



2024

INTERIM
REPORT

Q1

tvo

Teollisuuden Voima Oyj's Interim Report 1 January–31 March 2024

During the first quarter of 2024, 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. The electricity production of the nuclear power plant units during the period in review was 6,143 GWh (4,718 GWh).

An environmental impact assessment programme (EIA programme) concerning the possible service life extension and power uprating of the OL1 and OL2 plant units was submitted to the Ministry of Economic Affairs and Employment (MEAE), which acts as the coordinating authority, in January 2024 and a public event concerning the programme was held at Olkiluoto in February.

The first annual outage for OL3 started on 2 March 2024.

For the time being, the grid operator Fingrid Oyj (Fingrid) 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.

With the exception of a small delay, the processing of Posiva's operating licence application has progressed well at the Radiation and Nuclear Safety Authority

(STUK). In September 2023, the Radiation and Nuclear Safety Authority (STUK) reported that the safety assessment and statement on the operating licence application for the disposal facility for spent nuclear fuel will be completed in 2024. Work related to the installation and commissioning of the encapsulation plant and the underground production equipment is proceeding as planned towards starting the joint functional test during the latter half of 2024. The final disposal of spent nuclear fuel is to start at Olkiluoto in the mid-2020s.

TVO Nuclear Services (TVONS) offers expert services in the design, implementation, operation and life cycle management of nuclear power plant projects. In February 2024, TVONS and Fortum signed a two-year framework agreement with the Polish Polskie Elektryczne Jądrownie (PEJ). PEJ is responsible for the construction of Poland's first nuclear power plant.

Operating environment

In February 2024, the European Commission issued a communiqué regarding the emission reduction goals for 2040. The proposed target is a reduction of 90 per cent from the 1990 level. According to the Commission, nuclear power will be required for meeting the targets in addition to renewable energy sources.

The Commission is also launching an SMR industry alliance (Small Modular Reactor) to promote the adoption of small modular reactors. The goal for the alliance is to strengthen the EU level cooperation

between the different parties in order to expedite the adoption of SMR technology.

The EU institutions have reached a political agreement on two legislative proposals. During the reform of the electricity market regulation, the legislators decided to allow for supporting nuclear power and four other low-emission energy sources using two-way contracts for difference. Furthermore, nuclear power was included in the list of technologies to be subsidised in the Net-Zero Industry Act which aims at advancing manufacturing capacity for clean technologies within the EU.

The Finnish Government is continuing its actions, as recorded in the Government's programme, for reforming the Nuclear Energy Act and creating a capacity mechanism. The Government published its report on exerting advance influence in order to promote a technology neutral policy within the EU. Finland is strongly promoting the role of nuclear energy as a carbon emissions-free energy form in enabling the green transition. Exerting advance influence refers to influencing that takes place before the European Commission issues its actual proposal for a directive.

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 share-

holders 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 under the period in review, 1 January–31 March 2024, was EUR 243 (1 January–31 March 2023: 113) million. The higher turnover compared to the previous year is due to OL3's electricity production.

The amount of electricity delivered to shareholders was 6,132 (4,710) GWh. The higher delivery volume compared to the previous year is due to OL3's electricity production.

The consolidated profit/loss was EUR 26 (-3) million. The profit/loss for the period in review was affected especially by the cost charged from shareholders, which were higher than incurrent costs and the 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.

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 5,378 (31 December 2023: 5,539) million, of which EUR 929 (929) million were subordinated shareholder loans. During the period in review, no new non-current liabilities were raised (31 March 2023: was raised EUR 100 million), and repaid non-current liabilities in the amount of EUR 158 (220) million.

TVO has a revolving credit facility of EUR 1,000 million, which remains in force until 2026. The shareholder loan commitment of EUR 400 million, targeting the possible financing needs of the OL3 project, matured at the end of 2023.

In March 2024, Japan Credit Rating Agency (JCR) affirmed its long-term credit rating A+ for TVO with stable outlook.

