



Report of the Board of Directors and Financial Statements 2013



## Contents

Report of the Board of Directors of Teollisuuden Voima Oyj	3
Operating environment	3
Main events	4
Financial performance	5
Financing and liquidity	5
Share capital	6
Administrative principles	6
Administrative bodies	6
Regulatory environment	7
Risk management, major risks and uncertainties	7
Pending court cases and disputes	9
Nuclear power	9
Olkiluoto 1 and Olkiluoto 2	9
Annual outages	9
Olkiluoto 3	10
Olkiluoto 4	11
Nuclear fuel	11
Nuclear waste management	11
Coal power	12
Meri-Pori	13
Research and development	13
Acquisitions of tangible and intangible assets and shares	13
Safety and environmental issues	13
Group personnel and training	14
Subsidiaries and joint ventures	15
Major events after the end of the year	15
Prospects for the future	15
Proposals to the Annual General Meeting	16
Key figures	17
TVO Group financial statements	19
Parent company's financial statements	64
Proposals to the Annual General Meeting	83
Signatures for the report of the Board of Directors and financial statements	83
Auditor's report	84
Financial information in 2014	86



## Operating environment

At the end of 2013, a total of 438 nuclear power plant (NPP) units were in operation in 30 different countries throughout the world. They produced an estimated 12 per cent of all electricity consumed in the world. In addition, 71 new reactors are under construction. It is expected that in the next few years, new NPP projects will be initiated, besides in Europe, in China, India, South Korea, USA, and Russia, among others. By 2035, the world's total capacity of nuclear power is expected 1) to increase from the current 400 gigawatts (GW) to the level of 580 GW.

Nearly 28 per cent of all electricity in the European Union is generated in nuclear power plants. A total of 131 reactors are in operation in 15<sup>2)</sup> different Member States. The total capacity of the plants is 132 GW. Currently there are four<sup>3)</sup> reactors under construction in the EU. An extension of the operation lifetime of existing plants is also being planned in many countries.

Following the safety assessments made in the EU, the EU Commission has proposed a revised nuclear safety directive which is currently under discussion in the European Council and Parliament. At the same time, the national action plans following the safety assessments are under implementation in the Member States. The EU Commission launched in the fall a public consultation on the possible harmonization of national liability regimes for nuclear damages.

In December, the new regulatory guides on nuclear safety (YVL Guides) compiled by the Radiation and Nuclear Safety Authority in Finland (STUK) came into effect. The new Guides will be applied as they stand to all new nuclear power plant units. Later it will be decided how the new requirements are to be applied to existing plant units and those now under construction.

### Nuclear power plays an important role in Finland's energy policy

The Finnish Parliament approved in December the Energy and Climate Strategy update of Prime Minister Katainen's government. The target of the Strategy's so called Clean Energy Program is to reduce greenhouse gas emissions, create jobs, reduce energy imports, and accelerate development and use of domestic clean energy technology. New nuclear power plays an important role in achieving the objectives set.

A new act on power plant tax was approved by Parliament in December. The act will come into force by government decree. According to the act, the amount of tax to be collected from nuclear, hydro, and wind power plants taken in use prior to the year 2004 will be EUR 50 million per year in total. More than fifth of the tax amount would be imposed on nuclear power as of the beginning of 2014. The law will not enter into force until it has been confirmed by the European Commission.

### A small decrease in Finland's electricity consumption

The total consumption of electricity in Finland in 2013 was 83.9 terawatt hours (TWh). The consumption decreased by 1.5 per cent compared to the previous year. The share of net electricity imports was high as in the previous year, one-fifth of the total consumption. The share of domestic hydropower decreased, the use of coal increased. The amount of nuclear power generated in 2013 was 22.7 TWh, which accounted for 27 per cent of the electricity procured.

<sup>1)</sup> IEA World Energy Outlook 2013

<sup>&</sup>lt;sup>2)</sup> 15th is Croatia which owns half of the Krsko NPP located in Slovenia

<sup>3)</sup> Finland 1, France 1, and Slovakia 2



### Main events

Fall 2013 marked the 35th anniversary of the production start-up of the Olkiluoto nuclear power plant. Olkiluoto 1 (OL1) was synchronized to the Finnish national grid on September 2, 1978. After the first years of operation, the load factor of OL1 and Olkiluoto 2 (OL2), which was commissioned in 1980, has remained constantly at a high international level. On November 1, 2013, OL2 achieved the milestone of 200 terawatt hours (billion kilowatt-hours) in commercial production. Thanks to the modernization and safety investments, the net electrical output of the plant units has increased from 660 MW to 880 MW, and the safety and energy efficiency of the production have considerably improved. The principle is to keep the plant units as good as new at all times.

The Olkiluoto NPP achieved in 2013 the highest ever production result in its history, 14.63 TWh of electricity, despite a few unplanned outages. For OL1, the production volume in 2013 was the highest ever, 7.47 TWh. The combined load factor of the plant units was 95.1 per cent. Together with the share of the Meri-Pori coal-fired power plant TVO's production was 15.36 TWh. The electricity produced in Olkiluoto accounted for about 17 per cent of all electricity consumed in Finland.

The annual outages of the plant units were executed on May 12–June 14, 2013.

The civil construction works of the Olkiluoto 3 (OL3) plant unit are mainly completed, and the major components of the reactor plant have been installed. Planning, documentation and licensing of the reactor plant automation are not yet completed.

Based on the progress reports received from the AREVA-Siemens-Consortium (Supplier), who is constructing the plant unit as a fixed-price turnkey project, TVO announced in February 2013 that the Company will prepare for the possibility that the start of the regular electricity production of the OL3 plant unit may be postponed until year 2016. After the reporting period, in February 2014, TVO announced that it had not received the requested overall schedule update for the OL3 project from the Supplier. Therefore TVO does not provide an estimate of the start-up time of the plant unit at the moment. TVO has required the Supplier, who is in charge of the project schedule, to update the overall schedule and to provide a clarification of the measures needed to ensure proper progress to complete the plant unit. Information about the start-up date of electricity production of the OL3 plant unit is pending the finalization of the Supplier's schedule clarification.

The Supplier updated in October its claim to the ICC arbitration proceedings concerning the delay of the project. The updated quantification until the end of June 2011 is in total EUR 2.7 billion. TVO has considered and found the earlier claim by the Supplier to be without merit, scrutinizes the updated claim and will respond to it in due course.

In December, the Supplier informed that it is planning to focus efforts on the OL3 site on urgent design tasks that are the most critical to the project. At the same time, the Supplier also informed that it is planning to reduce the number of subcontractors and work staff at the construction site.

TVO received in January bids related to the new Olkiluoto 4 (OL4) NPP to be constructed in Olkiluoto. Bids were received from all the plant supplier candidates involved in the bidding process. Engineering with the potential plant suppliers to clarify licensability and constructability of the plant alternatives continued. According to the decision-in-principle, the construction license application must be submitted to the Government by mid-2015.

TVO signed in May an agreement with Wärtsilä Finland Oy for the delivery of emergency diesel generators and associated auxiliary systems to Olkiluoto. The replacement project of the emergency diesel generators is the largest individual plant modification project ever realized in Olkiluoto. The total investment of the replacement project is more than EUR 100 million. The project is estimated to continue until 2020.

The Board of Directors of TVO proposed in February to the Company's B-series shareholders a new EUR 300 million



shareholder loan commitment. By means of the proposed shareholder loan, the Company will prepare to maintain a sufficient level of equity for the OL3 project and cope with possible additional delays and costs in finalizing the project. In June, all the Company's B-series shareholders undersigned the loan agreement in accordance with the proposal made by the Board of Directors.

Fitch Ratings (Fitch) downgraded in May TVO's long-term issuer default rating (IDR) and senior unsecured rating from BBB+ to BBB and short-term rating from F2 to F3. The outlook Fitch assessed as being stable.

## Financial performance

TVO operates on a cost-price principle (Mankala principle). TVO's goal is not to make profit or pay dividends. Due to the Company's operating principle, key indicators based on financial performance will not be presented. The shareholders are charged incurred costs in the price of electricity and thus in principle the profit/loss for the financial year is zero. 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.

The consolidated turnover for 2013 was EUR 365.9 (352.2) million. The amount of electricity delivered to the shareholders was 15,331 (14,853) GWh.

The consolidated profit/loss was EUR 30.5 (-1.8) million. An updated cost estimate based on a new nuclear waste management technical plan and schedule and the changes of the provision regarding nuclear waste management obligation have an effect on the profit/loss for the period under review. The positive profit impact of the updates and changes is mainly non-recurring. (See Notes 24: Assets and provision related to nuclear waste management obligation.)

## Financing and liquidity

TVO's financial situation has developed as planned.

TVO's liabilities (non-current and current) at the end of the year, excluding the loan from the Finnish State Nuclear Waste Management Fund relent to shareholders, totaled EUR 3,426.6 (December 31, 2012: 3,196.9) million, of which EUR 339.3 (229.3) million were subordinated shareholder loans. During 2013, TVO raised a total of EUR 361.5 (775.0) million in non-current liabilities, of which EUR 110.0 (50.0) million were subordinated shareholder loans. Repayments during the period under review amounted to EUR 175.8 (241.2) million.

In March 2011, TVO signed a EUR 1.5 billion five-year syndicated credit facility with two one-year extension options. In March 2013, the facility was extended again by one year with EUR 1.45 billion. At the year end, TVO had undrawn credit facilities and cash and cash equivalents amounting to EUR 2,362 (2,164) million. From that amount EUR 720 million were subordinated shareholder loan commitments of which EUR 500 million is allocated to the financing needs of the OL3 project and EUR 220 million to the financing of the bidding and engineering phase of the OL4 project.

The Board of Directors of TVO made a decision in February to propose to the Company's B-series shareholders a new EUR 300 million shareholder loan commitment. By means of the proposed shareholder loan, the Company will prepare to maintain a sufficient level of equity for the OL3 project and cope with possible additional delays and costs in finalizing the project. In June, all the Company's B-series shareholders undersigned the loan agreement in accordance with the proposal made by the Board of Directors.

The OL3 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 December 31, 2013, the amount of the loan was EUR 931.7 (December 31, 2012: 881.7) million and it has been relent to the Company's A-series shareholders. On April 2, 2013 loan from the Finnish State Nuclear Waste Management Fund was increased by EUR 50.0 million (April 2, 2012: EUR 39.2 million).

In February 2013, Japan Credit Rating Agency (JCR) kept its AA rating for TVO. In May, Fitch Ratings' downgraded TVO's long-term issuer default rating (IDR) and senior unsecured rating from BBB+ to BBB and short-term rating from F2 to F3. Standard & Poor's Rating Services held its BBB long-term and A-2 short-term corporate credit ratings for TVO. The outlook was assessed as being stable by all the agencies.

In June, TVO updated the Euro Medium Term Note Program (EMTN) and raised the size of the program from EUR 3 billion to EUR 3.5 billion. Under the EMTN Program, the Company has issued during the second quarter of the year a EUR 23 million private placement and during the third quarter of the year in the Swedish market SEK 1,125 million and SEK 875 million bonds.

In June, the Company raised a EUR 100 million shareholder loan for the OL3 project and a EUR 10 million shareholder loan for the bidding and engineering phase of the OL4 project.

## Share capital

TVO's share capital on December 31, 2013 was EUR 606.2 (606.2) million.

The Company has 1,394,283,730 (1,394,283,730) shares, of which 680,000,000 belong to the A series, 680,000,000 to the B series and 34,283,730 to the C series. The A series shares entitle to electricity generated at the OL1 and OL2 units and the B series shares to the electricity generated at the OL3 unit. The C series owners have right to acquire electricity generated by TVO's share of the Meri-Pori coal-fired power plant.

## Administrative principles

Because TVO is an unlisted public company applying the cost-price principle, it observes the Corporate Governance Code for listed companies where applicable. TVO is not obligated to observe the Corporate Governance Code nor therefore the Comply or Explain principle. According to the Securities Market Act (14.12.2012/746), the issuer of a security subject to public trading must provide a Corporate Governance Statement in its Annual Report or separately. TVO has given a separate Corporate Governance Statement which is published on its website, www.tvo.fi at the same time with this Report of the Board of Directors.

### Administrative bodies

TVO's administrative bodies and their functions in 2013 have been described in a separate Corporate Governance Statement to be found on the Company's website.



## Regulatory environment

The purpose of the nuclear energy legislation is to ensure that the use of nuclear energy is conducted in a manner that benefits the common good of society. The main rules of the use of nuclear energy, monitoring the use, and nuclear safety, are included in the Finnish Nuclear Energy Act and the Nuclear Energy Decree as well as lower level statutes issued pursuant to them, such as the Radiation and Nuclear Safety Authority's YVL (NPP) guidelines. Other regulations pertaining to the exploitation of nuclear energy are to be found in the Radiation Act.

New regulatory guides on nuclear safety (YVL Guides) came into effect at the beginning of December. The new regulations are stricter than the previous ones and are meant to improve the safety of nuclear facilities in Finland. The new Guides will be applied as they stand to all new nuclear power plant units. Later it will be decided how the new requirements are to be applied to existing nuclear power plant units and those now under construction, such as OL3. Along with new YVL Guides, also the Nuclear Energy Degree and government decrees were revised and renewed. The changes to the Nuclear Energy Decree and government decrees came also into effect at the end of 2013.

In addition, the Nuclear Liability Act concerns the liability the operator of a nuclear plant has in the event of a nuclear accident. A temporary amendment to the Nuclear Liability Act came into force as of the beginning of 2012. According to the temporary amendment, the plant operator's liability for a nuclear incident in Finland is unlimited but limited to a maximum amount of 600 million Special Drawing Rights (SDR), corresponding to EUR 700 million, for nuclear damage outside of Finland. The operator has to have insurance up to a minimum of 600 million SDR.

The use of nuclear energy is subject to license. Applications are made to the Government for a decision-in-principle, construction license and operating license. The Radiation and Nuclear Safety Authority Finland (STUK) is responsible for monitoring the safety of nuclear energy use. STUK is also responsible for monitoring safety and emergency arrangements and nuclear material.

## Risk management, major risks and uncertainties

### Risk management

Risk management is a systematic approach which aims to support the fulfillment of TVO's strategy and business objectives as well as to ensure the existence of TVO's operational preconditions. Risk management is executed based on the company's policies and corporate governance.

Risk management is supervised by the Board of Directors of the Company, which endorses the principles on which it is based. The CEO, with the help of the Company's Management Board, is in charge of the risk management according to TVO's objectives and strategy. Under the Management Group there is a risk management group that is in charge of ensuring adequate risk treatment in the company.

The organization units are responsible for risk identification, analyzing and risk treatment. Risk identification is carried out as part of TVO's strategic and operational planning and follow-up as well as part of project management.

TVO has launched a company-wide risk management process which the Company's organization units comply with. By operating in accordance with the risk management process TVO ensures that all risks facing the Company are systematically identified and each risk is treated according to its significance. The objective of the risk treatment process is either to prevent the risk from materializing or to reduce its likelihood or consequence.



TVO reduces risks connected with safety and production by keeping the plant units in good condition. Safe and reliable production is ensured by efficient life-cycle management of the plant units and high-quality planning and implementation of the annual outages. TVO has started to prepare for the upcoming operating license renewal of OL1 and OL2 in 2018 by launching a preliminary planning process of plant modifications and safety adjustments.

Indemnity and property risks are covered with insurances. The aim of insurance management is to keep the scope, cover and cost of insurance in an acceptable level. TVO is a member of European nuclear insurance associations. Statutory liability insurance is in force for nuclear liability.

Fuel for the production of electricity, uranium and coal, is bought on the global market. Risks connected with nuclear fuel have been reduced by making purchases from a variety of suppliers and by concluding long-term contracts.

At OL3, risk management during the construction stage is primarily a question of overseeing and guiding the work of the Supplier according to the terms of the turnkey contract. Property damage risks and possible delays caused by them are covered by insurances.

TVO's financing and financial risk management is dealt with centrally by the Company's Treasury department, in accordance with the financing policy adopted by the Board of Directors. The financing risks of TVO's business include liquidity and market and credit risks. By diversifying sources of finance, and with long-term credit commitments and liquid funds, financing risks can be reduced. The financial position has been strengthened by issuing long term private placements and bonds. TVO has reduced market risks by making use of interest rate and currency derivatives. According to the Company's financing policy the loans denominated in foreign currencies will be hedged to the euro until the maturity date by using derivatives. Financial risk management and fuel price risks are dealt with in the notes to the consolidated financial statements, note 27 (Financial Risk Management).

### Major risks and uncertainties

TVO's major risks are related to the schedule of the OL3 project. Based on the progress reports received from the Supplier, TVO announced in February 2013 that the Company will prepare for the possibility that the start of the regular electricity production of the OL3 plant unit may be postponed until year 2016. Originally the electricity production was scheduled to start at the end of April 2009.

After the reporting period, in February 2014, TVO announced that it had not received the requested overall schedule update for the OL3 project from the Supplier. Therefore TVO does not provide an estimate of the start-up time of the plant unit at the moment. TVO has required the Supplier, who is in charge of the project schedule, to update the overall schedule and to provide a clarification of the measures needed to ensure proper progress to complete the plant unit. Information about the start-up date of electricity production of the OL3 plant unit is pending the finalization of the Supplier's schedule clarification.

The delay causes additional costs and losses, for which the Company has claimed compensation from the turnkey supplier of the OL3 plant.

There are no major risks or uncertainties concerning electricity production at OL1, OL2 or the Meri-Pori coal-fired power plant.



## Pending court cases and disputes

TVO submitted in 2012 a claim and defense in the International Chamber of Commerce (ICC) arbitration proceedings concerning the delay and the ensuing costs incurred at the Olkiluoto 3 project. The quantification estimate of TVO's costs and losses was approximately EUR 1.8 billion which included TVO's actual claim and an estimated part until August 2014.

The proceedings were initiated in December 2008 by the OL3 Supplier. The monetary claim the Supplier updated in 2013 is in total approximately EUR 2.7 billion. The updated quantification is until the end of June 2011, and the sum includes approximately EUR 70 million of payments delayed by TVO under the plant contract as well as approximately EUR 700 million of penalty interest and approximately EUR 120 million of alleged loss of profit. TVO has considered and found the earlier claim by the Supplier to be without merit, scrutinizes the updated claim and will respond to it in due course.

The arbitration proceedings may continue for several years, and the claimed amounts may be updated.

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

### Nuclear power

TVO owns and operates two nuclear power plant units, Olkiluoto 1 (OL1) and Olkiluoto 2 (OL2), and is building a new plant unit, Olkiluoto 3 (OL3) at Olkiluoto in Eurajoki, Finland. The Finnish Parliament ratified in 2010 the Government's favorable decision-in-principle concerning the construction of the Olkiluoto 4 (OL4) nuclear power plant unit.

### Olkiluoto 1 and Olkiluoto 2

The electricity production of the Olkiluoto power plant units, OL1 and OL2, during 2013 was 14,633 (14,450) GWh. The total load factor was 95.1 (93.7) per cent.

The plant units operated safely. OL1's net production was 7,470 (6,973) GWh and the load factor 97.1 (90.4) per cent. OL2's net production was 7,163 (7,477) GWh and the load factor 93.1 (96.9) per cent.

OL2 encountered a production shutdown on September 9–15 caused by a failure in the cooling circuit of the generator. The plant unit was disconnected from the national grid, when the protection system of the generator tripped and initiated a turbine scram. The protection systems of the plant unit operated as planned, and steam generation in the reactor was stopped in a controlled manner. The generator failure and the resulting turbine scram did not risk nuclear safety. OL1 operated reliably throughout the year except for a short production stop in the beginning of December.

## Annual outages

The annual outages of 2013 at the Olkiluoto nuclear power plant were carried out in May 12–June 14. OL1 had a refueling outage which took less than eight days, and OL2 underwent a maintenance outage which lasted more than 18 days.

The main maintenance activities during the outage at OL2 included replacement of the low-voltage switchgears, as well as work on the reactor. Modern low voltage switchgears and transformers, which meet the latest regulations and standards as



well as future plant modification needs, were installed in two subsystems of the plant. The replacement of the switchgears is part of the systematic long-term development of the plant units. Other significant activities carried out were repair of the generator stator, refueling, leak-tightness test of the containment and replacement of two seawater pumps. Up to 800 external employees were involved in the OL2 outage, in addition to TVO's own personnel.

