



2023

INTERIM
REPORT
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Teollisuuden Voima Oyj's Interim Report 1 January–30 September 2023

During the first three quarters of 2023, Teollisuuden Voima Oyj's (TVO) electricity generation at the Olkiluoto 1 (OL1), Olkiluoto 2 (OL2) and Olkiluoto 3 (OL3) plant units continued safely and reliably.

A failed rotor was replaced at OL2 in August 2023 in the replacement outage which lasted 17 days.

Electricity generation at OL3 has continued without interruption following the provisional takeover in April 2023 and the start of commercial operation in May 2023. For the time being, the grid operator Fingrid Oyj has limited OL3's production to a maximum of 1,570 MW. Furthermore, output at all three Olkiluoto plant units has been reduced in situations where electricity generation has been high in the Nordic countries. Production from all three plant units substantially supports Finland's self-sufficiency in terms of electricity and helps in achieving the goals for carbon neutrality.

The processing of Posiva's operating licence has progressed at the Radiation and Nuclear Safety Authority (STUK), and Posiva is submitting responses to the requests for additional information. On September 2023, STUK reported that the safety assessment and statement on the operating licence application for the disposal facility for spent nuclear fuel will not be completed this year. Work with the installation and commissioning of systems at the encapsulation plant has progressed as planned. In the first actual deposition tunnel, investigations relating to verifying the suitability of the tunnel and defining the locations of the deposition holes for the final disposal of nuclear fuel have been completed.

Operating environment

The European Commission's proposal on renewing the EU's electricity market regulation is progressing. The Commission's proposal aims to develop the electricity market by advancing regulation on long-term power purchase agreements (PPA) and Contracts for Difference (CfD). In the Commission's proposal, CfDs could be used for supporting nuclear power. The processing of the matter continues within the European Parliament.

In order to match the subsidies provided by the United States for green investments, the Commission provided a proposal on a Net-Zero Industry Act in March. The purpose of the initiative is to accelerate the green transition by increasing production capacity for the necessary technologies within the EU region. The Commission's proposal includes small modular reactors among the net-zero technologies, but not conventional nuclear power. The processing of the matter continues.

The Parliament's committee on Industry, Research and Energy (ITRE) is preparing a report on SMR technology. The draft report takes a very positive stance on SMRs, and it proposes that regulation concerning them to be simplified and clarified and resources to be added in the development and manufacture of SMRs.

The programme for Prime Minister Orpo's government was completed in mid-June, and its key points regarding nuclear power were that the Government: 1) pledges to accept all applications for decisions-in-principle concerning nuclear power plants that meet the necessary criteria; 2) will reform the Nuclear Energy Act by 2026 at the latest, in a manner that will enable nuclear energy projects to

run smoothly and support Finland's competitiveness as a target for investments. The reform will facilitate the construction of small modular reactors (SMRs); 3) promote opportunities to build nuclear power plants near industrial plants so that waste heat and steam can be utilised; and 4) utilise the opportunity for using a type-approval procedure for SMRs. During the period in review, work towards a total reform of the nuclear energy legislation has continued in the various workgroups of the Ministry of Economic Affairs and Employment (MEAE) and STUK, in which TVO's experts have also actively participated.

Financial performance

TVO operates on a cost-price principle (Mankala principle). The shareholders are charged incurred costs in the price of electricity and thus, in principle, the profit/loss for the period in review is zero, unless specific circumstances dictate otherwise. The shareholders pay variable costs based on the volumes of energy supplied and fixed costs in proportion to their ownership, regardless of whether they have used their share of the output or not. Because of this operating principle, key indicators based on financial performance will not be presented.

The consolidated turnover for the period in review, 1 January–30 September 2023, was EUR 587.0 (1 January–30 September 2022: EUR 250.1) million. The higher turnover compared to the previous year is due to OL3's electricity production.

The amount of electricity delivered to shareholders was 17,595 GWh (11,858 GWh). The higher delivery volume compared to the previous year is due to OL3's electricity production.

The consolidated profit/loss was EUR 66.9 (-52.0) million. The profit/loss for the period in review was affected especially by the costs charged from shareholders, which were higher than the incurred costs. The consolidated profit/loss is also affected by the treatment of interest on equity shareholder loans in accordance with the IAS32 standard, which states that interest paid is entered directly in retained earnings and not in profit/loss. TVO's profit/loss is EUR 0.0 (0.0).

Updated cost estimates based on a new technical plan and schedule for nuclear waste management and changes to the provision regarding the nuclear waste management obligation had an effect on the previous year's profit/loss for the period in review.

Financing and liquidity

TVO's financial situation has developed as planned.

TVO's liabilities (non-current and current) at the end of the period in review, excluding the loan from the Finnish State Nuclear Waste Management Fund re-lent to shareholders, amounted to EUR 5,687.1 (31 December 2022: 5,727.1) million, of which EUR 929.3 (929.3) million were subordinated shareholder loans. During the period in review, TVO raised a total of EUR 894.2 million (30 September 2022: 750.0 million) in non-current liabilities and repaid non-current liabilities in the amount of EUR 931.1 million (363.2 million).

TVO has a revolving credit facility of EUR 1,000 million, which was extended until 2026 during the period in review. In addition, TVO has a shareholder loan commitment of EUR 400 million, which is valid until the end of 2023.

In May 2023, TVO issued a bond of EUR 600 million and announced a tender offer for its bond maturing in May 2024, of which EUR 208.2 million was repurchased.

In late June 2023, TVO established a Green Bond Framework that is based on TVO's environmentally friendly electricity generation at its three nuclear power plant units at Olkiluoto, and on responsible nuclear waste management. Danske Bank acted as an adviser on the establishment of the Green Bond Framework. ISS ESG, a service provider specialising in assessments for green funding, provided an independent assessment according to which the framework is aligned with the Green Bond Principles. ISS ESG further assessed that the framework is aligned with the EU taxonomy.

In August 2023, TVO issued new SEK 2,300 million Private placements loans. In connection of the new loans, SEK 900 million of loans maturing in February 2024 were bought back.

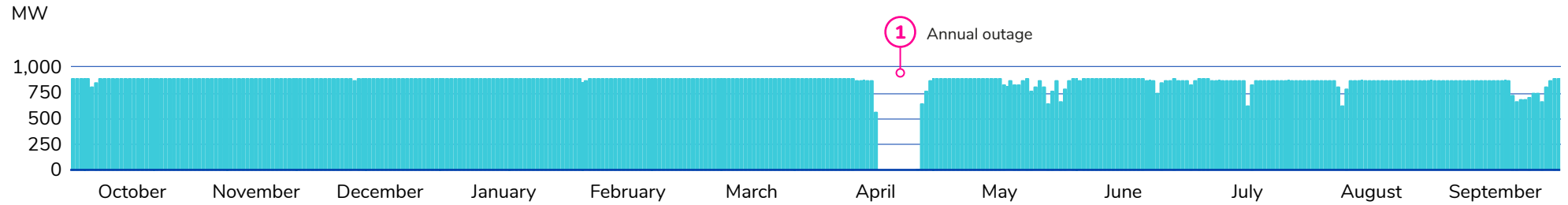
The OL3 project's financing costs have been capitalised in the balance sheet up to 30 April 2023.

