

INTERIM REPORT JANUARY-SEPTEMBER

2020



tvo

Teollisuuden Voima Oyj's Interim Report January 1–September 30, 2020

DURING the first half of 2020, Teollisuuden Voima's (TVO) electricity generation at Olkiluoto 1 and Olkiluoto 2 plant units continued safely and reliably.

TVO has received in August 2020 an updated re-baseline schedule on the commissioning of the Olkiluoto 3 EPR (OL3 EPR) plant unit from the supplier Areva–Siemens consortium. According to the schedule, fuel will be loaded into the reactor in March 2021, the unit will be connected to the grid in October of the same year, and regular electricity production starts in February 2022. System testing, maintenance work, and the repair work of technical faults are continued at the OL3 EPR site as the plant unit is prepared for nuclear fuel loading.

The construction works of Posiva's encapsulation plant and final disposal facility 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 inclusion of nuclear power in the EU sustainable finance taxonomy will be decided in 2021. The Joint Research Centre's (JRC) upcoming report on the taxonomy eligibility of nuclear power will be assessed by separate expert groups under the Commission and the Euratom Treaty in spring 2021. The Commission will make the final decision on taxonomy eligibility by the end of 2021.

Both the EU's Multiannual Financial Framework (MFF) and the Next Generation EU (NGEU) stimulus package are due to be agreed before the end of 2020. More than a third of the NGEU package will be directed to actions in support of the Green Deal. The Commission published its new 2030 Climate Target Plan, in which it proposes to increase the EU's greenhouse gas emission reduction target from 40% to 55% compared to 1990 levels.

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, 2020 was EUR 216.3 (January 1–September 30, 2019: EUR 194.5) million. The higher fixed fee invoiced from shareholders during the period under review was mainly due to the Nuclear Waste Management fee (see Nuclear Waste Management).

The amount of electricity delivered to shareholders was 10,934.4 (10,951.7) GWh. The higher delivery volume of the Olkiluoto plant units was due to shorter outages compared to the previous year. The Meri-Pori power plant's electricity delivered was lower than in the previous year, and TVO renounced its share of Meri-Pori's capacity in the beginning of July 2020.

The consolidated profit/loss was EUR 14.9 (43.5) million. Updates to the cost estimate for the new nuclear waste management technical plan and schedule and changes of the provision regarding the nuclear waste management obligation affected the profit/loss and turnover for the previous year's review period.

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 relent to shareholders, totaled EUR 4,956.8 (December 31, 2019: 4,961.6) million, of which EUR 679.3 (679.3) million were subordinated shareholder loans. TVO raised a total of EUR

320.0 (EUR 100.0) million in non-current liabilities and repaid non-current liabilities in the amount of EUR 346.3 (293.5) million.

TVO has a syndicated revolving credit facility of EUR 1,300 million in total which consists of two tranches. EUR 1,000 million matures in 2023 and EUR 300 million matures in 2022. TVO has made a new 3-year bilateral bank loan of EUR 100 million in 2020. In addition, TVO has agreed to extend bilateral loans totaling EUR 500 million by approximately one year until 2023.

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, 2020, the amount of the loan was EUR 716.4 (December 31, 2019: 591.4) million and it has been relented to TVO's A-series shareholders. On March 31, 2020, the loan from the Finnish State Nuclear Waste Management Fund was increased by EUR 125.0 (March 29, 2019 decreased by 74.8) million.

On September 4, 2020, Standard & Poor's (S&P) placed its 'BB' long-term corporate credit rating on TVO on CreditWatch with negative implications.

Nuclear Power

Olkiluoto 1 and Olkiluoto 2

The electricity production of the Olkiluoto power plant units Olkiluoto 1 (OL1) and Olkiluoto 2 (OL2) during the period under review was 10,869 (10,805) GWh. The total load factor was 93.1 (92.9) %.

The plant units operated safely and reliably during the period under review. OL1's net production was 5,339 (5,567) GWh and the load factor 91.4 (95.7)%. OL2's net production was 5,530 (5,238) GWh and the load factor 94.7 (90.0)%.

