TVO

# Report of the Board of Directors and Financial Statements 2012

Teollisuuden Voima Oyj – Well-being with Nuclear Electricity

# Contents

# Report of the Board of Directors of Teollisuuden Voima Oyj

### Operating Environment

At the end of 2012, a total of 437 nuclear power plant units were in operation in 30 different countries throughout the world. They produced about 13 per cent of all electricity consumed in the world. In addition, 64 new reactors were under construction. It is expected that in the next few years, new NPP projects will be initiated, besides in Europe, in Asia in particular as well as in the United States. By 2035, the world's total capacity of nuclear power is expected[1] to increase from the current 400 GW to the level of 580 GW.

Nearly 30 per cent of all electricity in the European Union is generated in nuclear power plants. A total of 134 reactors are in operation in 14 different Member States. The total capacity of the plants is 133 GW. Most of these NPPs were built in the 1970s and 1980s. Now there are four reactors under construction in the EU. An extension of the operation lifetime of existing plants is also being planned in many countries.

The EU Energy Roadmap 2050 includes energy scenarios that can help to reduce carbon dioxide emissions up to 80 per cent. In all scenarios, the consumption of electricity is increasing. Nuclear power has an important role in the energy roadmap in reducing emissions, and the scenarios containing the largest share of nuclear power are also the least cost options.

Nuclear safety was continued to be assessed within the EU. The report released in April 2012 stated that the safety in the NPPs in EU is at good level. According to the report, however, national measures are needed especially for preparing for the consequences of extreme conditions. The national action plans are being drawn up and part of the measures are already under implementation. As follow-up from the safety assessment, the EU Commission is preparing a new nuclear power law, especially related to nuclear safety and liability.

According to the final report of the Radiation and Nuclear Safety Authority Finland (STUK), the safety of Finnish nuclear power plants, including provisions for severe accidents, earthquakes and extreme weather conditions, has been improved systematically ever since the plants were commissioned. STUK, however, raised some new questions and suggestions for improvements. In the Olkiluoto 1 and Olkiluoto 2 plant units, improvements are planned e.g. to reduce the dependence of cooling needed in emergency situations on the electrical systems.

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

In the Government Program of Prime Minister Katainen, climate and energy strategy update has been agreed. Related to this, Jyri Häkämies, Minister of Economic Affairs, initiated in 2012 preparation for a Clean Energy Program. Nuclear power has a remarkable role in the program: the share of nuclear power investments is half of the investments presented. The goal of the program is to reduce greenhouse gas emissions, create jobs, reduce energy imports, and accelerate development and use of domestic clean energy technology.

In March 2012, the Ministry of Employment and the Economy (MEE) set a working group to examine options for the nuclear power companies' final disposal management of spent nuclear fuel. One of the items to be examined was a possibility that the spent nuclear fuel from Fennovoima Oy's nuclear power plant unit under planning would be disposed of in Olkiluoto. The working group submitted its interim report in June 2012. According to the report, the exact amount of spent nuclear fuel that is possible to be disposed of in Olkiluoto will become clear only over the decades. The final report of the working group was released in the beginning of 2013. The key recommendation of the report was that it is most expedient and cost-effi-

[1] IEA World Energy Outlook 2012

cient to aim for an optimized solution in final disposal, making use of the competence and experience in the field accumulated during Posiva Oy's project. According to the report, the number of disposal facilities - one or two - does not play a key role. The working group recommended that the companies continue negotiating in order to arrive at a solution regarding the final disposal project for Fennovoima Oy. It concluded that the working group's mandate does not extend to business negotiations.

The Finnish Government will assess the possibility of introducing a new tax related to carbon dioxide-free nuclear and hydro power generation, which, according to the Government Program, aims to collect the state EUR 170 million a year. The tax will be introduced in 2014 at the earliest. Decision on the tax and its details has not yet been made.

### Electricity consumption in Finland unchanged

The total consumption of electricity in Finland in 2012 was 85.2 terawatt hours (TWh). The consumption increased by 1.1 per cent compared to the previous year. Domestic production covered a smaller share of electricity procurement than before. The share of net electricity imports rose to a record 21 per cent. The warm weather decreased the combined heat and power generation (CHP), and its share was 26.8 per cent. The amount of nuclear power generated in 2012 was 22.1 TWh, which accounted for 25.9 per cent of the electricity procured.

## Main Events

TVO's nuclear power plant in Olkiluoto achieved in 2012 the second best production result in its history. The plant units produced a total of 14.45 TWh (billion kilowatt-hours) of electricity and had a common capacity factor of 93.7 per cent. Together with the share of the Meri-Pori coal-fired power plant TVO's production was 14.93 TWh. In 2012, the electricity produced in Olkiluoto accounted for about 17 per cent of all electricity consumed in Finland.

For Olkiluoto 2 (OL2), the production volume in 2012 was the best ever, 7.48 TWh. At 96.9 per cent, the capacity factor of OL2 was also a record for the unit. A generator breakdown in the spring reduced the production volume of Olkiluoto 1 (OL1), which also made it necessary to start the annual outages earlier than planned. Despite this, OL1 reached a good capacity factor of 90.4 per cent. The annual outages of the plant units were executed between April 24 and June 6, 2012.

The plant upgrades conducted in 2010–2012 further improved the safety of the Olkiluoto NPP, and the improved efficiency of the turbine islands resulted in an increase of approximately 20 megawatts (MW) in the net electrical output of both plant units. The rated net electrical output of both units is now 880 MW. TVO is planning and implementing further improvements in safety, e.g. within the framework of the EU-wide safety assessments, so called stress tests.

The Olkiluoto NPP reached the historic milestone of 400 terawatt hours in electricity production on April 20, 2012.

The civil construction works of the Olkiluoto 3 (OL3) plant unit have been mainly completed, and the major components of the reactor plant have been installed. Planning of the reactor plant automation, pipeline welding works, electrification, and pressure tests continued. Commissioning of the power distribution in the reactor plant was started. In the turbine plant, commissioning tests of the process systems continued.

The installation works and plant automation system engineering of the OL3 plant unit have not progressed according to the schedules of AREVA-Siemens Consortium, who is constructing the plant unit as a fixed-price turnkey project. Based on the information submitted by the Supplier, TVO estimates that the plant unit will not be ready for regular electricity production in 2014.

In March, TVO started the bidding process for the Olkiluoto 4 (OL4) project as part of the bidding and engineering phase. The potential reactor plant suppliers in the OL4 bidding process are AREVA, GE Hitachi, Korea Hydro & Nuclear Power, Mitsubishi Heavy Industries and Toshiba.

May 8, 2012 marked the 20th anniversary of TVO's first transport of radioactive waste into the operating waste repository. By the end of the year, a total of 5,640 cubic meters ($m^3$) of low and intermediate level waste generated at TVO's plant units were stored in Olkiluoto. The annual amount of waste is approximately 100–180 $m^3$. Small radioactive waste items from the Finnish health care sector, industry and research institutions are also disposed of in the operating waste repository. On November 22, 2012, the Government granted TVO a license amendment, according to which also the low and medium level nuclear waste from the OL3 plant unit under construction are allowed to be disposed of in the operating waste repository. The expansion of the final disposal repository is estimated to take place in the 2030s, when there will be no more room left in the existing final disposal silos.

On August 31, 2012, a topping-out ceremony at the expansion construction site of the interim storage facility of spent nuclear fuel at Olkiluoto was celebrated. With the expansion TVO will double the capacity of the existing fuel pools. The expansion is scheduled to be inaugurated in the beginning of 2014.

On December 28, 2012, Posiva submitted the construction license application for the final repository for spent nuclear fuel to the Government.

EU Commission's Directorate-General for Competition made in November a decision which stated that the handling of the complaint submitted to the Commission regarding the legality of the cost price model, commonly used by the Finnish power companies, is concluded. In the operating model based on cost price, the company sells the electricity and heat it produces to its shareholders at cost price, and the shareholders are responsible for the costs of the production company in proportion to their shareholding.

## Financial Performance

TVO operates on a cost-price principle (Mankala principle). The shareholders are charged all the annual costs in the price of electricity. The shareholders pay variable costs based on the volumes of energy supplied and fixed costs in proportion to their ownership, regardless of whether they have made any use of their share of the output or not. Because of the Company's operating principle, key indicators based on financial performance will not be presented.

The consolidated turnover for 2012 was EUR 352.2 (352.4) million. The amount of electricity delivered to the shareholders was 14,853 (14,944) GWh.

The consolidated profit/loss was EUR -1.8 (5.7) million.

## Financing and Liquidity

TVO's financial situation has developed as planned.

At the end of the year, TVO's liabilities (non-current and current) excluding the loan from the Finnish State Nuclear Waste Management Fund relent to shareholders totaled EUR 3,196.9 (December 31, 2011: 2,922.0) million, of which EUR 229.3 (179.3) were subordinated shareholder loans. During 2012, TVO raised a total of EUR 775.0 (33.9) million in non-current liabilities, of which EUR 50.0 million were shareholder loans. Repayments during the year amounted to EUR 241.2 (11.6) million.

In June, TVO updated the Euro Medium Term Note Programme (EMTN) and raised the size of the program from EUR 2.5 billion to EUR 3 billion. During the first quarter of the year, TVO issued a EUR 500 million bond under the Euro Medium Term Note Programme. The maturity of the bond is 7 years and it pays an annual coupon of 4.625 per cent. Furthermore, during the reporting period, TVO has issued a twenty-year (EUR 20 million), a fifteen-year (EUR 75 million) and two ten-year private placements (EUR 30 million and EUR 100 million) under the EMTN Programme.

In March 2011, TVO signed a EUR 1.5 billion five-year syndicated credit facility with two one-year extension options. In March 2012, the facility was extended by one year with EUR 1.45 billion. At the end of the year, TVO had undrawn credit facilities and cash and cash equivalents amounting to EUR 2,164 (2,376) million. From that amount EUR 530 million were subordinated shareholder loan commitments of which EUR 230 million is allocated to the financing of the bidding and engineering phase of the OL4 project, and EUR 300 million is allocated to the financing needs of the OL3 project.

During the reporting period, the Company has raised non-interest bearing shareholder loans altogether worth of EUR 50 million designated for the bidding and engineering phase of the OL4 project.

The OL3 project's share of financing costs has been capitalized on 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. During the period under review, the loan was increased by EUR 39.2 (40.2) million. On December 31, 2012, the amount of the loan was EUR 881.7 (December 31, 2011: 842.6) million and it has been relent to the Company's A series shareholders.

In June, Fitch Ratings downgraded TVO's long-term issuer default rating and senior unsecured rating from A- to BBB+ and affirmed its short-term rating at F2. As a new rating, Standard & Poor's Rating Services assigned in June its BBB long-term and A-2 short-term corporate credit ratings to TVO. Furthermore, Japan Credit Rating Agency (JCR) has an AA rating for TVO. The outlook was assessed as being stable by all the agencies.

## Share Capital and Share Issues

TVO's share capital on December 31, 2012 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 2012 have been described in a separate Corporate Governance Statement to be found on the Company's website.

## Regulatory Environment

One fundamental principle in the legislation on nuclear energy is that its exploitation must be in the overall good of society as a whole. The main rules on the use of nuclear energy, monitoring use and nuclear safety, are contained 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. In addition, the Nuclear Liability Act concerns the liability the operator of a nuclear plant has in the event of a nuclear accident. Parliament has issued a temporary amendment to the Nuclear Liability Act in 2011. The Act came into force at 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

The purpose of risk management is to support the achievement of goals, to prevent risks from materializing, and to reduce the probability of risks and their possible effects. 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 evaluating the Company's risk management and ensuring adequate risk treatment. The organization units are responsible for the practical implementation of risk management.

At TVO, risk management is part of the activity based management system that is in accordance with the Company's safety culture and a part of the daily operation. Threats to the operation, different risk factors and procedures for preventing, managing and reducing them, are constantly monitored. In the risk identification processes, the likelihood of various threats and their consequences are assessed and separate action plans are drawn up on a case-by-case basis.

At TVO, strategic risks are classified as follows: power plants, safety and environment, capacity expansion, personnel, financing and cost-efficiency, nuclear waste management, and the confidence of stakeholders. Risk assessments for annual targets are based on the organization units' targets for the following year.

TVO reduces risks connected with safety and production by keeping the plant units in good condition. Life-cycle management of the plant units as well as high-quality planning and implementation of the annual outages are particularly important. Property damage risks are limited with Insurance. Statutory liability insurance is in force for nuclear liability.

Fuel for TVO's 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 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 information submitted by the Supplier, TVO estimated during the reporting period that the plant unit will not be ready for regular electricity production in 2014. After the reporting period, TVO informed that the Company is preparing for the possibility that the start of the regular electricity production of the OL3 nuclear power plant unit may be postponed until year 2016. Originally the electricity production was scheduled to start at the end of April 2009. 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

During the reporting period TVO submitted 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 estimated part.

The proceedings were initiated in December 2008 by the OL3 Supplier. The Supplier's latest monetary claim including indirect items and interest is approximately EUR 1.9 billion. TVO has considered and found the claim by the Supplier to be without merit. The arbitration proceedings may continue for several years, and the claimed amounts may be updated.

