

INTERIM REPORT JANUARY-SEPTEMBER

2021

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Teollisuuden Voima Oyj's Interim Report January 1–September 30, 2021

During the first three quarters of 2021, Teollisuuden Voima's (TVO) electricity generation at the Olkiluoto 1 (OL1) and Olkiluoto 2 (OL2) plant units continued safely and reliably.

The fuel loading of the Olkiluoto 3 EPR plant unit (OL3 EPR) was completed in April 2021. Due to extended turbine overhaul and inspection works, the plant unit will be connected to the national grid in February 2022, and regular electricity production starts in June 2022 according to the updated schedule received from the plant supplier Areva–Siemens consortium in August 2021.

The agreements regarding the amendments to the OL3 EPR project 2018 Global Settlement Agreement signed by TVO and the Areva–Siemens consortium entered into force in July 2021 when all conditions were fulfilled.

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

The TVO Group has taken extensive measures to prevent the spread of coronavirus (COVID-19) infections. Despite of COVID-19 restrictions, work has been able to continue under special arrangements.

Operating Environment

The work on drafting the EU's Sustainable Finance Taxonomy criteria for nuclear power continues. After the Joint Research Centre's (JRC) assessment of nuclear energy and the subsequent reviews by The European Commission's ad-hoc expert group and Euratom Art. 31 expert group, the preparatory work continues in the Commission. However, little progress has been made during the August summer vacation period. The schedule of the complementary delegated act is still uncertain – the Commission has stated that it intends to publish it as soon as possible.

The Commission published its so-called "Fit for 55" package in July 2021. The package contains the Commission's legislative proposals for achieving the EU's recently revised 55 percent emissions reduction target. Most of the proposals are overhauls of existing legislation such as the Emissions Trading System and the Renewable Energy Directive. New proposals include the carbon tariff for selected major imports into the EU, including electricity.

The Finnish Government gave a government proposal (HE 117/2021 vp) to the Parliament in September 2021 regarding law amendments to the Nuclear Liability Act and the Act Amending the Nuclear Liability

Act. In the proposal, it is suggested that that the maximum liability of the operator of a nuclear plant as referred to in the Nuclear Liability Act for a nuclear incident outside of Finland should be increased to EUR 1,200 million for nuclear plants used in energy production. The liability of the operator of a nuclear plant for a nuclear incident in Finland will stay unlimited. For nuclear plants used for other purposes than energy production and for the transportation of nuclear materials, the maximum liability would be EUR 80–250 million. The laws are meant to enter into force through a government decree simultaneously when the amendments to the Paris Convention and the Brussels Convention Supplementary to the Paris Convention enter into force for Finland.

Financial Performance

TVO operates on a cost-price principle (Mankala principle). The shareholders are charged incurred costs on 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 January 1–September 30, 2021 was EUR 233.2 (January 1–September 30, 2020: EUR 216.3) million.

The amount of electricity delivered to shareholders was 10,467.9 (10,934.4) GWh. The lower delivery volume of the Olkiluoto plant units was due to longer outages compared to the previous year.

The consolidated profit/loss was EUR 2.0 (14.9) million. The profit/loss for the review period is affected by the updated decommissioning plan of the nuclear power plants, as well as the fixed costs charged from shareholders, which are higher than the incurred costs, and will be compensated to the shareholders by the end of the year. According to the Nuclear Energy Act, a licensee must regularly, at least every six years, present an update of the decommissioning plan for the approval of the Ministry of Economic Affairs and Employment (MEAE) during the continuation of operations based on an operating licence.

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 lent to shareholders, amounted to EUR 5,062.0 (December 31, 2020: 5,109.3) million, of which EUR 929.3 (929.3) million were subordinated shareholder loans. TVO raised a total of EUR 600.0 (September 30, 2020: EUR 320.0) million in non-current liabilities and repaid non-current liabilities in the amount of EUR 551.3 (346.3) million.

TVO has a syndicated revolving credit facility of EUR 1,000 million which matures in 2024.

TVO has agreed that the maturities of bilateral bank loans totaling EUR 775 million have been extended from 2022 and 2023 to 2024. Of these, a EUR 75 million loan has been repaid prematurely.

TVO issued in June a EUR 600 million seven-year bond with an annual coupon of 1.375 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 500 million Notes due in January 2023 to tender their Notes for purchase by TVO for cash. The tender offer results were announced on June 22, 2021. The aggregate principal amount validly offered for purchase by the noteholders was EUR 177,223,000. TVO accepted all valid instructions pursuant to the tender offer.

The OL3 EPR project's share of financing costs has been capitalized 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 September 30, 2021, the amount of the loan was EUR 711.3 (December 31, 2020: 716.4) million and it has been lent to TVO's A series shareholders. On March 31, 2021, the loan from the Finnish State Nuclear Waste Management Fund was decreased by EUR 5.1 (March 31, 2020: increased 125.0) million.

The credit rating agency S&P Global Ratings (S&P) affirmed on April 1, 2021 its long-term credit rating BB for TVO, and changed the outlook from negative to positive. According to S&P, the completion of fuel loading at the OL3 EPR plant unit is a significant sign of progress on the project.

