CREDIT OPINION
5 May 2025

New Issue

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RATINGS

Teollisuuden Voima Oyj

Domicile	Finland
Long Term Rating	Baa3
Type	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Teollisuuden Voima Oyj

Update to credit analysis

Summary

Teollisuuden Voima Oyj's (TVO, Baa3 stable) credit quality benefits from the start of commercial operations at its Olkiluoto 3 (OL3) nuclear power plant from 1 May 2023; the consistently strong operational and safety performance of the company's other nuclear power plants, Olkiluoto 1 and Olkiluoto 2 (OL1 and OL2), which have fairly low and thus competitive production costs; TVO's status as a Mankala company; and the solid weighted average credit quality of TVO's major shareholders and their proven support, especially during OL3's construction.

Conversely, TVO's credit quality is limited by its reliance on a single technology and site; the short track record of consistent electricity production at OL3; and its high leverage, with debt around €5.0 billion as of March 2025. Additionally, the new plant's commissioning has raised average production costs amid some cost pressures.

Our assessment of TVO takes into account its not-for-profit business model, in particular its ability to fully pass through its costs to shareholders under the Mankala principle. However, the value of this model is constrained by the fact that shareholder obligations are several rather than joint.

Credit strengths

» Large power generator in Finland, with a strong operational track record

» Full pass-through of costs under the Mankala principle

» Low costs of production for the OL1 and OL2 units

» Solid credit quality of the shareholders and their proven support

Credit challenges

» Exposure to a single technology and single-site risk

» A significant increase in production costs because of the commissioning of OL3

» High debt levels, with prospects for only gradual reduction in leverage

» Shareholder obligations that are several and not joint

» Weaker power market, which could limit value creation for shareholders

Rating outlook

The stable rating outlook reflects our expectation that TVO's three nuclear plants will continue operating successfully without major unplanned outages, supporting a stable yet gradual reduction in the company's leverage. Additionally, the outlook takes into consideration TVO's entitlement to recover fixed costs from shareholders irrespective of actual output, as stated in its Articles of Association. The stable outlook also does not factor in any increase in leverage on TVO's balance sheet.

Factors that could lead to an upgrade

A rating upgrade in the short to medium term is unlikely. However, upward rating pressure could occur if OL3 demonstrates a track record of successful operations and TVO's leverage consistently declines from current levels. Additionally, for upward rating pressure, OL1 and OL2 must maintain strong operational performance, TVO's production costs should remain competitive with wholesale power markets, and the credit quality of TVO's shareholders must be maintained or improved. Continued confidence in the Mankala model is also necessary.

Factors that could lead to a downgrade

Downward rating pressure could arise if there is a significant deterioration in the operational performance or competitiveness of TVO's nuclear fleet, or concerns about the company's ability to pass on its costs to shareholders, or both. Additionally, a decline in the credit quality of TVO's shareholders could lead to downward pressure.

Key indicators

Exhibit 1
Teollisuuden Voima Oyj

	Dec-21	Dec-22	Dec-23	Dec-24	LTM Mar-25	Moody's 12-18 month forward view
(CFO Pre-W/C) / Debt	-0.9%	-1.1%	2.6%	5.0%	5.1%	4.5% - 5.5%
RCF / Debt	-0.9%	-1.1%	2.6%	5.0%	5.1%	4.5% - 5.5%
(FFO + Interest Expense) / Interest Expense	0.5x	0.4x	1.6x	2.3x	2.2x	2.2x - 2.5x

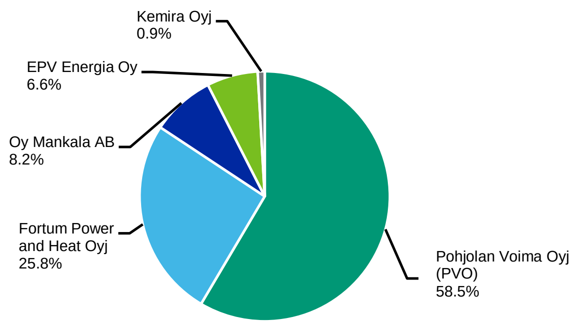
All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

Profile

Teollisuuden Voima Oyj (TVO) owns and operates three nuclear power units — OL1, OL2 and OL3 — with a total capacity of 3.4 gigawatts (GW). Commercial operations of the new OL3 plant started on 1 May 2023. TVO operates according to the Mankala principle, meaning that it supplies all of the electricity that it generates to shareholders at a cost price, rather than at market rates.

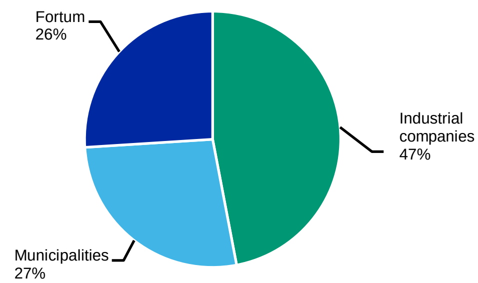
TVO's largest shareholder is Pohjolan Voima Oyj (PVO), which supplies electricity and heat at cost price to 23 industrial, energy and municipal shareholders. Some of its major off-takers are pulp and paper industry companies — UPM-Kymmene (Baa1 stable) and Stora Enso Oyj (Baa3 stable) holding 53.5% and 16.1% of PVO's shares, respectively. TVO's second-largest shareholder is Fortum Power and Heat Oyj, a fully owned subsidiary of Fortum Oyj (Baa2 stable), a large energy group that is majority-owned by the Finnish state. The remaining shareholders consist of various not-for-profit and industrial companies.

