



WELL-BEING WITH
NUCLEAR ELECTRICITY



Interim Report

January-June 2017

Teollisuuden Voima Oyj's Interim Report January 1–June 30, 2017

During the first half of the year, Teollisuuden Voima's electricity generation at Olkiluoto 1 and 2 plant units continued safely and reliably. At Olkiluoto 3 EPR, the installation works and process system tests continued. The cold functional testing of the plant unit was completed in early July. The first excavation works of Posiva's final disposal facility progressed according to plans.

Operating Environment

During the first half of the year, the use of electricity in Finland decreased by 0.2 percent compared to the corresponding period of the previous year.

The Ministry of Economic Affairs and Employment (MEAE) is preparing an amendment to the Nuclear Energy Act. The Act was circulated for comments during March–April. After parliamentary proceedings the act is to enter into force as from the beginning of 2018. Changes will be made to meet the requirements of the directives adopted within the framework of EURATOM. In preparation for the Act, some change requirements related to national legislation, e.g. decommissioning of nuclear facilities, nuclear waste management, and safety arrangements have been examined.

A set of legislative measures on energy, so called “Clean Energy for all Europeans” package published by the European Commission in November 2016 is currently being dealt with by the European Parliament and Council. From the nuclear industry's perspective, the most relevant legislative proposals of the Clean Energy package are energy efficiency directive, renewable energy directive, electricity directive, and regulation on the governance of the Energy Union. The legislative process is estimated to last until summer 2018.

Financial Performance

TVO operates on a cost-price principle (Mankala principle). TVO's goal is not to make profit or pay dividends. 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 made any use of their share of the output or not. Because of the Company's operating principle, key indicators based on financial performance will not be presented.

The consolidated turnover for the period under review January 1–June 30, 2017 was EUR 158.1 (January 1–June 30, 2016: EUR 176.9 million). The amount of electricity delivered to shareholders was 6,314.3 (6,946.8) GWh. The lower delivery volume to shareholders was mainly due to prolonged maintenance and refurbishment work at Olkiluoto 2 plant unit and lower delivery volume of Meri-Pori coal-fired power plant compared to the previous year.

The consolidated profit/loss was EUR -10.8 (-6.6) million.

Financing and Liquidity

TVO's financial situation has developed as planned.

TVO's liabilities (non-current and current) at the end of the period under review, excluding the loan from the Finnish State Nuclear Waste Management Fund relented to shareholders, totaled EUR 4,395.0 (December 31, 2016: 4,521.8) million, of which EUR 479.3 (479.3) million were subordinated shareholder loans. During the period under review, TVO raised a total of EUR 100.0 (300.0) million in non-current liabilities. Repayments during the period under review amounted to EUR 175.9 (287.9) million.

In February 2016, TVO signed a new syndicated revolving credit facility of EUR 1.3 billion. The facility consists of two tranches: EUR 1,000 million 5-year tranche and EUR 300 million 3-year tranche. Both tranches included two one-year extension options, and in January 2017, both of them were extended by one year. In addition, TVO signed in March bilateral revolving credit facilities totaling EUR 200 million and in April bilateral credit facilities totaling EUR 80 million. Both syndicated and bilateral facilities are undrawn.

In January, Japan Credit Rating Agency (JCR) affirmed TVO's long term rating at AA- and assessed the outlook as stable. In May, Fitch Ratings downgraded TVO's long term issuer rating from BBB to BBB-. The outlook Fitch Ratings assessed as stable. In addition, TVO has Standard & Poor's (S&P) credit rating BB+. TVO's outlook S&P has assessed as stable.

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 June 30, 2017 the amount of the loan was EUR 655.5 (December 31, 2016: 1,027.1) million and it has been relented to the Company's A-series shareholders. On March 31, 2017 loan from the Finnish State Nuclear Waste Management Fund was decreased by EUR 371.5 (March 31, 2016: increase 18.0) million.

Nuclear Power

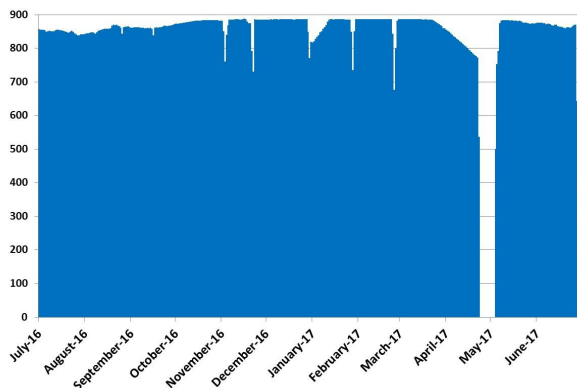
Olkiluoto 1 and Olkiluoto 2

The electricity production of the Olkiluoto power plant units Olkiluoto 1 (OL1) and Olkiluoto 2 (OL2) during the period under review was 6,286 (6,764) GWh. The total load factor was 82.4 (88.2) %.