No receivables or provisions have been recorded on the basis of claims presented in the arbitration proceedings.

TVO was also involved with the Supplier in another ICC arbitration proceeding under the ICC rules concerning the costs of a technically resolved issue in connection with the construction work at OL3. The amount was minor in the context of the value of the project. The arbitration ended with an award during the first quarter of 2012. The economic impacts of the award were minor.

During the second quarter of 2012, the arbitration tribunal made a decision regarding an interpretation dispute in treating the plant delivery installments already paid. In accordance with the decision, parts of a few installments, totaling approximately EUR 100 million, previously transferred to a blocked account by TVO under the plant contract were released to the Supplier, and TVO paid interest, the net amount of which was approximately EUR 23 million. The decision did not take position on the delay of the plant unit and the costs resulting from the delay, and it had no impact on TVO's business or the progress of the OL3 project.

## Nuclear Power

### Olkiluoto 1 and Olkiluoto 2

The electricity production of the Olkiluoto power plant units, OL1 and OL2, during 2012 was 14,450 (14,203) GWh. The total capacity factor was 93.7 (92.8) per cent.

The plant units operated safely and reliably during 2012. OL1's net production was 6,973 (7,290) GWh and the capacity factor 90.4 (94.8) per cent. OL1 main generator failure in April decreased the annual production, and also started the annual outages earlier than planned. OL2's net production was 7,477 (6,913) GWh and the capacity factor 96.9 (90.9) per cent. OL2's net production exceeded the earlier production record of OL1 by amount equivalent to more than six full production days. OL2's capacity factor was its new record.

### Annual Outages

The 2012 annual outages at Olkiluoto nuclear power plant were started exceptionally already in April due to moisture detected in the main generator of the OL1 plant unit on April 24. The outages were completed on June 6, when OL2 was synchronized back to the national grid.

During the outage at OL1, the whole generator set was replaced according to previously made plans. Other major work carried out at OL1 included, among others, modification of the discharge side of the low-pressure turbines, modernization of the I&C of the condensate purification system, leak-tightness testing of the containment, and replacement of one of the auxiliary transformers. The annual outage of OL1 took just over 31 days. After the annual outage, a repair outage of about one day was implemented for a valve repair.

OL2 had a short refueling outage, which in addition to refueling mainly involved inspections and tests. The annual outage at OL2 took a good nine days.

Both plant units have operated reliably after the annual outages.

In addition to TVO's own personnel, the annual outages employed at best up to 997 external contractors' people, of whom 887 were Finnish.

The plant upgrades implemented in 2010–2012 have further improved the safety of the Olkiluoto NPP. As a result of enhanced efficiency of the turbine islands, the net electrical output of both OL1 and OL2 increased by approximately 20 MW.

### 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 NP 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 information submitted by the Supplier, TVO estimated during the reporting period that the plant unit will not be ready for regular electricity production in 2014. After the reporting period, TVO informed that the Company is preparing for the possibility that the start of the regular electricity production of the OL3 nuclear power plant unit may be postponed until year 2016. The Supplier is responsible for the time schedule. TVO has expected the Supplier to update the overall schedule and provide a new confirmation and analysis of the completion date as well as clarification of the measures needed to keep up with the schedule.

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 welding works of the primary coolant circuit pipeline have been completed. Installation of the fuel handling equipment is completed and testing of the equipment in the fuel building has started. Leak tests of the fuel and reactor pool have been completed, and commissioning tests of the fuel racks in the fuel pool have started. Installation of the other components and pipeline welding works as well as pressure tests at the reactor plant continued. Commissioning of the power distribution in the reactor plant has been started. In the turbine plant, commissioning tests of the process systems are ongoing. Planning, documentation and licensing of the reactor plant automation are not yet completed. The OL3 training simulator is under testing in Olkiluoto. Construction of TVO's office building is completed.

The pending disputes concerning the plant unit are described on page 5, "Pending Court Cases and Disputes".

The workforce at the site at the end of the year was about 3,000. The occupational safety level at the site remained good.

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 on 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.

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 on the Group balance sheet.

## Nuclear Fuel

In 2012, the nuclear fuel purchases amounted to EUR 67.4 (50.0) million and the amount consumed to EUR 46.1 (43.5) million.

The nuclear fuel and uranium stock carrying value on December 31, 2012 was EUR 199.7 (December 31, 2011: 178.4) 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.

At the final disposal depth of the repository, 420 meters below ground level, excavation of two so called demonstration tunnels started at the beginning of 2011 was completed, and the tunnels were taken over in May 2012. The purpose of excavating the demonstration tunnels is to show in practice that Posiva is capable of building and excavating the final disposal tunnels and boring disposal holes as well as define position for the final disposal tunnels and holes in order to secure a safe final disposal. In one of the tunnels, four final disposal holes, each 8 meters deep and 1.8 meters in diameter, have been drilled by a boring machine acquired at the end of 2011. The operation of the boring machine has fulfilled its requirements. Two other prototype devices to be used in the final disposal, one for the transfer and installation of final disposal canisters and the other for handling bentonite blocks have been ordered and will be delivered in 2013.

The excavation works of ONKALO, the underground rock characterization facility, were completed in June

2012. The structural works of the last completed, approximately one-kilometer-long tunnel were started in September as well as the equipment of the tunnel with HVAC and electrical systems. Injections of one of the two ventilation shafts and personnel shaft have been delayed, and the raise boring of the shafts will be postponed till the beginning of 2013. Preparation for the construction of the hoist equipment building's second phase is ongoing. The contract agreement to begin the necessary excavation works was signed in December.

On December 28, 2012, Posiva filed the construction license application with the Ministry of Employment and the Economy (MEE) for the final repository for spent nuclear fuel. Additionally, a related long-term safety case consisting of research material of several years was submitted to the Radiation and Nuclear Safety Authority (STUK). The Nuclear Waste Management Program related to the construction license application, which is compiled every three years was completed and delivered to MEE in September. The program describes the research, design and construction works to be done over the next three years.

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

On August 31, 2012, a topping-out ceremony at the expansion construction site of the interim storage facility of spent nuclear fuel at Olkiluoto was celebrated. 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 currently under construction. The expansion works of the interim storage started in the summer of 2010 have progressed on schedule. The expansion is scheduled to be inaugurated in the beginning of 2014.

The Government granted TVO on November 22, 2012 a license amendment for the final disposal of low and medium level nuclear waste from the Olkiluoto 3 plant unit under construction in the operating waste repository in Olkiluoto. TVO submitted an application to the Government in September 2011 for the amendment of the terms of the operating license of the operating waste repository. The expansion of the final disposal repository is estimated to take place in the 2030s, when there will be no more room left in the existing final disposal silos. State-owned radioactive waste, such as radiation sources used in hospitals and for educational purposes, will be emplaced in the operating waste repository also in the future.

The liabilities, in the consolidated financial statement, show a provision related to nuclear waste management liability of EUR 857.6 (December 31, 2011: 831.8) 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 into the Finnish State Nuclear Waste Management Fund. In December, MEE set TVO's liability for nuclear waste management at EUR 1,242.3 (1,207.1) million to the end of 2012 and the Company's target reserve in the Fund for 2013 at EUR 1,242.3 (1,179.1) million.

In March 2012, the Finnish State Nuclear Management Fund confirmed TVO's nuclear waste management fee for 2011 at EUR 34.1 (36.9) million, which was paid into the Fund on April 2, 2012 (March 31, 2011). The nuclear waste management fee for 2012 will be confirmed in March 2013.

A total of 5,965 (6,760) $m^3$ of low- and medium-level radioactive waste has accumulated from the OL1 and OL2 plant units during their operation. During 2012, the amount of waste decreased by 795 $m^3$ (in 2011 increased by 173 $m^3$). The decrease of the total amount of operating waste 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 (the VLJ repository) at Olkiluoto.

The total amount of spent nuclear fuel by the end of the year was 1,327 (1,292) tons, of which 36 (39) tons accumulated in 2012. 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

### Meri-Pori

The amount of electricity produced by TVO's share at the Meri-Pori coal-fired power plant was 477.4 (814.9) GWh requiring 168.7 (274.0) thousand tons of coal and 399.8 (651.8) thousand tons of carbon dioxide emission rights.

The Company's share of the free emission rights for the Meri-Pori coal-fired power plant for 2008–2012 totaled 1,479.7 thousand tons. In 2012, the share is 295.9 thousand tons.

## Research and Development

Research and development costs were EUR 24.1 (25.4) 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 2012, TVO's contribution to the Finnish State Nuclear Waste Management Fund, which finances such programs, amounted to EUR 4.6 (4.3) million.

## Acquisitions of Tangible and Intangible Assets and Shares

Investments during 2012 were EUR 337.3 (316.0) million. Investments of the parent company were EUR 336.9 (313.8) million, of which EUR 274.2 (252.8) million was allocated to the OL3 project.

During the outage at the OL1 plant unit, works related to the modernization project, such as replacement of the generator as well as, among others, modification of the discharge side of the low-pressure turbines and modernization of the I&C of the condensate purification system were carried out.

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 6.7 (14.5) million. In 2012, emission rights and certified emission reductions for the Company's share of the Meri-Pori coal-fired power plant have been acquired worth 0.9 (6.7) million. The Company's need for carbon dioxide emission rights for the period under review will be covered by acquired and free 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 2012, five special reports were prepared for the Radiation and Nuclear Safety Authority (STUK). In addition, a root cause analysis concerning system separation during the annual outages was prepared. One of the incidents was rated as 1, exceptional incident affecting safety, and four were rated as 0 on the international INES scale (0–7).

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 seven significant environmental aspects related to the Company's activities. For these aspects, four long-term objectives have been set, each with separate 1-2 year targets to achieve the objective. 15 targets were set for the year 2012, and 13 of them were met either fully or partly. Within the year, no significant environmental deviation occurred. Overall, 9 minor environmental observations or minor deviations in labeling of chemicals or waste containers occurred, and 26 at the OL3 construction site.

TVO, including the OL3 construction site, has a certified occupational health and safety system compliant with the OHSAS 18001 standard in use. In view of preparations for the commissioning of the OL3 plant unit, arrangements to integrate the systems have been made during 2012. 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. Integrating the systems will provide a basis for common working methods.

More detailed information on the environmental issues and indicators as well as occupational safety indicators for 2012 are reported in the Environmental Report and on TVO's website, which will be verified by an outside body.

## Group Personnel and Training

### Personnel

At the year-end, the total number of personnel in the Group was 868 (818), and the average during the year was 884 (853). The year-end total number of personnel in the Company was 863 (813), and the average during the year was 879 (847). The year-end total for permanent personnel was 772 (738).

TVO recruited 71 (73) employees in 2012. During the year, 53 (65) employees changed jobs and 36 (49) permanent employees left the Company, including 21 (29) 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 September 30, 2014.

### Training

Basic and supplementary training for TVO personnel continued as in previous years. The personnel was trained a total of 8,636 (11,137) days, on average of 9.8 (13.1) 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 2012. 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 simulation training of the OL3 operators was completed in January 2012. After this, the operators were transferred to the commissioning tasks of the project until their training program will start again.

Induction training is required from all those working at the Olkiluoto nuclear power plant area. The training was reformed in the beginning of 2011 by dividing it in two parts: general training and radiation protection training. 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 2012, a total of 4,109 persons took part in the general training and 1,115 in the radiation protection training (registered by January 11, 2013). Both trainings were given in Finnish and English.

## 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.

Olkiluodon Vesi Oy is a wholly-owned subsidiary of TVO. It is responsible for the raw water supply for TVO's and Posiva Oy's operations at Olkiluoto.

Perusvoima Oy is a wholly-owned subsidiary of TVO. Perusvoima did not have activities during 2012.

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 the excavation work on the underground research facility for final disposal as planned.

## Major Events after the End of the Year

At the end of January, TVO received bids related to the new OL4 nuclear power plant unit to be constructed in Olkiluoto. Bids were received from all the plant supplier candidates involved in the bidding process, and they represent different plant technologies and delivery models.

Based on the progress reports received from the Supplier, TVO informed in February that the Company is preparing for the possibility that the start of the regular electricity production of the OL3 nuclear power plant unit may be postponed until year 2016.

Japan Credit Rating Agency (JCR) affirmed in February AA rating on TVO. The outlook was assessed as being stable.

## 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 STUK's new safety guidelines under preparation, TVO initiated pre-planning of the required systems changes. Part of the plans was completed during 2012, and planning will be continued in 2013. 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. During the processing of the construction license application, Posiva will prepare for the launch of the encapsulation plant and final repository projects. Full-scale testing of final disposal technology will also begin in ONKALO.