In the outage at OL1, apart from refueling, two main seawater pumps were replaced, and annual maintenance activities, tests and fault repairs were carried out.

### Olkiluoto 3

OL3, currently under construction, was commissioned as a fixed-price turnkey project from the Consortium (referred to as the Supplier) formed by AREVA GmbH, AREVA NP SAS and Siemens AG. Originally commercial electricity production was scheduled to start at the end of April 2009. The completion of the project, however, has been delayed. The Supplier's installation works and plant automation system engineering at the plant unit have not progressed according to the Supplier's schedules.

Based on the progress reports received from the Supplier, TVO announced in February 2013 that the Company will prepare for the possibility that the start of the regular electricity production of the OL3 plant unit may be postponed until year 2016. After the reporting period, in February 2014, TVO announced that it had not received the requested overall schedule update for the OL3 project from the Supplier. Therefore TVO does not provide an estimate of the start-up time of the plant unit at the moment. TVO has required the Supplier, who is in charge of the project schedule, to update the overall schedule and to provide a clarification of the measures needed to ensure proper progress to complete the plant unit. Information about the start-up date of electricity production of the OL3 plant unit is pending the finalization of the Supplier's schedule clarification.

The civil construction works of the plant unit have been mainly completed. Cladding works of the buildings' exterior walls continue.

The major components of the reactor plant, such as reactor pressure vessel, pressurizer and four steam generators have been installed, and the primary coolant circuit pipeline has been welded. Pipeline welding works and pressure tests continue. Commissioning of the power distribution in the reactor plant is ongoing. Planning, documentation and licensing of the reactor plant automation are not yet completed.

The first phase of the commissioning of the turbine plant is ongoing.

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

The workforce at the site at the end of the year was about 2,000. The Supplier informed in December that it is planning to focus efforts on the OL3 site on urgent design tasks that are the most critical to the project. At the same time, the Supplier also informed that it is planning to reduce the number of subcontractors and work staff at the construction site.

The occupational safety at the site remained at good level.

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



### Olkiluoto 4

On July 1, 2010, Parliament approved the favorable decision-in-principle made by the Government on May 6, 2010 regarding TVO's application to construct a fourth nuclear power plant unit (OL4) in Olkiluoto.

TVO continued preparations for the OL4 nuclear power plant project. Engineering with the potential plant suppliers to clarify licensability and constructability of the plant alternatives proceeded, as did also the procurement process aiming at the plant selection. The evaluation of updated bids related to the new NPP and preparation of the next phases of the project are ongoing.

All the realized costs of the OL4 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

In 2013, the nuclear fuel purchases amounted to EUR 56.5 (67.4) million and the amount consumed to EUR 48.2 (46.1) million.

The nuclear fuel and uranium stock carrying value on December 31, 2013 was EUR 207.9 (December 31, 2012: 199.7) 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. Posiva Oy, jointly owned by TVO and Fortum Power and Heat Oy, is responsible for taking care of the final disposal of TVO's spent nuclear fuel.

As the actual tunnel part of the underground rock characterization facility ONKALO was completed in 2012, ONKALO has been equipped with technical facilities and systems during 2013. Concrete structures for the emergency shelter and rest room facilities, a pool for collecting leak water, permanent ventilation and electrical systems as well as testing area for ONKALO's floor coating have been built at a depth of 437 meters, among other things. During 2013, also the injections of one of the two ventilation shafts and personnel hoist equipment shaft were completed, and raise boring of the shafts were started at the end of the year. Reinforcement and equipping of the hoist equipment shaft for installing the hoist can be started next.

In the final disposal demonstration facilities at a depth of 420 meters, an international technology development project of eight countries for testing plugging and sealing systems for final disposal tunnels has been started. The project, partly funded by the EU, is coordinated by Posiva. Besides coordination, Posiva will construct two 25-meter-long tunnels in ONKALO, of which excavation works have been completed. One of the tunnels will be sealed with a massive concrete plug of the type which will be used also in the actual final disposal, and the other tunnel will be equipped with measuring devices needed in the test.

Preparations to start the second construction phase of the above-ground hoist equipment building have been made by completing the excavation works necessary for the construction. The actual construction will start in early 2014.



The Ministry of Employment and the Economy (MEE) organized in September 2013 a public debate and hearing concerning Posiva's construction license application, which Posiva had submitted to the MEE at the end of 2012. The MEE has received all stakeholders' opinions requested, to which Posiva will respond during 2014.

During 2013, Posiva has prepared for starting construction of the final repository and encapsulation plant in early 2015 by making detailed project and system planning as well as by recruiting project staff. Moreover, the final disposal concept has been further developed, the construction license application has been supplemented by additional clarifications required by STUK, and demonstration actions to prove that Posiva is capable of starting the final disposal in 2022 have been initiated.

The spent fuel produced by the NPP units of TVO and Fortum in Finland will be disposed of in the Olkiluoto final disposal facility.

The expansion of the interim storage facility for spent nuclear fuel in Olkiluoto has proceeded according to plan. With the expansion TVO will double the capacity of the existing fuel pools. The expansion project is based on TVO's plans to provide interim storage facilities for the spent fuel elements of both the existing plant units, OL1 and OL2, and OL3 under construction. The expansion is scheduled to be taken into use in 2014.

The liabilities, in the consolidated financial statement, show a provision related to nuclear waste management liability of EUR 897.9 (December 31, 2012: 857.6) 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 2013, the MEE set TVO's liability for nuclear waste management at EUR 1,317.8 (1,242.3) million to the end of 2013 and the Company's funding target for 2014 at EUR 1,310.4 (1,242.3) million.

In March 2013, the Finnish State Nuclear Management Fund confirmed TVO's nuclear waste management fee for 2012 at EUR 43.1 (34.1) million, which was paid into the Fund on April 2, 2013 (April 2, 2012). The nuclear waste management fee for 2013 will be confirmed in March 2014.

A total of 6,118 (5,965) m3 of low- and medium-level radioactive waste has accumulated from the OL1 and OL2 plant units during their operation. During 2013, the amount of waste increased by 153 m3. In 2012, the total amount of waste decreased by 795 m<sup>3</sup>, which was due to a demolition project of decommissioned reheaters implemented in Studsvik, Sweden. The waste is disposed of in the final repository for low- and medium-level waste (VLJ repository) in Olkiluoto.

The total amount of spent nuclear fuel by the end of the year was 1,362 (1,327) tons, of which 36 (36) tons accumulated in 2013. The spent fuel is stored in the fuel pools of the plant units and in an interim storage facility (the KPA storage facility) at Olkiluoto.

## Coal power

TVO has a 45 per cent holding in the Meripori coal-fired power plant owned and operated by Fortum Power and Heat Oy. The Meripori power plant is located on the Tahkoluoto island in Pori, Finland.



### Meri-Pori

The amount of electricity produced by TVO's share at the Meri-Pori coal-fired power plant was 725.4 (477.4) GWh requiring 254.4 (168.7) thousand tons of coal and 592.0 (399.8) thousand tons of carbon dioxide emission rights.

The Meri-Pori power plant was shut down for turbine inspection on August 5, 2013. In the inspection, a damage requiring repair was detected in the turbine. The annual outage of the plant and repair of the turbine were started. The turbine repair and maintenance were completed on November 6, 2013. Test run of the turbine and new pulverized coal burners was conducted in November 7–13, 2013.

## Research and development

Research and development costs were EUR 20.8 (24.1) million, most of which was used for R&D activities related to nuclear waste management.

TVO is a major financier of Finnish public sector research programs for reactor safety and nuclear waste management. In 2013, TVO's contribution to the Finnish State Nuclear Waste Management Fund, which finances such programs, amounted to EUR 4.6 (4.6) million.

## Acquisitions of tangible and intangible assets and shares

Investments during 2013 were EUR 335.1 (337.3) million. Investments of the parent company were EUR 302.5 (336.9) million, of which EUR 260.8 (274.2) million was allocated to the OL3 project.

TVO signed in May 2013 an agreement with Wärtsilä Finland Oy for the delivery of emergency diesel generators and associated auxiliary systems to Olkiluoto. A total of nine generators will be delivered, and TVO is in charge of the construction work required for the project as well as for the connection of the diesel generators to TVO's other systems. The replacement project of the emergency diesel generators is the largest individual plant modification project ever realized in Olkiluoto. The total investment of the replacement project is more than EUR 100 million. The project is estimated to continue until 2020. The replacement of the generators will be carried out as far as possible during normal power operation at OL1 and OL2 plant units.

Carbon dioxide emission rights acquired for the Company's share of the Meri-Pori coal-fired power plant have been relinquished to the Energy Market Authority worth of EUR 0.9 (6.7) million. In 2013, emission rights for the Company's share of the Meri-Pori coal-fired power plant were acquired worth 2.7 (0.9) million. The Company's need for carbon dioxide emission rights for the period under review was covered by acquired emission rights.

## Safety and environmental issues

The Olkiluoto nuclear power plant units operated safely during the year. No incidents with a major impact on nuclear safety occurred. In 2013, four special reports were prepared for the Radiation and Nuclear Safety Authority (STUK). A total of five events were classified on the international INES scale (0–7) at level 0 (No safety significance).



TVO's operations were in accordance with the Company's environmental policy, environmental permits, and environmental management system. Its environmental management system, which also covers the construction phase of the OL3 unit, complies with the international ISO 14001 Standard and is EMAS registered.

The environmental impacts of the Olkiluoto nuclear power plant were minor. As in previous years, radioactive emissions into the atmosphere and water were extremely low, and significantly lower than the limits set by the authorities.

The operations were developed considering the requirements of the environmental permit and according to environmental management system. TVO has identified 7 significant environmental aspects related to the Company's activities. For each these aspects, 4 long-term goals have been set. In order to achieve these goals, continuing or a few years-long objectives are set. A total of 15 targets were set for the year 2013, and all of them were reached wholly or in part. Within the year, no significant environmental deviation occurred. Overall, 13 minor environmental observations or minor deviations were detected during the operating cycle. Those were related to chemicals or waste management. At the OL3 construction site, 29 environmental observations were recorded.

TVO has a certified occupational health and safety system compliant with the OHSAS 18001 Standard, in which also the activities at the OL3 construction site are included. The systems of OL1 and OL2 operating and OL3 construction phase were integrated in 2013. The occupational safety goal on the whole Olkiluoto island is zero accidents and common working methods. As in earlier years, actions to reach the zero-accident goal were continued, and the systems integration will provide a basis for common working methods.

More detailed information on the environmental issues and indicators as well as occupational safety indicators for 2013 will be reported in the Corporate Social Responsibility Report and Environmental Report which will be published on TVO's website www.tvo.fi. The contents of the reports will be verified by an outside body.

## Group personnel and training

### Group personnel

At the year-end, the total number of personnel in the Group was 857 (868), and the average during the year was 894 (884). The year-end total number of personnel in the Company was 852 (863), and the average during the year was 890 (879). The year-end total for permanent personnel was 762 (772).

TVO recruited 25 (71) employees in 2013. During the year, 65 (53) employees changed jobs and 36 (36) permanent employees left the Company, including 24 (21) who retired.

The collective agreements for different groups of personnel in the energy industry will be in force in accordance with the so called framework agreement of labor confederations until January 1, 2017.

### **Training**

As in previous years, basic and supplementary training for TVO personnel was carried out in accordance with the training program for the year. The personnel was trained a total of 8,401 (8,636) days, on average of 9.4 (9.8) days per each TVO employee.

In accordance with their refresher training program, the OL1 and OL2 operators took part in operation training and advanced simulation training in spring and fall 2013. Training, basic simulation course and basic training period, of the new operators who started they work in 2011 and 2012, progressed according to plan.



The OL3 operators participated, in accordance with their refresher training program, in operation training in spring and fall 2013. Additionally, a simulation exercise was organized for the operators. At the same time, also TVO's trainers were trained and familiarized for the use and maintenance of the OL3 simulator. At other times, the OL3 operators worked in commissioning tasks and trainers in training planning tasks.

Induction training is required from all those working at the Olkiluoto nuclear power plant area. The general training is meant for all persons working at the Olkiluoto site and the radiation protection training for those who work inside the controlled area. During 2013, a total of 2,918 persons took part in the general training and 851 in the radiation protection training (registered by January 16, 2014). Both trainings were given in Finnish and English.

Mote detailed information on human resource and competence development matters and their indicators for 2013 will be reported in the Corporate Social Responsibility Report on TVO's website, www.tvo.fi. The contents of the report will be verified by an outside body.

## Subsidiaries and joint ventures

TVO Nuclear Services Oy (TVONS) is a wholly-owned subsidiary of TVO. TVONS provides its customers with expertise and services related to high-level nuclear safety, cost-effective operations, and nuclear waste management. The special expertise of TVO personnel is at TVONS customers' disposal.

Merger of TVO's wholly-owned subsidiaries, Olkiluodon Vesi Oy and Perusvoima Oy, with TVO was registered in the Trade Register on December 31, 2013. The merger agreement signed by the companies and merger announcement to the creditors of the subsidiaries were registered in the Trade Register in August. The objective of the merger was to simplify the corporate structure. Olkiluodon Vesi has been responsible for the raw water supply for TVO's and Posiva Oy's operations at Olkiluoto. Perusvoima did not have activities during 2013.

Posiva Oy, jointly owned by TVO and Fortum, is responsible for research into and implementing the final disposal of its shareholders' spent nuclear fuel. TVO owns 60 per cent of Posiva. Posiva continued construction and equipment of the underground research facility for final disposal according to plan.

## Major events after the end of the year

TVO announced in February 2014 that it had not received the requested overall schedule update for the OL3 project from the Supplier. Therefore TVO does not provide an estimate of the start-up time of the plant unit at the moment. TVO has required the Supplier, who is in charge of the project schedule, to update the overall schedule and to provide a clarification of the measures needed to ensure proper progress to complete the plant unit. Information about the start-up date of electricity production of the OL3 plant unit is pending the finalization of the Supplier's schedule clarification.

## Prospects for the future

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.

In accordance with the new safety guidelines under preparation, TVO continues planning of the required systems changes.



Based on the current estimate, the changes will not have major impact on TVO's capital expenditure program.

Realization of the OL3 nuclear power plant project and preparing the plant unit for production use will be continued.

Preparations for the OL4 nuclear power plant project will proceed. Clarification of the licensability and constructability of the plant alternatives as well as procurement process aiming at the plant selection will continue.

The Meri-Pori coal-fired power plant capacity will be used in accordance with the former principles.

Posiva Oy will continue the construction, equipping and investigations of the underground research facility at Olkiluoto. Construction of the above-ground hoist equipment building and the site is progressing. During the processing of the construction license application for the disposal facility for spent nuclear fuel, Posiva is preparing to start the construction projects of the encapsulation plant and final repository immediately after the construction license has been granted.

## Proposals to the Annual General Meeting

Teollisuuden Voima Oyj's distributable equity as of December 31, 2013 amounted to EUR 9,360,000. The Board of Directors proposes to the Annual General Meeting that no dividend shall be paid.



# Key figures of TVO Group

TVO GROUP (IFRS) (M€)	2013	2012	2011	2010	2009
Turnover	366	352	352	363	305
Profit/loss for the financial year	31	-2	6	37	-41
Research expenses	21	24	25	22	21
Investments	335	337	316	393	845
Equity	1 462	1 310	1 083	1 006	866
Subordinated shareholder loans (hybrid equity) (included in the former) 2) 4)	339	229	0	0	0
Non-current and current interest-bearing liabilities (excluding loan from VYR) 1)	3 221	3 166	2 847	2 621	2 463
Loans from equity holders of the company 2) 4)	0	0	179	179	179
Loan from VYR	932	882	843	802	751
Provision related to nuclear waste management	898	858	832	806	633
Balance sheet total	6 700	6 397	5 939	5 589	5 069
Equity ratio, % 3)	30,0	28,1	29,6	29,8	28,4
Average number of personnel	894	884	853	842	835

<sup>1)</sup> The Finnish State Nuclear Waste Management Fund (VYR)

<sup>2)</sup> Subordinated loans

		equity + loans from equity holders of the company
3) Equity ratio %	= 100 x	balance sheet total - provision related to nuclear waste management - loan from the Finnish State Nuclear Waste Management Fund

<sup>4)</sup> During the accounting period 2012, the terms of the loans of the equity holders of the Company have been changed and the loans are included in equity according to IFRS standards.

CONSOLIDATED ADJUSTED PROFIT/LOSS FOR THE FINANCIAL YEAR (M€)	2013	2012	2011	2010	2009
Profit/loss for the financial year (IFRS)	31	-2	6	37	-41
The impact of the nuclear waste management obligation 1) (profit -/loss +)	-29	4	3	-30	3
The impact of financial instruments 2) (profit -/loss +)	-1	-1	-1	0	14
Profit/loss before appropriations	1	1	8	7	-24
Adjusted profit/loss for the financial year	1	1	8	7	-24

<sup>1)</sup> Includes profit/loss effects from nuclear waste management according to IFRS standard.

<sup>2)</sup> Includes effects from financial derivatives hedging future cash-flows where hedge accounting is not applied according to IAS 39.

	2013	2012	2011	2010	2009
TVO's share in the Finnish State Nuclear Waste Management Fund (VYR) (M€)	1 253,3	1 198,9	1 145,1	1 086,4	1 026,3
TVO's funding target obligation to the Finnish State Nuclear Waste Management Fund (M€)	1 310,4	1 242,3	1 179,1	1 123,4	1 069,8
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets) (M€)	897,9	857,6	831,8	806,3	633,5

The difference between the funding target and the share in the Finnish State Nuclear Waste Management Fund at the end of each year is due to the funding target being completed by paying the nuclear waste management fee only during the first quarter of the following year.



# Key figures of Teollisuuden Voima Oyj

TEOLLISUUDEN VOIMA OYJ (FAS) (M€)					
Parent company's financial statement has been prepared in accordance with the Finnish Accounting Standards (FAS).	2013	2012	2011	2010	2009
Turnover	363	347	347	355	296
Profit/loss before appropriations	1	1	8	7	-24
Fuel costs	73	62	67	80	65
Nuclear waste management costs	89	77	68	65	66
Capital expenditure (depreciation and financial income and expenses)	61	65	68	68	68
Investments	303	337	314	339	803
Equity	858	858	858	793	713
Appropriations	167	166	165	157	150
Non-current and current interest-bearing liabilities (excluding loan from VYR) 1)	3 088	2 968	2 743	2 505	2 408
Loans from equity holders of the company 2)	339	229	179	179	179
Loan from VYR	932	882	843	802	751
Balance sheet total	5 572	5 283	4 944	4 611	4 377
Equity ratio, % 3)	29,4	28,5	29,3	29,7	28,8
Average number of personnel	890	879	847	837	830

<sup>1)</sup> The Finnish State Nuclear Waste Management Fund (VYR)

equity + appropriations + loans from equity holders of the company

balance sheet total - loan from the Finnish State Nuclear Waste Management Fund

#### Electricity delivered to equity holders of the company (GWh)

Olkiluoto 1	7 458	6 935	7 253	6 936	7 263
Olkiluoto 2	7 148	7 441	6 876	7 127	7 122
Total Olkiluoto 1)	14 606	14 376	14 129	14 063	14 385
Meri-Pori	725	477	815	1 622	845
Total	15 331	14 853	14 944	15 685	15 230

 $<sup>^{\</sup>rm 1)}$  Includes wind power 1.0 (1.5 in 2012) GWh and gas turbine power 0.3 (0.3) GWh.