Exhibit 2
TVO's shareholder breakdown by entity (2024)



Sources: Company filings and Moody's Ratings

Exhibit 3
TVO's underlying shareholder breakdown by sector (2024)



Sources: Company filings and Moody's Ratings

Detailed credit considerations

Overall stable production from OL3 in 2024 despite extended annual outage

OL3 started commercial operations on 1 May 2023, marking the end of its prolonged construction phase and significantly enhancing TVO's credit profile. In 2024, the reactor generated 9.7 terawatt hours (TWh) of electricity and had a load factor of 70.4%, compared with a net production of 10.4 TWh in 2023 and a load factor of 75.2%. The production remained broadly stable last year, although the load factor was weakened by an extended annual outage and two turbine malfunctions.

On 2 March 2024, TVO started the annual outage of the OL3 reactor. Although the shutdown was initially scheduled to last for 37 days, servicing of the reactor took significantly longer than initially expected and OL3 was only operational again on 16 May after 74 days. Being the first scheduled shutdown, the maintenance was expected to take longer than the routine maintenance activities of OL1 and OL2 because of the extensive number of components and activities involved. Overall, 7,500 work phases were carried out during the outage of OL3, compared with less than 1,000 for the scheduled maintenance of OL2.

In 2024, OL3 experienced two turbine malfunctions: one in June and another in November. These incidents briefly interrupted electricity production, with the first lasting one day and the second lasting four days. During the second incident, power gradually returned to normal output over the course of a day.

The second annual outage of the plant started on 1 March 2025 and was completed on 29 April 2025, a few days earlier than the initial estimate of early May. Maintenance activities progressed according to schedule, despite the company encountering some issues during the process. These included the presence of a radioactive coolant leaking from the reactor into containment areas, the discovery of small foreign material pieces in fuel assemblies and problems with the functioning of seals in several connectors. The company has taken measures to address each incident to prevent future occurrences and is investigating the foreign elements found in the fuel.

Currently, the duration of future scheduled maintenance activities remains uncertain. However, in OL3's initial years of operation, maintenance could take longer than anticipated, potentially reducing the reactor's electricity output. In any event, TVO would continue to invoice its costs under the Mankala principle — including interest payments and debt amortisations — to its shareholders.

TVO started the construction of OL3, a 1.6 GW European Pressurised Reactor (EPR), in 2005. The company entered a fixed-price turnkey contract with a consortium formed by Areva, a company wholly owned by the French state, and Siemens AG (Aa3 stable). The construction cost was initially estimated at €3.5 billion, with the plant scheduled to begin commercial operations in April 2009. However, the project faced significant delays and cost overruns, resulting in regular electricity production starting over 13 years later than originally planned.

OL3 encountered numerous difficulties during its construction phase, a situation not unique to this EPR power plant. Other EPR projects, such as Flamanville 3 in France and Taishan 1 and 2 in China, have similarly faced severe delays and budget overruns.

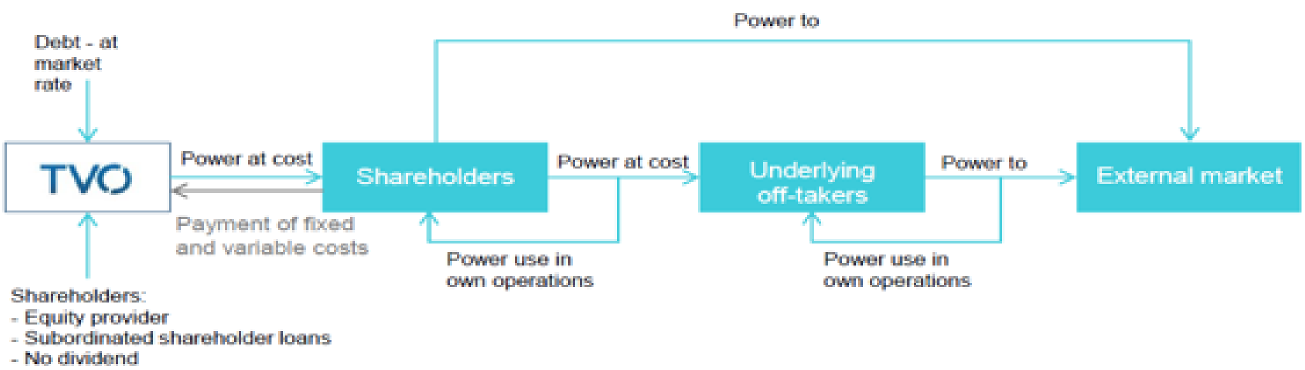
The massive escalation in costs and multiple revisions to the schedule resulted in a dispute between TVO and the supplier consortium, which ended in arbitration proceedings under the rules of the International Chamber of Commerce. Initiated in December 2008, the arbitration and a later restructuring of Areva's operations further delayed OL3's construction. A global settlement agreement signed in March 2018 between TVO and the consortium — ArevaNP, ArevaGmbH, Siemens, and ArevaSA — was a positive development. While most delay-related costs were borne by the consortium, TVO's share amounted to around €5.8 billion. In February 2025, the consortium was due to pay TVO a €56.7-million penalty agreed upon in 2021, and €14 million related to OL3's power output as part of a September 2024 agreement. In December 2024, the consortium recapitalised the warranty fund with roughly €80 million.

