

INTERIM REPORT Q3

2022



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tvo

# Teollisuuden Voima Oyj's Interim Report 1 January–30 September 2022

## During the first three quarters of 2022, Teollisuuden Voima's (TVO) electricity generation at the Olkiluoto 1 (OL1) and Olkiluoto 2 (OL2) plant units continued safely and reliably.

The electricity production of the Olkiluoto 3 EPR plant unit (OL3) started on Saturday, 12 March 2022. In September, OL3's test production proceeded first to tests at an 80 percent power level, and then at the end of the month to tests at full power. According to information received from the Plant Supplier in June 2022, OL3's regular electricity production starts in December 2022. OL3 significantly improves Finland's electricity self-sufficiency and helps in achieving carbon neutrality goals.

The construction work at Posiva's encapsulation plant and final disposal facility has proceeded as planned.

The TVO Group closely follows the situation in Ukraine and its impact on the Group's operations. The situation has not had an immediate or direct effect the Group's operations or the production of electricity.

## Operating Environment

In July 2022, in accordance with the European Commission's proposal, the European Parliament accepted nuclear power to be included in the EU Taxonomy. The inclusion of nuclear power in the EU Taxonomy means that it will be classified as an environmentally sustainable investment provided that the technical screening criteria are satisfied. The application of the criteria will begin on 1 January 2023. However, the criteria contain several ambiguities. The Commission is expected to deliver clarifying instructions before the end of the year.

The work on the Commission's Fit for 55 package, unveiled in July 2021, is progressing in the EU institutions. The package contains the measures necessary for achieving the 55 percent greenhouse gas emissions reduction target by 2030. The published initiatives include a gas market package expected to cover nuclear-based hydrogen production. During the summer and early autumn of 2022, the European Parliament and Member States adopted their positions on multiple Fit for 55 initiatives, including the EU Emissions Trading System, Carbon Border Adjustment Mechanism, and the revision of the Renewable Energy Directive. These initiatives will advance to the final interinstitutional negotiations between the Commission, Parliament, and Member States.

The TVO Group closely follows the situation in Ukraine and its impact on the Group's operations. The TVO Group condemns actions in violation of international agreements as well as Russia's attack on Ukraine. During the period under review, the Ukrainian situation has not had an immediate or direct effect the Group's operations or the production of electricity. However, cost increases are being prepared for in the TVO Group. Market interest rates have strongly increased due to rising inflation and the actions of central banks.

According to a survey published by Finnish Energy in May 2022, the support for nuclear power in Finland is at an all-time high. 60 percent of survey respondents have a positive attitude towards nuclear power, while 11 percent take a negative stance. The survey material was collected in April 2022. Support for nuclear power in Finland has been measured continually since 1983.

## 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 under 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 under review 1 January–30 September 2022 was EUR 250.1 (1 January–30 September 2021: EUR 233.2) million.

The amount of electricity delivered to shareholders was 11,857.6 (10,467.9) GWh. The higher delivery volume of electricity compared to the previous year is due to shorter annual outages and the start of OL3's electricity production.

The consolidated profit/loss was EUR -52.0 (2.0) million. 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 period under review (see chapter: [Nuclear Waste Management](#)).

## 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 relented to shareholders, amounted to EUR 5,520.5 (31 December 2021: 5,206.0) million, of which EUR 929.3 (929.3) million were subordinated shareholder loans. TVO raised a total of EUR 750.0 (30 September 2021: 600.0) million in non-current liabilities and repaid non-current liabilities in the amount of EUR 363.2 (551.3) million.

TVO signed a new three-year revolving credit facility of EUR 1,000 million on 15 June 2022. The facility includes two one-year extension options. The facility refinances TVO's existing revolving credit facility signed in February 2016 and will be used for general corporate purposes.

TVO issued in March 2022 a EUR 600 million five-year bond with an annual coupon of 2.625 percent. The bond was issued under the Company's EMTN programme. TVO also announced that it has made an invitation to holders of its outstanding EUR 311.77 million Notes due in January 2023 to tender their Notes for purchase by TVO for cash. The tender offer results were announced on 31 March 2022. The aggregate principal amount validly offered for purchase by the noteholders was EUR 106.1 million. TVO accepted all valid instructions pursuant to the tender offer.

In September, TVO agreed on a new 10-year EUR 150 million Private Placement.

The OL3 project's share of financing costs has been capitalised in the balance sheet.

TVO uses its right to borrow funds back from the Finnish State Nuclear Waste Management Fund within the framework of legal regulations. On 30 September 2022, the amount of the loan was EUR 651.3 (31 December 2021: 711.3) million and it has been relented to TVO's

shareholders. On 31 March 2022, the loan from the Finnish State Nuclear Waste Management Fund decreased by EUR 59.9 (31 March 2021: decreased by 5.1) million.

In March 2022, Fitch Ratings (Fitch) affirmed its long-term credit rating BBB- for TVO and changed the outlook from negative to stable. In March 2022, S&P Global Ratings (S&P) upgraded TVO's long-term credit rating from BB to BB+ and affirmed its positive outlook. According to both credit rating agencies, the changes to the credit ratings are mainly due to the start of the OL3 plant unit's electricity production in March 2022.

## Electricity Production

The electricity production of the Olkiluoto nuclear power plant units, OL1, OL2, and OL3, during the period under review was 11,888 (10,487) GWh. The total load factor of OL1 and OL2 was 90.5 (90.1) percent.