Olkiluoto 1 and Olkiluoto 2

The electricity production of the Olkiluoto nuclear power plant units OL1 and OL2 during the period under review was 10,487 (10,869) GWh. The total load factor was 90.1 (93.1) percent.

The OL1 and OL2 plant units operated safely and reliably during the period under review. OL1’s net production was 5,423 (5,339) GWh and the load factor 93.2 (91.4) percent. OL2’s net production was 5,063 (5,530) GWh and the load factor 87.0 (94.7) percent.

Annual Outages

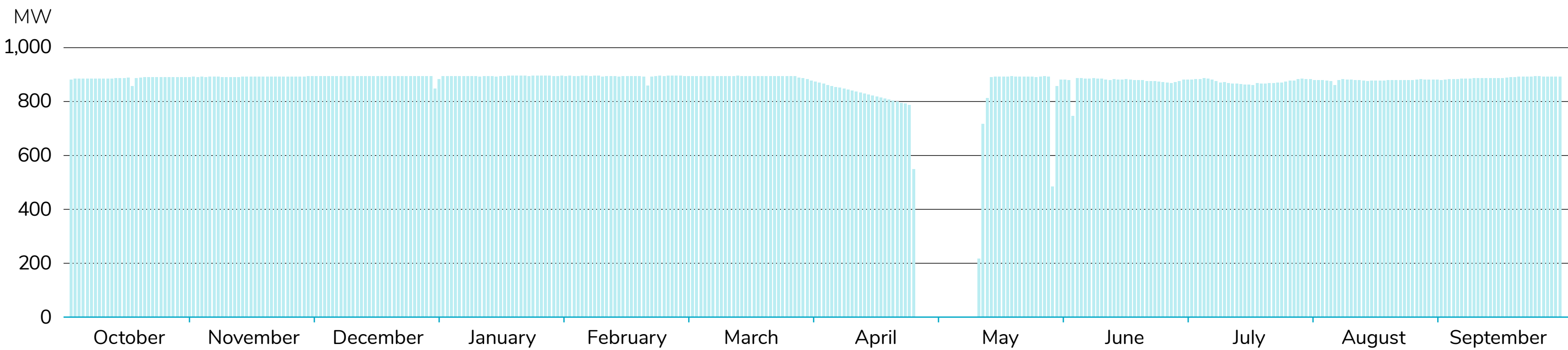
The refueling and maintenance outages carried out at the plant units on alternating years are designed to ensure that a good level of operability and production is maintained at the Olkiluoto nuclear power plant at all times.

The annual outages 2021 at the Olkiluoto nuclear power plant were carried out with special arrangements in place in order to prevent COVID-19 infections on the power plant site. A refueling outage was carried out at the OL1 plant unit, which started on April 25 and ended on May 11. In addition to refueling, the annual outage of the OL1 plant unit consisted of several other tasks, some of which were postponed from last year’s annual outages due to the COVID-19 pandemic. Tasks included the main transformer replacement and a pressure test of the reactor primary circuit.

The OL2 plant unit underwent a maintenance outage, which started on May 16 and ended on June 18. In addition to refueling, major tasks during the maintenance outage included pump and piping replacements in the shut-down cooling system, replacement of containment electrical

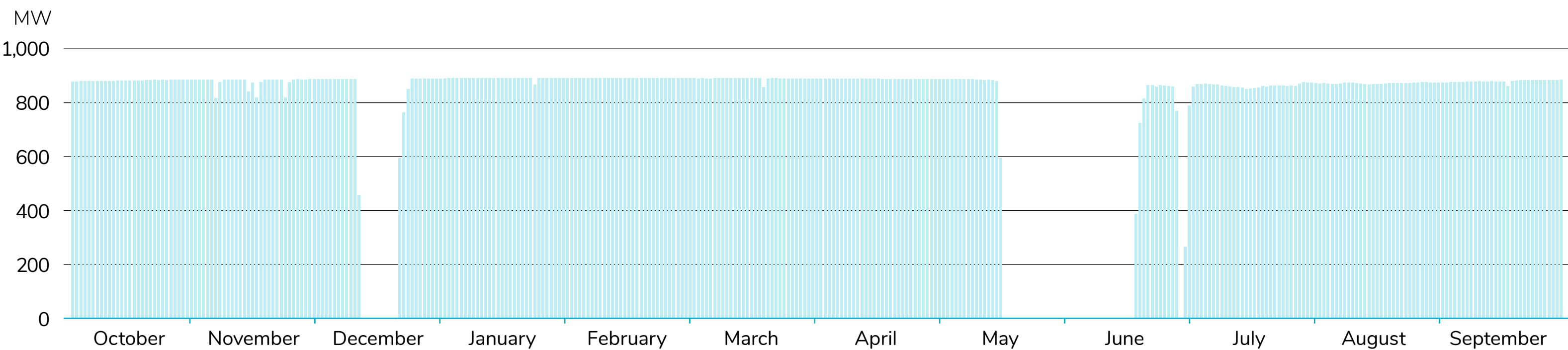
Olkiluoto 1

Average electrical power
October 1, 2020–September 30, 2021



Olkiluoto 2

Average electrical power
October 1, 2020–September 30, 2021



penetration modules, feed water system recirculation line modification, containment leak-tightness test, and inspection and vacuum cleaning of the reactor pressure vessel bottom.

