



2023

INTERIM  
REPORT

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# Teollisuuden Voima Oyj's Interim Report 1 January–30 June 2023

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

The test production programme for the Olkiluoto 3 EPR plant unit (OL3) was completed, and regular electricity production started on 16 April 2023. TVO confirmed the provisional takeover of the plant unit for the warranty period which started on 18 April 2023; commercial operation started on 1 May 2023. OL3 significantly improves Finland's self-sufficiency in terms of electricity and helps in achieving the goals for carbon neutrality. OL3 has been generating electricity according to plan. 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.

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. Work with the installation and commissioning of systems at the encapsulation plant has progressed as planned. In the first actual deposition tunnel, investigations are underway relating to verifying the suitability of the tunnel and defining the locations of the deposition holes for the final disposal of nuclear fuel.

## Operating environment

In late 2022, the energy crisis resulting from Russia's attack on Ukraine resulted in several emergency measures and the preparation of a reform of electricity market rules. The European Commission published its proposal for reforming the EU's electricity market rules in March 2023. In particular, the proposal focused on developing the 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 European Parliament and Member States have not yet formed their position on the matter.

The change in the geopolitical situation and stronger industrial policy-making on behalf of the United States are also accelerating the EU's industrial policy. In March, the European Commission presented its Net-Zero Industry Act as part of the Green Deal Industrial Plan. It aims to increase production capacity for technologies required for achieving carbon neutrality within the EU. The Commission's proposal includes several ways of generating renewable energy, such as wind power plants, as well as storage technologies and electrolyzers used for hydrogen production among these technologies. The Commission would also include small modular reactors on this list, but not the traditional, large nuclear power plants. The European Parliament and Member States are currently forming their positions regarding the proposal.

A parliamentary election was held in Finland in spring 2023. The programme of the new government was completed in mid-June, and its key points regarding nuclear power were that the Government: 1) pledges to accept all applications of nuclear power plants for decisions-in-principle 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 of using a type-approval procedure for modular SMR power plants.

## 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 June 2023, was EUR 341.1

(1 January – 30 June 2022: EUR 163.6) million. The higher turnover compared to the previous year is due to OL3's electricity production

The amount of electricity delivered to shareholders was 11,012 GWh (7,311 GWh). The higher delivery volume compared to the previous year is due to OL3's electricity production.

The consolidated profit/loss was EUR 26.1 (-58.2) million. The profit/loss of the review period was affected by the costs charged from shareholders, which were higher than the incurred costs. At the end of the year 2023 the charge will be in line with the actual costs.

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

## 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 5,688.9 million (31 December 2022: 5,727.1 million), of which EUR 929.3 million (929.3 million) were

subordinated shareholder loans. During the period in review, TVO raised a total of EUR 700.0 million (30 June 2022: 600.0 million) in non-current liabilities and repaid non-current liabilities in the amount of EUR 743.3 million (263.2 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. The aggregate principal amount validly offered for purchase by the noteholders was EUR 208.2 million.

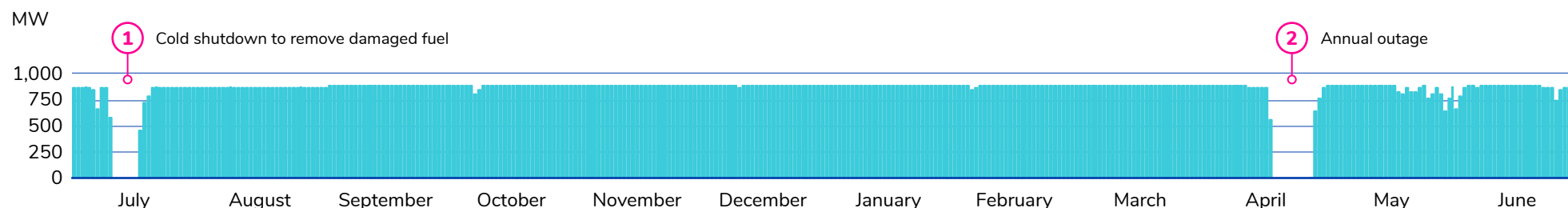
In late June 2023, TVO established a Green Bond Framework that is based on TVO's environmentally friendly electricity generation at its three nuclear power plant units at Olkiluoto, and on responsible nuclear waste management. Danske Bank acted as an adviser on the establishment of the Green Bond Framework. 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.