The plant units operated safely and reliably during the period under review. OL1's net production was 3,524 (3,221) GWh and the load factor 92.5 (84.0) %. OL2's net production was 2,762 (3,543) GWh and the load factor 72.4 (92.4) %.

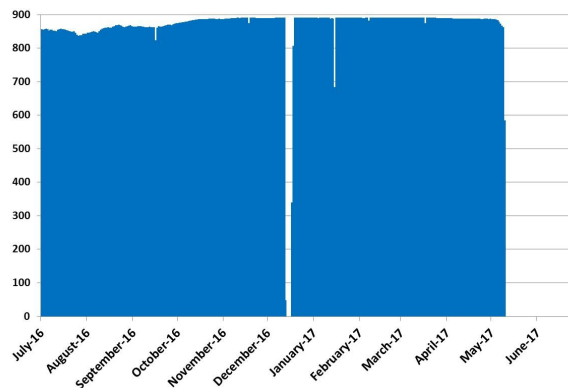
Olkiluoto 1

Average electrical power MW
July 1, 2016–June 30, 2017



Olkiluoto 2

Average electrical power MW
July 1, 2016–June 30, 2017



On January 26, 2017 TVO filed with the Ministry of Economic Affairs and Employment an application for the renewal of the operating license of OL1 and OL2. The renewal of the operating license is applied for from the Government until the end of 2038. The 20-year operating license currently in force must be renewed by the end of 2018.

Annual Outages

The 2017 annual outages of the Olkiluoto nuclear power plant were started on April 26 with a refueling outage at OL1. In addition to refueling, the OL1 outage also included annually recurring maintenance work. The outage lasted more than 10 days.

At OL2, the annual outage commenced on May 10 and was completed on July 14. The OL2 outage was prolonged due to large and complex maintenance and refurbishment work and took more than 64 days.

The major works carried out during the OL2 maintenance outage included replacement of the recirculation pumps and their frequency converters, renewal of the neutron flux calibration system, repair work of the reactor pressure vessel nozzles as well as preparation work for installing a new, ac-independent high and low pressure water supply system for reactor cooling, and modernization of the heating system contributing to residual heat removal. In addition, the turbine condenser was renewed and the high pressure feed water preheaters were replaced. Modifications for pumping the condensate forward were also made.

In addition to TVO's own personnel, up to 1,100 contractor employees took part in the 2017 annual outage works.

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.

Olkiluoto 3 EPR

Olkiluoto 3 EPR (OL3 EPR), currently under construction, was procured as a fixed-price turnkey project from a consortium (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. According to the schedule last updated by the Supplier in September 2014, regular electricity production in the unit will commence at the end of 2018.

In 2016, AREVA Group announced a restructuring of its business. The restructuring involves a transfer of the operations of AREVA NP to a company called NEW NP, the majority owner of which is going to be EDF. The transaction is aimed to be completed by the end of the second half of 2017. OL3 EPR project and the means required to complete the project, as well as certain other liabilities will remain within AREVA NP, within the scope of AREVA SA. In January 2017, the EU Commission made a decision on the state aid, and in May 2017, the Commission accepted the merger. TVO requires that the restructuring of the French nuclear industry will not compromise the completion of the OL3 EPR project within the Supplier's current schedule and that all liabilities of the plant contract are respected.

Most of the construction works for the plant unit have been completed. The installation of the electrical systems, the instrumentation and control system (I&C), and mechanical systems is still in progress. Simulator training for the operating personnel commenced in February 2017. In June, the cold functional testing to ensure the integrity of the primary circuit started, and it was completed in early July.

The first phase of the commissioning of the turbine plant is completed. Some of the systems and components will be kept in operation; the rest has been preserved by the Supplier in accordance with a separate plan. In January 2017, de-preservation was started at the turbine plant.

The workforce at the site at the end of the period under review was about 2,400 persons. Occupational safety at the site remained at a good level.

The pending disputes concerning the plant unit are described in the paragraph 'Pending Court Cases and Disputes'.

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 31.2 (26.5) million and the amount consumed to EUR 24.0 (25.9) million.

The nuclear fuel and uranium stock carrying value on June 30, 2017 was EUR 238.2 (December 31, 2016: 231.0) million.