Full cost pass-through under the Mankala principle

TVO operates according to the Mankala principle, meaning that it supplies all of the electricity that it generates to shareholders at a cost price, rather than at market rates. This principle is not codified in law but is outlined in the company's Articles of Association. According to these articles, each shareholder is required to cover all annual fixed costs of TVO's production based on the number of shares they hold, as well as variable costs according to the amount of electricity they consume. Fixed costs, which include annual payments related to interest expense and debt principal installments, account for about 80% of the total costs.

Exhibit 4

TVO's Mankala model provides for a pass-through of costs to shareholders



Source: Company filings

Because of the full pass-through of costs, TVO is not exposed to wholesale markets or competition, but is instead dependent on the ability and willingness of its shareholders to cover their share. Nevertheless, TVO needs to remain operationally efficient and cost-competitive for its business model to be viable over the long term. Lower capacity factors, for example, would increase production costs, which could erode the competitiveness of TVO's nuclear fleet.

There is no precedent of any payment delays from shareholders. In the event a shareholder does not make its payment, TVO has the right to cut off that shareholder's supply of electricity and sell the output to other shareholders or third parties at a market price. Although wholesale power prices remain above its production cost, TVO will be able to recover its costs by selling electricity in the open market, should that become necessary.

Annual production costs

The division of costs between fixed and variable is determined in the Articles of Association.

» Fixed costs include normal operating, maintenance and administrative expenses, insurance costs, interest and principal payments due under credit facilities, and depreciation and waste management expenses.

» Variable costs are determined according to the amount of electricity actually supplied.

Fixed costs are paid monthly in advance and variable costs monthly in arrears.

Solid credit quality of shareholders and track record of support

Taking into account our view of TVO's major ultimate shareholders and the significant presence of Finnish municipalities, we estimate that the average credit quality of TVO's shareholders is in the Baa range. The Mankala model is credit supportive, but its value is limited by shareholder obligations being several rather than joint, and the fragmented overall ownership structure.

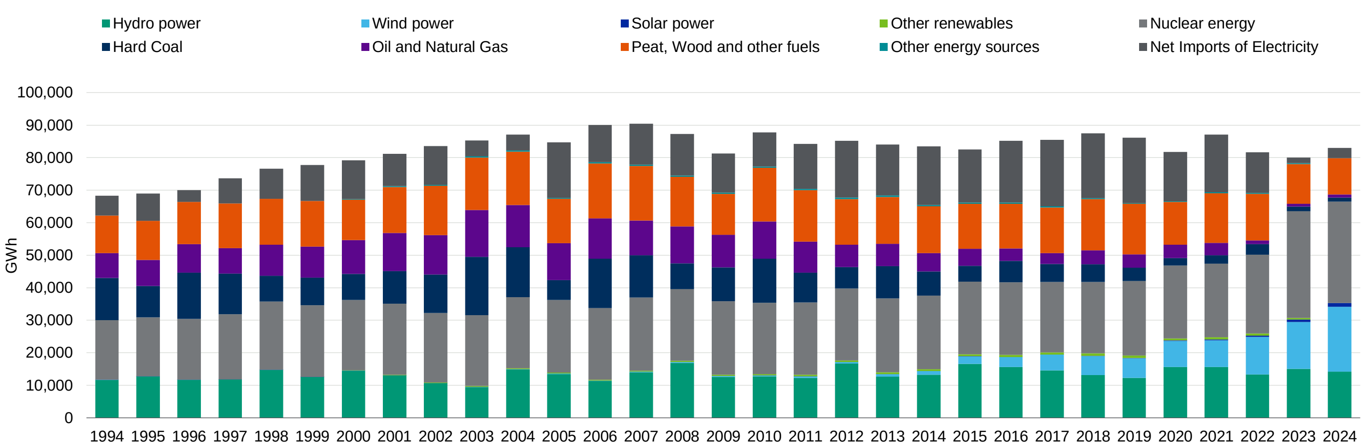
The shareholders' track record of providing financial support to TVO, in particular via shareholder loans, is strong. As of the end of March 2025, the total amount of shareholder loans was €629 million, which we consider debt under our adjusted credit metrics. This is a decrease from the €929 million recorded at the end of December 2023. TVO converted €300 million of the shareholder loan to equity in November 2024.