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 June 2023, the amount of the loan was EUR 727.5

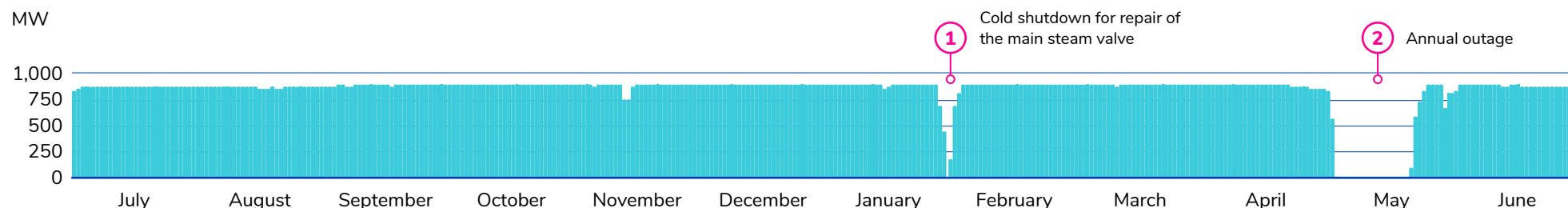
### OL1 Production

Average output 1 July 2022–30 June 2023



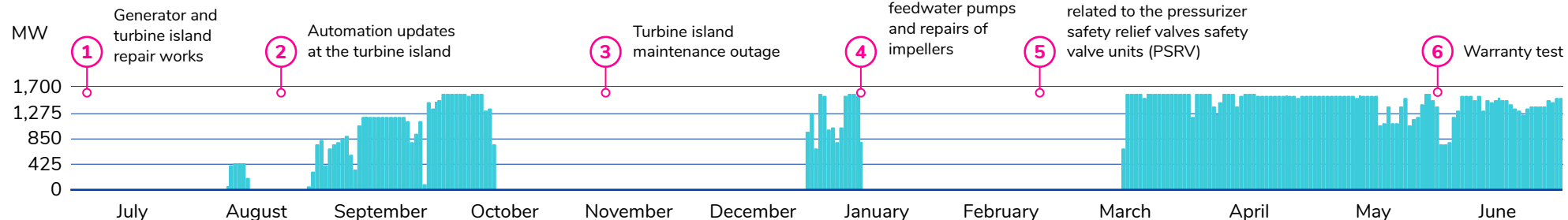
### OL2 Production

Average output 1 July 2022–30 June 2023



### OL3 Production

Average output 1 July 2022–30 June 2023



(31 December 2022: 651.3) million and it has been relent 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+ to BBB- and confirmed its stable outlook. In May 2023 Moody's Investors Service (Moody's) provided a long-term credit rating of Baa3 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 power plant units, OL1, OL2, and OL3, during the period in review was 11,030 (7,335) GWh. The total load factor for OL1 and OL2 was 90.3 (88.5) per cent.

During the period under review, OL1 and OL2 operated safely and reliably. OL3 was connected to the national grid for the first time in March 2022, and the plant unit's test production programme concluded on 16 April 2023. The net production for OL1 was 3,608 (3,175) GWh and the load factor was 93.5 (82.3) per cent. The net production for OL2 was 3,357 (3,651) GWh and the load factor was 87.0 (94.6) per cent. The net production for OL3 was 4,065 (509) GWh and the load factor was 57.9 (12.6) percent.

## 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. In addition, the effects of the malfunction on bodies of water is being investigated.

An unplanned reactor scram that occurred at OL2 during the start-up of the plant after the annual outage on 19 May 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.

## Annual outages

The Olkiluoto nuclear power plant is continuously kept in good condition in terms of production and functionality through alternating refuelling and service outages at the plant units.

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, 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 the upgrading of the turbine automation system, the replacement of electrical feedthrough modules in the

containments, the modification of the reactor water level measurement system and the replacement of emergency fans for the off-gas filter system.

No lost time occupational accidents occurred during the annual outages.