Olkiluoto 3 EPR

OL3 EPR, currently under construction, 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 settlement agreement 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 settlement agreement concerned the completion of the OL3 EPR project and related disputes, and it entered into force in late March 2018. The supplier consortium companies committed to ensuring that the funds dedicated to the completion of the OL3 EPR 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 EPR project. During the period under review, replenishing the trust was finished according to the terms of the 2018 Global Settlement Agreement (GSA), but it was replenished according to the amendment agreement which entered into force in July 2021 (see further below).

TVO and the Areva–Siemens consortium negotiated since summer 2020 on the terms of the OL3 EPR project completion. In addition, the Areva companies were preparing a financial solution which ensured the necessary funding for the companies to complete the OL3 EPR project. The parties reached a consensus in their negotiations regarding the

main principles of the OL3 EPR project completion in May 2021, and the agreements regarding the amendments to the OL3 EPR project 2018 GSA were signed in June 2021. Certain conditions had to be fulfilled in order for the agreements to enter into force, and all conditions were fulfilled on July 13, 2021.

Key matters of the agreement were:

- The Areva companies' trust mechanism, established in the GSA of 2018, was replenished in July with EUR 432.3 million.
- Both parties are to cover their own costs as of July 2021 until end of February 2022.
- In the case that the plant supplier consortium companies would not complete the OL3 EPR project until the end of February 2022, they would pay an additional compensation to TVO for delays, depending on the date of completion.
- In connection with the agreement entering into force, the plant supplier paid EUR 206.9 million of the EUR 400.0 million delay compensation as agreed in the GSA 2018.

The Radiation and Nuclear Safety Authority (STUK) granted a fuel loading permit for the OL3 EPR plant unit in March 2021, and the fuel loading was completed in April 2021. The completion of fuel loading meant that the OL3 EPR plant unit is a nuclear power plant in use. Due to extended turbine overhaul and inspection works, the plant unit will be connected to the national grid in February 2022, and regular electricity production starts in June 2022 according to the updated schedule received from the plant supplier Areva–Siemens consortium in August 2021.

The turbine overhaul at the OL3 EPR plant unit was initiated because of a jammed turbine. The cause was located to one of the three low pressure turbines. Inspections revealed that the low pressure turbine's

inner casing and rotor were damaged. The damages had been caused by the rotor touching the turbine's inner casing. During the overhaul, one of the low pressure turbine's rotors is replaced, and inspection work and small modifications are taking place at all of the low pressure turbines. The work has progressed according to plan. TVO is supporting the plant supplier in the overhaul and inspection works.

Before the startup of the reactor, the plant supplier is inspecting a deviation observed in the fuel.

In connection with the start of fuel loading, publishing the power output of the OL3 EPR plant unit was started on TVO's website. Publishing the power output will continue on the website until the start of the plant unit's regular electricity production. A market message will be published in NordPool also in the future regarding any significant changes.

At the end of the reporting period, the workforce at the construction site was approximately 1,600 people. Despite the COVID-19 pandemic, work at the OL3 EPR site has continued under special arrangements. The occupational safety at the site remained at a good level.

All realized costs of the OL3 EPR project that can be recognized 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 52.0 (65.6) million and the amount consumed to EUR 44.7 (45.4) million.

The nuclear fuel and uranium stock carrying value on September 30, 2021 was EUR 272.9 (December 31, 2020: 265.6) 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 1,013.5 (December 31, 2020: 1,029.5) million, calculated according to the international IFRS accounting principles. A corresponding amount, under assets, represents TVO's share in the Finnish State Nuclear Waste Management Fund.

In order to cover the 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 November 2020, the MEAE set TVO's liability for nuclear waste management at EUR 1,450.6 (1,471.4) million to the end of 2020 and TVO's funding target in the Finnish State Nuclear Waste management Fund for 2021 at EUR 1,450.6 (1,471.4) million. In addition, the MEAE has decided that the liability for 2021 is EUR 1,755.7 million, of which EUR 1,394.2 million belongs to OL1/OL2 and EUR 361.5 million belongs to OL3 EPR.

In March 2021, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee refund for 2020 at EUR 28.7 (refund 42.3) million, which the Fund reimbursed to TVO on March 31, 2021 (reimbursed by the Fund on March 31, 2020). The nuclear waste management fee for 2021 will be confirmed in March 2022.

The investment activities of the Nuclear Waste Management Fund in accordance with the renewed Nuclear Energy Act start in 2022.

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 (Olkiluoto NPP) and Fortum (Loviisa NPP).

Work at Posiva's encapsulation plant site and final disposal facility at ONKALO has progressed despite of measures to prevent the spread of COVID-19 infections. Detailed planning of the plant systems has continued with the preparation of construction plans for safety-classified systems and their processing by the authorities. The supplier selection for key equipment of the encapsulation plant is mostly done, and the design and manufacturing of equipment is progressing.

In May 2021, the excavation of the five first deposition tunnels started in ONKALO. STUK has verified that the preconditions specified for starting the work have been fulfilled.