#### Capacity factors, %

Olkiluoto 1	97,1	90,4	94,8	91,8	97,0
Olkiluoto 2	93,1	96,9	90,9	95,2	95,1
Total capacity factor	95,1	93,7	92,8	93,5	96,0

TVO share of the electricity used in Finland, %	18,2	17,4	17,7	17,9	18,8
---	------	------	------	------	------

<sup>2)</sup> Subordinated loans



# TVO Group financial statements

## Consolidated income statement

EUR 1 000	Note	1 Jan-31 Dec 2013	1 Jan-31 Dec 2012
Turnover	3	365 865	352 171
Work performed for own purpose	4	14 878	13 509
Other income	5	9 311	9 163
Materials and services	6	-121 583	-125 095
Personnel expenses	7	-63 318	-61 668
Depreciation and impairment charges	3,8	-57 369	-56 497
Other expenses	9	-84 922	-93 463
Operating profit/loss		62 862	38 120
Finance income	10	30 870	35 526
Finance expenses	10	-63 203	-75 397
Total finance income and expenses	3	-32 333	-39 871
Profit/loss before income tax		30 529	-1 751
Income taxes	11	-3	1
Profit/loss for the financial year		30 526	-1 750
Profit/loss for the financial year attributable to:			
Equity holders of the company		30 526	-1 750

# Consolidated statement of comprehensive income

EUR 1 000	1 Jan-31 Dec 2013	1 Jan-31 Dec 2012
Profit/loss for the financial year	30 526	-1 750
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	6 963	3 158
Cash flow hedges	7 345	-629
Total other comprehensive profit/loss items	14 308	2 529
Total comprehensive profit/loss for the financial year	44 834	779
Total comprehensive profit/loss for the financial year attributable to:		
Equity holders of the company	44 834	779



# Consolidated balance sheet

EUR 1 000	Note	31 Dec 2013	31 Dec 2012
Assets			
Non-current assets			
Property, plant and equipment	12	4 358 082	4 095 056
Intangible assets	13	9 382	7 729
Loans and other receivables	16	935 633	885 963
Investments in joint ventures	14	1 009	1 009
Investments in shares	17	23 945	16 981
Derivative financial instruments	20	60 047	108 238
Share in the Finnish State Nuclear Waste Management Fund	24	897 919	857 643
Total non-current assets		6 286 017	5 972 619
Current assets			
Inventories	19	243 091	250 847
Trade and other receivables	16	25 465	36 321
Derivative financial instruments	20	1 553	1 583
Cash and cash equivalents	18	144 367	135 555
Total current assets		414 476	424 306
Total assets		6 700 493	6 396 925
Equity and liabilities			
Capital and reserves attributable to equity holders of the company			
Share capital	21	606 193	606 193
Share premium reserve and statutory reserve	21	242 383	242 383
Fair value and other reserves	21	-2 181	-16 489
Subordinated shareholder loans (hybrid equity)	21	339 300	229 300
Retained earnings	21	275 927	248 539
Total equity		1 461 622	1 309 926
Liabilities			
Non-current liabilities			
Provision related to nuclear waste management	24	897 919	857 643
Loan from the Finnish State Nuclear Waste Management Fund	22	931 725	881 726
Bonds	22	2 191 411	2 069 977
Other financial liabilities	22	784 216	837 517
Derivative financial instruments	20,22	34 999	51 875
Total non-current liabilities		4 840 270	4 698 738
Current liabilities			
Current financial liabilities	22	201 774	202 835
Derivative financial instruments	20,22	8 212	3 999
Advance payments received	23	21 365	23 927
Trade payables	23	10 823	9 536
Other current liabilities	23	156 427	147 964
Total current liabilities		398 601	388 261
Total liabilities		5 238 871	5 086 999
Total equity and liabilities		6 700 493	6 396 925



# Consolidated statement of changes in total equity

EUR 1 000	Share capital	Share premium reserve and statutory reserve	Fair value and other reserves	Subordinated shareholder loans (hybrid equity)	Retained earnings	Attributable to equity holders of the company	Total equity
Equity 1 Jan 2013	606 193	242 383	-16 489	229 300	248 539	1 309 926	1 309 926
Profit/loss for the financial year	0	0	0	0	30 526	30 526	30 526
Other comprehensive profit/loss items:							
Changes in fair values of the available-for-sale-investments	0	0	6 963	0	0	6 963	6 963
Cash flow hedges	0	0	7 345	0	0	7 345	7 345
Subordinated shareholder loans (hybrid equity)	0	0	0	110 000	0	110 000	110 000
Interest paid of subordinated shareholder loans (hybrid equity)	0	0	0	0	-3 138	-3 138	-3 138
Equity 31 Dec 2013	606 193	242 383	-2 181	339 300	275 927	1 461 622	1 461 622
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
EUR 1 000 Equity 1 Jan 2012	Share capital	premium reserve and statutory	and other	shareholder loans (hybrid		to equity holders of	Total equity 1 082 777
	<u> </u>	premium reserve and statutory reserve	and other reserves	shareholder loans (hybrid equity)	earnings	to equity holders of the company	
Equity 1 Jan 2012	606 193	premium reserve and statutory reserve 242 383	and other reserves	shareholder loans (hybrid equity)	earnings 253 219	to equity holders of the company	1 082 777
Equity 1 Jan 2012 Profit/loss for the financial year Other comprehensive profit/loss	606 193	premium reserve and statutory reserve 242 383	and other reserves	shareholder loans (hybrid equity)	earnings 253 219	to equity holders of the company	1 082 777
Equity 1 Jan 2012  Profit/loss for the financial year  Other comprehensive profit/loss items:  Changes in fair values of the	<b>606 193</b>	premium reserve and statutory reserve 242 383	and other reserves -19 018	shareholder loans (hybrid equity) <b>0</b>	earnings 253 219 -1 750	to equity holders of the company 1 082 777 -1 750	<b>1 082 777</b> -1 750
Equity 1 Jan 2012  Profit/loss for the financial year  Other comprehensive profit/loss items:  Changes in fair values of the available-for-sale-investments	606 193 0	premium reserve and statutory reserve 242 383	and other reserves -19 018 0	shareholder loans (hybrid equity)  0 0	earnings 253 219 -1 750 0	to equity holders of the company  1 082 777  -1 750	1 082 777 -1 750 3 158
Equity 1 Jan 2012  Profit/loss for the financial year  Other comprehensive profit/loss items:  Changes in fair values of the available-for-sale-investments  Cash flow hedges  Subordinated shareholder loans	606 193 0 0	premium reserve and statutory reserve 242 383 0	and other reserves -19 018 0 3 158 -629	shareholder loans (hybrid equity)  0 0 0	earnings 253 219 -1 750 0 0	to equity holders of the company  1 082 777  -1 750  3 158  -629	1 082 777 -1 750 3 158 -629



# Consolidated cash flow statement

EUR 1 000	Note	2013	2012
Operating activities			
Profit/loss for the financial year		30 526	-1 750
Adjustments:			
Income tax expenses		3	-1
Finance income and expenses		32 333	39 871
Depreciation and impairment charges		57 369	56 497
Other non-cash flow income and expenses		-58 441	-28 202
Sales profit/loss of property, plant and equipment and shares		-100	18
Changes in working capital:			
Increase (-) or decrease (+) in non-interest-bearing receivables		1 262	22 661
Increase (-) or decrease (+) in inventories		7 756	-16 513
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities		13 700	16 331
Interest paid and other finance expenses		-26 150	-36 609
Dividends received		853	760
Interest received		25 327	16 007
Taxes paid		-1	3
Cash flow from operating activities		84 437	69 073
Investing activities			
Acquisition of property, plant and equipment		-300 307	-308 370
Proceeds from sale of property, plant and equipment		18	39
Acquisition of intangible assets		-951	-36
Acquisition of shares		-6	-4
Proceeds from sale of shares		314	0
Loan receivables granted		-50 136	-39 313
Repayments of loans granted		390	386
Cash flow from investing activities		-350 678	-347 298
Financing activities			
Withdrawals of subordinated shareholder loans (hybrid equity)		110 000	50 000
Withdrawals of long-term loans		301 518	764 176
Repayment of long-term loans		-177 496	-242 875
Interest paid of subordinated shareholder loans (hybrid equity)		-3 066	-4 245
Increase (-) or decrease (+) in interest-bearing receivables		73	35
Increase (+) or decrease (-) in current financial liabilities		44 024	-258 846
Cash flow from financing activities		275 053	308 245
Change in cash and cash equivalents		8 812	30 020
Cash and cash equivalents 1 Jan		135 555	105 535
Cash and cash equivalents 31 Dec	18	144 367	135 555



### Notes to the consolidated financial statements

## 1 General information on the Group

Teollisuuden Voima Oyj together with its subsidiaries forms the TVO Group. The ultimate parent of the Group is Teollisuuden Voima Oyj, domiciled in Helsinki.

Teollisuuden Voima Oyj is a public limited liability company owned by Finnish industrial and power companies. In accordance with its Articles of Association, TVO delivers electricity to its shareholders at cost price (so-called Mankala principle), i.e. delivers the electricity produced or procured to its shareholders in proportion to their shareholdings in each series. Each of the shareholders of each series is liable for variable and fixed annual costs that are specified in detail in the Articles of Association. The Company owns and operates two nuclear power plant units (OL1 and OL2) and has a third unit (OL3) under construction at Olkiluoto in the municipality of Eurajoki. In order to build a fourth plant unit (OL4) at Olkiluoto, it has been started a bidding and engineering phase. In addition to the nuclear power plant in Olkiluoto, TVO has a share in the Meri-Pori coal-fired power plant and in a gas turbine plant and owns a wind power plant in Olkiluoto.

Copies of the consolidated financial statements are available at the internet address www.tvo.fi.

These consolidated financial statements were authorized for issue by the Board of Directors of TVO in its meeting on 26 February 2014. Under the Finnish Limited Liability Companies Act the Shareholders' meeting may modify or reject the financial statements.

## 2 Accounting policies

### Basis of preparation

These consolidated financial statements of TVO Group have been prepared in accordance with International Financial Reporting Standards (IFRS). These financial statements have been prepared in accordance with the IAS and IFRS standards and SIC and IFRIC interpretations effective at 31 December 2013. In the Finnish Accounting Act and regulations issued by virtue of it, "IFRS" refers to the standards and interpretations which have been endorsed by the EU in accordance with the procedure defined in the EU Regulation (EY) No. 1606/2002.

The consolidated financial statements have been prepared under the historical cost convention, except for fund units and investments in shares and derivative financial instruments, which are recognized at fair value.

The consolidated financial statements are presented in euros, which is the functional and presentation currency of the Group's parent company.

The consolidated financial statements have been prepared according to the same accounting policies as in 2012. The following standards issued during 2012 and 2013 have no impact in the consolidated financial statements:

- IAS 12 (Amendment) Income taxes Deferred tax
- IAS 19 (Amendment) Employee benefits
- IFRIC 20 Stripping costs in the production phase of a surface mine

The following new amendments to existing standards and one new standard issued during the year 2013. The Group has adopted standards in 2013.

• IAS 1 (Amendment) Presentation of financial statement
The amendment relates to presentation of Comprehensive Income. Items that could be reclassified to profit or loss at a future point in time would be presented separately from items that will never be reclassified. The amendment effects



presentation only and has no impact on the Group's financial position or performance.

- IFRS 7 (Amendment) Financial instruments: Disclosures Offsetting financial assets and financial liabilities The change in accounting policy relates to disclosures. As a result of the amendments the Group has expanded its disclosures about offsetting of financial assets and financial liabilities (see note 15).
- IFRS 13 Fair value measurement
  The standard establishes a single framework for measuring fair value. As a result of the amendments the Group has expanded disclosures of fair values in interim reports.

IASB published changes to 5 standards in May 2012 as part of the annual Improvements to IFRS's project, which were adopted by the Group in 2013. The amendments do not have significant impact on the consolidated financial statements.

The following new standards, interpretations and amendments to existing standards and interpretations issued during the year 2013 will be adopted by the Group in 2014 or later:

- IFRS 10, 11 and 12 (Amendment) Transition guidance
- IFRS 10 Consolidated financial statements
- IFRS 11 Joint arrangements
- IFRS 12 Disclosures of interests in other entities
- IAS 27 (Revised) Separate financial statements
- IAS 28 (Revised) Associates and joint ventures
- IAS 32 (Amendment) Financial instruments: Presentation
- IFRS 10, 12 and IAS 27 (Amendment) Investment entities
- IAS 36 (Amendment) Impairment of assets
- IAS 39 (Amendment) Financial instruments: Recognition and measurement
- IFRIC 21 1) Levies
- IFRS 9 1) Financial instruments
- IAS 19 1) (Amendment) Employee benefits: Defined benefit plans
- Annual improvements 2010-2012 1)
- Annual improvements 2011-2013 1)

Management is assessing the impact of these changes on the financial statements of the Group.

### Companies included in the consolidated financial statement

#### **Subsidiaries**

The consolidated financial statements include Teollisuuden Voima Oyj (TVO) and its subsidiaries TVO Nuclear Services Oy, Olkiluodon Vesi Oy and Perusvoima Oy. Merger of TVO's wholly-owned subsidiaries, Olkiluodon Vesi Oy and Perusvoima Oy, with TVO was registered in the Trade Register on December 31, 2013. Subsidiaries are companies in which the Group has control at the end of the financial period. Control exists if the Group holds more than a half of the voting rights or otherwise has control. Subsidiaries acquired are consolidated from the date on which control is transferred to the Group, and

<sup>1)</sup> The standard, interpretation or amendment to published standard or interpretation is still subject to endorsement by the European Union



subsidiaries sold are no longer consolidated from the date that control ceases.

The purchase method of accounting is used to consolidate subsidiaries into the Group. The purchase price is determined as the aggregate of the acquisition date fair values of the assets given as consideration and liabilities incurred or assumed. Costs directly attributable to the acquisition are recognized in profit or loss.

In the consolidation, intercompany share ownership, intercompany transactions, receivables, liabilities, unrealized gains and internal distributions of profits are eliminated. Unrealized losses are not eliminated, if the losses are due to impairment of the asset being transferred. To ensure consistency, subsidiaries' accounting policies have, in all material respects, been changed to conform to the accounting policies adopted by the Group.

#### Joint ventures

Joint ventures are entities over which the Group has contractually agreed to share the power to govern the financial and operating policies of that entity with another venturer or venturers. Posiva Oy is a joint venture of TVO, which has a 60 per cent interest in it. Both venturers are liable for its main activities, final disposal of spent fuel of nuclear power plants, in proportion to their own usage.

Interests in joint ventures are accounted for by the equity method of accounting.

### Segment reporting

The Group has two reportable segments; nuclear power and coal-fired power. The Board of Directors is the chief operation decision maker.

### Revenue recognition principles

TVO operates on a cost-price principle. Revenue is recognized based on the consideration received when electricity is delivered or services are rendered. Revenue is presented net of indirect sales taxes. Revenue is recognized as follows:

#### Sales of electricity and other revenue

Revenue on sales of electricity is recognized based on delivery. The recognized income for shareholders is based on the quantities delivered. The revenue from services is recognized on an accrual basis on the accounting period when the services are rendered to the customer.

Revenue on long-term consulting services projects that spread over several accounting periods is recognized based on the proportion of costs incurred from work performed up to the balance sheet date and the estimated total expenses of the project. If it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

#### Other income

Revenue from activities outside the ordinary course of business is reported as other income. This includes joint ventures' revenue from services, rental income and non-recurring items, such as gains from sales of property, plant and equipment. Rental income is recognized on a straight line basis over the rental period and gains from sales of property, plant and equipment when the significant risks and rewards of ownership, interests and control have been transferred to the buyer.

#### Government grants

Grants are recognized at their fair value, when the Group meets all the conditions attached to them and where there is a reasonable assurance that the grant will be received. Government grants relating to costs are deferred on the balance sheet and recognized in the income statement over the period in which their relevant costs are recorded. Government grants relating to the purchase of property, plant and equipment are deducted from the acquisition cost of the asset.



### Research and development costs

Research and development costs (except R&D costs related to nuclear waste management) of the Group are recognized as an expense as incurred and included in other expenses in the income statement. Development costs are capitalized if it is assured that they will generate future income, in which case they are capitalized as intangible assets and amortized over the period of the income streams. Currently the Group does not have any development costs that would qualify for capitalization.

Research costs that relate to nuclear waste management are discussed in paragraph Assets and provisions related to nuclear waste management obligations.

### Property, plant and equipment

Property, plant and equipment of the Group are stated on the consolidated balance sheet at historical cost less grants received, accumulated depreciation and impairment charges, if any. Historical cost includes expenditure that is directly attributable to the acquisition of an item.

In the historical costs of power plant projects and other significant investments (completion time more than a year) the financing costs incurred during the construction period will be included.

The historical costs of nuclear power plants include furthermore the estimated costs of dismantling and removing an item and restoring the site on which it is located (more information is included in paragraph Assets and provisions related to nuclear waste management obligations).

Land and water areas are not depreciated.

Other property, plant and equipment are depreciated using the straight-line method over their estimated useful lives.

Straight-line depreciation is based on the following estimated useful lives:

OL1 and OL2 nuclear power plant units:

- Basic investment	61 years
- Investments made according to the modernization program	21-35 years
- Automation investments associated with the modernization	15 years
- Additional investments	10 years

TVO's share in the Meri-Pori coal-fired power plant:

- Basic investment	25 years
- Additional investments	10 years
	•
Wind power plant	10 years
TVO's share in the Olkiluoto gas turbine power plant	30 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate to reflect the changes in expectations of economic benefits.

Costs of renewal of an item or a part of an item of property, plant and equipment are capitalized if the part is accounted for as a separate item. Otherwise, the subsequent expenditure is included in the carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group.

Annual repair and maintenance costs are recognized in profit or loss, when they occur. Investments connected with the modernization and maintenance of the power plant units are capitalized.

OL3 is nuclear power plant unit under construction. All the realized costs on the OL3 project that meet recognication criteria are shown as incomplete plant investment. OL4 is a nuclear power plant unit under bidding and engineering phase. All the realized costs on the OL4 project that meet recognition criteria are shown as incomplete plant investment (see note 12).



### Intangible assets

Intangible assets are shown at historical cost less grants received, accumulated amortization and impairment losses if applicable. Historical cost includes costs directly attributable to the acquisition of the particular asset.

Other long-term expenditure included in intangible assets are amortized on a straight-line basis over their estimated useful lives. These include computer software and certain payments made for the use of assets.

The amortization periods of the intangible assets are as follows:

Computer software 10 years
Other intangible assets 10 years

The amortization period of an intangible asset is changed where necessary if the estimated useful life changes from that previously estimated.

Furthermore, intangible assets include carbon dioxide (CO<sub>2</sub>) emission rights. Emission rights are recognized at historical cost, and are presented under emission rights. Gratuitous emission rights are assets not included in the balance sheet. The current liability for returning emission rights is recognized at the carrying value of possessed emission rights. If there is a shortfall, a current liability is recognized to cover the acquisition of the missing emission rights. This current liability is valued at the current market value of the emission rights at the balance sheet date. The cost of the emission rights is recognized in the income statement under costs of materials and services. The gains from the sales of emission rights are refunded to the equity holders of the company.

### Impairment of property, plant and equipment and intangible assets

The Group assesses at each balance sheet date whether there are indications that the carrying amount of an asset may not be recoverable. If such indications exist, the recoverable amount of the asset in question will be measured. For the purposes of assessing impairment, assets are examined at the level of cash-generating units, that is, at the lowest level that is mainly independent of other units and for which there are separately identifiable cash flows and largely independent from those of corresponding units.

The recoverable amount is the higher of an asset's fair value less costs to sell or value in use. The value in use is determined by reference to discounted future cash flows expected to be generated by the asset. The discount rate used is pre-tax and reflects the time value of money and asset specific risks.

Impairment loss is recognized when the carrying amount of the asset is greater than its recoverable amount. Impairment loss is charged directly to the income statement. If a cash-generating unit is subject to an impairment loss, it is allocated first to decrease the goodwill and subsequently, to decrease the other assets of the unit. At recognition of the impairment loss, the useful life of the reamortized assets is reassessed. Impairment loss of other assets than goodwill is reversed in the case that a change has occurred in the estimates used in measuring the recoverable amount of the asset. The increased carrying amount must not, however, exceed the carrying amount that would have been determined had no impairment loss been recognized in prior years.

#### Inventories

Inventories are measured at acquisition cost. The acquisition cost comprises raw materials, direct labor and other direct costs. The carrying amount of inventories is not reduced to a value that is less than its acquisition cost, as TVO operates at cost price, so the net realizable value of inventories always covers their acquisition cost. The cost of coal is determined by using the FIFO (first in, first out) method and the cost of supplies is determined by using the rolling weighted average cost formula. The use of nuclear fuel is recognized according to calculated consumption.



#### Leases

#### **Finance leases**

Leases are classified as finance leases when all substantial risks and rewards incidental to ownership are transferred to the Group. Assets acquired under finance leases are recognized in the balance sheet at the commencement of the lease term at the fair value of the leased asset or, if lower, the present value of the minimum lease payments. Leased assets are depreciated over the shorter of the useful life of the asset and the lease term. Lease obligations are recognized under interest-bearing liabilities.

