Fitch Affirms Teollisuuden Voima Oyj at 'BBB-'; Outlook Stable

Fitch Ratings - Milan - 19 May 2023: Fitch Ratings has affirmed Finnish nuclear generation company Teollisuuden Voima Oyj’s Long-Term Issuer Default Rating (IDR) at 'BBB-' with Stable Outlook. A full list of rating actions is below.

The affirmation reflects the start of commercial operations of 1.6GW Olkiluoto 3 (OL3) nuclear power plant in May 2023, as well as the solid combined operational performance of the existing nuclear power plants, Olkiluoto 1 and 2. It also incorporates sound liquidity and tangible shareholder support for the OL3 project despite its multi-year delays, with improved shareholder value creation in the current high and volatile energy price environment.

Adjusted gross debt peaked in May 2023 at around EUR5.4 billion, when its EUR651 million nuclear waste liability loan is added, after which we expect declines by around EUR150 million per year.

Key Rating Drivers

Start of OL3: We expect OL3 capacity utilisation to be maintained largely above 90%, with the first annual outage to take place in March 2024. We expect annual production for TVO of around 27TWh from 2023, representing more than 30% of the entire Finnish national supply, up from 16TWh produced in 2022. Overall the OL3 construction will mark the end of a 14-year delay to the original schedule, with a total cost of approximately EUR5.8 billion (or EUR3.6 million per MW). This is high but lower than that of other nuclear projects under construction in Europe.

Expected Progressive Debt Reduction: We forecast adjusted net debt to progressively reduce to EUR4.9 billion in 2026. This is due to full cost coverage by shareholders from May 2023, including depreciation and financial charges, and limited maintenance investments of around EUR130 million per year.

Solid Value Creation Prospects: The currently volatile and high energy price environment supports abundant shareholder value creation given the reliable, stable and fairly low nuclear cost of production. TVO's expected blended cost of production, including capital costs, is expected at around EUR35/MWh throughout 2023-2025 even when accounting for current inflationary, interest rate and uranium price pressures. Conversely, Nord Pool futures for the Finnish area are trending around EUR55/MWh for 2024-2025 marking a sensibly increased differential compared with historical trends.

No Compensation for Recent Delays: No agreement over the OL3 delay experienced since September 2022 has been reached with the Areva-Siemens consortium, which on the other hand
recently honoured its EUR193 million remaining agreed payments 30 days after the start of OL3 commercial operation (set off against TVO’s final milestone construction payment), while another EUR57 million are expected two years later.

OL3’s trust mechanism currently includes all the funds needed to cover TVO’s remaining compensation and the two-year guarantee period. In light of the above, the available EUR400 million shareholder loan commitment until end-2023 represents a liquidity buffer, which we do not expect to be drawn.

**Not-for-Profit Nuclear Generator**: The ratings reflect TVO's position as a not-for-profit Finnish nuclear generator, producing at-cost electricity for the company's five shareholders. TVO's largest shareholder (58.5%) is Pohjolan Voima Oyj, a not-for-profit electricity generator owned by a consortium of Finnish industrials (mainly pulp and paper companies UPM-Kymmene Oyj (through its 100%-owned subsidiary UPM Energy Oy) and Stora Enso Oyj (BBB-/Positive)) and utilities. Its second-largest shareholder (with 25.8%) is Fortum Power & Heat Oy, a 100% owned subsidiary of Fortum Oyj (BBB/Stable).

**No Merchant, Volume Risk**: TVO has no direct exposure to wholesale electricity prices, onerous margin calls, or volumes, as its shareholders are at-cost off-takers of the electricity produced. If a shareholder fails to cover annual fixed costs (80% of total costs, paid one month in advance, which also includes debt instalments falling due annually) and variable costs (about 20% of costs) in proportion to their off-take, TVO would cut the supply and sell the electricity to another shareholder or at the Nord Pool exchange. The shareholders have a very long record of regular off-taking.