Acquisitions of Tangible and Intangible Assets and Shares

Investments during the period under review were EUR 82.4 (31.0) million. Investments of the parent company were EUR 81.9 (22.1) million, of which EUR 41.8 (-10.3) million were allocated to the OL3 EPR project. The OL3 EPR investment is decreased by the additional compensation in accordance with the GSA, which has been recorded as EUR 160.0 million for the period under review. By the end of the review period, a total of EUR 400.0 million has been recorded in additional compensation, which is the compensation in full.

Hitachi ABB Power Grids and TVO have signed a contract 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 EPR plant unit, thus minimizing the effect of power fluctuations on the grid. The battery energy storage system will be commissioned in 2022.

During the review period, there were no purchases of carbon dioxide emission rights (EUR 1.7 million).

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. The allocation of responsibility between the parties concerning the abovementioned additional costs and delays are to be resolved in the same proceedings.

TVO received in July 2021 Wärtsilä's counterclaim in the pending arbitration proceedings. Wärtsilä's monetary claim of additional costs is approximately EUR 40 million. TVO considers claims made by Wärtsilä to be without merit and will respond to them in due course.

TVO has not recorded any receivables or provisions on the basis of claims presented in the arbitration proceedings.

Personnel

The total number of personnel in the Group at the end of the period under review was 982 (December 31, 2020: 975, September 30, 2020: 968). The number of permanent employees in the Group at the end of the period under review was 956 (December 31, 2020: 956, September 30, 2020: 946).

M.Sc (Tech.), D.Sc (Tech.) Veli-Pekka Nurmi has been appointed as TVO's new Senior Vice President for Safety and Security Services as of January 1, 2022. TVO's current Senior Vice President for Safety and Security Services, M.Sc (Tech.) Mikko Kosonen, has been appointed as a Corporate Advisor as of January 1, 2022, and he will retire during the summer 2022.

Annual General Meeting

TVO's Annual General Meeting on March 31, 2021 approved the financial statements for 2020, confirmed the consolidated income statement and balance sheet, and discharged the members of the Board of Directors and the President and CEO from liability.

Hannu Jokinen and Petra Lundström were elected as new Board members, replacing Risto Andsten and Markus Rauramo. Other Board members were re-elected. At its organization meeting, the Board elected Ilkka Tykkyläinen as Chairman and Tiina Tuomela as Deputy Chairman. The Board also chose from among its members the members and chairmen of the Board Committees.

Extraordinary General Meeting

At TVO's Extraordinary General Meeting held on May 28, 2021, it was decided to approve the agreements regarding the amendments to the OL3 EPR project 2018 GSA with the plant supplier consortium companies, Areva NP, Areva GmbH, and Siemens AG, as well as the Areva Group parent company Areva SA.

Changes in Owner Structure

A change took place in TVO's shareholding on July 1, 2021, when Oy Mankala Ab bought all of the A and B series shares of Loiste Holding Oy. After the purchase, Oy Mankala Ab's relative shareholding of TVO's shares grew from 8.1379 percent to 8.2079 percent.

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 2020 Report of the Board of Directors.

The OL3 EPR plant unit's fuel loading was completed in April 2021. According to the schedule updated by the plant supplier in August 2021, the OL3 EPR plant unit will be connected to the national grid in February 2022, and regular electricity production starts in June 2022. As the OL3 EPR project is still ongoing, no assurance can be given that further delays would not materialize prior to completion of the OL3 EPR project.

An exit strategy related to the COVID-19 pandemic has been introduced in Olkiluoto together with the previous contingency plan. The aim of the exit strategy is to gradually lighten measures and instructions implemented in the TVO Group to prevent the spread of COVID-19. The Group is constantly assessing the situation, and its guidelines and practices comply with the guidelines and decisions of the Finnish Institute for Health and Welfare (THL) and the Finnish Government. Changes in the situation of the pandemic either globally or locally may cause divergent arrangements in the Group's operations also throughout the rest of the year.

Assessment of Year-End Developments

In the current financial year, electricity production is expected to continue as in previous years. The prerequisites for nuclear power production at Olkiluoto are good. Nuclear fuel availability is guaranteed by long-term agreements.

Preparing the OL3 EPR plant unit for production will be continued. After fuel loading, maintenance and finalization work as well as tests are continued. The most important test is the hot functional test, in which the reactor and turbine island is tested for use. During testing, dozens of separate tests are performed with different pressure and temperature levels. The hot functional test will be continued after the ongoing turbine overhaul. TVO will continue to support the plant supplier in completing the project.

Posiva continues the implementation of the final disposal plant project. The excavation work and technical acquisitions at the final disposal facility are progressing. Building and installation work as well as the qualification and production of equipment is taking place at the encapsulation plant. The operating licence application, which enables the beginning of final disposal activities, is being prepared for submittal.

The COVID-19 pandemic can cause uncertainty towards the end of the year and divergent arrangements in the Group's operations throughout the rest of the year.

Events after the Period under Review

No events after the period under review.