TVO uses its right to borrow funds back from the Finnish State Nuclear Waste Management Fund within the framework of legal regulations. On 30 September 2023, the amount of the loan was EUR 727.5 (31 December 2022: 651.3) million and it has been relented to TVO's shareholders. On 31 March 2023, the loan from the Finnish State Nuclear Waste Management Fund increased by EUR 76.2 (31 March 2022: decreased by 59.9) million.

In March 2023, Japan Credit Rating Agency (JCR) affirmed its long-term credit rating for TVO at its previous level of A+ and changed the outlook from negative to stable. In April 2023, S&P Global Ratings (S&P) upgraded its long-term credit rating from BB+

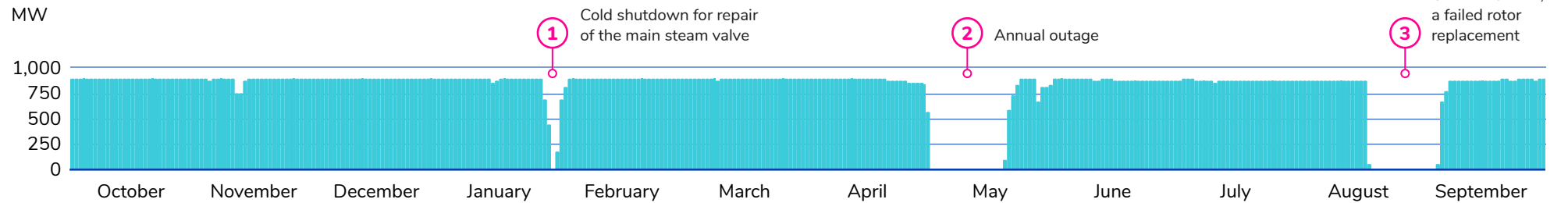
OL1 Production

Average output 1 October 2022–30 September 2023



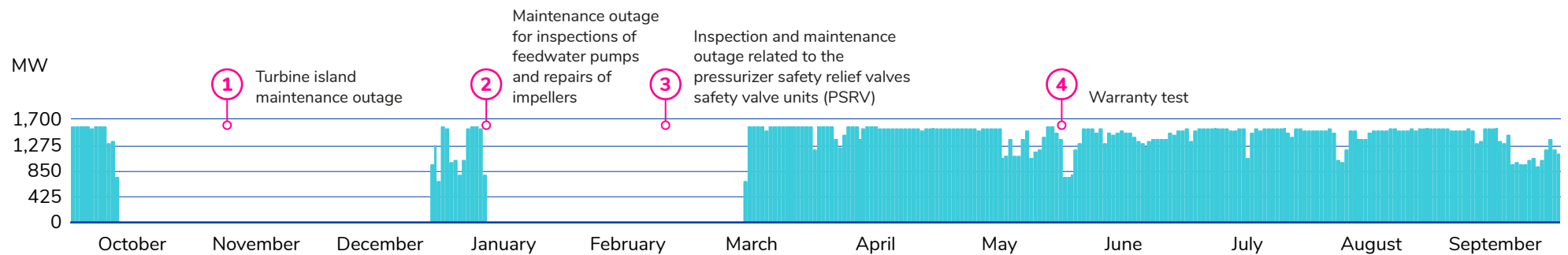
OL2 Production

Average output 1 October 2022–30 September 2023



OL3 Production

Average output 1 October 2022–30 September 2023



to BBB- and confirmed its stable outlook. Moody's Investors Service (Moody's) provided a long-term credit rating of Baa3 in May 2023 and estimated TVO's outlook as stable. TVO also has a long-term credit rating of BBB- from Fitch Ratings (Fitch) with a stable outlook.

Electricity production

The electricity production of the Olkiluoto nuclear power plant units, OL1, OL2, and OL3, during the period in review was 17,622 (11,888) GWh. The total load factor for OL1 and OL2 was 89.3 (90.5) per cent.

During the period under review, OL1, OL2 and OL3 operated safely and reliably. OL3 was connected to the national grid for the first time in March 2022, and the plant unit's test operation phase concluded on 16 April 2023. The net production for OL1 was 5,486 (4,960) GWh and the load factor was 94.3 (85.2) per cent. The net production for OL2 was 4,903 (5,574) GWh and the load factor was 84.3 (95.8) per cent. The net production for OL3 was 7,233 (1,355) GWh and the load factor was 68.4 (17.8) per cent.

Significant events at OL1 and OL2

The authority supervising the environmental permit has issued a comment and investigation request regarding a malfunction at OL1's and OL2's debris handling building. Solid material is extracted from the cooling water at the debris handling building. TVO has carried out modifications at the building which were completed in June 2023. The actions aiming at improving the debris handling building are continuing, and debris is handled using temporary arrangements in the meantime.

An unplanned reactor scram occurred at OL2 in connection with plant unit ramp-up following the

annual outage on 19 May; it was caused by a leak observed in the condenser. The plant's safety functions operated as planned during the situation. The event did not affect nuclear safety.

A leak was observed in OL2's water cooled generator on Friday 18 August, at which time electricity generation was stopped at the plant unit. The production outage lasted for 17 days. The failed rotor was replaced and OL2 was resynchronised with the national grid on Monday, 4 September at 20:06. The event did not affect nuclear safety.

Annual outages

Annual outages for OL1 and OL2 started on 16 April with a refuelling outage for the OL1 plant unit. In addition to the refuelling, various annual preventive maintenance tasks, inspections and a modernisation of the turbine hall crane as well as repairs and tests were performed at OL1. OL1 resumed electricity production on 26 April.

OL2 underwent a service outage that started on 1 May and ended on 19 May. In addition to the refuelling, major tasks during the service outage included turbine I&C renovation, replacement of the containment's electrical penetrations, modification of the reactor water level measurement and the replacement of the off-gas venting system emergency fans.

Olkiluoto 3

OL3 is a nuclear power plant unit procured as a fixed-price turnkey project from a consortium (Plant Supplier) formed by Areva GmbH, Areva NP SAS and Siemens AG. As stipulated in the Plant Contract, the consortium companies have joint and several

liability for the contractual obligations also during the warranty period that started in April 2023. Test operation for OL3 concluded on 16 April, when regular electricity production at the plant unit started.

TVO confirmed the provisional takeover of the plant unit for the warranty period which started on 18 April 2023. On 20 April, TVO submitted the Provisional Takeover Certificate to the OL3 plant supplier. The final takeover of the plant unit will take place after the conclusion of the two-year warranty period. Even after this, the plant supplier's liabilities under the warranty will remain in force up to a maximum of eight (8) years to a certain extent.

Commercial operation for OL3 started on 1 May 2023; among other things, this meant that the capitalisation of project costs was stopped and amortisation was started. The charging of the variable and fixed fees for the commercial operation of OL3 was also started on 1 May 2023. The shareholders' right to electricity generated by OL3 and their liability for the annual costs incurred from electricity generation are determined in accordance with TVO's Articles of Association.