## Proposals to the Annual General Meeting

Teollisuuden Voima Oyj's distributable equity as of December 31, 2012 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)

| EUR million | **2012** | 2011 | 2010 | 2009 | 2008 |
|---|---|---|---|---|---|
| Turnover | **352** | 352 | 363 | 305 | 257 |
| Profit/loss for the financial year | **-2** | 6 | 37 | -41 | -53 |
| Research expenses | **24** | 25 | 22 | 21 | 21 |
| Investments | **337** | 316 | 393 | 845 | 610 |
| Equity | **1 310** | 1 083 | 1 006 | 866 | 823 |
| Subordinated shareholder loans (hybrid equity) (included in the former) [2) 4)] | **229** | 0 | 0 | 0 | 0 |
| Non-current and current interest-bearing liabilities (excluding loan from VYR) [1)] | **3 166** | 2 847 | 2 621 | 2 463 | 1 826 |
| Loans from equity holders of the company [2) 4)] | **0** | 179 | 179 | 179 | 179 |
| Loan from VYR | **882** | 843 | 802 | 751 | 696 |
| Provision related to nuclear waste management | **858** | 832 | 806 | 633 | 600 |
| Balance sheet total | **6 397** | 5 939 | 5 589 | 5 069 | 4 299 |
| Equity ratio, % [3)] | **28.1** | 29.6 | 29.8 | 28.4 | 33.4 |
| Average number of personnel | **884** | 853 | 842 | 835 | 812 |

[1)] The Finnish State Nuclear Waste Management Fund (VYR)

[2)] Subordinated loans

[3)] Equity ratio, % = 100 x $\dfrac{\text{equity + loans from equity holders of the company}}{\text{balance sheet total – provision related to nuclear waste management – loan from the Finnish State Nuclear Waste Management Fund}}$

[4)] During the accounting period, 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

| EUR million | **2012** | 2011 | 2010 | 2009 | 2008 |
|---|---|---|---|---|---|
| Profit/loss for the financial year (IFRS) | **-2** | 6 | 37 | -41 | -53 |
| The impact of the nuclear waste management obligation [1)] (profit -/loss +) | **4** | 3 | -30 | 3 | -1 |
| The impact of financial instruments [2)] (profit -/loss +) | **-1** | -1 | 0 | 14 | 16 |
| The impact of the associated company sold (FAS) (profit -/loss +) | **0** | 0 | 0 | 0 | 1 |
| Profit/loss before appropriations | **1** | 8 | 7 | -24 | -37 |
| Sales profit of associated company sold | **0** | 0 | 0 | 0 | -9 |
| Adjusted profit/loss for the financia | **1** | 8 | 7 | -24 | -46 |

[1)] Includes profit/loss effects from nuclear waste management according to IFRS standard.

[2)] Includes effects from financial derivatives hedging future cash-flows where hedge accounting is not applied according to IAS 39.

# Key Figures of Teollisuuden Voima Oyj

## TEOLLISUUDEN VOIMA OYJ (FAS)

| Parent company's financial statement has been prepared in accordance with the Finnish Accounting Standards (FAS) EUR million | **2012** | 2011 | 2010 | 2009 | 2008 |
|---|---|---|---|---|---|
| Turnover | **347** | 347 | 355 | 296 | 245 |
| Profit/loss before appropriations | **1** | 8 | 7 | -24 | -37 |
| Fuel costs | **62** | 67 | 80 | 65 | 56 |
| Nuclear waste management costs | **77** | 68 | 65 | 66 | 56 |
| Capital expenditure (depreciation and financial income and expenses) | **65** | 68 | 68 | 68 | 61 |
| Investments | **337** | 314 | 339 | 803 | 600 |
| Equity | **858** | 858 | 793 | 713 | 613 |
| Appropriations | **166** | 165 | 157 | 150 | 175 |
| Non-current and current interest-bearing liabilities (excluding loan from VYR) [1] | **2 968** | 2 743 | 2 505 | 2 408 | 1 781 |
| Loans from equity holders of the company [2] | **229** | 179 | 179 | 179 | 179 |
| Loan from VYR | **882** | 843 | 802 | 751 | 696 |
| Balance sheet total | **5 283** | 4 944 | 4 611 | 4 377 | 3 617 |
| Equity ratio, % [3] | **28.5** | 29.3 | 29.7 | 28.8 | 33.1 |
| Average number of personnel | **879** | 847 | 837 | 830 | 806 |

[1] The Finnish State Nuclear Waste Management Fund (VYR)

[2] Subordinated loans

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

| EUR million | **2012** | 2011 | 2010 | 2009 | 2008 |
|---|---|---|---|---|---|
| **TVO's share in the Finnish State Nuclear Waste Management Fund (VYR)** | **1 242.3** | 1 179.1 | 1 123.4 | 1 069.8 | 1 001.2 |
| **Electricity delivered to equity holders of the company (GWh)** | | | | | |
| Olkiluoto 1 | **6 935** | 7 253 | 6 936 | 7 263 | 7 039 |
| Olkiluoto 2 | **7 441** | 6 876 | 7 127 | 7 122 | 7 288 |
| Total Olkiluoto [1] | **14 376** | 14 129 | 14 063 | 14 385 | 14 327 |
| Meri-Pori | **477** | 815 | 1 622 | 845 | 817 |
| Total | **14 853** | 14 944 | 15 685 | 15 230 | 15 144 |

[1] Includes wind power 1.5 (1.9 in 2011) GWh and gas turbine power 0.3 (0.3) GWh.

| **Capacity factors, %** | | | | | |
|---|---|---|---|---|---|
| Olkiluoto 1 | **90.4** | 94.8 | 91.8 | 97.0 | 93.7 |
| Olkiluoto 2 | **96.9** | 90.9 | 95.2 | 95.1 | 96.9 |
| Total capacity factor | **93.7** | 92.8 | 93.5 | 96.0 | 95.3 |
| **TVO share of the electricity used in Finland, %** | **17.4** | 17.7 | 17.9 | 18.8 | 17.4 |

# Consolidated Income Statement

| EUR 1 000 | Note | **1 Jan–31 Dec 2012** | 1 Jan–31 Dec 2011 |
|---|---|---|---|
| **Turnover** | 3 | **352 171** | 352 372 |
| Work performed for own purpose | 4 | **13 509** | 11 173 |
| Other income | 5 | **9 163** | 9 086 |
| Materials and services | 6 | **-125 095** | -126 250 |
| Personnel expenses | 7 | **-61 668** | -59 219 |
| Depreciation and impairment charges | 3,8 | **-56 497** | -58 022 |
| Other expenses | 9 | **-93 463** | -85 406 |
| **Operating profit/loss** | | **38 120** | 43 734 |
| | | | |
| Finance income | 10 | **35 526** | 39 184 |
| Finance expenses | 10 | **-75 397** | -77 265 |
| Total finance income and expenses | 3 | **-39 871** | -38 081 |
| | | | |
| **Profit/loss before income tax** | | **-1 751** | 5 653 |
| Income taxes | 11 | **1** | -2 |
| **Profit/loss for the financial year** | | **-1 750** | 5 651 |
| | | | |
| **Profit/loss for the financial year attributable to:** | | | |
| Equity holders of the company | | **-1 750** | 5 651 |

# Consolidated Statement of Comprehensive Income

| EUR 1 000 | **1 Jan–31 Dec 2012** | 1 Jan–31 Dec 2011 |
|---|---|---|
| Profit/loss for the financial year | **-1 750** | 5 651 |
| Other comprehensive items | | |
| Changes in fair values of the available-for-sale investments | **3 158** | -538 |
| Cash flow hedges | **-629** | 6 934 |
| Total other comprehensive profit/loss items | **2 529** | 6 396 |
| **Total comprehensive profit/loss for the financial year** | **779** | 12 047 |
| | | |
| **Total comprehensive profit/loss for the financial year attributable to:** | | |
| Equity holders of the company | **779** | 12 047 |

# Consolidated Balance Sheet

| EUR 1 000 | Note | **31 Dec 2012** | 31 Dec 2011 |
|---|---|---|---|
| **Assets** | | | |
| **Non-current assets** | | | |
| Property, plant and equipment | 12 | **4 095 056** | 3 821 833 |
| Intangible assets | 13 | **7 729** | 14 988 |
| Loans and other receivables | 16 | **885 963** | 847 076 |
| Investments in associates and joint ventures | 14 | **1 009** | 1 009 |
| Investments in shares | 17 | **16 981** | 13 819 |
| Derivative financial instruments | 20 | **108 238** | 8 951 |
| Share in the Finnish State Nuclear Waste Management Fund | 24 | **857 643** | 831 828 |
| **Total non-current assets** | | **5 972 619** | 5 539 504 |
| **Current assets** | | | |
| Inventories | 19 | **250 847** | 234 334 |
| Trade and other receivables | 16 | **36 321** | 58 562 |
| Derivative financial instruments | 20 | **1 583** | 996 |
| Cash and cash equivalents | 18 | **135 555** | 105 535 |
| **Total current assets** | | **424 306** | 399 427 |
| **Total assets** | | **6 396 925** | 5 938 931 |
| **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 | **-16 489** | -19 018 |
| Subordinated shareholder loans (hybrid equity) | 21 | **229 300** | 0 |
| Retained earnings | 21 | **248 539** | 253 219 |
| **Total equity** | | **1 309 926** | 1 082 777 |
| **Liabilities** | | | |
| **Non-current liabilities** | | | |
| Provision related to nuclear waste management | 24 | **857 643** | 831 828 |
| Loans from equity holders of the company | 22 | **0** | 179 300 |
| Loan from the Finnish State Nuclear Waste Management Fund | 22 | **881 726** | 842 550 |
| Bonds | 22 | **2 069 977** | 1 254 160 |
| Other financial liabilities | 22 | **837 517** | 922 169 |
| Derivative financial instruments | 20,22 | **51 875** | 53 108 |
| **Total non-current liabilities** | | **4 698 738** | 4 083 115 |
| **Current liabilities** | | | |
| Current financial liabilities | 22 | **202 835** | 612 411 |
| Derivative financial instruments | 20,22 | **3 999** | 4 992 |
| Advance payments received | 23 | **23 927** | 22 922 |
| Trade payables | 23 | **9 536** | 11 003 |
| Other current liabilities | 23 | **147 964** | 121 711 |
| **Total current liabilities** | | **388 261** | 773 039 |
| **Total liabilities** | | **5 086 999** | 4 856 154 |
| **Total equity and liabilities** | | **6 396 925** | 5 938 931 |

# 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 2012** | **606 193** | **242 383** | **-19 018** | **0** | **253 219** | **1 082 777** | **1 082 777** |
| Profit/loss for the financial year | 0 | 0 | 0 | 0 | -1 750 | -1 750 | -1 750 |
| Other comprehensive profit/loss items: | | | | | | | |
| Changes in fair values of the available-for-sale-investments | 0 | 0 | 3 158 | 0 | 0 | 3 158 | 3 158 |
| Cash flow hedges | 0 | 0 | -629 | 0 | 0 | -629 | -629 |
| Subordinated shareholder loans (hybrid equity) | 0 | 0 | 0 | 229 300 | 0 | 229 300 | 229 300 |
| Interest paid of subordinated shareholder loans (hybrid equity) | 0 | 0 | 0 | 0 | -2 930 | -2 930 | -2 930 |
| **Equity 31 Dec 2012** | **606 193** | **242 383** | **-16 489** | **229 300** | **248 539** | **1 309 926** | **1 309 926** |

| 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 2011** | **540 992** | **242 383** | **-25 414** | **0** | **247 568** | **1 005 529** | **1 005 529** |
| Profit/loss for the financial year | 0 | 0 | 0 | 0 | 5 651 | 5 651 | 5 651 |
| Other comprehensive profit/loss items: | | | | | | | |
| Changes in fair values of the available-for-sale-investments | 0 | 0 | -538 | 0 | 0 | -538 | -538 |
| Cash flow hedges | 0 | 0 | 6 934 | 0 | 0 | 6 934 | 6 934 |
| Share issue | 65 201 | 0 | 0 | 0 | 0 | 65 201 | 65 201 |
| **Equity 31 Dec 2011** | **606 193** | **242 383** | **-19 018** | **0** | **253 219** | **1 082 777** | **1 082 777** |

# Consolidated Cash Flow Statement

| EUR 1 000 | Note | 2012 | 2011 |
|---|---|---|---|
| **Operating activities** | | | |
| Profit/loss for the financial year | | **-1 750** | 5 651 |
| Adjustments: | | | |
| Income tax expenses | | **-1** | 2 |
| Finance income and expenses | | **39 871** | 38 082 |
| Depreciation and impairment charges | | **56 497** | 58 022 |
| Other non-cash flow income and expenses | | **-28 202** | -25 796 |
| Sales profit/loss of property, plant and equipment and shares | | **18** | -143 |
| Changes in working capital: | | | |
| Increase (-) or decrease (+) in non-interest-bearing receivables | | **22 661** | 9 313 |
| Increase (-) or decrease (+) in inventories | | **-16 513** | -41 592 |
| Increase (+) or decrease (-) in short-term non-interest-bearing liabilities | | **16 331** | -4 124 |
| Interest paid and other finance expenses | | **-36 609** | -25 565 |
| Dividends received | | **760** | 728 |
| Interest received | | **16 007** | 10 731 |
| Taxes paid | | **3** | -1 |
| **Cash flow from operating activities** | | **69 073** | 25 308 |
| | | | |
| **Investing activities** | | | |
| Acquisition of property, plant and equipment | | **-308 370** | -321 068 |
| Proceeds from sale of property, plant and equipment | | **39** | 33 |
| Acquisition of intangible assets | | **-36** | -447 |
| Acquisition of shares | | **-4** | -473 |
| Proceeds from sale of shares | | **0** | 363 |
| Loan receivables granted | | **-39 313** | -40 337 |
| Repayments of loans granted | | **386** | 382 |
| **Cash flow from investing activities** | | **-347 298** | -361 547 |
| | | | |
| **Financing activities** | | | |
| Share issue | 21 | **0** | 65 201 |
| Withdrawals of subordinated shareholder loans (hybrid equity) | | **50 000** | 0 |
| Withdrawals of long-term loans | | **764 176** | 74 098 |
| Repayment of long-term loans | | **-242 875** | -11 645 |
| Interest paid of subordinated shareholder loans (hybrid equity) | | **-4 245** | 0 |
| Increase (-) or decrease (+) in interest-bearing receivables | | **35** | 69 |
| Increase (+) or decrease (-) in current financial liabilities | | **-258 846** | 215 951 |
| **Cash flow from financing activities** | | **308 245** | 343 674 |
| | | | |
| **Change in cash and cash equivalents** | | **30 020** | 7 435 |
| Cash and cash equivalents 1 Jan | | **105 535** | 98 100 |
| **Cash and cash equivalents 31 Dec** | 18 | **135 555** | 105 535 |

# 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 and at the TVO Helsinki office at the address Töölönkatu 4, 00100 Helsinki.