Nuclear Waste Management

Under the Finnish Nuclear Energy Act, the Company 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 966.1 (December 31, 2016: 954.6) million, calculated according to the international IFRS accounting principles. A corresponding amount, under assets, represents the Company'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 December 2016, MEAE set TVO's liability for nuclear waste management at EUR 1,450.1 (1,369.4) million to the end of 2016 and the Company's funding target for 2017 at EUR 1,428.4 (1,369.4) million.

In March 2017, the Finnish State Nuclear Management Fund confirmed TVO's nuclear waste management fee for 2016 at EUR 49.1 (11.4) million, which was paid into the Fund on March 31, 2017 (March 31, 2016). The nuclear waste management fee for 2017 will be confirmed in March 2018.

Final Disposal of Spent Nuclear Fuel

Posiva Oy is in charge of executing in Olkiluoto the final disposal of the spent nuclear fuel generated by its owners, TVO at its power plant in Olkiluoto and Fortum at its power plant in Loviisa.

The excavation to prepare the ground for the encapsulation plant started in October 2016 and is mainly completed. The second phase of construction work in the ventilation building has also progressed according to plans. The excavation work of the final disposal facility itself was launched in December 2016 and is progressing according to plan with the excavation of the first shaft connections of the canister shaft and the vehicle access tunnels leading to the final disposal facility. The injection work of the canister shaft in the final disposal facility is also progressing as planned. The first excavation works of the final disposal facility are estimated to take two and a half years.

At the end of March, Posiva's owners submitted the Nuclear Waste Management Annual Report for 2016 to the Ministry of Economic Affairs and Employment (MEAE).

Coal Power

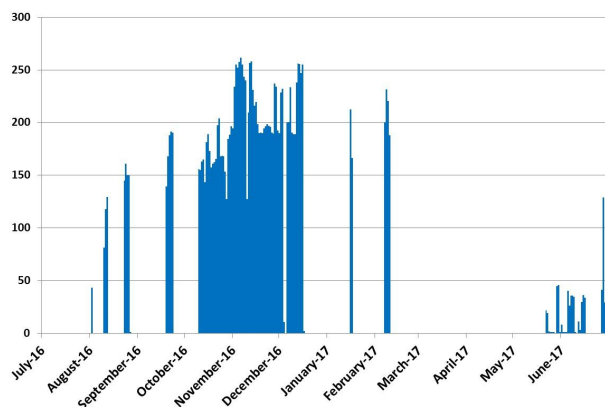
Meri-Pori

The amount of electricity produced by TVO's share at the Meri-Pori coal-fired power plant on January 1–June 30, 2017 was 44.5 (197.7) GWh requiring 15.4 (70.4) thousand tons of coal and 36.9 (168.0) thousand tons of carbon dioxide emission rights.

TVO's share of Meri-Pori's production

Average electrical power MW

July 1, 2016–June 30, 2017



Acquisitions of Tangible and Intangible Assets and Shares

Investments during the period under review were EUR 151.9 (131.9) million. Investments of the parent company were EUR 151.0 (130.9) million, of which EUR 103.7 (103.7) million were allocated to the OL3 project.

At present, several plant modifications are planned and implemented in Olkiluoto to prepare the OL1 and OL2 plant units for the renewal of the operating license in 2018.

Carbon dioxide emission rights have been relinquished to the Energy Market authority worth EUR 2.7 (1.2) million. During the period under review, emission rights were acquired worth EUR 0.1 (0.9) million. The Company's need for carbon dioxide emission rights for the period under review are covered by acquired emission rights.

Pending Court Cases and Disputes

In 2012, TVO submitted a claim and defence in the International Chamber of Commerce (ICC) arbitration proceedings concerning the delay and the ensuing costs incurred at the Olkiluoto 3 EPR project. In July 2015, TVO updated its quantification estimate of its costs and losses to amount to approximately EUR 2.6 billion until December 2018, which, according to the schedule submitted by the OL3 Supplier in September 2014, is the estimated start of regular electricity production of OL3.

The proceedings were initiated in December 2008 by the OL3 Supplier. The Supplier's monetary claim, as last updated in April 2017, is now approximately EUR 3.59 billion in total. The sum is based on the Supplier's updated analysis of events that occurred through September 2014, with certain claims quantified to December 31, 2014. The sum includes penalty interest (calculated to June 30, 2017) and payments allegedly delayed by TVO under the plant contract amounting to a combined total of approximately EUR 1.58 billion, as well as approximately EUR 132 million in alleged loss of profit.