A Global Settlement Agreement (GSA) was signed in March 2018 and amended in June 2021 concerning the completion of the OL3 project and related disputes. During the period in review, the fund established in accordance with the GSA and funded by the Areva companies has been used to cover costs incurred to the Areva companies for the completion of the OL3 project in accordance with the GSA.

The final payment of approximately EUR 193 million in delay compensation agreed upon in 2018 was set off against the final payment installment of the Areva companies under the Plant Contract in May 2023. Long-term receivables include the additional delay

compensation of EUR 56.7 million to TVO, agreed upon in 2021, which will become due during the final takeover of OL3 in April 2025 at the earliest.

Total investment in the OL3 project was approximately EUR 5.8 billion. EUR 250.0 million was transferred from the OL3 investment to operating-time fuel (current assets) when the OL3 plant unit entered commercial operation.

All realised costs of the OL3 project that can be recognised in the cost of the asset, including financing costs, have been entered as property, plant and equipment in the Group's balance sheet up to 30 April 2023. The capitalisation of costs was discontinued at the start of OL3's commercial operation, which affects the comparability of the Group's income statement and balance sheet.

In the income statement, the most significant changes can be seen under turnover, materials and services, depreciation and impairment charges, other expenses and finance income and expenses. In the balance sheet, the most significant changes can be seen under property, plant and equipment, inventories and trade and other receivables.

Significant events at OL3

During 2020–2023, several signal failures were observed in safety-classified temperature measurements at OL3, which resulted in more extensive inspections being performed. In February 2023, it was observed that some of the QDC connectors for temperature measurements were missing either one or both of the required seals. Shortcomings in seals were observed in 29 of the 108 QDC connectors that were inspected. Since the event involved shortcomings in instructions and the occurrence of the defect at several locations, the

event was estimated during the period in review to be at level 1 on the International Nuclear Event Scale (INES). According to the INES definition, this was an exceptional event with an impact on safety. An extended inspection programme for measurement instruments significant for safety has been drawn up as a result of this event, and it will be completed in its entirety by June 2024.

A warranty test measuring different power levels was started at OL3 on 29 May 2023. During the warranty test, measurements were performed at power levels of 100 per cent, 90 per cent and 50 per cent. The measurements for the test were successfully performed at different power levels, and they were concluded on 3 June 2023. The analysis of the results calculated on the basis of these measurements is complete as regards the plant's net electrical power and average net electricity generation efficiency. The necessary technical measures are being taken at the plant on the basis of the results. The plan is to redo the test during the current year.

At OL3, a deviation occurred from the minimum staffing of the main control room operating shift in June 2023 when a substitute was not obtained on time for the night shift. The deviation from the instructed minimum staffing lasted slightly less than two hours until a substitute arrived on site. The minimum staffing for the main control room is instructed in the Technical Specifications (TechSpecs). TVO initiated actions in order to prevent similar events immediately after the event occurred. The shortcomings in ways of working that were revealed during the event are analysed in more detail in a separate root cause analysis. The event did not directly affect nuclear safety. According to the international INES classification system, the severity of the event is classified as 1. Even though the basic rating for the event was 0, TVO decided to uprate the

class by one due to factors involving safety culture. TVO submitted an operational event report concerning the matter to STUK for approval in August 2023.

Nuclear fuel

During the period in review, nuclear fuel purchases amounted to EUR 53.0 (60.3) million and the amount consumed to EUR 79.0 (51.2) million.

The nuclear fuel and uranium stock carrying value on 30 September 2023 was EUR 491.9 (31 December 2022: 262.4) million. EUR 250.0 million was transferred from the OL3 investment to the value of the nuclear fuel and uranium stock when OL3 entered commercial operation.

Nuclear waste management

Under the Finnish Nuclear Energy Act, TVO is responsible for the measures related to nuclear waste management and the related costs.

The liabilities in the consolidated financial statement show a provision related to nuclear waste management liability of EUR 1,248.9 (31 December 2022: 1,294.3) million, calculated according to the international IFRS accounting principles. TVO's share in the Finnish State Nuclear Waste Management Fund, EUR 1,001.9 (31 December 2022: 999.7) million, is presented under assets in accordance with the IFRIC 5 interpretation. The total cost estimate based on a new nuclear waste management technical plan and schedule has been updated in June 2022.

In order to cover the future costs of nuclear waste management, TVO makes contributions to the Finnish State Nuclear Waste Management Fund in accordance

with the Finnish Nuclear Energy Act. In December 2022, the MEAE set TVO's liability for nuclear waste management at EUR 1,839.6 (1,816.1) million for the end of 2022 and TVO's funding target in the Finnish State Nuclear Waste Management Fund for 2023 at EUR 1,457.9 (1,436.1) million. In addition, the MEAE has decided that the liability for 2023 is EUR 1,832.4 million, of which EUR 1,426.2 million belongs to OL1/OL2 and EUR 406.2 million belongs to OL3.

In March 2023, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee for 2022 at EUR 39.3 million, which TVO paid on 31 March 2023. In order to supplement the statutory protected portion, TVO provided the Nuclear Waste Management Fund with a cash security of approximately EUR 43.7 million. The nuclear waste management fee for 2023 will be confirmed in March 2024.

In June 2023, the MEAE issued a preliminary decision on the final disposal of low and medium level radioactive waste generated in connection with or as a result of the operation of Posiva Oy's encapsulation plant and disposal facility. According to the decision, waste may be placed in TVO's disposal facility for low and intermediate-level waste at Olkiluoto (VLJ repository). This does not require an amendment of the terms of the operating licence according to Section 25 of the Nuclear Energy Act.

In September 2023, STUK issued its decision on the periodic safety assessment of the VLJ repository. The decision stated that the level of safety in the VLJ repository is good in terms of both operational safety and long-term safety. Furthermore, STUK stated that TVO has the necessary practices and resources in place for continuing the operation of the VLJ repository.

Final disposal of spent nuclear fuel

Posiva Oy is responsible for the final disposal of spent nuclear fuel generated at the power plants of its owners, TVO at Olkiluoto and Fortum Power and Heat Oy (Fortum) in Loviisa.

Work on Posiva's final disposal complex at the encapsulation plant worksite and inside ONKALO has proceeded as planned toward the joint functional test. The encapsulation plant's system installations and commissioning are progressing. Approximately 430 metres underground, in the first actual deposition tunnel, investigations have been completed relating to defining the locations of the deposition holes for the final disposal of nuclear fuel. The canister lift installations are under way, both above ground and underground. The personnel lift has been commissioned. Underground civil engineering installation work has been completed.

The operating licence application for the final disposal facility was submitted to the Finnish Government in December 2021. Final disposal activities are to begin in the mid-2020s.

Acquisitions of tangible and intangible assets and shares

Investments during the period in review were EUR 414.4 (198.2) million. Investments of the parent company were EUR 424.2 (216.3) million. EUR 369.6 (178.7) million was allocated to the OL3 project. EUR 54.6 (35.0) million was allocated to the OL1 and OL2 plant units, OL3 unit's operating-time and the general infrastructure of the area.