**Low Political Risk**: The not-for-profit nature and shareholder full cost recovery principle shield TVO from political interventions, clawbacks and windfall taxes affecting European utilities and in particular renewables electricity generators. Furthermore, due to the ceased imports from Russia, its increase in electricity production is essential for the country and European security of supply. Public consensus on nuclear in Finland and the inclusion of nuclear generation into the EU taxonomy for sustainable finance further reduces the risk of onerous funding cost in the medium-to-long term.

**Derivation Summary**

As TVO is a not-for-profit company Fitch views traditional leverage or coverage ratios as less relevant for the ratings than for utilities operating on a fully commercial basis. Such ratios are weak compared with that of other European utilities focused on electricity generation such as Fortum Oyj (BBB/Stable), RWE AG (BBB+/Stable), Orsted A/S (BBB+/Stable) or Statkraft AS (A-/Stable).

During construction of OL3, TVO's funds from operations (FFO) after cash interest paid was typically negative and its FFO interest coverage usually below 1x as interest expense related to OL3 debt in the construction phase was not covered by shareholders, but capitalised, until the start of OL3 operations in May 2023.

We rate Finnish electricity generation companies operating under the Mankala principle using the same analytical framework as for utilities operating in a commercial environment as underlined by the corporate rating criteria and the key peer comparators described in Global Electricity Generation:
However, we place more emphasis on the links with the shareholders and the value creation for them due to Mankala companies' specific features, such as the not-for-profit business model. Given Mankala companies' cash flow profiles, debt and liquidity management plays a crucial role in determining the ratings. We consider company-specific traits, such as asset base and concentration, market position, strategic importance, and the legal and regulatory framework in the same way as typical electricity utilities.

**Key Assumptions**

- Fitch calculates projected EBITDA and credit ratios in a profit-making scenario, assuming that TVO is able to sell its electricity output at market prices instead of at cost. This measures the incentive for shareholders to maintain their at-cost off-takes, as well as the dividend that would be paid in a profit-making scenario.

- Average production cost of TVO to increase to about EUR35/MWh as OL3 becomes operational, from about EUR20/MWh (with OL1 and OL2 only).

- Finnish area prices averaging EUR55/MWh in 2024-2026.

**RATING SENSITIVITIES**

**Factors That Could Individually or Collectively Lead to Positive Rating Action/Upgrade**

- Solid record of OL3 operations together with a satisfactory medium- to long-term power price environment sustaining value creation for TVO shareholders,

record of progressive debt reduction consistent with the remaining average useful life of the assets, combined with

unchanged credit quality or support from shareholders

**Factors That Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade**

- Significant technical issues leading to additional costs for TVO, if not covered by shareholders

- TVO’s production costs significantly exceeding Finnish area prices on a sustained basis, leading to value destruction for TVO shareholders

- Evidence of weaker credit quality or support from shareholders or structural changes in the Mankala principle undermining the strength of shareholder support

- Adverse regulatory or fiscal changes

- Deterioration in operating performance, safety issues and significantly reduced liquidity reserves
Best/Worst Case Rating Scenario

International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit https://www.fitchratings.com/site/re/10111579.

Liquidity and Debt Structure

Adequate Liquidity: Cash and cash equivalents as at end-March 2023 were EUR169 million. TVO also had committed undrawn credit facilities of EUR925 million maturing in 2024, and committed undrawn shareholder loans of EUR400 million valid until end-2023. Available liquidity is sufficient to meet TVO's operating needs, capex and cumulative debt repayments of EUR1.2 billion in 2023-2024.

As OL3 came onstream in 2023 and shareholders started to fully cover costs (including interest costs and asset depreciation), we expect total debt to gradually decline.