October 15, 2021

Teollisuuden Voima Oyj
Board of Directors

Key Figures of TVO Group

TVO Group (IFRS) (M€)	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Turnover	233	216	275
Profit/loss for the period	2	15	0
Investments ¹⁾	82	31	56
Equity	2,073	1,814	2,043
Subordinated shareholder loans (hybrid equity) (included in the former) ³⁾	929	679	929
Non-current and current interest-bearing liabilities (excluding loan from VYR) ²⁾	4,202	4,366	4,281
Loan from VYR ²⁾	711	716	716
Provision related to nuclear waste management	1,013	1,038	1,030
Balance sheet total	8,116	8,065	8,181
Equity ratio % ⁴⁾	32.4	28.7	31.7
Average number of personnel	1,011	987	984

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

⁴⁾ 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€)

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

	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Turnover	229	214	271
Profit/loss before appropriations	-13	17	8
Fuel costs	45	45	64
Nuclear waste management costs	22	19	28
Capital expenditure (depreciation and financial income and expenses)	28	25	34
Investments ¹⁾	82	22	52
Equity	861	862	861
Appropriations	210	206	197
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) ²⁾	4,133	4,278	4,180
Loans from equity holders of the company ³⁾	929	679	929
Loan from VYR ²⁾	711	716	716
Balance sheet total	6,961	6,871	6,995
Equity ratio % ⁴⁾	32.0	28.4	31.7
Average number of personnel	1,009	986	983

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

Electricity delivered to equity holders of the company (GWh)	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Nuclear power	10,468	10,852	14,563
Coal-fired power	0	82	82
Total	10,468	10,934	14,645

Consolidated financial statement in brief and notes

Consolidated income statement

EUR 1,000	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Turnover	233,183	216,334	275,120
Work performed for own purposes	18,489	15,033	21,217
Other income	9,527	9,058	13,253
Materials and services	-57,932	-49,210	-78,230
Personnel expenses	-60,784	-52,524	-72,493
Depreciation and impairment charges	-32,796	-34,106	-45,461
Other expenses	-82,606	-67,545	-86,183
Operating profit/loss	27,081	37,040	27,223
Finance income	9,139	8,492	11,616
Finance expenses	-35,167	-31,382	-39,517
Total finance income and expenses	-26,028	-22,890	-27,901
Share of the profit/loss of joint ventures	899	772	1,132
Profit/loss before income tax	1,952	14,922	454
Profit/loss for the period	1,952	14,922	454
Profit/loss for the period attributable to:			
Equity holders of the company	1,952	14,922	454

Consolidated statement of comprehensive income

EUR 1,000	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Profit/loss for the period	1,952	14,922	454
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges	31,506	-16,645	-21,994
Total other comprehensive profit/loss items for the period	31,506	-16,645	-21,994
Total comprehensive profit/loss for the period	33,458	-1,723	-21,540
Total comprehensive profit/loss for the period attributable to:			
Equity holders of the company	33,458	-1,723	-21,540

Consolidated statement of financial position

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Assets			
Non-current assets			
Property, plant and equipment	5,700,279	5,652,806	5,664,650
Intangible assets	2,421	2,590	2,589
Loans and other receivables	714,106	893,393	959,286
Investments in joint ventures	5,135	3,875	4,236
Investments in shares	1,934	1,934	1,934
Derivative financial instruments	32,724	21,310	28,516
Share in the Finnish State Nuclear Waste Management Fund	1,013,467	1,037,832	1,029,522
Total non-current assets	7,470,066	7,613,740	7,690,733
Current assets			
Inventories	281,547	290,303	274,215
Trade and other receivables	243,855	37,742	52,231
Derivative financial instruments	3,826	3,808	2,515
Cash and cash equivalents	116,533	119,894	161,363
Total current assets	645,761	451,747	490,324
Total assets	8,115,827	8,065,487	8,181,057
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	4,134	-22,023	-27,372
Subordinated shareholder loans (hybrid equity)	929,300	679,300	929,300
Retained earnings	296,761	314,059	298,272
Total equity	2,072,943	1,814,084	2,042,948

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Liabilities			
Non-current liabilities			
Provision related to nuclear waste management	1,013,467	1,037,832	1,029,522
Loan from the Finnish State Nuclear Waste Management Fund	711,266	716,447	716,447
Bonds	2,893,967	2,703,469	2,720,218
Other financial liabilities	883,070	1,102,045	1,092,051
Derivative financial instruments	18,898	46,961	40,413
Total non-current liabilities	5,520,668	5,606,754	5,598,651
Current liabilities			
Current financial liabilities	404,783	513,195	427,211
Derivative financial instruments	1,279	678	1,598
Advance payments received	19,789	17,475	19,789
Trade payables	7,947	38,391	8,330
Other current liabilities	88,418	74,910	82,530
Total current liabilities	522,216	644,649	539,458
Total liabilities	6,042,884	6,251,403	6,138,109
Total equity and liabilities	8,115,827	8,065,487	8,181,057

Consolidated statement of changes in equity

EUR 1,000	Share capital	Share premium reserve and statutory reserve	Reserve for invested non-restricted equity	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2021	600,365	242,383	0	-27,372	929,300	298,272	2,042,948	2,042,948
Profit/loss for the period	0	0	0	0	0	1,952	1,952	1,952
Other comprehensive profit/loss items:								
Cash flow hedges	0	0	0	31,506	0	0	31,506	31,506
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	0	-3,463	-3,463	-3,463
Equity 30 Sep 2021	600,365	242,383	0	4,134	929,300	296,761	2,072,943	2,072,943