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 phase is currently ongoing. OL1's net production was 4,960 (5,423) GWh and the load factor 85.2 (93.2) percent. OL2's net production was 5,574 (5,063) GWh and the load factor 95.8 (87.0) percent. OL3's net production was 1,355 GWh and the load factor 17.8 percent.

## Significant Plant Events

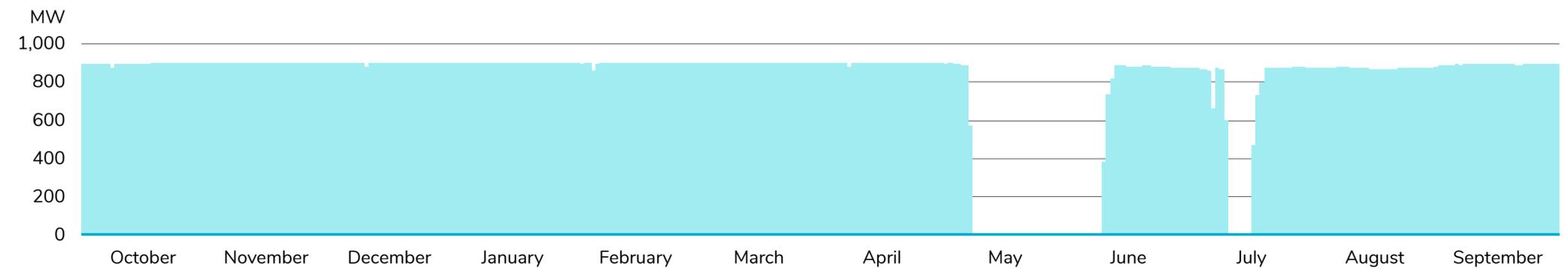
Indications of damaged fuel were detected at the OL1 plant unit at the end of June. As a result, the power level of the plant unit had to be reduced in July first to 65 percent for one day to localise the damaged fuel element, and thereafter an approximately week-long maintenance was started to remove the damaged fuel element and replace it with a new one.

## Annual Outages

The annual outages of the OL1 and OL2 plant units started on 24 April with the refuelling outage at the OL2 plant unit. OL2 continued electricity production on 3 May. A maintenance outage was carried out at the OL1 plant unit, which started on 8 May and ended on 10 June. In addition to refuelling, various annual preventive maintenance activities, inspections, repairs, and tests were carried out at the plant units.

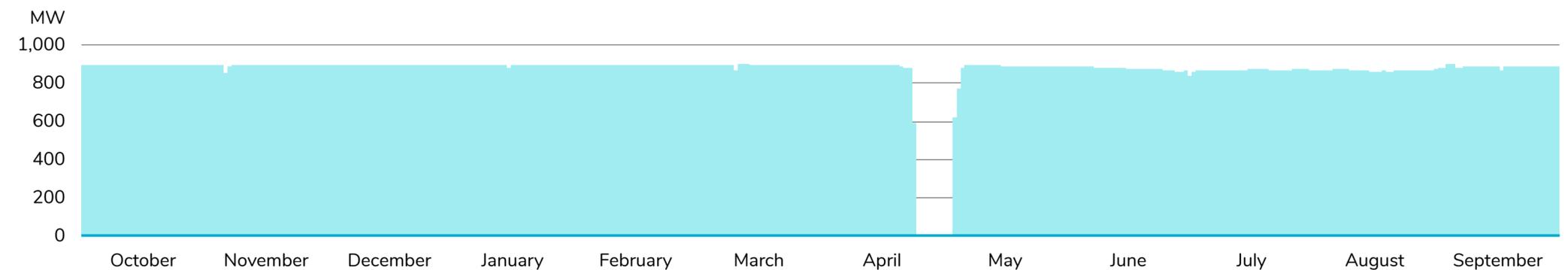
### Olkiluoto 1

Average electrical power 1 October 2021–30 September 2022



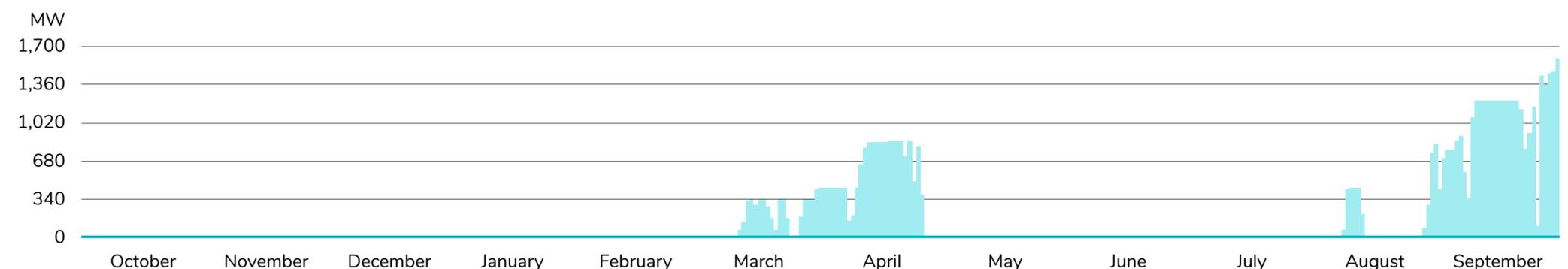
### Olkiluoto 2

Average electrical power 1 October 2021–30 September 2022



### Olkiluoto 3

Average electrical power 1 October 2021–30 September 2022



## Olkiluoto 3 EPR

OL3, currently under the test production phase, was 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.