TVO is a large power generator in Finland, although exposed to a single technology and single-site risk

During 2024, TVO's output amounted to 23.2 TWh of electricity. As such, TVO accounted for 28% of all electricity produced in Finland and is likely to remain a systemically important power generator in the country for the foreseeable future. Finland has historically been a net importer of electricity, and the commissioning of OL3 significantly reduced the capacity shortfall. In 2023 and 2024, the net import of electricity reached record lows of 2.2% and 3.8%, respectively, compared with an average of 18% over 2020-22. Similar to that in 2023, Finland benefited from some of the lowest electricity prices in Europe last year, with an average of €46 per megawatt hour (MWh) in 2024. This contrasts with the European average of €81/MWh during the same period.

TVO's strategic importance to Finland is supportive of the company's credit quality. Exposure to a single technology (nuclear) and a single site (Olkiluoto) is, however, credit negative.

Exhibit 5
Finland's supply of electricity by energy source



2024 data are preliminary, with biomass classified as wood fuel.
Sources: Statistics Finland, Finnish Energy and Moody's Ratings

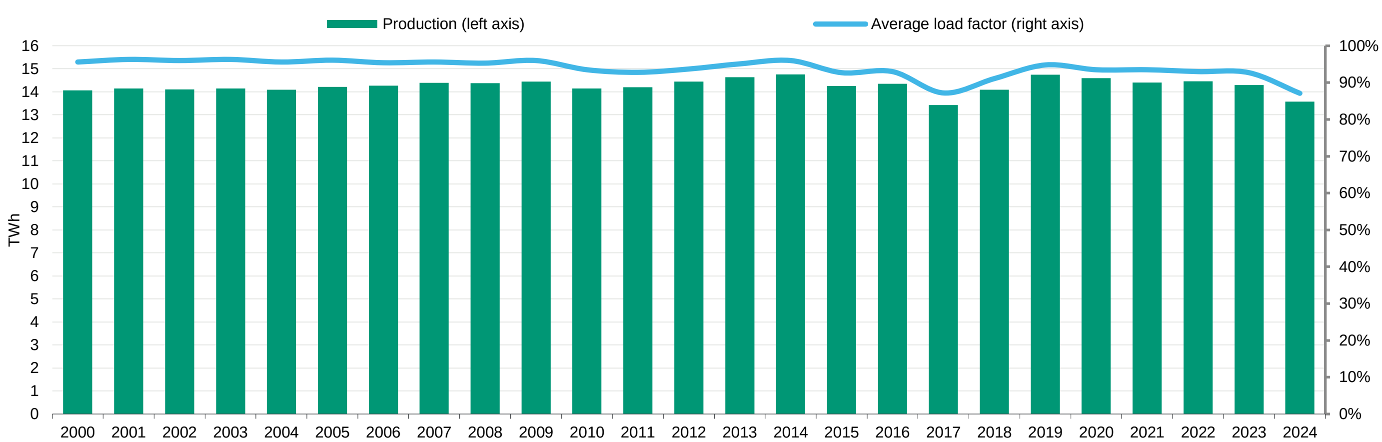
OL1 and OL2 have an excellent track record of operational performance

OL1 and OL2 are boiling water reactors (BWRs) commissioned in 1978 and 1980, respectively. Pressurised water reactors are the most common type of power plant reactors in commercial use, accounting for more than 60% of the total, and BWRs are the second most common, accounting for around one in five in use worldwide. Both OL1 and OL2 have benefited from the ongoing development work, which have increased their output to 890 megawatt (MW) from the original 660 MW. Both plants have also been modernised and modified to improve their safety standards, and in September 2018, their operating licences were extended until 2038. Launched in October 2023, the environmental impact assessment for a potential 10- or 20-year extension of the operating licence for the two reactors was submitted to the Ministry of Economic Affairs and Employment in December 2024. As part of this process, TVO also requested an increase in power output by roughly 80 MW, bringing each reactor's total output to around 970 MW.

TVO has an excellent track record of operating OL1 and OL2, achieving a capacity factor of 92% over the past five years. Load factors typically decrease because of annual outages, reduced energy demand or material defects. In 2024, the combined load factor for both plants dropped to 87% as a result of extended annual outages. Furthermore, electricity production at OL2 was interrupted for nearly a month in September following a rotor-impacting turbine malfunction. The rotor was replaced with a spare, and the power output was reduced to 735 MW from 890 MW to mitigate the risk of further failures, while investigations into the incident's cause continue. The reduced power level will likely persist until the next scheduled annual outage. For the full year, the total output of the two units was 13.6 TWh, down from 14.3 TWh in 2023. Nonetheless, the units' performance remained strong compared with the industry average, which typically sees load factors around 80%.

