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## Summary:

# Teollisuuden Voima Oyj

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## Table Of Contents

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Rationale

Outlook

Standard & Poor's Base-Case Scenario

Business Risk

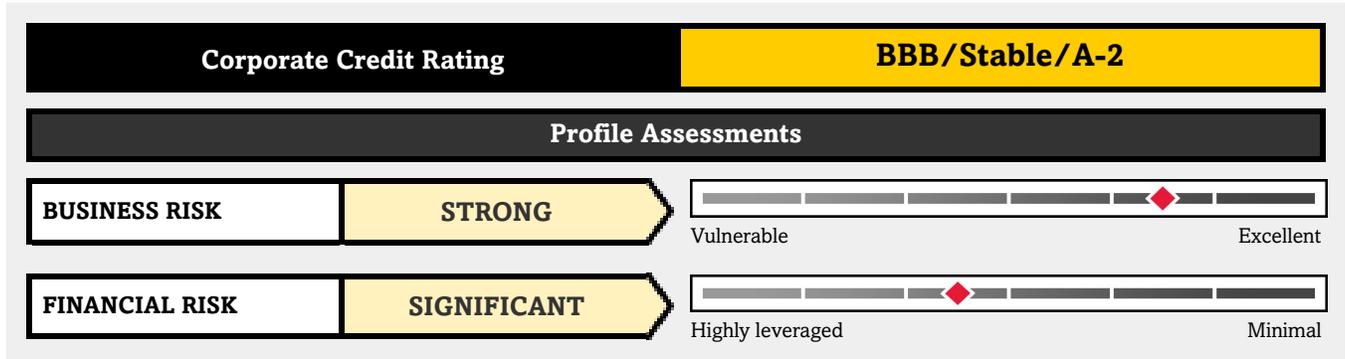
Financial Risk

Liquidity

Related Criteria And Research

Summary:

# Teollisuuden Voima Oyj



## Rationale

Business Risk: Strong	Financial Risk: Significant
<ul style="list-style-type: none"> <li>• Protective business model, including a full cost-cover structure backed by long-term off-take agreements with the owners.</li> <li>• Strong operational track record and competitive production cost of existing plants.</li> <li>• Supportive political and regulatory environment.</li> <li>• Significant project risk related to the construction of a third nuclear plant</li> <li>• Asset concentration and general risk related to nuclear power operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Weak financial ratios owing to non-profit structure.</li> <li>• Relatively short debt-maturity profile in relation to the economic life of the asset base.</li> <li>• Sufficient liquidity to cover significant funding needs over the next few years.</li> <li>• Shareholder obligation to pay all annual fixed costs, including installments and interest.</li> </ul>

## Outlook: Stable

The stable outlook on Finland-based nuclear power producer Teollisuuden Voima Oyj (TVO) reflects Standard & Poor's Ratings Services' expectation that the company will continue to produce electricity efficiently under its current cost-coverage structure, with a long-term production charge to shareholders that is well below average market prices. It further assumes that the company will maintain an adequate liquidity position and remain proactive in prefinancing upcoming funding needs, which are significant due to the completion of a third nuclear plant, Olkiluoto 3. We assume that TVO will retain sufficient liquidity resources to cover the substantial expected cash outflows during the remainder of the plant's construction, as well as upcoming near-term debt maturities. We also expect TVO's shareholders to continue to support the company's funding needs through shareholder loans, which would help it maintain an equity ratio of at least 25% (as defined by TVO).

### Downside scenario

Downward rating pressure could result if we were to see evidence of any weakening of TVO's business model and reduced prospects for full recovery of its production costs, which include operational as well as financial costs.

This could, for example, occur if:

- TVO's production costs unexpectedly escalated to above market prices for a long period, for example, owing to further significant cost delays relating to Olkiluoto 3 or unexpected and severe interruptions at existing plants;
- Market prices fell structurally below TVO's production costs;
- Any significant shareholder were no longer able or willing to continue to purchase its proportion of output from TVO, and no other or new shareholder were willing to assume the responsibility; and
- The Mankala principle (see Business Risk below) and its attractiveness changed unexpectedly.