In November 2016, the ICC Tribunal made a final and binding partial award. In the partial award, the ICC Tribunal addressed the early period of the project (time schedule, licensing and licensability, and system design). This comprised many of the facts and matters that TVO relies upon in its main claims against the Supplier, as well as certain key matters that the Supplier relies upon in its claims against TVO. In doing so, the partial award finally resolved the great majority of these facts and matters in favour of TVO, and conversely rejected the great majority of the Supplier's contentions in this regard. The partial award did not take a position on the claimed monetary amounts.

The ICC Tribunal made another final and binding partial award in July 2017. This partial award addresses the preparation, submittal, review, and approval of design and licensing documents on the project. This comprises the key facts and matters that the supplier relies upon in its main claims against TVO, as well as certain matters that TVO relies upon in its claims against the Supplier. In doing so, the partial award has finally resolved the great majority of these facts and matters in favour of TVO. Conversely, it has also rejected the great majority of the Supplier's contentions in this regard. Although the partial award did not take a position on the claimed monetary amounts, it has conclusively rejected the analytical method used by the Supplier to support its principal monetary claims against TVO.

The arbitration proceeding is still going on with at least one partial award to come before the final award where the Tribunal will declare liabilities to pay compensation.

TVO considers its claims to be well-founded and has considered and found the claims of the Supplier to be without merit. The November 2016 partial award and the July 2017 partial award provide further material confirmation of this position, and reinforce TVO's view that the balance of the claims is in TVO's favour.

On September 29, 2016, TVO summoned Areva in an urgent interim proceeding before the President of the Commercial Court of Nanterre in order to obtain information about the restructuring of French nuclear industry and the potential consequences on the performance of the OL3 contract. Discussions between the parties enabled TVO to withdraw from this action on May 18, 2017. The continuation of discussions is expected to favour completion of the OL3 EPR project and the start-up of the plant.

The Supplier consortium companies (AREVA GmbH, AREVA NP SAS and Siemens AG) are jointly and severally liable for the plant contract obligations.

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 850 (December 31, 2016: 747, June 30, 2016: 809). The number of permanent employees in the Group at the end of the period under review was 756 (December 31, 2016: 721, June 30, 2016: 724).

As the operational phase of OL3 EPR is approaching, the Technical Services and Safety organizations will be strengthened with dozens of technical experts and professionals.

The *Hyvinvointi ja tulokselliset tekijät 2020* (“*Wellbeing and profitability factors 2020*”) program developing the workplace culture was continued with the second stage development program focusing on measures related to the work of every individual, the immediate work community and the whole Group.

The simulator training for OL3 operating personnel and shift supervisors commenced in February with normal operation training. OL3 plant knowledge training is given to the personnel in different ways in cooperation with the Supplier.

The collective agreements for different groups of personnel in the energy industry are in force in accordance with the so called framework agreement of labor confederations until January 31, 2018.

In June the Board of Directors appointed two new members to the Management Group: Pekka Frantti responsible for ensuring the financial interests and conditions of OL3 and Jaana Isotalo responsible for HR, training, and communications. The appointments are effective as of August 1, 2017.

Annual General Meeting

TVO's Annual General Meeting on March 31, 2017 approved the financial statements for 2016, confirmed the consolidated income statement and balance sheet, and discharged the members of the Board of Directors and the President and CEO from liability.

Eight Board members were re-elected. Two new members, Esa Kaikkonen and Anders Renvall, were elected to the Board. At its organization meeting, the Board elected Lauri Virkkunen as Chairman and Matti Ruotsala as Deputy Chairman. The Board also chose from among its members the members and chairmen of the Board Committees.

Auditing

The Interim Report is unaudited.

Risks and Uncertainty Factors in the Near Future

The major risks and uncertainty factors in TVO's operations have been presented in the 2016 Report of the Board of Directors.

During the period under review, no remarkable new risks connected with the Company's operation have arisen.

Assessment of Year-End Developments

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. Testing of the process systems continue, and the next important milestone is the hot functional testing scheduled for next fall. TVO will continue to support the Supplier to complete the project.

The Meri-Pori coal-fired power plant capacity will be used in accordance with the former principles. Fortum's share of the Meri-Pori power plant has been accepted into the reserve capacity, and TVO is examining the use of its own share in the future.

The ongoing second phase works in the Posiva ventilation building will be completed during summer 2017 and HVACE works by the end of the year. The reinforcement work of the personnel shaft will commence during the summer.

Events after the Period under Review

After the period under review, the ICC Tribunal made in July 2017 a partial award in the arbitration concerning the delay and the ensuing costs incurred in the Olkiluoto 3 EPR project as described in the paragraph 'Pending Court Cases and Disputes'.