In addition to TVO's own personnel, approximately 1,200 subcontractor employees participated in the annual outages. Approximately 200 specialists arrived from abroad for the annual outages.

## 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 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, 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 (inventories) when the OL3 plant unit entered commercial operation.

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 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 so called 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, it was estimated during the period under 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 under way as regards the plant's net electrical power and average net electricity generation efficiency.

### Nuclear fuel

During the period in review, nuclear fuel purchases amounted to EUR 29.9 (37.0) million and the amount consumed to EUR 46.3 (31.8) million.

The nuclear fuel and uranium stock carrying value on 30 June 2023 was EUR 501.4 (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 the OL3 plant unit 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 1,247.0 (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 995.3 (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 Ministry of Economic Affairs and Employment 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. This does not require an amendment of the terms of the operating licence according to Section 25 of the Nuclear Energy Act.

### 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. The encapsulation plant's system installations are progressing. Approximately 430 metres underground, in the first actual deposition tunnel, investigations are under way relating to ensuring the suitability of the tunnel and defining the locations of the deposition holes for the final disposal of nuclear fuel. The drilling of the test deposition holes has been completed in the joint functional test tunnel, which is used to demonstrate production. Underground construction work is complete and installations of civil and building technology are progressing on schedule.

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 395.5 (150.3) million. Investments of the parent company were EUR 405.9 (160.4) million, of which EUR 369.5 (125.4) million were allocated to the OL3 project and EUR 36.4 (35.0) million were allocated to the OL1 and OL2 plant units 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 1,108 (31 December 2022: 1,007, 30 June 2022: 1,087). The number of permanent employees in the Group at the end of the period in review was 1,002 (31 December 2022: 986, 30 June 2022: 986).

### 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, and commercial operation which started on 1 May 2023 transferred responsibility for the OL3 plant unit 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. There are uncertainties related to the availability of the OL3 plant unit 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 Ukrainian situation 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 operating 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 financial year, electricity production is expected to increase with the start of OL3's regular electricity production. The prerequisites for nuclear power production at Olkiluoto NPP are good.

Nuclear fuel availability is guaranteed by long-term agreements.

OL3 entered regular electricity production in April 2023 and commercial operation in May 2023. The provisional takeover of OL3 started the warranty period according to the Plant Contract, during which 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 are progressing. Installation and commissioning work is being performed at the encapsulation plant.

### Events after the period under review

No events after the period under review.

17 July 2023

**Teollisuuden Voima Oyj**  
Board of Directors

## Key Figures of TVO Group

TVO Group (IFRS) (M€)	Q1-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
Turnover	341	164	358
Profit/loss for the period	26	-58	-48
Investments <sup>1)</sup>	396	150	312
Equity	2,203	2,133	2,218
Subordinated shareholder loans (hybrid equity) (included in the former) <sup>3)</sup>	929	929	929
Non-current and current interest-bearing liabilities (excluding loan from VYR) <sup>2)</sup>	4,791	4,573	4,831
Loan from VYR <sup>2)</sup>	728	651	651
Provision related to nuclear waste management	1,247	1,287	1,294
Balance sheet total	9,184	8,768	9,171
Equity ratio % <sup>4)</sup>	30.6	31.2	30.7
Average number of personnel	1,059	1,039	1,031

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

<sup>2)</sup> The Finnish State Nuclear Waste Management Fund (VYR).

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

<sup>4)</sup> Equity ratio % =  $100 \times \frac{\text{equity}}{\text{balance sheet total - provision related to nuclear waste management - loan from the Finnish State Nuclear Waste Management Fund}}$

balance sheet total - provision related to nuclear waste management - loan from the Finnish State Nuclear Waste Management Fund

## 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-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
Turnover	339	162	353
Profit/loss before appropriations	42	-31	-10
Fuel costs	46	32	70
Nuclear waste management costs	59	49	100
Capital expenditure (depreciation and financial income and expenses)	74	18	37
Investments <sup>1)</sup>	406	160	339
Equity	864	864	864
Appropriations	223	160	181
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) <sup>2)</sup>	4,760	4,538	4,798
Loans from equity holders of the company <sup>3)</sup>	929	929	929
Loan from VYR <sup>2)</sup>	728	651	651
Balance sheet total	7,721	7,266	7,602
Equity ratio % <sup>4)</sup>	28.8	29.5	28.4
Average number of personnel	1,057	1,037	1,029

<sup>1)</sup> Acquisitions of tangible and intangible assets and shares are based on gross investments.