Lease payments are apportioned during the lease term between the finance charge and the reduction of the outstanding liability to produce a constant periodic rate of interest on the remaining balance of the liability.

#### Other leases

Lease payments under other leases are recognized in the income statement as an expense under the accrual principle on a straight-line basis over the lease term.

Lease payments received are recognized as income on a straight-line basis over the lease term and presented in the income statement under other income.

#### Financial assets

The Group has classified its financial assets into four categories as following: derivative financial instruments at fair value through profit or loss, derivative financial instruments designated as cash flow and fair value hedges, loans and other receivables, and available-for-sale investments. The classification is based on the purpose of the acquisition of the assets, and the assets are classified at initial acquisition.

Transaction costs are included at original book value of financial assets, except for items that are measured at fair value through profit or loss. All purchases and sales of financial assets are recognized at fair value on the trading date.

Financial assets are derecognized when the contractual rights to the cash flows of the investment expire or have been transferred or the Group has substantially transferred all the risks and benefits of ownership.

#### Derivative financial instruments at fair value through profit or loss

Derivative financial instruments that do not meet the criteria for hedge accounting according to IAS 39 are booked at fair value to profit or loss. Gains and losses from changes in fair value are recognized in the income statement in the period in which they arise, except when they relate to the construction of OL3 power plant and are capitalized as part of the cost of the asset.

#### Derivative financial instruments designed as cash flow and fair value hedges

Financial assets include derivative financial instruments (see Derivative financial instruments and hedge accounting).

#### Loans and other receivables

Loans and other receivables include non-current loans and other receivables as well as current trade and other receivables. Items that mature after 12 months are recognized in non-current assets. After initial recognition, all loans and other receivables are measured at amortized cost using the effective interest method. Trade receivables are recognized on the balance sheet at their original nominal value, which reflects their fair value.

#### Available-for-sale investments

Available-for-sale investments include investments in shares, fund units, and instruments that mature after 3 months excluding fixed-term deposits which are recognized in loans and other receivables. Items maturing after 12 months are recognized in non-current assets. Available-for-sale investments are measured at fair value, and the changes in fair value are recognized in other comprehensive items in the fair value reserve under equity. The changes in fair value are transferred



from equity to the income statement when the investment is sold or when it is impaired so that an impairment loss needs to be recognized. Investments in unquoted shares whose fair value cannot be reliably determined are measured at acquisition cost.

#### Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, demand deposits and other current, highly liquid investments. Assets classified as cash and cash equivalents have a maturity of three months or less from the date of acquisition.

#### Impairment of financial assets

At each closing date, the Group estimates whether there is any objective evidence that a financial asset or group of financial assets is impaired. If the fair value of equity investment is significantly below its acquisition cost at the closing date, this is evidence of the impairment of equities classified as available-for-sale. If any evidence exists of the impairment, any loss accumulated in the fair value reserve is transferred into profit or loss. Impairment losses on equity investments classified as available-for-sale are not reversed through profit or loss, whereas subsequent reversals of impairment losses on interest-bearing instruments are recognized in profit or loss. The Group recognizes an impairment loss on trade receivables when there is objective evidence that the receivable is not fully collectible.

Evidence of impairment may include indications that the counterparty is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation, and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

#### Financial liabilities

Financial liabilities are initially recognized at fair value including related transaction costs. After initial recognition, all financial liabilities are measured at amortized cost using the effective interest method. Financial liabilities include non-current and current liabilities, and they can be interest-bearing or non-interest-bearing. An item is included in current liabilities if it matures within 12 months from the closing date. Financial liabilities also include derivative financial instruments (see Derivative financial instruments and hedge accounting).

### Derivative financial instruments and hedge accounting

The Group uses derivative financial instruments as hedges of the currency risk relating to purchases of fuel and the currency and interest rate risk of loans. The derivative financial instruments are recognized at fair value on the date when the Group becomes a party to a derivative contract, and subsequently measured at fair value on closing date.

Hedge accounting referred to in IAS 39 is applied to instruments entered into for the purpose of hedging of the currency risk of the Group's commitments for purchases of uranium (forward foreign exchange contracts, currency swaps) and to part of the interest rate swaps entered into for the purpose of hedging against the fluctuations in the interest cash flows relating to the loan contracts of the Group.

Both at the inception of a hedge and thereafter, the Group documents its estimate on whether the derivative financial instruments used in the hedge transactions are highly effective. The derivative financial instruments to which hedge accounting is applied are classified as non-current and current assets and liabilities on the basis of the maturity. The Group applies both cash flow and fair value hedge accounting.

#### Cash flow hedge

The effective portion of the changes in the fair values of derivatives designated as and qualifying for cash flow hedges is recognized in other comprehensive items in the fair value reserve under equity. The gain or loss relating to the ineffective portion is recognized in profit or loss, except when they relate to the construction of OL3 power plant and are capitalized as part of the cost of the asset. The fair value changes accumulated in equity are recognized in profit or loss in the same period



when the hedged item affects profit or loss.

Gains and losses from hedges of the currency risk related to fuel purchases are transferred from equity to adjust the cost of the item of inventory in question. Gains and losses from hedges related to fuel purchases are recognized to adjust the fuel purchases under the Materials and services item in accordance with inventory recognition principles.

When a hedge no longer qualifies for hedge accounting, or the hedging instrument initially recognized as a cash flow hedge matures or is sold, the cumulative gains or losses currently included in equity are recognized in profit or loss during the lifetime of the hedging instrument in question. When an anticipated transaction is no longer expected to occur, the cumulative gain or loss included in equity is recognized in profit or loss.

When a hedge of the currency risk related to fuel purchases no longer qualifies for hedge accounting, or the hedging instrument initially recognized as a cash flow hedge matures or is sold, the cumulative gains or losses currently included in equity are recognized in inventory at the same moment as the purchase of the inventory. When an anticipated transaction is no longer expected to occur, the cumulative gain or loss included in equity is recognized in profit or loss.

#### Fair value hedge

The Group applies fair value hedge accounting for hedging fixed interest rate risk on publicly traded bonds. Changes in the fair value of derivative financial instruments that qualify as fair value hedges are recognized in the income statement under financial items, along with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk. The carrying amounts of hedged items and fair values of hedging instruments are included in interest-bearing liabilities and assets. If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item, for which the effective interest method is used, is recognized to profit or loss over the period to maturity.

#### Derivatives that do not qualify for hedge accounting

The changes in the fair value of interest rate options, interest rate swaps and forward foreign exchange contracts that do not qualify for hedge accounting are presented under finance income and expenses, unless they relate to the construction of OL3 power plant and are capitalized as part of the cost of the asset.

#### **Borrowing costs**

Borrowing costs are recognized in profit or loss in the period when they have incurred, except when they relate to the construction of a power plant or any other significant investment, of which completion time exceeds one year. In that case, borrowing costs are capitalized as part of the cost of the asset.

#### Foreign currency items

Transactions and financial items denominated in a foreign currency are recognized at the rates on the day when they occur. Receivables and liabilities denominated in a foreign currency are measured in the financial statements at the ECB's official exchange rate on the closing date. Exchange gains and losses from operating activities are included in the corresponding items above operating profit or loss. Exchange differences arising from financial items are recognized in finance income and expenses.

### Equity

#### Share capital

TVO has in its possession three series of shares, A, B and C. The A series entitles the shareholder to the electricity generated by the existing OL1 and OL2 nuclear power plant units. The B series entitles the shareholder to the electricity that will be generated by the OL3 unit. The C series entitles the shareholder to the electricity generated by the TVO share in the Meri-Pori coal-fired power plant.



Payments received from shares in connection with setting up the TVO and in the form of increases in share capital are recognized under share capital, statutory reserve and share premium reserve.

#### Subordinated shareholder loans (hybrid equity)

Subordinated shareholder loans (hybrid equity) are treated as equity. Subordinated shareholder loans (hybrid equity) are initially recognized at fair value including related transaction costs. There is no maturity date for the subordinated shareholder loans (hybrid equity), but the borrower is entitled to repay the loan in one or several installments. The Board of Directors of the borrower has the right to decide not to pay interest during any current interest period. Unpaid interest does not accumulate to the following interest periods.

The interest of the subordinated shareholder loans (hybrid equity) are recognized in liabilities when the obligation to pay interest is incurred. Interest expenses are recognized in the retained earnings and are not recognized in profit or loss.

### Earnings per share

The Group does not report earnings per share, as the parent company is operating at cost price. The shares of TVO are not traded on a public market.

#### **Provisions**

The Group recognizes a provision for environmental restorations, asset retirement obligations, as well as legal and other claims, when the Group has a legal or constructive obligation and it is likely that an outflow of resources will be required to settle the obligation and the amount of the obligation can be reliably estimated. The provision is measured at the present value of the expenditure expected to be required to settle the obligation. The interest rate used in the measurement of provisions is the estimated long-term borrowing rate plus the ECP's inflation target and an estimated company-specific risk premium. The increase in the provision due to the passage of time is recognized as interest expense.

The most significant provision is that for the nuclear waste management obligation under the Nuclear Energy Act. The provision covers all future expenditure arising from nuclear waste management, including the decommissioning of nuclear power plants, the disposal of spent fuel and a risk marginal.

#### Assets and provisions related to the nuclear waste management obligation

The parent company's nuclear waste management obligation which is based on the Nuclear Energy Act is covered by payments made to the Finnish State Nuclear Waste Management Fund. The obligation covers all the future expenditures for nuclear waste management, including the decommissioning of nuclear power plants, the disposal of spent fuel, and a risk marginal. The amount of payments is determined by assuming that the decommissioning would start at the beginning of the year following the assessment year. The research relating to the disposal, as well as the actual disposal of TVO's spent fuel, are carried out by Posiva Oy, which charges from TVO the costs arising from these activities, including the acquisition cost of property, plant and equipment.

In the consolidated financial statements, TVO's share of the Finnish State Nuclear Waste Management Fund is shown as non-current assets. It is accounted for in accordance with IFRIC 5 Rights to Interests Arising from Decommissioning, Restoration and Environmental Rehabilitation Funds.

The nuclear waste management obligation is shown as a provision under non-current liabilities. The fair value of the nuclear waste management provision has been determined by discounting the future cash flows which are based on plans about future activity and the estimated expenditure relating to it, taking into account actions already taken.

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.

The provision for spent fuel covers the future disposal costs of fuel used by the end of each accounting period. The costs for



the disposal are expensed during the operating time of the plant, based on fuel usage. The impact of any changes to the plan will be recognized immediately in the income statement based on fuel used by the end of each accounting period.

The timing factor is taken into account by recognizing the interest expense related to discounting the nuclear waste management provision. The interest accruing on TVO's share in the Finnish State Nuclear Waste Management Fund is presented as finance income.

TVO's share in the Finnish State Nuclear Waste Management Fund is higher than the corresponding asset recognized in the balance sheet. The nuclear waste management obligation is covered by TVO's share in the Fund, as required by the Nuclear Energy Act. The obligation for nuclear waste management is not discounted. The amount of the annual payment to the Finnish State Nuclear Waste Management Fund is based on the change on the nuclear waste management obligation and funding obligation target, the share of the profit or loss of the Fund, and the changes resulting from actions taken.

#### **Taxes**

The Group does not recognize deferred taxes, because TVO operates at cost price. According to this principle, TVO will not pay taxes on its operations, and therefore there is no taxable income. The tax recognized by the Group consists of tax relating to non-deductible expenses. It also includes any taxes for previous financial years.

### **Employee benefits**

The pension benefits for Group personnel have been arranged with external pension insurance companies. The insurance policies relating to earnings-based pensions, as well as some voluntary pension insurance policies, have been accounted for as defined contribution plans.

Payments made to defined contribution plans as to pensions are recognized on an accrual basis in the income statement.

### Critical accounting estimates and judgements

The preparation of financial statements requires estimates and assumptions concerning the future. Estimates and assumptions have an effect on the reported amounts of assets and liabilities, and expenses and income during the accounting period. The actual results may differ from these estimates.

# The provision for future obligations for the decommissioning of the nuclear power plant and for the disposal of spent fuel

Estimates and assumptions have been used when estimating the assets, liabilities, expenses and income related to the future decommissioning of the nuclear power plant and the disposal of spent fuel. These are based on long-term cash-flow forecasts of estimated future costs.

The main assumptions relate to technical plans, time factor, cost estimates and the discount rate. The technical plans are approved by State authorities. Any changes in the assumed discount rate would change the provision. If the discount rate used were lowered, the provision would increase.

Any future increase in the provision would be offset by the recognition of an equal increase in TVO's share in the assets of the Finnish State Nuclear Waste Management Fund. According to IFRS, the carrying amount of the assets is limited to the value of the provision, as TVO does not have control in the Finnish State Nuclear Waste Management Fund (see note 24 Assets and provisions related to nuclear waste management obligation).

#### Power plant construction in progress - OL3

OL3 is a power plant unit under construction that has been ordered under a turnkey principle. According to an announcement of the OL3 turnkey supplier, the delivery will be delayed from the original schedule according to which the power plant unit should have been in production as of 30 April 2009. In compliance with the supply contract the company is entitled to



compensation in case the delay is due to the supplier. Additionally, because of the delay the company has incurred and will incur direct and indirect expenses for which the company on the basis of the supply contract has claimed for compensation. In its Financial Statement the company handles liquidated damages and compensation receivables and the supplier's claims related to the plant supply as one entity. Claims between the parties will finally be settled in arbitration. Since the financial result of the arbitration procedure currently in progress cannot be reliably estimated, no receivables or liabilities, as required by IAS 37, have been booked.

No reserves have been booked for the supplier's claims and arbitration procedures as the claims have been considered and found to be groundless.

All the realized costs on the OL3 project that meet recognition criteria have been booked as acquisition costs of property, plant and equipment on the Group balance sheet.

#### Impairment testing

Impairment testing of non-current assets is performed when there are indications that the carrying amount of an asset may not be recoverable. In testing, future discounted cash flows which can be recovered by use of the asset and its possible sale are used as an indicator.

TVO operates on a cost-price principle. According to the company documents, the shareholders are obliged to pay all the expenses of the Group in electricity prices including amortization of property, plant and equipment. When assessing by means of recoverable amounts possible impairment of assets and subsequent need for recognition of impairment loss, the recoverable amounts always correspond, with some exceptions, to the carrying amount of the asset and thus, as a rule, no need for recognition of impairment loss arises



## 3 Segment reporting

#### **Segment structure in TVO Group**

The Group has two reportable segments; nuclear power and coal-fired 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. In order to build a fourth plant unit (OL4) at Olkiluoto, it has been started a bidding and engineering phase. The subsidiaries of TVO, TVO Nuclear Services Oy (TVONS), Olkiluodon Vesi Oy and Perusvoima Oy, of which operation is related to nuclear power, are also included in the nuclear power segment. Merger of TVO's wholly-owned subsidiaries, Olkiluodon Vesi Oy and Perusvoima Oy, with TVO was registered in the Trade Register on December 31, 2013.

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, depreciation and impairment charges, finance income and expenses, profit/loss for the year 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.

EUR 1 000	2013	2012
Turnover by segments		
Nuclear power	325 508	322 397
Coal-fired power	40 357	29 774
Total	365 865	352 171
Depreciation and impairment charges by segments		
Nuclear power	45 229	45 703
Coal-fired power	7 600	7 449
Depreciation and impairment charges (FAS)	52 829	53 152
The impact of the nuclear waste management obligation	4 540	3 345
Total (IFRS)	57 369	56 497
Finance income and expenses by segments		
Nuclear power	6 118	8 956
Coal-fired power	1 961	3 138
Finance income and expenses (FAS)	8 079	12 094
The impact of the nuclear waste management obligation	24 980	28 302
The impact of financial instruments	-556	-295
Other IFRS adjustments	-170	-230
Total (IFRS)	32 333	39 871



Profit/loss for the financial year by segments		
Nuclear power	4 215	6 590
Coal-fired power	-3 335	-5 420
Profit/loss before appropriations (FAS)	880	1 170
The impact of the nuclear waste management obligation	28 920	-3 445
The impact of financial instruments	556	294
Other IFRS adjustments	170	231
Total (IFRS)	30 526	-1 750
Assets by segments		
Assets by segments		
Nuclear power	5 508 441	5 195 967
Nuclear power	5 508 441 64 565	5 195 967 89 483
• •		
Nuclear power  Coal-fired power	64 565	89 483
Nuclear power  Coal-fired power  Total (FAS)  The impact of the nuclear waste management obligation	64 565 5 573 006	89 483 5 285 450
Nuclear power  Coal-fired power  Total (FAS)	64 565 5 573 006 1 020 507	89 483 5 285 450 951 310
Nuclear power  Coal-fired power  Total (FAS)  The impact of the nuclear waste management obligation  The impact of financial instruments	64 565 5 573 006 1 020 507 29 070	89 483 5 285 450 951 310 84 806

#### **GROUP-WIDE DISCLOSURES**

Turnover shared to production of electricity and services		
Production of electricity	362 806	347 111
Services	3 059	5 060
Total	365 865	352 171

### Information about geographical areas

Teollisuuden Voima Oyj is company owned by Finnish industrial and power companies. TVO delivers electricity to its shareholders at cost price (so-called Mankala principle), i.e. delivers the electricity produced to its shareholders in proportion to their shareholdings in each series.

The Group assets are located in Finland except part of inventories of nuclear fuel acquisition.



# 4 Work performed for own purpose

EUR 1 000	2013	2012
Personnel expenses related to OL3 and OL4	14 857	13 493
Water supply services related to OL3	21	16
Total	14 878	13 509

## 5 Other income

EUR 1 000	2013	2012
Rental income	3 168	3 027
Profits from sales of property, plant and equipment and shares	102	5
Sales of services	5 793	5 678
Other income	248	453
Total	9 311	9 163

## 6 Materials and services

EUR 1 000	2013	2012
Nuclear fuel	56 476	67 417
Coal	8 012	10 315
Materials and supplies	2 875	3 350
CO2 emission rights	2 687	933
Nuclear waste management services 1)	30 857	48 679
Increase (-) or decrease (+) in inventories	7 757	-16 513
External services	12 919	10 914
Total	121 583	125 095

<sup>1)</sup> See note 24 Assets and provision related to nuclear waste management obligation.



## 7 Personnel expenses

EUR 1 000	2013	2012
Employee benefit costs	2010	2012
Wages and salaries	52 014	50 680
Pension expenses - defined contribution plans	8 317	8 185
Other compulsory personnel expenses	2 987	2 803
Total	63 318	61 668

#### **Employee bonus system**

The Nomination and Remuneration Committee under the Board of Directors approves TVO's commitment and remuneration systems. All permanent and long-term temporary employees are included in the employee bonus system. Some of the personnel have deposited their bonuses in the Teollisuuden Voima Personnel Fund.