Hitachi Energy and TVO signed a turnkey contract in summer 2021 about delivering one of Europe's largest

battery energy storage systems to Olkiluoto. The 90-megawatt system will support the entire energy network in a potential production disturbance of the OL3 plant unit, thus minimising the effect of power fluctuations on the grid as part of Fingrid's grid load limitation. Takeover of the battery energy storage system is planned to take place during 2023.

Pending court cases and disputes

TVO is party to an arbitration procedure related to the condenser replacement at OL1 and OL2 that was carried out in 2017 and 2018. The counterparty to the arbitration is Balcke-Dürr GmbH. TVO considers the claims presented by the counterparty in the arbitration to be unfounded, and demands that they be rejected and that TVO's legal expenses be compensated for.

At the end of the period in review, TVO had no other pending court cases or disputes.

Personnel

The total number of personnel in the Group at the end of the period in review was 1,042 (31 December 2022: 1,007, 30 September 2022: 1,015). The number of permanent employees in the Group at the end of the period in review was 1,010 (31 December 2022: 986, 30 September 2022: 994).

Annual General Meeting

TVO's Annual General Meeting on 30 March 2023 approved the financial statements for 2022 and discharged the members of the Board of Directors and the President and CEO from liability. **Kaarlo Höysniemi** was elected as a new member of the Board to replace **Seppo Parvi**. The other members of the Board were re-elected.

At its organisation meeting, the Board elected **Ilkka Tykkyläinen** as Chair of the Board and **Petra Lundström** as Vice-Chair. The Board also chose from among its members the members and chairs of the Board Committees.

Auditing

The Interim Report is unaudited.

Risks and uncertainty factors in the near future

The major risks and uncertainty factors in TVO's operations have been presented in the 2022 Report of the Board of Directors.

Regular electricity production, which started after the conclusion of the test operation programme in April 2023, and commercial operation, which started in May 2023, transferred the responsibility for OL3 to TVO. The Plant Supplier retains the responsibilities according to the Plant Contract for warranty periods and for that unfinished work, which has been agreed to be done later at the Plant Supplier's expense. Even though electricity generation at OL3 has so far continued without interruption following the conclusion of the test operation programme, there are uncertainties related to the availability of OL3 during the first operating cycle by means of any possible unexpected events. These uncertainties are managed by means of systematic maintenance and monitoring of the plant unit.

The TVO Group has contingency plans for different scenarios resulting from the situation in Ukraine and the impact on the Group's operations is closely followed. Continued inflation and increases in interest rates may increase TVO's production costs.

Following the amendment to the Nuclear Energy Act, the Finnish State Nuclear Waste Management Fund has started investment activities in 2022, as a result of which the Fund's investments are valued at market value which, in turn, affects the amount of TVO's share in the Fund. This may lead to uncertainty, specifically with regards to the amount of TVO's protected portion covered by securities as well as the nuclear waste management fee.

The aim is to perform the joint functional test demonstrating the functionality of Posiva's final disposal facility complex during 2024. Readiness for the joint functional test requires that the encapsulation plant's systems that are not yet complete are finalised according to schedule and that uncertainties related to the manufacturing and inspection capabilities of the final disposal canister are managed.

Assessment of year-end developments

During the current fiscal period, electricity generation is anticipated to continue steadily across all three plant units. The prerequisites for nuclear power production at Olkiluoto NPP are good.

During the rest of the year, preparations will be made for OL3's first annual outage, which will begin on 2 March 2024 and is planned to end on 8 April 2024. Preparations are also made for a service outage at OL1 and a refuelling outage at OL2. The service outage for plant unit OL1 will begin on 12 May 2024 and is planned to end on 26 May 2024. The refuelling outage for the Olkiluoto 2 plant unit will begin on 28 April and is planned to end on 5 May 2024.

Nuclear fuel availability is guaranteed by long-term agreements.

During the current warranty period for OL3, TVO will closely monitor that the Plant Supplier meets its warranty obligations and performs the incomplete work that was recorded on the list of shortcomings upon provisional takeover. The final takeover of the plant unit will take place after the conclusion of the two-year warranty period. Even after this, the plant supplier's liabilities under the warranty will remain in force up to a maximum of eight (8) years to a certain extent.

Posiva continues the implementation of the final disposal facility project. Technical acquisitions at the disposal facility have been completed. Installation and commissioning work is being performed at the encapsulation plant.

Events after the period under review

TVO has initiated an environmental impact assessment procedure (EIA) preparations concerning the possible operating licence extension and potential power uprating of the OL1 and OL2 plant units. At the moment, the plant units are licensed until 2038.

On 10 October 2023 the Regional State Administrative Agency for Southern Finland granted an environmental permit for the construction of a near-surface final disposal facility for very low-level waste. In addition to the environmental permit, the project requires a permit to operate from the Radiation and Nuclear Safety Authority as well as a construction licence. The final disposal operations are scheduled to start in 2025.

20 October 2023

Teollisuuden Voima Oyj
Board of Directors

Key Figures of TVO Group

TVO Group (IFRS) (M€)	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Turnover	587	250	358
Profit/loss for the period	67	-52	-48
Depreciation	116	35	47
Investments ¹⁾	414	198	312
Equity	2,241	2,212	2,218
Subordinated shareholder loans (hybrid equity) (included in the former) ³⁾	929	929	929
Non-current and current interest-bearing liabilities (excluding loan from VYR) ²⁾	4,795	4,623	4,831
Loan from VYR ²⁾	727	651	651
Provision related to nuclear waste management	1,249	1,283	1,294
Balance sheet total	9,291	8,903	9,171
Equity ratio % ⁴⁾	30.6	31.7	30.7
Average number of personnel	1,060	1,037	1,031

¹⁾ Acquisitions of property, plant and equipment, intangible assets and shares are based on gross investments.

²⁾ The Finnish State Nuclear Waste Management Fund (VYR).

³⁾ Subordinated loans. The loans of the equity holders of the Company are included in equity according to the IFRS standards.

⁴⁾ Equity ratio % = $100 \times \text{equity}$

$\frac{\text{balance sheet total} - \text{provision related to nuclear waste management} - \text{loan from the Finnish State Nuclear Waste Management Fund}}{\text{balance sheet total}}$

Key Figures of Teollisuuden Voima Oyj

Teollisuuden Voima Oyj (FAS) (M€)

The parent company's interim financial statement has been made in accordance with the Finnish Accounting Standards (FAS).

	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Turnover	584	247	353
Profit/loss before appropriations	52	-17	-10
Fuel costs	79	51	70
Nuclear waste management costs	99	67	100
Capital expenditure (depreciation and financial income and expenses)	170	26	37
Investments ¹⁾	424	216	339
Equity	864	864	864
Appropriations	234	174	181
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) ²⁾	4,758	4,591	4,798
Loans from equity holders of the company ³⁾	929	929	929
Loan from VYR ²⁾	727	651	651
Balance sheet total	7,792	7,343	7,602
Equity ratio % ⁴⁾	28.7	29.4	28.4
Average number of personnel	1,058	1,035	1,029

¹⁾ Acquisitions of tangible and intangible assets and shares are based on gross investments.