These consolidated financial statements were authorized for issue by the Board of Directors of TVO in its meeting on 26 February 2013. 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 2012. 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 2011. The following standards issued during 2011 and 2012 have no impact in the consolidated financial statements:

- IFRS 7 (Amendment) Financial instruments: Disclosures - Transfers of financial assets
- IFRS 1 (Amendment) First time adoption
- IAS 12 (Amendment) Income taxes - Deferred tax

The following new standards, interpretations and amendments to existing standards and interpretations issued during the year 2012 will be adopted by the Group in 2013. The interpretations are not expected to have a significant impact on the consolidated financial statements:

- IAS 1 (Amendment) Presentation of financial statement - Presentation of items of other comprehensive income
- IAS 19 (Amendment) Employee benefits - Recognization of actuarial profits and losses
- IFRS 1 [1] (Amendment) First time adoption - Government loans

- IFRS 7 (Amendment) Financial instruments: Disclosures - Offsetting financial assets and financial liabilities
- IFRS 13 Fair value measurement - Directions of definition of fair value
- IFRIC 20 Stripping costs in the production phase of a surface mine

IASB published changes to 5 standards or interpretations in May 2012 as part of the annual Improvements to IFRS's project, which will be adopted by the Group in 2013. The amendments do not have significant impact on the consolidated financial statements. [1)]

The following standards amendments will be adopted in 2014 or later:

- 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 [1)] (Amendment) Financial instruments: Presentation
- IFRS 9 [1)] Financial instruments
- IFRS 10, 11 and 12 (Amendment) Transition guidance
- IFRS 10, 12 and IAS 27 [1)] (Amendment) Investment entities

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

[1)] The standard, interpretation or amendment to published standard or interpretation is still subject to endorsement by the European Union.

## 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. 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 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.

### Associated companies and joint ventures

Associated companies are entities over which the Group has significant influence. Significant influence is established when the Group holds over 20 per cent of the voting rights of the entity or otherwise has significant influence, but not control. TVO has no associated companies.

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 associated companies and joint ventures are accounted for by the equity method of accounting.

## Segment reporting

TVO Group has adopted IFRS 8 Operating Segment -standard as of 1 January 2009. The Board of Directors is the chief operation decision maker. The Group has two reportable segments; nuclear power and coal-fired power.

## 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 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 25 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 Group does not have any goodwill or other intangible assets with indefinite useful lives.

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 ($CO_2$) 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.

## 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.

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 | **2012** | 2011 |
|---|---|---|
| **Turnover by segments** | | |
| Nuclear power | **322 397** | 307 846 |
| Coal-fired power | **29 774** | 44 526 |
| Total | **352 171** | 352 372 |
| | | |
| **Depreciation and impairment charges by segments** | | |
| Nuclear power | **45 703** | 47 266 |
| Coal-fired power | **7 449** | 7 407 |
| Depreciation and impairment charges (FAS) | **53 152** | 54 673 |
| The impact of the nuclear waste management obligation | **3 345** | 3 349 |
| Total (IFRS) | **56 497** | 58 022 |
| | | |
| **Finance income and expenses by segments** | | |
| Nuclear power | **8 956** | 11 184 |
| Coal-fired power | **3 138** | 2 055 |
| Finance income and expenses (FAS) | **12 094** | 13 239 |
| The impact of the nuclear waste management obligation | **28 302** | 25 554 |
| The impact of financial instruments | **-525** | -712 |
| Total (IFRS) | **39 871** | 38 081 |
| | | |
| **Profit/loss for the financial year by segments** | | |
| Nuclear power | **6 590** | 10 028 |
| Coal-fired power | **-5 420** | -1 982 |
| Profit/loss before appropriations (FAS) | **1 170** | 8 046 |
| The impact of the nuclear waste management obligation | **-3 445** | -3 107 |
| The impact of financial instruments | **525** | 712 |
| Total (IFRS) | **-1 750** | 5 651 |

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Assets by segments** | | |
| Nuclear power | **5 195 967** | 4 844 479 |
| Coal-fired power | **89 483** | 100 226 |
| Total (FAS) | **5 285 450** | 4 944 705 |
| The impact of the nuclear waste management obligation | **951 310** | 928 940 |
| The impact of financial instruments | **82 106** | -10 943 |
| The impact of finance leases | **63 135** | 64 463 |
| Other IFRS adjustments | **14 924** | 11 766 |
| Total (IFRS) | **6 396 925** | 5 938 931 |

### GROUP-WIDE DISCLOSURES

| **Turnover shared to production of electricity and services** | | |
|---|---|---|
| Production of electricity | **347 111** | 347 170 |
| Services | **5 060** | 5 202 |
| Total | **352 171** | 352 372 |

**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 | **2012** | 2011 |
|---|---|---|
| Personnel expenses related to OL3 and OL4 | 13 493 | 11 152 |
| Water supply services related to OL3 | 16 | 21 |
| Total | 13 509 | 11 173 |

## 5 OTHER INCOME

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Rental income | 3 027 | 3 097 |
| Profits from sales of property, plant and equipment and shares | 5 | 151 |
| Sales of services | 5 678 | 5 422 |
| Other income | 453 | 416 |
| Total | 9 163 | 9 086 |

## 6 MATERIALS AND SERVICES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Nuclear fuel | **67 417** | 49 961 |
| Coal | **10 315** | 58 673 |
| Materials and supplies | **3 350** | 3 529 |
| $CO_2$ emission rights | **933** | 6 732 |
| Nuclear waste management services [1] | **48 679** | 41 898 |
| Increase (-) or decrease (+) in inventories | **-16 513** | -41 592 |
| External services | **10 914** | 7 049 |
| Total | **125 095** | 126 250 |

[1] See note 24 Assets and provision related to nuclear waste management obligation.

## 7 PERSONNEL EXPENSES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Employee benefit costs** | | |
| Wages and salaries | **50 680** | 48 697 |
| Pension expenses - defined contribution plans | **8 185** | 7 885 |
| Other compulsory personnel expenses | **2 803** | 2 637 |
| Total | **61 668** | 59 219 |

**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.

| | **2012** | 2011 |
|---|---|---|
| **Average number of personnel during financial year** | | |
| Office personnel | **728** | 696 |
| Manual workers | **156** | 157 |
| Total | **884** | 853 |
| | | |
| **Number of personnel on December 31** | | |
| Office personnel | **724** | 683 |
| Manual workers | **144** | 135 |
| Total | **868** | 818 |

## 8 DEPRECIATION AND IMPAIRMENT CHARGES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Intangible assets | | |
| Computer software | **505** | 527 |
| Other intangible assets | **773** | 775 |
| Total | **1 278** | 1 302 |
| | | |
| Property, plant and equipment | | |
| Buildings and construction | **10 166** | 10 242 |
| Machinery and equipment | **37 885** | 39 559 |
| Other property, plant and equipment | **3 823** | 3 570 |
| Decommissioning | **3 345** | 3 349 |
| Total | **55 219** | 56 720 |
| | | |
| Total | **56 497** | 58 022 |

## 9 OTHER EXPENSES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Maintenance services | **20 058** | 18 283 |
| Regional maintenance and service | **8 971** | 8 773 |
| Research services | **2 994** | 3 631 |
| Other external services | **29 719** | 25 958 |
| Real estate tax | **4 666** | 3 863 |
| Rents | **1 614** | 1 752 |
| ICT expenses | **4 129** | 3 790 |
| Personnel related expenses | **4 835** | 4 585 |
| Corporate communication expenses | **1 916** | 2 114 |
| Other expenses | **14 561** | 12 657 |
| Total | **93 463** | 85 406 |
| | | |
| **Auditors' fees and not audit-related services** | | |
| Audit fees | **96** | 112 |
| Other services | **133** | 56 |
| Total | **229** | 168 |

## 10 FINANCE INCOME AND EXPENSES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Items included in the income statement** | | |
| Dividend income on available-for-sale investments | **760** | 728 |
| Profit from available-for-sale investments | **628** | 0 |
| Interest income from loans and other receivables | | |
| Nuclear waste management loan receivables from equity holders of the company | **13 804** | 15 274 |
| Other | **12** | 280 |
| Hedge accounted derivatives | | |
| Ineffective portion of the change in fair value in cash flow hedge relationship | **77** | 10 |
| Ineffective portion of the change in fair value in fair value hedge relationship | **38** | 0 |
| Non-hedge accounted derivatives | | |
| Change in fair value | **461** | 1 092 |
| Interest income from assets related to nuclear waste management | **19 746** | 21 800 |
| Finance income, total | **35 526** | 39 184 |
| | | |
| Interest expenses and other finance expenses | | |
| To the Finnish State Nuclear Waste Management Fund | **13 804** | 15 274 |
| To others | **11 147** | 11 263 |
| Hedge accounted derivatives | | |
| Ineffective portion of the change in fair value in cash flow hedge relationship | **8** | 50 |
| Ineffective portion of the change in fair value in fair value hedge relationship | **101** | 0 |
| Non-hedge accounted derivatives | | |
| Change in fair value | **173** | 385 |
| Realised derivative expenses, net | **2 116** | 2 939 |
| Interest expenses of provision related to nuclear waste management | **48 049** | 47 354 |
| Finance expenses, total | **75 397** | 77 265 |
| | | |
| Total | **-39 871** | -38 081 |

| | | |
|---|---|---|
| **Other comprehensive items** | | |
| Other comprehensive items related to derivative financial instruments: | | |
| Cash flow hedges | | |
| Changes in the fair value of which the following items have transferred | **-16 058** | -10 755 |
| Transfers to the consolidated income statement | **-1 243** | -1 712 |
| Transfers to inventories | **651** | -825 |
| Transfers to the nuclear power plant under construction | **-14 837** | -15 152 |
| Transferred items, total | **-15 429** | -17 689 |
| Cash flow hedges, total | **-629** | 6 934 |
| | | |
| Changes in fair values of the available-for-sale investments | **3 158** | -538 |
| Total other comprehensive items | **2 529** | 6 396 |

## 11 INCOME TAX EXPENSE

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Taxes based on the taxable income of the financial year | **-1** | 2 |
| Total | **-1** | 2 |

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

| **2012**<br>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 | -7 984 | 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 |

| **2011**<br>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 | 9 439 | 283 653 | 1 231 722 | 47 392 | 2 944 399 | 148 597 | 4 665 202 |
| Increase | 1 982 | 1 181 | 16 323 | 3 427 | 285 374 | 242 | 308 529 |
| Decrease | 0 | -314 | -2 008 | -64 | -8 498 | 0 | -10 884 |
| Transfer between categories | 0 | 0 | 57 867 | 310 | -58 177 | 0 | 0 |
| Acquisition cost 31 Dec | 11 421 | 284 520 | 1 303 904 | 51 065 | 3 163 098 | 148 839 | 4 962 847 |
| Accumulated depreciation and impairment charges according to plan 1 Jan | 0 | 183 549 | 832 405 | 22 095 | 0 | 48 378 | 1 086 427 |
| Decrease | 0 | -102 | -1 968 | -64 | 0 | 0 | -2 134 |
| Depreciation for the period | 0 | 10 242 | 39 559 | 3 571 | 0 | 3 349 | 56 721 |
| Accumulated depreciation and impairment charges according to plan 31 Dec | 0 | 193 689 | 869 996 | 25 602 | 0 | 51 727 | 1 141 014 |
| **Book value 31 Dec 2011** | **11 421** | **90 831** | **433 908** | **25 463** | **3 163 098** | **97 112** | **3 821 833** |
| Book value 1 Jan 2011 | 9 439 | 100 104 | 399 317 | 25 297 | 2 944 399 | 100 219 | 3 578 775 |

The costs for the new plant unit (OL3) under construction constituted EUR 3.4 billion of the advance payments in 2012 (EUR 3.1 billion in 2011).