	2013	2012
Average number of personnel during financial year		
Office personnel	740	728
Manual workers	154	156
Total	894	884
Number of personnel on December 31		
Office personnel	717	724
Manual workers	140	144
Total	857	868

## 8 Depreciation and impairment charges

EUR 1 000	2013	2012
Intangible assets		
Computer software	447	505
Other intangible assets	822	773
Total	1 269	1 278
Property, plant and equipment		
Buildings and construction	10 037	10 166
Machinery and equipment	37 569	37 885
Other property, plant and equipment	3 954	3 823
Decommissioning	4 540	3 345
Total	56 100	55 219
Total	57 369	56 497



## 9 Other expenses

EUR 1 000	2013	2012
Maintenance services	19 117	20 058
Regional maintenance and service	8 964	8 971
Research services	1 658	2 994
Other external services	23 718	29 719
Real estate tax	4 954	4 666
Rents	1 599	1 614
ICT expenses	4 512	4 129
Personnel related expenses	4 578	4 835
Corporate communication expenses	1 516	1 916
Other expenses	14 306	14 561
Total	84 922	93 463
Auditors' fees and not audit-related services		
Audit fees	90	96
Other services	62	133
Total	152	229



## 10 Finance income and expenses

EUR 1 000	2013	2012
Items included in the income statement		
Dividend income on available-for-sale investments	853	760
Profit from available-for-sale investments	0	628
Interest income from loans and other receivables		
Nuclear waste management loan receivables from equity holders of the company	7 050	13 804
Other	11 381	12
Hedge accounted derivatives		
Ineffective portion of the change in fair value in cash flow hedge relationship	11	77
Ineffective portion of the change in fair value in fair value hedge relationship	21	38
Non-hedge accounted derivatives		
Change in fair value	563	461
Interest income from assets related to nuclear waste management	10 991	19 746
Finance income, total	30 870	35 526
Interest expenses and other finance expenses		
To the Finnish State Nuclear Waste Management Fund	7 050	13 804
To others	18 666	11 147
Hedge accounted derivatives		
Ineffective portion of the change in fair value in cash flow hedge relationship	2	8
Interest rate swaps, fair value hedges	7 551	-18 109
Fair value adjustment of loan attributable to interest rate risk	-7 551	18 109
Ineffective portion of the change in fair value in fair value hedge relationship	37	101
Non-hedge accounted derivatives		
Change in fair value	0	173
Realised derivative expenses, net	1 477	2 116
Interest expenses of provision related to nuclear waste management	35 970	48 049
Finance expenses, total	63 203	75 397
Total	-32 333	-39 871
Other community of the transfer them.		
Other comprehensive items		
Other comprehensive items related to derivative financial instruments:		
Cash flow hedges	0.000	40.050
Changes in the fair value of which the following items have transferred	-9 280	-16 058
Transfers to the consolidated income statement	-940	-1 243
Transfers to inventories	777	651
Transfers to the nuclear power plant under construction	-16 463	-14 837
Transferred items, total	-16 625	-15 429
Cash flow hedges, total	7 345	-629
Changes in fair values of the available-for-sale investments	6 964	3 158
Total other comprehensive items	14 309	2 529



### 11 Income tax expense

EUR 1 000	2013	2012
Taxes based on the taxable income of the financial year	3	-1
Total	3	-1

TVO operates at cost price (so called Mankala principle, see note 1 General information on the Group), so TVO does not pay income tax during its operations. Taxes for the financial year consists of non-deductible expenses in taxation.

## 12 Property, plant and equipment

<b>2013</b> EUR 1 000	Land and water areas	Buildings and construction	Machinery and equipment	Other property, plant and equipment	Construction in progress and advance payments	Decom- missioning	Tota
Acquisition cost 1 Jan	11 509	286 011	1 324 680	53 573	3 445 960	148 739	5 270 472
Increase	470	352	6 064	751	290 129	33 460	331 226
Decrease	0	-917	-2 979	-1	-11 867	0	-15 764
Transfer between categories	0	0	8 046	0	-8 046	0	0
Acquisition cost 31 Dec	11 979	285 446	1 335 811	54 323	3 716 176	182 199	5 585 934
Accumulated depreciation and impairment charges according to plan 1 Jan	0	203 855	887 064	29 425	0	55 072	1 175 416
Decrease	0	-687	-2 976	-1	0	0	-3 664
Depreciation for the period	0	10 037	37 569	3 954	0	4 540	56 100
Accumulated depreciation and impairment charges according to plan 31 Dec	0	213 205	921 657	33 378	0	59 612	1 227 852
Book value 31 Dec 2013	11 979	72 241	414 154	20 945	3 716 176	122 587	4 358 082
Book value 1 Jan 2013	11 509	82 156	437 616	24 148	3 445 960	93 667	4 095 056
<b>2012</b> EUR 1 000	Land and water areas	Buildings and construction	Machinery and equipment	Other property, plant and equipment	Construction in progress and advance payments	Decom- missioning	Total
Acquisition cost 1 Jan	11 421	284 520	1 303 904	51 065	3 163 098	148 839	4 962 847
Increase	88	1 491	19 609	2 508	312 887	0	336 583
Decrease	0	0	-20.874	0	-7 084	0	-28 858

<b>2012</b> EUR 1 000	water areas	Buildings and construction	Machinery and equipment	Other property, plant and equipment	in progress and advance payments	Decom- missioning	Total
Acquisition cost 1 Jan	11 421	284 520	1 303 904	51 065	3 163 098	148 839	4 962 847
Increase	88	1 491	19 609	2 508	312 887	0	336 583
Decrease	0	0	-20 874	0	-7 984	0	-28 858
Transfer between categories	0	0	22 041	0	-22 041	-100	-100
Acquisition cost 31 Dec	11 509	286 011	1 324 680	53 573	3 445 960	148 739	5 270 472
Accumulated depreciation and impairment charges according to plan 1 Jan	0	193 689	869 996	25 602	0	51 727	1 141 014
Decrease	0	0	-20 817	0	0	0	-20 817
Depreciation for the period	0	10 166	37 885	3 823	0	3 345	55 219
Accumulated depreciation and impairment charges according to plan 31 Dec	0	203 855	887 064	29 425	0	55 072	1 175 416
Book value 31 Dec 2012	11 509	82 156	437 616	24 148	3 445 960	93 667	4 095 056
Book value 1 Jan 2012	11 421	90 831	433 908	25 463	3 163 098	97 112	3 821 833

The costs for the new plant unit (OL3) under construction constituted EUR 3.7 billion of the advance payments in 2013 (EUR 3.4 billion in 2012).



#### Property, plant and equipment included in finance lease agreements:

Construction in progress
72 339
240
72 579
Construction in progress
71 335
1 004

The assets acquired through financial lease agreements are accumulated as costs for construction in progress so there is no accumulated depreciation.

## 13 Intangible assets

<b>2013</b> EUR 1 000	CO2 emission rights	Computer software	Other intangible assets	Advance payments	Total
Acquisition cost 1 Jan	716	20 366	20 874	0	41 956
Increase	2 904	42	909	0	3 855
Decrease	-933	0	0	0	-933
Transfer between categories	0	0	0	0	0
Acquisition cost 31 Dec	2 687	20 408	21 783	0	44 878
Accumulated depreciation and impairment charges according to plan 1 Jan	0	18 498	15 729	0	34 227
Depreciation for the period	0	447	822	0	1 269
Accumulated depreciation and impairment charges according to plan 31 Dec	0	18 945	16 551	0	35 496
Book value 31 Dec 2013	2 687	1 463	5 232	0	9 382
Book value 1 Jan 2013	716	1 868	5 145	0	7 729

<b>2012</b> EUR 1 000	CO2 emission rights	Computer software	Other intangible assets	Advance payments	Total
Acquisition cost 1 Jan	6 733	20 241	20 874	89	47 937
Increase	716	125	-89	0	752
Decrease	-6 733	0	0	0	-6 733
Transfer between categories	0	0	89	-89	0
Acquisition cost 31 Dec	716	20 366	20 874	0	41 956
Accumulated depreciation and impairment charges according to plan 1 Jan	0	17 993	14 956	0	32 949
Depreciation for the period	0	505	773	0	1 278
Accumulated depreciation and impairment charges according to plan 31 Dec	0	18 498	15 729	0	34 227
Book value 31 Dec 2012	716	1 868	5 145	0	7 729
Book value 1 Jan 2012	6 733	2 248	5 918	89	14 988



#### Capitalized borrowing costs included in property, plant and equipment, and intangible assets

The borrowing costs of the power plant construction in progress, OL3 and the power plant unit under bidding and engineering phase OL4 have been capitalized. Realized financial income and expenses have been divided by committed capital. The average share of capitalized borrowing costs in 2013 was 93.8 % (91.1 % in 2012). The average interest rate on loans and derivatives on 31 December, see note 27.

2013 Capitalized interest costs during construction EUR 1 000	Other intangible assets	Buildings and construction	Machinery and equipment	Other property, plant and equipment	Advance payments	Total
Acquisition cost 1 Jan	3 530	31 133	112 781	2 609	662 631	812 684
Increase	0	0	0	0	130 828	130 828
Decrease	0	0	0	0	-8 885	-8 885
Acquisition cost 31 Dec	3 530	31 133	112 781	2 609	784 574	934 627
Accumulated depreciation and impairment charges according to plan 1 Jan	2 621	22 232	80 686	1 857	0	107 396
Depreciation for the period	107	444	1 693	33	0	2 277
Accumulated depreciation and impairment charges according to plan 31 Dec	2 728	22 676	82 379	1 890	0	109 673
Book value 31 Dec 2013	802	8 457	30 402	719	784 574	824 954
Book value 1 Jan 2013	909	8 901	32 095	752	662 631	705 288
2012 Capitalized interest costs during construction EUR 1 000	Other intangible assets	Buildings and construction	Machinery and equipment	Other property, plant and equipment	Advance payments	Total
Acquisition cost 1 Jan	3 530	31 133	112 781	2 609	515 551	665 604
Increase	0	0	0	0	152 363	152 363
Decrease	0	0	0	0	-5 283	-5 283
Acquisition cost 31 Dec	3 530	31 133	112 781	2 609	662 631	812 684
Accumulated depreciation and impairment charges according to plan 1 Jan	2 515	21 788	78 994	1 823	0	105 120
Depreciation for the period	107	444	1 692	33	0	2 276
Accumulated depreciation and impairment charges according to plan 31 Dec	2 622	22 232	80 686	1 856	0	107 396
Book value 31 Dec 2012	908	8 901	32 095	753	662 631	705 288
Book value 1 Jan 2012	1 015	9 345	33 787	786	515 551	560 484



### 14 Investments in joint ventures

EUR 1 000	2013	2012
1 Jan	1 009	1 009
31 Dec	1 009	1 009

#### Assets, liabilities, turnover and profit/loss as presented by the Group's joint venture are as follows:

EUR 1 000	Place of in- corporation	Assets	Liabilities	Turnover	Profit/loss	Group share (%)
2013						
Posiva Oy	Eurajoki	22 595	20 913	63 220	0	60
2012						
Posiva Oy	Eurajoki	25 825	24 143	67 307	0	60

TVO has a 60 per cent shareholding in Posiva Oy. Posiva is responsible for the research and implementation of final disposal of spent nuclear fuel of its shareholders TVO and Fortum Power and Heat Oy (FPH). In the consolidated financial statements Posiva is accounted by the equity method of accounting.

TVO governs Posiva Oy jointly with FPH, based on Articles of Association and Shareholders Agreement. TVO is liable for approximately 74 per cent of Posiva's expenses. The duty of Posiva is to carry out all tasks related to the final disposal of spent nuclear fuel of its shareholder's nuclear power plants in Finland in order to fulfill their nuclear waste management obligation as specified in the Nuclear Energy Act. The company's operations also include research and construction related to the final disposal solution. Management of spent fuel is carried out according to the detailed plan examined by Finnish Centre for Radiation and Nuclear Safety and approved by The Ministry of Employment and the Economy.



## 15 Book values of financial assets and liabilities by categories

<b>2013</b> EUR 1 000	Derivative financial instruments at fair value through profit or loss	Derivative financial instruments designated as cash flow hedges	Derivative financial instruments designated as fair value hedges	Loans and other receivables	Available- for-sale investments	Financial liabilities measured at amortized cost	Book value total	Fair value total	Note
Non-current financial assets									
Loans and other receivables				935 633			935 633	935 633	16
Investments in shares					23 945		23 945	23 945	17
Derivative financial instruments	48 310	1 423	10 314				60 047	60 047	20
Current financial assets									
Trade and other receivables				25 465			25 465	25 465	16
Derivative financial instruments	12	1 542					1 553	1 553	20
Total by category	48 321	2 965	10 314	961 098	23 945	0	1 046 643	1 046 643	
Non-current liabilities									
Loan from the Finnish State Nuclear Waste Management Fund						931 725	931 725	931 725	22
Other financial liabilities						2 975 627	2 975 627	3 196 873	22
Derivative financial instruments	13 339	21 661					34 999	34 999	20
Current liabilities									
Current financial liabilities						201 774	201 774	201 774	22
Trade payables						10 823	10 823	10 823	23
Other current liabilities						156 427	156 427	156 427	23
Derivate financial instruments	3 304	4 909					8 212	8 212	20
Total by category	16 642	26 570	0	0	0	4 276 376	4 319 588	4 540 834	



<b>2012</b> EUR 1 000	Derivative financial instruments at fair value through profit or loss	Derivative financial instruments designated as cash flow hedges	Derivative financial instruments designated as fair value hedges	Loans and other receivables	Available- for-sale investments	Financial liabilities measured at amortized cost	Book value total	Fair value total	Note
Non-current assets									
Loans and other receivables				885 963			885 963	885 963	16
Investments in shares					16 981		16 981	16 981	17
Derivative financial instruments	85 372	4 757	18 109				108 238	108 238	20
Current assets									
Trade and other receivables				36 321			36 321	36 321	16
Derivative financial instruments	107	1 476					1 583	1 583	20
Total by category	85 479	6 233	18 109	922 284	16 981	0	1 049 087	1 049 087	
Non-current liablities									
Loan from the Finnish State Nuclear Waste Management Fund						881 726	881 726	881 726	22
Other financial liabilities						2 907 494	2 907 494	3 173 333	22
Derivative financial instruments	19 255	32 621					51 875	51 875	20
Current liabilities									
Current financial liabilities						202 835	202 835	202 835	22
Trade payables						9 536	9 536	9 536	23
Other current liabilities						147 964	147 964	147 964	23
Derivative financial instruments	0	3 999					3 999	3 999	20
Total by category	19 255	36 620	0	0	0	4 149 556	4 205 430	4 471 269	



#### Fair values of long-term loans have been estimated as follows:

The fair value of quoted bonds is based on the quoted market value as of 31 December. The fair value of fixed rate and market-based floating rate loans is estimated using the expected future payments discounted at market interest rates.

The carrying amounts of current financial assets and liabilities approximate their fair value.

Disclosure of fair value measurements by the level on fair value measurement hierarch
---

2013			
EUR 1 000	Level 1	Level 2	Level
Financial assets at fair value			
Derivative financial instruments at fair value through profit or loss		48 321	
Derivative financial instruments designated as cash flow hedges		2 965	
Derivative financial instruments designated as fair value hedges		10 314	
Available-for-sale investments			
Investments in listed companies	21 901		
Investments in other stocks and shares			(
Total	21 901	61 600	(
Financial liabilities at fair value			
Derivative financial instruments at fair value through profit or loss		16 642	
Derivative financial instruments designated as cash flow hedges		26 570	
Derivative financial instruments designated as fair value hedges		0	
Total	0	43 212	(

Disclosure of fair value measurements by the level of fair value measurement hiera	rchy		
<b>2012</b> EUR 1 000	Level 1	Level 2	Level 3
Financial assets at fair value			
Derivative financial instruments at fair value through profit or loss		85 479	
Derivative financial instruments designated as cash flow hedges		6 233	
Derivative financial instruments designated as fair value hedges		18 109	
Available-for-sale investments			
Investments in listed companies	14 938		
Investments in other stocks and shares			0
Total	14 938	109 822	0
Financial liabilities at fair value			
Derivative financial instruments at fair value through profit or loss		19 255	
Derivative financial instruments designated as cash flow hedges		36 620	
Derivative financial instruments designated as fair value hedges		0	
Total	0	55 875	0

TVO has also 31 December 2013 unquoted shares EUR 2,044 (2,043) thousand whose fair value cannot be reliably determined are measured at acquisition cost.

#### Fair value estimation

Available-for-sale investments include investments in shares and fund units. Listed shares and fund units are measured at fair value, which is the market price at closing date (Level 1). TVO has not level 3 investments (assets that are not based on observable market data).

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.

<b>2013</b> EUR 1 000	Gross amounts	Related amounts not set off	Net amount
Offsetting financial assets and liabilities			
Derivative financial assets	61 600	-20 484	41 116
Derivative financial liabilities	-43 212	20 484	-22 728
2012			
EUR 1 000	Gross amounts	Related amounts not set off	Net amount
Offsetting financial assets and liabilities			
Derivative financial assets	109 889	-29 598	80 291
Derivative financial liabilities	-55 942	29 598	-26 344

For the financial derivative assets and liabilities subject to enforceable master netting arrangements or similar arrangements above, each agreement between the Group and the counterparty allows for net settlement of the relevant financial derivative assets and liabilities when both elect to settle on a net basis. In the absence of such an election, financial assets and liabilities will be settled on a gross basis, however, each party to the master netting agreement or similar agreement will have the option to settle all such amounts on a net basis in the event of default of the other party. Per the terms of each agreement, an event of default includes failure by a party to make payment when due.



### 16 Loans and other receivables

#### Loans and other receivables (non-current assets)

EUR 1 000	2013	2012
Nuclear waste management loan receivables	931 725	881 726
Loan receivables	3 908	4 237
Total	935 633	885 963

According to section 52 of the Nuclear Energy Act, TVO, in exchange for collateral payments, is entitled to receive fixed-term loans from the Finnish State Nuclear Waste Management Fund, the amount which cannot be larger than 75 per cent of the latest confirmed TVO's share in the Finnish State Nuclear Waste Management Fund. The nuclear waste management loan receivables formed by the amount loaned from the Finnish State Nuclear Waste Management Fund, has been further loaned (with the same terms and conditions) to the equity holders of the company and to Fortum Oyj.

Nuclear waste management loan receivables are allocated as follows:

EUR 1 000	2013	2012
EPV Energia Oy	61 442	58 165
Fortum Oyj	247 583	234 292
Karhu Voima Oy	655	620
Kemira Oyj	17 437	16 508
Oy Mankala Ab	76 210	72 141
Pohjolan Voima Oy	528 398	500 000
Total	931 725	881 726

In accordance with its Articles of Association, TVO delivers electricity to its shareholders at cost price (so-called Mankala principle), i.e. delivers the electricity produced or procured to its shareholders in proportion to their shareholdings in each series. Each of the shareholders of each series is liable for variable and fixed annual costs that are specified in detail in the Articles of Association.

The loan receivables constitute mainly the loan receivables of Posiva Oy EUR 3,357 (3,614) thousand.

#### Trade and other receivables (current assets)

EUR 1 000	2013	2012
Trade receivables	8 833	15 073
Loan receivables	390	387
Prepayments and accrued income	10 060	20 044
Other receivables	6 182	817
Total	25 465	36 321

Prepayments and accrued income include prepaid interests, accrued interest income, other accrued income and other prepaid expenses.

The maximum credit loss risk of trade and other receivables corresponds to their book value. On 31 December 2013 the Group had EUR 155 (1,063) thousand overdue receivables of which EUR 42 (226) thousand was overdue more than six months. The overdue receivables are not expected to cause the Group credit losses or impairments.



### 17 Available for-sale investments

EUR 1 000	2013	2012
Investments in listed companies	21 901	14 938
Investments in other stocks and shares	2 044	2 043
Total	23 945	16 981

## 18 Cash and cash equivalents

Cash and cash equivalents consist of on-hand cash, demand deposits and other current, liquid investments.

### 19 Inventories

EUR 1 000	2013	2012
Coal		
Replacement cost	21 767	35 779
Book value	29 108	45 440
Difference	-7 341	-9 661
Raw uranium and natural uranium		
Replacement cost	65 277	92 839
Book value	51 198	49 710
Difference	14 079	43 129
Coal	29 108	45 440
Raw uranium and natural uranium	51 198	49 710
Nuclear fuel	156 723	149 951
Materials and supplies	6 062	5 746
Total	243 091	250 847



## 20 Derivative financial instruments

Nominal values of the derivative financial instruments		N	Naturity structure			
2013						
EUR 1 000	< 1 year	1-3 years	3-5 years	5-7 years	> 7 years	Tota
Interest rate swaps	410 000	90 000	198 446	280 000	23 000	1 001 446
Forward foreign exchange contracts and swaps	26 163	49 063	35 377	43 960	57 045	211 607
Cross-currency swaps	0	128 730	531 447	137 380	56 117	853 674
Total	436 163	267 793	765 270	461 340	136 161	2 066 727
Nominal values of the derivative financial instruments		N	laturity structure			
2012						
EUR 1 000	< 1 year	1-3 years	3-5 years	5-7 years	> 7 years	Tota
Interest rate swaps	190 000	470 000	60 000	338 446	23 000	1 081 446
Forward foreign exchange contracts and swaps	27 985	57 363	26 231	22 926	15 282	149 788
Cross-currency swaps	0	214 082	214 481	146 713	135 231	710 507
Total	217 985	741 446	300 712	508 086	173 513	1 941 742
Fair values of the derivative financial instruments						
2013						
EUR 1 000			Positive	Negative		Total
Interest rate swaps						
Cash flow hedges			471	-19 560		-19 089
Fair value hedges			10 314	0		10 314
Non-hedges			0	-4 445		-4 445
Forward foreign exchange contracts and swaps						
Cash flow hedges			2 494	-7 009		-4 516
Non-hedges			152	-33		119
Cross-currency swaps						
Non-hedges			48 157	-12 129		36 028
Currency options (non-hedges)						
Purchased			0	-35		-35
Written			12	0		12
Total			61 600	-43 212		18 388
Fair values of the derivative financial instruments				ı		
2012						
EUR 1 000			Positive	Negative		Tota
Interest rate swaps				9		
Cash flow hedges			0	-36 206		-36 206
Fair value hedges			18 109	0		18 109
Non-hedges			92	-14 286		-14 194
Forward foreign exchange contracts and swaps						
Cash flow hedges			6 233	-414		5 819
Non-hedges			134	0		134
Cross-currency swaps				, i		
Non-hedges			85 253	-4 968		80 285
Total			109 821	-55 874		53 947



### 21 Equity

#### **Share capital**

The registered share capital of the Company according to the Articles of Association was EUR 606,193 thousand on 31 December 2013. TVO does not have a maximum or minimum limit for the share capital. The number of the shares on 31 December 2013 was 1,394,283,730. The shares are divided into the three series of shares as follows: A series 680,000,000, B series 680,000,000 and C series 34,283,730 shares. The shares have no nominal price as is stipulated in the Finnish Limited Liability Companies Act.