²⁾ The Finnish State Nuclear Waste Management Fund (VYR).

³⁾ Subordinated loans.

⁴⁾ Equity ratio % = $100 \times \frac{\text{equity} + \text{appropriations} + \text{loans from equity holders of the company}}{\text{balance sheet total} - \text{loan from the Finnish State Nuclear Waste Management Fund}}$

$\frac{\text{balance sheet total} - \text{loan from the Finnish State Nuclear Waste Management Fund}}$

Electricity delivered to equity holders of the company (GWh)	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Nuclear power	17,595	11,858	16,316
Total	17,595	11,858	16,316

Consolidated financial statement in brief and notes

Consolidated Income Statement

EUR 1,000	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Turnover	587,041	250,093	358,208
Work performed for own purposes	7,143	15,536	21,310
Other income	8,131	9,356	13,068
Materials and services	-171,424	-125,125	-137,884
Personnel expenses	-61,551	-59,135	-80,316
Depreciation and impairment charges	-116,247	-34,705	-46,992
Other expenses	-109,233	-77,155	-100,625
Operating profit/loss	143,860	-21,135	26,769
Finance income	26,402	5,371	6,295
Finance expenses	-103,502	-36,221	-81,480
Total finance income and expenses	-77,100	-30,850	-75,185
Share of the profit/loss of joint ventures	104	14	590
Profit/loss before income tax	66,864	-51,971	-47,826
Income taxes	-10	-52	-52
Profit/loss for the period	66,854	-52,023	-47,878
Profit/loss for the period attributable to:			
Equity holders of the company	66,854	-52,023	-47,878

Consolidated Statement of Comprehensive Income

EUR 1,000	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Profit/loss for the period	66,854	-52,023	-47,878
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges	-15,682	205,619	211,736
Total other comprehensive profit/loss items for the period	-15,682	205,619	211,736
Total comprehensive profit/loss for the period	51,172	153,596	163,858
Total comprehensive profit/loss for the period attributable to:			
Equity holders of the company	51,172	153,596	163,858

Consolidated Statement of Financial Position

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Assets			
Non-current assets			
Property, plant and equipment	6,364,680	6,258,285	6,363,783
Intangible assets	2,356	2,312	2,476
Loans and other receivables	787,123	654,131	710,962
Investments in joint ventures	4,001	3,321	3,897
Investments in shares	1,692	1,935	1,935
Derivative financial instruments	213,715	217,692	225,183
Share in the Finnish State Nuclear Waste Management Fund	1,001,904	988,947	999,662
Total non-current assets	8,375,471	8,126,623	8,307,898
Current assets			
Inventories	502,003	288,119	272,378
Trade and other receivables	95,738	286,647	233,078
Derivative financial instruments	4,946	7,335	4,463
Cash and cash equivalents	313,024	194,044	353,203
Total current assets	915,711	776,145	863,122
Total assets	9,291,182	8,902,768	9,171,020

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Equity and liabilities			
Capital and reserves attributable to equity holders of the company			
Share capital	600,365	600,365	600,365
Share premium reserve and statutory reserve	242,383	242,383	242,383
Fair value and other reserves	213,045	222,610	228,727
Subordinated shareholder loans (hybrid equity)	929,300	929,300	929,300
Retained earnings	255,614	217,341	216,742
Total equity	2,240,707	2,211,999	2,217,517
Liabilities			
Non-current liabilities			
Provision related to nuclear waste management	1,248,852	1,283,130	1,294,345
Loan from the Finnish State Nuclear Waste Management Fund	727,500	651,339	651,339
Bonds	3,508,892	3,260,195	3,254,801
Other financial liabilities	952,401	995,398	1,276,463
Derivative financial instruments	34,212	33,637	40,040
Total non-current liabilities	6,471,857	6,223,699	6,516,988
Current liabilities			
Current financial liabilities	294,595	331,839	258,669
Derivative financial instruments	4,918	1,524	544
Advance payments received	69,819	21,211	23,064
Trade payables	25,192	6,446	16,821
Other current liabilities	184,094	106,050	137,417
Total current liabilities	578,618	467,070	436,515
Total liabilities	7,050,475	6,690,769	6,953,503
Total equity and liabilities	9,291,182	8,902,768	9,171,020

Consolidated Statement of Changes in Equity

EUR 1,000	Share capital	Share premium reserve and statutory reserve	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2023	600,365	242,383	228,727	929,300	216,742	2,217,517	2,217,517
Profit/loss for the period	0	0	0	0	66,854	66,854	66,854
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	-15,682	0	0	-15,682	-15,682
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-27,982	-27,982	-27,982
Equity 30 Sep 2023	600,365	242,383	213,045	929,300	255,614	2,240,707	2,240,707

EUR 1,000	Share capital	Share premium reserve and statutory reserve	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2022	600,365	242,383	16,991	929,300	274,022	2,063,061	2,063,061
Profit/loss for the period	0	0	0	0	-52,023	-52,023	-52,023
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	205,619	0	0	205,619	205,619
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-4,658	-4,658	-4,658
Equity 30 Sep 2022	600,365	242,383	222,610	929,300	217,341	2,211,999	2,211,999

EUR 1,000	Share capital	Share premium reserve and statutory reserve	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2022	600,365	242,383	16,991	929,300	274,022	2,063,061	2,063,061
Profit/loss for the financial year	0	0	0	0	-47,878	-47,878	-47,878
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	211,736	0	0	211,736	211,736
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-9,402	-9,402	-9,402
Equity 31 Dec 2022	600,365	242,383	228,727	929,300	216,742	2,217,517	2,217,517

Consolidated Statement of Cash Flows

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Operating activities			
Profit/loss for the period	66,854	-52,023	-47,878
Adjustments:			
Taxes	11	52	52
Finance income and expenses	77,100	30,850	75,185
Depreciation and impairment charges	116,247	34,705	46,992
Share of the profit/loss of joint ventures	-104	-14	-590
Other non-cash flow income and expenses ¹⁾	-35,347	-4,102	-46,163
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	150,655	30,799	28,281
Increase (-) or decrease (+) in inventories	20,299	-13,587	2,137
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	100,926	-6,759	31,875
Interest paid and other finance expenses	-49,837	-3,380	-4,253
Dividend received	0	2,209	2,209
Interest received	13,000	6,274	6,277
Taxes paid	-11	-52	-52
Cash flow from operating activities	459,793	24,972	94,072

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Investing activities			
Acquisition of property, plant and equipment	-437,732	-312,580	-425,468
Proceeds from sale of property, plant and equipment	24	0	0
Acquisition of intangible assets	-352	-213	-372
Proceeds from sale of shares	220	0	0
Loan receivables granted	-76,160	-15,910	-15,831
Repayments of loans granted	0	75,837	75,837
Cash flow from investing activities	-514,000	-252,866	-365,834
Financing activities			
Withdrawals of long-term loans	970,408	750,000	1,050,000
Repayment of long-term loans	-931,114	-423,092	-517,415
Principal elements of lease payments	-3,154	-2,244	-2,409
Interest paid of subordinated shareholder loans (hybrid equity)	-18,992	-2,753	-6,079
Increase (+) or decrease (-) in current financial liabilities	89,020	58,049	62,740
Repayment of current financial liabilities	-92,140	-130,340	-134,190
Cash flow from financing activities	14,028	249,620	452,647
Change in cash and cash equivalents	-40,179	21,726	180,885
Cash and cash equivalents at the beginning of period	353,203	172,318	172,318
Cash and cash equivalents at the end of period	313,024	194,044	353,203

¹⁾ Other non-cash flow income and expenses consists of nuclear waste management obligation.