TVO uses its right to borrow funds back from the Finnish State Nuclear Waste Management Fund within the framework of legal regulations. On 31 March 2024, the amount of the loan was EUR 728 (31 December 2023: 728) million and it has been re-lent to TVO's shareholders. During the period under review, the loan from the Finnish State Nuclear Waste Management Fund remained unchanged (31 March 2023: increased by EUR 76 million).

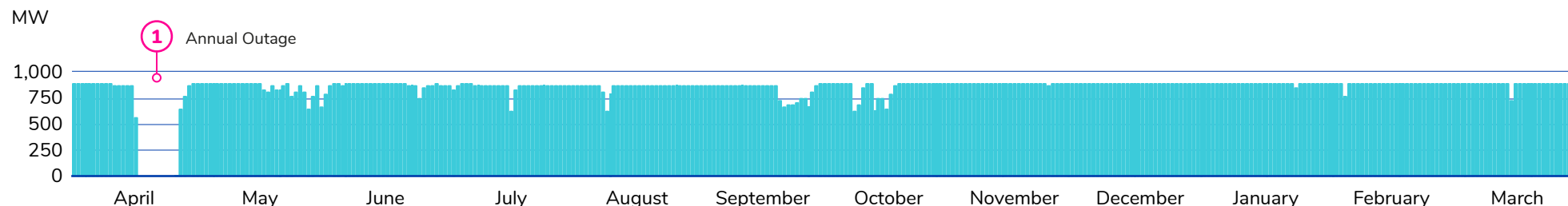
Electricity production

The electricity production of the Olkiluoto nuclear power plant units (OL1, OL2 and OL3) during the period in review was 6,143 (4,718) GWh. The total load factor for the plant units was 83.9 per cent.

During the period under review, all three plant units operated safely and reliably. The net production for

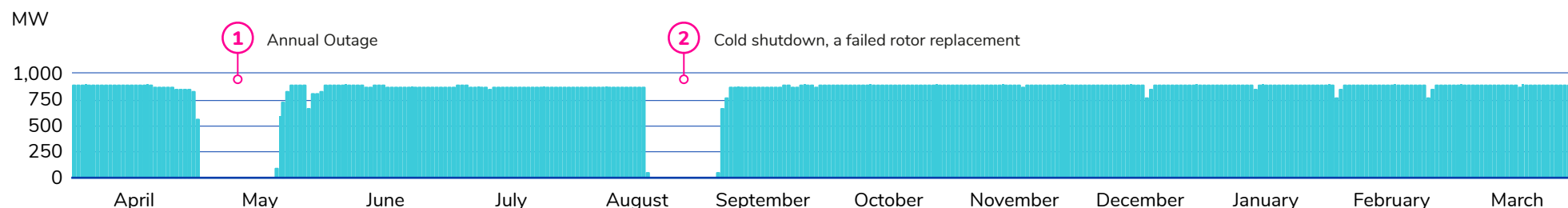
OL1 Production

Average output 1 April 2023–31 March 2024



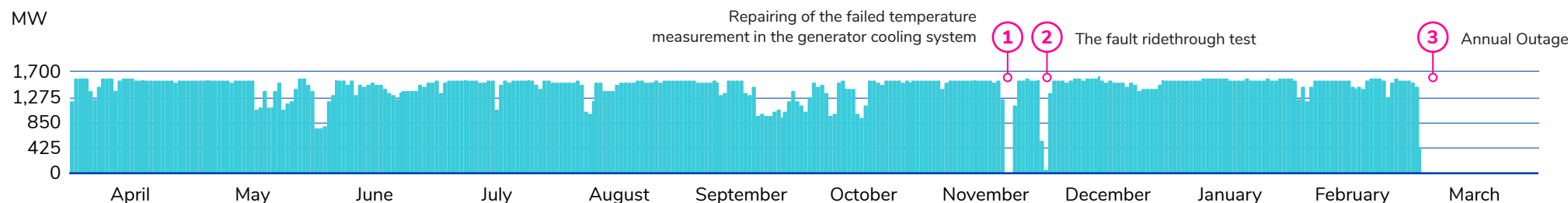
OL2 Production

Average output 1 April 2023–31 March 2024



OL3 Production

Average output 1 April 2023–31 March 2024



OL1 was 1,948 (1,935) GWh and the load factor was 100.4 (100.9) per cent. The net production for OL2 was 1,945 (1,864) GWh and the load factor was 100.4 (97.2) per cent. The net production for OL3 was 2,250 (919) GWh and the load factor was 65.6 (26.4) per cent.

