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Teollisuuden Voima Oyj

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Teollisuuden Voima Oyj

Corporate Credit Rating	BBB/Stable/A-2

Profile Assessments

BUSINESS RISK	STRONG	Vulnerable — Excellent
FINANCIAL RISK	SIGNIFICANT	Highly leveraged — Minimal

Rationale

Business Risk: Strong

- Protective business model, including full cost-cover structure backed by long-term off-take agreements with owners.
- Strong operational track record and competitive production cost of existing plants.
- Supportive political and regulatory environment.
- Significant project risk related to the construction of a third nuclear plant
- Asset concentration and general risk related to nuclear power operations.

Financial Risk: Significant

- Weak financial ratios owing to non-profit structure.
- Relatively short debt maturity profile in relation to the economic life of the asset base.
- Sufficient liquidity to cover significant funding needs over the next few years.
- Shareholder obligation to pay all annual fixed costs, including installments and interest.

Outlook: Stable

The stable outlook on Finland-based nuclear power producer Teollisuuden Voima Oyj (TVO) reflects our expectation that the company will continue to produce electricity efficiently under its current cost-coverage structure, with a long-term production charge to shareholders well below average market prices. It further assumes that the company will maintain an adequate liquidity position, and remain proactive in pre-financing 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 to 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 on a long-term basis, 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; and
- Any significant shareholder was no longer able or willing to continue to purchase its proportionate output from TVO, and no other or new shareholder was willing to assume the responsibility;
- 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 lead to reduced 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 on-going investments in Olkiluoto 3, in addition to the weak credit quality of some underlying shareholders compared with TVO itself.

Standard & Poor's Base-Case Scenario

Our base-case scenario for 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
• TVO will continue to fully cover its production costs (including interest expenses). • No unexpected outages at the company's existing plants, Olkiluoto 1 and Olkiluoto 2. • We expect no further major delays or cost overruns in the commissioning of Olkiluoto 3.	see below

	2012A	2013E	2014E
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--Estimated.

(1)Availability of Olkiluoto 1 and Olkiluoto 2.

(2)Including capitalized interest.

(3)As defined by the company (equity divided by balance sheet total – provision related nuclear waste management-loan from the Finnish State Nuclear Waste Management fund).

Company Description

TVO is a non-listed public company, established in 1969 to produce electricity for its shareholders at cost price under the Mankala business model. The largest shareholders are Pohjolan Voima, another company based on the Mankala principle, and Fortum Power & Heat).

The company owns and operates two nuclear power plant units, Olkiluoto 1 and Olkiluoto 2, at Olkiluoto in southwestern Finland. The two plants each have a net capacity of 880 megawatts. TVO also receives power from the 45%-owned Meri-Pori coal-fired power plant, which has a total capacity of 565 megawatts (Fortum Power & Heat being the majority owner and operator). A third 1,600-megawatt nuclear power plant (Olkiluoto 3) is under construction at Olkiluoto. In 2010, the Finnish parliament made a decision in principle to approve an application by TVO to construct a fourth nuclear power plant at Olkiluoto. Although TVO has started the bidding and engineering phase for the fourth plant, no final decision on construction has been taken. TVO is also a 60% shareholder in Posiva Oy, which is responsible for the final disposal of spent fuel from the plants.

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 as 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), and, despite a turn-key fixed price contract, there is no certainty that TVO will receive compensation through on-going arbitration with the supplier. We do not currently incorporate any impact from the prospective construction of a fourth nuclear power plant at Olkiluoto, as 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 contributing to competitive production costs at its existing nuclear plants. Moreover, the company's high operating efficiency is evidenced by high capacity utilization rates, which have averaged about 95% over the past 20 years, and constantly remained 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 state has been supportive of nuclear power and the Mankala model. The state's support for nuclear power is evidenced by the 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 intends to introduce a new tax on carbon-dioxide-free nuclear and hydropower generation, with the aim of raising €50 million a year. The tax is currently expected to be introduced in 2014, but details are not yet known.