In March 2018, TVO signed a comprehensive Global Settlement Agreement (GSA) concerning the completion of the OL3 project and related disputes with the Plant Supplier consortium companies Areva NP, Areva GmbH, and Siemens AG as well as with the Areva Group parent company Areva SA, a company wholly-owned by the French State. The GSA was amended with agreements signed in June 2021. In the GSA, the Supplier consortium companies committed to ensuring that the funds dedicated to the completion of the OL3 project will be adequate and will cover all applicable guarantee periods, including setting up a trust mechanism funded by Areva companies to secure the financing of the costs for completing the OL3 project. During the period under review, the fund, which was previously replenished in July 2021, has been used to cover costs incurred to the Areva companies for the completion of the OL3 project in accordance with the GSA. During the review period, TVO has recorded receivables from the Plant Supplier for the additional delay compensation accumulated by the end of the review period in accordance with the amended settlement agreement. TVO's right to terminate the Plant Agreement in accordance with the GSA was postponed until 31 March 2023. In addition, the payment of approximately EUR 193 million of the delay compensation agreed in the GSA of 2018 was postponed until the completion of OL3, up to 31 March 2023 at the latest.

According to the Plant Supplier's latest project schedule, TVO's current cost estimate, and the effects of the GSA, TVO estimates that its total investment in the OL3 project will be approximately EUR 5.8 (5.7) billion.

In December 2021, the Radiation and Nuclear Safety Authority (STUK) granted TVO permission for making the reactor critical and conducting low power tests, after which the startup of OL3's reactor took place. On

12 March 2022, the plant unit was connected to the national grid and electricity production started. The electricity power level was gradually increased to approximately 850 megawatts, until the production tests were interrupted on 26 April 2022 due to the boron pumps unexpectedly switching on. Simultaneously, a leak in the generator's cooling system was observed. Foreign material detached from the steam guide plates was found in the turbine's steam reheater in May 2022, which required inspection and repair work. The work was completed on 8 August 2022. TVO communicated on 11 August 2022 that a turbine automation update of approximately two weeks would be carried out. This had no effect on the overall schedule of the plant unit's test production phase. The test production continued on 28 August 2022 with tests at a 60 percent power level.

On 6 September 2022, STUK granted permission to increase OL3's power level to over 60 percent and from thereon to 100 percent. According to STUK, the production tests and investigations conducted so far have shown that OL3 has worked safely, and that increasing the plant unit's power level can be continued. Tests at an 80 percent power level were started on 9 September 2022. Tests at full power, approximately 1,600 megawatts, were started on 30 September 2022.

According to information received from the Plant Supplier in June 2022, OL3's regular electricity production is to start in December 2022. The Plant Supplier is obliged to complete the plant unit in accordance with the Plant Contract and the Global Settlement Agreement.

OL3's power output during the test production phase is published on TVO's website at [www.tvo.fi/ol3forecast](http://www.tvo.fi/ol3forecast). A market message is published in NordPool regarding any significant changes.

At the end of the reporting period, the Plant Supplier's workforce at OL3 was approximately 940 people. The occupational safety at OL3 remained at a good level.

All realised costs of the OL3 project that can be recognised in the cost of the asset have been entered as property, plant, and equipment in the Group balance sheet.

## Nuclear Fuel

During the period under review, nuclear fuel purchases amounted to EUR 60.3 (52.0) million and the amount consumed to EUR 51.2 (44.7) million.

The nuclear fuel and uranium stock carrying value on 30 September 2022 was EUR 278.9 (31 December 2021: 265.9) million. Once the OL3 plant unit proceeds to commercial operation, approximately EUR 250 million will be transferred from the OL3 investment to the value of the nuclear fuel and uranium stock.

## 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 1,283.1 (31 December 2021: 1,368.3) million, calculated according to the international IFRS accounting principles. TVO's share in the Finnish State Nuclear Waste Management Fund, EUR 988.9 (31 December 2021: 1,010.1) 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.

The cost estimate of nuclear waste management for financial provision, i.e., the nuclear waste management scheme for 2022–2024, as well as the preliminary nuclear waste management scheme for 2025–2028 were submitted to the Ministry of Economic Affairs and Employment (MEAE) at the end of June. The amount of the nuclear waste management fee to be collected from a company liable for nuclear waste management is based on the nuclear waste management scheme.

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 2021, the MEAE set TVO's liability for nuclear waste management at EUR 1,816.1 (1,450.6) million for the end of 2021 and TVO's funding target in the Finnish State Nuclear Waste Management Fund for 2022 at EUR 1,436.1 (1,450.6) million. In addition, the MEAE has decided that the liability for 2022 is EUR 1,791.9 million, of which EUR 1,409.0 million belongs to OL1/OL2 and EUR 382.9 million belongs to OL3.

In March 2021, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee refund for 2020 at EUR 28.7 million, which the Fund reimbursed to TVO on 31 March 2021. As for 2021, no surplus was reimbursed to TVO from the Nuclear Waste Management Fund after the amendment to the Nuclear Energy Act (269/2021), although the fund target for nuclear waste management in 2022 was lower than the share in the Fund in 2021. The refund for 2021, EUR 14.5 million, was used to cover the protected portion in accordance with the Nuclear Energy Act Section 52 c. In accordance with the implementing provision of the law amendment, the profitable result of the Finnish State Nuclear Waste Management Fund for 2021 was not used to refund TVO's nuclear waste management fee, but it was also used to cover the protected portion. In order to supplement the legal protected portion, TVO provided the Nuclear Waste Management Fund with a separate cash security of EUR 7.4 million in addition to the surplus and profit. The nuclear waste management fee for 2022 will be confirmed in March 2023.