Notes to the Interim Report

Accounting policies

The interim financial statements have been prepared in accordance with the IAS 34 Interim Financial Reporting Standard. The commercial operation for OL3 plant unit started on 1 May 2023. Changes to the accounting policies related to the commercial operation are presented under the heading Olkiluoto 3 EPR effects on the accounting policies and comparability of the consolidated income statement and balance sheet. The accounting policies adopted are otherwise consistent with those of the Group's annual financial statements for the year ended on 31 December 2022. Additionally, the changes according to the revised IAS/IFRS standards have been adopted.

Management's critical accounting estimates and assumptions

The preparation of the Interim Report requires the management to make estimates and assumptions that affect the reported amounts of assets and liabilities, income and expenses. The actual results may differ from these estimates. Significant assumptions made by the management in applying the Group's accounting policies and crucial uncertainties were the same as the ones applied to the annual financial statements as for the year ended on 31 December 2022, taking into account the effects of those initiated by commercial operation for OL3.

Olkiluoto 3 EPR effects on the accounting policies and comparability of the consolidated income statement and balance sheet

The electricity production of the Olkiluoto 3 EPR plant unit (OL3) started on Saturday, 12 March 2022. Sales proceeds from the delivery of OL3's test production electricity and variable costs have been recorded in the income statement in accordance with the IAS 16 Standard. The test production phase for Olkiluoto 3 was completed and regular electricity production started on 16 April 2023. TVO decided to submit on 20 April 2023 to the OL3 plant supplier the Provisional Takeover Certificate. In addition TVO confirmed that the commercial operation of the plant will start on 1 May 2023.

TVO will carefully follow the fulfillment of the conditions according to the 2018 settlement agreement and the amendment agreements signed in June 2021. The Plant Supplier is obligated to complete the plant unit in accordance with the Plant Contract and Settlement Agreement. After the takeover of OL3, the guarantee period in accordance with the Plant Contract began. The final takeover of the plant unit will take place after the conclusion of the two-year warranty period. Even after this, the plant supplier's liabilities under the warranty will remain in force up to a maximum of eight (8) years to a certain extent.

Commercial operation transferred responsibility for the OL3 plant unit to TVO. Starting the commercial operation means as well that in accordance with the IAS 16 Property, Plant and Equipment Standard, the capitalisation of OL3 project costs was ended and the recognition of depreciation was commenced because the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Total investment in the OL3 project was approximately EUR 5.8 billion. EUR 250.0 million was transferred from the OL3 investment to operating-time fuel (current assets) when the OL3 plant unit entered commercial operation. The shareholders' right to electricity generated by OL3 and their liability for the annual costs incurred from electricity generation are determined in accordance with TVO's Articles of Association. The charging of the variable and fixed fees for the commercial operation of OL3 was also started on 1 May 2023. According to TVO's Articles of Association, the fixed costs must be paid monthly in advance, and no later than the 24th day of the preceding month.

During the OL3 project, all realised costs of the OL3 project, including financing costs, that can be recognised in the cost of the asset have been entered as property, plant and equipment in the Group's balance sheet. The capitalisation of costs was discontinued at the start of OL3's commercial operation, which affects the comparability of the Group's income statement and balance sheet. In the income statement, the most significant changes can be seen

under turnover, materials and services, depreciation and impairment charges, other expenses and finance income and expenses. In the balance sheet, the most significant changes can be seen under property, plant and equipment, inventories and trade and other receivables.

The final payment of approximately EUR 193 million in delay compensation agreed upon in 2018 was set off against the final payment installment of the Areva companies under the Plant Contract in May 2023. Long-term receivables include the additional delay compensation of EUR 56.7 million to TVO, agreed upon in 2021, will become due during the final takeover of OL3 in April 2025 at the earliest.

The straight-line depreciations are based on the following estimated financial useful lives:

OL3 nuclear power plant:	
• Plant investment	10-60 years
• Additional investments	10 years

The depreciation periods according to the plan are based on financial useful times for buildings, main components, process systems, electrical, mechanical and automation engineering, pipelines and other machinery and equipment. The depreciation period is 10 years for information systems, batteries, spare parts and control rods, among others. The 20-year depreciation period is for turbines, main generator, simulator and transformers, among others. The

depreciation period is 30 years, for example, light-frame buildings, steam generators, condenser, control rod drive, reactor pressure vessel internals, cables, valves and pumps. The depreciation period is 60 years for buildings under the plant contract, the reactor pressure vessel and the primary circuit piping. Overhead costs, as well as construction time interests, are distributed for each commodity in terms of economic value or cost.

Comparability of the consolidated income statement and balance sheet resulting from nuclear waste management

The total cost estimate based on a new nuclear waste management technical plan and schedule was updated in June 2022. The present initial value of the provision for the decommissioning of a nuclear power plant (at the time of commissioning the nuclear power plant) has been capitalised as property, plant and equipment and will be adjusted later for possible changes in the plan. The updated cost estimate decreased the book value of property, plant and equipment related to decommissioning.

The costs for spent fuel disposal are expensed based on fuel usage during the operating time of the plant. The impact of any changes to the plan and schedules will be recognised immediately in the income statement based on fuel used by the end of each accounting period. The updated cost estimate decreased the provision related to the nuclear waste management and increased the amount of materials and services. The overall effect on profit for the period was negative, because the amount of the share in the Finnish State Nuclear Waste Manage-

ment Fund and the provision related to nuclear waste management are equal and the difference is entered as an adjustment to materials and services. The negative profit impact of the updates and changes was mainly non-recurring.

During the period under review the production schedule was updated. Following the update the provision related to nuclear waste management decreased and expenses in materials and services increased. The overall effect on profit for the period is negative because the amount of the share in the Finnish State Nuclear Waste Management Fund and the provision related to nuclear waste management are equal and the difference is entered as an adjustment to materials and services, as the Nuclear Waste Management Fund is overfunded from an IFRS perspective. The negative profit impact of the updates and changes is mainly non-recurring.

See note **Assets and provisions related to nuclear waste management obligation**.

Segment reporting

SEGMENT STRUCTURE IN TVO

The Group has one reportable segment; nuclear power.

The electricity of the nuclear power segment is produced at three nuclear power plant units, Olkiluoto 1 (OL1), Olkiluoto 2 (OL2) and Olkiluoto 3 (OL3). The subsidiary of TVO, TVO Nuclear Services Oy (TVONS), the operation of which is related to nuclear power, is also included in the nuclear power segment.