Annual Outages

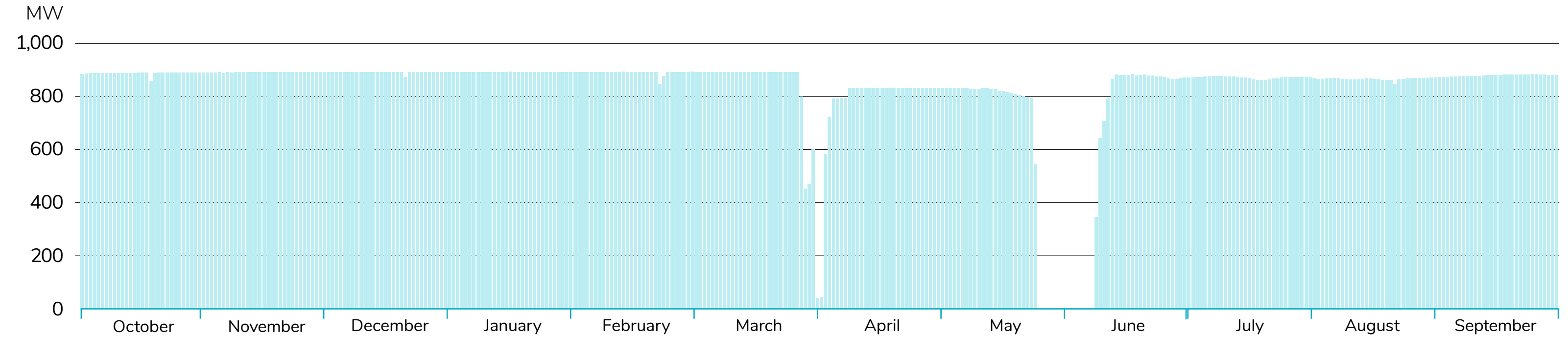
The refueling and maintenance outages carried out at the plant units on alternating years are designed to ensure that a good level of operability and production is maintained at the Olkiluoto nuclear power plant at all times.

The 2020 annual outages 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. The maintenance outage implemented at OL1 was adjusted in scope and duration from the original plan due to the exceptional circumstances. Extensive modernizations without safety or availability significance were transferred to be completed in upcoming outages. The duration of the outage at OL1 was circa 14 days, and the fuel exchange outage at OL2 lasted 11 days.

In addition to fuel exchange, the most significant works were the modernization of the bushing modules of the containment, the modernization of the valve actuator in the cooling system of the shut

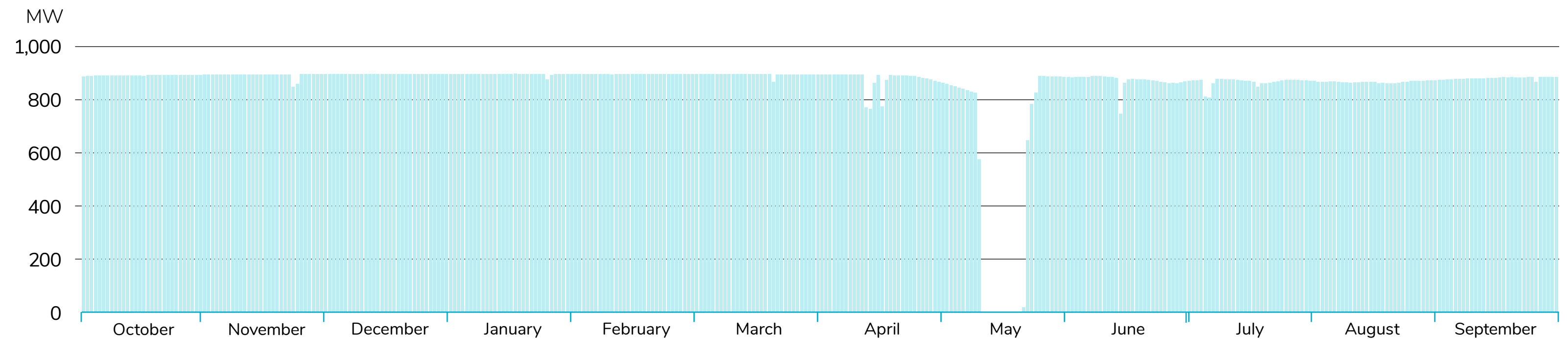
Olkiluoto 1

Average electrical power
October 1, 2019–September 30, 2020



Olkiluoto 2

Average electrical power
October 1, 2019–September 30, 2020



down reactor as well as the changing of two valves, the connection of the recirculation line to one subsystem in auxiliary feed water systems, as well as repair works, preventive maintenance, inspections, and testing.

