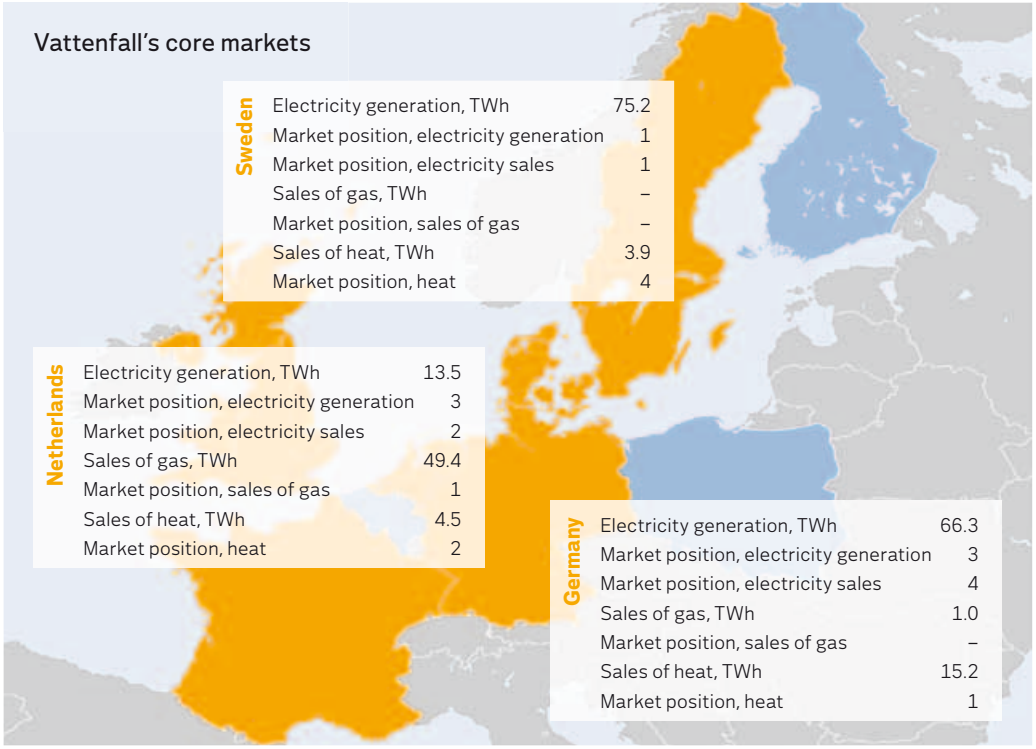

2011
Annual Report 2011
VATTENFALL

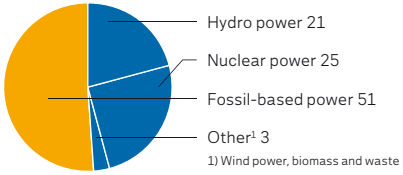
Contents

Vattenfall at a glance

Vattenfall is one of Europe's largest generators of electricity and the largest producer of heat. Vattenfall's main products are electricity, heat and gas. In electricity and heat, Vattenfall works in all parts of the value chain: generation, distribution and sales. In gas, Vattenfall is active in sales. Vattenfall also conducts energy trading and lignite mining. The Group has approximately 34,700 employees. The Parent Company, Vattenfall AB, is 100%-owned by the Swedish state. The core markets are Sweden, Germany and the Netherlands. In 2011 operations were also conducted in Belgium, Denmark, Finland, France, Poland and the UK.



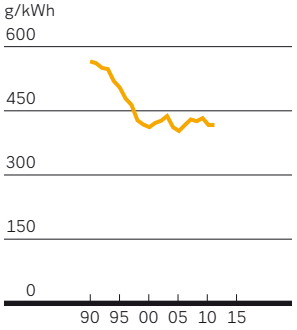
Electricity generation 2011, %



Energy production with low CO_2 emissions
Fossil-based energy production

Vattenfall's total electricity generation amounted to 166.7 TWh.

CO_2 emissions per generated unit of electricity and heat



Results 2011

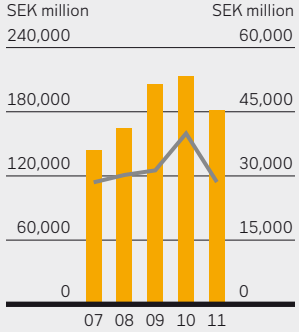
- Net sales in 2011 decreased by 15.2%, to SEK 181,040 million (213,572).
- Cost-cutting programme ahead of schedule.
- Sales of assets totalled SEK 23 billion, of which SEK 16 billion received in 2011.
- Operating profit decreased by 22.3% to SEK 23,209 million (29,853). Profit was charged with SEK 10.5 billion as a result of the German decision to phase out nuclear power.
- The underlying operating profit[1] for 2011 decreased by 16.4%, to SEK 30,793 million (36,838), mainly due to lower production volumes and average lower prices received.
- Profit for the year (after tax) decreased by 21.0% to SEK 10,416 million (13,185).

1) Operating profit excluding items affecting comparability and unrealised changes in the fair value of energy derivatives, which according to IAS 39 may not be reported using hedge accounting, and changes in the fair value of inventories.

2) Exchange rate SEK 8.94 SEK = EUR 1. Values in EUR are shown only to facilitate comparisons between SEK and EUR.

	2011	2010	Change, %	2011, EUR m[2]	2010, EUR m[2]
Net sales, SEK million	181,040	213,572	–15.2	20,251	23,889
Operating profit before depreciation and amortisation (EBITDA), SEK million	54,538	60,706	–10.2	6,100	6,790
Operating profit, SEK million	23,209	29,853	–22.3	2,596	3,339
Operating profit excl. items affecting comparability, SEK million	28,562	39,952	–28.5	3,205	4,469
Underlying operating profit, SEK million	30,793	36,838	–16.4	3,444	4,121
Profit before tax, SEK million	14,298	21,423	–33.3	1,599	2,396
Profit for the year, SEK million	10,416	13,185	–21.0	1,165	1,475
Return on equity, %	8.6	10.0	–		
Total assets, SEK million	524,558	541,432	–3.1	58,675	60,563
Net debt, SEK million	141,089	144,109	–2.1	15,782	16,120
Adjusted net debt, SEK million	176,031	173,409	1.5	19,690	19,397
Funds from operations (FFO), SEK million	38,256	40,108	–4.6	4,279	4,486
Electricity generation, TWh	166.7	172.4	–3.3		
Sales of gas, TWh	53.8	63.3	–15.0		
Sales of heat, TWh	41.6	47.1	–11.7		

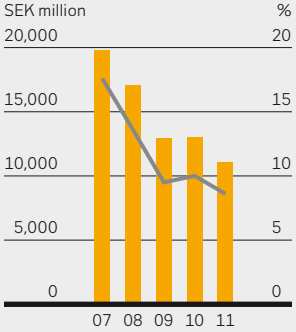
Sales and operating profit



Sales (scale on left)
Operating profit[1] (scale on right)

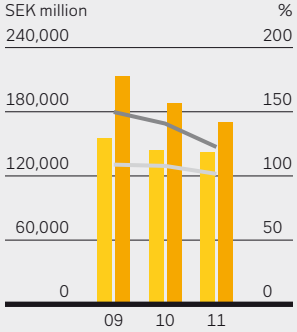
1) Excluding items affecting comparability.

Profit for the year and return on equity



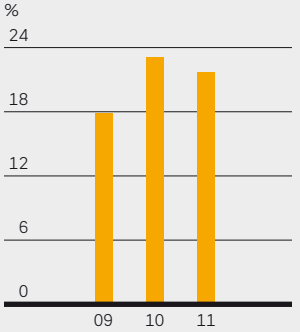
Profit for the year attributable to owners of the Parent Company
Return on equity, %

Net debt



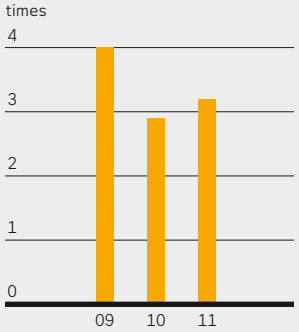
Net debt
Total interest-bearing liabilities
Debt/equity ratio, %
Debt/equity ratio, net, %

FFO/adjusted net debt[1]



1) See page 37 for calculation of adjusted net debt.

Adjusted net debt/EBITDA



Important events 2011

Q1

Sale of coal-fired power plant
On 1 February Vattenfall sold its 25% interest in the Rostock hard coal–fired plant in Germany to RheinEnergie AB. The power plant has installed capacity of 553 MW. The purchase price has not been publicly disclosed by the parties.

Fukushima accident
The earthquake in Japan and the subsequent, devastating tsunami on 11 March caused massive damage to the Fukushima nuclear power plant. The EU subsequently initiated stress tests of all European nuclear power plants, and the German government ordered the temporary closure of eight older nuclear power plants, including Vattenfall's Krümmel and Brunsbüttel nuclear power plants.

Regulatory application for nuclear waste repository
In Sweden, SKB (the Swedish Nuclear Fuel and Waste Management Company), which is 56%-owned by Vattenfall, submitted a formal licence application on 16 March to build a repository for spent nuclear fuel as well as an encapsulation facility for storage of spent nuclear fuel before it is transferred to the repository. SKB's application is being reviewed by the Swedish Radiation Safety Authority and the Environmental Court. The application will thereafter be taken up for political decisions in the affected municipalities and by the Swedish government.

New Chairman of the Board
On 18 March Björn Savén was appointed as interim Chairman and Deputy Chairman of Vattenfall AB, replacing Lars Westerberg, who resigned. Björn Savén was appointed as Chairman of the Board on 27 April.

Q2

Fire at Ringhals 2
On 1 April, Ringhals 2 was taken off line for an audit. In the final stages of the audit, on 11 May, a short circuit in a water vacuum cleaner caused a small fire in a reactor containment unit. The fire did not have any effect on safety in the reactor, but produced a large amount of soot. The resulting clean-up and restoration work have taken longer time than expected. Restart is expected to take place in early April 2012.

New Chairman of the Board
At an Extraordinary General Meeting on 14 June, Lars G. Nordström was elected as new Chairman of the Board of Vattenfall AB. Christer Bådholm was elected as Deputy Chairman.

Sale of ENSO
On 23 June Vattenfall sold its 21.3% shareholding in the German energy company Energieversorgung Sachsen Ost AG (ENSO) to EnergieVerbund Dresden GmbH (EVD). The purchase price was EUR 147 million (approximately SEK 1.3 billion).

Sale of Danish combined heat and power plant
On 30 June the Helsingør combined heat and power (CHP) plant was sold to Forsyning Helsingør. The sale also included the heat transmission line from the plant. The purchase price has not been disclosed by the parties.

Sale of Nuon E&P
On 30 June Vattenfall sold its gas production operations in the Dutch company Nuon Exploration and Production B.V. to Tullow Oil plc. The purchase price was EUR 281 million (approximately SEK 2.5 billion).

German nuclear power decision
On 30 June 2011 Germany's parliament decided that all 17 of the country's nuclear power plants are to be closed by 2022 at the latest. The consequence of the decision for Vattenfall is that the Brunsbüttel and Krümmel nuclear power plants, for which Vattenfall has operating responsibility and owns 66.7% and 50%, respectively, may not be restarted. Vattenfall thereby lost 1,187 MW of installed capacity and was forced to recognise an impairment loss for the book value of these two plants and increase its provisions for dismantling the plants and handling nuclear fuel (total of SEK 10.5 billion).

Q3

Sale of parts of engineering consulting business
On 15 July Vattenfall sold parts of its Swedish engineering consultancy to Pöyry PLC. The divested units include approximately 245 employees. The purchase price has not been disclosed by the parties.

Sale of Belgian operations
On 27 July Vattenfall signed an agreement with the Italian energy company Eni on the sale of Vattenfall's operations in Belgium, based on an enterprise value of EUR 157 million (approximately SEK 1.4 billion). The sale covered Nuon Belgium NV, which services approximately 550,000 electricity and gas connections, Nuon Wind Belgium NV and Nuon Power Generation Walloon NV. The sale was completed on 10 January 2012.

Sale of Polish operations
On 23 August Vattenfall signed an agreement with the Polish company Tauron S.A. on the sale of Vattenfall's subsidiary GZE, in Upper Silesia. An agreement was also signed with the Polish company PGNiG S.A. on the sale of Vattenfall Heat Poland S.A. (VHP). The purchase price for GZE, based on enterprise value, was approximately PLN 3.5 billion (approximately SEK 7.4 billion). The enterprise value of VHP is approximately PLN 3.7 billion (approximately SEK 7.8 billion). The transactions were completed on 13 December 2011 and 11 January 2012, respectively.

Completion of Ormonde
In the UK, the 30th and last 5 MW turbine was installed in August at the Ormonde offshore wind farm. The wind farm has installed capacity of 150 MW and will supply electricity to an estimated 100,000 UK households.

Q4

Acquisition of full ownership in Zuidlob
In early October Vattenfall acquired full ownership of the Zuidlob land-based wind farm in the Netherlands, which is currently being built west of Zeewolde in the Netherlands' Flevoland province. Starting in 2013, 36 wind turbines will provide power for some 88,000 households. The wind farm will have installed capacity of 122 MW.

Acquisition of Sandbank wind farm
On 25 November Vattenfall announced that it had purchased the licences to build the Sandbank offshore wind farm off the German island of Sylt. The project is initially for up to 575 MW (96 turbines), but can be further expanded. Start of construction is planned for 2014.

City of Hamburg part owner of electricity distribution and district heating networks
On 29 November Vattenfall announced that it had signed an agreement with the City of Hamburg under which the City of Hamburg will acquire 25.1% of Vattenfall's electricity distribution and district heating networks in Hamburg for a combined total of EUR 463.1 million (approximately SEK 4.2 billion). Vattenfall will retain operational management of the networks. Payment is expected to be made in 2012. The transaction is contingent on approval by Hamburg's parliament.

Agreement on sale of parts of Finnish operations
On 16 December Vattenfall announced that it had signed an agreement with LNI Acquisition Oy – a consortium of the companies 3i Infrastructure plc, 3i Group plc, GS Infrastructure Partners and Ilmarinen Mutual Pension Insurance Company – on the sale of Vattenfall's electricity distribution and heat businesses in Finland. The purchase price is based on an enterprise value of EUR 1.54 billion (approximately SEK 14 billion). The transaction was completed on 10 January 2012, and the capital gain is reported during the first quarter of 2012.