<sup>2)</sup> The Finnish State Nuclear Waste Management Fund (VYR).

<sup>3)</sup> Subordinated loans.

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

Electricity delivered to equity holders of the company (GWh)	Q1-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
Nuclear power	11,012	7,311	16,316
<b>Total</b>	<b>11,012</b>	<b>7,311</b>	<b>16,316</b>

# Consolidated financial statement in brief and notes

## Consolidated Income Statement

EUR 1,000	Q1-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
<b>Turnover</b>	<b>341,141</b>	<b>163,594</b>	<b>358,208</b>
Work performed for own purposes	7,143	12,045	21,310
Other income	5,420	6,360	13,068
Materials and services	-112,846	-89,134	-137,884
Personnel expenses	-44,095	-43,460	-80,316
Depreciation and impairment charges	-55,573	-22,868	-46,992
Other expenses	-72,000	-63,808	-100,625
<b>Operating profit/loss</b>	<b>69,190</b>	<b>-37,271</b>	<b>26,769</b>
Finance income	13,216	2,352	6,295
Finance expenses	-56,402	-23,426	-81,480
Total finance income and expenses	-43,186	-21,074	-75,185
Share of the profit/loss of joint ventures	98	245	590
<b>Profit/loss before income tax</b>	<b>26,102</b>	<b>-58,100</b>	<b>-47,826</b>
Income taxes	0	-52	-52
<b>Profit/loss for the period</b>	<b>26,102</b>	<b>-58,152</b>	<b>-47,878</b>
<b>Profit/loss for the period attributable to:</b>			
Equity holders of the company	26,102	-58,152	-47,878

## Consolidated Statement of Comprehensive Income

EUR 1,000	Q1-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
Profit/loss for the period	26,102	-58,152	-47,878
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges	-23,926	130,851	211,736
Total other comprehensive profit/loss items for the period	-23,926	130,851	211,736
<b>Total comprehensive profit/loss for the period</b>	<b>2,176</b>	<b>72,699</b>	<b>163,858</b>
<b>Total comprehensive profit/loss for the period attributable to:</b>			
Equity holders of the company	2,176	72,699	163,858



## Consolidated Statement of Financial Position

EUR 1,000	30 Jun 2023	30 Jun 2022	31 Dec 2022
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	6,388,799	6,224,746	6,363,783
Intangible assets	2,384	2,369	2,476
Loans and other receivables	787,122	654,130	710,962
Investments in joint ventures	3,994	3,552	3,897
Investments in shares	1,692	1,935	1,935
Derivative financial instruments	200,593	146,710	225,183
Share in the Finnish State Nuclear Waste Management Fund	995,310	991,601	999,662
<b>Total non-current assets</b>	<b>8,379,894</b>	<b>8,205,043</b>	<b>8,307,898</b>
<b>Current assets</b>			
Inventories	511,629	281,437	272,378
Trade and other receivables	82,508	268,583	233,078
Derivative financial instruments	4,591	7,166	4,463
Cash and cash equivalents	205,182	185,968	353,203
<b>Total current assets</b>	<b>803,910</b>	<b>743,154</b>	<b>863,122</b>
<b>Total assets</b>	<b>9,183,804</b>	<b>8,768,197</b>	<b>9,171,020</b>