The annual outages were carried out without problems despite special arrangements due to COVID-19.

No occupational accidents resulting in absence occurred during the annual outages.

This year, the outages employed 688 subcontractors at OL1 and 568 subcontractors at OL2.

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 of completion of the OL3 EPR project. During the

period under review, the trust has been replenished in accordance with the terms of the agreement. During the period under review, TVO has recognized receivables amounted to the accumulated compensation to the end of the period under review agreed in the comprehensive settlement agreement from the plant supplier. The compensation decreases the historical costs of property, plant, and equipment in the balance sheet.

In March 2019, the Government issued an operating licence for the plant unit. TVO submitted on April 8, 2020 a permission application to the Finnish Radiation and Nuclear Safety Authority (STUK) for nuclear fuel loading of the OL3 EPR nuclear power plant unit.

TVO issued on August 28, 2020 a stock exchange release stating that TVO has received an updated re-baseline schedule on the commissioning of the OL3 EPR plant unit from the supplier Areva–Siemens consortium. According to the schedule, fuel will be loaded into the reactor in March 2021, the unit will be connected to the grid in October of the same year, and regular electricity production starts in February 2022. The new Areva management, appointed in the summer of 2020, is preparing a financial solution to finalize the project until the end of the guarantee period. TVO continues negotiations with the Areva–Siemens consortium on the terms for project completion.

Due to the COVID-19 pandemic, work at the OL3 EPR construction site has continued under special arrangements, and TVO is now getting ready for fuel loading. The remaining system testing, maintenance work, and the repair work on the technical faults will be completed before the fuel loading. The remaining work has been scheduled in detail. Currently, work is continued on the repair of I&C cables, preparations are being made for the remaining inspections from STUK, and the fuel loading permission application and its security assessment are being completed. In addition, the preparedness of technical systems

for fuel loading is still under way.

At the end of the reporting period, the workforce at the site was about 1,500 people. 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 65.6 (50.0) million and the amount consumed to EUR 45.4 (43.9) million.

The nuclear fuel and uranium stock carrying value on September 30, 2020 was EUR 282.0 (December 31, 2019: 261.9) 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 1,037.8 (December 31, 2019: 1,040.8) 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 2019, the Ministry of Economic Affairs and Employment of Finland (MEAE) set TVO's liability for nuclear waste management at EUR 1,471.4 (1,505.8) million to the end of 2019 and TVO's funding target in the Finnish State Nuclear Waste management Fund for 2020 at EUR 1,471.4 (1,505.8) million.

In March 2020, the Finnish State Nuclear Waste Management Fund confirmed TVO's nuclear waste management fee refund for 2019 at EUR -42.3 (payment into the Fund 26.7) million, which the Fund reimbursed to TVO on March 31, 2020 (paid into the Fund on March 29, 2019). The nuclear waste management fee for 2020 will be confirmed in March 2021.

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.

Coal Power

Meri-Pori

TVO had a 45 percent holding in the Meri-Pori coal-fired power plant owned and operated by Fortum Power and Heat Oy. TVO renounced its share of Meri-Pori's capacity in the beginning of July 2020. Fortum received TVO's share of Meri-Pori's power capacity in the beginning of 2019.

Acquisitions of Tangible and Intangible Assets and Shares

Investments during the period under review were EUR 31.0 (250.4) million. Investments of the parent company were EUR 22.1 (200.4) million, of which EUR -10.3 (166.0) million were allocated to the OL3 EPR project. During the period under review, the additional compensation in accordance with the overall settlement agreement has been taken into account in the OL3 EPR project's investment.

Carbon dioxide emission rights have been relinquished to the Energy Authority worth EUR 3.7 (10.2) million. During the review period, purchases of carbon dioxide emission rights amounted to EUR 1.7 (4.7) million. TVO's need for carbon dioxide emission rights for the period under review is covered by acquired emission rights.