Exhibit 6

OL1 and OL2 have maintained consistently high load factors



Sources: Company filings and Moody's Ratings

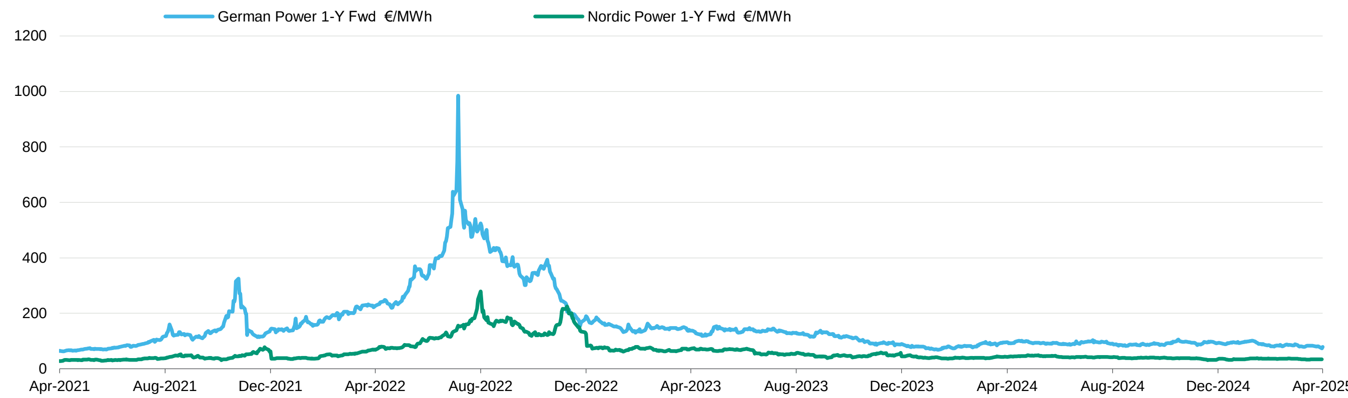
We expect OL1 and OL2 to continue to record strong operational performance, although load factors may decrease slightly over time because of the plants' age. Availability in any given year will be further affected by scheduled maintenance and other work, notably repair tasks in case of material defects. The normal duration of a maintenance outage, according to TVO, is two to three weeks, and modernisation and renovation projects have been implemented during maintenance outages at intervals of around five years.

TVO's costs of production are competitive, but persistent volatility in power markets could hinder value creation for shareholders

OL1 and OL2 feature relatively low production costs, ranging from €15/MWh to €20/MWh, which, while higher than Nordic hydro, are significantly lower than those of thermal generation and subsidised renewables. In contrast, OL3 has notably higher production costs. TVO projects elevated overall production costs for the three Olkiluoto plants at €35/MWh-€40/MWh (in real terms) for 2025-28, based on an annual production estimate of 24,000 gigawatt hours (GWh)-27,000 GWh. This increase from around €35/MWh previously is attributed to a higher interest rate environment, increased inflation and lower-than-expected production volumes. For instance, the price of uranium and its enrichment has increased since the onset of the war in Ukraine, as supply from Russia has been increasingly withdrawn from international markets. Although uranium prices have fallen from an early 2024 peak of roughly $105 per pound, current levels fluctuate around $65 per pound, which is still high in a historical context.

Despite the increase, TVO's overall production cost is competitive in the current market. Current one-year forwards in the Nordics are around €35/MWh, but Finnish power prices have historically been higher, reflecting congestion at cross-border interconnections in the region and the country's power capacity shortfall.

Exhibit 7
Nordic power prices trade at a substantial discount against Germany



Sources: FactSet, Bloomberg and Moody's Ratings

Power prices in Europe continued to normalise throughout 2024, following their peak in the summer of 2022 because of rising gas prices after Russia's invasion of Ukraine. This decline was driven by favourable weather conditions that boosted renewable energy production across Europe, despite somewhat lower gas storage levels resulting from a colder winter. In Finland, wholesale power prices fell to an average of €46/MWh in 2024 from €57/MWh in 2023 and €166/MWh in 2022. However, Finnish power prices remain more volatile compared with other Nordic markets, partially because of increasing wind capacity and a generally tight market. We expect volatility to persist, although it may be mitigated by the commissioning of a new interconnector between Sweden and Finland this year. This interconnector will enable electricity from northern Sweden, which has abundant hydro resources, to be sold in the Finnish market. Transmission bottlenecks to southern Sweden have resulted in significantly lower electricity prices in the north, and the interconnector could help balance prices across the region.

Nonetheless, we expect TVO's nuclear power plants to remain cost-competitive. Production costs are, however, sensitive to load factors and interest rates. A 10% reduction in the capacity factor would increase production costs by €2.2/MWh, whereas a 1% increase in interest rates would raise the average production cost by €1.6/MWh. At the same time, power prices are volatile and there is uncertainty around the evolution of power markets over the medium to long term. Increased production costs or diminished wholesale power prices — if the scenario were to persist for a longer period — would hurt the value-creation potential for shareholders and could test TVO's Mankala-based model.

Costs related to nuclear waste are borne by the power producer

TVO holds full legal and financial responsibility for managing and disposing of nuclear waste from the Olkiluoto nuclear power plant units. The future costs of containing the waste and maintaining storage facilities are covered by the Finnish State Nuclear Waste Management Fund, to which Finnish nuclear power producers make annual contributions. These contributions are based on estimates of the future costs of nuclear waste management. As of the end of March 2025, TVO's liability to the fund was €2.0 billion, with targeted funding for 2025 amounting to €1.4 billion.

In January 2024, the Finnish Energy Authority issued its decision on a court case regarding the operator responsible for the grid protection system of OL3. The authority determined that Fingrid Oyj (Fingrid) unjustifiably transferred its obligations related to the protection system to TVO, and affirmed Fingrid's responsibility for the mechanism. In December 2024, the Finnish Energy Authority stated that Fingrid could charge most of the associated costs to TVO as a service fee. However, the decision is not final, and TVO has filed an appeal.