Property, plant and equipment included finance lease agreements:

| EUR 1 000 | Construction in progress |
|---|---|
| Book value 1 Jan 2012 | 71 335 |
| Increase | 1 004 |
| Book value 31 Dec 2012 | 72 339 |
| | |
| Book value 1 Jan 2011 | 70 685 |
| Increase | 650 |
| Book value 31 Dec 2011 | 71 335 |

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

## 13 INTANGIBLE ASSETS

| **2012** EUR 1 000 | $CO_2$ 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 |

| **2011** EUR 1 000 | $CO_2$ emission rights | Computer software | Other intangible assets | Advance payments | Total |
|---|---|---|---|---|---|
| Acquisition cost 1 Jan | 14 524 | 19 768 | 20 874 | 114 | 55 280 |
| Increase | 6 733 | 473 | -174 | 149 | 7 181 |
| Decrease | -14 524 | 0 | 0 | 0 | -14 524 |
| Transfer between categories | 0 | 0 | 174 | -174 | 0 |
| Acquisition cost 31 Dec | 6 733 | 20 241 | 20 874 | 89 | 47 937 |
| | | | | | |
| Accumulated depreciation and impairment charges according to plan 1 Jan | 0 | 17 466 | 14 181 | 0 | 31 647 |
| Depreciation for the period | 0 | 527 | 775 | 0 | 1 302 |
| Accumulated depreciation and impairment charges according to plan 31 Dec | 0 | 17 993 | 14 956 | 0 | 32 949 |
| | | | | | |
| **Book value 31 Dec 2011** | **6 733** | **2 248** | **5 918** | **89** | **14 988** |
| Book value 1 Jan 2011 | 14 524 | 2 302 | 6 693 | 114 | 23 633 |

**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.

| **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 |

| **2011** **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 | 398 038 | 548 091 |
| Increase | 0 | 0 | 0 | 0 | 124 747 | 124 747 |
| Decrease | 0 | 0 | 0 | 0 | -7 234 | -7 234 |
| Acquisition cost 31 Dec | 3 530 | 31 133 | 112 781 | 2 609 | 515 551 | 665 604 |
| | | | | | | |
| Accumulated depreciation and impairment charges according to plan 1 Jan | 2 408 | 21 344 | 77 301 | 1 790 | 0 | 102 843 |
| Depreciation for the period | 107 | 444 | 1 693 | 33 | 0 | 2 277 |
| Accumulated depreciation and impairment charges according to plan 31 Dec | 2 515 | 21 788 | 78 994 | 1 823 | 0 | 105 120 |
| | | | | | | |
| **Book value 31 Dec 2011** | **1 015** | **9 345** | **33 787** | **786** | **515 551** | **560 484** |
| Book value 1 Jan 2011 | 1 122 | 9 789 | 35 480 | 819 | 398 038 | 445 248 |

## 14 INVESTMENTS IN ASSOCIATED COMPANIES AND JOINT VENTURES

| EUR 1 000 | **2012** | **2011** |
|---|---|---|
| 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 incorporation | Assets | Liabilities | Turnover | Profit/loss | Group share (%) |
|---|---|---|---|---|---|---|
| **2012** | | | | | | |
| Posiva Oy | Eurajoki | 25 825 | 24 143 | 67 307 | 0 | 60 |
| **2011** | | | | | | |
| Posiva Oy | Eurajoki | 29 181 | 27 499 | 68 622 | 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

| **2012** 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 | | | | 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 financial 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 liabilities** | | | | | | | | | |
| 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 |
| Derivate 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** | |

| **2011** 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 | | | | 847 076 | | | 847 076 | 847 076 | 16 |
| Investments in shares | | | | | 13 819 | | 13 819 | 13 819 | 17 |
| Derivative financial instruments | | 8 951 | | | | | 8 951 | 8 951 | 20 |
| **Current assets** | | | | | | | | | |
| Trade and other receivables | | | | 58 562 | | | 58 562 | 58 562 | 16 |
| Derivative financial instruments | 383 | 613 | | | | | 996 | 996 | 20 |
| **Total by category** | **383** | **9 564** | **0** | **905 638** | **13 819** | **0** | **929 404** | **929 404** | |
| **Non-current liablities** | | | | | | | | | |
| Loans from equity holders of the company | | | | | | 179 300 | 179 300 | 179 300 | 22 |
| Loan from the Finnish State Nuclear Waste Management Fund | | | | | | 842 550 | 842 550 | 842 550 | 22 |
| Other financial liabilities | | | | | | 2 176 329 | 2 176 329 | 2 289 375 | 22 |
| Derivative financial instruments | 18 695 | 34 413 | | | | | 53 108 | 53 108 | 20 |
| **Current liabilities** | | | | | | | | | |
| Current financial liabilities | | | | | | 612 411 | 612 411 | 612 411 | 22 |
| Trade payables | | | | | | 11 003 | 11 003 | 11 003 | 23 |
| Other current liabilities | | | | | | 121 711 | 121 711 | 121 711 | 23 |
| Derivative financial instruments | 913 | 4 079 | | | | | 4 992 | 4 992 | 20 |
| **Total by category** | **19 608** | **38 492** | **0** | **0** | **0** | **3 943 304** | **4 001 404** | **4 114 450** | |

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

| **2012**<br>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 | 14 943 | | |
| Investments in other stocks and shares | | | 2 038 |
| **Total** | **14 943** | **109 822** | **2 038** |
| | | | |
| **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** |

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

| **2011**<br>EUR 1 000 | Level 1 | Level 2 | Level 3 |
|---|---|---|---|
| **Financial assets at fair value** | | | |
| Derivative financial instruments at fair value through profit or loss | | 383 | |
| Derivative financial instruments designated as cash flow hedges | | 9 564 | |
| Available-for-sale investments | | | |
| Investments in listed companies | 11 785 | | |
| Investments in other stocks and shares | | | 2 034 |
| **Total** | **11 785** | **9 947** | **2 034** |
| | | | |
| **Financial liabilities at fair value** | | | |
| Derivative financial instruments at fair value through profit or loss | | 19 608 | |
| Derivative financial instruments designated as cash flow hedges | | 38 492 | |
| **Total** | **0** | **58 100** | **0** |

**Fair value estimation**

The book values of the floating interest rate loan receivables and other receivables are measured at amortized cost using the effective interest rate method and they are reasonable approximations of their fair value. The fair value of the current trade and other receivables approximate to their book values since the discounting effect due to short maturities is not essential.

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). For unquoted shares the fair value cannot be measured reliably, in which case the investments are carried at acquisition cost (Level 3).

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.

The book values of the non-current financial liabilities and current interest-bearing liabilities are measured at amortized cost using the effective interest rate method. The book values of the floating rate loans are reasonable approximations of their fair value. The fair value of the fixed rate loans has been calculated by discounting future cash flows at closing date market rates (company or loan specific premiums excluded). The fair value includes accrued interest. The book values of the current non-interest-bearing liabilities are reasonable approximations of their fair value.

TVO has issued EUR-, USD-, GBP-, SEK- and NOK-denominated Private Placements amounting to EUR 958.5 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.

## 16 LOANS AND OTHER RECEIVABLES

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

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Nuclear waste management loan receivables | **881 726** | 842 550 |
| Loan receivables | **4 237** | 4 526 |
| Total | **885 963** | 847 076 |

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 | **2012** | 2011 |
|---|---|---|
| EPV Energia Oy | **58 165** | 55 428 |
| Fortum Oyj | **234 292** | 223 187 |
| Karhu Voima Oy | **620** | 591 |
| Kemira Oyj | **16 508** | 15 731 |
| Oy Mankala Ab | **72 141** | 68 742 |
| Pohjolan Voima Oy | **500 000** | 478 871 |
| Total | **881 726** | 842 550 |

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 3,614 (3,868) thousand.

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

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Trade receivables | **15 073** | 36 975 |
| Loan receivables | **387** | 382 |
| Prepayments and accrued income | **20 044** | 20 868 |
| Other receivables | **817** | 337 |
| Total | **36 321** | 58 562 |

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 2012 the Group had EUR 1,063 (1,014) thousand overdue receivables of which EUR 226 (265) 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 | **2012** | 2011 |
|---|---|---|
| Investments in listed companies | **14 943** | 11 785 |
| Investments in other stocks and shares | **2 038** | 2 034 |
| Total | **16 981** | 13 819 |

## 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 | **2012** | 2011 |
|---|---|---|
| Coal | | |
| Replacement cost | **35 779** | 52 425 |
| Book value | **45 440** | 51 033 |
| Difference | **-9 661** | 1 392 |
| | | |
| Raw uranium and natural uranium | | |
| Replacement cost | **92 839** | 101 682 |
| Book value | **49 710** | 36 332 |
| Difference | **43 129** | 65 350 |
| | | |
| Coal | **45 440** | 51 033 |
| Raw uranium and natural uranium | **49 710** | 36 332 |
| Nuclear fuel | **149 951** | 142 043 |
| Materials and supplies | **5 746** | 4 926 |
| Total | **250 847** | 234 334 |

## 20 DERIVATIVE FINANCIAL INSTRUMENTS

| Nominal values of the derivative financial instruments [1] **2012** EUR 1 000 | Maturity structure < 1 year | 1-3 years | 3-5 years | 5-7 years | > 7 years | Total |
|---|---|---|---|---|---|---|
| Interest rate option agreements | | | | | | |
| Purchased | 0 | 0 | 0 | 0 | 0 | 0 |
| Written | 0 | 0 | 0 | 0 | 0 | 0 |
| 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** |

| Nominal values of the derivative financial instruments [2]<br>**2011**<br>EUR 1 000 | Maturity structure<br>< 1 year | 1-3 years | 3-5 years | 5-7 years | > 7 years | Total |
|---|---|---|---|---|---|---|
| Interest rate option agreements | | | | | | |
| Purchased | 30 000 | 0 | 0 | 0 | 0 | 30 000 |
| Written | 30 000 | 0 | 0 | 0 | 0 | 30 000 |
| Interest rate swaps | 380 000 | 610 000 | 30 000 | 88 446 | 0 | 1 108 446 |
| Forward foreign exchange contracts | 11 699 | 42 684 | 40 392 | 22 591 | 26 826 | 144 192 |
| **Total** | **451 699** | **652 684** | **70 392** | **111 037** | **26 826** | **1 312 638** |

| Fair values of the derivative financial instruments [1]<br>**2012**<br>EUR 1 000 | Positive | Negative | Total |
|---|---|---|---|
| Interest rate swaps | | | |
| 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 | | | |
| Non-hedges | 85 253 | -4 968 | 80 285 |
| Interest rate option agreements (non-hedges) | | | |
| Purchased | 0 | 0 | 0 |
| Written | 0 | 0 | 0 |
| **Total** | **109 821** | **-55 874** | **53 947** |

| Fair values of the derivative financial instruments [2]<br>**2011**<br>EUR 1 000 | Positive | Negative | Total |
|---|---|---|---|
| Interest rate option agreements (non-hedge accounted) | | | |
| Purchased | 0 | 0 | 0 |
| Written | 0 | -49 | -49 |
| Interest rate swaps (hedge-accounted) | 0 | -38 131 | -38 131 |
| Interest rate swaps (non-hedge accounted) | 288 | -19 327 | -19 039 |
| Forward foreign exchange contracts (hedge accounted) | 9 564 | -361 | 9 203 |
| Forward foreign exchange contracts (non-hedge accounted) | 95 | -232 | -137 |
| **Total** | **9 947** | **-58 100** | **-48 153** |

[1] Cross-currency swaps related to Private Placements included (see note 15 Book values of financial assets and liabilities by categories).

[2] Cross-currency swaps related to Private Placements not included (see note 15 Book values of financial assets and liabilities by categories).

## 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 2012. TVO does not have a maximum or minimum limit for the share capital. The number of the shares on 31 December 2012 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 2011 | 1 332 468 049 | 540 992 | 242 383 |
| Share issue | 61 815 681 | 65 201 | 0 |
| 31 Dec 2011 | 1 394 283 730 | 606 193 | 242 383 |
| Share issue | 0 | 0 | 0 |
| **31 Dec 2012** | **1 394 283 730** | **606 193** | **242 383** |

The company has three registered share series: A, B and C.

| Share number | **31.12.2012** | 31.12.2011 |
|---|---|---|
| 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 2012 was EUR 229,300 thousand of which 179,000 thousand was interest-bearing and 50,000 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 | **2012** | 2011 |
|---|---|---|
| Non-current interest-bearing liabilities | | |
| Shareholders' loans [1)] | **0** | 179 300 |
| Loan from the Finnish State Nuclear Waste Management Fund | **881 726** | 842 550 |
| Bonds | **2 069 977** | 1 254 160 |
| Bank loans | **544 773** | 634 298 |
| Loans from others | **230 209** | 223 677 |
| Finance leasing liabilities | **62 535** | 64 194 |
| Derivative financial instruments | **51 875** | 53 108 |
| Total | **3 841 095** | 3 251 287 |
| | | |
| Current interest-bearing liabilities | | |
| Bank loans | **90 486** | 241 243 |
| Other interest-bearing liabilities (Commercial paper program) | **110 690** | 369 536 |
| Finance leasing liabilities | **1 659** | 1 632 |
| Derivative financial instruments | **3 999** | 4 992 |
| Total | **206 834** | 617 403 |
| | | |
| Total | **4 047 929** | 3 868 690 |

[1)] During the accounting period, 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.

