Research Update:

Teollisuuden Voima Oyj Ratings On CreditWatch Negative After Announced Additional Delay Of Up To 11 Months

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Rating Action Overview

- On Aug. 28, Teollisuuden Voima Oyj (TVO) announced further delays of the construction of its third nuclear power plant, setting regular electricity production to start in February 2022, instead of March 2021, and compared with the previously planned December 2019. The project is over 12 years behind the original plan. The recent postponement suggests that TVO may not get compensation for overrun costs beyond June 2021, when the current settlement agreement expires.
- The Areva-Siemens consortium managing the project has yet to present a financing plan for its obligations including the two-year guarantee period, and Areva will likely rely on asset sales to meet the obligations, implying timing and price risks. Furthermore, we expect the updated contract to carry new terms, settling all remaining compensation, obligations, and penalties, as well as a new financing plan.
- These developments could translate into further debt increase for TVO ahead of the expected start of regular electricity production, considering that cash flow generation is dependent on OL3's electricity production.
- We are therefore placing on CreditWatch negative our 'BB' ratings on TVO and its senior unsecured debt.
- The CreditWatch reflects the increased likelihood of a downgrade, by one or more notches, due to the significant uncertainty regarding the outcome of the new agreement, which will likely be announced in coming weeks, alongside the financing plan.

Rating Action Rationale

TVO may incur an increased debt burden because of its postponement of fuel-loading and commercial start-up date at OL3. This is because of the heightened risk for costs spilling over into TVO, and considering that TVO may not automatically be compensated beyond June 2021. We also see a risk that TVO might be forced to partially cover the overrun costs.

This delay may not be the final postponement, given that the supplier, the Areva-Siemens consortium (ASC), is already 12 years behind schedule. According to the Aug. 28, 2020, announcement, TVO received updates to the re-baseline schedule of the commissioning of the OL3 European Pressurized Reactor (EPR) plant unit from ASC. Updates set fuel loading to commence in March 2021, and connection to the grid later in October, while regular electricity production will start in February 2022. This results in a delay of between nine and 11 months from the previously updated schedule, published December 2019. Although the new schedule specifies dates, Areva's track record of delays creates uncertainty, in our view.

We believe there is also uncertainty around how TVO would be compensated for the delay. Terms stipulated in the current underlying agreement, the so-called Global Settlement Agreement (GSA) from 2018 with ASC, capture compensation and penalties. We understand, however, that the GSA has no effect from July 1, 2021. We believe that TVO will be compensated for accrued capitalized interest costs from January 2020 until end-June 2021. There is currently no agreement regulating any compensation thereafter, as the compensation/penalty mechanism stipulated in the 2018 GSA covers all TVO's project costs from January 2020 to June 2021. We understand compensation from ASC could reach a maximum of €400 million under the existing GSA contract if plant completion is not achieved by June 2021. Negotiations for a new GSA are ongoing, but we see an increased risk that talks could end less favorably for TVO if the decision is that overrun costs will not be fully compensated by ASC. If this were to occur, TVO's debt could increase, setting back deleveraging.

We expect TVO and ASC to announce a new agreement in the coming weeks, which they would then sign before year-end. The updated terms would settle compensation, penalties, and obligations for the remaining construction period and the two-year guarantee period. We also expect Areva to present a plan to meet all its financial obligations until the end of the guarantee period.

We acknowledge that the companies in the ACS have joint and several liability for the contractual obligations until the end of the guarantee period of OL3, which we believe limits the risk. The ASC comprises AREVA GmbH (unrated), AREVA NP SAS (unrated), and Siemens AG (A+/Negative/--). According to the 2018 GSA, the ASC is committed to ensure the funding reserved to finalize OL3, as well as all warranty periods (two years after provisional takeover). A fund mechanism was established, financed by Areva Companies, to cover Areva's costs of finalizing OL3. We believe that the joint liability clause gives TVO solid grounds for negotiation, thereby limiting the downside risk.

In our view, there are questions around Areva's financing for the remaining construction period and the two-year guarantee period. We believe Areva will likely depend on asset sales to honor its financial obligations during this time. In our view, this could lead to a disagreement with involved parties and result in new legal procedures, further setbacks, and ultimately that TVO might not be fully compensated for the delay. The plant contract stipulates, however, that the ACS has joint and several liability for the contractual obligations.