With regard to the final disposal of radioactive fuel, TVO has established a joint venture with Fortum Power and Heat Oy — Posiva Oy — which will dispose of high-level nuclear waste from their respective plants. Spent nuclear fuel will be packed into copper canisters and stored around 420 meters below ground at the Onkala site, which is located near TVO's nuclear reactors. The construction of the underground site commenced in 2016. TVO is currently carrying out the test operation phase, and should obtain the required operating licence over the course of this year. The final disposal at the site is likely to start in the near future.

TVO has significant debt, and leverage reduction will be gradual

TVO operates under a not-for-profit business model, which can make its financial metrics less reflective of its operational strength. Before the start of commercial operations on 1 May 2023, TVO's funds from operations (FFO) metric was negative. This was because the costs associated with constructing OL3 were capitalised and are now being recovered through production charges following the plant's operational commencement. For the 12 months that ended in March 2025, TVO's Moody's-adjusted FFO was €304 million.

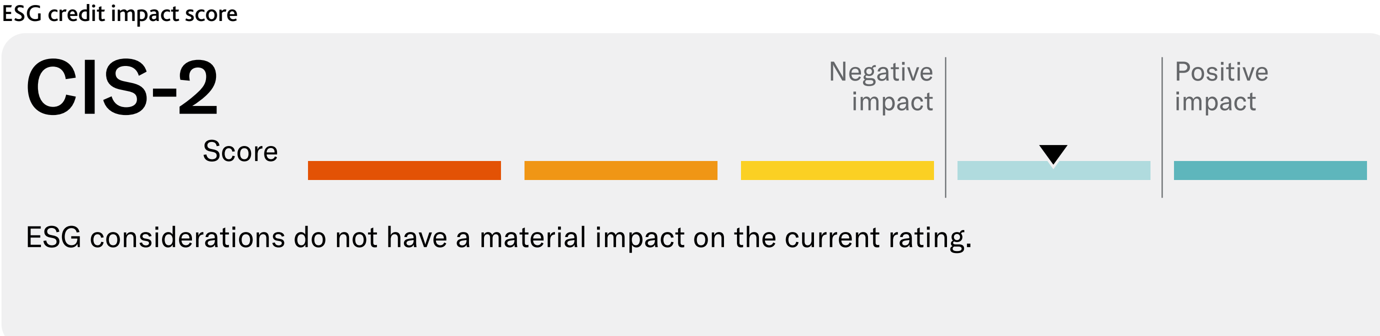
TVO’s debt burden is, however, very high in absolute and relative terms. As of the end of March 2025, TVO’s financial debt (excluding shareholder loans and loans from the Nuclear Waste Fund) amounted to around €4.3 billion. We expect TVO to steadily reduce leverage, as capital spending needs have significantly decreased with the commissioning of OL3. However, its capital structure will remain highly leveraged for the foreseeable future. Debt is likely to decrease by €100 million-€150 million annually, aligning with the depreciation of TVO’s assets as the company refinances upcoming maturities.

ESG considerations

Teollisuuden Voima Oyj's ESG credit impact score is CIS-2

Exhibit 8

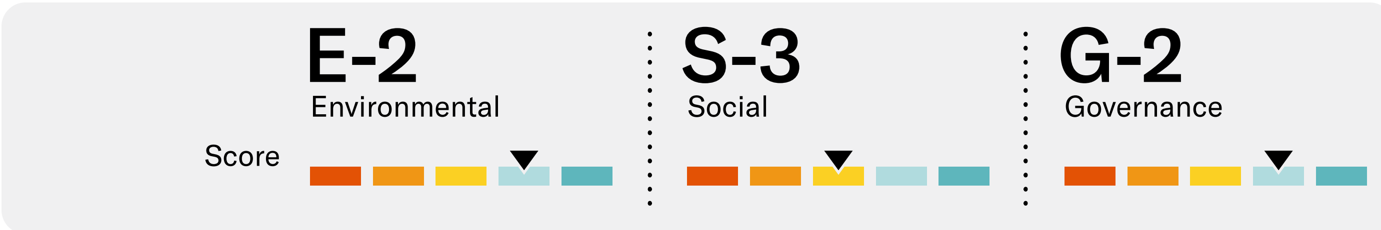
ESG credit impact score



Source: Moody's Ratings

TVO’s ESG Credit Impact Score of **CIS-2** indicates that ESG considerations are not material to the rating, mainly reflecting the company’s low exposure to environmental and governmental considerations. TVO’ is a Mankala company, which – as per its articles of associations – allows it to pass on all of its costs to its ultimate shareholders. These include interest and debt amortisations, but also costs related to nuclear waste treatment. The particular status of the company therefore mitigates a number of risk factors typically present within the unregulated utilities universe as the risks are largely passed on to its shareholders.

Exhibit 9
ESG issuer profile scores



Source: Moody's Ratings

Environmental
TVO's **E-2** score mainly reflects the company's limited carbon footprint through its carbon free nuclear generation. Whilst its nuclear production – which represent all of the company's operations – has exposure to Waste and Pollution risks given the costs associated with nuclear decommissioning and nuclear waste treatment, these costs are being passed on to its shareholders that ultimately bear the risks associated with these risks. However, TVO would still have an unlimited liability for damage caused to third parties in Finland in the case of a nuclear incident.