Significant events at the plant units

No significant events that affected production occurred during the period in review.

Annual outages

The first annual outage for OL3 started on 2 March 2024. The annual outage had an estimated duration of 37 days. The outage was originally planned to end on 8 April; however, according to the schedule updated on 12 April, the maintenance work will be completed on 28 April. The plant unit's ramp-down, preparation for refuelling, foreign material inspections on the fuel, fault repairs and technical problems with inspection equipment have taken more time than was planned. In addition to the refuelling, the most significant jobs during the annual outage have included preventive maintenance on the protection system, washing and inspecting the steam generators, software updates performed on the I&C systems, leak rate tests on the containment isolation valves and maintenance of the pressuriser safety relief valves.

The refuelling outage for OL2 will begin on 28 April, and it has a planned duration of approximately 8 days. In addition to the refuelling, the most significant jobs include isolation valve leak rate tests, adding an undervoltage criterion to the diesel busbar switchover automation and the annual maintenance and tests for the electrical and I&C systems.

The service outage for OL1 will begin on 12 May, and it has a planned duration of approximately 16 days. In addition to the refuelling, the most significant jobs during the service outage include the work related to the reactor I&C renovation project, isolation valve leak rate tests, control rod drive replacements, main transformer and generator breaker service, feedwater pump and condensate pump service, recirculation pump service and the renovation of the containment's electrical penetrations.

In addition to TVO's in-house personnel, approximately 1,400 contractor employees will participate in the annual outages of the three plants.

Olkiluoto 3

OL3 was procured as a fixed-price turnkey project from a consortium (Plant Supplier) formed by Areva GmbH, Areva NP SAS and Siemens AG. TVO confirmed the provisional takeover of the plant unit for the warranty period which started in April 2023, when 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.

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.

Long-term receivables include the additional delay compensation of EUR 56.7 million to TVO from the plant supplier, agreed upon in 2021, which will become due during the final takeover of OL3 in April 2025 at the earliest.

Nuclear fuel

During the period in review, nuclear fuel purchases amounted to EUR 29 (25) million and the amount consumed to EUR 33 (19) million.

The nuclear fuel and uranium stock carrying value on 31 March 2024 was EUR 472 (31 December 2023: 476) million.

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 1,294 (31 December 2023: 1,289) million, calculated according to the international IFRS accounting principles. TVO's share in the Finnish State Nuclear Waste Management Fund, EUR 1,042 (31 December 2023: 1,035) 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 2023, the MEAE set TVO's liability for nuclear waste management at EUR 1,918 (1,840) million for the end of 2023 and the Company's funding target in the Finnish State Nuclear Waste Management Fund for 2023 at EUR 1,525 (1,458) million. In addition, the MEAE has decided that the liability for 2024 is EUR 1,929 million, of which EUR 1,484 million belongs to OL1/OL2 and EUR 445 million belongs to OL3.

In March 2024, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee for 2023 at EUR 29 million, which TVO paid on 29 March 2024. The return from the investment activities of the Finnish State Nuclear Waste Management Fund in 2023 was positive and, as a result, a part of the investment returns for 2023 was allocated as security for the statutory protected portion and the surplus reduced TVO's nuclear waste management fee for 2023. Therefore, the cash security of approximately EUR 44 million for the protected portion that was submitted to the Fund in 2023 was returned to TVO in March 2024. The nuclear waste management fee for 2024 will be confirmed in March 2025.

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.

With the exception of a small delay, the processing of Posiva's operating licence application has progressed well at STUK. In September 2023, STUK reported that the safety assessment and statement on the operating licence application for the disposal facility for spent nuclear fuel will be completed in 2024.