The credit quality of UPM-Kymmene and Stora Enso, which are major underlying shareholders of TVO through PVO, has weakened over the past several years. We believe this is mitigated by the fact that it is PVO that has a direct obligation to TVO and that there is a high likelihood that other or new shareholders would step in if any of the existing shareholders were to default.

S&P Base-Case Operating Scenario

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 Nordic power exchange (Nord Pool) futures prices for 2013 (about €35 per megawatt hour as of mid-May 2013). We base this on the following key factors:

- Olkiluoto 1 and Olkiluoto 2 will continue to operate without any unexpected outages at historical capacity factors of comfortably above 90%.
- We do not expect any further major delays or cost overruns in the commissioning of Olkiluoto 3. We assume that Olkiluoto 3 will be in operation by the end of 2016. Our base-case does not currently incorporate any potential construction of a fourth nuclear power plant at Olkiluoto as we anticipate that a final decision on construction is not likely to be made before Olkiluoto 3 is in operation.
- We factor in no prospective gains or losses from the ongoing arbitration with the provider of Olkiluoto 3.

Peer comparison

Table 1

Teollisuuden Voima Oyj -- Peer Comparison

	Teollisuuden Voima Oyj	Fortum Oyj	Tekniska Verken i Linkoping AB	Drax Power Ltd.
Rating as of May 17, 2013	BBB/Stable/A-2	A-/Negative/A-2	A/Stable/A-1	BB/Stable/--
	--Average of past three fiscal years--			
(Mil. €)				
Revenues	355.7	6,205.3	628.6	2,105.2
EBITDA	97.4	2,411.3	110.5	413.9
Net income from cont. oper.	13.7	1,492.7	34.6	326.0
Funds from operations (FFO)	(71.1)	1,494.4	98.7	307.4
Capital expenditures	184.5	1,333.2	70.9	129.2
Free operating cash flow	(261.3)	150.5	28.1	190.3
Discretionary cash flow	(261.3)	(737.5)	21.8	67.9
Cash and short-term investments	0.0	431.7	13.4	386.7
Debt	2,750.6	8,804.0	262.5	305.5
Equity	1,252.3	9,816.9	324.9	1,499.8
Adjusted ratios				
EBITDA margin (%)	27.4	38.9	17.7	19.7
EBITDA interest coverage (x)	0.6	6.9	10.0	15.7
EBIT interest coverage (x)	0.2	5.5	5.4	13.1
Return on capital (%)	1.1	9.7	8.8	17.1
FFO/debt (%)	(2.6)	17.0	37.6	100.8
Free operating cash flow/debt (%)	(9.5)	1.7	11.1	63.5
Debt/EBITDA (x)	28.2	3.7	2.4	0.7
Total debt/debt plus equity (%)	68.7	47.3	44.8	17.0

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.) This 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 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 annual 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 pre-finance 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.

S&P Base-Case Cash Flow And Capital Structure Scenario

In our base-case scenario, we assume that TVO's financial risk profile will continue to be negatively affected 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.

We anticipate that funds from operations (FFO) including capitalized interest will be negative over the near term. We believe, however, that the company has sufficient liquidity sources available to cover the substantial cash outflows during the remainder of the plant's construction as well as upcoming near-term debt maturities.

We expect the remaining capital spending related to Olkiluoto 3 to amount to about €1.9 billion including capitalized interest.

The equity ratio as defined by the company is expected to be 25%-30%.