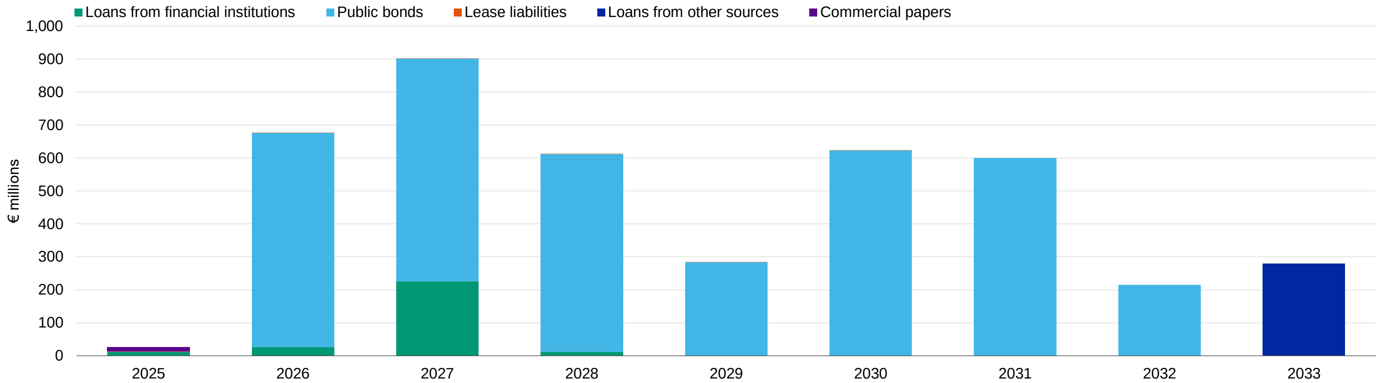
Social
TVO's **S-3** score reflects exposure to demographic and societal trends, whereby it could come under come under public scrutiny as a utility with nuclear generation and in the face of affordability concerns. Whereas volatility in electricity prices does not affect TVO itself given that its sells its output at cost price, a prolonged period of lower prices below its cost price of production could eventually threaten the viability of the structure for its shareholders.

Governance
TVO's **G-2** score reflects its low exposure to governance risks. Whereas its capital structure is leveraged with only modest deleveraging prospects in the short to medium term, the risk exposure is, however, mitigated through its organizational structure as a Mankala company whereby all of its fixed costs, which include debt and interest payments, can be passed on to its shareholders as per the legal structure's articles of associations.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity analysis
TVO's liquidity is good. As of the end of March 2025, the company had a cash balance of €159 million. TVO's liquidity buffer is bolstered by its access to an undrawn €1 billion committed revolving credit facility (RCF), maturing in June 2027. From June 2026 to June 2027, the facility size will reduce to roughly €890 million. This provides ample coverage for TVO's short-term commitments, including €25 million of debt due this year. However, TVO faces significant refinancing needs from 2026 to 2028, with annual bond and loan maturities ranging from €600 million to €900 million. We expect TVO to refinance its upcoming debt maturities on time.

Exhibit 10
TVO had sizeable debt maturities as of 31 March 2025



Sources: Company filings and Moody's Ratings

TVO's bank debt includes one financial covenant — a minimum equity ratio of 25%. As of the end of March 2025, this ratio was 33.7%.

Methodology and scorecard

We consider TVO an unregulated power company under our rating methodology for Unregulated Utilities and Unregulated Power Companies.

The scorecard-indicated outcome of Ba1 is constrained by the company's weak financial metrics. The assigned rating further takes into account TVO's not-for-profit business model, which is not fully captured by the scorecard.

Exhibit 11
Rating factors
Teollisuuden Voima Oyj

Unregulated Utilities and Unregulated Power Companies Industry Scorecard	Current FY Dec-24		Moody's 12-18 month forward view	
Factor 1 : Scale (10%)	**Measure**	**Score**	**Measure**	**Score**
a) Scale ($ billions)	Baa	Baa	Baa	Baa
Factor 2 : Business Profile (35%)				
a) Market Diversification	Ba	Ba	Ba	Ba
b) Hedging and Integration Impact on Cash Flow Predictability	Aaa	Aaa	Aaa	Aaa
c) Market Framework & Positioning	Ba	Ba	Ba	Ba
d) Capital Requirements and Operational Performance	Aa	Aa	Aa	Aa
Factor 3 : Financial Policy (15%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	1.64x	B	2.35x	B
b) (CFO Pre-W/C) / Debt (3 Year Avg)	2.12%	Caa	5.00%	B
c) RCF / Debt (3 Year Avg)	2.12%	Caa	5.00%	B
Rating:				
a) Scorecard-Indicated Outcome		Ba2		Ba1
b) Actual Rating Assigned				Baa3