## 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 in Olkiluoto and Fortum Power and Heat Oy (Fortum) in Loviisa.

Work at Posiva's encapsulation plant site and final disposal facility at ONKALO has proceeded as planned. The construction stage of the encapsulation plant has been completed and the equipment installations have started.

In May 2021, the excavation of the five first deposition tunnels, accessed through the central tunnels, was started in ONKALO at a depth of approximately 430 metres. These excavations were completed in June 2022. The underground 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 under review were EUR 198.2 (82.4) million. Investments of the parent company were EUR 216.3 (81.9) million, of which EUR 178.7 (41.8) million were allocated to the OL3 project. The OL3 investment is decreased by the delay compensation and additional delay compensation in accordance with the settlement agreement. Additional delay compensation has been recorded as EUR 56.7 million for the period under review.

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 together with Fingrid's system protection. The battery energy storage system will be deployed during the end of the year 2022.

## Pending Court Cases and Disputes

TVO and Wärtsilä Finland Oy (Wärtsilä) signed an agreement on the delivery of Emergency Diesel Generators and their auxiliary systems to the Olkiluoto nuclear power plant (the so-called EDG project) in 2013. In December 2018, Wärtsilä published a stock exchange release announcing a major provision it has made on two nuclear power plant projects to cover the cost exceedings and project delays, and that the

allocation of responsibility for the additional costs and delays is in dispute. In April 2019, Wärtsilä announced in its notification addressed to TVO that EUR 65.0 million of the provision applies to TVO's EDG project. In October 2020, TVO initiated arbitration proceedings against Wärtsilä concerning the installation and commissioning schedule of the auxiliary diesel generators (EDG 1–8) in accordance with the EDG project's delivery agreement.

TVO received in July 2021 Wärtsilä's counterclaim in the pending arbitration proceedings. Wärtsilä's monetary claim of additional costs was approximately EUR 40 million. TVO submitted its response to Wärtsilä's claims to the arbitral tribunal in the beginning of November 2021. TVO considered claims made by Wärtsilä to be without merit and demanded for them to be dismissed and for TVO's legal costs to be compensated.

In August 2022, the arbitral tribunal resolved all the claims presented by the parties to each other concerning the delivery schedules, additional costs, and delay liquidated damages of the diesel generators at the Olkiluoto nuclear power plant. According to the award, Wärtsilä is obligated to install and complete the commissioning of the diesel generators according to the schedule provided by the arbitral tribunal. In addition, Wärtsilä was ordered to pay TVO delay liquidated damages including interest, as well as to compensate the majority of legal costs accumulated to TVO from the arbitration proceedings. The arbitral tribunal did not obligate TVO to make payments to Wärtsilä.

## Personnel

The total number of personnel in the Group at the end of the period under review was 1,015 (31 December 2021: 984, 30 September 2021: 982). The number of permanent employees in the Group at the end of the period under review was 994 (31 December 2021: 965, 30 September 2021: 956).

## Annual General Meeting

TVO's Annual General Meeting on 25 March 2022 approved the financial statements for 2021, discharged the members of the Board of Directors and the President and CEO from liability, and elected the members of the Board of Directors. All ten existing members are to continue in their positions.

At its organisation meeting, the Board elected **Tiina Tuomela** as Chair of the Board and **Ilkka 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 2021 Report of the Board of Directors.

The OL3 plant unit was connected to the national grid on 12 March 2022. According to information received from the Plant Supplier in June 2022, OL3's regular electricity production is to start in December 2022 instead of the previously announced start in September. As the OL3 project is still ongoing, no assurance can be given that further delays would not materialise prior to completion of the project. A failure by one or more of the Supplier consortium companies to meet their respective obligations according to the Plant Contract or the Global Settlement Agreement could further delay the start of regular electricity production and result in additional costs for TVO, which may subject it to new legal proceedings or new negotiations with the Supplier consortium companies which have joint and several liability. In addition, restrictions caused by the main grid may have an impact on OL3's electricity production. These factors could have a material adverse impact on TVO's business and financial position.

The TVO Group has contingency plans for different scenarios resulting from the Ukrainian situation, e.g., in relation to potential supply difficulties and rising costs. The impact of the situation in Ukraine on the Group's operations is closely followed. Inflation, which has already risen due to the situation, has continued to rise, and the extensively higher prices and interests 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 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.

## Assessment of Year-End Developments

In the current financial year, electricity production is expected to increase in accordance with OL3's test production programme. The prerequisites for nuclear power production in Olkiluoto are good. Nuclear fuel availability is guaranteed by long-term agreements.

OL3's test production phase will be continued with the aim of starting regular electricity production in December 2022. TVO will carefully follow the fulfilment of the conditions according to the 2018 settlement agreement and the amendment agreements signed in June 2021, as well as the commissioning stages of OL3, so that they are carried out according to the Plant Supplier's schedule ensuring financial and technical resources. Since the Plant Supplier has not finished the OL3 project by the end of February 2022, as was stipulated in the amendment agreement of June 2021, the Plant Supplier is obligated to pay an additional delay compensation to TVO depending on the date of completion as of the beginning of March 2022 until the end of September 2022. The Plant Supplier is obligated to complete the plant unit in accordance with the Plant Contract and the Global Settlement Agreement.

Posiva continues the implementation of the final disposal plant project. The technical acquisitions at the final disposal facility are progressing. Installation work as well as the qualification and production of equipment is taking place at the encapsulation plant.

## Events after the Period under Review

No events after the period under review.