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 Olkiluoto nuclear power plant (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 are 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 addition, Wärtsilä announced that the internal clearance on the costs that will be demanded from TVO is still ongoing.

At the end of the review period, the situation had remained unchanged.

Personnel

The total number of personnel in the Group at the end of the period under review was 968 (December 31, 2019: 942, September 30, 2019: 940). The number of permanent employees in the Group at the end of the period under review was 946 (December 31, 2019: 923, September 30, 2019: 917).

Shareholders' Unanimous Decisions to the Annual General Meeting

Due to the COVID-19 pandemic, Teollisuuden Voima Oyj's Annual General Meeting in spring 2020 was not held physically. Shareholders decided unanimously on the matters belonging to the Annual General Meeting on March 25, 2020 according to the special provision in the Limited Liability Companies Act. The shareholders confirmed the consolidated income statement and balance sheet, discharged the Board members and the President and CEO from liability, and elected the Board members for the next term. PricewaterhouseCoopers Oy, Authorised Public Accountants, was elected as TVO's auditing firm. The principal responsible auditor changed from Jouko Malinen, Authorised Public Accountant, to Niina Vilske, Authorised Public Accountant.

Juha-Pekka Weckström was elected as a new Board member to replace Pekka Manninen. The other Board members were re-elected. In its organisation meeting, the Board of Directors elected Tiina Tuomela as the Chair of the Board and Ilkka Tykkyläinen as the Vice-Chair. The Board of Directors also elected the chairs and members for 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 2019 Report of the Board of Directors.

TVO has received in August 2020 an updated re-baseline schedule on the commissioning of the OL3 EPR plant unit from the supplier Areva-Siemens consortium. According to the re-baseline schedule, fuel will be loaded into the reactor in March 2021, the unit will be connected to the grid in October of the same year, and regular electricity production starts in February 2022. The new Areva management team, appointed in the summer of 2020, is preparing a financial solution to finalize the project until the end of the guarantee period. TVO continues negotiations with the plant supplier Areva-Siemens consortium on the terms for project completion.

Divergent procedures due to the COVID-19 pandemic have been continued at Olkiluoto. 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. The TVO Group has a COVID-19 pandemic contingency plan in place that outlines step-by-step operating measures needed to prevent the spread of a pandemic. The pandemic preparedness plan is currently at a stage where set COVID-19 preventing measures have been gradually eased. The gradual mitigation is based on the fact that the Finnish national, Satakunta, or Olkiluoto situation does not deteriorate.

Assessment of Year-End Developments

In the current financial year, despite the effects of the COVID-19 pandemic, 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.

Realization of the OL3 EPR nuclear power plant project and preparing the plant unit for production will be continued. Commissioning tests and maintenance work are needed before fuel loading. For the loading of nuclear fuel, TVO still needs a separate permission from STUK. TVO will continue to support the plant supplier to complete the project. TVO is negotiating with the plant supplier Areva-Siemens consortium on the terms of completing the OL3 EPR project.

Posiva continues the implementation of the final disposal plant project. The excavation work is progressing in the first central tunnels, the construction work of the encapsulation plant is progressing to ground level, procurement is focusing on safety-classified systems, and criteria

are being specified for Posiva's preparedness to submit an operating license application at the end of 2021.

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

On October 9, 2020, TVO initiated arbitration proceedings against Wärtsilä Finland Oy concerning the installation and commissioning schedule of the auxiliary diesel generators (EDG 1–8) in accordance with the EDG project's delivery agreement.

October 16, 2020

Teollisuuden Voima Oyj
Board of Directors

Key Figures of TVO Group

TVO Group (IFRS) (M€)	Q1-Q3 2020	Q1-Q3 2019	Q1-Q4 2019
Turnover	216	195	254
Profit/loss for the period	15	43	87
Investments ¹⁾	31	250	369
Equity	1,814	1,767	1,819
Subordinated shareholder loans (hybrid equity) (included in the former) ³⁾	679	679	679
Non-current and current interest-bearing liabilities (excluding loan from VYR) ²⁾	4,366	4,394	4,370
Loan from VYR ²⁾	716	591	591
Provision related to nuclear waste management	1,038	995	1,041
Balance sheet total	8,065	7,869	7,942
Equity ratio % ⁴⁾	28,7	28,1	28,8
Average number of personnel	987	942	943