Work related to the installation and commissioning of the encapsulation plant and the underground production equipment is proceeding as planned towards starting the joint functional test during the latter half of 2024. The final disposal of spent nuclear fuel is to start at Olkiluoto in the mid-2020s.

Acquisitions of tangible and intangible assets and shares

Investments calculated according to the IFRS principles during the period in review were EUR 23 (77) million. The parent company's investments amounted to EUR 21 (85) million. During the period in review for 2023, EUR 73 million of the parent company's investments targeted the OL3 project.

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. The battery energy storage system is in the commissioning stage.

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.

In January 2024, the Finnish Energy Authority issued a decision concerning the grid load limitation that is related to full power operation at OL3. According to the decision, grid load limitation is the grid operator's special protection system that belongs under the responsibility of the transmission system operator Fingrid. In its decision, the Energy Authority considers that Fingrid has transferred its obligations related to the grid load limitation system to TVO without justification. The Energy Authority requires that Fingrid submit a proposal regarding covering the costs of the grid load limitation to the Energy Authority for confirmation. Until now, TVO has paid the majority of the costs. In February 2024, both TVO and Fingrid filed appeals with the Market Court regarding the Energy Authority's decision.

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 1,082 (31 December 2023: 1,045, 31 March 2023: 1,033). The number of permanent employees in the Group at the end of the period in review was 1,017 (31 December 2023: 1,011, 31 March 2023: 995).

Annual General Meeting

TVO's Annual General Meeting on 22 March 2024 approved the financial statements for 2023 and discharged the members of the Board of Directors and the President and CEO from liability. All of the members of the Board were re-elected.

At its organisation meeting, the Board elected **Petra Lundström** as Chair of the Board and **Iikka**

Tykkyläinen 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 2023 Report of the Board of Directors.

No major risks or uncertainties can be foreseen as regards electricity production at the Olkiluoto plant units.

There are uncertainties related to the availability of the OL3 plant unit during its first operating cycles by means of any possible unexpected events. These uncertainties are managed by means of systematic maintenance and monitoring of the plant unit. If OL3 fails to achieve the planned load factor or operating cost structure, the Finnish national grid limits its power level or costs incurred by TVO due to grid load limitation make it not profitable to operate the plant unit at full power, there is a risk of generation costs exceeding the target.

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 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.

In September 2023, STUK reported that the safety assessment and statement on the operating licence application for the disposal facility for spent nuclear fuel will be postponed until 2024. This will delay the processing of the operating licence application by the Government which may, in turn, delay the starting of final disposal for spent nuclear fuel.

Assessment of year-end developments

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

Nuclear fuel availability is guaranteed by long-term agreements.

TVO is closely monitoring the fulfillment of the conditions of the Settlement Agreement signed with OL3's Plant Supplier. This agreement signed in March 2018 and amended in June 2021 contains conditions which continue until the end of the warranty periods.

Posiva continues to prepare for the joint functional test, and the aim is to perform it during 2024.

Events after the period under review

On 4 April 2024, Fingrid started a stakeholder hearing regarding the draft conditions related to OL3's grid load limitation and the draft bases for determining the fees for the grid load limitation in question. Fingrid will be submitting its proposal to the Finnish Energy Authority by 31 May 2024.

TVO announced on 12 April 2024 that according to the updated schedule, the annual outage of OL3 ends on 28 April 2024. The reasons for the extension are the new faults found during the outage and technical problems with inspection equipment.