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

Appendix

Exhibit 12
Peer comparison
Teollisuuden Voima Oyj

(in EUR million)	Teollisuuden Voima Oyj Baa3 Stable FYE Dec-23	FYE Dec-24	LTM Mar-25	VERBUND AG A2 Stable FYE Dec-22	FYE Dec-23	FYE Dec-24	Statkraft AS A3 Stable FYE Dec-22	FYE Dec-23	FYE Dec-24	Fortum Oyj Baa2 Stable FYE Dec-22	FYE Dec-23	FYE Dec-24
Revenue	876	897	884	10,346	10,450	8,245	158,906	98,511	83,522	7,774	6,711	5,800
EBITDA	487	527	547	3,178	4,647	3,613	65,687	53,796	35,799	3,451	2,212	1,840
Total Assets	9,197	9,126	8,869	19,150	19,477	18,707	340,883	317,675	326,884	24,836	19,885	18,449
Total Debt	6,634	6,214	5,916	3,939	2,554	2,402	42,352	59,934	81,181	8,995	7,082	5,990
Net Debt	6,346	5,901	5,757	3,530	1,590	1,607	(16,218)	15,606	50,371	5,324	2,899	1,854
FFO / Debt	2.6%	5.0%	5.1%	41.5%	63.6%	106.0%	72.5%	42.4%	27.7%	19.1%	22.7%	21.0%
RCF / Debt	2.6%	5.0%	5.1%	29.3%	2.8%	25.5%	47.7%	12.5%	11.3%	7.7%	11.1%	3.7%
(FFO + Interest Expense) / Interest Expense	1.6x	2.3x	2.2x	21.0x	15.6x	27.3x	23.2x	12.8x	7.2x	7.8x	6.5x	6.3x
Debt / Book Capitalization	83.7%	79.0%	78.0%	30.0%	16.9%	16.4%	22.2%	26.3%	31.5%	53.3%	44.3%	38.6%

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 13
Moody's-adjusted debt reconciliation
Teollisuuden Voima Oyj

(in EUR million)	FYE Dec-21	FYE Dec-22	FYE Dec-23	FYE Dec-24	LTM Mar-25
As Reported Total Debt	5,034	5,441	5,450	5,329	5,048
Hybrid Securities	929	929	929	629	629
Non-Standard Adjustments	358	295	254	256	238
Moody's Adjusted Total Debt	6,322	6,665	6,634	6,214	5,916
Cash & Cash Equivalents	(172)	(353)	(288)	(313)	(159)
Moody's Adjusted Net Debt	6,149	6,312	6,346	5,901	5,757

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Source: Moody's Financial Metrics™

Exhibit 14
Moody's-adjusted EBITDA reconciliation
Teollisuuden Voima Oyj

(in EUR million)	FYE Dec-21	FYE Dec-22	FYE Dec-23	FYE Dec-24	LTM Mar-25
As Reported EBITDA	66	80	531	569	589
Interest Expense - Discounting	(38)	(77)	(58)	(57)	(57)
Non-Standard Adjustments	18	21	14	15	14
Moody's Adjusted EBITDA	46	23	487	527	547

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Source: Moody's Financial Metrics™

Exhibit 15

Overview on selected historical Moody's-adjusted financial data

Teollisuuden Voima Oyj

(in EUR million)	FYE Dec-21	FYE Dec-22	FYE Dec-23	FYE Dec-24	LTM Mar-25
INCOME STATEMENT					
Revenue	299	358	876	897	884
EBITDA	46	23	487	527	547
EBIT	2	(24)	309	276	295
Interest Expense	116	128	270	243	253
Net income	(114)	(151)	38	33	42
BALANCE SHEET					
Net Property Plant and Equipment	6,088	6,266	6,326	6,197	6,139
Total Assets	8,572	9,074	9,197	9,126	8,869
Total Debt	6,322	6,665	6,634	6,214	5,916
Cash & Cash Equivalents	172	353	288	313	159
Net Debt	6,149	6,312	6,346	5,901	5,757
Total Liabilities	7,529	7,883	7,906	7,477	7,196
CASH FLOW					
Funds from Operations (FFO)	(60)	(71)	175	310	304
Cash Flow From Operations (CFO)	(65)	(9)	367	270	330
Retained Cash Flow (RCF)	(60)	(71)	175	310	304
Capital Expenditures	(228)	(331)	(247)	(88)	(140)
Free Cash Flow (FCF)	(293)	(340)	120	181	190
INTEREST COVERAGE					
(FFO + Interest Expense) / Interest Expense	0.5x	0.4x	1.6x	2.3x	2.2x
LEVERAGE					
FFO / Debt	-0.9%	-1.1%	2.6%	5.0%	5.1%
RCF / Debt	-0.9%	-1.1%	2.6%	5.0%	5.1%
Debt / EBITDA	138.4x	283.8x	13.6x	11.8x	10.8x
Net Debt / EBITDA	134.7x	268.7x	13.0x	11.2x	10.5x

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Source: Moody's Financial Metrics™

Ratings

Exhibit 16

Category	Moody's Rating
TEOLLISUUDEN VOIMA OYJ	
Outlook	Stable
Issuer Rating -Dom Curr	Baa3
Senior Unsecured MTN -Dom Curr	(P)Baa3

Source: Moody's Ratings

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454