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 2020	Q1-Q3 2019	Q1-Q4 2019
Turnover	214	192	251
Profit/loss before appropriations	17	0	5
Fuel costs	45	49	65
Nuclear waste management costs	19	-2	-5
Capital expenditure (depreciation and financial income and expenses)	25	29	39
Investments ¹⁾	22	200	278
Equity	862	857	857
Appropriations	206	188	193
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) ²⁾	4,278	4,289	4,282
Loans from equity holders of the company ³⁾	679	679	679
Loan from VYR ²⁾	716	591	591
Balance sheet total	6,871	6,726	6,724
Equity ratio % ⁴⁾	28,4	28,1	28,2
Average number of personnel	986	941	942

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 2020	Q1-Q3 2019	Q1-Q4 2019
Nuclear power	10,852	10,788	14,729
Coal-fired power	82	164	182
Total	10,934	10,952	14,911

Consolidated financial statement in brief and notes

Consolidated income statement

EUR 1,000	Q1-Q3 2020	Q1-Q3 2019	Q1-Q4 2019
Turnover	216,334	194,534	254,208
Work performed for own purposes	15,033	13,280	18,596
Other income	9,058	9,116	12,796
Materials and services	-49,210	3,599	-81,966
Personnel expenses	-52,524	-50,210	-67,787
Depreciation and impairment charges	-34,106	-32,428	-45,488
Other expenses	-67,545	-74,256	-92,798
Operating profit/loss	37,040	63,635	-2,439
Finance income	8,492	8,602	11,550
Finance expenses	-31,382	-29,685	76,700
Total finance income and expenses	-22,890	-21,083	88,250
Share of the profit/loss of joint ventures	772	923	1,385
Profit/loss before income tax	14,922	43,475	87,196
Profit/loss for the period	14,922	43,475	87,196
Profit/loss for the period attributable to:			
Equity holders of the company	14,922	43,475	87,196

Consolidated statement of comprehensive income

EUR 1,000	Q1-Q3 2020	Q1-Q3 2019	Q1-Q4 2019
Profit/loss for the period	14,922	43,475	87,196
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges	-16,645	-18,208	-8,028
Total other comprehensive profit/loss items for the period	-16,645	-18,208	-8,028
Total comprehensive profit/loss for the period	-1,723	25,267	79,168
Total comprehensive profit/loss for the period attributable to:			
Equity holders of the company	-1,723	25,267	79,168

Consolidated statement of financial position

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Assets			
Non-current assets			
Property, plant and equipment	5,652,806	5,566,526	5,663,306
Intangible assets	2,590	2,329	5,961
Loans and other receivables	893,393	596,524	596,417
Investments in joint ventures	3,875	6,912	7,374
Investments in shares	1,934	1,934	1,934
Derivative financial instruments	21,310	30,592	29,254
Share in the Finnish State Nuclear Waste Management Fund	1,037,832	994,798	1,040,826
Total non-current assets	7,613,740	7,199,615	7,345,072
Current assets			
Inventories	290,303	266,590	269,856
Trade and other receivables	37,742	180,474	73,262
Derivative financial instruments	3,808	19,824	15,859
Cash and cash equivalents	119,894	202,506	237,832
Total current assets	451,747	669,394	596,809
Total assets	8,065,487	7,869,009	7,941,881
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
Reserve for invested non-restricted equity	0	3	3
Fair value and other reserves	-22,023	-15,559	-5,378
Subordinated shareholder loans (hybrid equity)	679,300	679,300	679,300
Retained earnings	314,059	260,173	302,724
Total equity	1,814,084	1,766,665	1,819,397

