



Press Release: Rating Action

JCR Affirms AA Rating on Teollisuuden Voima Oyj; Outlook Stable

Issuer: Teollisuuden Voima Oyj

Foreign Currency Long-Term Senior Debts: **AA (Stable)**

JCR has affirmed its AA rating on the foreign currency long-term senior debts of Teollisuuden Voima Oyj (TVO).

The rating reflects TVO's key position in Finland as a nuclear power generator providing base load electricity, its not-for-profit business model that provides electricity to its shareholders at cost, its excellent track records and competitive power generation cost. While TVO's shareholders are entitled to receive electricity supply at cost, they are obliged to pay annual fixed cost including debt payments in proportion to their stakes and variable costs in proportion to the volume of electricity they consume. Because of the payment arrangement where fixed cost (80% of total costs) is charged one month ahead of the actual electricity delivery, JCR holds that TVO's financial risk is highly mitigated.

The rating outlook is stable. Although electricity demand in Finland has declined since the beginning of 2009 due to the recession and the electricity wholesale price has plunged compared to the preceding year, TVO has maintained a high capacity utilization ratio and competitive generation cost. The power supply-demand gap in Finland and in the Nordic region is expected to tighten in the medium to long term, and demand for clean energy continues rising. JCR holds that potential demand for TVO's electricity will remain strong, and its business model will stay unchanged going forward. As of September 2009, the construction of TVO's third nuclear power plant in Olkiluoto (OL3) has been delayed for 38 months, due mainly to a longer-than-expected delay in the construction work on the reactor building caused by the need to meet the mandatory safety requirements. However, impact to TVO's final electricity cost due to the additional construction cost is expected to be limited, little affecting its price competitiveness. JCR holds that construction and various risks that accompany the project are largely mitigated by the fixed-price, turn-key contract with the supplier.

- (1) TVO is a Finnish, private, not-for-profit electricity generation company. It was founded in 1969 to supply electricity to its shareholders at cost. As a key nuclear power generator that provides base load electricity, it supplies about 17% (2008) of Finland's electricity consumption. TVO has a stable shareholder base with six shareholders mainly consisting of leading Finnish private and municipal power companies. Major shareholders are Pohjolan Voima Oy (PVO, AA/Stable by JCR), which holds a 58.1% stake, and Fortum Power and Heat Oy, which holds a 26.0% stake. The remaining shareholders are all electricity companies run by municipalities. TVO's articles of association entitle

its shareholders to receive electricity supply at cost in proportion to their shareholdings while obliging them to pay annual fixed cost including debt payments in proportion to their stakes and variable costs in proportion to the volume of electricity they consume. Moreover, the articles set a deadline for payment of the fixed cost one month ahead of actual electricity delivery. Electricity supply is immediately suspended should a shareholder fail to pay by the due date. Surplus electricity that might ensue can be sold in the liquid wholesale electricity market, Nordpool. Although electricity wholesale price is highly volatile at Nordpool, TVO's electricity cost has always been below the market price, making its collection risk extremely low. In Finland, around half of electricity is produced under this formula, which has been established as a mutual assistance model that contributes to a stable power supply. In case this business model is forced to be altered due to a regulation change, or should the cost advantage of the electricity produced under this formula is lost, which is difficult to imagine at present, the rating will come under downward pressure. Since some of the shareholders including PVO operate under the same model, TVO's ultimate shareholders eventually number about 60 through ownership chain. In sum, TVO is 44% owned by industry sector, 26% by Fortum, a power company 51% owned by the government, and 30% by municipalities.

- (2) TVO's facilities comprise two nuclear power plants with a capacity of 860 MW each. In addition, it holds the right to take 45% of the electricity generated by a coal-fired plant (with a capacity of 565 MW) owned by Fortum, in order to adjust its generation volume. After the completion of OL3 with a capacity of 1,600 MW, TVO's facilities will have a 27-8% share in the country's power generation capacity. The ratios of capacity utilization at its two nuclear plants have been staying above 95% since 1999, one of the highest by international standards, thanks to an efficient annual outage. TVO has been constantly modernizing the two nuclear plants under its policy to keep them in operation for 40 years. As a result, their capacity has been increased by 30% from 660 MW at their start-up to 860 MW. Electricity generated there in 2008 reached a record high.

TVO's average nuclear power production cost in 2009 has been about EUR18.0/MWh, allowing it to supply electricity at prices significantly lower than the market prices in Nordpool. While Finland has limited natural resources, its electricity demand is high due to the presence of energy-intensive industries and huge heating needs during winter. Electricity consumption per capita in Finland is the second largest in EU, and the country is the sole chronic importer of electricity in the Nordic region. Although the government has a target to cover its domestic power demand without relying on import, the power supply-demand gap is likely to remain tight in the medium to long term. With the need of clean energy without greenhouse gas emission rising, potential demand for the electricity supplied by TVO is expected to remain strong. JCR notes that a potential increase in the electricity price of OL3 due to the construction delay is expected to be limited at EUR2-4/MWh, keeping the competitiveness of TVO's electricity price unchanged. JCR holds that construction and various risks that accompany the project are largely mitigated by the fixed-price, turn-key contract with the supplier.

- (3) Since TVO operates under the full cost pass-through mechanism, its collection risk is considered extremely low. The local tax authority allows the company in principle to transfer the depreciation reserves to adjust the net profit to zero. TVO's interest-bearing debt totaled EUR 2.56 billion at



September 2009, up 30.5% from the end of 2008 (excluding the loan from the Finnish State Nuclear Waste Management Fund, relent to shareholders). But with a capital increase of EUR0.1 billion, shareholders' equity ratio stood at 28.5% in September 2009. The level of debt is set to increase toward 2012 as TVO will spend EUR1.76 billion for OL3 and maintenance capex of about EUR70 million per annum for OL1 and OL2, but TVO is expected to maintain a sound shareholders' equity basis based on its policy to maintain a shareholders' equity ratio of 25% in a middle-to-long term. Nuclear waste related liabilities set by the government have been mostly funded.

TVO maintains a good liquidity with EUR 428 million cash and equivalents and EUR1,724 million undrawn senior committed credit facilities at the end of September 2009, which fully covers its debt. In addition, TVO has established a subordinated shareholder credit line of EUR 300 million to cover the additional cost to be incurred by the delay in the OL3 construction.

Note: See a separate press release for JCR's credit rating on TVO's parent company, PVO.

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The primary rating methods applied to the ratings are posted on JCR's website (<http://www.jcr.co.jp>) "Corporate Rating Methodology." The rating methods are subject to change or addition. However, the changes and additions including those that have been made in the past are posted in chronological order. Please refer to the rating methods above after checking by comparing the date of press release about the ratings with the release date of the rating methods (effective date of each of such rating methods).