July 20, 2017

Teollisuuden Voima Oyj
Board of Directors

KEY FIGURES OF TVO GROUP

TVO GROUP (IFRS) (M€)	1.1. - 30.6.2017	1.1. - 30.6.2016	1.1. - 31.12.2016
Turnover	158	177	343
Profit/loss for the period	-11	-7	-11
Investments ¹⁾	152	132	265
Equity	1 572	1 579	1 589
Subordinated shareholder loans (hybrid equity) (included in the former) ³⁾	479	479	479
Non-current and current interest-bearing liabilities (excluding loan from VYR) ²⁾	4 018	3 747	4 179
Loan from VYR ²⁾	656	1 027	1 027
Provision related to nuclear waste management	966	948	955
Balance sheet total	7 365	7 455	7 952
Equity ratio % ⁴⁾	27,4	28,8	26,6
Average number of personnel	795	780	765

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 x $\frac{\text{equity}}{\text{balance sheet total} - \text{provision related to nuclear waste management} - \text{loan from the Finnish State Nuclear Waste Management Fund}}$

KEY FIGURES OF TEOLLISUUDEN VOIMA OYJ

TEOLLISUUDEN VOIMA OYJ (FAS) (M€)	1.1. - 30.6.2017	1.1. - 30.6.2016	1.1. - 31.12.2016
Parent company's interim financial statement has been made in accordance with the Finnish Accounting Standards (FAS).			
Turnover	156	175	340
Profit/loss before appropriations	-8	-3	3
Fuel costs	25	31	69
Nuclear waste management costs	34	39	73
Capital expenditure (depreciation and financial income and expenses)	25	26	52
Investments ¹⁾	151	131	262
Equity	858	858	858
Appropriations	176	177	183
Non-current and current interest-bearing liabilities (excluding loan from VYR and shareholder loans) ²⁾	3 916	3 588	4 043
Loans from equity holders of the company ³⁾	479	479	479
Loan from VYR ²⁾	656	1 027	1 027
Balance sheet total	6 238	6 284	6 793
Equity ratio % ⁴⁾	27,1	28,8	26,4
Average number of personnel	794	779	764

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

ELECTRICITY DELIVERED TO EQUITY HOLDERS OF THE COMPANY (GWh)

	1.1. - 30.6.2017	1.1. - 30.6.2016	1.1. - 31.12.2016
Nuclear power	6 270	6 749	14 323
Coal-fired power	44	198	563
Total	6 314	6 947	14 886

TVO GROUP

CONSOLIDATED FINANCIAL STATEMENT IN BRIEF AND NOTES**CONSOLIDATED INCOME STATEMENT**

EUR 1 000	1.1. - 30.6.2017	1.1. - 30.6.2016	1.1. - 31.12.2016
Turnover	158 072	176 877	343 398
Work performed for own purposes	6 649	5 324	10 718
Other income	5 979	5 889	11 155
Materials and services	-47 330	-86 162	-158 329
Personnel expenses	-30 900	-30 846	-59 507
Depreciation and impairment charges	-27 177	-26 902	-54 807
Other expenses	-55 206	-55 562	-91 608
Operating profit/loss	10 087	-11 382	1 020
Finance income	6 408	7 722	16 189
Finance expenses	-27 450	-5 087	-30 042
Total finance income and expenses	-21 042	2 635	-13 853
Share of the profit/loss of joint ventures	191	2 117	2 301
Profit/loss before income tax	-10 764	-6 630	-10 532
Income taxes	0	-1	-1
Profit/loss for the period	-10 764	-6 631	-10 533

Profit/loss for the period attributable to:

Equity holders of the company	-10 764	-6 631	-10 533
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CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

EUR 1 000	1.1. - 30.6.2017	1.1. - 30.6.2016	1.1. - 31.12.2016
Profit/loss for the period	-10 764	-6 631	-10 533
Other comprehensive items			
Items that may be reclassified to profit or loss in subsequent periods:			
Changes in fair values of the available-for-sale investments	324	-385	-371
Cash flow hedges	-4 526	-23 595	-7 490
Total other comprehensive profit/loss items for the period	-4 202	-23 980	-7 861
Total comprehensive profit/loss for the period	-14 966	-30 611	-18 394

Total comprehensive profit/loss for the period attributable to:

Equity holders of the company	-14 966	-30 611	-18 394
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TVO GROUP