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Liabilities			
Non-current liabilities			
Provision related to nuclear waste management	1,037,832	994,798	1,040,826
Loan from the Finnish State Nuclear Waste Management Fund	716,447	591,441	591,441
Bonds	2,703,469	2,682,628	2,858,937
Other financial liabilities	1,102,045	1,145,211	1,040,301
Derivative financial instruments	46,961	52,351	29,820
Total non-current liabilities	5,606,754	5,466,429	5,561,325
Current liabilities			
Current financial liabilities	513,195	491,017	422,769
Derivative financial instruments	678	22,963	18,365
Advance payments received	17,475	14,455	17,788
Trade payables	38,391	34,215	6,655
Other current liabilities	74,910	73,265	95,582
Total current liabilities	644,649	635,915	561,159
Total liabilities	6,251,403	6,102,344	6,122,484
Total equity and liabilities	8,065,487	7,869,009	7,941,881

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 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 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 2019	600,365	242,383	3	2,650	679,300	220,556	1,745,257	1,745,257
Profit/loss for the period	0	0	0	0	0	43,475	43,475	43,475
Other comprehensive items:								
Cash flow hedges	0	0	0	-18,209	0	0	-18,209	-18,209
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	0	-3,858	-3,858	-3,858
Equity 30 Sep 2019	600,365	242,383	3	-15,559	679,300	260,173	1,766,665	1,766,665

Consolidated statement of cash flows

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Operating activities			
Profit/loss for the period	14,922	43,475	87,196
Adjustments:			
Finance income and expenses	22,889	21,083	-88,250
Depreciation and impairment charges	34,106	32,428	45,488
Share of the profit/loss of joint ventures	-772	-923	-1,385
Other non-cash flow income and expenses	-28,957	-66,221	1,488
Sales profit/loss of property, plant and equipment and shares	-51	-16	-16
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	35,115	-31,005	76,952
Increase (-) or decrease (+) in inventories	-20,554	-5,910	-8,985
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	10,276	-18,308	-25,404
Interest paid and other finance expenses	-2,922	-2,635	-3,437
Dividends received	4,270	0	0
Interest received	3,213	3,495	3,497
Cash flow from operating activities	71,535	-24,537	87,144
Investing activities			
Acquisition of property, plant and equipment	-181,368	-204,831	-395,144
OL3 EPR project compensation	0	0	122,000
Proceeds from sale of property, plant and equipment	127	23	23
Acquisition of intangible assets	-678	-72	-97
Loan receivables granted	-125,005	-9,205	-9,098
Repayments of loans granted	0	84,006	84,006
Cash flow from investing activities	-306,924	-130,079	-198,310

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Financing activities			
Acquisition of own shares	-3	0	0
Withdrawals of long-term loans	445,005	850,000	943,192
Repayment of long-term loans	-346,275	-731,642	-817,151
Principal elements of lease payments	-1,961	0	-2,049
Interest paid of subordinated shareholder loans (hybrid equity)	-2,788	-3,332	-5,170
Increase (-) or decrease (+) in interest-bearing receivables	2,030	-2,030	-2,030
Increase (+) or decrease (-) in current financial liabilities	21,443	22,960	11,039
Cash flow from financing activities	117,451	135,956	127,831
Change in cash and cash equivalents	-117,938	-18,660	16,665
Cash and cash equivalents at the beginning of period	237,832	221,166	221,166
Cash and cash equivalents at the end of period	119,894	202,506	237,832

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, 2019. 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, 2019.

Comparability of the income statement

The total cost estimate based on a new nuclear waste management technical plan and schedule updated in June 2019. The costs for spent fuel disposal are expensed during the operating time of the plant, based on fuel usage, and the impact of any changes to the plan and schedules will be recognized immediately in the income statement

based on fuel used by the end of each accounting period. Updated cost estimate increased in 2019 the provision related to the nuclear waste management and decreased the amount of materials and services and finance expenses. The overall effect on profit in 2019 was positive 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 was entered as an adjustment to materials and services. The positive profit impact of the updates and changes was mainly non-recurring. See note Assets and provisions related to nuclear waste management obligation.

Olkiluoto 3 EPR

TVO's management has estimated that TVO is entitled to receive the compensation of EUR 400 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. During the period under review TVO has recognized receivables amounted to the accumulated compensation to the end of the period under review agreed in the comprehensive settlement agreement from Plant Supplier. The compensation decreases the historical costs of property, plant and equipment in the balance sheet.