14 October 2022

**Teollisuuden Voima Oyj**  
Board of Directors

## Key Figures of TVO Group

TVO Group (IFRS) (M€)	Q1-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
Turnover	250	233	299
Profit/loss for the period	-52	2	-20
Investments <sup>1)</sup>	198	82	578
Equity	2,212	2,073	2,063
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>	4,623	4,202	4,337
Loan from VYR <sup>2)</sup>	651	711	711
Provision related to nuclear waste management	1,283	1,013	1,368
Balance sheet total	8,903	8,116	8,662
Equity ratio % <sup>4)</sup>	31.7	32.4	31.3
Average number of personnel	1,037	1,011	1,004

<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

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

## 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-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
Turnover	247	229	294
Profit/loss before appropriations	-17	13	-4
Fuel costs	51	45	61
Nuclear waste management costs	67	22	41
Capital expenditure (depreciation and financial income and expenses)	26	28	38
Investments <sup>1)</sup>	216	82	220
Equity	864	861	861
Appropriations	174	210	193
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) <sup>2)</sup>	4,591	4,133	4,277
Loans from equity holders of the company <sup>3)</sup>	929	929	929
Loan from VYR <sup>2)</sup>	651	711	711
Balance sheet total	7,343	6,961	7,156
Equity ratio % <sup>4)</sup>	29.4	32.0	30.8
Average number of personnel	1,035	1,009	1,002

<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-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
Nuclear power	11,858	10,468	14,414
<b>Total</b>	<b>11,858</b>	<b>10,468</b>	<b>14,414</b>

# Consolidated financial statement in brief and notes

## Consolidated income statement

EUR 1,000	Q1-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
<b>Turnover</b>	<b>250,093</b>	<b>233,183</b>	<b>298,713</b>
Work performed for own purposes	15,536	18,489	25,036
Other income	9,356	9,527	13,446
Materials and services	-125,125	-57,932	-90,840
Personnel expenses	-59,135	-60,784	-82,142
Depreciation and impairment charges	-34,705	-32,796	-43,996
Other expenses	-77,155	-82,606	-103,944
<b>Operating profit/loss</b>	<b>-21,135</b>	<b>27,081</b>	<b>16,273</b>
Finance income	5,371	9,139	4,681
Finance expenses	-36,221	-35,167	-41,887
Total finance income and expenses	-30,850	-26,028	-37,206
Share of the profit/loss of joint ventures	14	899	1,280
<b>Profit/loss before income tax</b>	<b>-51,971</b>	<b>1,952</b>	<b>-19,653</b>
Income tax	-52	0	0
<b>Profit/loss for the period</b>	<b>-52,023</b>	<b>1,952</b>	<b>-19,653</b>
<b>Profit/loss for the period attributable to:</b>			
Equity holders of the company	-52,023	1,952	-19,653

## Consolidated statement of comprehensive income

EUR 1,000	Q1-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
Profit/loss for the period	-52,023	1,952	-19,653
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges	205,619	31,506	44,363
Total other comprehensive profit/loss items for the period	205,619	31,506	44,363
<b>Total comprehensive profit/loss for the period</b>	<b>153,596</b>	<b>33,458</b>	<b>24,710</b>
<b>Total comprehensive profit/loss for the period attributable to:</b>			
Equity holders of the company	153,596	33,458	24,710

## Consolidated balance sheet

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	6,258,285	5,700,279	6,177,755
Intangible assets	2,312	2,421	2,543
Loans and other receivables	654,131	714,106	714,027
Investments in joint ventures	3,321	5,135	5,516
Investments in shares	1,935	1,934	1,935
Derivative financial instruments	217,692	32,724	33,966
Share in the Finnish State Nuclear Waste Management Fund	988,947	1,013,467	1,010,071
<b>Total non-current assets</b>	<b>8,126,623</b>	<b>7,470,066</b>	<b>7,945,813</b>
<b>Current assets</b>			
Inventories	288,119	281,547	274,489
Trade and other receivables	286,647	243,855	261,834
Derivative financial instruments	7,335	3,826	7,809
Cash and cash equivalents	194,044	116,533	172,318
<b>Total current assets</b>	<b>776,145</b>	<b>645,761</b>	<b>716,450</b>
<b>Total assets</b>	<b>8,902,768</b>	<b>8,115,827</b>	<b>8,662,263</b>
<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	222,610	4,134	16,991
Subordinated shareholder loans (hybrid equity)	929,300	929,300	929,300
Retained earnings	217,341	296,761	274,022
<b>Total equity</b>	<b>2,211,999</b>	<b>2,072,943</b>	<b>2,063,061</b>

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
Provision related to nuclear waste management	1,283,130	1,013,467	1,368,291
Loan from the Finnish State Nuclear Waste Management Fund	651,339	711,266	711,266
Bonds	3,260,195	2,893,967	2,811,264
Other financial liabilities	995,398	883,070	1,065,928
Derivative financial instruments	33,637	18,898	10,740
<b>Total non-current liabilities</b>	<b>6,223,699</b>	<b>5,520,668</b>	<b>5,967,489</b>
<b>Current liabilities</b>			
Current financial liabilities	331,839	404,783	445,619
Derivative financial instruments	1,524	1,279	3,268
Advance payments received	21,211	19,789	21,218
Trade payables	6,446	7,947	56,672
Other current liabilities	106,050	88,418	104,936
<b>Total current liabilities</b>	<b>467,070</b>	<b>522,216</b>	<b>631,713</b>
<b>Total liabilities</b>	<b>6,690,769</b>	<b>6,042,884</b>	<b>6,599,202</b>
<b>Total equity and liabilities</b>	<b>8,902,768</b>	<b>8,115,827</b>	<b>8,662,263</b>