EUR 1,000	Share capital	Share premium reserve and statutory reserve	Reserve for invested non-restricted equity	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2020	600,365	242,383	3	-5,378	679,300	302,724	1,819,397	1,819,397
Profit/loss for the period	0	0	0	0	0	14,922	14,922	14,922
Other comprehensive profit/loss items:								
Cash flow hedges	0	0	0	-16,645	0	0	-16,645	-16,645
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	0	-3,587	-3,587	-3,587
Acquisition of own shares	0	0	-3	0	0	0	-3	-3
Equity 30 Sep 2020	600,365	242,383	0	-22,023	679,300	314,059	1,814,084	1,814,084

EUR 1,000	Share capital	Share premium reserve and statutory reserve	Reserve for invested non-restricted equity	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2020	600,365	242,383	3	-5,378	679,300	302,724	1,819,397	1,819,397
Profit/loss for the financial year	0	0	0	0	0	454	454	454
Other comprehensive profit/loss items:								
Cash flow hedges	0	0	0	-21,994	0	0	-21,994	-21,994
Subordinated shareholder loans (hybrid equity)	0	0	0	0	250,000	0	250,000	250,000
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	0	-4,906	-4,906	-4,906
Acquisition of own shares	0	0	-3	0	0	0	-3	-3
Equity 31 Dec 2020	600,365	242,383	0	-27,372	929,300	298,272	2,042,948	2,042,948

Consolidated statement of cash flows

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Operating activities			
Profit/loss for the period	1,952	14,922	454
Adjustments:			
Finance income and expenses	26,028	22,889	27,901
Depreciation and impairment charges	32,796	34,106	45,461
Share of the profit/loss of joint ventures	-899	-772	-1,132
Other non-cash flow income and expenses	-18,171	-28,957	-29,268
Sales profit/loss of property, plant and equipment and shares	0	-51	-51
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	-972	35,115	21,527
Increase (-) or decrease (+) in inventories	-7,313	-20,554	-4,465
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	4,683	10,276	-9,191
Interest paid and other finance expenses	-3,311	-2,922	-3,896
Dividends received	0	4,270	4,270
Interest received	3,939	3,213	3,217
Cash flow from operating activities	38,732	71,535	54,827
Investing activities			
Acquisition of property, plant and equipment	-238,103	-181,368	-273,590
OL3 EPR Project compensation	206,875	0	0
Proceeds from sale of property, plant and equipment	0	127	127
Acquisition of intangible assets	-194	-678	-741
Loan receivables granted	0	-125,005	-125,138
Repayments of loans granted	5,180	0	240
Cash flow from investing activities	-26,242	-306,924	-399,102

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Financing activities			
Acquisition of own shares	0	-3	-3
Withdrawals of subordinated shareholder loans (hybrid equity)	0	0	250,000
Withdrawals of long-term loans	600,000	445,005	228,715
Repayment of long-term loans	-556,476	-346,275	-255,481
Principal elements of lease payments	-2,022	-1,961	-2,052
Interest paid of subordinated shareholder loans (hybrid equity)	-2,870	-2,788	-4,818
Increase (-) or decrease (+) in interest-bearing receivables	0	2,030	2,030
Increase (+) or decrease (-) in current financial liabilities	93,878	21,443	349,415
Repayment of current financial liabilities	-189,830	0	-300,000
Cash flow from financing activities	-57,320	117,451	267,806
Change in cash and cash equivalents	-44,830	-117,938	-76,469
Cash and cash equivalents at the beginning of period	161,363	237,832	237,832
Cash and cash equivalents at the end of period	116,533	119,894	161,363

Notes to the Interim Report

Accounting policies

The interim financial statements have been prepared in accordance with 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 December 31, 2020. Additionally the changes according to the revised IAS/IFRS standards have been adopted. The coronaviruspandemic has not affected materially accounting policies nor reporting numbers.

Management's critical accounting estimates and assumptions

The preparation of Interim Report requires 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 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 December 31, 2020.

Olkiluoto 3 EPR

TVO's management has estimated that TVO is entitled to receive the compensation of EUR 400.0 million agreed in the comprehensive settlement agreement from Plant Supplier assuming that the start of regular electricity production of the OL3 EPR nuclear power plant unit will take place in February 2022. For the review period, TVO has recognized current receivables EUR 160.0 million. During the period under review, the Plant Supplier paid EUR 206.9 million of the EUR 400.0 million delay, therefore the non-interest-bearing receivables from the Plant Supplier amounts of EUR 193.1 million. The compensation decreases the historical costs of property, plant and equipment in the balance sheet.

Segment reporting

Segment structure in TVO

The Group has one reportable segment; nuclear power.

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

The electricity of coal-fired power segment was produced in 2020 by TVO share at the Meri-Pori coal-fired power plant. Fortum used TVO's share of the Meri-Pori capacity as of the beginning of 2019. TVO renounced its share of Meri-Pori's capacity in the beginning of July 2020 and acquired all the C-series shares it owns. All the C-series shares have been cancelled in July 2020.