Interview with Øystein Løseth, President & CEO

What comments do you have on the year's result?
2011 was a tough year for the entire energy sector in many respects. Despite this, Vattenfall successfully carried out a number of measures to boost profitability and improve its financial position. I am satisfied with our achievements in 2011, especially considering the large earnings charge caused by the unexpected decision in Germany to phase out the country's nuclear power. As a whole, net sales decreased by 15.2% to SEK 181,040 million (213,572), and operating profit fell 22.3% to SEK 23,209 million (29,853). Profit for the year after tax decreased by 21.0% to SEK 10,416 million (13,185). The underlying operating profit[1] decreased by 16.4% to SEK 30,793 million (36,838), mainly due to lower production volumes and average lower electricity prices received.

How much did the German nuclear power decision hurt earnings?
As a result of the decision, Vattenfall was forced to recognise impairment of the book value of its two nuclear power plants in Germany, Brunsbüttel and Krümmel, and to increase provisions for dismantling the plants and handling nuclear waste, for a combined total of SEK 10.5 billion. However, we expect to receive compensation for our financial losses.

Are there any positive signs?
Yes. Although the underlying profit for 2011 was lower than a year ago, we can safely say that we have delivered on our strategy and successfully carried out a number of measures during the year to boost profitability and improve our financial position.

The new organisation was adopted at the start of 2011. What has it entailed?
The organisational change has led to major, positive synergies – above all because we have let go of the regional mindset and are now working across borders in a more natural fashion. Three sales organisations have become one, at the same time that we have streamlined our marketing and communication.

What is the most important achievement that has been made in the pursuit of Vattenfall's strategy?
Aside from savings and efficiency improvements, we have carried out or signed agreements on a number of divestments of non-core operations and plants, at the same time that we have adapted our investment plans to a level that is sustainable over the long term.

What has been sold?
The largest divestments were Vattenfall's distribution, sales and heat businesses in Poland, the sales operation in Belgium, the gas production operations in the Netherlands, and the distribution and heat business in Finland.

Through these sales we have concentrated our business to our three core markets, Sweden, Germany and the Netherlands, at the same time that we have made a positive change in our production portfolio towards less CO_2-intensive energy production.

1) Excluding items affecting comparability and excluding unrealised changes in the fair value of energy derivatives, which according to IAS 39 may not be reported using hedge accounting, and excluding fair valuation of inventories.

You say that you have reached a sustainable level for Vattenfall's investments over the long term. What does that mean?
We have decided on an investment pace of around SEK 30 billion per year, which is a reasonable level for Vattenfall. It reflects our highly ambitious investment objectives, yet a calmer pace has been established than in previous years, when the major power plant investments in Germany drove up our level of investment to around SEK 40 billion per year. Now both Moorburg and Boxberg are on track to completion, which is easing the pressure on the Group's investment plan.

Investments play a key role in realigning Vattenfall's production portfolio towards more sustainable energy production from a climate perspective. What does the investment plan look like going forward?
First, I want to stress the inherent strength for Vattenfall in being able to draw from six different energy sources. This gives us great flexibility while making us considerably less vulnerable. So all six energy sources are important.

Vattenfall's investment plans are set on moving five-year cycles, and for the period 2012–2016, 55% of investments in electricity and heat will be made in low CO_2-emitting generation, compared with 46% for the period 2011–2015. The bulk of investment is in wind power, which will account for a sizeable share of new generation capacity. We plan to expand our wind power assets in the UK, Germany, Denmark, Sweden and the Netherlands, with an even balance between offshore and onshore wind power.

Major investments in wind power also require complementary investments in other, balancing power, since it is not always windy?
Natural gas is an important source of balancing power for balancing intermittent generation from wind power, for example. Natural gas is still a fossil fuel, but in view of its lower levels of CO_2 emissions, it has


Øystein Løseth at Vattenfall's capital markets day in Stockholm, in September 2011.

an important role to play as a transitional solution to a more sustainable energy system.

Our largest ongoing investment in natural gas is the construction of the Magnum power plant in Eemshaven, the Netherlands, which is expected to be commissioned at the end of 2012.

How large is the potential for co-firing biomass in coal-fired power plants?
Co-firing biomass in coal-fired power plants is the area that probably has the greatest potential for bringing about a swift reduction in our CO_2 exposure, since it requires only minor, additional investments in existing plants. The challenge for Vattenfall is to secure its supply of biomass.

On the topic of coal-fired plants – are the soon-completed Moorburg and Boxberg power plants the last coal-fired plants that Vattenfall will build?

When it comes to coal-fired power, Vattenfall's strategy is firm: considering what a central role coal power has in Germany and in the Netherlands, we intend to operate our existing coal-fired power plants as long as they are economically competitive.

On the other hand, Vattenfall has decided to not make any lifetime-extending investments in existing plants and will not be building any new coal-fired power plants until a political framework is in place for carbon capture and storage (CCS). And then the technology must be fully developed and commercially viable. Should the political situation change on this issue, Vattenfall is far advanced in its development, but until then, our CCS work is being conducted on a smaller scale. In my view, construction of full-scale plants that employ CCS technology will not be possible until some time around 2025–2030.

How important are subsidies from individual EU member states for the introduction of renewable energy sources?

Subsidies play an important role in the build-up of renewable energy production. But in a situation where many European countries are struggling to reduce excessively high debt, subsidies present a dilemma for many politicians. The countries that make up Vattenfall's core markets are not among the most severely affected by the euro crisis, so we believe that they will continue to subsidise renewable energy production. However, we expect subsidies to decrease as renewable alternatives become more competitive through more efficient technology and higher energy prices associated with higher costs for CO_2 emissions.

What kind of investments will Vattenfall be making in nuclear and hydro power?

Despite the phase-out of nuclear power in Germany, Vattenfall believes that nuclear power will play an important role in tomorrow's energy mix. In Sweden we are investing SEK 50 billion during the period 2004–2014 in modernisation and lifetime extensions of the Forsmark and Ringhals nuclear power plants. In parallel with this, Vattenfall has initiated an intensified analysis to study the conditions for new nuclear power reactors in Sweden. The analysis will show what criteria must be met in order for an investment in new reactors to be commercially viable.

Vattenfall is also interested in expanding hydro power operations to new markets. The French government plans to auction out concessions for hydro power generation corresponding to 5,300 MW, and Vattenfall intends – in a consortium with several strong French partners – to participate in the bidding process.

What challenges await in 2012?

Vattenfall's challenges remain great, so we must therefore persevere in our work on improving cash flow and further strengthening the company's financial position so that we can be a leader in developing environmentally sustainable energy production. With our strategy and the active measures we have taken, I am confident about our ability to meet the goals set by our owner and ourselves.

Øystein Løseth
President and CEO

Strategy for value creation and sustainable energy production

In 2011 Vattenfall made a concerted effort in its work toward the strategic direction set by the Board in autumn 2010, which is based on four pillars:

- Greater focus on profitability and value creation
- Focus on three core markets – Sweden, Germany and the Netherlands
- Three main products – electricity, heat and gas
- Reduced CO_2 exposure and growth in low CO_2-emitting energy production, and in gas

Being a European leader in the development of environmentally sustainable energy production requires substantial investments in changing the composition of the production portfolio. One key target is to reduce Vattenfall's CO_2 exposure to 65 million tonnes per year by 2020 (corresponding to Vattenfall's share of ownership in the respective plants) from the current level of 89 million tonnes per year. For these efforts to be successful, profitability and value creation must be improved.

Clearer assignment from the owner
Vattenfall's assignment was changed at an Extraordinary General Meeting held on 23 August 2010.

As stipulated in the Articles of Association, Vattenfall's assignment is to generate a market rate of return by operating a commercial energy business that enables the company to be among the leaders in developing environmentally sustainable energy production.

Vattenfall's vision
Vattenfall will develop a sustainable, diversified European energy portfolio with long-term increased profits and significant growth opportunities. At the same time, Vattenfall will be among the leaders in developing environmentally sustainable energy production.

Vattenfall's core values
Safety
Performance
Cooperation

Important steps towards the goals

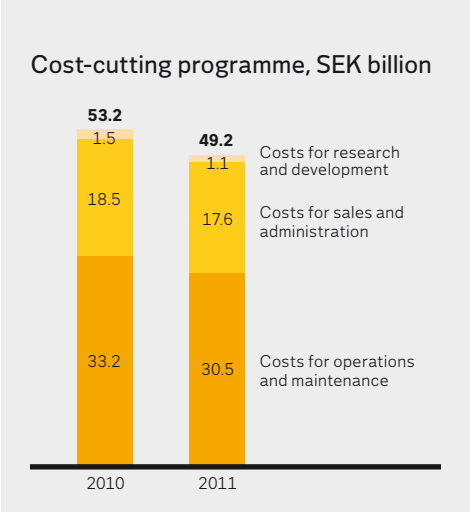
Vattenfall breaks down implementation of its strategy into two phases – a consolidation phase and a growth phase. During the consolidation phase, 2011–2013, the focus is on increasing profitability, improving value creation and reducing debt. This is encompassed by the efficiency improvement programme initiated by Vattenfall in autumn 2010 (see below), which lays the foundation for the greater investments in renawble energy that are anticipated once the consolidation phase is completed and the growth phase begins. During the growth phase, Vattenfall will grow with profitability. The proportion of plants in which energy is produced in an environmentally sustainable manner will increase substantially, and by 2020 Vattenfall will have reduced its annual CO_2 exposure to 65 million tonnes (corresponding to Vattenfall's share of ownership), compared with the current level of 89 million tonnes.

During 2011 Vattenfall took a number of important steps towards increasing profitability and completing the consolidation phase:

- **Cost-cutting programme – SEK 6 billion.** Improving the efficiency of operations is proceeding faster than planned, and at year-end 2011 annual savings of SEK 4 billion had been achieved.
- **Divestment of non-core assets.** A number of divestments or agreements to divest operations were carried out in 2011 with a combined enterprise value of SEK 37 billion, of which SEK 16 billion was received in 2011.
- **Revised investment plan.** The investment plan for the period 2012–2016 amounts to SEK 147 billion, a reduction of SEK 18 billion compared with the preceding five-year period.
- **New business-led organisational structure introduced on 1 January 2011.** The new organisational structure has resulted in simplified decision-making paths and a strengthening of a number of central processes, which has contributed to the rapid progress of the cost-cutting programme.

Progress in cost-cutting programme

The goal of the cost-cutting programme is to reduce the Group's annual costs by SEK 6 billion by year-end 2013, corresponding to 11% of the defined cost base in 2010 of SEK 53.2 billion. The cost-cutting programme proceeded better than planned during 2011, entailing that two-thirds (SEK 4 billion) of the planned cost reduction had been achieved by year-end. At the same time, future-oriented operations gave rise to new costs of SEK 1.4 billion. Following a number of initial measures carried out already in 2010 (such as a freeze on new hiring and strict control regarding new procurement of external consulting services), implementation of the more extensive efficiency improvement initiatives got under way in 2011. A large share of the savings is in purchasing, where improved co-ordination and standardisation of processes and routines will account for about half of the total cost savings. A significant cost reduction will also be achieved in personnel, mainly through strict restrictions on new recruitment and by not refilling positions following natural attrition.



2011

What was achieved during the year?

- ☑ Stronger prioritisation of activities and projects
- ☑ Greater co-ordination in purchasing
- ☑ Improved central management of staff functions
- ☑ Standardisation of processes and routines begun
- ☑ Business-specific efficiency improvement programme begun

2012–2013

Further efficiency improvement of operations

- Achieve full effect of co-ordination and centralisation of purchasing
- Continued standardisation of processes and routines
- Implement system solutions across national borders
- Increase process efficiency
- Greater focus on payroll costs

Stronger focus on core markets

A central part of Vattenfall's strategy is its focus on the core markets of Sweden, Germany and the Netherlands. Aside from these markets, the UK and France represent growth markets, mainly in wind and hydro power, respectively. The focus on the core markets has entailed a review of operations outside these markets that are not aligned with the long-term objective to create environmentally sustainable energy production. In 2011 a number of divestments or agreements on divestments were carried out for a combined enterprise value of SEK 37 billion. The largest divestments were:

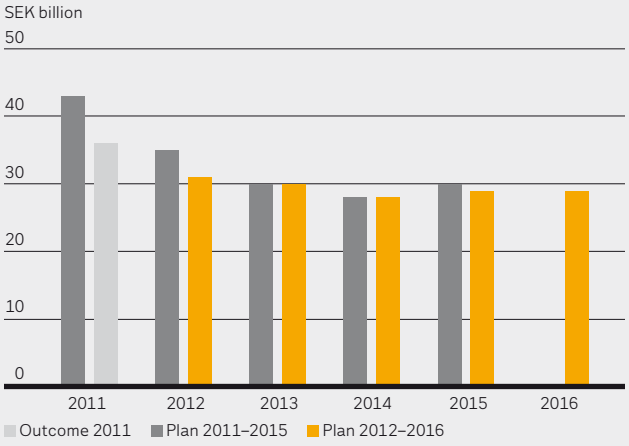
- Vattenfall's operations in Poland, which were sold for approximately SEK 15.2 billion. The distribution and electricity sales company Vattenfall GZE was sold to the Polish company Tauron S.A. for approximately SEK 7.4 billion, and the heat and electricity producer Vattenfall Heat Poland was sold to the Polish company PGNiG S.A. for approximately SEK 7.8 billion.
- Parts of the Finnish operations (electricity distribution and district heating), which were sold to LNI Acquisition Oy for approximately SEK 14 billion. This transaction was booked and paid for in early 2012.
- Vattenfall's gas production in the Netherlands, Nuon Exploration & Production, which was sold to Tullow Oil plc for approximately SEK 2.5 billion.
- Vattenfall's operations in Belgium – Nuon Belgium NV, Nuon Wind Belgium NV and Nuon Power Generation Walloon NV – were sold to the Italian company Eni for approximately SEK 1.4 billion.

Focused investment plan increases financial flexibility

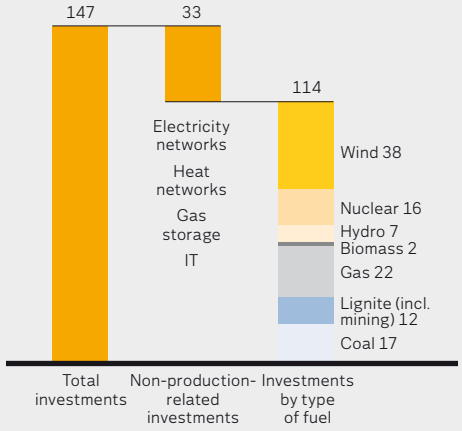
Along with the cost-cutting programme and the divestment of operations outside the three core markets, adaptation of the investment plan is important for increasing Vattenfall's financial flexibility. Compared with the five-year period 2010–2015, Vattenfall has reduced its total level of investment for the period 2012–2016 from SEK 165 billion to SEK 147 billion – a reduction of SEK 18 billion (11%). Of the total investment amount, SEK 114 billion has been earmarked for production of electricity and heat. The remaining amount will be used for investments in electricity and heating networks, IT and gas storage. Of investments in electricity and heat production, 55% consists of investments in technologies with low CO_2 emissions (wind, hydro and nuclear power, and biomass), an increase from 46% for the preceding five-year plan. Wind power is the largest single investment category, where Vattenfall plans to invest SEK 38 billion during the coming five-year period. The largest single investments are the Moorburg hard coal–fired plant in Germany and the Magnum gas-fired power plant in the Netherlands. It should be noted, however, that these projects were decided on several years ago and are now in an intensive completion phase.