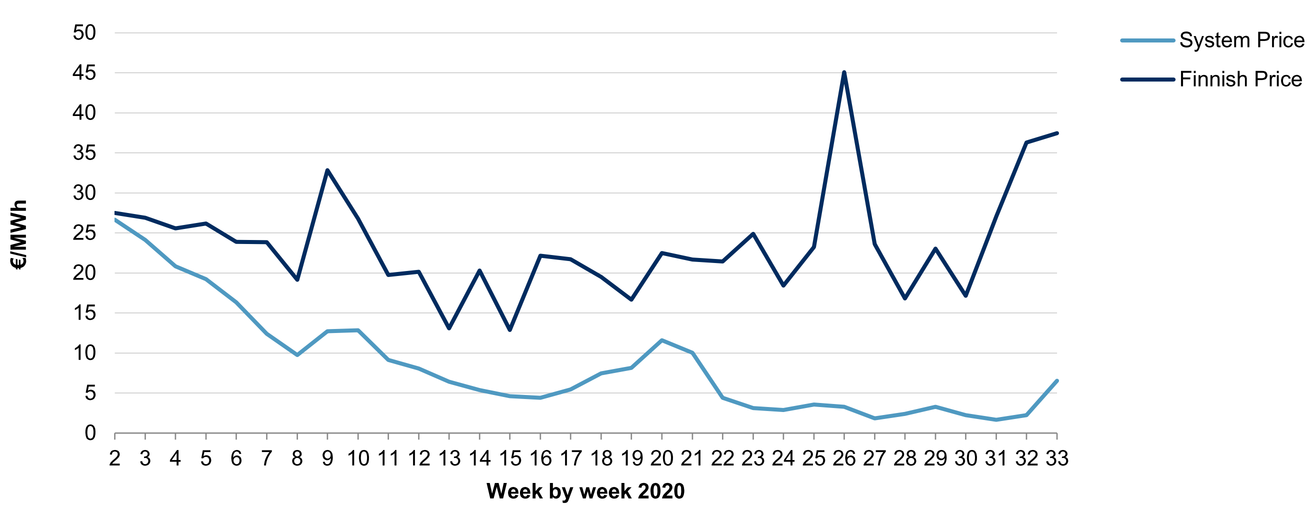
Areva's poor project management--alongside technical problems, COVID-19 disruptions, and commissioning testing--has driven delays. This latest delay stems from slowly progressing system testing, technical problems identified in tests, and the increase in the amount of maintenance work caused by project delay. Also the lack of necessary spare parts has taken time.

This is despite TVO and work related to nuclear power plants being excluded from official COVID-19 restrictions. Longer-than-expected commissioning testing also contributed to the delay, and that many tests must be repeated due to the lulls. At this time, there are 30-40 tests outstanding of about 3,000 needed for approval to start fuel loading. That said, in our view, the setbacks are largely due to Areva's inadequate project management. We understand that there are no technical problems outstanding except for resolution of the cracks in the pressurizer safety valves' spring-loaded pilot control valves, which is pending the final decision of the Finnish Safety Authority.

We continue to believe that TVO's shareholders are likely to remain supportive, based on their long-term view, given the lifetime of the asset exceeds 40 years. Despite current prices being unusually lower than historical levels, there is a significant difference between Nord Pool System spot prices and Nord Pool spot prices in Finland. Comparing daily spot prices during 2020, the average price difference between Nord Pool System spot prices and Finnish price have almost been €16/MWh higher in Finland. We believe that this is because of the extreme hydro conditions in Norway, significantly curbing prices, and at the same time, material constraints in transmission capacity. TVO's combined nuclear production costs are about €30 per MW hour (/MWh) when OL3 becomes operational, increasing from approximately €20/MWh currently, reflecting the start of the depreciation of OL3's capitalized costs and interest. We therefore continue to believe that the current low electricity prices do not affect shareholders long-term view on TVO-produced electricity and the Mankala model. However, were the power prices to be persistently under structural pressure, shareholders support could dwindle. We understand that owners value the stable prices. TVO sells all electricity generated to its shareholders according to a cost-price principle in which shareholders are charged incurred costs in proportion with their ownership and receive electricity as compensation.

Chart 1

Increasing Spread Between Nord Pool System and Finnish Prices



Source: S&P Global Ratings.

The existing shareholder loan facilities total €250 million, and under current conditions, TVO has the option to draw on the perpetual facilities until end-2020. We view the perpetual shareholder loan facilities as a strong commitment from the shareholders. Additionally, this provides TVO with a cushion toward its covenant, equity ratio of minimum 25%, as shareholder loans are not included in the calculation in accordance to IFRS, as shareholder loans treated as equity.

CreditWatch

The CreditWatch reflects the risk of higher debt, continued uncertainty on the start of commercial production, and the pending contractual terms, which emerged following the announced extension of construction beyond the existing GSA contract that matures in June 2021. We therefore see a risk that the company might not be sufficiently and timely compensated for the over-run costs by the time the project is completed. Until the existing GSA contract matures, TVO is entitled to full compensation, via penalties also covering interest costs.

In addition, we see uncertainty on Areva's ability to honor the upcoming costs and contracted obligations for the trust mechanism, which needs to cover all liquidity uses for the construction period, as well as for the following two-year guarantee period.

We could therefore lower the rating if:

- TVO and ASC do not agree on terms for a new GSA in the coming weeks.
- Any operational or regulatory issues arise, or any other reason causing more delay and uncompensated overrun costs.
- Areva fails to replenish the trust mechanism, present a detailed financing plan to honor its obligation until the guarantee period elapses after two years.
- TVO's owners indicate a change in support, for example, if shareholder loan facilities are not extended, or if we were to understand that the one or several owners were to exit the ownership or Mankala model.