19 April 2024

Teollisuuden Voima Oyj
Board of Directors

Key Figures of TVO Group

TVO Group (IFRS) (M€)	Q1 2024	Q1 2023	Q1–Q4 2023
Turnover	243	113	876
Profit/loss for the period	26	-3	164
Depreciation	62	12	179
Investments ¹⁾	23	77	461
Equity	2,270	2,179	2,252
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⁾	4,498	4,805	4,676
Loan from VYR ²⁾	728	728	728
Provision related to nuclear waste management	1,294	1,246	1,289
Balance sheet total	9,036	9,091	9,229
Equity ratio % ⁴⁾	32.4	30.6	31.2
Average number of personnel	1,070	1,026	1,057

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 2024	Q1 2023	Q1–Q4 2023
Turnover	242	112	873
Profit/loss before appropriations	14	19	118
Fuel costs	33	19	111
Nuclear waste management costs	12	24	106
Capital expenditure (depreciation and financial income and expenses)	91	11	266
Investments ¹⁾	21	85	449
Equity	864	864	864
Appropriations	314	200	299
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) ²⁾	4,449	4,772	4,610
Loans from equity holders of the company ³⁾	929	929	929
Loan from VYR ²⁾	728	728	728
Balance sheet total	7,529	7,627	7,714
Equity ratio % ⁴⁾	31.0	28.9	30.0
Average number of personnel	1,067	1,024	1,055

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

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

Electricity delivered to equity holders of the company (GWh)	Q1 2024	Q1 2023	Q1–Q4 2023
Nuclear power	6,132	4,710	24,633
Total	6,132	4,710	24,633

Consolidated financial statement in brief and notes

Consolidated Income Statement

EUR 1,000	Q1 2024	Q1 2023	Q1–Q4 2023
Turnover	242,906	113,061	876,204
Work performed for own purposes	0	5,278	7,143
Other income	3,247	2,273	11,904
Materials and services	-62,272	-53,004	-222,211
Personnel expenses	-22,215	-19,621	-84,430
Depreciation and impairment charges	-61,849	-11,915	-178,674
Other expenses	-55,315	-23,842	-160,119
Operating profit/loss	44,502	12,230	249,817
Finance income	22,186	825	76,445
Finance expenses	-40,756	-16,405	-162,423
Total finance income and expenses	-18,570	-15,580	-85,978
Share of the profit/loss of joint ventures	-69	118	173
Profit/loss before income tax	25,863	-3,232	164,012
Income taxes	0	0	-13
Profit/loss for the period	25,863	-3,232	163,999
Profit/loss for the period attributable to:			
Equity holders of the company	25,863	-3,232	163,999

Consolidated Statement of Comprehensive Income

EUR 1,000	Q1 2024	Q1 2023	Q1–Q4 2023
Profit/loss for the period	25,863	-3,232	163,999
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges	4,220	-27,599	-89,928
Total other comprehensive profit/loss items for the period	4,220	-27,599	-89,928
Total comprehensive profit/loss for the period	30,083	-30,831	74,071
Total comprehensive profit/loss for the period attributable to:			
Equity holders of the company	30,083	-30,831	74,071

Consolidated Statement of Financial Position

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Assets			
Non-current assets			
Property, plant and equipment	6,317,999	6,366,399	6,357,069
Intangible assets	2,599	2,513	2,515
Loans and other receivables	784,733	787,123	784,734
Investments in joint ventures	4,001	4,014	4,070
Investments in shares	1,692	1,935	1,692
Derivative financial instruments	148,405	198,206	169,076
Share in the Finnish State Nuclear Waste Management Fund	1,041,558	992,202	1,035,276
Total non-current assets	8,300,987	8,352,392	8,354,432
Current assets			
Inventories	482,448	281,469	486,932
Trade and other receivables	36,748	284,802	95,973
Derivative financial instruments	10,670	3,411	3,555
Cash and cash equivalents	205,323	169,219	287,684
Total current assets	735,189	738,901	874,144
Total assets	9,036,176	9,091,293	9,228,576