Meri-Pori

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 reporting

Segment structure in TVO

The Group has two reportable segments; nuclear power and coal 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 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, and TVO relinquished its share in Meri-Pori in full in the beginning of 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 2020	Q1-Q3 2019	Q1-Q4 2019
Nuclear power	210,521	180,763	238,197
Coal-fired power	5,813	13,771	16,011
Total	216,334	194,534	254,208

Profit/loss for the period by segments

EUR 1,000	Q1-Q3 2020	Q1-Q3 2019	Q1-Q4 2019
Nuclear power	17,291	655	5,278
Coal-fired power	0	0	0
Profit/loss before appropriations (FAS)	17,291	655	5,278
The impact of the nuclear waste management obligation	584	40,763	79,258
The impact of financial instruments	-11	678	647
Other IFRS adjustments	556	456	628
The impact of joint ventures	-3,498	923	1,385
Total (IFRS)	14,922	43,475	87,196

Assets by segments

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Nuclear power	6,871,251	6,721,971	6,711,401
Coal-fired power	0	4,557	12,505
Total (FAS)	6,871,251	6,726,528	6,723,906
The impact of the nuclear waste management obligation	1,171,825	1,089,710	1,174,234
The impact of financial instruments	-1,016	20,822	12,904
The impact of finance leases	50,571	52,306	51,440
Other IFRS adjustments	-30,008	-26,258	-26,966
The impact of joint ventures	2,864	5,901	6,363
Total (IFRS)	8,065,487	7,869,009	7,941,881

Changes in property, plant and equipment

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Opening net book amount	5,663,306	5,353,922	5,353,922
Increase	28,579	248,843	364,212
Decrease	-5,281	-41,428	-53,768
Depreciation and impairment charges	-33,798	-32,131	-45,094
Accumulated depreciation from deduction	0	37,320	44,034
Closing net book amount	5,652,806	5,566,526	5,663,306

Changes in intangible assets

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Opening net book amount	5,961	11,333	11,333
Increase	2,378	1,509	5,239
Decrease	-5,441	-10,216	-10,216
Depreciation and impairment charges	-308	-297	-395
Closing net book amount	2,590	2,329	5,961

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 30, 2019.

Derivative financial instruments

Nominal values of the derivative financial instruments

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
Interest rate swaps	1,974,117	2,096,071	1,996,071
Forward foreign exchange contracts and swaps ¹⁾	81,492	107,956	109,217
Cross-currency swaps	378,577	554,720	589,613
Total	2,434,186	2,758,747	2,694,902

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⁾	30 Sep 2020			30 Sep 2019			31 Dec 2019		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
EUR 1,000									
Interest rate swaps									
Cash flow hedges		-32,370	-32,370		-34,956	-34,956		-20,598	-20,598
Fair value hedges	11,806		11,806	16,961		16,961	12,322		12,322
Non-hedges		-6,764	-6,764		-9,009	-9,009		-5,825	-5,825
Forward foreign exchange contracts and swaps									
Cash flow hedges	10,369	-193	10,175	19,239	-63	19,176	15,050	-240	14,810
Non-hedges	1,540	-38	1,502	1,494	-209	1,285	2,657	-149	2,508
Cross-currency swaps									
Non-hedges	1,403	-8,274	-6,871	12,722	-31,078	-18,356	15,084	-21,373	-6,289
Total	25,117	-47,639	-22,521	50,416	-75,314	-24,898	45,113	-48,185	-3,073

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

TVO Group debt structure by maturity

30 Sep 2020

EUR 1,000	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029-	Total
Loans from financial institutes	129,206	49,498	219,698	650,608	26,104	26,104	26,104	26,104	11,818		1,165,244
Public bonds		153,781	250,561	500,000	644,900	500,000	650,000	75,000		88,000	2,862,242
Loans from other sources			56,117								56,117
Lease liabilities	69	2,007	1,992	1,999	1,797	43,546					51,410
Commercial papers	177,921	15,977									193,898
Total	307,196	221,263	528,368	1,152,607	672,801	569,650	676,104	101,104	11,818	88,000	4,328,911

TVO Group credit commitment by maturity

30 Sep 2020

EUR 1,000	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029-	Total
Syndicated revolving credit facility			300,000	1,000,000							1,300,000
Bilateral revolving credit facility											
Bilateral bank loan											
Total			300,000	1,000,000							1,300,000

EUR 100 million has been drawn from the EUR 300 million syndicated revolving credit facility.