Investment plan for 2012–2016

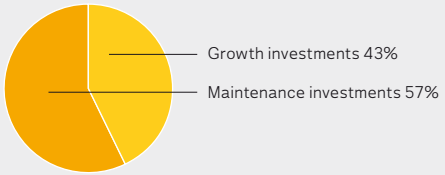
SEK 30 billion per year in planned investments



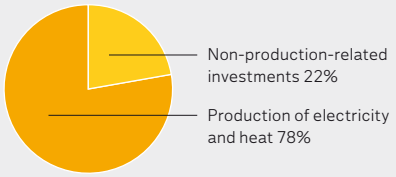
Total investments 2012–2016



43% pertains to growth investments



78% allocated to production of electricity and heat



The path to a leading position in sustainable energy production

To be a European leader in the development of environmentally sustainable energy production, Vattenfall must make substantial investments to change the composition of its production portfolio. By 2020 the Group's total CO_2 exposure will be reduced 65 million tonnes (corresponding to Vattenfall's share of ownership in the respective plants), compared with 89 million tonnes in 2011.

A number of measures are needed to reduce Vattenfall's total CO_2 exposure. Some of these can be implemented within the next few years, such as continued investments in wind power, improving the efficiency of hydro power and increasing co-combustion of biomass in existing coal-fired plants. Other measures will not be possible until the longer term, such as potential acquisitions of hydro power

Consolidation phase
–2013

- Cost-cutting programme.
- Divestment of non-core assets.
- Revised investment programme.
- New business-led organisation structure.

Growth phase
2014–

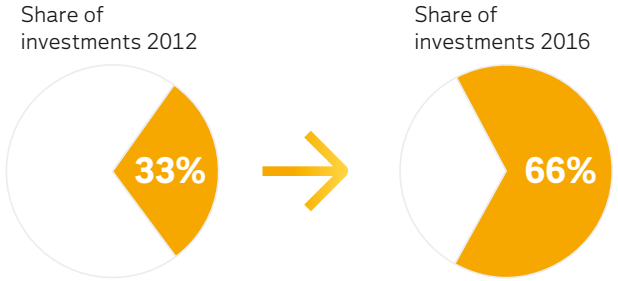
- Reduced CO_2 exposure.
- Focus on large markets with good growth opportunities and on markets in which Vattenfall has sizeable positions.
- Focus on growth in low CO_2-emitting energy production, and in gas.

in Europe and possible investments in new nuclear power capacity. Sales of non-core assets will also result in decreases in Vattenfall's CO_2 exposure. While such sales of assets create scope for investments in low-emitting technologies, they do not entail a reduction of total CO_2 emissions in Europe per se.

New wind power accounts for 33% of Vattenfall's investments in plant during the period 2012–2016 and includes, among other things, construction of two large wind farms in the North Sea (DanTysk and Sandbank) and investments in co-operation with Scottish Power in the UK. By the end of the five-year investment programme, approximately 66% of plant investments will be in electricity generation with low CO_2 emissions.

The greatest potential for achieving a swift reduction in CO_2 exposure likely lies in co-firing biomass in coal-fired plants, which requires only minor investments in the existing plants. Positive results from tests in 2011 show that refined wood pellets work well as a substitute for coal. The challenge is to secure access to pellets in the volumes required for an expanded focus on co-combustion. At present, co-combustion with coal is only profitable when supported by subsidies. *Read more about biomass co-combustion on pages 28–29.*

Investments in low CO_2-emitting technologies



During the period 2012–2016, Vattenfall will be substantially increasing its investments in low CO_2-emitting technologies (wind power, hydro power, nuclear power and biomass). In 2012 these technologies account for 33% of plant investments, while in 2016 they will account for 66% – more than a doubling. Wind power will account for the largest increase. During the next five years, Vattenfall will begin construction of two major wind farms in the North Sea (DanTysk and Sandbank, off the German island of Sylt).

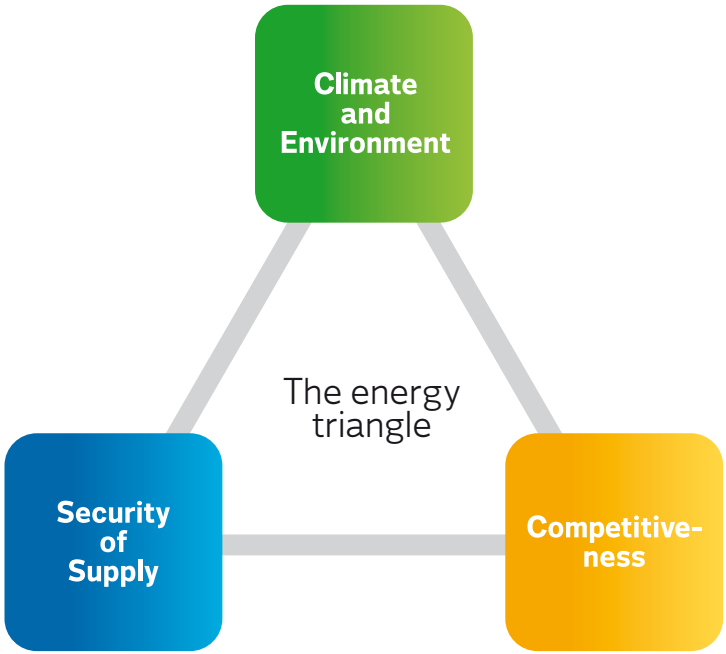
Vattenfall's six energy sources...

Vattenfall currently produces electricity and heat from six energy sources, giving the company a flexible and well diversified business. This also entails a responsibility to make the best use of each energy source in the transition to a more environmentally sustainable and secure energy system.

Vattenfall has a responsibility in three dimensions that are needed to meet society's energy needs today and in the future – security of supply, climate and the environment, and competitiveness.

Vattenfall must ensure that its production facilities are always operated in such a way as to allow competitive prices at the same time that demands are made for energy to be produced with lower CO_2 emissions and less environmental impact.

Some of Vattenfall's types of energy fit well into all three dimensions, but in most cases their advantages and disadvantages must be weighed against each other. All energy sources are needed and play a role in the transition to more environmentally sustainable production.



All conversion of energy to electricity affects the environment and climate

Wind power, biomass and hydro power are renewable energy sources with low CO_2 emissions during their life cycle. Natural gas is a fossil fuel, but produces considerably lower CO_2 emissions than coal, for example. Coal power produces high levels of CO_2, and mining has an impact on the natural environment. Even nuclear power is dependent on finite resources, while handling nuclear waste is a major challenge.

Access to primary energy must be reliable and available

A combination of wind power and hydro power provides secure access to primary energy. Nuclear power and coal power are based on finite energy sources, the supply of which is nevertheless secure. Coal, natural gas and nuclear power can deliver large volumes of reliable base load power. Supply of biomass is thus far not as reliable as for other fuels.

Electricity generation costs vary between the various energy sources

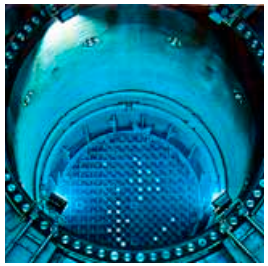
Nuclear and hydro power generation have low operating costs and a long lifetime. Coal power generation has low base costs but will become increasingly more costly in pace with higher CO_2 prices, while the price of natural gas will likely decrease. Wind power and biomass have higher costs than other energy sources and are dependent on subsidies.

...all of which have role in Europe's future

Most of the measures that will lead to lower CO_2 emissions towards the target of 65 million tonnes by 2020 from 89 million tonnes today, will be made starting in 2014. Expansion of wind power, co-combustion of biomass in hard coal–fired power plants, and replacing coal-fired plants with natural gas–fired plants will contribute to reduced CO_2 exposure. Moreover, Vattenfall's coal-fired plants will likely have fewer hours in operation due to the greater availability of renewable energy.

Hydro power

Vattenfall is exploring options to build small-scale hydro power plants and to acquire larger hydro power plants in central and western Europe. France recently opened the operation of the country's hydro power plants to competitive tenders and is therefore a market in which Vattenfall may seek expansion.



Nuclear power

The German parliament's decision in 2011 entails that nuclear power in Germany will be phased out by 2022 at the latest and that Vattenfall's Krümmel and Brunsbüttel reactors may not be restarted. In Sweden, Vattenfall is investing in safety improvements and capacity increases in addition to studying the conditions for participation in the expansion of a new generation of nuclear power plants.

Coal power

The Boxberg and Moorburg power plants will be completed, but no additional coal-fired power plants will be built until they can incorporate CCS technology.

Natural gas

Natural gas is a key transition fuel for Vattenfall due to its lower relative emissions than other fossil fuels. Construction is currently being completed of the Magnum, Diemen and Hemweg gas-fired power plants in the Netherlands. In addition, certain coal-fired plants – mainly in Berlin and Hamburg – will be replaced by gas-fired plants.

Wind power

Vattenfall will continue to expand its wind power generation. In 2012, in partnership with Stadtwerke München, Vattenfall will begin construction of the DanTysk offshore wind farm in the North Sea, with estimated annual electricity generation of 1,320 GWh. In the years immediately ahead, Vattenfall is planning for the build-out of East Anglia within the framework of the Round 3 programme in the UK and Sandbank in the North Sea, among other projects.

Biomass

Vattenfall sees co-combustion of biomass with hard coal in coal-fired power plants as one of the most significant contributions to reducing the Group's CO_2 exposure. Tests with refined wood pellets have yielded promising results. In 2012 Vattenfall will be expanding such tests in additional plants. The company's target is to achieve 40–50% co-combustion of biomass in coal-fired power plants by 2020.

Developments in the European energy market

The Fukushima nuclear power plant disaster had major repercussions in the energy market in 2011. Parallel with this, the economic recovery lost momentum during the year due to the unstable macroeconomic situation in Europe, and credit risks rose in general in connection with the debt crisis, particularly in Greece.

The Japanese natural disaster in March, when a tsunami caused by an earthquake knocked out the nuclear power plant in Fukushima on Japan's northeast coast, was the event that had the greatest impact on the energy markets in 2011. All six reactors failed, and substantial levels of radioactive material escaped into the environment. In addition to the severe environmental impact, the nuclear power plant disaster also affected the commodity markets. Japan was forced to increase its imports of gas, coal and oil, which pushed up prices. The events also had repercussions on energy policies in the EU member states.

As a direct consequence of the reactor failures in Fukushima, the EU ordered that stress tests be performed at all 143 nuclear reactors in Europe in order to see how these would cope with extreme natural disasters such as earthquakes and floods, and how disaster response plans are formulated.

Germany decided to phase out nuclear power

Shortly after the Fukushima disaster, the German government ordered the closure of the seven oldest nuclear power plants in Germany (including Vattenfall's Brunsbüttel nuclear power plant) as a safety measure. At the same time, the decision was made to not allow a restart of Vattenfall's Krümmel plant.

In early August, legislation took effect entailing that the closure of the nuclear power plants would be permanent and that all of the country's nuclear power plants are to be closed by 2022. The government's decision entailed a complete reversal of a decision from autumn 2010, when the government had granted lifetime extensions of 8 or 14 years for the country's nuclear power plants.

In total, the new nuclear power decision involves a capacity shortfall of approximately 8,500 MW, corresponding to 40% of Germany's nuclear power capacity and 5% of the country's total electricity generation capacity. The nine remaining nuclear power plants, which will be gradually phased out by 2022, account for about 15% of Germany's electricity generation.

This decision had major consequences for Germany's nuclear power operators, which lost a significant part of their production assets. It also sparked an intensive debate about the future of nuclear power in other countries. Italy shelved its plans to build its first nuclear power plants. Switzerland decided to phase out its nuclear reactors by 2034, and in Belgium a decision was made to not grant lifetime extensions for the country's nuclear power plants. In most other countries, however, the direction was not affected by the Fukushima disaster. For example, new nuclear power plants are currently being built in Finland and France, even though parts of the political opposition in France are against continued expansion. In the UK there is a clear political will for continued investment in nuclear power. In Sweden, the political agreement from June 2010 still holds, which means that new nuclear plants may be built to replace

20-20-20

What do the EU's 20-20-20 targets entail?

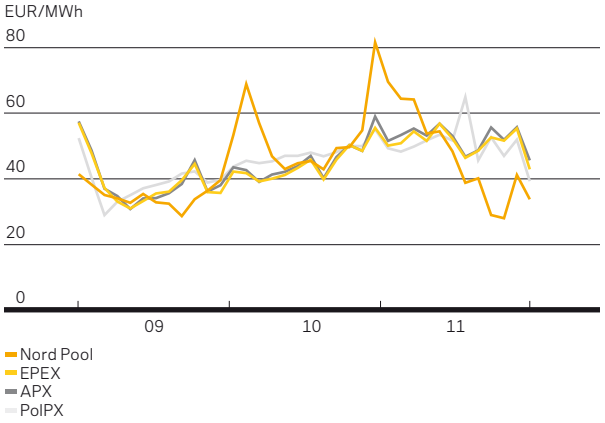
The EU's energy policy sets the parameters for future energy production in order to deal with the major challenges posed by global climate change. The EU's climate and energy package, commonly referred to as the 20–20–20 targets, entails that by 2020, renewable energy shall account for 20% of Europe's energy production, CO_2-emissions shall be reduced by 20% (from 1990 levels), and energy use shall be reduced by 20% through efficiency improvements. A central tool in the EU's energy policy is trading in CO_2 emission allowances, which is designed to put a price on CO_2 emissions from industry and energy production and thereby create an incentive to lower emissions. Other aspects of the EU's energy policy include the creation of uniform and deregulated markets – to promote effective competition – and securing energy supply, such as through improved transmission capacity between various regional markets in Europe.