Issuer Profile

TVO has OL1, OL2 and OL3 nuclear power plants with more than 3GW capacity in its key assets. Once OL3 operates at full capacity, TVO is expected to cover around 30% of all electricity consumed in Finland.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of ‘3’. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Fitch Ratings Analysts

Nicolò Meroni
Director
Primary Rating Analyst
+39 02 9475 8265
Fitch Ratings Ireland Limited Sede Secondaria Italiana Via Morigi, 6 Ingresso Via Privata Maria Teresa, 8 Milan 20123
<table>
<thead>
<tr>
<th>ENTITY/DEBT</th>
<th>RATING</th>
<th>RECOVERY</th>
<th>PRIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teollisuuden Voima Oyj (TVO) LT IDR</td>
<td>BBB-</td>
<td>Affirmed</td>
<td>BBB-</td>
</tr>
<tr>
<td>ST IDR</td>
<td>F3</td>
<td>Affirmed</td>
<td>F3</td>
</tr>
<tr>
<td>senior unsecured LT</td>
<td>BBB-</td>
<td>Affirmed</td>
<td>BBB-</td>
</tr>
</tbody>
</table>

**RATINGS KEY**

<table>
<thead>
<tr>
<th>OUTLOOK</th>
<th>WATCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>✬</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>✬</td>
</tr>
<tr>
<td>EVOLVING</td>
<td>✬</td>
</tr>
</tbody>
</table>
RATINGS KEY  OUTLOOK  WATCH
STABLE  

Applicable Criteria

Corporate Rating Criteria (pub.28 Oct 2022) (including rating assumption sensitivity)

Corporates Recovery Ratings and Instrument Ratings Criteria (pub.09 Apr 2021) (including rating assumption sensitivity)

Applicable Models

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

Corporate Monitoring & Forecasting Model (COMFORT Model), v8.1.0 (1)

Additional Disclosures

Solicitation Status

Endorsement Status

Teollisuuden Voima Oyj (TVO)  EU Issued, UK Endorsed

DISCLAIMER & DISCLOSURES

All Fitch Ratings (Fitch) credit ratings are subject to certain limitations and disclaimers. Please read these limitations and disclaimers by following this link: https://www.fitchratings.com/understandingcreditratings. In addition, the following https://www.fitchratings.com/rating-definitions-document details Fitch's rating definitions for each rating scale and rating categories, including definitions relating to default. ESMA and the FCA are required to publish historical default rates in a central repository in accordance with Articles 11(2) of Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 and The Credit Rating Agencies (Amendment etc.) (EU Exit) Regulations 2019 respectively.

Published ratings, criteria, and methodologies are available from this site at all times. Fitch's code of
conduct, confidentiality, conflicts of interest, affiliate firewall, compliance, and other relevant policies and procedures are also available from the Code of Conduct section of this site. Directors and shareholders' relevant interests are available at https://www.fitchratings.com/site/regulatory. Fitch may have provided another permissible or ancillary service to the rated entity or its related third parties. Details of permissible or ancillary service(s) for which the lead analyst is based in an ESMA- or FCA-registered Fitch Ratings company (or branch of such a company) can be found on the entity summary page for this issuer on the Fitch Ratings website.

In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided “as is” without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A
report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US$1,000 to US$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US$10,000 to US$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001. Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the “NRSRO”). While certain of the NRSRO’s credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see https://www.fitchratings.com/site/regulatory), other credit rating subsidiaries are not listed on Form NRSRO (the “non-NRSROs”) and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.

dv01, a Fitch Solutions company, and an affiliate of Fitch Ratings, may from time to time serve as loan data agent on certain structured finance transactions rated by Fitch Ratings.

Copyright © 2023 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved.

Endorsement policy

Fitch’s international credit ratings produced outside the EU or the UK, as the case may be, are endorsed for use by regulated entities within the EU or the UK, respectively, for regulatory purposes, pursuant to the terms of the EU CRA Regulation or the UK Credit Rating Agencies (Amendment etc.) (EU
Exit) Regulations 2019, as the case may be. Fitch's approach to endorsement in the EU and the UK can be found on Fitch's Regulatory Affairs page on Fitch's website. The endorsement status of international credit ratings is provided within the entity summary page for each rated entity and in the transaction detail pages for structured finance transactions on the Fitch website. These disclosures are updated on a daily basis.