**Maturity period of finance lease liabilities**

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Finance lease liabilities - minimum lease payments | | |
| No later than 1 year | **2 035** | 2 715 |
| Later than 1 year and no later than 5 years | **7 824** | 10 123 |
| Over 5 years | **57 377** | 63 232 |
| Total | **67 236** | 76 070 |
| | | |
| Finance expenses to be accrued | **-3 042** | -10 244 |
| | | |
| Finance lease liabilities - current value of minimum rents | | |
| No later than 1 year | **1 659** | 1 632 |
| Later than 1 year and no later than 5 years | **6 785** | 6 735 |
| Over 5 years | **55 750** | 57 459 |
| Total | **64 194** | 65 826 |

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 | **2012** | 2011 |
|---|---|---|
| Advances received | **23 927** | 22 922 |
| Trade payables | **9 536** | 11 003 |
| Accruals and deferred income and other liabilities | **147 964** | 121 711 |
| Total | **181 427** | 155 636 |

Accruals and deferred income and other liabilities are allocated as follows:

| | | |
|---|---|---|
| Finnish State Nuclear Waste Management Fund | **57 204** | 49 177 |
| Accrued interests | **52 388** | 40 967 |
| Accrued personnel expenses | **15 956** | 14 675 |
| Accruals related to $CO_2$ emission rights | **933** | 6 733 |
| Others | **21 483** | 10 159 |
| Total | **147 964** | 121 711 |

## 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.

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

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| The carrying value of TVO's share in the Finnish State Nuclear Waste Management Fund (non-current assets) | **857 643** | 831 828 |
| | | |
| Provision related to nuclear waste management (non-current liabilities) | | |
| Beginning of the year | **831 828** | 806 301 |
| Increase in provision | **11 194** | 11 967 |
| Used provision | **-33 427** | -33 793 |
| Changes due to discounting | **48 048** | 47 353 |
| End of the year | **857 643** | 831 828 |
| | | |
| 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 | **2012** | 2011 |
|---|---|---|
| Liability for nuclear waste management according to the Nuclear Energy Act | **1 242 300** | 1 207 100 |
| TVO's funding target obligation 2013 (2012) to the Finnish State Nuclear Waste Management Fund | **1 242 300** | 1 179 100 |
| TVO's share in the Finnish State Nuclear Waste Management Fund 31.12.2012 (31.12.2011) | **1 198 900** | 1 145 100 |
| Difference between the liability and TVO's share of the fund 31.12.2012 (31.12.2011) | **43 400** | 62 000 |

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 1,242.3 (1,207.1) million on 31 December 2012 (31 December 2011). The carrying value of the liability in the balance sheet calculated according to IAS 37 is EUR 857.6 (831.8) million on 31 December 2012. 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 1,198.9 (1,145.1) million on 31 December 2012. The carrying value of the TVO's share in the fund in the balance sheet is EUR 857.6 (831.8) million. The difference is due to the fact that IFRIC 5 limits the carrying amount of TVO's interest in the Finnish State Nuclear Waste Management Fund to the amount of the related liability since TVO does not have control over the Finnish State Nuclear Waste Management Fund.

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. The difference between the legal liability calculated according to the Nuclear Energy Act and TVO's funding target obligation for is due to the section 46 of the Nuclear Energy Act, the Council of State accepted to periodise the funding target obligation for the years 2008–2012. 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 | **2012** | 2011 |
|---|---|---|
| No later than 1 year | **343** | 309 |
| Later than 1 year and no later than 5 years | **367** | 174 |
| Total | **710** | 483 |

The rents recognized as expenses during the period are as follows:

| | | |
|---|---|---|
| Rents | **336** | 289 |
| Total | **336** | 289 |

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

**Pledged promissory notes and financial guarantees**

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Pledged promissory notes to the Finnish State Nuclear Waste Management Fund | **881 726** | 842 550 |
| Guarantees given by shareholders related to the nuclear waste management obligation | **147 610** | 165 140 |

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 | **2012** | 2011 |
|---|---|---|
| OL1 and OL2 | **16 000** | 14 000 |
| OL3 | **769 000** | 778 000 |
| OL4 | **13 000** | 0 |
| Total | **798 000** | 792 000 |

**Pending Court Cases and Disputes**

During the reporting period TVO submitted 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 estimated part. The proceedings were initiated in December 2008 by the OL3 Supplier. The Supplier's latest monetary claim including indirect items and interest is approximately EUR 1.9 billion. TVO has considered and found the claim by the Supplier to be without merit. The arbitration proceedings may continue for several years, and the claimed amounts may be updated.

No receivables or provisions have been recorded on the basis of claims presented in the arbitration proceedings.

TVO was also involved with the Supplier in another ICC arbitration proceeding under the ICC rules concerning the costs of a technically resolved issue in connection with the construction work at OL3. The amount was minor in the context of the value of the project. The arbitration ended with an award during the first quarter of 2012. The economic impacts of the award were minor.

During the second quarter of 2012, the arbitration tribunal made a decision regarding an interpretation dispute in treating the plant delivery installments already paid. In accordance with the decision, parts of a few installments, totaling approximately EUR 100 million, previously transferred to a blocked account by TVO under the plant contract were released to the Supplier, and TVO paid interest, the net amount of which was approximately EUR 23 million. The decision did not take position on the delay of the plant unit and the costs resulting from the delay, and it had no impact on TVO's business or the progress of the OL3 project.

**$CO_2$ 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.

| | **2012** | | 2011 | |
|---|---|---|---|---|
| | t $CO_2$ | EUR 1 000 | t $CO_2$ | EUR 1 000 |
| Granted emission rights | **296 281** | | 296 281 | |
| Total annual emissions from production facilities | **400 221** | | 652 213 | |
| Possessed emission rights | **402 310** | | 656 281 | |
| Emission rights sold [1] | **75 000** | **525** | 95 000 | 888 |
| Emission rights and emission right reductions bought [2] | **175 000** | **933** | 455 000 | 6 733 |

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.

[1] The sales of the emission rights are included in turnover.

[2] 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.

## 26 RELATED PARTY

The Group's related parties include parent company Teollisuuden Voima Oyj and its subsidiaries 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 |
| Olkiluodon Vesi Oy | Finland | 100 | 100 |
| Perusvoima Oy | Finland | 100 | 100 |

**Transactions with related parties are as follows**

| **2012**<br>EUR 1 000 | Sales | Purchases | Interests | Receivables | Liabilities |
|---|---|---|---|---|---|
| Posiva Oy (joint venture) | 7 925 | 49 477 | 110 | 4 464 | 70 |

| **2011**<br>EUR 1 000 | Sales | Purchases | Interests | Receivables | Liabilities |
|---|---|---|---|---|---|
| Posiva Oy (joint venture) | 7 525 | 48 527 | 108 | 8 003 | 2 |

**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**

| **2012**<br>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 |

| **2011**<br>EUR 1 000 | Sales | Purchases | Interests | Receivables | Liabilities |
|---|---|---|---|---|---|
| PVO, Fortum Oyj, Fortum Power and Heat Oy | 289 517 | 8 975 | 16 662 | 743 190 | 173 966 |

**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.

| EUR 1 000 | **2012**<br>Senior management | 2011<br>Senior management |
|---|---|---|
| Wages, salaries and other short-term benefits | **1 782** | 1 741 |
| Total | **1 782** | 1 741 |

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**

**2012**

| 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 [2] | 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 |
| | | | | | | |
| Forward foreign exchange contracts | 34 | 23 | 41 | 7 | 340 | 445 |

[1] Repayments in 2013 are included in current liabilities in the balance sheet.

[2] In addition to interest costs, financing costs include commitment fees.

[3] The loan is renewed yearly and connected interest payments are calculated for 5 years.

[4] The placements in foreign currency have been swapped into EUR-floating or fixed cash flow using cross-currency swaps.

On December 31, 2012, TVO had undrawn credit facilities amounting to EUR 1,500 million (1,692 million in 2011). In addition, the Group has subordinated shareholder loan (hybrid equity) commitments totaling EUR 530 million of which EUR 230 million is allocated to the financing of the bidding and engineering phase of the OL4 project and EUR 300 million to the financing needs of the OL3 project. In addition, TVO had cash equivalents amounting EUR 134 million.

**Undiscounted cash flows of financial liabilities**

| **2011** | | | | | | |
|---|---|---|---|---|---|---|
| EUR 1 000 | 2012 | 2013 | 2014 | 2015 | 2016- | Total |
| Loans from financial institutions [1] | 241 243 | 90 485 | 45 376 | 89 095 | 423 472 | 889 670 |
| Financing costs [2] | 28 523 | 23 983 | 22 540 | 21 302 | 55 792 | 152 140 |
| Loans from equity holders of the company | | | | | 179 300 | 179 300 |
| Financing costs | 4 853 | 4 784 | 4 739 | 4 739 | 47 605 | 66 719 |
| Loan from the Finnish State Nuclear Waste Management Fund [3] | | | | | 842 550 | 842 550 |
| Financing costs | 15 177 | 5 186 | 12 888 | 17 725 | 21 584 | 72 559 |
| Bonds | | | | 214 082 | 1 045 747 | 1 259 830 |
| Financing costs | 61 591 | 60 947 | 61 150 | 58 314 | 71 332 | 313 333 |
| Loans from others | | | | | 223 677 | 223 677 |
| Financing costs | 53 492 | 53 309 | 53 337 | 53 320 | 86 411 | 299 868 |
| Finance lease liabilities | 2 715 | 10 123 | | | 63 232 | 76 070 |
| Commercial papers | 371 000 | | | | | 371 000 |
| Other liabilities | 42 570 | | | | | 42 570 |
| Interest rate derivatives | 24 000 | 19 503 | 10 672 | 3 282 | 7 176 | 64 633 |
| Total | 845 162 | 268 320 | 210 701 | 461 857 | 3 067 879 | 4 853 919 |
| | | | | | | |
| Forward foreign exchange contracts | 589 | 0 | 0 | 0 | 5 | 594 |

[1] Repayments in 2012 are included in current liabilities in the balance sheet.

[2] In addition to interest costs financing costs include commitment fees.

[3] The loan is renewed yearly and connected interest payments are calculated for five years.

**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 24 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.

**Sensitivity to market risks**

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

| | **2012** | | 2011 | |
|---|---|---|---|---|
| EUR 1 000 | **Income statement** | **Equity** | Income statement | Equity |
| + 10% change in EUR/USD exchange rate | **0** | **-14 608** | 0 | -13 867 |
| - 10% change in EUR/USD exchange rate | **0** | **14 608** | 0 | 13 867 |
| 1% upward parallel shift in interest rates | **-959** | **10 383** | -9 697 | 14 247 |
| 1% downward parallel shift in interest rates | **2 297** | **-7 530** | 11 196 | -14 212 |

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.

**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

| | **2012** | 2011 |
|---|---|---|
| Equity ratio, % (IFRS, Group) [1)] | **28.1** | 29.6 |
| Equity ratio, % (Parent company) [2)] | **28.5** | 29.3 |

[1)] Equity ratio % = 100 x $\dfrac{\text{equity + loans from equity holders of the company}}{\text{balance sheet total - provision related to nuclear waste management - loan from the Finnish State Nuclear Waste Management Fund}}$

[2)] Equity ratio % = 100 x $\dfrac{\text{equity + appropriations + loans from equity holders of the company}}{\text{balance sheet total - loan from the Finnish State Nuclear Waste Management Fund}}$

## 28 EVENTS AFTER THE BALANCE SHEET DATE

At the end of January, TVO received bids related to the new OL4 nuclear power plant unit to be constructed in Olkiluoto. Bids were received from all the plant supplier candidates involved in the bidding process, and they represent different plant technologies and delivery models.

Based on the recent progress reports from the OL3 plant supplier, TVO informed in February that it is preparing for the possibility that the start of the regular electricity production of OL3 nuclear power plant unit may be postponed until year 2016.

Japan Credit Rating Agency (JCR) affirmed in February AA rating on TVO. The outlook was assessed as being stable.