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Assets			
Non-current assets			
Property, plant and equipment	5 157 405	4 950 628	5 040 266
Intangible assets	4 709	6 627	7 758
Loans and other receivables	658 776	1 030 465	1 030 307
Investments in joint ventures	3 503	3 128	3 312
Investments in shares	1 934	1 934	1 934
Derivative financial instruments	63 733	98 055	95 795
Share in the Finnish State Nuclear Waste Management Fund	966 144	947 904	954 631
Total non-current assets	6 856 204	7 038 741	7 134 003
Current assets			
Inventories	257 080	247 128	249 424
Trade and other receivables	37 032	45 056	46 553
Derivative financial instruments	4 614	8 886	9 998
Fund units	100 338	0	200 014
Cash and cash equivalents	110 124	115 460	312 236
Total current assets	509 188	416 530	818 225
Total assets	7 365 392	7 455 271	7 952 228
Equity and liabilities			
Capital and reserves attributable to equity holders of the company			
Share capital	606 193	606 193	606 193
Share premium reserve and statutory reserve	242 383	242 383	242 383
Fair value and other reserves	518	-11 399	4 720
Subordinated shareholder loans (hybrid equity)	479 300	479 300	479 300
Retained earnings	244 019	262 610	256 656
Total equity	1 572 413	1 579 087	1 589 252
Liabilities			
Non-current liabilities			
Provision related to nuclear waste management	966 144	947 904	954 631
Loan from the Finnish State Nuclear Waste Management Fund	655 518	1 027 050	1 027 050
Bonds	2 739 386	2 482 296	2 749 544
Other financial liabilities	1 073 401	743 393	1 053 700
Derivative financial instruments	54 777	66 779	58 547
Total non-current liabilities	5 489 226	5 267 422	5 843 472
Current liabilities			
Current financial liabilities	147 994	448 484	309 394
Derivative financial instruments	2 567	6 370	7 742
Advance payments received	41 610	44 461	41 609
Trade payables	22 111	11 456	17 005
Other current liabilities	89 471	97 991	143 754
Total current liabilities	303 753	608 762	519 504
Total liabilities	5 792 979	5 876 184	6 362 976
Total equity and liabilities	7 365 392	7 455 271	7 952 228

TVO GROUP

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

EUR 1 000	Share capital	Share premium reserve and statutory reserve	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1.1.2017	606 193	242 383	4 720	479 300	256 656	1 589 252	1 589 252
Profit/loss for the period	0	0	0	0	-10 764	-10 764	-10 764
Other comprehensive items:							
Changes in fair values of the available-for-sale investments	0	0	324	0	0	324	324
Cash flow hedges	0	0	-4 526	0	0	-4 526	-4 526
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-1 873	-1 873	-1 873
Equity 30.6.2017	606 193	242 383	518	479 300	244 019	1 572 413	1 572 413

EUR 1 000	Share capital	Share premium reserve and statutory reserve	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1.1.2016	606 193	242 383	12 581	479 300	271 542	1 611 999	1 611 999
Profit/loss for the period	0	0	0	0	-6 631	-6 631	-6 631
Other comprehensive items:							
Changes in fair values of the available-for-sale investments	0	0	-385	0	0	-385	-385
Cash flow hedges	0	0	-23 595	0	0	-23 595	-23 595
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-2 301	-2 301	-2 301
Equity 30.6.2016	606 193	242 383	-11 399	479 300	262 610	1 579 087	1 579 087

TVO GROUP

CONSOLIDATED STATEMENT OF CASH FLOWS

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Operating activities			
Profit/loss for the period	-10 764	-6 631	-10 533
Adjustments:			
Income tax expenses	0	1	1
Finance income and expenses	21 042	-2 635	13 853
Depreciation and impairment charges	27 177	26 902	54 807
Share of the profit/loss of joint ventures	-191	-2 117	-2 301
Other non-cash flow income and expenses	-19 186	7 099	-408
Sales profit/loss of property, plant and equipment and shares	-225	0	-101
Change in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables	5 972	-19 517	-18 435
Increase (-) or decrease (+) in inventories	-6 406	4 136	996
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	-26 983	41 956	63 974
Interest paid and other finance expenses	-555	-2 433	-2 724
Interest received	5 723	8 163	8 183
Taxes paid	0	-2	-1
Cash flow from operating activities	-4 396	54 922	107 311
Investing activities			
Acquisition of property, plant and equipment	-168 393	-236 664	-343 479
Proceeds from sale of property, plant and equipment	0	0	203
Acquisition of intangible assets	-104	-364	-376
Acquisition of shares	-6	-2	-6
Proceeds from sale of shares	416	0	0
Loan receivables granted	371 532	-18 000	-18 135
Repayments of loans granted	0	0	276
Cash flow from investing activities	203 445	-255 030	-361 517
Financing activities			
Withdrawals of long-term loans	100 000	318 000	993 000
Repayment of long-term loans	-548 310	-288 793	-376 915
Investments in fund units	100 000	100 000	-100 000
Interest paid of subordinated shareholder loans (hybrid equity)	-1 904	-1 846	-4 448
Increase (-) or decrease (+) in interest-bearing receivables	0	0	13
Increase (+) or decrease (-) in current financial liabilities	-50 947	67 971	-65 444
Cash flow from financing activities	-401 161	195 332	446 206
Change in cash and cash equivalents	-202 112	-4 776	192 000
Cash and cash equivalents at the beginning of period	312 236	120 236	120 236
Cash and cash equivalents at the end of period	110 124	115 460	312 236