EUR 1,000	30 Jun 2023	30 Jun 2022	31 Dec 2022
<b>Equity and liabilities</b>			
<b>Capital and reserves attributable to equity holders of the company</b>			
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	204,801	147,842	228,727
Subordinated shareholder loans (hybrid equity)	929,300	929,300	929,300
Retained earnings	225,928	213,386	216,742
<b>Total equity</b>	<b>2,202,777</b>	<b>2,133,276</b>	<b>2,217,517</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
Provision related to nuclear waste management	1,247,007	1,286,808	1,294,345
Loan from the Finnish State Nuclear Waste Management Fund	727,500	651,339	651,339
Bonds	3,309,068	3,131,167	3,254,801
Other financial liabilities	948,660	990,323	1,276,463
Derivative financial instruments	33,696	14,054	40,040
<b>Total non-current liabilities</b>	<b>6,265,931</b>	<b>6,073,691</b>	<b>6,516,988</b>
<b>Current liabilities</b>			
Current financial liabilities	481,839	436,332	258,669
Derivative financial instruments	17,409	1,091	544
Advance payments received	69,820	21,220	23,064
Trade payables	17,671	22,626	16,821
Other current liabilities	128,357	79,961	137,417
<b>Total current liabilities</b>	<b>715,096</b>	<b>561,230</b>	<b>436,515</b>
<b>Total liabilities</b>	<b>6,981,027</b>	<b>6,634,921</b>	<b>6,953,503</b>
<b>Total equity and liabilities</b>	<b>9,183,804</b>	<b>8,768,197</b>	<b>9,171,020</b>

## 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
<b>Equity 1 Jan 2023</b>	<b>600,365</b>	<b>242,383</b>	<b>228,727</b>	<b>929,300</b>	<b>216,742</b>	<b>2,217,517</b>	<b>2,217,517</b>
Profit/loss for the period	0	0	0	0	26,102	26,102	26,102
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	-23,926	0	0	-23,926	-23,926
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-16,916	-16,916	-16,916
<b>Equity 30 Jun 2023</b>	<b>600,365</b>	<b>242,383</b>	<b>204,801</b>	<b>929,300</b>	<b>225,928</b>	<b>2,202,777</b>	<b>2,202,777</b>

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
<b>Equity 1 Jan 2022</b>	<b>600,365</b>	<b>242,383</b>	<b>16,991</b>	<b>929,300</b>	<b>274,022</b>	<b>2,063,061</b>	<b>2,063,061</b>
Profit/loss for the period	0	0	0	0	-58,152	-58,152	-58,152
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	130,851	0	0	130,851	130,851
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-2,484	-2,484	-2,484
<b>Equity 30 Jun 2022</b>	<b>600,365</b>	<b>242,383</b>	<b>147,842</b>	<b>929,300</b>	<b>213,386</b>	<b>2,133,276</b>	<b>2,133,276</b>

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
<b>Equity 1 Jan 2022</b>	<b>600,365</b>	<b>242,383</b>	<b>16,991</b>	<b>929,300</b>	<b>274,022</b>	<b>2,063,061</b>	<b>2,063,061</b>
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
<b>Equity 31 Dec 2022</b>	<b>600,365</b>	<b>242,383</b>	<b>228,727</b>	<b>929,300</b>	<b>216,742</b>	<b>2,217,517</b>	<b>2,217,517</b>

## Consolidated Statement of Cash Flows

EUR 1,000	30 Jun 2023	30 Jun 2022	31 Dec 2022
<b>Operating activities</b>			
Profit/loss for the period	26,102	-58,152	-47,878
Adjustments:			
Taxes	0	52	52
Finance income and expenses	43,186	21,074	75,185
Depreciation and impairment charges	55,573	22,868	46,992
Share of the profit/loss of joint ventures	-98	-245	-590
Other non-cash flow income and expenses <sup>1)</sup>	-6,597	1,109	-46,163
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	155,652	23,728	28,281
Increase (-) or decrease (+) in inventories	10,739	-6,922	2,137
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	32,029	14,318	31,875
Interest paid and other finance expenses	-44,984	-2,284	-4,253
Dividend received	0	2,208	2,209
Interest received	7,810	4,219	6,277
Taxes paid	0	-52	-52
<b>Cash flow from operating activities</b>	<b>279,412</b>	<b>21,921</b>	<b>94,072</b>