The average interest rate on loans and derivatives on 30 September, 2020 was 1.62 % (31 Dec 2019: 1.63 %).

On 30 September 2020, the Group had undrawn credit facilities amounting to EUR 1,200 million (2019: EUR 1,300 million). In addition, the Group had subordinated shareholder loan (hybrid equity) commitments totaling EUR 250 million (2019: EUR 250 million) and cash and cash equivalents amounting to EUR 134 million (2019: EUR 238 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 2020		
	Level 1	Level 2	Level 3
Financial assets at fair value			
Derivative financial instruments, no hedge accounting		2,943	
Derivative financial instruments designated as cash flow hedges		10,369	
Derivative financial instruments designated as fair value hedges		11,806	
Fund units			
Investments in other shares ¹⁾			1,934
Total		25,117	1,934
Financial liabilities at fair value			
Derivative financial instruments at fair value through profit or loss		15,076	
Derivative financial instruments designated as cash flow hedges		32,563	
Derivative financial instruments designated as fair value hedges			
Total		47,639	

¹⁾ On 30 September, 2020, TVO has unquoted shares worth EUR 1,934 (2019:1,934) 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 2019		
	Level 1	Level 2	Level 3
Financial assets at fair value			
Derivative financial instruments, no hedge accounting		17,741	
Derivative financial instruments designated as cash flow hedges		15,050	
Derivative financial instruments designated as fair value hedges		12,322	
Fund units			
Investments in other shares ¹⁾			1,934
Total		45,113	1,934
Financial liabilities at fair value			
Derivative financial instruments at fair value through profit or loss		27,348	
Derivative financial instruments designated as cash flow hedges		20,838	
Derivative financial instruments designated as fair value hedges			
Total		48,185	

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 2020	
EUR 1,000	Financial liabilities measured at amortized cost	Book value	Fair value
Non-current liabilities			
Other financial liabilities ¹⁾	3,805,514	3,805,514	3,841,119
		31 Dec 2019	
EUR 1,000	Financial liabilities measured at amortized cost	Book value	Fair value
Non-current liabilities			
Other financial liabilities ¹⁾	3,899,238	3,899,238	4,046,541

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 2020	30 Sep 2019	31 Dec 2019
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	1,037,832	994,798	1,040,826
Provision related to nuclear waste management (non-current liabilities)	1,037,832	994,798	1,040,826

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 2020	30 Sep 2019	31 Dec 2019
Liability for nuclear waste management according to the Nuclear Energy Act	1,471,400	1,505,800	1,471,400
Funding target obligation	1,471,400	1,505,800	1,471,400
TVO's share in the Finnish State Nuclear Waste Management Fund	1,471,400	1,505,800	1,513,500
Difference between the liability and TVO's share of the fund	0	0	-42,100

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 total cost estimate based on a new nuclear waste management technical plan and schedule updated in June 2019. The costs for spent fuel disposal are expensed during the operating time of the plant, based on fuel usage, and the impact of any changes to the plan and schedules will be recognized immediately in the income statement based on fuel used by the end of each accounting period. The overall effect on profit for the period in 2019 was positive 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.

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 2019 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 2020 from the Nuclear Waste Management Fund to TVO in respect of 2019 according to the rules of the Fund. Assets from the Nuclear Waste Management Fund is estimated to refund to TVO also in respect of 2020.

TVO's share in the Finnish State Nuclear Waste Management Fund on September 30, 2020 is EUR 1,471.4 million. The carrying amount in the balance sheet is EUR 1,037.8 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 2020	30 Sep 2019	31 Dec 2019
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	716,447	591,441	591,441
Guarantees given by shareholders related to the nuclear waste management obligation	95,880	77,980	77,980

Investment commitments

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

EUR 1,000	30 Sep 2020	30 Sep 2019	31 Dec 2019
OL1 and OL2	90,300	73,700	80,600
OL3	426,400	377,300	411,800
Total	516,700	451,000	492,400

Pending Court Cases and Disputes

Pending Court Cases and Disputes are to be found on page 7.