According to the Articles of Association, TVO delivers electricity to its shareholders at cost price, i.e. it delivers the electricity produced or procured to its shareholders in proportion to their shareholding in each series. Each of the shareholders of each series is liable for the variable and fixed annual costs that are specified in detail in the Articles of Association. The Company prepares annually a balance sheet divided into series of shares. The balance sheet, which will be presented to the Shareholders' Meeting, specifies the assets, liabilities and equity of the different series of shares.

#### Share number reconciliations:

EUR 1 000	Number of shares	Share capital	Share premium reserve and statutory reserve
1 Jan 2012	1 394 283 730	606 193	242 383
31 Dec 2012	1 394 283 730	606 193	242 383
31 Dec 2013	1 394 283 730	606 193	242 383
Share number	stered share series: A, B and C.	31 Dec 2013	31 Dec 2012
Share number		31 Dec 2013	31 Dec 2012
A series		680 000 000	680 000 000
B series		680 000 000	680 000 000
C series		34 283 730	34 283 730
Total		1 394 283 730	1 394 283 730

#### Share premium reserve

The share premium reserve contains the share premiums of the share issues, EUR 232,435 thousand.

#### Statutory reserve

The statutory reserve consists of EUR 9,948 thousand paid by Imatran Voima Oy, the predecessor of Fortum Power and Heat Oy, in 1979 when it became an equity holder in the company.

#### Fair value and other reserves

Profits and losses incurred by fair value changes of available-for-sale investments and derivatives used as cash flow hedges are entered in this reserve. The fair changes of derivatives are transferred to the profit/loss statement, when the cash flows they have been hedging have been realized. Fair value changes in available-for-sale investments are transferred to the income statement, when the investments are relinquished or their value diminishes.



#### Subordinated shareholder loans (hybrid equity)

The carrying value of the subordinated shareholder loans in the balance sheet 31 December 2013 was EUR 339,300 thousand of which 279,300 thousand was interest-bearing and 60,000 thousand non-interest. There is no maturity date for the subordinated shareholder loans (hybrid equity), but the borrower is entitled to repay the loan in one or several installments. The Board of Directors of the borrower has the right to decide not to pay interest during any current interest period. Unpaid interest does not accumulate to the following interest periods.

Subordinated shareholder loans (hybrid equity) are unsecured and in a weaker preference position than promissory notes. Holders of a subordinated shareholder loans has no shareholder rights, nor does the bond dilute the ownership of the company's shareholders.

#### **Retained earnings**

This item contains the earnings from previous financial periods and the profit/loss of the financial year.



## 22 Interest-bearing liabilities

EUR 1 000	2013	2012
Non-current interest-bearing liabilities		
Loan from the Finnish State Nuclear Waste Management Fund	931 725	881 726
Bonds	2 191 411	2 069 977
Bank loans	500 620	544 773
Loans from others	222 744	230 209
Finance leasing liabilities	60 852	62 535
Derivative financial instruments	34 999	51 875
Total	3 942 351	3 841 095
Current interest-bearing liabilities		
Bank loans	45 376	90 486
Other interest-bearing liabilities (Commercial paper program)	154 715	110 690
Finance leasing liabilities	1 683	1 659
Derivative financial instruments	8 212	3 999
Total	209 986	206 834
Total	4 152 337	4 047 929

TVO has issued EUR-, USD-, GBP-, SEK- and NOK-denominated Private Placements amounting to EUR 1,124.7 million. The Placements in foreign currency are treated as EUR floating or fixed rate loans that are adjusted at the closing date with ECB fixing rate. The Private Placements have been swapped by using cross-currency swaps. In 2013, the effect of foreign exchange hedges was negative amounting to EUR 44.3 million and correspondingly, the effect of foreign currency denominated loans was positive amounting to EUR 44.3 million.

#### Maturity period of finance lease liabilities

EUR 1 000	2013	2012
Finance lease liabilities - minimum lease payments		
No later than 1 year	1 690	2 035
Later than 1 year and no later than 5 years	6 842	7 824
Over 5 years	54 065	57 377
Total	62 597	67 236
Finance expenses to be accrued	-62	-3 042
Finance lease liabilities - current value of minimum rents		
No later than 1 year	1 683	1 659
Later than 1 year and no later than 5 years	6 819	6 785
Over 5 years	54 033	55 750
Total	62 535	64 194

The finance lease liabilities of the Group comprise the lease agreement of spare parts of the nuclear power plant.



### 23 Trade payables and other current liabilities

EUR 1 000	2013	2012
Advances received	21 365	23 927
Trade payables	10 823	9 536
Accruals and deferred income and other liabilities	156 427	147 964
Total	188 615	181 427
Accruals and deferred income and other liabilities are allocated as follows:  Finnish State Nuclear Waste Management Fund	64 430	57 204
Finnish State Nuclear Waste Management Fund	64 430	57 204
Accrued interests	52 144	52 388
Accrued personnel expenses	16 543	15 956
Accruals related to CO <sub>2</sub> emission rights	2 687	933
Others	20 623	21 483
Total	156 427	147 964

# 24 Assets and provision related to nuclear waste management obligation

#### Share in the Finnish State Nuclear Waste Management Fund

Under the Nuclear Energy Act in Finland, TVO has a legal obligation to fully fund the legal liability for nuclear waste including the decommissioning of the power plant through the Finnish State Nuclear Waste Management Fund (=nuclear waste management obligation).

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 carrying value of the fund in TVO's balance sheet is calculated according to the interpretation in IFRIC 5 "Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds".

#### Provision related to the nuclear waste management obligation

The provision is related to future obligations for decommissioning of the power plant, management of spent fuel and operating waste. The fair value of the provision is calculated according to IAS 37 based on discounted future cash flows which are based on estimated future expenses. The cost estimate is based on a nuclear waste management plan covering the management of spent nuclear fuel and operating waste and decommissioning of the nuclear power plant.

The total cost estimate based on a new nuclear waste management technical plan and schedule was updated in June 2013. The updated cost estimate increased the provision related to the nuclear waste management and decreased the amount of materials and services and finance expenses.

The overall effect on profit for the period is 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. 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 provision on balance sheet compared to the value at the end of the previous year was increased by EUR 24.8 million. The effect of revised cost estimate to the consolidated income statement compared to the previous estimate were EUR 22.2 million decrease in materials and services and EUR 11.9 million decrease in finance expenses.



At the end of the year, the balance sheet contains the following assets and liabilities concerning the nuclear waste management obligation:

EUR 1 000	2013	2012
The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets)	897 919	857 643
Provision related to nuclear waste management (non-current liabilities)		
Beginning of the year	857 643	831 828
Increase in provision	36 494	11 194
Used provision	-32 188	-33 427
Changes due to discounting	35 970	48 048
End of the year	897 919	857 643
The discount rate, %	5,5	5,5

#### TVO's legal liability and share in the Finnish State Nuclear Waste Management Fund

TVO's legal liability as stated in the Nuclear Energy Act and the Company's share in the Finnish State Nuclear Waste Management Fund at the end of the year are as follows:

EUR 1 000	2013	2012
Liability for nuclear waste management according to the Nuclear Energy Act	1 317 800	1 242 300
TVO's funding target obligation 2014 (2013) to the Finnish State Nuclear Waste Management Fund	1 310 400	1 242 300
TVO's share in the Finnish State Nuclear Waste Management Fund 31.12.2013 (31.12.2012)	1 253 300	1 198 900
Difference between the liability and TVO's share of the fund 31.12.2013 (31.12.2012)	64 500	43 400

The legal liability calculated according to the Nuclear Energy Act in Finland and decided by the supervising authority (Ministry of Employment and the Economy) is EUR 1,317.8 (1,242.3) million on 31 December 2013 (31 December 2012). The carrying value of the liability in the balance sheet calculated according to IAS 37 is EUR 897.9 (857.6) million on 31 December 2013. The main reason for the difference between the carrying value of the provision and the legal liability is the fact that the legal liability is not discounted to net present value.

TVO's share in the Finnish State Nuclear Waste Management Fund is EUR 1,253.3 (1,198.9) million on 31 December 2013. The carrying value of the TVO's share in the fund in the balance sheet is EUR 897.9 (857.6) million. The difference is due to the fact that IFRIC 5 limits the carrying amount of TVO's interest in the Finnish State Nuclear Waste Management Fund to the amount of the related liability since TVO does not have control over the Finnish State Nuclear Waste Management Fund.

The difference between the funding target and the share in the Finnish State Nuclear Waste Management Fund at the end of each year is due to the funding target being completed by paying the nuclear waste management fee only during the first quarter of the following year.

In June 2013, TVO submitted the waste management scheme for 2013 - 2015 to the Ministry of Employment and the Economy (MEE). The Ministry of Employment and the Economy (MEE) 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 2014.

TVO has issued to the State the shareholders' guarantees as security for the unfunded legal liability. The security also covers unexpected events as determined in the Nuclear Energy Act. The guarantees are included in the nuclear waste management obligations, see note 25 Obligations and other commitments.

TVO utilizes the right to borrow funds back from the Finnish State Nuclear Waste Management Fund in accordance with the defined rules. The loans are included in the interest-bearing liabilities, see note 22 Interest-bearing liabilities.



### 25 Obligations and other commitments

#### **Operating leases**

#### Group as lessee

Minimum rents to be paid based on non-cancellable lease agreements:

EUR 1 000	2013	2012
No later than 1 year	349	343
Later than 1 year and no later than 5 years	354	367
Total	703	710
The rents recognized as expenses during the period are as follows:		
Rents	376	336
Total	376	336

Non-cancellable lease agreements have been made for the office equipment and vehicles.

#### Pledged promissory notes and financial guarantees

EUR 1 000	2013	2012
Pledged promissory notes to the Finnish State Nuclear Waste Management Fund	931 725	881 726
Guarantees given by shareholders related to the nuclear waste management obligation	153 160	147 610

The Company under the nuclear waste management obligation is entitled to borrow an amount equal to 75 per cent of its share in the Finnish State Nuclear Waste Management Fund. TVO has lent the funds borrowed from the fund to its shareholders and has pledged the receivables from the shareholders as collateral for the loan.

The absolute guarantees given by the equity holders of the company are given to cover the unfunded portion of the nuclear waste management obligation and unexpected events as determined in the Nuclear Energy Act.

#### **Investment commitments**

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

EUR 1 000	2013	2012
OL1 and OL2	75 000	16 000
OL3	774 000	769 000
OL4	2 000	13 000
Total	851 000	798 000

#### **Pending Court Cases and Disputes**

TVO submitted in 2012 a claim and defense in the International Chamber of Commerce (ICC) arbitration proceedings concerning the delay and the ensuing costs incurred at the Olkiluoto 3 project. The quantification estimate of TVO's costs and losses was approximately EUR 1.8 billion which included TVO's actual claim and an estimated part until August 2014.

The proceedings were initiated in December 2008 by the OL3 Supplier. The monetary claim the Supplier updated in 2013 is in total approximately EUR 2.7 billion. The updated quantification is until the end of June 2011, and the sum includes approximately EUR 70 million of payments delayed by TVO under the plant contract as well as approximately EUR 700 million of penalty interest and approximately EUR 120 million of alleged loss of profit. TVO has considered and found the earlier claim by the Supplier to be without merit, scrutinizes the updated claim and will respond to it in due course.



The arbitration proceedings may continue for several years, and the claimed amounts may be updated.

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

#### CO<sub>2</sub> emission rights

In principle TVO has, on 31 December, emission rights at least the same amount as the actual annual emissions are. If the actual emissions exceed the amount of the emission rights that TVO possesses, TVO has booked the expense for exceeding emission rights at the market value on 31 December.

	2013		2012	
	t CO <sub>2</sub>	EUR 1 000	t CO <sub>2</sub>	EUR 1 000
Granted emission rights	0		296 281	
Total annual emissions from production facilities	592 448		400 221	
Possessed emission rights	597 125		402 310	
Emission rights sold 1)	0	0	75 000	525
Emission rights and emission right reductions bought 2)	595 000	2 687	175 000	933

TVO is, based on the electricity production during 2000 - 2003 of TVO's share in the Meri-Pori coal-fired power plant, entitled to a corresponding share of gratuitous emission rights. TVO is responsible for the amount of emission rights corresponding to its share of the production of the plant.

### 26 Related party

The Group's related parties include parent company Teollisuuden Voima Oyj and its subsidiary and joint venture. The related parties also include the Board of Directors and the Executive Management including the President and CEO and Deputy CEO.

#### Group's parent company and subsidiaries

Company	Home country	Ownership (%)	Share in voting rights (%)
Teollisuuden Voima Oyj	Finland		
TVO Nuclear Services Oy	Finland	100	100

#### Transactions with related parties are as follows

#### 2013

EUR 1 000

Posiva Oy (joint venture)	8 174	46 453	78	4 739	10
2012					
EUR 1 000	Sales	Purchases	Interests	Receivables	Liabilities
Posiva Oy (joint venture)	7 925	49 477	110	4 464	70

Purchases

Interests

Receivables

Liabilities

Sales

<sup>1)</sup> The sales of the emission rights are included in turnover.

<sup>2)</sup> The purchases of the emission rights and emission right reductions are included in materials and services. The emission rights that TVO possesses on 31 December are included in intangible assets on the balance sheet.



#### Teollisuuden Voima Oyj's shareholders

According to IAS 24 -standard in addition the Group related parties are TVO's two biggest shareholders Pohjolan Voima Oy (PVO) and Fortum Power and Heat Oy (FPH) which have significant authority and PVO's biggest owner UPM-Kymmene Oyj (UPM) and FPH's owner Fortum Oyj.

#### Transactions with related parties are as follows

2013					
EUR 1 000	Sales	Purchases	Interests	Receivables	Liabilities
PVO, Fortum Oyj, Fortum Power and Heat Oy	301 729	11 054	8 782	788 918	258 689
2012					
EUR 1 000	Sales	Purchases	Interests	Receivables	Liabilities
PVO, Fortum Oyj, Fortum Power and Heat Oy	288 890	9 119	14 984	756 480	174 004

#### Senior management's employee benefits

The senior management of TVO comprises the Board of Directors and the Executive Management including President and CEO and Deputy CEO. The Group has no business transactions with senior management.

	2013	2012
EUR 1 000	Senior management	Senior management
Wages, salaries and other short-term benefits	2 183	1 959
Total	2 183	1 959

Some of the Executive Management have option to retire at the age of 60, some at the age of 63.

### 27 Financial risk management

Financing and financial risks are centrally managed by the finance department of TVO in accordance with the Finance Policy approved by the Board of Directors. TVO is exposed to a variety of financial risks: liquidity-, market- and credit risk. These do not include the receivables and obligations between the Company and its owners, as the Company operates at cost price (see note 1 General information on the Group).

TVO's guiding financial principles are to ensure access to adequate liquidity reserves and, secondly, to reduce volatility in cash flows deriving form short- and medium-term fluctuations in the financial markets.

In accordance with the Finance Policy of the Company, derivative instruments are entered into only with hedging purposes and they should qualify for hedge accounting under IFRS.

#### Liquidity risk

Liquidity and refinancing risk is defined as the amount by which earnings and cash flows are affected as a result of the Company not being able to secure sufficient financing. In addition to sufficient liquid assets and committed credit lines TVO aims to diminish the refinancing risk by spreading the maturity dates of its loans and different financing sources as much as possible.

In accordance with the Finance Policy of TVO, the maturities and refinancing of long-term loans are planned so that no more than 25 per cent of the outstanding loans mature during the next rolling 12-month period. The loans borrowed from the Finnish State Nuclear Waste Management Fund, which have been lent further to the shareholders, form an exception.

TVO issues commercial papers under the Commercial Paper Program for short-term funding purposes. There shall always exist committed credit lines with a minimum duration of 12 months for an amount corresponding to the funding needs of the Company for the following 12 months.

In addition to long-term committed credit lines, the Company shall maintain liquid assets at an amount stated in the Finance



Policy. In accordance with the Finance Policy, bank deposits, certificates of deposits, commercial papers, municipal papers, and treasury notes as well as money market funds are accepted as investments, and they are mostly for the short-term purposes with maximum duration of 12 months.

#### Undiscounted cash flows of financial liabilities

2013						
EUR 1 000	2014	2015	2016	2017	2018-	Total
Loans from financial institutions 1)	45 376	89 095	104 583	44 413	274 476	557 942
Financing costs <sup>2)</sup>	17 857	16 921	14 334	10 726	13 116	72 954
Loan from the Finnish State Nuclear Waste Management Fund 3)					931 725	931 725
Financing costs	7 050	10 010	15 650	20 606	23 599	76 915
Bonds 4)		128 730	750 000	214 481	1 057 786	2 150 997
Financing costs	89 506	88 755	87 133	40 777	121 287	427 458
Loans from others 4)					223 677	223 677
Financing costs	4 556	4 608	4 622	4 632	12 492	30 910
Finance lease liabilities	1 690	6 842			54 065	62 597
Commercial papers	155 000					155 000
Other liabilities	50 676					50 676
Interest rate derivatives	16 137	6 320	4 868	4 346	4 505	36 175
Total	387 847	351 280	981 189	339 981	2 716 728	4 777 025
EUR 1 000	2014	2015	2016	2017	2018-	Total
Forward foreign exchange contracts	1 021	242	209	289	6 342	8 103

<sup>1)</sup> Repayments in 2014 are included in current liabilities in the balance sheet

On December 31, 2013, TVO had undrawn credit facilities amounting to EUR 1,500 million (2012: 1,500 million). In addition, the Group has subordinated shareholder loan (hybrid equity) commitments totaling EUR 720 million of which EUR 220 million is allocated to the financing of the bidding and engineering phase of the OL4 project and EUR 500 million to the financing needs of the OL3 project. In addition, TVO had cash equivalents amounting EUR 142 million.

<sup>&</sup>lt;sup>2)</sup> In addition to interest costs, financing costs include commitment fees.

<sup>3)</sup> The loan is renewed yearly and connected interest payments are calculated for five years.

<sup>4)</sup> The placements in foreign currency have been swapped into EUR-floating or fixed cash flow using cross-currency swaps.



#### Undiscounted cash flows of financial liabilities

<b>2012</b> EUR 1 000	2013	2014	2015	2016	2017-	Total
Loans from financial institutions 1)	90 485	45 376	89 095	104 583	318 889	648 427
Financing costs <sup>2)</sup>	15 281	14 245	13 276	10 681	18 992	72 475
Loan from the Finnish State Nuclear Waste Management Fund 3)					881 726	881 726
Financing costs	13 804	5 394	8 359	11 439	15 339	54 334
Bonds 4)			214 082	750 000	1 020 747	1 984 830
Financing costs	86 984	86 764	85 144	83 033	145 197	487 121
Loans from others 4)					223 677	223 677
Financing costs	4 689	4 462	4 452	4 466	16 545	34 614
Finance lease liabilities	2 035	7 824			57 377	67 236
Commercial papers	111 000					111 000
Other liabilities	47 908					47 908
Interest rate derivatives	28 050	15 969	5 603	4 015	7 105	60 742
Total	400 236	180 033	420 010	968 216	2 705 595	4 674 090
EUR 1 000	2013	2014	2015	2016	2017-	Total
Forward foreign exchange contracts	34	23	41	7	340	445

<sup>1)</sup> Repayments in 2013 are included in current liabilities in the balance sheet.