Segment calculation principles

TVO Group discloses in the segment information; turnover, profit/loss for the period and assets, which the chief operation decision maker follows.

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

Turnover by segments

EUR 1,000	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Nuclear power	233,183	210,521	269,308
Coal-fired power	0	5,813	5,812
Total	233,183	216,334	275,120

Profit/loss for the period by segments

EUR 1,000	Q1-Q3 2021	Q1-Q3 2020	Q1-Q4 2020
Nuclear power	13,388	17,291	8,560
Coal-fired power	0	0	0
Profit/loss before appropriations (FAS)	13,388	17,291	8,560
The impact of the nuclear waste management obligation	-12,235	584	-5,962
The impact of financial instruments	-547	-11	338
Other IFRS adjustments	447	556	656
Share of the profit/loss of joint ventures	899	-3,498	-3,138
Total (IFRS)	1,952	14,922	454

Assets by segments

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Nuclear power	6,961,334	6,871,251	6,995,740
Coal-fired power	0	0	0
Total (FAS)	6,961,334	6,871,251	6,995,740
The impact of the nuclear waste management obligation	1,128,678	1,171,825	1,156,968
The impact of financial instruments	7,545	-1,016	6,586
The impact of finance leases	48,828	50,571	49,701
Other IFRS adjustments	-34,682	-30,008	-31,163
Share of the profit/loss of joint ventures	4,124	2,864	3,225
Total (IFRS)	8,115,827	8,065,487	8,181,057

Property, plant and equipment and intangible assets

Changes in property, plant and equipment

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Opening net book amount	5,664,650	5,663,306	5,663,306
Increase	82,168	28,579	53,413
Decrease	-14,052	-5,281	-16,163
Depreciation and impairment charges	-32,487	-33,798	-45,048
Accumulated depreciation from deduction	0	0	9,142
Closing net book amount	5,700,279	5,652,806	5,664,650

Changes in intangible assets

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Opening net book amount	2,589	5,961	5,961
Increase	193	2,378	2,483
Decrease	-52	-5,441	-5,715
Depreciation and impairment charges	-309	-308	-413
Accumulated depreciation from deduction	0	0	273
Closing net book amount	2,421	2,590	2,589

The OL3 EPR investment is decreased by the additional compensation in accordance with the Global Settlement Agreement (GSA), which has been recorded as EUR 160.0 million for the review period. The additional compensation in accordance with the GSA has been recorded as EUR 400.0 million in total.

Nuclear fuel to be used during electricity production, totaling approximately EUR 250 million, will be part of current assets when the OL3 EPR plant unit starts 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 December 31, 2020.

Derivative financial instruments

Nominal values of the derivative financial instruments

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Interest rate swaps	1,924,117	1,974,117	2,024,117
Forward foreign exchange contracts and swaps ¹⁾	65,769	81,492	85,753
Cross-currency swaps	378,577	378,577	378,585
Total	2,368,463	2,434,186	2,488,455

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

Fair values of the derivative financial instruments ¹⁾

EUR 1,000	30 Sep 2021			30 Sep 2020			31 Dec 2020		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
Interest rate swaps									
Cash flow hedges	10,222	-15,905	-5,684		-32,370	-32,370	114	-33,763	-33,649
Fair value hedges	6,836		6,836	11,806		11,806	10,709		10,709
Non-hedges		-4,267	-4,267		-6,764	-6,764		-6,460	-6,460
Forward foreign exchange contracts and swaps									
Cash flow hedges	9,538		9,538	10,369	-193	10,175	7,324	-1,218	6,106
Non-hedges	973	-4	969	1,540	-38	1,502	1,497	-71	1,426
Cross-currency swaps									
Non-hedges	8,981		8,981	1,403	-8,274	-6,871	11,387	-499	10,888
Total	36,550	-20,177	16,372	25,117	-47,639	-22,521	31,031	-42,011	-10,980

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

TVO Group debt structure by maturity

30 Sep 2021

EUR 1,000	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030-	Total
Loans from financial institutes	15,206	48,308	50,608	626,104	26,104	26,104	26,104	11,818			830,356
Public bonds		250,561	311,777	644,900	500,000	650,000	75,000	600,000		88,000	3,120,238
Loans from other sources		56,117									56,117
Lease liabilities	88	2,106	2,106	1,848	43,553						49,702
Commercial papers	72,270	53,748									126,018
Total	87,564	410,840	364,491	1,272,852	569,657	676,104	101,104	611,818		88,000	4,182,430

TVO Group credit commitment by maturity

30 Sep 2021

EUR 1,000	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030-	Total
Syndicated revolving credit facility				1,000							1,000
Bilateral revolving credit facility				100							100
Bilateral bank loan											
Total				1,100							1,100

The average interest rate on loans and derivatives on September 30, 2021 was 1.58 % (31 Dec 2020: 1.56 %).