Financial summary

Table 2

Teollisuuden Voima Oyj -- Financial Summary

	--Fiscal year ended Dec. 31--				
	2012	**2011**	**2010**	**2009**	**2008**
Rating history	BBB/Stable/A-2	-/-/-	-/-/-	-/-/-	-/-/-
(Mil. €)					
Revenues	352.2	352.4	362.6	305.4	257.3
EBITDA	94.7	101.8	95.9	57.9	22.8
Net income from continuing operations	(1.8)	5.7	37.3	(41.4)	(53.1)
Funds from operations (FFO)	(102.6)	(50.9)	(59.9)	(46.1)	(32.6)
Capital expenditures	161.3	204.0	188.2	712.2	525.8
Free operating cash flow	(241.5)	(291.3)	(251.1)	(809.1)	(558.7)
Discretionary cash flow	(241.5)	(291.3)	(251.1)	(809.1)	(558.7)
Cash and short-term investments	0.0	0.0	0.0	0.0	0.0
Debt	3,027.8	2,724.2	2,499.8	2,314.2	1,779.5
Equity	1,309.9	1,262.1	1,184.8	1,045.1	1,002.1
Adjusted ratios					
EBITDA margin (%)	26.9	28.9	26.4	19.0	8.8
EBITDA interest coverage (x)	0.5	0.6	0.6	0.5	0.3
EBIT interest coverage (x)	0.2	0.3	0.2	0.1	(0.2)
Return on capital (%)	0.9	1.2	1.1	0.4	(0.6)
FFO/debt (%)	(3.4)	(1.9)	(2.4)	(2.0)	(1.8)
Free operating cash flow/debt (%)	(8.0)	(10.7)	(10.0)	(35.0)	(31.4)
Debt/EBITDA (x)	32.0	26.8	26.1	40.0	78.2
Debt/debt and equity (%)	69.8	68.3	67.8	68.9	64.0

Liquidity: Adequate

We view TVO's liquidity as "adequate", based on our expectations that available liquidity sources will cover anticipated cash outflows by at least 1.2x over the next 12 months. Sound relationships with banks and 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 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 onlent to the shareholders), while shareholder loans are included in equity. As of March 31, 2013, the ratio was about 28%, according to TVO. Although this implies tightening covenant headroom, we take into consideration shareholder loan commitments of currently €530 million, which TVO can raise at any time to improve the equity ratio and covenant headroom if needed.

Principal liquidity sources

(As of March. 31, 2013)

- About €120 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 of a total of €530 million related to the construction of Olkiluoto 3 and the bidding and engineering phase of Olkiluoto 4; and
- FFO, which we expect to be about €60 million over the near term (excluding capitalized interest).

Principal Liquidity Uses

(As of March. 31, 2013)

- Debt maturities of about €216 million in the next 12 months and €230 million in the subsequent 12 months.
- Expected capital expenditures of about €0.4 billion in 2013 and €0.5 billion in 2014

Debt maturities*

2013: €215 million

2014: €47 million

2015: €305 million

2016: €856 million

Thereafter: €1.6 billion

*As of March 31, 2013.

Reconciliation

Table 3

Reconciliation Of Teollisuuden Voima Oyj Reported Amounts With Standard & Poor's Adjusted Amounts (Mil. €)										
	--Fiscal year ended Dec. 31, 2012--									
Teollisuuden Voima Oyj reported amounts										
	Debt	**Shareholders' equity**	**Revenues**	**EBITDA**	**Operating income**	**Interest expense**	**Cash flow from operations**	**Funds from operations**	**Dividends paid**	**Capital expenditures**
Reported	3,992.1	1,309.9	352.2	94.6	38.1	13.3	69.1	69.1	--	308.4
Standard & Poor's adjustments										
Operating leases	0.6	--	--	0.0	0.0	0.0	0.3	0.3	--	--
Surplus cash and near cash investments	(135.6)	--	--	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	--	147.1	(147.1)	(147.1)	--	(147.1)
Asset retirement obligations	--	--	--	--	--	28.3	1.8	1.8	--	--
Reclassification of nonoperating income (expenses)	--	--	--	--	0.8	--	--	--	--	--
Reclassification of interest, dividend, and tax cash flows	--	--	--	--	--	--	(4.2)	(4.2)	--	--
Reclassification of working-capital cash flow changes	--	--	--	--	--	--	--	(22.5)	--	--
Debt - Accrued interest not included in reported debt	52.4	--	--	--	--	--	--	--	--	--
Debt - Debt serviced by third parties	(881.7)	--	--	--	--	--	--	--	--	--
Total adjustments	(964.3)	0.0	0.0	0.0	0.8	175.4	(149.2)	(171.7)	0.0	(147.1)
Standard & Poor's adjusted amounts										
	Debt	**Equity**	**Revenues**	**EBITDA**	**EBIT**	**Interest expense**	**Cash flow from operations**	**Funds from operations**	**Dividends paid**	**Capital expenditures**
Adjusted	3,027.8	1,309.9	352.2	94.7	38.9	188.7	(80.2)	(102.6)	0.0	161.3