EU stress tests

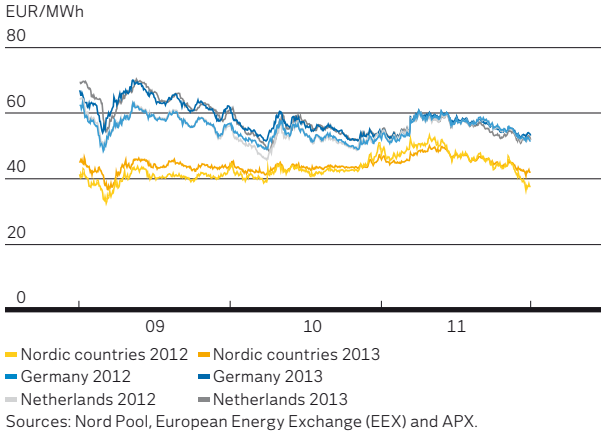
EU's stress tests, which are based on theoretically exposing plants to extreme situations which go beyond what they are designed for, were started in June 2011 and were conducted at all of the member states' nuclear power plants. Reports from the respective countries' national regulatory authorities were sent to the European Commission in December. Although the Commission is expected to present the conclusions from this work to the European Council in June 2012, it concluded the following already in autumn 2011:

- It is the national regulatory authorities that are responsible for issuing licences for new nuclear power plants and for monitoring the operation of existing ones. In order to do this effectively they must be totally independent. Their decisions should also be made public.
- Cross-border disaster response plans in the event of a nuclear accident should be put in place.
- Today the various member states apply different safety margins in their nuclear power plants. The EU needs to draft minimum technical safety criteria which can then be used as benchmarks for licensing and monitoring operation.
- Different member states apply different liability systems. Minimum limits for liability for damage should be introduced at the EU level.

Electricity spot prices in the Nordic countries, Germany, Poland and the Netherlands, monthly averages

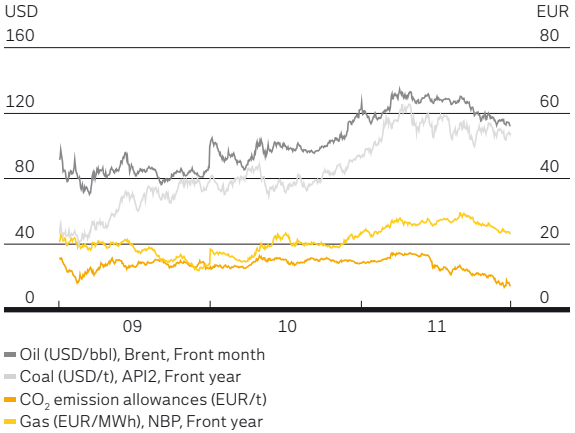


Electricity futures prices in the Nordic countries, Germany and the Netherlands



Sources: Nord Pool, European Energy Exchange (EEX) and APX.

Price trend for oil, coal, gas and CO_2 emission allowances



Trend in electricity and commodity prices during the year

Price developments in the energy markets were affected by three main factors in 2011: the German nuclear power decision, the general uncertainty in the world economy (especially the European debt crisis), and the increased production of renewable energy.

The German nuclear power decision had no noticeable impact on German spot prices, despite the fact that 8.5 GW of German nuclear power was eliminated from the system, since imports from neighbouring countries covered the deficit. In addition, spot prices were kept in check by moderate temperature, favourable wind conditions, high production of solar energy and high availability at French nuclear power plants. In the Nordic countries, the year began with a very weak hydrological balance, and cold, dry weather. Thereafter, warm and rainy weather helped bring water reservoir levels above average by the autumn, and spot prices began falling. Toward the end of the year, reservoir levels in Sweden and Norway were at record highs – nearly 60 TWh higher than at the start of the year – and Nordic electricity futures prices were 50% lower than at the start of the year. The trend in the Nordic spot market also had a strong impact on Nordic electricity futures prices, especially the contract for delivery in 2012. When the German nuclear power decision was announced in March, it had some impact on the German electricity futures market, and prices rose temporarily.

Oil prices rose 20% in 2011. Higher demand for oil for electricity generation in connection with the Fukushima disaster and heightened political tensions in North Africa and the Middle East pushed up prices at the start of the year. Prices thereafter fell back as a result of slower economic growth in the world and lower demand for oil. The falling EUR/USD exchange rate also contributed to lower demand.

Developments in the natural gas market mirrored the trend in the oil market. Supply was relatively high during the year at the same time that an uncertain economic outlook and mild temperatures dampened demand. Gas prices at year-end 2011 were roughly at the same level as at the start of the year.

In the coal market, the effects of the Fukushima accident were exacerbated by supply disruptions in South Africa and Australia as well as by political tensions in North Africa and the Middle East. Coal prices at year-end were approximately USD 14/tonne higher than at the start of the year.

In the market for CO_2 emission allowances, prices fell sharply in 2011 as a result of the negative economic situation, higher production of renewable energy and political uncertainties over how to handle the large surplus of CO_2-emission allowances in the EU.

Electricity spot prices

EUR/MWh	NordPool	EPEX	APX
2011	47.2	51.1	52.3
2010	53.1	44.5	45.3
%	–11.1	14.8	15.5

Electricity futures prices

EUR/MWh	NP 12	EEX 12	APX 12	NP 13	EEX 13	APX 13
2011	46.7	56.0	56.0	46.1	56.4	55.7
2010	42.6	52.5	51.7	43.4	55.2	54.7
%	9.6	6.7	8.3	6.2	2.2	1.8

Commodity prices

Unit	Oil	Coal	Gas	CO_2
2011	110.6	123.8	26.0	13.3
2010	80.5	99.6	19.2	14.5
%	37.4	24.3	35.4	–8.3

old reactors in places where nuclear power plants already exist.

Unclear future for CCS plants

Coal is still the most important source of energy in Europe and accounts for about 45% of electricity generation, even though its share is expected to gradually reduce in pace with the adoption of more stringent standards for reducing CO_2 emissions. The future of coal power is also dependent of the development of carbon capture and storage (CCS) technology, i.e. the capture and storage of carbon dioxide emissions in suitable geological formations underground.

However, it is currently uncertain whether several of the planned, major CCS projects in Europe will be carried out. In December Vattenfall announced that it is suspending its plans for a CCS demonstration project in Jänschwalde, Germany, due the political impasse over the drafting of CCS legislation in Germany. This followed developments in September, when the German upper house (Bundestag) decided to not approve the draft national legislation on CCS. Currently there is scepticism in German public opinion about storing carbon dioxide in bedrock, and thus the conditions for obtaining permits for such storage are also lacking. In the absence of a legal framework for CCS, energy companies do not dare to invest in capital-intensive CCS projects.

Trading in emission allowances

The European Union Emissions Trading System (EU ETS) is one of the most important instruments for reducing CO_2 emissions. The system entails an allocation of allowances to each plant within a capped amount of total emissions for

Vattenfall's market positions

Electricity generation

A large number of energy companies operate across Europe's energy markets. The largest in terms of sales are EDF (France), Enel (Italy), E.ON (Germany), GDF Suez (France) and RWE (Germany). These companies are integrated utilities with pan-European activities, some of which also have sizeable operations outside Europe. Aside from these major companies are a large number of players that focus on their respective home markets and operate in a limited number of European countries. These include Centrica and SSE (UK), CEZ (Czech Republic), Dong (Denmark), EDP (Portugal), Fortum (Finland), Gas Natural Fenosa and Iberdrola (Spain), Statkraft (Norway) and Verbund (Austria). Vattenfall is a major player in northern and western Europe and the sixth largest electricity producer in Europe. In Sweden, Vattenfall is the largest producer of electricity with a market share of approximately 50%. In Germany Vattenfall is the third largest producer of electricity, after E.ON and RWE, and in the Netherlands Vattenfall is number three after Electrabel (GDF Suez) and Essent (RWE).

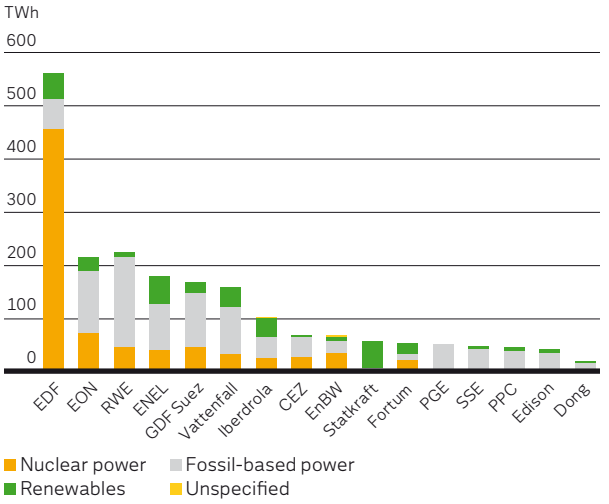
Electricity sales

In the sales market, Vattenfall competes not only with electricity producers but also with a large number of electricity sales companies, several of which do not own any generation. Many electricity sales are municipal-owned. There are currently some 120 electricity sales companies in Sweden, about 900 in Germany (including the municipal Stadtwerke), and around 80 in the Netherlands. In Sweden, Vattenfall has roughly a 30% market share (sales to both retail and industrial customers) and sells electricity nationwide. In Germany, Vattenfall's customers are concentrated in the cities of Hamburg and Berlin, where Vattenfall has a market share of approximately 80% in the retail segment. However, Vattenfall's electricity sales products are offered to customers throughout Germany, outside Hamburg and Berlin mainly to business customers. In both Sweden and Germany, Vattenfall sells electricity under its own brand. In the Netherlands, Vattenfall sells electricity under N.V. Nuon Energy's "Nuon" brand. This will gradually be replaced by Vattenfall, however. Nuon has a market share of just under 30% of electricity sales in the Netherlands.

Gas sales

Following the divestment of Nuon Exploration & Production, Vattenfall does not have any gas production of its own and operates only in gas sales and trading, and gas storage. Gas is sold to both retail and industrial customers. Nearly all sales are in the Netherlands, where Vattenfall has a market share of just under 30%. In Germany, Vattenfall plans to increase the proportion of gas sales by offering dual-fuel contracts (electricity and gas).

Europe's largest electricity generators 2010



each respective country. Until year-end 2012, power utilities receive a large share of their CO_2 emission allowances free of charge, but starting in 2013 this allocation will be stricter, as all emission allowances for electricity generation will be auctioned. A small share of emission allowances will still be granted free of charge for heat production.

The price of CO_2 emission allowances is based on supply and demand. As a result of the current economic situation in the EU, the supply of CO_2 emission allowances is large. The EU is currently looking into the opportunity to make the requirements in the trading system more stringent and thereby push up the price of CO_2 emission allowances. The consequence of this would be a sharp increase in costs for companies that generate electricity with fossil fuels.

Uniform European market over time

One of the EU's overall objectives is to create a uniform European electricity market with effective price mechanisms. Provided there is sufficient transmission capacity, this will lead to an equalisation of electricity prices throughout Europe.

Even though the EU's electricity market was opened up for competition in 2007, Europe is still divided in a number of regional and national markets, such as the Nordic countries, Benelux, Germany and the Iberian peninsula. In autumn 2010 the Nordic electricity exchange, NordPool, was linked to the electricity exchanges in the Benelux countries, Germany and France within the framework of closer market collaboration. This has resulted in a convergence of electricity prices for several hours of the day, but there are still significant bottlenecks in transmission capacity between different countries as well as within individual countries. The achievement of an effective electricity market requires a strengthening of transmission capacity between and within the countries.

The present grid is designed mainly for centralised, large-scale electricity generation and distribution. In pace with the growing investments in renewable electricity, which often means intermittent generation, the need is rising for more flexible and reliable electricity networks as well as for the expansion of regulation power to ensure secure supply of power into the grid.

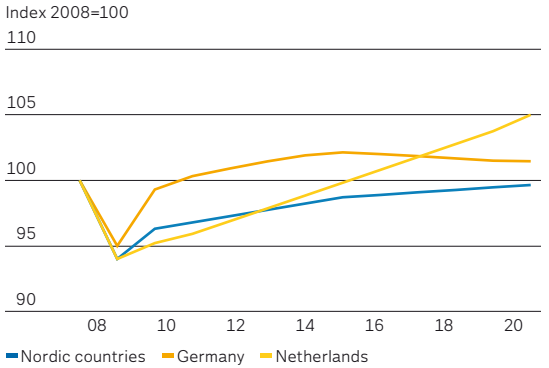
Continued weak demand for electricity

Demand for electricity in Europe has still not recovered from the levels before the financial crisis in 2008/2009, even though the trend varies from country to country. For example, the recovery has progressed at a faster pace in Germany, France and Spain than in Italy, the UK and the Nordic countries. In addition to a double-dip recession in large parts of Europe, warm weather during 2011 has dampened demand.

As for the trend in the Nordic countries, Vattenfall believes that it will take until at least 2020 before demand return to the levels they were at in 2008. This is due not only to the economy, but also to the fact that extensive energy efficiency improvement work has been conducted in industry and to the discontinuation of some industrial activity. Vattenfall estimates that demand for electricity in the Nordic countries will increase from 370 TWh in 2009 to 408 TWh by 2030. During the same period, generation capacity is expected to increase by a full 466 TWh. This means that the Nordic countries are expected to have an electricity surplus of approximately 58 TWh in 2030, compared with a surplus of 40 TWh in 2009. Slightly more than 80% of growth in generation capacity is expected to take place in wind power. As a result of the surplus situation, there are favourable opportunities to export electricity from low-emitting energy sources to the European Continent and the UK, provided that new cable links are built.

Also in Germany and the Netherlands, demand for electricity is expected to rise slowly, while generation capacity will increase steadily, mainly through growth of intermittent forms of power, like wind power and solar energy, but also gas-fired power. This greater share of intermittent power requires reinforced electricity grids and an expansion of regulation power to ensure a secure supply of power into the grid.

Demand for electricity



Source: Vattenfall.

Even though a substantial addition of new generation capacity is expected to take place, the entire European electricity market is facing major challenges, since roughly 55% of electricity generation capacity in Europe will be reaching retirement age by 2030. Nearly 80% of all nuclear power plants and two-thirds of all coal power plants are expected to be phased out. Above all, new generation capacity will be needed in the central European countries and the UK, where gas-fired power plants can play a significant role: they can be built relatively quickly, they are flexible and thus are suitable as regulation power, and they emit substantially lower levels of CO_2 than coal-fired plants. However, should the current, low prices of electricity continue, it will be hard to achieve sufficient profitability for new gas projects.

Higher credit risks due to European debt crisis

Financial discipline remained at the top of the agenda for most utilities during 2011. A consolidation phase was

started back in 2008, and during the year the utilities focused on strengthening their financial position by reviewing their investment programmes and carrying out cost-cutting initiatives and divestments designed to reduce debt and defend a high credit rating. The major, German energy companies, in particular, have announced extensive cost-cutting programmes, which also involve substantial personnel cuts.