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
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	143,019	201,128	138,799
Subordinated shareholder loans (hybrid equity)	929,300	929,300	929,300
Retained earnings	355,201	206,023	341,113
Total equity	2,270,268	2,179,199	2,251,960
Liabilities			
Non-current liabilities			
Provision related to nuclear waste management	1,294,093	1,245,772	1,289,352
Loan from the Finnish State Nuclear Waste Management Fund	727,500	727,500	727,500
Bonds	2,946,242	3,135,770	3,458,390
Other financial liabilities	560,441	1,358,271	819,905
Derivative financial instruments	14,626	28,358	19,859
Total non-current liabilities	5,542,902	6,495,671	6,315,006
Current liabilities			
Current financial liabilities	966,986	282,645	371,387
Derivative financial instruments	10,179	173	6,708
Advance payments received	68,058	23,057	68,063
Trade payables	14,018	7,145	22,793
Other current liabilities	163,765	103,403	192,659
Total current liabilities	1,223,006	416,423	661,610
Total liabilities	6,765,908	6,912,094	6,976,616
Total equity and liabilities	9,036,176	9,091,293	9,228,576

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 2024	600,365	242,383	138,799	929,300	341,113	2,251,960	2,251,960
Profit/loss for the period	0	0	0	0	25,863	25,863	25,863
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	4,220	0	0	4,220	4,220
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-11,775	-11,775	-11,775
Equity 31 Mar 2024	600,365	242,383	143,019	929,300	355,201	2,270,268	2,270,268

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	-3,232	-3,232	-3,232
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	-27,599	0	0	-27,599	-27,599
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-7,487	-7,487	-7,487
Equity 31 Mar 2023	600,365	242,383	201,128	929,300	206,023	2,179,199	2,179,199

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 financial year	0	0	0	0	163,999	163,999	163,999
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	-89,928	0	0	-89,928	-89,928
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-39,628	-39,628	-39,628
Equity 31 Dec 2023	600,365	242,383	138,799	929,300	341,113	2,251,960	2,251,960

Consolidated Statement of Cash Flows

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Operating activities			
Profit/loss for the period	25,863	-3,232	163,999
Adjustments:			
Taxes	3	0	13
Finance income and expenses	18,570	15,580	85,978
Depreciation and impairment charges	61,849	11,915	178,674
Share of the profit/loss of joint ventures	69	-118	-173
Other non-cash flow income and expenses ¹⁾	-1,600	5,585	-42,303
Sales profit/loss of property, plant and equipment and shares	-20	0	24
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	42,523	-54,259	-34,838
Increase (-) or decrease (+) in inventories	4,484	-9,063	35,319
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	-32,006	-20,127	93,986
Interest paid and other finance expenses	-43,142	-926	-63,464
Interest received	25,965	3,384	17,041
Taxes paid	-3	0	-13
Cash flow from operating activities	102,555	-51,261	434,243

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Investing activities			
Acquisition of property, plant and equipment	-18,766	-103,956	-273,515
Proceeds from sale of property, plant and equipment	20	0	0
Acquisition of intangible assets	-219	-149	-541
Proceeds from sale of shares	0	0	220
Loan receivables granted	0	-76,160	-73,772
Cash flow from investing activities	-18,965	-180,265	-347,608
Financing activities			
Withdrawals of long-term loans	0	176,160	1,250,408
Repayment of long-term loans	-158,188	-219,951	-1,352,230
Principal elements of lease payments	-311	-1,052	-3,799
Interest paid of subordinated shareholder loans (hybrid equity)	-5,012	-2,272	-36,393
Increase (+) or decrease (-) in current financial liabilities	0	104,887	89,020
Repayment of current financial liabilities	-2,440	-10,230	-99,160
Cash flow from financing activities	-165,951	47,542	-152,154
Change in cash and cash equivalents	-82,361	-183,984	-65,519
Cash and cash equivalents at the beginning of period	287,684	353,203	353,203
Cash and cash equivalents at the end of period	205,323	169,219	287,684

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 accounting policies adopted are otherwise consistent with those of the Group's annual financial statements for the year ended on 31 December 2023. Additionally, the changes according to the revised IAS/IFRS standards have been adopted.

The commercial operation for Olkiluoto 3 EPR plant unit (OL3) 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 comparability of the consolidated income statement and balance sheet.

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 2023.

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

The electricity production of the OL3 plant unit started on 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 up to 30 April 2023. Regular electricity production for OL3 started in April 2023 and commercial operation started in May 2023.