TVO GROUP

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 31 December 2016. Additionally the changes according to the revised IAS/IFRS standards have been adopted.

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 31 December 2016.

COMPARABILITY OF THE INCOME STATEMENT

When comparing the consolidated income statement for the period under review to the consolidated income statement for 1.1.-30.6.2016 it has to be taken into account that the total cost estimate based on a new nuclear waste management technical plan and schedule was updated in June 2016. Updated cost estimate decreased the provision related to the nuclear waste management and finance expenses and increased the amount of materials and services. The overall effect on profit for the period was negative because the amount of the share in the Finnish State Nuclear Waste Management Fund and the provision related to nuclear waste management are equal and the difference is entered as an adjustment to materials and services. Moreover, 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 negative profit impact of the updates and changes was mainly non-recurring. See note Assets and provisions related to nuclear waste management obligation.

TVO GROUP

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 is produced by TVO share at the Meri-Pori coal-fired power plant.

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	30.6.2017	30.6.2016	31.12.2016
Nuclear power	152 342	164 633	315 076
Coal-fired power	5 730	12 244	28 322
Total	158 072	176 877	343 398

PROFIT/LOSS FOR THE PERIOD BY SEGMENTS

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Nuclear power	-5 669	-1 973	5 927
Coal-fired power	-1 671	-911	-2 435
Profit/loss before appropriations (FAS)	-7 340	-2 884	3 492
The impact of the nuclear waste management obligation	-4 286	-6 225	-17 143
The impact of financial instruments	90	2	-2
Other IFRS adjustments	581	359	819
Share of the profit/loss of joint ventures	191	2 117	2 301
Total (IFRS)	-10 764	-6 631	-10 533

ASSETS BY SEGMENTS

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Nuclear power	6 227 168	6 259 553	6 769 274
Coal-fired power	11 415	24 851	24 240
Total (FAS)	6 238 583	6 284 404	6 793 514
The impact of the nuclear waste management obligation	1 057 604	1 054 567	1 050 376
The impact of financial instruments	28 692	71 961	66 204
The impact of finance leases	55 733	57 387	56 577
Other IFRS adjustments	-17 712	-15 165	-16 744
Share of the profit/loss of joint ventures	2 492	2 117	2 301
Total (IFRS)	7 365 392	7 455 271	7 952 228

TVO GROUP

CHANGES IN PROPERTY, PLANT AND EQUIPMENT

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Opening net book amount	5 040 266	4 852 768	4 852 768
Increase	151 644	130 662	262 336
Decrease	-8 061	-6 497	-26 671
Depreciation and impairment charges	-26 550	-26 305	-53 586
Accumulated depreciation from deduction	106	0	5 419
Closing net book amount	5 157 405	4 950 628	5 040 266

CHANGES IN INTANGIBLE ASSETS

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Opening net book amount	7 758	7 128	7 128
Increase	239	1 283	3 038
Decrease	-2 661	-1 187	-2 412
Depreciation and impairment charges	-627	-597	-1 221
Accumulated depreciation from deduction	0	0	1 225
Closing net book amount	4 709	6 627	7 758

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FINANCIAL RISK MANAGEMENT

The objectives of financial risk management and finance policy are the same as those applied to the annual financial statement for the year ended 31 December 2016.

DERIVATIVE FINANCIAL INSTRUMENTS

Nominal values of the derivative financial instruments *

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Interest rate swaps	2 449 518	2 379 518	2 449 518
Forward foreign exchange contracts and swaps ¹⁾	147 781	145 988	150 467
Cross-currency swaps	696 181	856 898	856 911
Total	3 293 480	3 382 404	3 456 897

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 *	30.6.2017			30.6.2016			31.12.2016		
	Positive	Negative	Total	Positive	Negative	Total	Positive	Negative	Total
EUR 1 000									
Interest rate swaps									
Cash flow hedges	0	-18 571	-18 571	0	-37 888	-37 888	0	-26 821	-26 821
Fair value hedges	23 480	-1 628	21 852	41 063	-5 051	36 012	29 490	-2 277	27 213
Non-hedges	0	0	0	0	0	0	0	0	0
Forward foreign exchange contracts and swaps									
Cash flow hedges	18 045	-1 199	16 846	25 647	-188	25 459	32 508	-1 108	31 401
Non-hedges	788	-246	542	0	0	0	0	0	0
Cross-currency swaps									
Non-hedges	26 034	-35 700	-9 666	40 231	-30 022	10 209	43 795	-36 085	7 710
Total	68 347	-57 344	11 003	106 941	-73 149	33 792	105 793	-66 289	39 503

* Cross-currency swaps related to Private Placements included.