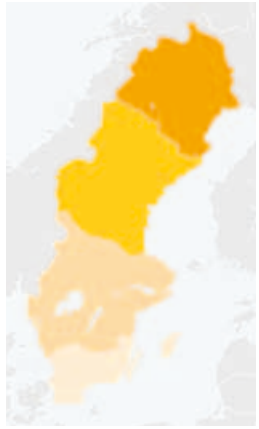
Utilities are by nature very capital intensive and have a great need for long-term financing via the bond markets, which in turn requires a high credit rating. Most of Europe's major energy companies have a policy to maintain a single-A credit rating in order to secure good access to the credit market. In 2011 the credit rating agencies Moody's and Standard & Poor's (S&P) lowered their credit ratings for several energy companies. For example, in December 2011 S&P lowered Vattenfall's rating to A– from A (while at the same time changing its rating outlook from negative to stable). Vattenfall has had a credit rating of A2 from Moody's since 2005. Moody's changed is rating outlook from stable to negative in February 2012.

Energy companies' credit ratings are affected to a considerable extent by assessments of country risk. In some cases the rating agencies upgrade companies with state ownership by one or two notches, depending on the degree of implicit state support in the event of financial stress. Vattenfall has been awarded an extra notch by both S&P and Moody's due to the Swedish state's 100% ownership. Conversely, energy companies in countries with major financial problems have been downgraded due to the elevated country risk, such as EDP in Portugal. In the prevailing turbulent market conditions it has been a clear strength factor that Vattenfall conducts its operations in economically and politically stable countries in northern Europe. This has resulted in investors and analysts giving more positive assessments of Vattenfall from a credit risk perspective compared with utilities in countries with weak economies.

Improved liquidity situation

Despite considerable market turbulence, the liquidity situation for energy companies improved during the year. Most energy companies managed to upgrade their credit facilities and have sufficient liquidity reserves. On the other hand, they have issued lower volumes of bonds compared with the period 2008–2010. One explanation is that acquisition activity within the energy industry has decreased, due among other things to the already high level of consolidation in the energy sector but also because the financial and political turbulence have led to greater caution. However, some companies have announced new, international investments in high-growth countries outside of Europe.

Sweden divided into four new electricity areas



On 1 November 2011 Sweden was divided into four new so-called electricity price areas. Previously Sweden, in contrast to for example Norway and Denmark, had only a single price area for electricity. As a result, in order to cope with the capacity balance during critical periods, at times the Swedish national grid operator, Svenska Kraftnät, was forced to restrict exports of electricity to Denmark, Germany and Poland. Since this is not compatible with EU rules, the European Commission required Sweden to change the way it handles these bottlenecks. The solution was to divide the country into four electricity price areas.

When transmission capacity is insufficient between the Swedish electricity areas, more expensive production plants must be started up in the area where there is a shortage. Alternatively, the shortage can be covered through imports of more expensive electricity from neighbouring countries. A shortage in one electricity area means that market prices increase in that area. The idea behind the new electricity price areas is also that the system will provide clearer signals about where the grid needs to be strengthened.

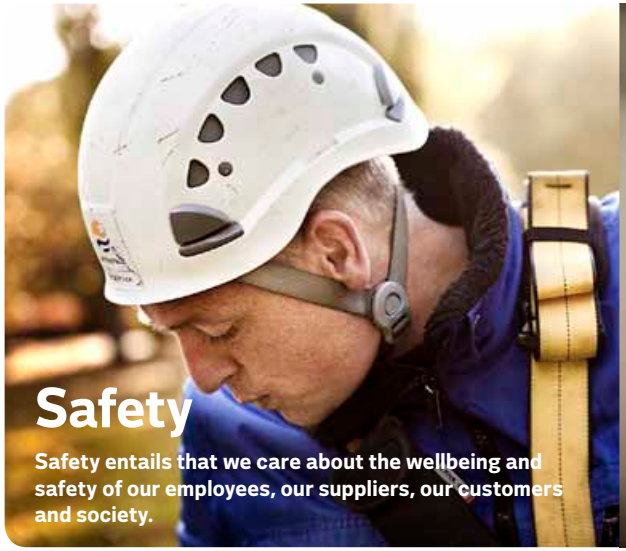
The borders between the different electricity areas have been drawn on the basis of where transmission restrictions – i.e., bottlenecks – in the national grid take place. In northern Sweden, more electricity is generated than is used, while the opposite applies in southern Sweden. For electricity consumers this will occasionaly lead to higher prices in southern Sweden than in central or northern Sweden.

Greater efficiency with new organisation

On 1 January 2011 a new, business-led organisational structure was adopted to improve governance of the Group and support implementation of the Group's strategy. The aim of the organisational change was to create a business-led organisation and thereby improve the efficiency of operations and create substantial cost, personnel and knowledge synergies. During the first year the organisational change has already contributed to efficiency improvements and lower costs while increasing the Group's customer focus and fostering greater employee commitment.

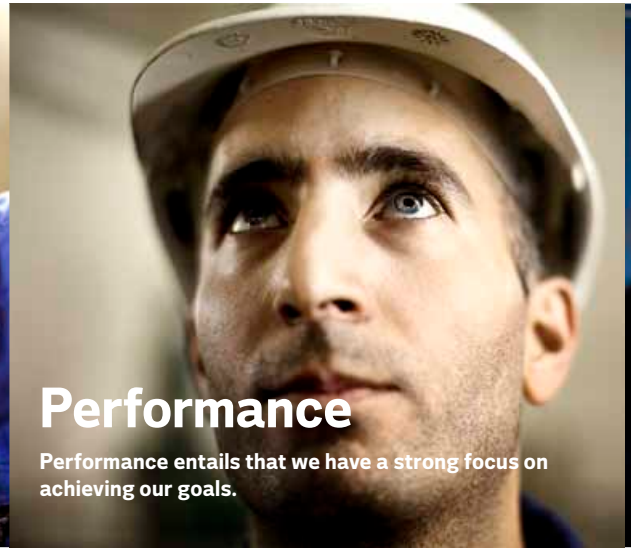
In the new organisation, the previous geographical structure has been replaced by three operating segments: Generation, Distribution and Sales, and Renewables. The operating segments are organised in five Business Divisions, where the Generation segment comprises three Business Divisions: Asset Development, Production, and Asset Optimisation and Trading.

As a natural extension of the new strategic direction and new business-led organisation, new core values have been formulated: Safety, Performance and Cooperation.



Safety

Safety entails that we care about the wellbeing and safety of our employees, our suppliers, our customers and society.



Performance

Performance entails that we have a strong focus on achieving our goals.

Cooperation

Cooperation entails that we depend on each other and that we work together in an open atmosphere.

Operating segments[1]

	Generation	Distribution and Sales	Renewables
Description	The Generation operating segment segment is Vattenfall's interface towards the wholesale market and includes development and building of production assets, generation of electricity and heat, and sales of electricity on the wholesale energy market. The Generation segment comprises three Business Divisions: • Asset Development • Production • Asset Optimisation and Trading	The Distribution and Sales operating segment (which is also a Business Division) is responsible for Vattenfall's electricity and heating sales, electricity distribution and other end-customer activities. The segment is responsible for all of Vattenfall's end-customer relationships.	The Renewables operating segment (which is also a Business Division) is responsible for asset development, and operation and maintenance of Vattenfall's renewable energy operations, except for hydro power, which is managed within the Generation segment.
Business drivers	• Availability • Electricity price trend • Price trend for fuel and CO_2 emission allowances • Cost efficiency	• Profit margins • Cost efficiency, cost-to-serve • Customer satisfaction • Security of supply	• Availability • Cost efficiency • Electricity price trend
Focus areas	• Improve safety and availability • Improve operating reliability • Secure supply of lignite • Preparations for the dismantling of the Brunsbüttel and Krümmel nuclear power plants in Germany • Improve project execution • Price hedging strategy	• Increase efficiency in sales • Strengthen the brand's reputation and improve customer satisfaction • Maintain concession agreements for electricity and heat distribution in Germany	• Create profitable growth in wind power and procurement of biomass • Develop technology for co-firing hard coal with refined wood pellets
Net sales, SEK million	123,111	155,299	3,131
External net sales,[2] SEK million	59,347	144,575	1,820
Operating profit, SEK million	10,545	11,123	496
Underlying operating profit,[3] SEK million	22,118	10,496	460
Number of employees, full-year equivalents:	17,078	12,166	350

1) Vattenfall's organisational chart can be found on page 49.

2) Excluding intra-Group transactions.

3) Operating profit excluding items affecting comparability and unrealised changes in the fair value of energy derivatives, which according to IAS 39 may not be reported using hedge accounting, and changes in the fair value of inventories.

Operating segment Generation

Development, operation and optimisation of Vattenfall's production portfolio

With slightly more than 17,000 employees and accounting for 72% of Vattenfall's underlying operating profit, Generation is Vattenfall's largest operating segment, with responsibility for development and construction of plants, operation and production of electricity and heat, and sales of electricity on the wholesale market.

Results 2011

The underlying operating profit fell by SEK 9.0 million, from SEK 31 billion to SEK 22 billion, which was mainly attributable to average lower electricity prices received, lower production volumes and increased depreciation. Read more about performance of the Generation operating segment on page 39.

Business Division Asset Development

Building the optimal generation portfolio for Vattenfall

Vattenfall has gathered responsibility for project development and execution of all of the Group's new build initiatives and large modification projects in existing plants (except for wind power projects) in Business Division Asset Development. The division also serves as the Group's competence centre for project management and technical work, and is responsible for Vattenfall's Research and Development (R&D) activities.

Focus in 2011 was on, among other things, ensuring more consistent portfolio management within the Group, improving project management and increasing the effectiveness of R&D work. For example, a new, Group-wide project model has been created to facilitate management of the project portfolio. For projects in the development phase, in 2012 Vattenfall will continue its work on safety improvement, reviewing costs and making sure timetables are met.

Review of R&D portfolio

R&D is an integrated part of Vattenfall's business and supports the Company's strategy and investment plan. The chief aim of Vattenfall's R&D work is to improve the business activities – also from a long-term perspective. In 2011 a review was conducted of Vattenfall's R&D projects. This has led – above all – to a greater focus on Vattenfall's existing production portfolio, such as by increasing and reducing CO_2 emissions from the Group's existing plants. Important research areas include development of smart grids and increasing the flexibility of lignite power plants.

Vattenfall has decided to discontinue its CCS demonstration project in Jänschwalde, in eastern Germany, since consistent legislation in this area is lacking. The upper house of Germany's parliament (Bundesrat) voted against a bill regulating CCS in September 2011. This EU-supported project, which would have been operational by 2015/2016, would have been the first European project to show how CCS works on a significant power plant scale.

Nevertheless, Vattenfall is continuing its work on development of CCS technology, especially R&D surrounding storage techniques. For example, Vattenfall is a partner in the UK's largest CCS pilot plant at Ferrybridge Power Station in West Yorkshire, which was inaugurated on 30 November. Vattenfall will also continue with test operation of a CCS pilot plant in Schwarze Pumpe, Germany, and work on development of a European CO_2 storage infrastructure.

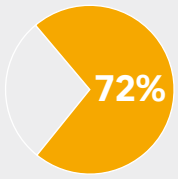
Business Division Production

Responsibility for most of Vattenfall's electricity and heat production

Vattenfall has a total of some 150 production facilities for electricity and heat, with approximately 38,230 MW of total production capacity. Large-scale production of electricity and heat, which accounts for most of Vattenfall's business, is organised in Business Division Production. The division is responsible for lignite mining, electricity generation based on nuclear power, hard coal, lignite, gas and hydro power, and for large-scale combined heat and power generation (based on coal and gas).

BD Production is responsible for ensuring that operation of the plants is conducted as cost effectively as possible and for guaranteeing optimal generation capacity and availability. The goal is to achieve first-rate, efficient generation operations. In practice this translates to high commercial availability at the plants, high safety standards, continuous

Share of Group's underlying operating profit




Øystein Løseth, Head of Generation operating segment


Huib Morelisse, Head of BD Asset Development


Tuomo Hatakka, Head of BD Production


Harald von Heyden, Head of BD Asset Optimisation and Trading

For a description of the units that make up the Generation operating segment, see Vattenfall's organisational chart on page 49.

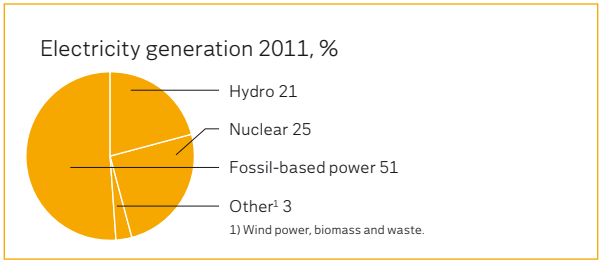
improvement of operating efficiency and lower CO_2 emissions.

Electricity generation 2011
Vattenfall's total electricity generation decreased by 3.3% in 2011, to 166.7 TWh, compared with 172.4 TWh in 2010. Hydro power generation decreased by 2.5% to 34.5 TWh (35.4), mainly due to a low hydrological balance at the start of the year. However, the hydrological balance increased by 60 TWh during the year, and at year-end 2011, reservoirs were filled to 81% capacity.

Nuclear power generation decreased during the year by 2.5% to 42.5 TWh (43.6). Generation at the Forsmark nuclear power plant increased by 20.4%, while generation at Ringhals decreased by 21.3%. The decrease was mainly the result of extensive audits, continued safety development during the year and an extended audit of Ringhals 2 (read more below).

Fossil-based generation decreased by 5.2%, to 85.0 TWh, partly owing to the sale of Vattenfall's interest in the Rostock coal-fired power plant in Germany and the Hillerød and Helsingør power stations in Denmark. The decrease was also the result of operational disruptions at the Hemweg 8, Velsen and Purmurend power plants in the Netherlands, and extended audits at the Fyn 7 and Nordjylland 3 power stations in Denmark.

Wind power generation increased by nearly 55% to 3.4TWh (2.2) (read more on page 32).



Review of production facilities
Vattenfall's plants differ considerably with respect to availability, costs, emission levels, industrial safety and profitability. As part of its efforts to improve operating efficiency and reduce the Group's CO_2 exposure, in 2011 Vattenfall performed a review of all its production plants. In cases where plants have been identified that do not generate a satisfactory return, measures have been taken or are planned in order to optimise the value of every power plant in Vattenfall's portfolio.

During the year, Vattenfall sold most of its operations in Poland, including five coal-fired plants with 878 MW of installed capacity for electricity generation and slightly more than 4,600 MW for heat production. It is estimated that Vattenfall's total CO_2 emissions are expected to decrease by approximately 6.5 million tonnes per year (approximately 7% of the Group's total CO_2 emissions in 2011) as a result of these sales.