EUR 1,000	30 Jun 2023	30 Jun 2022	31 Dec 2022
<b>Investing activities</b>			
Acquisition of property, plant and equipment	-371,772	-265,691	-425,468
Proceeds from sale of property, plant and equipment	24	0	0
Acquisition of intangible assets	-253	-165	-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
<b>Cash flow from investing activities</b>	<b>-447,941</b>	<b>-205,929</b>	<b>-365,834</b>
<b>Financing activities</b>			
Withdrawals of long-term loans	776,160	600,000	1,050,000
Repayment of long-term loans	-743,309	-323,092	-517,415
Principal elements of lease payments	-2,957	-1,231	-2,409
Interest paid of subordinated shareholder loans (hybrid equity)	-14,549	-2,196	-6,079
Increase (+) or decrease (-) in current financial liabilities	94,433	52,637	62,740
Repayment of current financial liabilities	-89,270	-128,460	-134,190
<b>Cash flow from financing activities</b>	<b>20,508</b>	<b>197,658</b>	<b>452,647</b>
<b>Change in cash and cash equivalents</b>	<b>-148,021</b>	<b>13,650</b>	<b>180,885</b>
Cash and cash equivalents at the beginning of period	353,203	172,318	172,318
<b>Cash and cash equivalents at the end of period</b>	<b>205,182</b>	<b>185,968</b>	<b>353,203</b>

<sup>1)</sup> 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 started on 1 May 2023. TVO will carefully follow the fulfilment 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 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 (inventories) 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 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 Management 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-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
Nuclear power	341,141	163,594	358,208
<b>Total</b>	<b>341,141</b>	<b>163,594</b>	<b>358,208</b>

## Profit/loss for the period by segments

EUR 1 000	Q1-Q2 2023	Q1-Q2 2022	Q1-Q4 2022
Nuclear power	41,965	-31,306	-9,909
Profit/loss before appropriations (FAS)	41,965	-31,306	-9,909
The impact of the nuclear waste management obligation	-25,077	-24,627	-36,528
The impact of financial instruments	53	-723	-503
The impact of finance leases	1,226	89	87
The impact of subordinated shareholder loans (hybrid equity)	6,580	11	24
Other IFRS adjustments	1,257	367	570
The impact of joint ventures	98	-1,963	-1,619
<b>Total (IFRS)</b>	<b>26,102</b>	<b>-58,152</b>	<b>-47,878</b>

## Assets by segments

EUR 1 000	30 Jun 2023	30 Jun 2022	31 Dec 2022
Nuclear power	7,721,611	7,266,649	7,601,716
Total (FAS)	7,721,611	7,266,649	7,601,716
The impact of the nuclear waste management obligation	1,295,424	1,372,203	1,367,840
The impact of financial instruments	188,496	117,120	194,825
The impact of finance leases	45,027	47,075	46,072
The impact of subordinated shareholder loans (hybrid equity)	-60,863	-43,622	-50,526
Other IFRS adjustments	-8,875	6,231	8,207
The impact of joint ventures	2,984	2,541	2,886
<b>Total (IFRS)</b>	<b>9,183,804</b>	<b>8,768,197</b>	<b>9,171,020</b>

## Property, plant and equipment and intangible assets

### Changes in property, plant and equipment

EUR 1 000	30 Jun 2023	30 Jun 2022	31 Dec 2022
Opening net book amount	6,363,783	6,177,755	6,177,754
Increase	395,267	150,159	311,358
Decrease	-314,908	-82,464	-88,726
Depreciation and impairment charges	-55,343	-22,669	-46,582
Accumulated depreciation from deduction	0	1,965	9,979
Closing net book amount	6,388,799	6,224,746	6,363,783

### Changes in intangible assets

EUR 1 000	30 Jun 2023	30 Jun 2022	31 Dec 2022
Opening net book amount	2,476	2,543	2,542
Increase	253	165	483
Decrease	-115	-140	-414
Depreciation and impairment charges	-230	-199	-410
Accumulated depreciation from deduction	0	0	275
Closing net book amount	2,384	2,369	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 Jun 2023	30 Jun 2022	31 Dec 2022
Interest rate swaps	2,285,000	2,394,117	2,185,000
Forward foreign exchange contracts and swaps <sup>1)</sup>	32,275	45,865	44,127
Cross-currency swaps	224,900	281,016	224,873
<b>Total</b>	<b>2,542,175</b>	<b>2,720,998</b>	<b>2,454,000</b>

<sup>1)</sup> 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 <sup>1)</sup>