# Parent Company's Income Statement

| EUR 1 000 | Note | **1 Jan–31 Dec 2012** | 1 Jan–31 Dec 2011 |
|---|---|---|---|
| **Turnover** | 2 | **347 111** | 347 170 |
| Work performed for own purpose | 3 | **13 341** | 11 152 |
| Other income | 4 | **12 180** | 12 819 |
| Materials and services | 5 | **-151 685** | -151 314 |
| Personnel expenses | 6 | **-61 165** | -58 691 |
| Depreciation and write-downs | 7 | **-53 148** | -54 668 |
| Other expenses | 8 | **-93 676** | -85 916 |
| **Operating profit/loss** | | **12 958** | 20 552 |
| | | | |
| Financial income and expenses | 9 | **-12 094** | -13 247 |
| | | | |
| **Profit/loss before extraordinary items** | | **864** | 7 305 |
| Extraordinary items +/- | 10 | **305** | 741 |
| | | | |
| **Profit/loss before appropriations and taxes** | | **1 169** | 8 046 |
| Appropriations | 11 | **-1 169** | -8 046 |
| **Profit/loss for the financial year** | | **0** | 0 |

# Parent Company's Balance Sheet

| EUR 1 000 | Note | | 31 Dec 2012 | | 31 Dec 2011 |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| **Non-current assets** | | | | | |
| Intangible assets | 12 | | **7 834** | | 15 129 |
| Tangible assets | 12 | | **3 942 570** | | 3 658 346 |
| Investments | | | | | |
| Holdings in group companies | 13 | **237** | | 237 | |
| Holdings in joint ventures | 13 | **1 009** | | 1 009 | |
| Other investments | 13 | **890 738** | **891 984** | 851 810 | 853 056 |
| **Total non-current assets** | | | **4 842 388** | | 4 526 531 |
| | | | | | |
| **Current assets** | | | | | |
| Inventories | 14 | | **250 847** | | 234 334 |
| Long-term receivables | 15 | | **125** | | 165 |
| Current receivables | 16 | | **55 292** | | 78 141 |
| Cash and cash equivalents | | | **134 759** | | 104 420 |
| **Total current assets** | | | **441 023** | | 417 060 |
| | | | | | |
| **Total assets** | | | **5 283 411** | | 4 943 591 |
| | | | | | |
| **Equity and liabilities** | | | | | |
| **Equity** | | | | | |
| Share capital | 17 | | **606 193** | | 606 193 |
| Share premium reserve | 17 | | **232 435** | | 232 435 |
| Statutory reserve | 17 | | **9 948** | | 9 948 |
| Retained earnings (loss) | 17 | | **9 360** | | 9 360 |
| Profit (loss) for the financial year | 17 | | **0** | | 0 |
| **Total equity** | | | **857 936** | | 857 936 |
| | | | | | |
| **Appropriations** | | | **166 455** | | 165 285 |
| | | | | | |
| **Liabilities** | | | | | |
| Non-current liabilities | 18,19 | | **2 766 449** | | 2 131 934 |
| Shareholders' loans | 18 | | **229 300** | | 179 300 |
| Loan from the Finnish State Nuclear Waste Management Fund | 18 | | **881 726** | | 842 550 |
| Current liabilities | 20 | | **381 545** | | 766 586 |
| **Total liabilities** | | | **4 259 020** | | 3 920 370 |
| | | | | | |
| **Total equity and liabilities** | | | **5 283 411** | | 4 943 591 |

# Parent Company's Cash Flow Statement

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Operating activities** | | |
| Operating profit/loss | **12 958** | 20 552 |
| Adjustments to operating profit /loss [1] | **53 166** | 54 525 |
| Changes in working capital [2] | **22 676** | -37 329 |
| Interest paid and other financial expenses | **-40 852** | -25 561 |
| Dividends received | **760** | 728 |
| Interest received | **16 004** | 10 719 |
| **Cash flow from operating activities** | **64 712** | 23 634 |
| | | |
| **Investing activities** | | |
| Acquisition of shares | **-4** | -473 |
| Acquisition of non-current assets | **-310 038** | -321 515 |
| Proceeds from sale of other investments | **0** | 363 |
| Proceeds from sale of intangible and tangible assets | **39** | 33 |
| Loan receivables granted | **-39 313** | -40 337 |
| Repayments of loans granted | **386** | 382 |
| **Cash flow from investing activities** | **-348 930** | -361 547 |
| | | |
| **Financing activities** | | |
| Share issue | **0** | 65 201 |
| Withdrawals of long-term loans | **814 176** | 74 098 |
| Repayment of long-term loans | **-241 243** | -11 645 |
| Increase (-) or decrease (+) in interest-bearing receivables | **35** | 69 |
| Increase (+) or decrease (-) in short-term interest-bearing liabilities | **-258 845** | 215 950 |
| Group contribution received | **434** | 951 |
| **Cash flow from financing activities** | **314 557** | 344 624 |
| | | |
| **Change in cash and cash equivalents** | **30 339** | 6 711 |
| Cash and cash equivalents 1 Jan | **104 420** | 97 709 |
| **Cash and cash equivalents 31 Dec** | **134 759** | 104 420 |

| [1] Adjustments to operating profit/loss | | |
|---|---|---|
| Depreciation and write-downs | **53 148** | 54 668 |
| Gain (-) or loss (+) from divestment of non-current assets | **18** | -143 |
| Total | **53 166** | 54 525 |

| [2] Changes in working capital | | |
|---|---|---|
| Increase (-) or decrease (+) in inventories | **-16 513** | -41 592 |
| Increase (-) or decrease (+) in non-interest-bearing receivables | **23 781** | 8 103 |
| Increase (+) or decrease (-) in short-term non-interest-bearing liabilities | **15 408** | -3 840 |
| Total | **22 676** | -37 329 |

# Notes to the Parent Company 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 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 25 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.

#### $CO_2$ emission rights

Carbon dioxide ($CO_2$) 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 | **2012** | 2011 |
|---|---|---|
| Olkiluoto 1 and Olkiluoto 2 | **317 337** | 302 644 |
| Meri-Pori | **29 774** | 44 526 |
| Total | **347 111** | 347 170 |
| **Electricity delivered to equity holders of the company (GWh)** | | |
| Olkiluoto 1 | **6 935** | 7 254 |
| Olkiluoto 2 | **7 441** | 6 876 |
| Total Olkiluoto [1] | **14 376** | 14 130 |
| Meri-Pori | **477** | 815 |
| Total | **14 853** | 14 944 |

[1] Includes wind energy 1.5 (1.9) GWh and energy produced by gas turbine 0.3 (0.3) GWh.

## 3 WORK PERFORMED FOR OWN PURPOSE

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Personnel expenses related to OL3 and OL4 | **13 341** | 11 152 |

## 4 OTHER INCOME

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Rental income | **3 029** | 3 100 |
| Sales profit of tangible assets and shares | **5** | 151 |
| Sales of services | **8 693** | 9 153 |
| Other income | **453** | 415 |
| Total | **12 180** | 12 819 |

## 5 MATERIALS AND SERVICES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Purchases, accrual basis | | |
| Nuclear fuel | **67 417** | 49 961 |
| Coal | **10 315** | 58 673 |
| Materials and supplies | **3 350** | 3 529 |
| Increase (-) or decrease (+) in inventories | **-16 513** | -41 592 |
| Total | **64 569** | 70 571 |
| | | |
| $CO_2$ emission rights | **933** | 6 732 |
| | | |
| Nuclear waste management | | |
| Contribution to the Finnish State Nuclear Waste Management Fund [1)] | **43 454** | 33 900 |
| Nuclear waste management services | **33 427** | 33 793 |
| Total | **76 881** | 67 693 |
| | | |
| External services | **9 302** | 6 318 |
| Total | **151 685** | 151 314 |

[1)] 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 | **46 131** | 43 484 |
| Coal | **15 908** | 23 859 |
| Materials and supplies | **2 530** | 3 228 |
| Total | **64 569** | 70 571 |

## 6 NOTES CONCERNING PERSONNEL AND MEMBERS OF ADMINISTRATIVE BODIES

| | **2012** | 2011 |
|---|---|---|
| Average number of personnel | | |
| Office personnel | **723** | 690 |
| Manual workers | **156** | 157 |
| Total | **879** | 847 |
| | | |
| Number of employees 31 Dec | | |
| Office personnel | **719** | 678 |
| Manual workers | **144** | 135 |
| Total | **863** | 813 |

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Personnel expenses | | |
| Wages and salaries | **50 262** | 48 227 |
| Pension expenses | **8 113** | 7 842 |
| Other compulsory personnel expenses | **2 790** | 2 622 |
| Total | **61 165** | 58 691 |

| | | |
|---|---|---|
| Salaries and fees paid to management | | |
| President and CEO deputy and members of the Board of Directors | **750** | 788 |

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 | **2012** | 2011 |
|---|---|---|
| Depreciation according to plan | | |
| Other capitalised long-term expenses | **1 315** | 1 359 |
| Buildings and construction | **10 166** | 10 242 |
| Machinery and equipment | **37 885** | 39 559 |
| Other tangible assets | **3 782** | 3 508 |
| Total | **53 148** | 54 668 |

## 8 OTHER EXPENSES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Maintenance services | **20 056** | 18 448 |
| Regional maintenance and service | **8 971** | 8 773 |
| Research services | **2 994** | 3 631 |
| Other external services | **30 037** | 26 395 |
| Real estate tax | **4 665** | 3 862 |
| Rents | **1 614** | 1 752 |
| ICT expenses | **4 121** | 3 781 |
| Personnel related expenses | **4 823** | 4 570 |
| Corporate communication expenses | **1 881** | 2 059 |
| Other expenses | **14 514** | 12 645 |
| Total | **93 676** | 85 916 |

| | | |
|---|---|---|
| Auditors' fees and not audit-related services | | |
| Audit fees | **94** | 110 |
| Other services | **127** | 56 |
| Total | **221** | 166 |

## 9 FINANCIAL INCOME AND EXPENSES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Dividend income** | | |
| From others | **760** | 728 |
| Total | **760** | 728 |
| | | |
| **Interest income on long-term investments** | | |
| From joint ventures | **110** | 107 |
| From others | **13 804** | 15 274 |
| Total | **13 914** | 15 381 |
| | | |
| **Other interest and financial income** | | |
| From others | **528** | 161 |
| Total | **528** | 161 |
| | | |
| **Interest income on long-term investments and other interest and financial income, total** | **14 442** | 15 542 |
| | | |
| **Interest expenses and other financial expenses** | | |
| To the Finnish State Nuclear Waste Management Fund | **13 804** | 15 273 |
| To others | **146 881** | 137 345 |
| Capitalised interest costs | **-133 389** | -123 101 |
| Total | **27 296** | 29 517 |
| | | |
| Total financial income (+) and expenses (-) | **-12 094** | -13 247 |
| | | |
| Financial income and expenses include exchange rate gains (+) and losses (-) (net) | **38** | 25 |

## 10 EXTRAORDINARY ITEMS

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Extraordinary income/Group contribution | **305** | 741 |

## 11 APPROPRIATIONS

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| The difference between depreciation according to plan and tax depreciation, increase (-) or decrease (+) | **-1 169** | -8 046 |

## 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 2012 | 57 961 | 6 733 | 41 895 | 89 | 106 678 |
| Increase | 0 | 716 | 35 | 0 | 751 |
| Decrease | 0 | -6 733 | 0 | 0 | -6 733 |
| Transfer between categories | 0 | 0 | 89 | -89 | 0 |
| Acquisition cost 31 Dec 2012 | 57 961 | 716 | 42 019 | 0 | 100 696 |
| Accumulated depreciation according to plan 1 Jan | 57 961 | 0 | 33 586 | 0 | 91 547 |
| Accumulated depreciation from deduction | 0 | 0 | 0 | 0 | 0 |
| Depreciation according to plan | 0 | 0 | 1 315 | 0 | 1 315 |
| **Book value 31 Dec 2012** | **0** | **716** | **7 118** | **0** | **7 834** |
| Accumulated depreciation difference 1 Jan | 0 | 0 | 6 935 | 0 | 6 935 |
| Change in depreciation difference | 0 | 0 | -881 | 0 | -881 |
| Accumulated depreciation difference 31 Dec | 0 | 0 | 6 054 | 0 | 6 054 |
| Undepreciated acquisition cost in taxation 31 Dec 2012 | 0 | 716 | 1 064 | 0 | 1 780 |

| 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 2012 | 11 419 | 281 661 | 1 303 900 | 50 211 | 3 099 725 | 4 746 916 |
| Increase | 88 | 1 491 | 19 609 | 2 507 | 312 419 | 336 114 |
| Decrease | 0 | 0 | -20 874 | 0 | 0 | -20 874 |
| Transfer between categories | 0 | 0 | 22 041 | 0 | -22 041 | 0 |
| Acquisition cost 31 Dec 2012 | 11 507 | 283 152 | 1 324 676 | 52 718 | 3 390 103 | 5 062 156 |
| Accumulated depreciation according to plan 1 Jan | 0 | 193 680 | 869 991 | 24 898 | 0 | 1 088 569 |
| Accumulated depreciation from deduction | 0 | 0 | -20 816 | 0 | 0 | -20 816 |
| Depreciation according to plan and write-downs | 0 | 10 166 | 37 885 | 3 782 | 0 | 51 833 |
| **Book value 31 Dec 2012** | **11 507** | **79 306** | **437 616** | **24 038** | **3 390 103** | **3 942 570** |
| Accumulated depreciation difference 1 Jan | 0 | 9 733 | 148 081 | 536 | 0 | 158 350 |
| Change in depreciation difference | 0 | -3 601 | 5 278 | 374 | 0 | 2 051 |
| Accumulated depreciation difference 31 Dec | 0 | 6 132 | 153 359 | 910 | 0 | 160 401 |
| Undepreciated acquisition cost in taxation 31 Dec 2012 | 11 507 | 73 174 | 284 257 | 23 128 | 3 390 103 | 3 782 169 |
| | | | | | | |
| Share of machinery and equipment from book value 31 Dec 2012 | | | 419 952 | | | |
| Share of machinery and equipment from book value 31 Dec 2011 | | | 413 964 | | | |