Extensive audits of nuclear power plants
The Swedish nuclear power plants, Forsmark and Ringhals, are currently undergoing extensive refurbishment and modernisation which will extend their useful lives to at least 50 years from the date the reactors were first commissioned, i.e., at least through the period 2025–2035. During the year, Forsmark 1, Forsmark 3 and Ringhals 4 were modernised.

In 2011 Ringhals had lower availability than planned. This was due to – among other things – extensive clean-up work following a small fire in a reactor containment unit in Ringhals 2 in May. The clean-up and restoration work has taken a longer time than anticipated. Restart is expected to take place in early April 2012.

During the year, the largest audit ever at Ringhals was performed at Ringhals 4. Among other things, new steam generators and a new pressuriser were installed. The audit took a longer time than expected, however Ringhals conducted continuous work during the year on further developing its safety culture. Although the Swedish Radiation Safety Authority (SSM) has acknowledged the effects of this work, it has expressed that there is a need for continued improvement.

During the year, Forsmark achieved its highest generation result since 2005 with energy availability of 86.2%. The plant thereby ranks among the upper half of the world's nuclear power plants with respect to generation and availability.

Since autumn 2009 Vattenfall has been conducting a programme to attain world class nuclear plant safety and operation by 2014. As of 2011 the Key Performance Indicators for the programme show that this work is on track, which indicates favourable prospects for achieving this goal.

Vattenfall's nuclear power plants in Germany may not be restarted
The accident at the Fukushima nuclear power plant in March 2011 sparked an intensive political debate on nuclear power in Germany, and in late June Germany's parliament voted to gradually phase out the country's nuclear power by 2022. As a result of this decision, Vattenfall's nuclear power plants in Germany, Brunsbüttel and Krümmel, may not be restarted. Vattenfall thereby lost 1,187 MW of nuclear power capacity. Impairment losses have been recognised for Vattenfall's book value of the two nuclear plants in Germany, and provisions for dismantling the plants and handling nuclear waste have been increased. Work on preparing the nuclear power plants for dismantling and demolition was started during the year. The German nuclear power decision did not address immediate payment of any financial compensation to the plant operators. Vattenfall expects to be compensated for its losses and hopes to reach an agreement with the German government, but has not ruled out legal action.

Challenges for Vattenfall's production operations
Ahead of 2012, Vattenfall's main challenges lie in increasing plant availability – especially the nuclear power plants – improving safety and conducting maintenance work more cost-effectively. In addition, the increased share of renew-

Vattenfall's largest ongoing power plant projects

Vattenfall's largest ongoing construction projects are for the power plants Moorburg (Hamburg, Germany), Boxberg (Brandenburg, Germany), Diemen and Hemweg (Amsterdam, the Netherlands), Magnum (Eemshaven, the Netherlands), Akkats (Sweden) and Bergeforsen (Sweden). Together these ongoing projects will increase Vattenfall's installed capacity by slightly more than 3,800 MW as they are completed during the next four years. *See page 33 for Vattenfall's ongoing wind power projects.*

2010 2011 2012 2013 2014 2015

Akkats – hydro power plant
In Akkats, in northern Sweden, a nearly 40 year old 150 MW unit will be replaced by two new 75 MW units. The new units will have a higher level of energy efficiency and will increase the production volume of the plants by approximately 30 GWh. The new units will be commissioned in early 2012 and late 2015, respectively.

Diemen and Hemweg – combined cycle gas power plants, 2 x 435 MW
In Diemen, the Netherlands, a new gas-fired power plant is currently being built with installed capacity of 435 MW electricity and 260 MW heat, respectively. In connection with this, a district heating pipe is being laid between the cities of Diemen and Almere to transport surplus heat as district heating. In addition, a new and more efficient 435 MW combined cycle gas-fired power plant will replace an older 600 MW gas-fired plant in Hemweg, the Netherlands. Both of these power plants will be commissioned in 2012.

Boxberg – lignite-fired power plant, 675 MW
A new 675 MW unit is currently being built at the Boxberg lignite-fired power plant in eastern Germany. The unit will use state-of-the-art technology and material to improve the plant's efficiency and reduce CO_2 emissions per kilowatt-hour. The new unit will be commissioned in late 2012.

Magnum – combined cycle gas power plant, 1,311 MW
In Eeemshaven, the Netherlands, the Magnum power plant is currently being built with three combined cycle gas turbines. The plant is expected to be commissioned at the end of 2012 and will have the capacity to provide electricity for some two million households.

Moorburg – coal-fired power plant, 1,640 MW
In Moorburg, outside Hamburg, Germany, a hard coal–fired power plant is currently under construction. The Moorburg plant is dimensioned for annual electricity generation of 11.5 TWh. Moorburg is expected to be commissioned by 2014 at the latest, when it will be one of the world's most modern and efficient coal-fired power plants. Quality defects in certain type of steel (T24) have led to a delay in the power plant project. Moorburg's unit B is expected to be in operation in early 2014, and unit A by the middle of the same year.

Bergeforsen – hydro power plant, 168 MW
At the Bergeforsen hydro power plant outside Sundsvall, Sweden, construction of a new spillway was begun in 2011 and will continue until 2014. The concrete beds of the three existing spillways have become worn and must be repaired. The Bergeforsen hydro power plant has installed capacity of 168 MW. Bergeforsen is 60%-owned by Vattenfall (the rest is owned by E.ON).

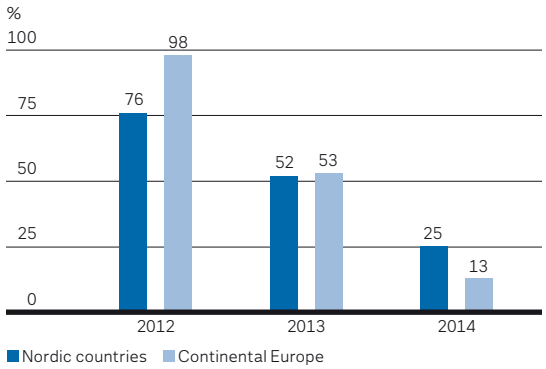
able energy in the market makes it important to increase the flexibility of the Group's coal-fired plants.

Vattenfall will also be working to obtain new permits for lignite mining in the German Federal States of Brandenburg and Saxony, in order to secure the needed supply for its lignite-fired plants.

New rules take effect in 2013 for trading in CO_2 emission allowances within the EU. The cost-free allocation of emission allowances will effectively end, entailing that Vattenfall will have to buy emission allowances for as much as 90 million tonnes of carbon dioxide on the market. For the period 2008–2012 Vattenfall has received emission allowances free of charge corresponding to an average of 30 million tonnes of CO_2, mainly for its German operations. Based on a theoretical calculation, without taking price hedges of CO_2 emission allowances into account, the elimination of the free allocation of CO_2 emission allowances will result in higher costs of approximately EUR 750 million for Vattenfall's production operations in 2013 compared with 2012. This calculation is based on a price of CO_2 emission allowances of approximately EUR 13/tonne.

Two ways of compensating for this are to raise the efficiency of the power plants and to introduce co-firing of biomass in coal-fired plants. Vattenfall also expects its existing coal-fired plants to have a lower number of hours in operation (and thus lower CO_2 emissions) due to the higher share of renewable energy in Germany.

Vattenfall's degree of price hedging in various markets per 31 December 2011



The chart shows Vattenfall's price hedging of planned electricity generation in the Nordic countries and Continental Europe. Vattenfall continuously hedges its electricity generation through sales in the futures and forward markets.

Average price hedges as per 31 December 2011

EUR/MWh	2012	2013	2014
Nordic countries	45	46	43
Continental Europe	55	58	60

Business Division Asset Optimisation and Trading

Optimising Vattenfall's generation portfolio and managing risks in the commodities market

Vattenfall has gathered responsibility for optimisation (dispatch) of all of the Group's generation assets in Business Division Asset Optimisation and Trading. The division is also responsible for selling Vattenfall's generation of electricity on the wholesale market (such as to electricity exchanges and bilateral counterparties in the OTC market) and for price hedging of all electricity generated by Vattenfall's plants in the futures markets. BD Asset Optimisation and Trading also conducts proprietary trading.

Optimisation of generation assets entails that decisions are made with respect to when and how much the various power plants are to generate electricity. Vattenfall optimises its electricity generation based on the forecast price of electricity and the power plants' variable production costs (which mainly depend on the energy source and any costs for CO_2 emission allowances).

To reduce the impact of fluctuations in wholesale electricity prices on Vattenfall's earnings, Vattenfall hedges a large share of its future electricity generation in the electricity futures markets. This is done through sales of electricity in the futures market via electricity exchanges or to OTC counterparties. Vattenfall also takes out price hedges in its purchasing, such as for CO_2 emission allowances and fuel.

Price fluctuations in the electricity and commodities markets can also be used for proprietary trading in order to generate profits from purchases and sales of electricity and commodities futures. Vattenfall's board of directors has set risk mandates for this type of trading (see the Risk section for further information about price hedging levels and risk mandates, page 58).

Greater focus on UK energy market

In 2011 Vattenfall strengthened its position in electricity trading in the UK market. During the year, the first agreements were signed for sales of green certificates (ROCS, LECS) from the Thanet wind farm to various counterparties. Also during the year, Vattenfall began selling electricity from the Ormonde wind farm on the wholesale market. In an effort to expand the trading portfolio, Vattenfall's trading company became accredited on the UK's N2EX exchange.

Vattenfall has also been engaged in the commercial preparations for the BritNed interconnector, the first cable link between the UK and the Netherlands. Vattenfall has been named as the sole electricity supplier during the start-up tests. The interconnector represents yet another step towards a more highly developed and interconnected European energy market.

In addition, Vattenfall has initiated co-operation with four northern European energy companies to plan and build a 570 km power cable between the UK and Norway, called NorthConnect, with transmission capacity of 1,400 MW. It is expected that NorthConnect will play a key role in the development of an internal European energy market, with greater competition and trading between regional markets. By coupling flexible hydro power from Norway with intermit-

tent energy sources such as wind power in the UK, the NorthConnect cable will facilitate the cost-effective integration of renewable energy in the market. The goal is to have the connector in operation before 2020.

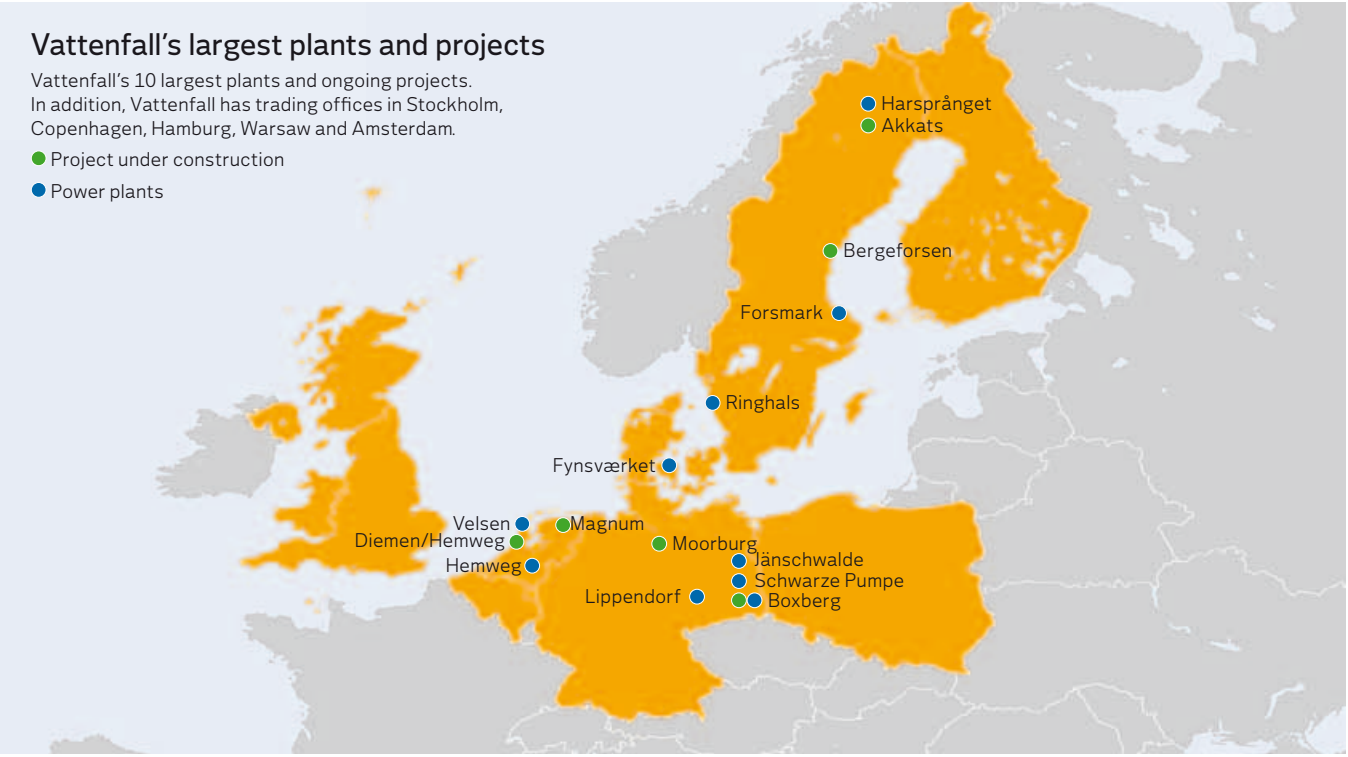
Market development
Vattenfall is actively engaged in the future development of wholesale energy markets throughout Europe. The company contributes to well-working and liquid wholesale energy markets by meeting the obligations that apply for market players on EEX, Nord Pool, the Polish Power Exchange (electricity) and APX-Endex (gas).

The European rules for trading in electricity and commodities are undergoing several changes. Energy trading will be affected by greater market supervision by energy regulators, and financial market rules will also begin to apply for energy trading to an increasing degree. Vattenfall is closely monitoring developments in the markets and is well positioned to adapt to changed business conditions.

Vattenfall's largest plants and projects

Vattenfall's 10 largest plants and ongoing projects.
In addition, Vattenfall has trading offices in Stockholm, Copenhagen, Hamburg, Warsaw and Amsterdam.

- Project under construction
- Power plants



Vattenfall's largest power plants

Plant	Country	Energy source	Installed capacity, MW	Average annual generation, TWh	Vattenfall's ownership, %
Ringhals, 4 units	Sweden	Nuclear	3,654	24.6	70.4
Forsmark, 3 units	Sweden	Nuclear	3,138	22.8	66.0
Jänschwalde	Germany	Lignite	2,790	22.0	100
Boxberg	Germany	Lignite	1,787	15.0	100
Schwarze Pumpe	Germany	Lignite	1,500	12.0	100
Hemweg 7+8	Netherlands	Gas/coal	1,249	5.0	100
Harsprånget	Sweden	Hydro	977	2.1	100
Lippendorf	Germany	Lignite	875	6.7	100
Velsen	Netherlands	Gas	834	3.0	100
Fynsværket	Denmark	Hard coal	675	2.0	100

What are refined wood pellets?