#### Market risk

#### **Currency risk**

TVO is exposed to currency risk mainly in connection with its fuel purchases. The currency of purchases of raw uranium, enrichment and coal is frequently USD. Hedging of a currency denominated purchase is commenced when a agreement is entered into and the forecasted currency risk becomes highly probable. Both short-term and long-term loans are withdrawn mainly in euros. The loans denominated in other currencies than euros are hedged latest at the withdrawal date.

Currency swaps, forward contracts, and options can be used to hedge the currency exposure.

#### Interest rate risk

Interest-bearing liabilities expose the Company to interest rate risk. The objective of the Company's interest rate risk management is to maintain the interest costs at as low level as possible and to diminish the volatility of interest costs. In accordance with the Finance Policy, the duration of the loan portfolio of the Company can vary between 18 and 30 months. At the closing date the duration was 20 months.

The average interest rate duration is managed with fixed interest rate loans, interest rate swaps, forward rate agreements as well as with interest rate caps and floors.

The average interest rate on loans and derivatives on 31 December 2013 was 3.91 % (2012: 4.32 %).

Borrowings issued at variable rates expose TVO to cash flow interest rate risk. Borrowings issued at fixed rates expose TVO to fair value interest rate risk. TVO shall apply hedge accounting as far as practical. Based on the various scenarios, TVO manages its cash flow interest rate risk by using floating-to-fixed interest rate swaps. Such interest rate swaps have the econimic effect of converting borrowings from floating rates to fixed rates. TVO also enters into fixed-to-floating interest rate swaps to hedge the fair value interest rate risk.

<sup>&</sup>lt;sup>2)</sup> In addition to interest costs financing costs include commitment fees.

<sup>&</sup>lt;sup>3)</sup> The loan is renewed yearly and connected interest payments are calculated for five years.

<sup>4)</sup> The placements in foreign currency have been swapped into EUR-floating or fixed cash flow using cross-currency swaps.



#### Expected cash flows from financial instruments under cash flow hedge accounting

<b>2013</b> EUR 1 000	2014	2015	2016	2017	2018-	Total
Interest rate swaps						
Cash flows	-11 084	-6 309	-5 056	-4 931	-5 089	-32 469

#### Expected cash flows from financial instruments under cash flow hedge accounting

<b>2012</b> EUR 1 000	2013	2014	2015	2016	2017-	Total
Interest rate swaps						
Cash flows	-17 909	-11 786	-6 532	-5 257	-10 381	-51 865

#### Sensitivity to market risks

Sensitivity to market risks arising from financial instruments as required by IFRS 7.

	2013		2012	
EUR 1 000	Income statement	Equity	Income statement	Equity
+ 10% change in EUR/USD exchange rate	0	-17 075	0	-14 608
- 10% change in EUR/USD exchange rate	0	17 075	0	14 608
1% upward parallel shift in interest rates	-3 847	11 649	-959	10 383
1% downward parallel shift in interest rates	3 133	-12 198	2 297	-7 530

#### Assumptions:

The change in EUR/USD exchange rate is assumed to be +/- 10 per cent.

The USD-denominated position includes the forward foreign exchange contracts which are designated as cash flow hedges and recognized in equity and the forward foreign exchange contracts not qualified as cash flow hedges, affecting the income statement.

The variation in interest rates is assumed to be 1 percentage point parallel shift in the interest rate curve.

The interest rate risk position includes the floating rate loan receivables, interest-bearing borrowing, the interest rate derivatives and cash equivalents.

The income statement is affected by the interest-bearing loan receivables, floating rate borrowings and the interest rate derivatives, excluding those interest rate derivatives that are designated as and qualifying for cash hedges, which are recognized in equity. The gain or loss is recognized in profit or loss, except when they relate to the construction of OL3 and are capitalized in the balance sheet.



Bonds
Euro Medium Term Note Programme EUR 3.500.000.000

EUR 1 000	2013		2012			
Currency	Nominal amount	Carrying amount	Nominal amount	Carrying amount	Interest rate %	Maturity date
EUR	750 000	750 000	750 000	750 000	6,00	27 June 2016
EUR	500 000	500 000	500 000	500 000	4,625	4 Feb 2019
EUR	30 000	30 000	30 000	30 000	3,88	9 May 2022
EUR	100 000	100 000	100 000	100 000	Euribor 6M+1,58	12 Sep 2022
EUR	23 000	23 000	23 000	23 000	4,08	1 Dec 2022
EUR	75 000	75 000	75 000	75 000	3,60	14 Dec 2027
EUR	20 000	20 000	20 000	20 000	3,875	8 Nov 2032
EUR	23 000	23 000	0	0	3,50	3 May 2030
NOK	550 000	63 218	550 000	63 218	6,20	22 Feb 2017
SEK	100 000	9 794	100 000	9 794	Stibor 3M+1,25	20 Jan 2015
SEK	320 000	31 342	520 000	50 931	4,00	20 Jan 2015
SEK	0	0	200 000	21 186	Stibor 3M+1,25	
SEK	210 000	20 751	500 000	49 407	4,00	12 Feb 2015
SEK	500 000	51 546	500 000	51 546	4,00	12 Feb 2015
SEK	147 000	15 297	300 000	31 218	3,65	23 June 2015
SEK	650 000	63 601	650 000	63 601	5,30	28 Mar 2017
SEK	300 000	33 899	300 000	33 899	5,30	28 Mar 2017
SEK	500 000	53 763	500 000	53 763	4,50	8 Nov 2017
SEK	875 000	99 977	0	0	3,875	13 Sep 2018
SEK	1 125 000	128 542	0	0	Stibor 3M+1,40	13 Sep 2018
SEK	600 000	58 267	600 000	58 267	5,30	30 Oct 2019
Total		2 150 997		1 984 830		

#### Credit risk

Credit risk arises from the potential failure of a counterparty to meet its contractual payment obligations. Commercial trade receivables as well as receivables from financial institutions relating to investments, deposits and derivative transactions expose the Company to credit risk. In addition to money market funds, financial institutions that meet the credit rating requirements of the Group's Financial Policy are accepted as counterparties. Furthermore TVO has in place a master agreement (ISDA) with all derivative contract counterparties.

#### Fuel price risk

The main fuels used for electricity production by the Group are uranium and coal.

TVO purchases the uranium fuel from the global markets. The purchasing process consists of four stages: purchase of uranium concentrate, conversion, enrichment and fuel fabrication. Purchasing Policy is used to guarantee the availability of fuel and to minimise price risk. This includes storage strategy and diversified long-term purchasing agreements with different suppliers.

TVO has not used commodity derivatives to hedge fuel price risk.



#### Capital risk management

TVO's objective is to secure sufficient equity and equity-like funding that guarantees diversified funding sources.

The equity ratio of the Company varies along investment cycles. The Group targets to have a minimum equity ratio (IFRS) of 25 per cent in the long-term. When calculating the equity ratio, the loan from the Finnish State Nuclear Waste Management Fund (lent further to the shareholders) and the provision related to nuclear waste management obligation are excluded. Additionally, subordinated loans or equivalent loans from the shareholders are regarded as equity.

According to the terms of some loan agreements, the Company is obliged to offer a repayment of the loan if TVO's equity ratio (IFRS) falls below 25 per cent. There are no other key ratio-related covenants in the loan contracts.

The equity ratio monitored by TVO's management	2013	2012
Equity ratio, % (IFRS, Group) 1)	30,0	28,1
Equity ratio, % (Parent company) 2)	29,4	28,5

equity + loans from equity holders of the company
balance sheet total - provision related to nuclear waste management - loan from the Finnish State Nuclear Waste Management Fund
equity + appropriations + loans from equity holders of the company
balance sheet total - loan from the Finnish State Nuclear Waste Management Fund

### 28 Events after the balance sheet date

TVO announced in February 2014 that it had not received the requested overall schedule update for the OL3 project from the Supplier. Therefore TVO does not provide an estimate of the start-up time of the plant unit at the moment. TVO has required the Supplier, who is in charge of the project schedule, to update the overall schedule and to provide a clarification of the measures needed to ensure proper progress to complete the plant unit. Information about the start-up date of electricity production of the OL3 plant unit is pending the finalization of the Supplier's schedule clarification.



## Parent company's financial statements

## Parent company's income statement

EUR 1 000	Note	1 Jan-31 Dec 2013	1 Jan-31 Dec 2012
Turnover	2	362 806	347 111
Work performed for own purpose	3	14 781	13 341
Other income	4	11 812	12 180
Materials and services	5	-179 766	-151 685
Personnel expenses	6	-62 911	-61 165
Depreciation and write-downs	7	-52 824	-53 148
Other expenses	8	-85 205	-93 676
Operating profit/loss		8 693	12 958
Financial income and expenses	9	-8 077	-12 094
Profit/loss before extraordinary items		616	864
Extraordinary items +/-	10	67	305
Profit/loss before appropriations and taxes		683	1 169
Appropriations	11	-683	-1 169
Profit/loss for the financial year		0	0



## Parent company's balance sheet

12 12 13		9 451		
12		9 451		
12		9 451		
				7 834
13		4 189 710		3 942 570
13				
	8		237	
13	1 009		1 009	
13	940 263	941 280	890 738	891 984
		5 140 441		4 842 388
14		243 091		250 847
15		45		125
16		45 943		55 292
		142 142		134 759
		431 221		441 023
		5 571 662		5 283 411
17		606 193		606 193
17		232 435		232 435
17		9 948		9 948
17		9 360		9 360
17		0		0
		857 936		857 936
		167 138		166 455
18,19		2 887 240		2 766 449
18		339 300		229 300
18		931 725		881 726
20		388 323		381 545
		A EAC EOO		4 259 020
		4 546 588		4 259 020
		4 340 366		4 239 020
	17 17 17 17 17 18,19 18	17 17 17 17 17 18,19 18	17 232 435 17 9 948 17 9 360 17 0 857 936  167 138  18,19 2 887 240 18 339 300 18 931 725 20 388 323	17 232 435 17 9 948 17 9 360 17 0 857 936  167 138  18,19 2 887 240 18 339 300 18 931 725 20 388 323



## Parent company's cash flow statement

EUR 1 000	2013	2012
Operating activities		
Operating profit/loss	8 693	12 958
Adjustments to operating profit /loss 1)	52 724	53 166
Changes in working capital 2)	21 194	22 676
Interest paid and other financial expenses	-29 213	-40 852
Dividends received	853	760
Interest received	25 327	16 004
Cash flow from operating activities	79 578	64 712
Investing activities		
Acquisition of shares	-6	-4
Acquisition of non-current assets	-302 917	-310 038
Proceeds from sale of other investments	314	0
Proceeds from sale of intangible and tangible assets	18	39
Loan receivables granted	-50 136	-39 313
Repayments of loans granted	390	386
Cash flow from investing activities	-352 337	-348 930
Financing activities		
Withdrawals of long-term loans	411 518	814 176
Repayment of long-term loans	-175 837	-241 243
Increase (-) or decrease (+) in interest-bearing receivables	73	35
Increase (+) or decrease (-) in short-term interest-bearing liabilities	44 024	-258 845
Group contribution received	305	434
Cash flow from financing activities	280 083	314 557
Change in cash and cash equivalents	7 324	30 339
Cash and cash equivalents 1 Jan	134 759	104 420
Cash and cash equivalents received in merger	59	0
Cash and cash equivalents 31 Dec	142 142	134 759
1) Adjustments to operating profit/loss		
Depreciation and write-downs	52 824	53 148
Gain (-) or loss (+) from divestment of non-current assets	-100	18
Total	52 724	53 166
2) Changes in working capital		
Increase (-) or decrease (+) in inventories	7 757	-16 513
Increase (-) or decrease (+) in non-interest-bearing receivables	-1 111	23 781
Increase (+) or decrease (-) in short-term non-interest-bearing liabilities	14 548	15 408
Total	21 194	22 676



## Notes to the parent company's financial statements

### 1 Accounting principles

#### Valuation principles

#### Non-current assets and their depreciation

Non-current assets have been capitalized at direct acquisition cost including interest costs over the period of construction less planned depreciation and received allowances. Depreciation according to plan is calculated on a straight-line basis according to the estimated useful economic lives.

The depreciation periods are as follows:

OL1 and OL2 nuclear power plant units:

Basic investment
 Investments made according to the modernization program
 Automation investments associated with the modernization
 Additional investments
 40 years

TVO's share in the Meri-Pori coal-fired power plant:

- Basic investment 25 years - Additional investments 10 years

Wind power plant 10 years TVO's share in the Olkiluoto gas turbine power plant 30 years

#### Valuation of inventories

Materials and supplies have been valued at direct acquisition cost, coal on the basis of the FIFO principle (first in, first out), nuclear fuel according to calculated fuel consumption, and supply stocks at average acquisition cost. If the replacement value of inventories on 31 December is lower than the original acquisition cost, the difference will not be entered in the books as an expense because the company operates at cost price.

#### CO<sub>2</sub> emission rights

Carbon dioxide (CO<sub>2</sub>) emission rights are included in the intangible assets. Emission rights are recognized at historical cost. Gratuitous emission rights are assets not included in the balance sheet. The current liability for returning emission rights is recognized at the carrying value of possessed emission rights. If there is a shortfall, a current liability is recognized to cover the acquisition of the missing emission rights. This current liability is valued at the current market value of the emission rights at the balance sheet date. The cost of the emission rights is recognized in the income statement under costs of materials and services. The gains from the sales of emission rights are refunded to the equity holders of the company.

#### Research and development costs

Research and development costs associated with production activity are entered as annual costs for the year in which they were incurred.

#### Items denominated in foreign currency

Transactions in foreign currency have been entered at the relevant exchange rate or at the transaction rate for purchase and sale of foreign currency. On the balance sheet date exchange rate differences on foreign currency accounts have been entered in the income statement under financial income and expenses.



#### Money market instruments

Money market instruments comprise liquid shares in short-term money market funds and certificate of deposits. They are valued in the balance sheet at their original acquisition cost and are included in cash and cash equivalents in the cash flow statements.

#### **Derivative financial instruments**

Derivative financial instruments have not been entered on the balance sheet. Their nominal values and fair values are presented in the notes to the financial statements.

Interest rate duration of floating rate loans has been managed with interest rate swaps, caps and floors. Interest costs of these instruments have been entered on accrual basis and shown in net amount under financial income and expenses. The premiums on interest rate options have been accrued over the period to maturity.

Payments of foreign currency denominated inventory acquisitions have been hedged with currency derivatives. The realized exchange rate differences of derivative financial instruments have been entered to adjust the acquisition cost of inventories. Cross currency swaps have been used to hedge foreign currency denominated long term loans.

#### Items related to nuclear waste management liability

Nuclear waste management obligation is provided for in the Nuclear Energy Act. The obligation covers all future costs from nuclear waste handling including decommissioning of nuclear power plant units, costs for final disposal of spent nuclear fuel and the risk margin, decommissioning being assumed to start at the end of the year in question.

The Ministry of Employment and the Economy confirms annually at the end of the calendar year the liability for nuclear waste management for the current year and the target reserve for the next year.

The company liable for nuclear waste management shall pay its contribution to the Finnish State Nuclear Waste Management Fund so that the company's share in the Fund on 31 March is equal to the company funding obligation target confirmed for the calendar year in question.

The annual contribution to the Finnish State Nuclear Waste Management Fund and costs from nuclear waste management and services are entered as annual expenses. The nuclear waste management fee is based on the company's proposal. If the nuclear waste management fee set by the Finnish State Nuclear Waste Management Fund differs from the amount proposed by the company, the difference is entered in the accounts for the following financial year.

Nuclear waste management liability and the TVO's funding target obligation to the Finnish State Nuclear Waste Management Fund are presented in the notes to the financial statements.

The company must supply the Ministry with guarantees to cover for the difference between the legal nuclear waste management liability and the company's share in the Finnish State Nuclear Waste Management Fund as well as for unforeseen expenses in nuclear waste management. Guarantees are presented in the notes to the financial statements.

A company, liable for nuclear waste management, or its shareholder, is entitled to a loan from the Finnish State Nuclear Waste Management Fund corresponding to 75 per cent of the company's share in the Fund. TVO uses the right to borrow back and loans the funds borrowed from the Fund further to its shareholders.



### 2 Turnover

EUR 1 000	2013	2012
Olkiluoto 1 and Olkiluoto 2	322 449	317 337
Meri-Pori	40 357	29 774
Total	362 806	347 111
Electricity delivered to equity holders of the company (GWh)		
Olkiluoto 1	7 458	6 935
Olkiluoto 2	7 148	7 441
Total Olkiluoto 1)	14 606	14 376
Meri-Pori	725	477
Total	15 331	14 853

<sup>1)</sup> Includes wind energy 1.0 (1.5 in 2012) GWh and energy produced by gas turbine 0.3 (0.3) GWh.

## 3 Work performed for own purpose

EUR 1 000	2013	2012
Personnel expenses related to OL3 and OL4	14 781	13 341

### 4 Other income

EUR 1 000	2013	2012
Rental income	3 170	3 029
Sales profit of tangible assets and shares	102	5
Sales of services	8 327	8 693
Other income	213	453
Total	11 812	12 180



## 5 Materials and services

EUR 1 000	2013	2012
Purchases, accrual basis		
Nuclear fuel	56 476	67 417
Coal	8 012	10 315
Materials and supplies	2 875	3 350
Increase (-) or decrease (+) in inventories	7 757	-16 513
Total	75 120	64 569
CO <sub>2</sub> emission rights	2 687	933
Nuclear waste management		
Contribution to the Finnish State Nuclear Waste Management Fund 1)	57 109	43 454
Nuclear waste management services	32 188	33 427
Total	89 297	76 881
External services	12 662	9 302
Total	179 766	151 685

<sup>1)</sup> Based on TVO's proposal. If the contribution confirmed by the Finnish State Nuclear Waste Management Fund for the year differs from the proposal, the difference will be booked in the following financial year.

#### Consumption

•		
Nuclear fuel	48 216	46 131
Coal	24 344	15 908
Materials and supplies	2 560	2 530
Total	75 120	64 569



## 6 Notes concerning personnel and members of administrative bodies

	2013	2012
Average number of personnel		
Office personnel	736	723
Manual workers	154	156
Total	890	879
Number of employees 31 Dec		
Office personnel	712	719
Manual workers	140	144
Total	852	863
EUR 1 000	2013	2012
Personnel expenses		
Wages and salaries	51 667	50 262
Pension expenses	8 266	8 113
Other compulsory personnel expenses	2 978	2 790
Total	62 911	61 165
Salaries and fees paid to management		
President and CEO deputy and members of the Board of Directors	882	831

#### Management pension plan

Some of the Executive Management have an option to retire at the age of 60, some at the age of 63.