On September 30, 2021 the Group had undrawn credit facilities amounting to EUR 1,100 million (Dec 31, 2020: EUR 1,270 million). In addition, the Group had subordinated shareholder loan (hybrid equity) commitments totaling EUR 400 million (Dec 31, 2020: EUR 400 million) and cash and cash equivalents amounting to EUR 117 million (Dec 31, 2020: EUR 161 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 2021		
	Level 1	Level 2	Level 3
Financial assets at fair value			
Derivative financial instruments at fair value through profit or loss		9,954	
Derivative financial instruments designated as cash flow hedges		19,760	
Derivative financial instruments designated as fair value hedges		6,836	
Investments in other shares ¹⁾			1,934
Total		36,550	1,934
Financial liabilities at fair value			
Derivative financial instruments at fair value through profit or loss		4,272	
Derivative financial instruments designated as cash flow hedges		15,905	
Total		20,177	

¹⁾ On September 30, 2021 TVO has unquoted shares worth EUR 1,934 (31 Dec 2020: 1,934) 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 2020		
	Level 1	Level 2	Level 3
Financial assets at fair value			
Derivative financial instruments at fair value through profit or loss		12,884	
Derivative financial instruments designated as cash flow hedges		7,438	
Derivative financial instruments designated as fair value hedges		10,709	
Investments in other shares ¹⁾			1,934
Total		31,031	1,934
Financial liabilities at fair value			
Derivative financial instruments at fair value through profit or loss		7,030	
Derivative financial instruments designated as cash flow hedges		34,981	
Total		42,011	

Fair value estimation

The derivative financial instruments are initially recognized 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 recognized 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

30 Sep 2021			
EUR 1,000	Financial liabilities measured at amortized cost	Book value	Fair value
Non-current liabilities			
Other financial liabilities ¹⁾	3,777,036	3,777,036	3,869,002
31 Dec 2020			
EUR 1,000	Financial liabilities measured at amortized cost	Book value	Fair value
Non-current liabilities			
Other financial liabilities ¹⁾	3,812,269	3,812,269	3,863,422

¹⁾ Bonds and EUR-fixed loans included

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

Assets and provision related to nuclear waste management obligation

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

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	1,013,467	1,037,832	1,029,522
Provision related to nuclear waste management (non-current liabilities)	1,013,467	1,037,832	1,029,522

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 2021	30 Sep 2020	31 Dec 2020
Liability for nuclear waste management according to the Nuclear Energy Act	1,450,600	1,471,400	1,450,600
Funding target obligation	1,450,600	1,471,400	1,450,600
TVO's share in the Finnish State Nuclear Waste Management Fund	1,450,600	1,471,400	1,478,800
Difference between the liability and TVO's share of the fund	0	0	-28,200

The costs of decommissioning of 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 profit/loss for the review period is affected by the updated decommissioning plan of the nuclear power plants. According to the Nuclear Energy Act, a licensee must regularly, at least every six years, present an update of the decommissioning plan for the approval of the Ministry of Economic Affairs and Employment (MEAE) during the continuation of operations based on an operating licence. 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 capitalized as property, plant and equipment and will be adjusted later for possible changes in the plan. The amount recognized relating to decommissioning will be depreciated over the estimated operating time of the nuclear power plant.

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. The difference between the funding obligation target decided by the Ministry of Economic Affairs and Employment (MEAE) and TVO's actual share of the Finnish State Nuclear Waste Management Fund is paid in Q1 each year. The nuclear waste management liability of TVO is lower in the end of 2020 than in the previous year based on the decrease of nuclear waste management's total cost estimate updated every three years. Thus, assets refunded in March 2021 from the Nuclear Waste Management Fund to TVO in respect of 2020 according to the rules of the Fund. Assets from the Nuclear Waste Management Fund is estimated to refund to TVO also in respect of 2021.

The MEAE has decided that the nuclear waste management liability for 2021 is EUR 1,755.7 million, of which EUR 1,394.2 million belongs to OL1/OL2 and EUR 361.5 million belongs to OL3 EPR. The calculation according to IAS 37 for the OL3 EPR plant unit's nuclear waste management liability is started and the related provision is recorded in the balance sheet once the plant unit achieves criticality and operations which produce nuclear waste begin. Once the plant unit achieves criticality, the plant unit is contaminated, which commences a constructive obligation (a cleansing obligation). According to the schedule, the first criticality of the OL3 EPR plant unit will be in January 2022.

TVO's share in the Finnish State Nuclear Waste Management Fund on September 30, 2021 is EUR 1,450.6 million. The carrying amount in the balance sheet is EUR 1,013.5 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 actual value of the fund increases more than the provision.

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

Obligations and other commitments

Pledged promissory notes and financial guarantees

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	711,266	716,447	716,447
Guarantees given by shareholders related to the nuclear waste management obligation	480,670	95,880	95,880

According to the Nuclear Energy Act 44 §, the company liable for nuclear waste management must assign securities to the state according to the terms stipulated by 45 § before operations which produce waste are initiated, and otherwise at the end of each June. The Ministry of Economic Affairs and Employment has accepted TVO's shareholder companies' absolute guarantees as securities to be assigned to the state once the OL3 EPR plant unit begins operations.

Investment commitments

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

EUR 1,000	30 Sep 2021	30 Sep 2020	31 Dec 2020
OL1 and OL2	85,100	90,300	88,600
OL3	431,900	426,400	433,900
Total	517,000	516,700	522,500

Pending Court Cases and Disputes

Pending Court Cases and Disputes are to be found on page 6.