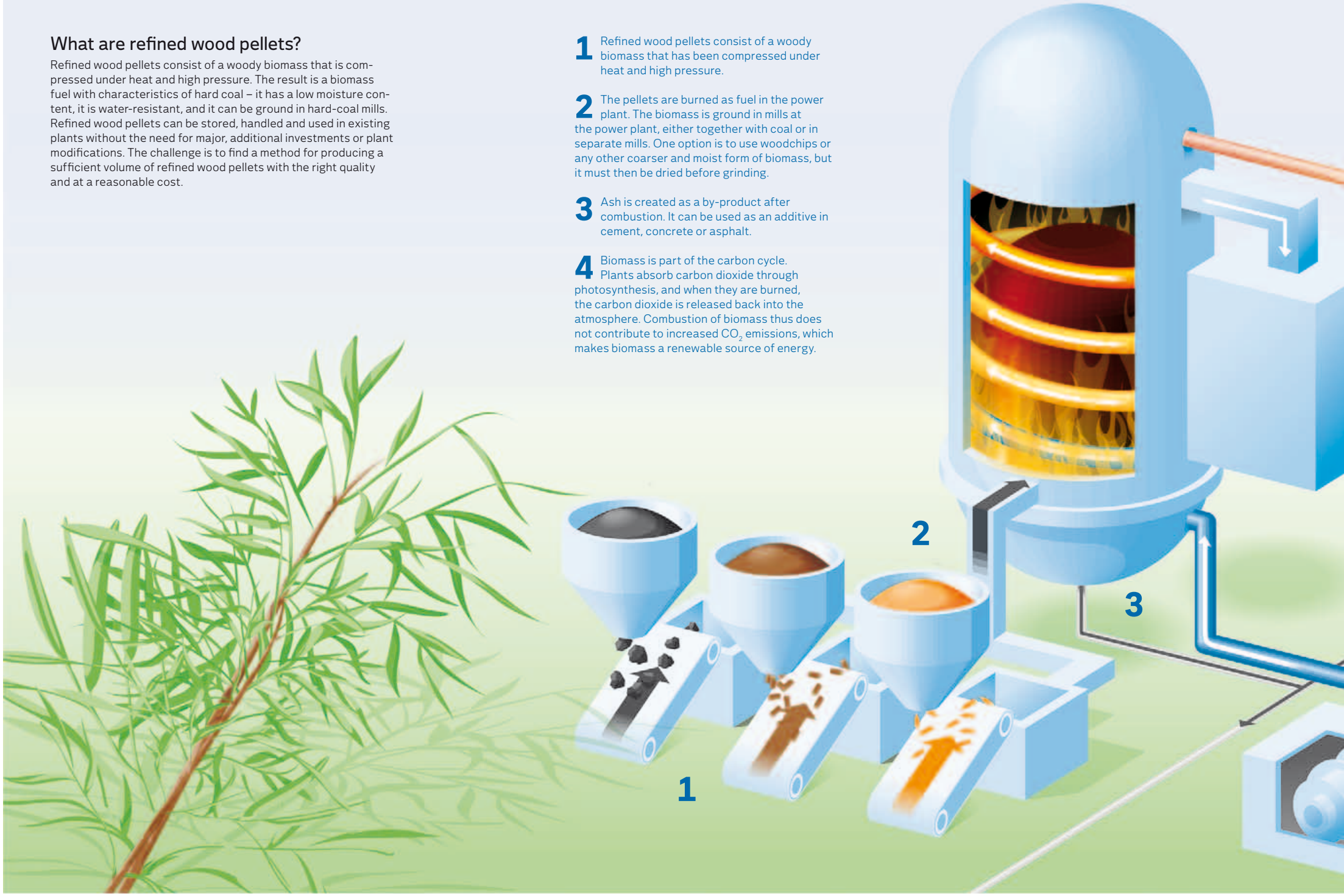
Refined wood pellets consist of a woody biomass that is compressed under heat and high pressure. The result is a biomass fuel with characteristics of hard coal – it has a low moisture content, it is water-resistant, and it can be ground in hard-coal mills. Refined wood pellets can be stored, handled and used in existing plants without the need for major, additional investments or plant modifications. The challenge is to find a method for producing a sufficient volume of refined wood pellets with the right quality and at a reasonable cost.

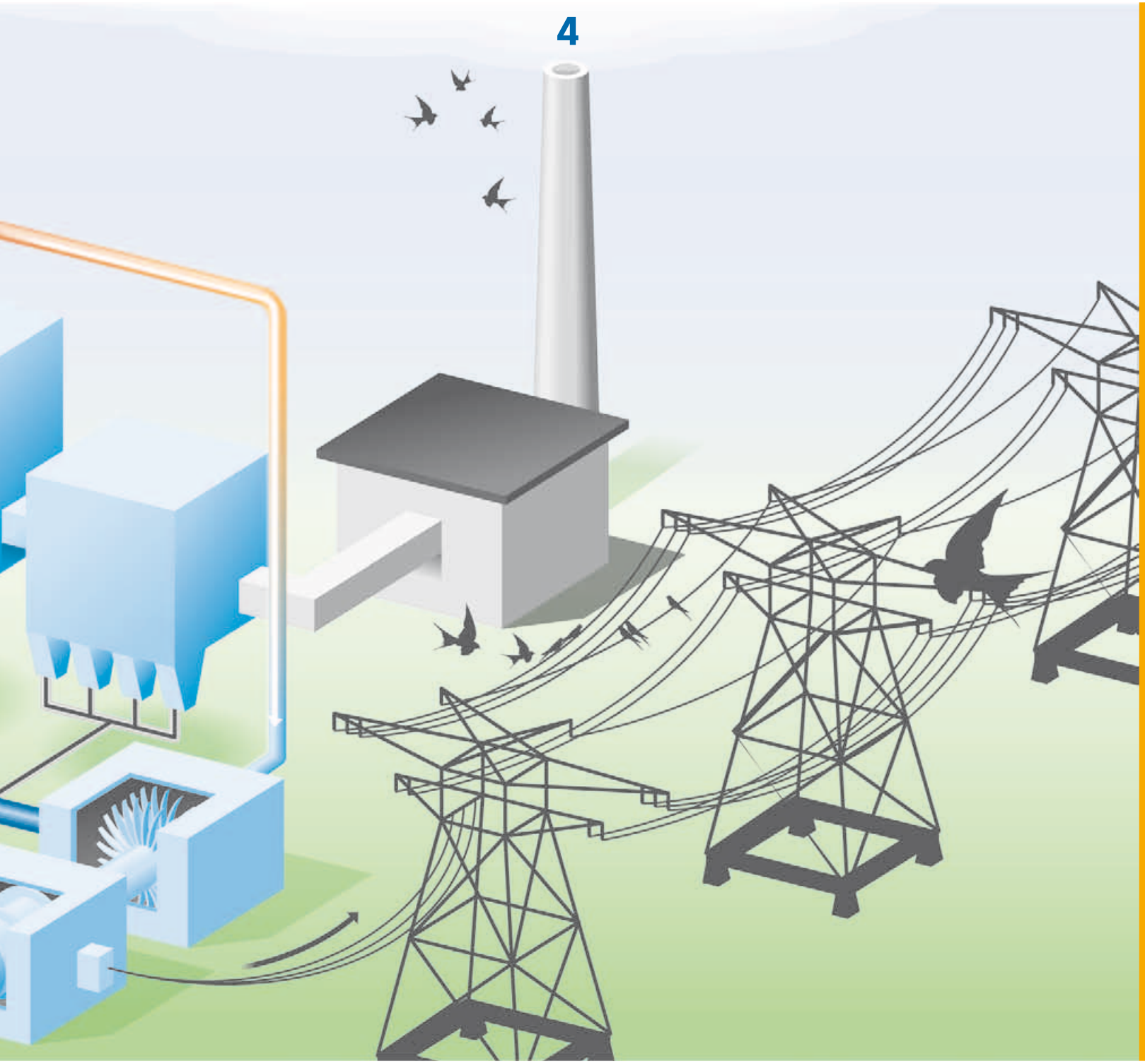
1 Refined wood pellets consist of a woody biomass that has been compressed under heat and high pressure.

2 The pellets are burned as fuel in the power plant. The biomass is ground in mills at the power plant, either together with coal or in separate mills. One option is to use woodchips or any other coarser and moist form of biomass, but it must then be dried before grinding.

3 Ash is created as a by-product after combustion. It can be used as an additive in cement, concrete or asphalt.

4 Biomass is part of the carbon cycle. Plants absorb carbon dioxide through photosynthesis, and when they are burned, the carbon dioxide is released back into the atmosphere. Combustion of biomass thus does not contribute to increased CO_2 emissions, which makes biomass a renewable source of energy.





Promising trials with co-firing of coal and biomass

Göran Lundgren, Head of Biomass Business Unit.

In summer 2011, Vattenfall conducted its first large-scale trials of co-firing hard coal with refined wood pellets at the Reuter West coal-fired power plant in Berlin. The power plant's four units, which together generate nearly 600 MW of electricity and 800 MW of heat, normally use 28 tonnes of coal per hour. The trials involved logistics, storage, processing and combustion of some 4,300 tonnes of refined wood pellets. Tests were conducted using different co-firing rates – 20%, 35% and 50%.

"The results to date are very promising, and all indications are that production of refined wood pellets and co-firing with hard coal is one of the most cost-effective ways of lowering CO_2 emissions from fossil fuels," says Göran Lundgren, Head of the Biomass Business Unit. "Thus far, co-firing is more expensive than using just coal, but it is cheaper than having to modify and adapt power plants for other renewable technologies."

"Our ambition is to bring down the cost to a level that is comparable with the cost of hard coal plus the cost of CO_2 emission allowances by 2020," says Lundgren. "During a transitional period, however, support systems will be needed to speed up development."

It has not yet been determined what is the best mix of hard coal and biomass. The more biomass, the more a plant's operation and performance is affected. These and other questions will be the focus of further research and development at Vattenfall.

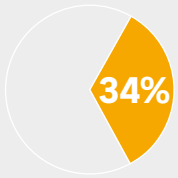
Operating segment Distribution and Sales

Gathering of all end-customer activities

The energy market is undergoing constant change. Customers and the general public have new demands and expectations, new laws and regulations are emerging, and the competition is intensifying. To meet this situation, Vattenfall has gathered all of its end-customer operations in the Distribution and Sales operating segment.

The Distribution and Sales segment (and Business Division) gathers all end-customer business activities and customer contacts in Vattenfall's markets. The division is responsible for sales of electricity, gas and heat to Vattenfall's end-customers as well as for electricity distribution. The electricity and gas markets are deregulated, while electricity distribution is a regulated business. While district heating is not formally regulated, it bears certain similarities with electricity distribution. Distribution and Sales is also responsible for business development in end uses of energy. In all, Vattenfall has approximately 13 million customers, including 4.5 million network customers.

Share of Group's underlying operating profit



Torbjörn Wahlborg, Head of BD Distribution and Sales

For a description of the units that make up the Distribution and Sales operating segment, see Vattenfall's organisational chart on page 49.

Developments during the year

Vattenfall's sales operations underwent a phase of consolidation during the year. The trend is positive, and profitability has risen. The ambition is to increase customer satisfaction, maintain a high-quality service offering and reduce operating costs.

The underlying operating profit improved by SEK 2.0 billion, to SEK 10.5 billion. The improvement is mainly attributable to improved profitability in the Sales B2C (Business to Consumers) business unit. Lower costs for sales and administration had a positive earnings impact. Read more about performance of the Distribution and Sales operating segment on page 40.

During the year approximately 15% of the former operations – heat production, electricity sales and electricity distribution in Poland, heat and electricity distribution in Finland, and electricity sales in Belgium – were sold in accordance with Vattenfall's strategy to focus on its core markets of Sweden, Germany and the Netherlands.

New price strategy 2011

Price competition in the end-customer market for electricity is fierce and margins are small, especially in the business segment. During the year, Vattenfall changed its price strategy. Vattenfall wants to be perceived as a premium brand, i.e., a company that offers customers optimum value. Excluding the divestments in Poland and Belgium, Vattenfall's customer base was largely unchanged compared with the preceding year.

Several new major customers and expanded product portfolio

During the year, agreements were signed with several new and significant major customers (see box at right). The offering of products and services has been broadened to include a number of new services and offers, including sales of gas to households and business customers in Germany, an electricity contract for electric cars in Sweden (similar contracts will also be introduced in Germany and the Netherlands), displays that give customers a day-to-day picture of their electricity and gas use, and an array of new electricity contract options. The heat business performed well, with focus on increasing the number of customers in existing networks. In Customer Service, intensive work is being conducted on creating uniform processes and reliable systems. The aim is to guarantee a high standard of customer service. The new international organisation provides greater opportunities

New agreements with major business customers

- DB Energie (a subsidiary of Deutsche Bahn) signed a four-year agreement (2012–2016) after Vattenfall was able to meet its demand for renewable electricity. The agreement covers 439 GWh electricity per year from the Harsprånget hydro power plant in northern Sweden with a Guarantee of Origin.
- A two-year agreement was signed with Stora Enso in Germany, covering electricity supply and balance management for one of Stora Enso's business units in Germany, for a total of 1 TWh.
- A new, two-year agreement was signed with Shell on electricity supply to the company's petrochemical plant in Moerdijk, south of Amsterdam. The agreement covers 440 GWh per year.
- In Sweden an agreement with Höganäs for annual volume of 240 GWh was renewed for the period 2013–2015.
- In Finland Vattenfall signed an agreement for 180 GWh with the reseller Valkeakosken Energia through 31 December 2014.
- In Sweden, an agreement was signed with Metsä Tissue AB (Metsliitto Group) for three of its Swedish plants, covering 200 GWh per year during a three-year period starting in November 2011.
- In the Netherlands, a new, major agreement was reached with Overgaag en Sons, one of the largest greenhouse farms in the Netherlands. The agreement entails a two-year contract for gas supply covering 10.5 million cubic metres of gas.

to work with customers in a co-ordinated manner and offer more products.