## 7 Depreciation and write-downs

EUR 1 000	2013	2012
Depreciation according to plan		
Other capitalised long-term expenses	1 306	1 315
Buildings and construction	10 036	10 166
Machinery and equipment	37 568	37 885
Other tangible assets	3 914	3 782
Total	52 824	53 148



## 8 Other expenses

EUR 1 000	2013	2012
Maintenance services	19 116	20 056
Regional maintenance and service	8 964	8 971
Research services	1 658	2 994
Other external services	24 052	30 037
Real estate tax	4 954	4 665
Rents	1 599	1 614
ICT expenses	4 508	4 121
Personnel related expenses	4 565	4 823
Corporate communication expenses	1 494	1 881
Other expenses	14 295	14 514
Total	85 205	93 676
Auditors' fees and not audit-related services		
Audit fees	88	94
Other services	59	127
Total	147	221



# 9 Financial income and expenses

EUR 1 000	2013	2012
Dividend income		
From others	853	760
Total	853	760
Interest income on long-term investments		
From joint ventures	78	110
From others	7 050	13 804
Total	7 128	13 914
Other interest and financial income		
From others	11 302	528
Total	11 302	528
Interest income on long-term investments and other interest and financial income, total	18 431	14 442
Interest expenses and other financial expenses		
To the Finnish State Nuclear Waste Management Fund	7 050	13 804
To others	156 514	146 881
Capitalised interest costs	-136 203	-133 389
Total	27 361	27 296
Total financial income (+) and expenses (-)	-8 077	-12 094
Financial income and expenses include exchange rate gains (+) and losses (-) (net)	-15	38

# 10 Extraordinary items

EUR 1 000	2013	2012
Extraordinary income/Group contribution	263	305
Extraordinary expense/Loss on merger	-196	0
Total	67	305

# 11 Appropriations

EUR 1 000	2013	2012
The difference between depreciation according to plan and tax depreciation, increase (-) or decrease (+)	-683	-1 169



# 12 Non-current assets

EUR 1 000	Formation expenses	Intangible rights	Other capitalised long-term expenses	Advance payments	Total
Intangible assets					
Acquisition cost 1 Jan 2013	57 961	716	42 019	0	100 696
Increase	0	2 904	951	0	3 855
Decrease	0	-933	0	0	-933
Transfer between categories	0	0	0	0	0
Acquisition cost 31 Dec 2013	57 961	2 687	42 970	0	103 618
Accumulated depreciation according to plan 1 Jan	57 961	0	34 900	0	92 861
Accumulated depreciation from deduction	0	0	0	0	0
Depreciation according to plan	0	0	1 306	0	1 306
Book value 31 Dec 2013	0	2 687	6 764	0	9 451
Accumulated depreciation difference 1 Jan	0	0	6 054	0	6 054
Change in depreciation difference	0	0	-881	0	-881
Accumulated depreciation difference 31 Dec	0	0	5 173	0	5 173
Undepreciated acquisition cost in taxation 31 Dec 2013	0	2 687	1 591	0	4 278

EUR 1 000	Land and water areas	Buildings and construction	Machinery and equipment	Other tangible assets	Construction in progress and advance payments	Total
Tangible assets						
Acquisition cost 1 Jan 2013	11 507	283 152	1 324 676	52 718	3 390 103	5 062 156
Increase	471	352	6 064	753	291 022	298 662
Decrease	0	-687	-2 979	0	0	-3 666
Transfer between categories	0	0	8 046	0	-8 046	0
Acquisition cost 31 Dec 2013	11 978	282 817	1 335 807	53 471	3 673 079	5 357 152
Accumulated depreciation according to plan 1 Jan	0	203 846	887 060	28 680	0	1 119 586
Accumulated depreciation from deduction	0	-687	-2 975	0	0	-3 662
Depreciation according to plan and write-downs	0	10 036	37 568	3 914	0	51 518
Book value 31 Dec 2013	11 978	69 622	414 154	20 877	3 673 079	4 189 710
Accumulated depreciation difference 1 Jan	0	6 132	153 359	910	0	160 401
Change in depreciation difference	0	-4 206	5 459	311	0	1 564
Accumulated depreciation difference 31 Dec	0	1 926	15 818	1 221	0	18 965
Undepreciated acquisition cost in taxation 31 Dec 2013	11 978	67 696	255 336	19 656	3 673 079	4 027 745

Share of machinery and equipment from book value 31 Dec 2013	396 034
Share of machinery and equipment from book value 31 Dec 2012	419 952



### Capitalised borrowing costs included in non-current assets

EUR 1 000	Formation expenses	Other capitalised long-term expenses	Buildings and construction	Machinery and equipment	Other tangible assets	Construction in progress	Total
Interest during construction period							
Acquisition cost 1 Jan 2013	11 601	3 530	31 133	112 781	2 609	667 820	829 474
Increase	0	0	0	0	0	133 033	133 033
Acquisition cost 31 Dec 2013	11 601	3 530	31 133	112 781	2 609	800 853	962 507
Accumulated depreciation according to plan 1 Jan	11 601	2 621	22 232	80 686	1 857	0	118 997
Depreciation according to plan	0	107	444	1 693	33	0	2 277
Book value 31 Dec 2013	0	802	8 457	30 402	719	800 853	841 233
Accumulated depreciation difference 1 Jan	0	909	8 901	32 095	752	0	42 657
Change in depreciation difference	0	-107	-444	-1 693	-33	0	-2 277
Accumulated depreciation difference 31 Dec	0	802	8 457	30 402	719	0	40 380
Undepreciated acquisition cost in taxation 31 Dec 2013	0	0	0	0	0	800 853	800 853

### 13 Investments

EUR 1 000	Holdings in group companies	Holdings in joint ventures	Other stocks and shares	Loan receivables, joint ventures	Loan receivables, others	Total
Acquisition cost 1 Jan 2013	237	1 009	4 892	3 614	882 231	891 983
Increase	0	0	15	133	49 999	50 147
Decrease	-229	0	-230	-391	0	-850
Acquisition cost 31 Dec 2013	8	1 009	4 677	3 356	932 230	941 280
Book value 31 Dec 2013	8	1 009	4 677	3 356	932 230	941 280

Loan from the Finnish State Nuclear Waste Management Fund lent further to the equity holders of the company	931 725 931 72
Group companies	Group share (%)
TVO Nuclear Services Oy, Eurajoki	100
	Holding of the parent company (%)
Posiva Oy, Eurajoki	60



### 14 Inventories

EUR 1 000	2013	2012
Coal	20.0	2012
Replacement cost	21 767	35 779
Book value	29 108	45 440
Difference	-7 341	-9 661
Raw uranium and natural uranium		
Replacement cost	65 277	92 839
Book value	51 198	49 710
Difference	14 079	43 129
Coal	29 108	45 440
Raw uranium and natural uranium	51 198	49 710
Nuclear fuel	156 723	149 951
Supplies	6 062	5 746
Total	243 091	250 847

# 15 Long-term receivables

EUR 1 000	2013	2012
Loan receivables from group companies	0	7
Loan receivables from others	45	118
Total	45	125



# 16 Current receivables

EUR 1 000	2013	2012
Receivables from group companies		
Loan receivables	0	4
Accrued income	1 323	1 305
Total	1 323	1 309
Receivables from joint ventures		
Trade receivables	11	0
Interest receivables	1	1
Loan receivables	390	386
Prepayments and accrued income	991	463
Total	1 393	850
Receivables from others		
Trade receivables	8 451	12 588
Other receivables	6 160	816
Total	14 611	13 404
Prepayments and accrued income		
Prepaid interests	19 605	21 623
Accrued interest income	7 464	15 876
Other accrued income	1 547	1 802
Other prepaid expenses	0	428
Total	28 616	39 729
Total	45 943	55 292

# 17 Equity

EUR 1 000	2013	2012
Share capital 1 Jan 2013	606 193	606 193
Share capital 31 Dec 2013	606 193	606 193
Share premium reserve 1 Jan 2013	232 435	232 435
Share premium reserve 31 Dec 2013	232 435	232 435
Statutory reserve 1 Jan 2013	9 948	9 948
Statutory reserve 31 Dec 2013	9 948	9 948
Retained earnings/loss 31 Dec 2013	9 360	9 360
Profit/loss for the financial year	0	0
Total	857 936	857 936



# 18 Non-current liabilities

EUR 1 000	2013	2012
Bonds	2 150 997	1 984 830
Bank loans	512 566	557 942
Other loans	223 677	223 677
Shareholders' loans 1)	339 300	229 300
Loan from the Finnish State Nuclear Waste Management Fund 2)	931 725	881 726
Total	4 158 265	3 877 475

<sup>1)</sup> Subordinated loans.

#### **BONDS**

### Euro Medium Term Note Programme EUR 3.500.000.000

Currency	Capital	Maturity date	EUR 1 000 2013	EUR 1 000 2012
EUR	750 000	27 June 2016	750 000	750 000
EUR	500 000	4 Feb 2019	500 000	500 000
EUR	30 000	9 May 2022	30 000	30 000
EUR	100 000	12 Sep 2022	100 000	100 000
EUR	23 000	1 Dec 2022	23 000	23 000
EUR	75 000	14 Dec 2027	75 000	75 000
EUR	20 000	8 Nov 2032	20 000	20 000
EUR	23 000	3 May 2030	23 000	0
NOK	550 000	22 Feb 2017	63 218	63 218
SEK	100 000	20 Jan 2015	9 794	9 794
SEK	320 000	20 Jan 2015	31 342	50 931
SEK	0		0	21 186
SEK	210 000	12 Feb 2015	20 751	49 407
SEK	500 000	12 Feb 2015	51 546	51 546
SEK	147 000	23 June 2015	15 297	31 218
SEK	650 000	28 Mar 2017	63 601	63 601
SEK	300 000	28 Mar 2017	33 899	33 899
SEK	500 000	8 Nov 2017	53 763	53 763
SEK	875 000	13 Sep 2018	99 977	0
SEK	1 125 000	13 Sep 2018	128 542	0
SEK	600 000	30 Oct 2019	58 267	58 267
Total			2 150 997	1 984 830

### **OTHER LOANS**

### **US Private Placements**

Currency	Capital	Maturity date	EUR 1 000 2013	EUR 1 000 2012
USD	55 000	19 Aug 2018	53 111	53 111
GBP	35 336	19 Aug 2018	35 336	35 336
USD	50 000	26 Aug 2020	39 557	39 557
USD	50 000	26 Aug 2020	39 557	39 557
GBP	50 000	15 Nov 2022	56 116	56 116
Total			223 677	223 677

<sup>2)</sup> Lent further to the shareholders.



# 19 Debts due in more than five years

EUR 1 000	2013	2012
Debts due in more than 5 years	1 483 861	1 533 720

### 20 Current liabilities

EUR 1 000	2042	2012
<u> </u>	2013	2012
Liabilities from joint ventures		
Trade payables	0	7
Accruals	10	63
Total	10	70
Liabilities from others		
Advances received	21 364	23 382
Trade payables	11 868	10 843
Total	33 232	34 225
Interest-bearing liabilities		
Bank loans	45 376	90 485
Interest-bearing liabilities	154 715	110 690
Total	200 091	201 175
Accruals and deferred income		
Finnish State Nuclear Waste Management Fund	57 380	43 400
Accrued interests	59 225	66 192
Accrued personnel expenses	16 380	15 809
Accruals related to CO <sub>2</sub> emission rights	2 687	933
Other accruals and deferred income	19 318	19 741
Total	154 990	146 075
Total	388 323	381 545



# 21 Distributable equity

EUR 1 000	2013	2012
Retained earnings	9 360	9 360
Profit/loss for the financial year	0	0
Total	9 360	9 360

### 22 Commitments

EUR 1 000	2013	2012
Leasing liabilities		
Leasing liabilities falling due in less than a year	2 039	2 378
Leasing liabilities falling due later	61 261	65 568
Total	63 300	67 946

TVO has the right to redeem the lease object for EUR 42.7 million in 2025.

### **Nuclear waste management**

Liability for nuclear waste management according to the Nuclear Energy Act 1)	1 317 800	1 242 300
TVO's funding target obligation 2014 (2013) to the Finnish State Nuclear Waste Management Fund	1 310 400	1 242 300
Collateral for nuclear waste management contingencies	153 160	147 610
Nuclear waste management loan receivables pledged to the Finnish State Nuclear Waste Management Fund	931 725	881 726

<sup>1)</sup> Based on the nuclear waste management programme and proposal for the liability made by the Company and which is to be confirmed by the Ministry of Employment and the Economy at the end of the year.

### **Pending Court Cases and Disputes**

See note 25 Obligations and other commitments in the consolidated financial statements.



### 23 Derivative financial instruments

EUR 1 000	2013	2012
Interest rate derivatives		
Interest rate swaps (nominal value)	1 001 446	1 081 446
Fair value	-13 220	-32 291
Forward foreign exchange contracts		
Forward foreign exchange contracts (nominal value)	211 607	149 778
Fair value	-4 397	5 953
Currency options, purchased		
Fair value	-35	0
Currency options, written		
Fair value	12	0
Cross-currency swaps		
Cross-currency swaps (nominal value)	853 674	710 507
Fair value	36 028	80 285

### 24 Series of shares

#### Share capital and series of shares

	Number	Number	EUR 1 000	EUR 1 000
	2013	2012	2013	2012
A-series - OL1 and OL2				
1 Jan	680 000 000	680 000 000	115 600	115 600
Change	0	0	0	0
31 Dec	680 000 000	680 000 000	115 600	115 600
B-series - OL3				
1 Jan	680 000 000	680 000 000	484 765	484 765
Change	0	0	0	0
31 Dec	680 000 000	680 000 000	484 765	484 765
C-series - TVO's share in the Meri-Pori coal-fired power plant				
1 Jan	34 283 730	34 283 730	5 828	5 828
Change	0	0	0	0
31 Dec	34 283 730	34 283 730	5 828	5 828
Total	1 394 283 730	1 394 283 730	606 193	606 193

According to the Articles of Association, TVO delivers electricity to its shareholders on the so-called Mankala principle, i.e. it delivers the electricity produced or procured to its shareholders in proportion to their shareholding in each series. Each of the shareholders of each series is liable for the variable and fixed annual costs that are specified in detail in the Articles of Association. The Company prepares annually a balance sheet divided into series of shares. The balance sheet, which will be presented to the Shareholders' Meeting, specifies the assets, liabilities and equity of the different series of shares.



# 25 Carbon dioxide emission rights

In principle TVO has, on 31 December, emission rights at least the same amount as the actual annual emissions are. If the actual emissions exceed the amount of the emission rights that company possesses, the company has booked the expense for exceeding emission rights at the market value on 31 December.

	<b>2013</b> t CO <sub>2</sub>	EUR 1 000	2012 t CO <sub>2</sub>	EUR 1 000
Granted emission rights	0		296 281	
Total annual emissions from production facilities	592 448		400 221	
Possessed emission rights	597 125		402 310	
Emission rights sold 1)	0	0	75 000	525
Emission rights and emission right reductions bought 2)	595 000	2 687	175 000	933

TVO is, based on the electricity production during 2000 - 2003 of TVO's share in the Meri-Pori coal-fired power plant, entitled to a corresponding share of gratuitous emission rights. TVO is responsible for the amount of emission rights corresponding to its share of the production of the plant.

<sup>1)</sup> The sales of the emission rights are included in turnover

<sup>2)</sup> The purchases of the emission rights and emission right reductions are included in materials and services. The emission rights that company possesses on 31 December are included in intangible rights on the balance sheet and emission right reductions.



# Proposals to the Annual General Meeting

Teollisuuden Voima Oyj's distributable equity as of December 31, 2013 amounted to EUR 9,360,000. The Board of Directors proposes to the Annual General Meeting that no dividend shall be paid.

# Signatures for the report of the Board of Directors and financial statements

Helsinki, February 26, 2014

Lauri Virkkunen Matti Ruotsala

Hannu Anttila Jukka Hakkila

Tapio Korpeinen Pekka Manninen

Markus Rauramo Juha Taavila

Tiina Tuomela Rami Vuola

Jarmo Tanhua
President and CEO

### The Auditor's Note

Our auditor's report has been issued today.

Helsinki, February 26, 2014

PricewaterhouseCoopers Oy Authorised Public Accountants

Jouko Malinen Authorised Public Accountant



### Auditor's report

(Translation from the Finnish Original)

To the Annual General Meeting of Teollisuuden Voima Oyj

We have audited the accounting records, the financial statements, the report of the Board of Directors and the administration of Teollisuuden Voima Oyj for the year ended 31 December, 2013. The financial statements comprise the consolidated statement of financial position, income statement, statement of comprehensive income, statement of changes in equity and statement of cash flows, and notes to the consolidated financial statements, as well as the parent company's balance sheet, income statement, cash flow statement and notes to the financial statements.

#### Responsibility of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, as well as for the preparation of financial statements and the report of the Board of Directors that give a true and fair view in accordance with the laws and regulations governing the preparation of the financial statements and the report of the Board of Directors in Finland. The Board of Directors is responsible for the appropriate arrangement of the control of the company's accounts and finances, and the Managing Director shall see to it that the accounts of the company are in compliance with the law and that its financial affairs have been arranged in a reliable manner.

#### **Auditor's Responsibility**

Our responsibility is to express an opinion on the financial statements, on the consolidated financial statements and on the report of the Board of Directors based on our audit. The Auditing Act requires that we comply with the requirements of professional ethics. We conducted our audit in accordance with good auditing practice in Finland. Good auditing practice requires that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and the report of the Board of Directors are free from material misstatement, and whether the members of the Board of Directors of the parent company or the Managing Director are guilty of an act or negligence which may result in liability in damages towards the company or whether they have violated the Limited Liability Companies Act or the articles of association of the company.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements and the report of the Board of Directors. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of financial statements and report of the Board of Directors that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements and the report of the Board of Directors.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinion on the Consolidated Financial Statements**

In our opinion, the consolidated financial statements give a true and fair view of the financial position, financial performance,



and cash flows of the group in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

#### Opinion on the Company's Financial Statements and the Report of the Board of Directors

In our opinion, the financial statements and the report of the Board of Directors give a true and fair view of both the consolidated and the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of the financial statements and the report of the Board of Directors in Finland. The information in the report of the Board of Directors is consistent with the information in the financial statements.

#### **Other Opinions**

We support that the financial statements and the consolidated financial statements should be adopted. We support that the Members of the Board of Directors and the Managing Director of the parent company should be discharged from liability for the financial period audited by us.

Helsinki, 26 February, 2014

#### **PricewaterhouseCoopers Oy**

**Authorised Public Accountants** 

Jouko Malinen
Authorised Public Accountant



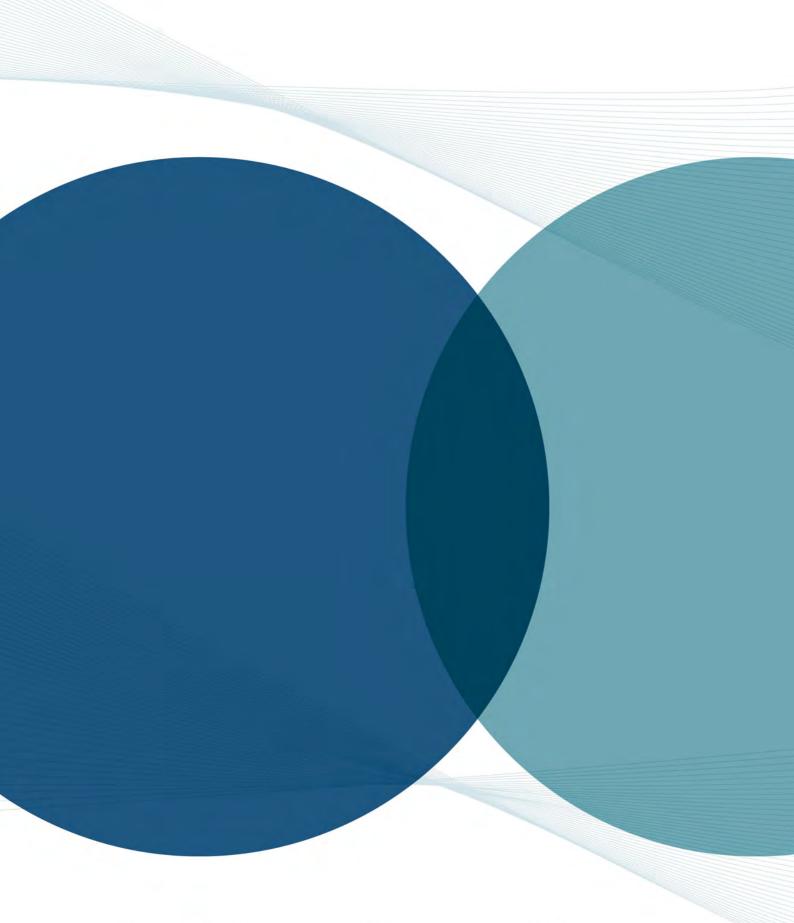
### Financial information in 2014

### Teollisuuden Voima Oyj will publish the interim reports in 2014 as follows:

Interim Report for January-March 2014 on April 25, 2014

Interim Report for January-June 2014 on July 17, 2014

Interim Report for January-September 2014 on October 20, 2014





### Olkiluoto

FI-27160 Eurajoki Tel. +358 2 83 811 Fax +358 2 8381 2109 www.tvo.fi

### Helsinki

Töölönkatu 4 FI-00100 Helsinki Tel. +358 9 61 801 Fax +358 9 6180 2570

### Brussels

4 rue de la Presse BE-1000 Brussels, Belgium Tel. +32 2 227 1122 Fax +32 2 218 3141