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DISCLOSURE OF FAIR VALUE MEASUREMENTS BY THE LEVEL OF FAIR VALUE MEASUREMENT HIERARCHY

EUR 1 000	30.6.2017			31.12.2016		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial assets at fair value						
Derivative financial instruments at fair value through profit or loss		26 822			43 795	
Derivative financial instruments designated as cash flow hedges		18 045			32 508	
Derivative financial instruments designated as fair value hedges		23 480			29 490	
Available-for-sale investments						
Investments in listed companies	0			0		
Investments in other stocks and shares			0			0
Total	0	68 347	0	0	105 793	0
Financial liabilities at fair value						
Derivative financial instruments at fair value through profit or loss		35 946			36 085	
Derivative financial instruments designated as cash flow hedges		19 770			27 928	
Derivative financial instruments designated as fair value hedges		1 628			2 277	
Total	0	57 344	0	0	66 289	0

On 30 June 2017, TVO has also unquoted shares worth EUR 1,934 (1,934) thousand that are measured at acquisition cost because their fair value cannot be reliably determined.

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.

BOOK VALUES OF FINANCIAL ASSETS AND LIABILITIES BY CATEGORIES

EUR 1 000	30.6.2017			31.12.2016		
	Financial liabilities measured at amortized cost	Book Value	Fair value	Financial liabilities measured at amortized cost	Book Value	Fair value
Non-current liabilities						
Other financial liabilities*	3 812 787	3 812 787	3 934 472	3 803 244	3 803 244	3 897 776

*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.

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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	30.6.2017	30.6.2016	31.12.2016
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	966 144	947 904	954 631
Provision related to nuclear waste management (non-current liabilities)	966 144	947 904	954 631

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	30.6.2017	30.6.2016	31.12.2016
Liability for nuclear waste management according to the Nuclear Energy Act	1 450 100	1 369 400	1 450 100
Funding target obligation	1 428 400	1 369 400	1 428 400
TVO's share in the Finnish State Nuclear Waste Management Fund	1 428 400	1 369 400	1 379 700
Difference between the liability and TVO's share of the fund	21 700	0	70 400

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.

When comparing the consolidated income statement for the period under review to the consolidated income statement for 1.1.-30.6.2016 it has to be taken into account that the total cost estimate based on a new nuclear waste management technical plan and schedule was updated in June 2016. The updated cost estimate in June 2016 decreased the provision related to the nuclear waste management and finance expenses and increased the amount of materials and services. The provision on balance sheet compared to the value at the end of the previous year was decreased by EUR 23.3 million. The effect of revised cost estimate to the consolidated income statement compared to the previous estimate were EUR 28.1 million increase in materials and services and EUR 24.0 million decrease in finance expenses.

The overall effect on profit for the period in June 2016 was negative because the amount of the share in the Finnish State Nuclear Waste Management Fund and the provision related to nuclear waste management are equal and the difference is entered as an adjustment to materials and services.

Moreover, 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.

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. TVO's share in the Finnish State Nuclear Waste Management Fund on June 30, 2017 is EUR 1,428.4 million. The carrying amount in the balance sheet is EUR 966.1 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.

The Ministry of Economic Affairs and Employment (MEAE) has adopted the procedure mentioned in the Nuclear Energy Act (section 40, subsection 3) and specified in the Government Decision 1339/1996 for a temporary reduction of the funding target when confirming Teollisuuden Voima Oyj's funding target obligation for 2017.

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.

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OBLIGATIONS AND OTHER COMMITMENTS**Pledged promissory notes and financial guarantees**

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	655 518	1 027 050	1 027 050
Guarantees given by shareholders related to the nuclear waste management obligation	187 500	144 530	144 530

Investment commitments

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

EUR 1 000	30.6.2017	30.6.2016	31.12.2016
OL1 and OL2	105 000	146 000	129 000
OL3	721 000	705 000	735 000
Total	826 000	851 000	864 000

Pending Court Cases and Disputes

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