SEGMENT CALCULATION PRINCIPLES

The Board of Directors monitors reporting in accordance both with the Finnish Accounting Standards (FAS) and IFRS-standards. TVO Group discloses in the note Segment reporting; turnover, profit/loss for the period and assets.

The segment reporting TVO Group discloses is based on the internal reporting the chief operating decision maker follows. The same accounting policies is used in the segment reporting and TVO Group's financial statements. Adjustments made under IFRS accounting policies are reported at Group level.

Turnover by segments

EUR 1,000	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Nuclear power	587,041	250,093	358,208
Total	587,041	250,093	358,208

Profit/loss for the period by segments

EUR 1,000	Q1-Q3 2023	Q1-Q3 2022	Q1-Q4 2022
Nuclear power	52,545	-17,269	-9,909
Profit/loss before appropriations (FAS)	52,545	-17,269	-9,909
The impact of the nuclear waste management obligation	-5,746	-32,436	-36,528
The impact of financial instruments	-234	-591	-503
The impact of finance leases	-74	89	87
The impact of subordinated shareholder loans (hybrid equity)	17,645	0	24
Other IFRS adjustments	2,614	378	570
The impact of joint ventures	104	-2,194	-1,619
Total (IFRS)	66,854	-52,023	-47,878

Assets by segments

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Nuclear power	7,792,025	7,343,741	7,601,716
Total (FAS)	7,792,025	7,343,741	7,601,716
The impact of the nuclear waste management obligation	1,316,600	1,360,717	1,367,840
The impact of financial instruments	201,909	189,044	194,825
The impact of finance leases	44,459	46,574	46,072
The impact of subordinated shareholder loans (hybrid equity)	-60,863	-45,806	-50,526
Other IFRS adjustments	-5,938	6,188	8,207
The impact of joint ventures	2,990	2,310	2,886
Total (IFRS)	9,291,182	8,902,768	9,171,020

Property, plant and equipment and intangible assets

Changes in property, plant and equipment

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Opening net book amount	6,363,783	6,177,755	6,177,754
Increase	414,069	197,971	311,358
Decrease	-297,793	-85,033	-88,726
Depreciation and impairment charges	-115,890	-34,402	-46,582
Accumulated depreciation from deduction	511	1,994	9,979
Closing net book amount	6,364,680	6,258,285	6,363,783

Changes in intangible assets

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Opening net book amount	2,476	2,543	2,542
Increase	352	212	483
Decrease	-115	-140	-414
Depreciation and impairment charges	-357	-303	-410
Accumulated depreciation from deduction	0	0	275
Closing net book amount	2,356	2,312	2,476

The commercial operation of OL3 started on 1 May 2023. Starting the commercial operation means that in accordance with the IAS 16 Property, Plant and Equipment Standard, the capitalisation of OL3 project costs was ended and the recognition of depreciation was commenced. EUR 250.0 million was transferred from the OL3 investment to operating-time fuel (inventories) when the OL3 plant unit entered commercial operation.

Financial risk management

The objectives of financial risk management and finance policy are the same as those applied to the annual financial statement for the year ended 31 December 2022.

DERIVATIVE FINANCIAL INSTRUMENTS

Nominal values of the derivative financial instruments

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Interest rate swaps	2,235,000	2,324,117	2,185,000
Forward foreign exchange contracts and swaps ¹⁾	70,325	45,190	44,127
Cross-currency swaps	331,342	281,016	224,873
Total	2,636,667	2,650,323	2,454,000

¹⁾ Forward contracts are mainly used for hedging fuel purchases against currency risk. The opposite forward contracts, which have been acquired to adjust these hedging amounts are netted in the table with each other, whereby the nominal describes the protected position.

Fair values of the derivative financial instruments ¹⁾

EUR 1,000	30 Sep 2023			30 Sep 2022			31 Dec 2022		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
Interest rate swaps									
Cash flow hedges	204,221		204,221	207,211	-240	206,971	217,561		217,561
Fair value hedges		-27,694	-27,694	113	-24,305	-24,192		-26,404	-26,404
Forward foreign exchange contracts and swaps									
Cash flow hedges	8,746		8,746	16,504	-977	15,527	11,503	-431	11,072
Non-hedges	505	-79	426	691	-370	321	582	-173	409
Cross-currency swaps									
Non-hedges	5,189	-11,357	-6,168	508	-9,269	-8,761		-13,576	-13,576
Total	218,661	-39,130	179,530	225,027	-35,161	189,867	229,646	-40,584	189,061

¹⁾ Cross-currency swaps related to Private Placements included.

TVO Group's debt structure by maturity

30 Sep 2023 EUR 1,000	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-	Total
Loans from financial institutes	21,115	26,104	626,104	226,104	26,104	11,818		14,230			951,579
Public bonds		348,943	500,000	650,000	675,000	600,000	194,247	623,000		215,000	3,806,190
Loans from other sources											
Lease liabilities	225	2,403	44,097	491	487	2					47,704
Commercial papers											
Total	21,340	377,449	1,170,201	876,594	701,591	611,820	194,247	637,230		215,000	4,805,474

TVO Group's credit commitment by maturity

30 Sep 2023 EUR 1,000	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-	Total
Syndicated revolving credit facility				1,000,000							1,000,000
Total				1,000,000							1,000,000

The average interest rate on loans and derivatives on 30 September 2023 was 2.59 % (31 Dec 2022: 2.09 %).

On 30 September 2023, the Group had undrawn credit facilities amounting to EUR 1,000 (2022: EUR 1,000) million. In addition, the Group had subordinated shareholder loan (hybrid equity) commitments totaling EUR 400 (2022: EUR 400) million and cash and cash equivalents amounting to EUR 313 (2022: EUR 353) million.

Cash and cash equivalents consist of cash on hand, demand deposits and other current liquid investments. Fund units consist of fund unit investments that are valued at fair value.

Disclosure of fair value measurements by the level of fair value measurement hierarchy

EUR 1,000	30 Sep 2023			31 Dec 2022		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial assets at fair value						
Derivative financial instruments at fair value through profit or loss		505			582	
Derivative financial instruments designated as cash flow hedges		212,967			229,064	
Derivative financial instruments designated as fair value hedges		5,189				
Investments in other shares ¹⁾			1,692			1,935
Total		218,661	1,692		229,646	1,935
Financial liabilities at fair value						
Derivative financial instruments at fair value through profit or loss		11,436			13,749	
Derivative financial instruments designated as cash flow hedges					431	
Derivative financial instruments designated as fair value hedges		27,694			26,404	
Total		39,130			40,584	

¹⁾ On 30 September 2023, TVO has unquoted shares worth EUR 1,692 (2022:1,935) thousand. Direct market prices are not available for unquoted shares and therefore their fair value is determined using methods based on management judgement.