We make the following major adjustments to TVO's accounts as reported under International Financial Reporting Standards:

- Surplus cash. We adjust debt for TVO's cash on balance sheet, which we believe should be readily available, reflecting limited working capital needs and the fact that fixed costs are charged to shareholders monthly in advance.

- Debt serviced by third parties. We subtract loans from the Finnish State Nuclear Waste Management Fund, as these are onlent to shareholders on a proportionate basis, and TVO has pledged the receivables from the shareholders as collateral for the loans.
- Asset retirement obligations. On a discounted basis, TVO's share in the Finnish State Nuclear Waste Management Fund is equal to its liability. Accordingly we make no adjustments to TVO's debt.
- Capitalized interest. We adjust TVO's interest expenses with the amounts capitalized in intangible assets related to borrowing costs in respect of Olkiluoto 3.
- Accrued interest expenses reported under trade payables and other current liabilities are added to debt.

Related Criteria And Research

- 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
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Sept. 28, 2011
- Principles Of Credit Ratings, Feb. 16, 2011
- Use Of CreditWatch And Outlooks, Sept. 14, 2009
- 2008 Corporate Criteria: Ratios And Adjustments, April 15, 2008
- 2008 Corporate Criteria: Analytical Methodology, April 15, 2008
- Applying Key Rating Factors to U.S. Cooperative Utilities, Nov. 21, 2007

Business And Financial Risk Matrix

	Financial Risk					
Business Risk	Minimal	Modest	Intermediate	Significant	Aggressive	Highly Leveraged
Excellent	AAA/AA+	AA	A	A-	BBB	--
Strong	AA	A	A-	BBB	BB	BB-
Satisfactory	A-	BBB+	BBB	BB+	BB-	B+
Fair	--	BBB-	BB+	BB	BB-	B
Weak	--	--	BB	BB-	B+	B-
Vulnerable	--	--	--	B+	B	B- or below

Note: These rating outcomes are shown for guidance purposes only. The ratings indicated in each cell of the matrix are the midpoints of the likely rating possibilities. There can be small positives and negatives that would lead to an outcome of one notch higher or lower than the typical matrix outcome. Moreover, there will be exceptions that go beyond a one-notch divergence. For example, the matrix does not address the lowest rungs of the credit spectrum (i.e., the 'CCC' category and lower). Other rating outcomes that are more than one notch off the matrix may occur for companies that have liquidity that we judge as "less than adequate" or "weak" under our criteria, or companies with "satisfactory" or better business risk profiles that have extreme debt burdens due to leveraged buyouts or other reasons. For government-related entities (GREs), the indicated rating would apply to the standalone credit profile, before giving any credit for potential government support.

Ratings Detail (As Of May 29, 2013)

Teollisuuden Voima Oyj	
Corporate Credit Rating	BBB/Stable/A-2
Senior Unsecured	BBB

Ratings Detail (As Of May 29, 2013) (cont.)	
Corporate Credit Ratings History	
04-Jun-2012	BBB/Stable/A-2
06-Oct-2006	NR/--/NR
18-Dec-2003	BBB/Stable/A-2

*Unless otherwise noted, all ratings in this report are global scale ratings. Standard & Poor's credit ratings on the global scale are comparable across countries. Standard & Poor's credit ratings on a national scale are relative to obligors or obligations within that specific country.

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