## Consolidated statement of changes in equity

1,000 EUR	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>	600,365	242,383	16,991	929,300	274,022	2,063,061	2,063,061
Profit/loss for the period	0	0	0	0	-52,023	-52,023	-52,023
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	205,619	0	0	205,619	205,619
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-4,658	-4,658	-4,658
<b>Equity 30 Sep 2022</b>	600,365	242,383	222,610	929,300	217,341	2,211,999	2,211,999

1,000 EUR	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 2021</b>	600,365	242,383	-27,372	929,300	298,272	2,042,948	2,042,948
Profit/loss for the period	0	0	0	0	1,952	1,952	1,952
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	31,506	0	0	31,506	31,506
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-3,463	-3,463	-3,463
<b>Equity 30 Sep 2021</b>	600,365	242,383	4,134	929,300	296,761	2,072,943	2,072,943

1,000 EUR	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 2021</b>	600,365	242,383	-27,372	929,300	298,272	2,042,948	2,042,948
Profit/loss for the financial year	0	0	0	0	-19,653	-19,653	-19,653
Other comprehensive profit/loss items:							
Cash flow hedges	0	0	44,363	0	0	44,363	44,363
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-4,597	-4,597	-4,597
<b>Equity 31 Dec 2021</b>	600,365	242,383	16,991	929,300	274,022	2,063,061	2,063,061

## Consolidated statement of cash flows

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
<b>Operating activities</b>			
Profit/loss for the period	-52,023	1,952	-19,653
Adjustments:			
Taxes	52	0	0
Finance income and expenses	30,850	26,028	37,206
Depreciation and impairment charges	34,705	32,796	43,996
Share of the profit/loss of joint ventures	-14	-899	-1,280
Other non-cash flow income and expenses	-4,102	-18,171	-25,629
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	30,799	-972	-17,739
Increase (-) or decrease (+) in inventories	-13,587	-7,313	-376
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	-6,759	4,683	13,474
Interest paid and other finance expenses	-3,380	-3,311	-4,296
Dividends received	2,209	0	0
Interest received	6,274	3,939	3,977
Taxes paid	-52	0	0
<b>Cash flow from operating activities</b>	<b>24,972</b>	<b>38,732</b>	<b>29,680</b>
<b>Investing activities</b>			
Acquisition of property, plant and equipment	-312,580	-238,103	-315,370
OL3 project compensation	0	206,875	206,875
Acquisition of intangible assets	-213	0	-263
Acquisition of shares	0	-194	-1
Loan receivables granted	-15,910	0	-105
Repayments of loans granted	75,837	5,180	5,392
<b>Cash flow from investing activities</b>	<b>-252,866</b>	<b>-26,242</b>	<b>-103,472</b>

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
<b>Financing activities</b>			
Withdrawals of long-term loans	750,000	600,000	800,000
Repayment of long-term loans	-423,092	-556,476	-571,683
Principal elements of lease payments	-2,244	-2,022	-2,117
Interest paid of subordinated shareholder loans (hybrid equity)	-2,753	-2,870	-4,673
Increase (+) or decrease (-) in current financial liabilities	58,049	93,878	61,630
Repayment of current financial liabilities	-130,340	-189,830	-198,410
<b>Cash flow from financing activities</b>	<b>249,620</b>	<b>-57,320</b>	<b>84,747</b>
<b>Change in cash and cash equivalents</b>	<b>21,726</b>	<b>-44,830</b>	<b>10,955</b>
Cash and cash equivalents at the beginning of period	172,318	161,363	161,363
<b>Cash and cash equivalents at the end of period</b>	<b>194,044</b>	<b>116,533</b>	<b>172,318</b>

# 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 consistent with those of the Group's annual financial statements for the year ended on 31 December 2021. Additionally, the changes according to the revised IAS/IFRS standards have been adopted. The COVID-19 pandemic has not materially affected the accounting policies nor reporting numbers. During the period under review, the Ukrainian situation has not had an immediate or direct effect the Group's operations or the production of electricity. However, cost increases are being prepared for in the TVO Group.

## 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 2021.

## Olkiluoto 3 EPR

The electricity production of the Olkiluoto 3 EPR plant unit (OL3) started on Saturday, 12 March 2022. Regular electricity production starts in December 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 profit/loss for the review period affected by items classified as profit/loss related to the provision for OL3's nuclear waste liability.

TVO's management has estimated that there are no known technical or other issues that would prevent the completion of the OL3 project from the test production phase to regular electricity production. The recognition criteria of the acquisition costs of the OL3 project are realised because all the necessary actions will be completed to prepare the asset for its intended use.

Additional delay compensation has been recorded as EUR 56.7 million for the period under review. For the review period, TVO has recognised current receivables EUR 249.8 million from the Plant Supplier. The additional delay compensation decreases the historical costs of property, plant and equipment in the balance sheet.

According to the Plant Supplier's latest project schedule, TVO's current cost estimate, and the effects of the GSA, TVO estimates that its total investment in the OL3 project will be approximately EUR 5.8 (5.7) billion.

## Comparability of the consolidated income statement and balance sheet

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 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. 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). Olkiluoto 3 (OL3) is currently under the test production phase. 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 TVO Group discloses the following information by segments: turnover, profit/loss for the period and assets, which the chief operation decision maker follows.

The chief operation decision maker follows reporting according to the Finnish Accounting Standards (FAS). Adjustments made under IFRS accounting policies are reported at Group level.

