In our base case, we assume:

- TVO will continue to fully cover its production costs (including interest expenses), which we expect will remain competitive in the near term.
- No unexpected outages at the company's existing plants, Olkiluoto 1 and Olkiluoto 2.
- No further significant cost overruns in the commissioning of Olkiluoto 3.
- No penalties from or paid to the suppliers of Olkiluoto 3, tied to the arbitration process related to the construction delay.
- Continued use of the remaining €400 million of shareholder loan commitments for Olkiluoto 3.
- No further material costs related to a potential fourth nuclear reactor, reflecting TVO's board's decision to not apply for a construction license.

Based on these assumptions, we arrive at the following credit measure:

- An equity-to-asset ratio of 25%-30% in 2015 and 2016.

### **Liquidity**

We view TVO's liquidity as "adequate," and expect that available liquidity sources will cover anticipated cash outflows by well over 1.2x over the next 12 months. Our assessment is based on the company's sound relationships with banks, satisfactory standing in credit markets, in our view, and adequate headroom under the financial covenant. We anticipate that TVO's cash, long-term committed credit facilities, and shareholder loan commitments will be sufficient to cover significant cash outflows primarily related to the completion of Olkiluoto 3 over the next few years. In our opinion, TVO needs to maintain ample liquidity and proactively prefinance upcoming funding needs, well in advance, to offset refinancing risk. Positively, fixed costs are charged monthly in advance, which reduces TVO's working capital needs.

The company's loan documentation includes one financial covenant, which stipulates an equity-to-assets ratio of 25%. In calculating the ratio, TVO excludes fully funded waste-management liabilities from debt and loans from the Finnish State Nuclear Waste Management Fund, whose proceeds are lent to the shareholders; shareholder loans are included in equity. As of March 31, 2015, the equity-to-assets ratio was about 30%, according to TVO. We also take into consideration shareholder loan commitments of currently €400 million

relating to the completion of Olkiluoto 3, which TVO can use at any time to improve the equity ratio and covenant headroom if needed.

Principal liquidity sources:

- About €370 million in unrestricted cash and equivalents;
- Access to an undrawn €1.5 billion revolving credit facility, of which €50 million matures in 2016, and €1.45 billion in 2018;
- Shareholder loan commitments totaling €400 million related to the construction of Olkiluoto 3; and
- Forecast funds from operations exceeding €60 million over the near term (excluding capitalized interest).

Principal liquidity uses:

- About €400 million of debt maturing in the next 12 months and €380 million in the subsequent 12 months; and
- Expected capital expenditures (including capitalized interest) of about €0.3 billion-€0.4 billion in the next 12 months.

## Outlook

The negative outlook indicates that we could lower the ratings further if low electricity prices and high investment costs keep weakening TVO's competitiveness and the cost advantage it offers to its shareholders. We see a risk of this happening if Nordic electricity prices stay low and costs related to the Olkiluoto 3 project increase. We believe maintaining a cost advantage over market prices is a critical component of TVO's business model and thereby also of the shareholders' long-term supportiveness of the company.

We could also lower the ratings if any significant shareholder were no longer able or willing to continue purchasing its proportionate output from TVO, and no other or new shareholder were willing to assume the responsibility. A downgrade could also follow a material weakening in the credit quality of TVO's underlying shareholders, which could impede their ability to fulfil their obligations to TVO.

We could revise the outlook to stable if we became more certain that TVO's production costs will stay competitive and structurally below market prices in the longer term, supporting the continued economic attractiveness of the company's business model. For example, this could occur if we were to get better visibility of the final cost and timetable of the Olkiluoto 3 project.

## Related Criteria And Research

### Related Criteria

- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- The Treatment Of Non-Common Equity Financing In Nonfinancial Corporate

Entities, April 29, 2014

- Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Methodology For Linking Short-Term And Long-Term Ratings For Corporate, Insurance, And Sovereign Issuers, May 7, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- Methodology: Business Risk/Financial Risk Matrix Expanded, Sept. 18, 2012
- Use Of CreditWatch And Outlooks, Sept. 14, 2009
- 2008 Corporate Criteria: Rating Each Issue, April 15, 2008
- 2008 Corporate Criteria: Analytical Methodology, April 15, 2008

## Ratings List

Downgraded

	To	From
Teollisuuden Voima Oyj		
Corporate Credit Rating	BBB-/Negative/A-3	BBB/Negative/A-2
Senior Unsecured	BBB-	BBB

### Additional Contact:

Infrastructure Finance Ratings Europe; [InfrastructureEurope@standardandpoors.com](mailto:InfrastructureEurope@standardandpoors.com)

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