We could also consider a negative rating action if we were to see material weakening in the credit quality of TVO's underlying shareholders, which could reduce their ability to fulfill their obligations to the company. In addition, the ratings could be negatively affected if TVO failed to address upcoming funding needs in a timely manner.

### Upside scenario

We view upside rating potential as currently limited, reflecting pressure on the company's financial risk profile due to its ongoing investments in Olkiluoto 3, in addition to the weaker credit quality of some underlying shareholders.

## Standard & Poor's Base-Case Scenario

Our base-case scenario for TVO in 2013-2014 points to continued high availability at the company's nuclear plants and a stable equity ratio, despite significant ongoing investment in Olkiluoto 3.

Assumptions	Key Metrics			
<ul style="list-style-type: none"> <li>• TVO will continue to fully cover its production costs (including interest expenses).</li> <li>• No unexpected outages at the company's existing plants, Olkiluoto 1 and Olkiluoto 2.</li> <li>• We expect no further major delays or cost overruns in the commissioning of Olkiluoto 3.</li> </ul>		<b>2012A</b>	<b>2013E</b>	<b>2014E</b>
	Capacity factor (1)	93.7%	>90%	>90%
	Capital spending (mil. €) (2)	308	300-400	400-500
	Equity ratio (3)	28%	25%-30%	25%-30%
A--Actual. E--Estimate.				
(1) Availability of Olkiluoto 1 and Olkiluoto 2.				
(2) Including capitalized interest.				
(3) As defined by the company (equity divided by balance-sheet total minus provision related to nuclear waste management and to a loan from the Finnish State Nuclear Waste Management fund).				

## Business Risk: Strong

TVO's "strong" business risk profile is underpinned by its protective business model, including a full cost-cover structure backed by long-term off-take agreements with the owners. TVO operates under the Mankala principle, whereby it produces electricity at cost solely for its six shareholders. 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, to protect their investment in and output from a proven low-cost electricity producer. Alternatively, we believe that TVO could sell any residual output through the Nordic spot power market at a price above its full production cost.

The commissioning of Olkiluoto 3 will initially significantly increase the total production costs charged to the shareholders because the shareholders will be charged for depreciation (including capitalized interest) and interest costs. We believe, however, that TVO's production costs will remain competitive over the long term as we expect the company to amortize the debt related to Olkiluoto 3. The cost of construction has been escalated by delays and cost overruns (commissioning was originally planned for 2009). In addition, despite a turn-key fixed price contract, there is no certainty that TVO will receive compensation through ongoing arbitration with the supplier.

We do not currently incorporate any impact from the prospective construction of a fourth nuclear power plant at Olkiluoto because we anticipate that a final decision about construction is not likely before Olkiluoto 3 is in operation, which TVO currently assumes will take place in 2016.

Although the shareholders are responsible for TVO's fixed costs, regardless of whether or not the company produces electricity, TVO would likely need to remain operationally efficient and cost competitive for its business model to be viable over the long term. TVO's limited asset base, with only two plants, exposes the company to significant operational risk. 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 upgrades 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.

In our opinion, the Finnish government has been supportive of nuclear power and the Mankala model. The state has shown its support for nuclear power by its approval in 2002 of the construction of Olkiluoto 3, and a decision in principle in 2010 on construction of two new nuclear reactors, including Olkiluoto 4. We note, however, that the government will introduce a new tax on carbon-dioxide-free nuclear and hydropower generation, with the aim of raising €50 million a year. The tax is expected to be introduced in 2014.

The credit quality of UPM-Kymmene and Stora Enso, which are major underlying shareholders of TVO through Pohjolan Voima Oy (PVO), are weaker than that of 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.

In our base-case assessment, we assume that TVO will continue to fully cover its production costs (including interest expenses), which we expect to remain very competitive in the near term. We estimate that TVO's production costs for its current two nuclear plants are about €20 per megawatt hour, which compares favorably with the Nordic power exchange's futures prices for 2014 (about €34 per megawatt hour as of mid-December 2013).