### Turnover by segments

EUR 1,0000	Q1-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
Nuclear power	250,093	233,183	298,713
<b>Total</b>	<b>250,093</b>	<b>233,183</b>	<b>298,713</b>

### Profit/loss for the period by segments

EUR 1,0000	Q1-Q3 2022	Q1-Q3 2021	Q1-Q4 2021
Nuclear power	-17,269	13,388	-3,573
Profit/loss before appropriations (FAS)	-17,269	13,388	-3,573
The impact of the nuclear waste management obligation	-32,436	-12,235	-17,424
The impact of financial instruments	-591	-547	-514
Other IFRS adjustments	467	447	578
Share of the profit/loss of joint ventures	-2,194	899	1,280
<b>Total (IFRS)</b>	<b>-52,023</b>	<b>1,952</b>	<b>-19,653</b>

### Assets by segments

EUR 1,0000	30 Sep 2022	30 Sep 2021	31 Dec 2021
Nuclear power	7,343,741	6,961,334	7,155,886
<b>Total (FAS)</b>	<b>7,343,741</b>	<b>6,961,334</b>	<b>7,155,886</b>
The impact of the nuclear waste management obligation	1,360,717	1,128,678	1,478,313
The impact of financial instruments	189,044	7,545	11,113
The impact of finance leases	46,574	48,828	47,953
Other IFRS adjustments	-39,618	-34,682	-35,506
Share of the profit/loss of joint ventures	2,310	4,124	4,504
<b>Total (IFRS)</b>	<b>8,902,768</b>	<b>8,115,827</b>	<b>8,662,263</b>

## Property, plant and equipment

### Changes in property, plant and equipment

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
<b>Opening net book amount</b>	<b>6,177,755</b>	<b>5,664,650</b>	<b>5,664,650</b>
Increase	197,971	82,168	577,715
Decrease	-85,033	-14,052	-80,554
Depreciation and impairment charges	-34,402	-32,487	-43,588
Accumulated depreciation from deduction	1,994	0	59,532
<b>Closing net book amount</b>	<b>6,258,285</b>	<b>5,700,279</b>	<b>6,177,755</b>

### Changes in intangible assets

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
<b>Opening net book amount</b>	<b>2,543</b>	<b>2,589</b>	<b>2,589</b>
Increase	212	193	413
Decrease	-140	-52	-51
Depreciation and impairment charges	-303	-309	-408
<b>Closing net book amount</b>	<b>2,312</b>	<b>2,421</b>	<b>2,543</b>

The OL3 investment is decreased by the delay compensation and additional delay compensation in accordance with the settlement agreement. Additional delay compensation has been recorded as EUR 56.7 million for the period under review. Once the OL3 plant unit proceeds to commercial operation, approximately EUR 250 million will be transferred from the OL3 investment to the value of the nuclear fuel and uranium stock.

## 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 2021.

### DERIVATIVE FINANCIAL INSTRUMENTS

#### Nominal values of the derivative financial instruments

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
Interest rate swaps	2,324,117	1,924,117	1,944,117
Forward foreign exchange contracts and swaps <sup>1)</sup>	45,190	65,769	69,597
Cross-currency swaps	281,016	378,577	378,577
<b>Total</b>	<b>2,650,323</b>	<b>2,368,463</b>	<b>2,392,291</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 Sep 2022			30 Sep 2021			31 Dec 2021		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
Interest rate swaps									
Cash flow hedges	207,211	-240	206,971	10,222	-15,905	-5,684	16,641	-10,842	5,799
Fair value hedges	113	-24,305	-24,192	6,836		6,836	5,252		5,252
Non-hedges					-4,267	-4,267		-3,065	-3,065
Forward foreign exchange contracts and swaps									
Cash flow hedges	16,504	-977	15,527	9,538		9,538	11,111		11,111
Non-hedges	691	-370	321	973	-4	969	1,020	-95	925
Cross-currency swaps									
Non-hedges	508	-9,269	-8,761	8,981		8,981	7,752	-7	7,745
<b>Total</b>	<b>225,027</b>	<b>-35,161</b>	<b>189,867</b>	<b>36,550</b>	<b>-20,177</b>	<b>16,372</b>	<b>41,775</b>	<b>-14,008</b>	<b>27,767</b>

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

## TVO Group debt structure by maturity

30 Sep 2022 EUR 1,000	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031–	Total
Loans from financial institutes	15,206	50,608	426,104	426,104	26,104	26,104	11,818		16,510		998,558
Public bonds	23,000	205,665	644,900	500,000	650,000	675,000	600,000		23,000	215,000	3,536,565
Loans from other sources	56,117										56,117
Lease liabilities	167	2,057	1,931	43,618	8						47,782
Commercial papers											
<b>Total</b>	<b>94,491</b>	<b>258,330</b>	<b>1,072,935</b>	<b>969,722</b>	<b>676,111</b>	<b>701,104</b>	<b>611,818</b>		<b>39,510</b>	<b>215,000</b>	<b>4,639,021</b>

## TVO Group credit commitment by maturity

30 Sep 2022 EUR 1,000	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031–	Total
Syndicated revolving credit facility				1,000,000							1,000,000
Bilateral revolving credit facility											
Bilateral bank loan											
<b>Total</b>				<b>1,000,000</b>							<b>1,000,000</b>

The average interest rate on loans and derivatives on 30 September 2022 was 1.81 % (31 Dec 2021: 1.52 %).

On 30 September 2022, the Group had undrawn credit facilities amounting to EUR 1,000 million (2021: EUR 1,000 million). In addition, the Group had subordinated shareholder loan (hybrid equity) commitments totaling EUR 400 million (2021: EUR 400 million) and cash and cash equivalents amounting to EUR 194 million (2021: EUR 172 million).