EUR 1 000	30 Jun 2023			30 Jun 2022			31 Dec 2022		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
Interest rate swaps									
Cash flow hedges	197,815		197,815	136,592	-819	135,773	217,561		217,561
Fair value hedges		-25,185	-25,185	280	-10,904	-10,624		-26,404	-26,404
Non-hedges									
Forward foreign exchange contracts and swaps									
Cash flow hedges	6,920	-50	6,870	12,025	-49	11,976	11,503	-431	11,072
Non-hedges	448	-76	373	371	-180	191	582	-173	409
Cross-currency swaps									
Non-hedges		-25,795	-25,795	4,608	-3,192	1,415		-13,576	-13,576
<b>Total</b>	<b>205,184</b>	<b>-51,105</b>	<b>154,078</b>	<b>153,876</b>	<b>-15,145</b>	<b>138,731</b>	<b>229,646</b>	<b>-40,584</b>	<b>189,061</b>

<sup>1)</sup> Cross-currency swaps related to Private Placements included.



## TVO Group debt structure by maturity

30 Jun 2023 EUR 1 000	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-	Total
Loans from financial institutes	21,115	126,104	626,104	226,104	26,104	11,818		10,600			1,047,949
Public bonds		436,748	500,000	650,000	675,000	600,000		623,000		215,000	3,699,748
Loans from other sources											
Lease liabilities	1,276	2,328	44,024	416	406						48,451
Commercial papers	11,913										11,913
<b>Total</b>	<b>34,305</b>	<b>565,180</b>	<b>1,170,128</b>	<b>876,520</b>	<b>701,510</b>	<b>611,818</b>		<b>633,600</b>		<b>215,000</b>	<b>4,808,061</b>

## TVO Group credit commitment by maturity

30 Jun 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
<b>Total</b>				<b>1,000,000</b>							<b>1,000,000</b>

The average interest rate on loans and derivatives on 30 June 2023 was 2.51 % (31 Dec 2022: 2.09 %).

On 30 June 2023, the Group had undrawn credit facilities amounting to EUR 1,000 million (2022: EUR 1,000 million). In addition, the Group had subordinated shareholder loan (hybrid equity) commitments totaling EUR 400 million (2022: EUR 400 million) and cash and cash equivalents amounting to EUR 205 million (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 Jun 2023			31 Dec 2022		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
<b>Financial assets at fair value</b>						
Derivative financial instruments at fair value through profit or loss		448			582	
Derivative financial instruments designated as cash flow hedges		204,735			229,064	
Derivative financial instruments designated as fair value hedges						
Investments in other shares <sup>1)</sup>			1,692			1,935
<b>Total</b>		<b>205,184</b>	<b>1,692</b>		<b>229,646</b>	<b>1,935</b>
<b>Financial liabilities at fair value</b>						
Derivative financial instruments at fair value through profit or loss		25,871			13,749	
Derivative financial instruments designated as cash flow hedges		50			431	
Derivative financial instruments designated as fair value hedges		25,185			26,404	
<b>Total</b>		<b>51,105</b>			<b>40,584</b>	

<sup>1)</sup> On 30 June 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 Jun 2023			31 Dec 2022		
	Financial liabilities measured at amortised cost	Book value	Fair value	Financial liabilities measured at amortised cost	Book value	Fair value
<b>Non-current liabilities</b>						
Other financial liabilities <sup>1)</sup>	4,257,728	4,257,728	4,065,870	4,531,264	4,531,264	4,275,708

<sup>1)</sup> 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 Jun 2023	30 Jun 2022	31 Dec 2022
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	995,310	991,601	999,662
Provision related to nuclear waste management (non-current liabilities)	1,247,007	1,286,808	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 Jun 2023	30 Jun 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 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 55.8 million and also the provision related to nuclear waste management decreased by EUR 48.6 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 June 2023 is EUR 1,457.9 million. The carrying amount in the balance sheet is EUR 995.3 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 June 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 June 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 Jun 2023	30 Jun 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 Jun 2023	30 Jun 2022	31 Dec 2022
Investment commitments	105,300	428,100	455,400
<b>Total</b>	<b>105,300</b>	<b>428,100</b>	<b>455,400</b>

### PENDING COURT CASES AND DISPUTES

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