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 balance sheet up to 30 April 2023. The capitalisation of costs was discontinued at the start of OL3's commercial operation.

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 as well as deferred income.

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.

The OL3 commercial operation started on 1 May 2023. Along with this, the capitalisation of OL3 project costs was ended and the recognition of depreciation was commenced.

SEGMENT ACCOUNTING POLICIES

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.

The Board of Directors, which is the chief operating decision maker in TVO, 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.

Turnover by segments

EUR 1,000	Q1 2024	Q1 2023	Q1–Q4 2023
Nuclear power	242,906	113,061	876,204
Total	242,906	113,061	876,204

Profit/loss for the period by segments

EUR 1,000	Q1 2024	Q1 2023	Q1–Q4 2023
Nuclear power	14,495	19,034	118,216
Profit/loss before appropriations (FAS)	14,495	19,034	118,216
The impact of the nuclear waste management obligation	-1,305	-22,514	12,998
The impact of financial instruments	74	4	-240
The impact of finance leases	-1,365	-4	-203
The impact of subordinated shareholder loans (hybrid equity)	11,775	0	29,291
Other IFRS adjustments	2,259	131	3,764
The impact of joint ventures	-69	118	173
Total (IFRS)	25,863	-3,232	163,999

Assets by segments

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Nuclear power	7,529,374	7,627,444	7,713,972
Total (FAS)	7,529,374	7,627,444	7,713,972
The impact of the nuclear waste management obligation	1,379,280	1,296,752	1,375,844
The impact of financial instruments	142,226	184,106	155,782
The impact of finance leases	43,324	45,669	43,892
The impact of subordinated shareholder loans (hybrid equity)	-60,863	-58,014	-60,863
Other IFRS adjustments	-155	-7,666	-3,110
The impact of joint ventures	2,990	3,003	3,059
Total (IFRS)	9,036,176	9,091,293	9,228,576

Property, plant and equipment and intangible assets

Changes in property, plant and equipment

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Opening net book amount	6,357,069	6,363,783	6,363,783
Increase	22,644	76,505	460,101
Decrease	0	-62,085	-299,090
Transfer between categories	0	0	-64
Depreciation and impairment charges	-61,714	-11,804	-178,187
Accumulated depreciation from deduction	0	0	10,526
Closing net book amount	6,317,999	6,366,399	6,357,069

Changes in intangible assets

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Opening net book amount	2,515	2,476	2,476
Increase	219	148	577
Decrease	0	0	-115
Transfer between categories	0	0	64
Depreciation and impairment charges	-135	-111	-487
Accumulated depreciation from deduction	0	0	0
Closing net book amount	2,599	2,513	2,515

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 2023.

DERIVATIVE FINANCIAL INSTRUMENTS

Nominal values of the derivative financial instruments

EUR 1,000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Interest rate swaps	2,125,000	1,985,000	2,275,000
Forward foreign exchange contracts and swaps ¹⁾	47,897	32,893	60,109
Cross-currency swaps	287,439	224,900	331,337
Total	2,460,336	2,242,793	2,666,446

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	31 Mar 2024			31 Mar 2023			31 Dec 2023		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
Interest rate swaps									
Cash flow hedges	142,600	-3,627	138,973	194,270		194,270	137,958	-5,262	132,696
Fair value hedges	6,621	-14,721	-8,100		-23,789	-23,789	14,372	-14,217	155
Forward foreign exchange contracts and swaps									
Cash flow hedges	4,030		4,030	6,860	-125	6,734	6,696	-592	6,104
Non-hedges	505	-33	472	487	-73	414	569	-82	487
Cross-currency swaps									
Non-hedges	5,319	-6,424	-1,105		-4,543	-4,543	13,036	-6,413	6,623
Total	159,075	-24,805	134,270	201,617	-28,531	173,086	172,631	-26,567	146,064

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

TVO Group's debt structure by maturity

31 Mar 2024 EUR 1,000	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033-	Total
Loans from financial institutes	11,818	326,104	26,104	26,104	11,818		4,770				406,718
Public bonds	305,040	500,000	650,000	675,000	600,000	194,247	623,000		215,000	280,000	4,042,288
Loans from other sources											
Lease liabilities	1,626	44,244	508	505	20	9					46,912
Commercial papers											
Total	318,484	870,348	676,612	701,609	611,838	194,256	627,770		215,000	280,000	4,495,918

TVO Group's credit commitment by maturity

31 Mar 2024 EUR 1,000	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033-	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 31 March 2024 was 2.57% (31 December 2023: 2.62%).