## Financial Risk: Significant

Our assessment of TVO's financial risk profile is mainly based on the company's high leverage. Reflecting the company's non-profit cost cover structure, its financial ratios are less indicative when comparing its financial risk profile with those of its European peers.

Nevertheless, 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 being capitalized during construction. This means that they are treated as capital expenditure in TVO's accounts, and will not be covered by production charges to shareholders until the plant is on stream and producing. Capital expenditure for the existing plants is covered mainly by depreciation charges to shareholders. The capitalization of interest costs during construction, instead of gradually charging shareholders for the increasing interest cost, further contributes to the weakness of TVO's financial ratios, which 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. We anticipate, for example, that funds from operations (FFO), including capitalized interest, will be negative over the near term.

TVO has a relatively short debt-maturity profile in relation to the economic lifetime of the asset base and near-term cash flows. This increases the company's exposure to refinancing risk, although according to the articles of association,

installments on the company's loans falling due annually in accordance with its loan agreements are part of the yearly fixed costs TVO can charge its shareholders. There is, however, no guarantee on TVO's debt.

The financial risk profile is supported by TVO's full cost-cover structure and articles of association that stipulate that shareholders are responsible for all annual fixed costs, including installments and interest payments on the company's loans falling due annually in accordance with its loan agreements, as well as other expenses resulting from the financing of the company. We anticipate that TVO's existing liquidity sources in the form of 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. We believe that 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.

In our base-case scenario, we assume that TVO's financial risk profile will remain hampered in the near to medium term by the large investment in the new nuclear plant. Combined with the company's not-for-profit structure, and the fact that costs related to Olkiluoto 3 will not be charged to shareholders until the plant is in production, this results in weak debt-protection measures.

## Liquidity: Adequate

We view TVO's liquidity as "adequate," based on our expectation that available liquidity sources will cover anticipated cash outflows by at least 1.2x over the next 12 months. Sound relationships with banks and a satisfactory standing in credit markets, in our view, further support the company's liquidity position.

The company's loan documentation includes one financial covenant, which stipulates an equity-to-asset ratio of 25%. In calculating the ratio, fully funded waste-management liabilities are excluded from debt, as are loans from the Finnish State Nuclear Waste Management Fund (which are lent to the shareholders), while shareholder loans are included in equity. As of Sept. 30, 2013, the ratio was about 30%, according to TVO. We also take into consideration shareholder loan commitments of currently €720 million, of which €500 million relates to the completion of Olkiluoto 3, and which TVO can raise at any time to improve the equity ratio and covenant headroom if needed.

Principal Liquidity Sources	Principal Liquidity Uses
<p>(As of Sept. 30, 2013)</p> <ul style="list-style-type: none"> <li>• About €220 million in unrestricted cash and equivalents;</li> <li>• Access to an undrawn €1.5 billion revolving credit facility, of which €50 million matures in 2016 and €1.45 billion in 2018;</li> <li>• Shareholder loan commitments totaling €720 million related to the construction of Olkiluoto 3 and the bidding and engineering phase of Olkiluoto 4; and</li> <li>• FFO, which we expect to be about €60 million over the near term (excluding capitalized interest).</li> </ul>	<p>(As of Sept. 30, 2013)</p> <ul style="list-style-type: none"> <li>• Debt maturities of about €172 million in the next 12 months and €175 million in the subsequent 12 months; and</li> <li>• Expected capital expenditures of about €0.5 billion-€0.7 billion in the next 12 months.</li> </ul>

## Related Criteria And Research

- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Nov. 19, 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
- Methodology: Short-Term/Long-Term Ratings Linkage Criteria For Corporate And Sovereign Issuers, May 15, 2012
- Use Of CreditWatch And Outlooks, Sept. 14, 2009
- 2008 Corporate Criteria: Analytical Methodology, April 15, 2008
- Applying Key Rating Factors to U.S. Cooperative Utilities, Nov. 21, 2007

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