**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 2012 | 11 601 | 3 530 | 31 133 | 112 781 | 2 609 | 515 555 | 677 209 |
| Increase | 0 | 0 | 0 | 0 | 0 | 152 265 | 152 265 |
| Acquisition cost 31 Dec 2012 | 11 601 | 3 530 | 31 133 | 112 781 | 2 609 | 667 820 | 829 474 |
| Accumulated depreciation according to plan 1 Jan | 11 601 | 2 515 | 21 788 | 78 994 | 1 823 | 0 | 116 721 |
| Depreciation according to plan | 0 | 107 | 444 | 1 692 | 33 | 0 | 2 276 |
| **Book value 31 Dec 2012** | **0** | **908** | **8 901** | **32 095** | **753** | **667 820** | **710 477** |
| Accumulated depreciation difference 1 Jan | 0 | 1 015 | 9 345 | 33 787 | 786 | 0 | 44 933 |
| Change in depreciation difference | 0 | -107 | -444 | -1 692 | -33 | 0 | -2 276 |
| Accumulated depreciation difference 31 Dec | 0 | 908 | 8 901 | 32 095 | 753 | 0 | 42 657 |
| Undepreciated acquisition cost in taxation 31 Dec 2012 | 0 | 0 | 0 | 0 | 0 | 667 820 | 667 820 |

## 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 2012 | 237 | 1 009 | 4 888 | 3 868 | 843 054 | 853 056 |
| Increase | 0 | 0 | 4 | 133 | 39 177 | 39 314 |
| Decrease | 0 | | 0 | -386 | 0 | -386 |
| Acquisition cost 31 Dec 2012 | 237 | 1 009 | 4 892 | 3 615 | 882 231 | 891 984 |
| **Book value 31 Dec 2012** | **237** | **1 009** | **4 892** | **3 615** | **882 231** | **891 984** |
| **Loan from the Finnish State Nuclear Waste Management Fund lent further to the equity holders of the company** | | | | | **881 726** | **881 726** |

| Group companies | Group share, % |
|---|---|
| TVO Nuclear Services Oy, Eurajoki | 100 |
| Olkiluodon Vesi Oy, Helsinki | 100 |
| Perusvoima Oy, Helsinki | 100 |

| Joint ventures | Holding of the parent company, % |
|---|---|
| Posiva Oy, Eurajoki | 60 |

## 14 INVENTORIES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Coal** | | |
| Replacement cost | **35 779** | 52 425 |
| Book value | **45 440** | 51 033 |
| Difference | **-9 661** | 1 392 |
| | | |
| **Raw uranium and natural uranium** | | |
| Replacement cost | **92 839** | 101 682 |
| Book value | **49 710** | 36 332 |
| Difference | **43 129** | 65 350 |
| | | |
| Coal | **45 440** | 51 033 |
| Raw uranium and natural uranium | **49 710** | 36 332 |
| Nuclear fuel | **149 951** | 142 043 |
| Supplies | **5 746** | 4 926 |
| Total | **250 847** | 234 334 |

## 15 LONG-TERM RECEIVABLES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Loan receivables from group companies | **7** | 12 |
| Loan receivables from others | **118** | 153 |
| Total | **125** | 165 |

## 16 CURRENT RECEIVABLES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| **Receivables from group companies** | | |
| Loan receivables | **4** | 4 |
| Accrued income | **1 305** | 1 435 |
| Total | **1 309** | 1 439 |
| | | |
| **Receivables from joint ventures** | | |
| Trade receivables | **0** | 2 089 |
| Interest receivables | **1** | 0 |
| Loan receivables | **386** | 382 |
| Prepayments and accrued income | **463** | 1 664 |
| Total | **850** | 4 135 |
| | | |
| **Receivables from others** | | |
| Trade receivables | **12 588** | 33 894 |
| Other receivables | **816** | 335 |
| Total | **13 404** | 34 229 |
| | | |
| **Prepayments and accrued income** | | |
| Prepaid interests | **21 623** | 19 826 |
| Accrued interest income | **15 876** | 16 619 |
| Other accrued income | **1 802** | 1 891 |
| Other prepaid expenses | **428** | 2 |
| Total | **39 729** | 38 338 |
| | | |
| Total | **55 292** | 78 141 |

## 17 EQUITY

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Share capital 1.1. | **606 193** | 540 992 |
| From share issue | **0** | 65 201 |
| Share capital 31.12. | **606 193** | 606 193 |
| | | |
| Share issue 1.1. | **0** | 0 |
| Share issue | **0** | 65 201 |
| To share capital | **0** | -65 201 |
| Share issue 31.12. | **0** | 0 |
| | | |
| Share premium reserve 1.1. | **232 435** | 232 435 |
| Change | **0** | 0 |
| Share premium reserve 31.12. | **232 435** | 232 435 |
| | | |
| Statutory reserve 1.1. | **9 948** | 9 948 |
| Change | **0** | 0 |
| Statutory reserve 31.12. | **9 948** | 9 948 |
| | | |
| Retained earnings/loss 31.12. | **9 360** | 9 360 |
| Profit/loss for the financial year | **0** | 0 |
| | | |
| Total | **857 936** | 857 936 |

## 18 NON-CURRENT LIABILITIES

| EUR 1 000 | **2012** | 2011 |
|---|---|---|
| Bonds | **1 984 830** | 1 259 830 |
| Bank loans | **557 942** | 648 427 |
| Other loans | **223 677** | 223 677 |
| Shareholders' loans [1] | **229 300** | 179 300 |
| Loan from the Finnish State Nuclear Waste Management Fund [2] | **881 726** | 842 550 |
| Total | **3 877 475** | 3 153 784 |

[1] Subordinated loans.

[2] Lent further to the shareholders.

### BONDS

**Euro Medium Term Note Programme EUR 3.000.000.000**

| Currency | Capital | Maturity date | **EUR 1 000 2012** | EUR 1 000 2011 |
|---|---|---|---|---|
| EUR | 750 000 | 27 June 2016 | **750 000** | 750 000 |
| EUR | 500 000 | 4 Feb 2019 | **500 000** | 0 |
| EUR | 30 000 | 9 May 2022 | **30 000** | 0 |
| EUR | 100 000 | 12 Sep 2022 | **100 000** | 0 |
| EUR | 23 000 | 1 Dec 2022 | **23 000** | 23 000 |
| EUR | 75 000 | 14 Dec 2027 | **75 000** | 0 |
| EUR | 20 000 | 8 Nov 2032 | **20 000** | 0 |
| NOK | 550 000 | 22 Feb 2017 | **63 218** | 63 218 |
| SEK | 100 000 | 20 Jan 2015 | **9 794** | 9 794 |
| SEK | 520 000 | 20 Jan 2015 | **50 931** | 50 931 |
| SEK | 200 000 | 20 Jan 2015 | **21 186** | 21 186 |
| SEK | 500 000 | 12 Feb 2015 | **49 407** | 49 407 |
| SEK | 500 000 | 12 Feb 2015 | **51 546** | 51 546 |
| SEK | 300 000 | 23 June 2015 | **31 218** | 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 | 600 000 | 30 Oct 2019 | **58 267** | 58 267 |
| Total | | | **1 984 830** | 1 259 830 |

### OTHER LOANS

**US Private Placements**

| Currency | Capital | Maturity date | **EUR 1 000 2012** | EUR 1 000 2011 |
|---|---|---|---|---|
| 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 |

## 19 DEBTS DUE IN MORE THAN FIVE YEARS

| EUR 1 000 | 2012 | 2011 |
|---|---|---|
| Debts due in more than 5 years | **1 533 720** | 1 017 614 |

## 20 CURRENT LIABILITIES

| EUR 1 000 | 2012 | 2011 |
|---|---|---|
| **Liabilities from joint ventures** | | |
| Trade payables | **7** | 2 |
| Accruals | **63** | 0 |
| Total | **70** | 2 |
| | | |
| **Liabilities from others** | | |
| Bank loans | **90 485** | 241 243 |
| Advances received | **23 382** | 22 228 |
| Trade payables | **10 843** | 12 656 |
| Total | **124 710** | 276 127 |
| | | |
| **Interest-bearing liabilities** | | |
| Interest-bearing liabilities | **110 690** | 369 536 |
| Total | **110 690** | 369 536 |
| | | |
| **Accruals and deferred income** | | |
| Finnish State Nuclear Waste Management Fund | **43 400** | 34 000 |
| Accrued interests | **66 192** | 56 144 |
| Accrued personnel expenses | **15 809** | 14 532 |
| Accruals related to $CO_2$ emission rights | **933** | 6 733 |
| Other accruals and deferred income | **19 741** | 9 512 |
| Total | **146 075** | 120 921 |
| | | |
| Total | **381 545** | 766 586 |

## 21 DISTRIBUTABLE EQUITY

| EUR 1 000 | 2012 | 2011 |
|---|---|---|
| Retained earnings | **9 360** | **9 360** |
| Profit/loss for the financial year | **0** | **0** |
| Total | **9 360** | **9 360** |

## 22 COMMITMENTS

| EUR 1 000 | 2012 | 2011 |
|---|---|---|
| **Leasing liabilities** | | |
| Leasing liabilities falling due in less than a year | **2 378** | 3 023 |
| Leasing liabilities falling due later | **65 568** | 73 530 |
| Total | **67 946** | 76 553 |

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] | **1 242 300** | 1 207 100 |
| TVO's funding target obligation 2013 (2012) to the Finnish State Nuclear Waste Management Fund | **1 242 300** | 1 179 100 |
| Collateral for nuclear waste management contingencies | **147 610** | 165 140 |
| Nuclear waste management loan receivables pledged to the Finnish State Nuclear Waste Management Fund | **881 726** | 842 550 |

[1] 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 | 2012 | 2011 |
|---|---|---|
| **Interest rate derivatives** | | |
| Option agreements, purchased (nominal value) | **0** | 30 000 |
| Fair value | **0** | 0 |
| Option agreements, sold (nominal value) | **0** | 30 000 |
| Fair value | **0** | -49 |
| Interest rate swaps (nominal value) | **1 081 446** | 1 108 446 |
| Fair value | **-32 291** | -57 170 |
| | | |
| **Forward foreign exchange contracts** | | |
| Forward foreign exchange contracts (nominal value) | **149 778** | 144 193 |
| Fair value | **5 953** | 9 066 |
| | | |
| **Cross-currency swaps** | | |
| Cross-currency swaps (nominal value) | **710 507** | 710 507 |
| Fair value | **80 285** | 58 135 |

## 24 SERIES OF SHARES

### Share capital and series of shares

| | Number | | EUR 1 000 | |
|---|---|---|---|---|
| | **2012** | 2011 | **2012** | 2011 |
| **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** | 618 184 319 | **484 765** | 419 564 |
| Change | **0** | 61 815 681 | **0** | 65 201 |
| 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 $CO_2$ 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.

| | **2012** | | 2011 | |
|---|---|---|---|---|
| | t $CO_2$ | EUR 1 000 | t $CO_2$ | EUR 1 000 |
| Granted emission rights | **296 281** | | 296 281 | |
| Total annual emissions from production facilities | **400 221** | | 652 213 | |
| Possessed emission rights | **402 310** | | 656 281 | |
| Emission rights sold [1] | **75 000** | **525** | 95 000 | 888 |
| Emission rights and emission right reductions bought [2] | **175 000** | **933** | 455 000 | 6 733 |

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.

[1] The sales of the emission rights are included in turnover.

[2] 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 is 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, 2013

| | |
|---|---|
| Matti Ruotsala | Lauri Virkkunen |
| Hannu Anttila | Jukka Hakkila |
| Tapio Korpeinen | Pekka Manninen |
| Harri Pynnä | 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, 2013

PricewaterhouseCoopers Oy
Authorised Public Accountants

Eero Suomela
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 December 31, 2012. 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, February 26, 2013

PricewaterhouseCoopers Oy
Authorised Public Accountants

Eero Suomela
Authorised Public Accountant

# Financial Information in 2013

**Teollisuuden Voima Oyj will publish the interim reports in 2013 as follows:**

Interim Report for January–March 2013 on April 22, 2013

Interim Report for January–June 2013 on July 18, 2013

Interim Report for January–September 2013 on October 18, 2013

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