We could consider a downgrade in the near term, potentially by more than one notch.

If ASC and TVO reach an agreement that mainly covers TVO overrun costs, and clearly stipulates that ASC has sufficient funds to meet its obligations, we are likely to affirm the 'BB' rating. Alternatively, an affirmation could arise from any increased overrun costs being met by shareholder injections.

We aim to resolve the CreditWatch within the next three months, depending on if ASC and TVO reach a new agreement, filling in for the current settlement agreement once it expires in June 2021, and if construction progresses without any additional operational or regulatory delays.

Company Description

TVO is a not-for-profit Finnish company created in 1969 that generates electricity in Finland from nuclear power. At end-2019, the company produced 17% (15 terawatt-hours [TWh]) of annual electricity consumption in Finland (86 TWh), which it expects will rise to about 30% once OL3 is fully operational. TVO sells all electricity generated to its shareholders according to a cost-price principle, and shareholders are charged incurred costs in proportion to their ownership and receive electricity as compensation, also known as the Mankala model.

The company owns and operates two nuclear power plants (OL1 and OL2) with about 1,780MW of installed capacity. A third nuclear plant (OL3) with 1,600MW of installed capacity, is under construction by ASC. TVO expects it to almost double annual generation when operational to 27TWh from 15TWh in 2019. OL1 and OL2 have been operational for about 35 years with a high degree of reliability and load factor of about 95%. TVO's operating license has been renewed until 2038, guaranteeing predictable cash flows until that year.

In addition, TVO has a 60% stake in Posiva Oy, another joint venture with Fortum responsible for the final disposal of spent nuclear fuel produced by its owners. Fortum and TVO therefore share the cost of nuclear waste management.

TVO is owned by six shareholders: PVO (57%), which is also a Mankala company, owned primarily by UPM-Kymmene Corp. (BBB/Stable/A-2) and Stora Enso Oyj, two major forest product companies; and Fortum Oyj (28%; BBB/Negative/A-2). The remaining shares are split between Oy Mankala (8%), EPV Energia (6%), Kemira Oyj (1%), and Loiste Holding (0.1%).

Our Base-Case Scenario

Assumptions

- Revenue and capital expenditure (capex) related to announced expectation of fuel-loading in March 2021, and electricity production to start in February 2022 is reflected in our modeling for revenue and capex.
- Annual maintenance capex on OL1 and OL2 amounting to €60 million-€80 million, and higher than the maintenance capex expected for OL3 once it is operational.
- TVO's combined nuclear production costs are about €30/MWh when OL3 becomes operational, increasing from approximately €20/MWh currently, reflecting the start of the depreciation of OL3's capitalized costs and interest.
- OL3 in commercial operation from February 2022.
- No unexpected outages at OL1 and OL2.
- TVO's shareholders will continue to fully cover the company's production costs under the Mankala model.
- No dividends.
- Milestone payments to ASC of €52 million in 2021 and €271 million in 2022.
- Penalty settlements (received by TVO)--excluded from our base case, could reach €400 million according to the 2018 GSA, if commercial production is not started by June 2021.

Liquidity

We assess TVO's liquidity as adequate, as of June 30, 2020. This is based on liquidity sources exceeding liquidity uses by 1.4x for the next 12 months. However, the company has a short-dated debt-maturity profile (about four years) compared with the asset base's economic life of over 40 years. Notably, in 2023, refinancing needs will be high, since more than €1 billion of debt is due, or about 20% of total outstanding debt. This increases the company's exposure to refinancing risk, notably given the recent construction delays.

We note that TVO maintains a €1.3 billion revolving credit facility (RCF) maturing in 2022-2023 to ensure that it is able to cover its funding needs over the next few years.

Principal liquidity sources include:

- Unrestricted cash and cash equivalents of about €157 million.
- Two undrawn RCF lines (€1 billion and €300 million), maturing in Feb. 2023, and May 2022 and, respectively.
- Shareholder loan commitments of €250 million maturing in Dec. 2020 (not included in our calculations because it is less than 12 months to expiry).

Principal liquidity uses include:

- Debt maturities of about €531 million within the next 12 months and about €349 million for the subsequent 12 months.
- About €450 million of capex within the next 12 months and about €500 million for the subsequent 12 months.

Debt maturities include:

- 2020: €342 million
- 2021: €205 million
- 2022: €528 million
- 2023: €1.2 billion
- After 2023: €2.1 billion

Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | General: The Treatment Of Non-Common Equity Financing In Nonfinancial Corporate Entities, April 29, 2014
- Criteria | Corporates | Industrials: Key Credit Factors For The Unregulated Power And Gas Industry, March 28, 2014
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Ratings List

CreditWatch Action

	To	From
Teollisuuden Voima Oyj		
Issuer Credit Rating	BB/Watch Neg/B	BB/Negative/B
Senior Unsecured	BB/Watch Neg	BB
Recovery Rating	4(30%)	4(30%)