Fair value estimation

The derivative financial instruments are initially recognised at fair value on the date a derivative contract is entered into and are subsequently measured at fair value. The fair values are determined using a variety of methods and financial valuation techniques, and assumptions are based on market quotations at the balance sheet date (Level 2). The fair value of the interest rate swaps is the present value of the estimated future cash flows. The forward contracts are measured using the market quotes at the closing date. The fair value of the interest rate options is calculated using market quotes at the closing date and by using the Black and Scholes option valuation model. The changes in fair value of the interest rate swaps and forward contracts are recognised in equity or profit or loss, depending on whether they qualify for cash flow hedges or not. The changes in fair value of interest rate options that do not qualify for hedge accounting are presented in the income statement.

Book values of financial assets and liabilities by categories

EUR 1,000	30 Sep 2023			31 Dec 2022		
	Financial liabilities measured at amortised cost	Book value	Fair value	Financial liabilities measured at amortised cost	Book value	Fair value
Non-current liabilities						
Other financial liabilities ¹⁾	4,461,293	4,461,293	4,260,345	4,531,264	4,531,264	4,275,708

¹⁾ Bonds and EUR-fixed loans included

For other financial assets and liabilities than the ones presented in the table, the book value corresponds to their fair value.

Assets and provision related to nuclear waste management obligation

The balance sheet contains assets and liabilities concerning the nuclear waste management obligation

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	1,001,904	988,947	999,662
Provision related to nuclear waste management (non-current liabilities)	1,248,852	1,283,130	1,294,345

TVO's legal liability as stated in the Nuclear Energy Act and the Company's share in the Finnish State Nuclear Waste Management Fund

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Liability for nuclear waste management according to the Nuclear Energy Act	1,839,600	1,816,100	1,839,600
Funding target obligation	1,457,900	1,436,100	1,457,900
TVO's share in the Finnish State Nuclear Waste Management Fund	1,457,900	1,471,750	1,436,100
Difference between the liability and TVO's share of the Fund	381,700	344,350	403,500

The costs of decommissioning the power plant and disposal of spent fuel are covered by the provision related to the nuclear waste management obligation. Cost estimates are updated annually and the technical plans and total cost estimates every third year.

The total cost estimate based on a new nuclear waste management technical plan and schedule updated in June 2022. The present initial value of the provision for the decommissioning of a nuclear power plant (at the time of commissioning the nuclear power plant) has been capitalised as property, plant and equipment and will be adjusted later for possible changes in the plan. The costs for spent fuel disposal are expensed based on fuel usage during the operating time of the plant. The impact of any changes to the plans and schedules will be recognised immediately in the income statement based on fuel used by the end of each accounting period.

The 2022 updated cost estimate decreased the book value of property, plant and equipment related to decommissioning by EUR 71.8 million and also decreased the provision related to nuclear waste management by EUR 81.5 million compared with the value at the end of the previous year. The biggest changes due to the updated cost estimate in the income statement of the TVO Group are the increased expenses of EUR 15.7 million in materials and services. The overall effect on profit for the period was negative because the amount of the share in the Finnish State Nuclear Waste Management Fund and the provision related to nuclear waste management are equal and the difference is entered as an adjustment to materials and services, as the Nuclear Waste Management Fund is overfunded from an IFRS perspective. The negative profit impact of the updates and changes was mainly non-recurring.

During the period under review the production schedule was updated. Following the update the book value of property, plant and equipment related to decommissioning decreased by EUR 43.0 million and also the provision related to nuclear waste management decreased by EUR 45.5 million compared with the value at the end of the previous year. The overall effect on profit for the period is negative because the amount of the share in the Finnish State Nuclear Waste Management Fund and the provision related to nuclear waste management are equal and the difference is entered as an adjustment to materials and services, as the Nuclear Waste Management Fund is overfunded from an IFRS perspective. The negative profit impact of the updates and changes is mainly non-recurring.

TVO contributes funds to the Finnish State Nuclear Waste Management Fund to cover future obligations based on the legal liability calculated according to the Nuclear Energy Act. In March 2023, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee for 2022 at EUR 39.3 million, which TVO paid on 31 March 2023. In order to supplement the legal protected portion, TVO provided the Nuclear Waste Management Fund with a cash security of approximately EUR 43.7 million. The nuclear waste management fee for 2023 will be confirmed in March 2024.

The OL1/OL2 plant units' and the OL3 plant unit's liabilities and shares in the Fund are calculated and recorded separately, as the corresponding total cost estimates are prepared separately for the plant units. In December 2022, the Ministry of Economic Affairs and Employment (MEAE) set TVO's liability for nuclear waste management at EUR 1,839.6 (1,816.1) million for the end of 2022 and TVO's funding target in the Finnish State Nuclear Waste Management Fund for 2023 at EUR 1,457.9 (1,436.1) million. In addition, the MEAE has decided that the liability for 2023 is EUR 1,832.4 million, of which EUR 1,426.2 million belongs to OL1/OL2 and EUR 406.2 million belongs to OL3.

According to Section 40 Clause 1 of the Nuclear Energy Act, the Fund target for each calendar year shall be equal to the liability of the previous calendar year. In order to balance the effects of nuclear waste management costs on several operating years of the nuclear plant, the Fund target is however lower than the liability, while the preconditions stipulated in Section 40 are fulfilled. Time-based periodisation (40 years) is used to calculate the OL3 plant unit's Fund target, according to Section 40 Clause 2 of the Nuclear Energy Act and the Government Decree (991/2017) Section 5.

TVO's share in the Finnish State Nuclear Waste Management Fund on 30 September 2023 is EUR 1,457.9 million. The carrying amount in the balance sheet is EUR 1,001.9 million. The difference is due to the fact that IFRIC 5 limits the carrying amount of TVO's interest in the Finnish State Nuclear Waste Management Fund to the amount of the related liability since TVO does not have control over the Finnish State Nuclear Waste Management Fund. As long as the Fund is overfunded from an IFRS perspective, the effects to operating profit from this adjustment will be positive if the provision increases more than the Fund, and negative if the actual value of the fund increases more than the provision. On 30 September 2023 the OL1/OL2 plant units' share in the Fund is higher than the provision according to IFRS, due to which above-mentioned adjustment is recorded for the OL1/OL2 plant units' nuclear waste management IFRS calculation. The OL3 plant unit's share in the Fund on 30 September 2023 is in turn lower than the provision according to IFRS, and therefore above-mentioned adjustment is not recorded.

TVO has issued the State the shareholders' guarantees as security to cover the unexpected events as determined in the Nuclear Energy Act. The guarantees are presented in the note Obligations and other commitments.

Obligations and other commitments

Pledged promissory notes and financial guarantees

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	727,500	651,339	651,339
Guarantees given by shareholders related to the nuclear waste management obligation	557,740	534,990	534,990

According to the Nuclear Energy Act Section 44, the company liable for nuclear waste management must assign securities to the state according to the terms stipulated by Section 45 before operations which produce waste are initiated, and otherwise at the end of each June.

Investment commitments

Agreement-based commitments regarding the acquisition of property, plant and equipment:

EUR 1,000	30 Sep 2023	30 Sep 2022	31 Dec 2022
Investment commitments	124,800	443,900	455,400
Total	124,800	443,900	455,400

PENDING COURT CASES AND DISPUTES

Pending Court Cases and Disputes are to be found on [page 6](#).