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

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

EUR 1,000	30 Sep 2022		
	Level 1	Level 2	Level 3
<b>Financial assets at fair value</b>			
Derivative financial instruments at fair value through profit or loss		1,199	
Derivative financial instruments designated as cash flow hedges		223,715	
Derivative financial instruments designated as fair value hedges		113	
Investments in other shares <sup>1)</sup>			1,935
<b>Total</b>		<b>225,027</b>	<b>1,935</b>
<b>Financial liabilities at fair value</b>			
Derivative financial instruments at fair value through profit or loss		9,639	
Derivative financial instruments designated as cash flow hedges		1,217	
Derivative financial instruments designated as fair value hedges		24,305	
<b>Total</b>		<b>35,161</b>	

<sup>1)</sup> On 30 September 2022, TVO has unquoted shares worth EUR 1,935 (2021:1,935) thousand. Direct market prices are not available for unquoted shares and therefore their fair value is determined using methods based on management judgement.

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

EUR 1,000	31 Dec 2021		
	Level 1	Level 2	Level 3
<b>Financial assets at fair value</b>			
Derivative financial instruments at fair value through profit or loss		8,771	
Derivative financial instruments designated as cash flow hedges		27,752	
Derivative financial instruments designated as fair value hedges		5,252	
Investments in other shares <sup>1)</sup>			1,935
<b>Total</b>		<b>41,775</b>	<b>1,935</b>
<b>Financial liabilities at fair value</b>			
Derivative financial instruments at fair value through profit or loss		3,166	
Derivative financial instruments designated as cash flow hedges		10,842	
<b>Total</b>		<b>14,008</b>	

## 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	Financial liabilities measured at amortised cost	Book value	30 Sep 2022	
				Fair value
<b>Non-current liabilities</b>				
Other financial liabilities <sup>1)</sup>	4,255,593	4,255,593		3,977,230
<b>31 Dec 2021</b>				
EUR 1,000	Financial liabilities measured at amortised cost	Book value		Fair value
<b>Non-current liabilities</b>				
Other financial liabilities <sup>1)</sup>	3,877,192	3,877,192		3,953,937

<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 Sep 2022	30 Sep 2021	31 Dec 2021
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	988,947	1,013,467	1,010,071
Provision related to nuclear waste management (non-current liabilities)	1,283,130	1,013,467	1,368,291

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

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
Liability for nuclear waste management according to the Nuclear Energy Act	1,816,100	1,450,600	1,816,100
Funding target obligation	1,436,100	1,450,600	1,436,100
TVO's share in the Finnish State Nuclear Waste Management Fund	1,471,750	1,450,600	1,450,600
Difference between the liability and TVO's share of the Fund	344,350	0	365,500

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 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 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 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. As for 2021, no surplus was reimbursed to TVO from the Nuclear Waste Management Fund after the amendment to the Nuclear Energy Act (269/2021), although the fund target for nuclear waste management in 2022 was lower than the share in the Fund in 2021.

The refund for 2021, EUR 14.5 million, was used to cover the protected portion in accordance with the Nuclear Energy Act Section 52 c. According to the implementing provision of the law amendment, a profitable result of the Finnish State Nuclear Waste Management Fund for 2021 was not used to refund TVO's nuclear waste management fee, but it was also used to cover the protected portion. In order to supplement the legal protected portion, TVO provided the Nuclear Waste Management Fund with a separate cash security of EUR 7.4 million in addition to the surplus and profit. The nuclear waste management fee for 2022 will be confirmed in March 2023.

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 2021, the Ministry of Economic Affairs and Employment (MEAE) set TVO's liability for nuclear waste management at EUR 1,816.1 (1,450.6) million for the end of 2021 and TVO's funding target in the Finnish State Nuclear Waste Management Fund for 2022 at EUR 1,436.1 (1,450.6) million. In addition, the MEAE has decided that the liability for 2022 is EUR 1,791.9 million, of which EUR 1,409.0 million belongs to OL1/OL2 and EUR 382.9 million belongs to OL3.

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

TVO's share in the Finnish State Nuclear Waste Management Fund on 30 September 2022 is EUR 1,471.8 million. The carrying amount in the balance sheet is EUR 988.9 million. The difference is due to the fact that IFRIC 5 limits the carrying amount of TVO's interest in the Finnish State Nuclear Waste Management Fund to the amount of the related liability since TVO does not have control over the Finnish State Nuclear Waste Management Fund. As long as the Fund is overfunded from an IFRS perspective, the effects to operating profit from this adjustment will be positive if the provision increases more than the Fund, and negative if the actual value of the fund increases more than the provision. On 30 September 2022 the OL1/OL2 plant units' share in the Fund is higher than the provision according to IFRS, due to which the above-mentioned adjustment is recorded for the OL1/OL2 plant units' nuclear waste management IFRS calculation. The OL3 plant unit's share in the Fund on 30 September 2022 is in turn lower than the provision according to IFRS, and therefore the above-mentioned adjustment is not recorded.

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

## Obligations and other commitments

### Pledged promissory notes and financial guarantees

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	651,339	711,266	711,266
Guarantees given by shareholders related to the nuclear waste management obligation	534,990	480,670	480,670

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

### Investment commitments

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

EUR 1,000	30 Sep 2022	30 Sep 2021	31 Dec 2021
OL1 and OL2	88,100	85,100	84,700
OL3	355,800	431,900	401,500
<b>Total</b>	<b>443,900</b>	<b>517,000</b>	<b>486,200</b>

### Pending Court Cases and Disputes

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