On 31 March 2024, the Group had undrawn credit facilities amounting to EUR 1,000 (31 December 2023: 1,000) million. In addition, the Group had cash equivalents amounting to EUR 205 (31 December 2023: 288) 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	31 Mar 2024			31 Dec 2023		
	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		5,824			13,605	
Derivative financial instruments designated as cash flow hedges		146,630			144,654	
Derivative financial instruments designated as fair value hedges		6,621			14,372	
Investments in other shares ¹⁾			1,692			1,692
Total		159,075	1,692		172,631	1,692
Financial liabilities at fair value						
Derivative financial instruments at fair value through profit or loss		6,457			6,495	
Derivative financial instruments designated as cash flow hedges		3,627			5,855	
Derivative financial instruments designated as fair value hedges		14,721			14,217	
Total		24,805			26,567	

¹⁾ On 31 March 2024, TVO has unquoted shares worth EUR 1,692 (31 December 2023: 1,692) 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	31 Mar 2024			31 Dec 2023		
	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⁾	3,506,683	3,506,683	3,428,048	4,278,295	4,278,295	4,197,754

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	31 Mar 2024	31 Mar 2023	31 Dec 2023
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	1,041,558	992,202	1,035,276
Provision related to nuclear waste management (non-current liabilities)	1,294,093	1,245,772	1,289,352

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	31 Mar 2024	31 Mar 2023	31 Dec 2023
Liability for nuclear waste management according to the Nuclear Energy Act	1,928,500	1,839,600	1,918,200
Funding target obligation	1,525,100	1,457,900	1,525,100
TVO's share in the Finnish State Nuclear Waste Management Fund	1,525,100	1,457,900	1,457,900
Difference between the liability and TVO's share of the Fund	403,400	381,700	460,300

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.

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 2024, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee for 2023 at EUR 28.5 million, which TVO paid on 29 March 2024. The return from the investment activities of the Finnish State Nuclear Waste Management Fund in 2023 was positive and, as a result, a part of the investment returns for 2023 was allocated as security for the statutory protected portion and the surplus reduced TVO's nuclear waste management fee for 2023. Therefore, the cash security of approximately EUR 44 million for the protected portion that was submitted to the Fund in 2023 was returned to TVO in March 2024. The nuclear waste management fee for 2024 will be confirmed in March 2025.

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 2023, the Ministry of Economic Affairs and Employment (MEAE) set TVO's liability for nuclear waste management at EUR 1,918.2 (1,839.6) million for the end of 2023 and TVO's funding target in the Finnish State Nuclear Waste Management Fund for 2024 at EUR 1,525.1 (1,457.9) million. In addition, the MEAE has decided that the liability for 2024 is EUR 1,928.5 million, of which EUR 1,483.7 million belongs to OL1/OL2 and EUR 444.8 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 31 March 2024 is EUR 1,525.1 million.

The carrying amount in the balance sheet is EUR 1,041.6 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 31 March 2024 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 31 March 2024 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	31 Mar 2024	31 Mar 2023	31 Dec 2023
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	727,500	727,500	757,500
Guarantees given by shareholders related to the nuclear waste management obligation	557,740	534,990	557,740

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	31 Mar 2024	31 Mar 2023	31 Dec 2023
Investment commitments	114,500	429,000	117,500
Total	114,500	429,000	117,500

PENDING COURT CASES AND DISPUTES

Pending Court Cases and Disputes are to be found on [page 5](#).