Network concessions in Hamburg and Berlin

Vattenfall's network concessions for electricity and heat distribution in Hamburg and Berlin expire in 2014. During the year, Vattenfall reached an agreement with the City of Hamburg on the acquisition of 25.1% of Vattenfall's distribution and district heating operations in Hamburg. Together with the City of Hamburg, Vattenfall will develop an environment-friendly energy concept that will help lower CO_2 emissions from Vattenfall's heat operations in Hamburg by 27%. Vattenfall also intends, together with the City of Hamburg, to develop an innovative power plant project in Hamburg – a highly efficient combined cycle plant that employs state-of-the-art technology to store surplus wind power as heat. Other parts of the collaboration agreement involve electric transport solutions (e-mobility) and smart grids.

In Berlin, negotiations have begun on the renewal of concession agreements. A key starting point is the climate accord that Vattenfall and the City of Berlin signed in 2009.

Application for revenue framework for Swedish network operations

The new ex-ante regulation of Swedish electricity network fees, which took effect at the start of 2012, entails that a predetermined revenue framework is set for four years by the Swedish Energy Markets Inspectorate. The application for a revenue framework for the four-year period 2012–2015 that Vattenfall Eldistribution AB filed with the Inspectorate in spring 2011 included increased investments in improving the grid against storms and the ability to connect small as well as large-scale wind power plants and other forms of renewable energy. The regulator did not accept the requested revenue framework, and instead granted a considerably lower framework for the first four-year period. Like some 80 other Swedish network companies, Vattenfall has appealed the Inspectorate's decision.

Differences in Vattenfall's core markets

Vattenfall has 6.3 million retail electricity customers and a strong market position in all core markets. Price competition is fierce, and it is easy to switch suppliers, which makes the competition even tougher. While the price of electricity is one of the chief selection criteria for retail customers, energy efficiency services have become an increasingly important part of the energy companies' product offerings. Vattenfall offers online energy guides in Sweden, Finland and the Netherland, and peripheral services in the Netherlands.

In 2011 Vattenfall supplied 103.5 TWh of electricity to business customers and resellers. Business customers primarily want customised, long-term contracts with fixed prices. Vattenfall is continuing to develop its products and services in such areas as energy efficiency and environmental adaptation.

Vattenfall has 2 million gas customers. The gas business is concentrated mainly in the Netherlands, where Vattenfall has a market-leading position. A large share of gas consumption is used for heating. In 2011 Vattenfall also began supplying gas to customers in Germany.

Vattenfall is also a leading provider of district heating in Germany and one of the five largest in Sweden, the Netherlands and Denmark.

Electricity distribution is a monopoly business that is regulated by network regulators in the respective countries. Vattenfall has 4.5 million network customers. Disruption-free electricity supply is the most important demand from network customers, while development trends in society are creating a greater need for intelligent, flexible and reliable networks.

Focus areas and investments

Profitability of electricity sales improved considerably in 2011 as a result of higher efficiency and a European sales organisation. To further improve earnings, BD Distribution and Sales is continuing its work on capitalising on synergies in the new, cross-border organisation.

The division is working intensively on introducing new products and services in an effort to meet changed customer expectations and tougher competition in the market.

Operating segment Renewables

At the forefront of renewable electricity generation

Wind power and biomass – both renewable energy sources – are growing rapidly. In three years Vattenfall's electricity generation from wind power has doubled, from 1.7 to 3.4 TWh. Renewables is Vattenfall's smallest operating segment in terms of employees, but at the same time it has the largest growth potential.

Vattenfall's goal in renewable energy is to attain a leading position in Europe in renewable energy generation. This will be achieved by improving the Group's competitiveness in renewable electricity generation and thereby ensuring strong growth in the area. Business Divisions Renewable's role is to manage profitable growth in the prioritised, growing areas of renewable energy – wind power and upstream biomass.[1] Vattenfall's main source of renewable energy, hydro power, is not included in BD Renewables, since hydro power is a mature and established source of energy. The underlying operating profit for 2011 improved by SEK 1.1 billion, to SEK 0.5 billion.

1) The renewable energy source, hydro power, belongs to the Generation operating segment.

Share of Group's underlying operating profit

Anders Dahl,
Head of BD Renewables

For a description of the units that make up BD Renewables, see Vattenfall's organisational chart on page 49.

The improvement is mainly attributable to greater wind power generation. Read more about performance of the Renewables operating segment on page 41.

Second largest operator of offshore wind power

Wind power is the fastest growing source of renewable energy in Europe. Vattenfall is Sweden's largest operator of wind power (with approximately 10% of the wind power market) and the world's second largest operator of offshore wind power, with some 900 wind turbines operating in Sweden, Denmark, Germany, the Netherlands and the UK. In 2011 Vattenfall's wind power turbines generated 3.4 TWh of electricity, corresponding to 2% of Vattenfall's total electricity generation.

While the best wind conditions are usually found at sea, offshore wind farms are considerably more costly to build than land-based wind farms, and they also present substantial technical challenges. In co-operation with Scottish Power Renewables, Vattenfall has been granted access to the East Anglia zone, one of the largest zones in the UK's Round Three programme for developing offshore wind power. East Anglia has total potential of more than 7,200 MW, of which Vattenfall's share is half.

Biomass an important source of renewable energy

Biomass is the third most important source of renewable energy in Europe's energy mix, after hydro and wind power.

Co-firing biomass with hard coal in coal-fired power plants is an effective way of bringing about a swift reduction in CO_2 exposure. Vattenfall's focus is on development of refined wood pellets, which are produced through heat treatment and are suitable for co-combustion in coal-fired power plants. See also pages 28–29.

Within Vattenfall, BD Renewables has global responsibility for procurement of biomass. By building up a solid, reliable and sustainable supply chain, the division is responsible for securing Vattenfall's supply of raw material over the long term. Vattenfall is currently looking into opportunities to secure its access to biomass in Europe and North and South America.

First year for two large wind farms

2011 was the first full year of production for Vattenfall's two large wind farms – Thanet in the UK and Stor–Rotliden in Sweden. Both of these wind farms, along with a number of other, smaller projects, contributed to a 55% increase (1.2 TWh) in Vattenfall's total wind power generation compared with a year earlier.

Thanet, off England's southeast coast, is the world's largest offshore wind farm and was commissioned in summer 2010. The wind farm comprises 100 turbines with combined capacity of 300 MW. In 2011 Thanet generated 815 GWh of electricity, which corresponds to the electricity needs of 240,000 British homes.

With its 40 turbines and total installed capacity of 78 MW, the Stor–Rotliden wind farm in Västerbotten, Sweden, is Vattenfall's largest land-based wind farm. It has been in operation since December 2010 and generated 240 GWh of electricity in 2011, which corresponds to the electricity needs of approximately 50,000 Swedish homes.

Construction has also been completed of the Ormonde wind farm in the Irish Sea, which began supplying electricity to customers in September. The wind farm has installed capacity of 150 MW, corresponding to the electricity needs of 100,000 UK households.

Vattenfall sole owner of Zuidlob

In late September Vattenfall acquired 100% of the shares in the Zuidlob land-based wind farm, one of the Netherlands' largest wind farms, which is currently being built west of Zeewolde in the Flevoland province. Starting in 2013, 36 wind turbines will provide electricity for some 88,000 households. The wind farm will have installed capacity of 122 MW.

Decision on new German offshore wind farm

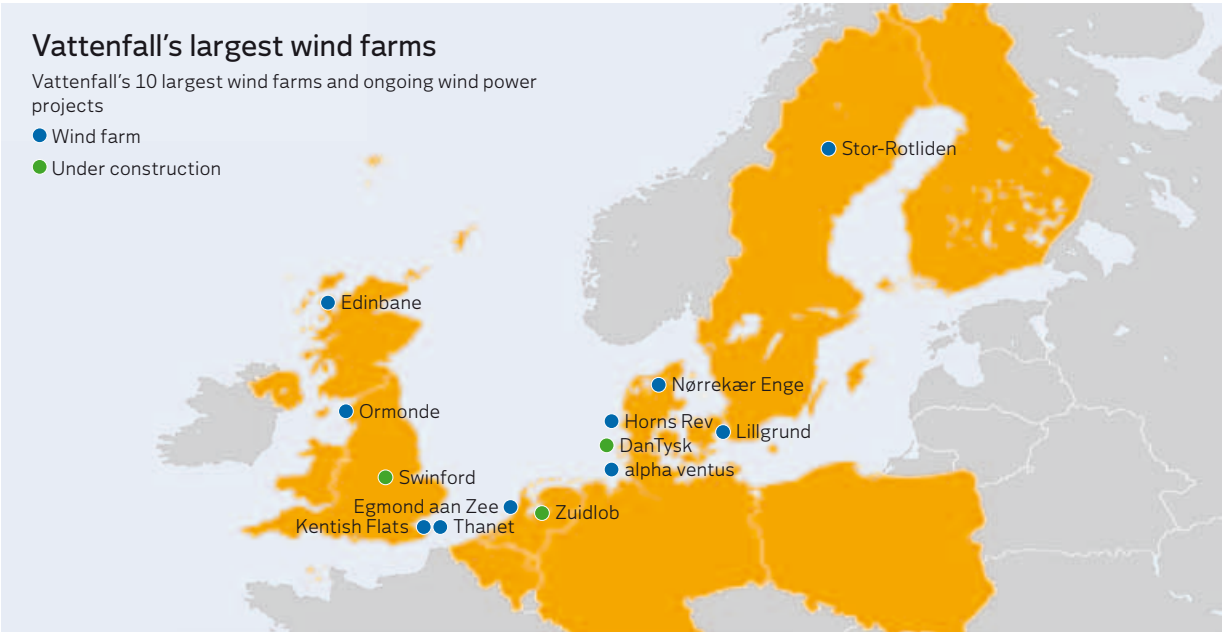
Vattenfall is planning to build an offshore wind farm, Sandbank, off the island of Sylt in the German North Sea, with the potential to supply half a million or more German households with electricity. Vattenfall has purchased the licences for the

new wind farm from the German company Sandbank Power GmbH & Co. Permits are currently in place for 96 large wind turbines with combined maximum capacity of 576 MW. The purchase includes the opportunity to expand the project with 40 turbines. The area in question is located in the vicinity of Vattenfall's already ongoing DanTysk project. Construction of the new project will commence when DanTysk is completed, in 2015 at the earliest.

Conditions for operation

A rapidly growing industry like wind power is characterised by large demand and a shortage of competence and resources. Like other players in the industry, Vattenfall is therefore focusing on building up competence in this area. Among other things there is a need for project leaders to work with design of offshore wind farms, operating engineers, wind technology specialists and procurement specialists.

Wind power has a key role in the changeover of the energy system toward the goal of lowering CO_2 emissions. However, the technology still cannot compete in the market without subsidies. Vattenfall's view and ambition is to develop wind power technology so as to make that form of renewable energy competitive in the market. In Vattenfall's opinion, wind power will not be profitable without support systems for the next two decades – considerably longer for offshore wind power. Currently the support systems and thus the economic conditions for wind power vary from country to country.



Vattenfall's largest wind farms

Wind farm	Country	Type	Number of turbines	Installed capacity, MW	Owner
Thanet	UK	Offshore	100	300	Vattenfall
Horns Rev	Denmark	Offshore	80	160	Vattenfall (60%), Dong (40%)
Ormonde	UK	Offshore	30	150	Vattenfall
Lillgrund	Sweden	Offshore	48	110	Vattenfall
Egmond aan Zee	Netherlands	Offshore	36	108	Vattenfall (50%), Shell (50%)
Kentish Flats	UK	Offshore	30	90	Vattenfall
Stor–Rotliden	Sweden	Land-based	40	78	Vattenfall
alpha ventus	Germany	Offshore	12	60	EWE (47.5%), E.ON (26.5%), Vattenfall (26.5%)
Edinbane	UK	Land-based	18	41.4	Vattenfall
Nørrekær Enge	Denmark	Land-based	13	29.9	Vattenfall
Under construction					
DanTysk	Germany	Offshore	80	288	Vattenfall (51%), Stadtwerke München (49%)
Zuidlob	Netherlands	Land-based	36	122	Vattenfall
Swinford	UK	Land-based	11	22	Vattenfall

Administration report

The Board of Directors and President of Vattenfall AB (publ), Swedish corporate identity number 556036–2138, herewith submit the annual report and consolidated accounts for 2011, encompassing pages 34–65, which have been translated from the Swedish original.

Group vision and operations

Vattenfall's vision is to develop a sustainable, diversified European energy portfolio with long-term increased profits and significant growth opportunities. At the same time, Vattenfall will be among the leaders in developing environmentally sustainable energy production. Vattenfall's main products are electricity, heat and gas. In electricity and heat, Vattenfall works in all parts of the value chain: generation, distribution and sales. In gas, Vattenfall is active in sales. Vattenfall is also engaged in energy trading and lignite mining. The Group has approximately 34,700 employees. The Parent Company, Vattenfall AB, is 100%-owned by the Swedish state. The core markets are Sweden, Germany and the Netherlands. Operations in 2011 were also conducted in Belgium, Denmark, Finland, France, Poland and the UK.

Financial targets and outcome 2011

Vattenfall's overarching financial target is to create economic value by generating a competitive return over time. Based on this, Vattenfall's owner and the company have set four financial targets – for profitability, interest coverage, credit ratings and the dividend. The targets are long-term, which means that they are to be evaluated as averages over a business cycle (approx. 5–7 years). These financial targets form the framework for Vattenfall's business control.

Profitability

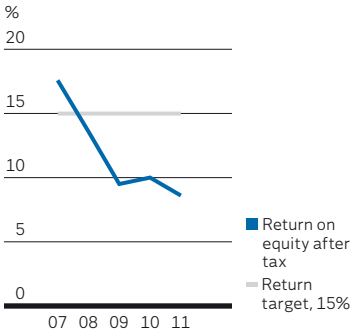
Target

- Profit after tax should amount to at least 15% of average equity.

Outcome 2011

- Return on equity after tax was 8.6% (10.0%).

Return



Interest coverage

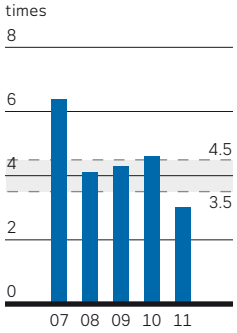
Target

The cash flow interest coverage ratio after maintenance investments should amount to 3.5–4.5.

Outcome 2011

The cash flow interest coverage ratio after maintenance investments was 3.0 (4.3).

Cash flow interest coverage after maintenance investments



Ratings

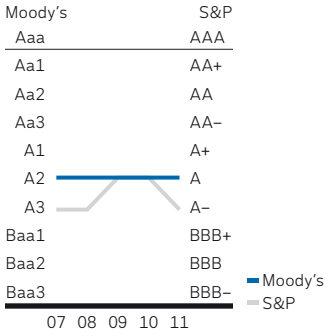
Target

Vattenfall's goal is to maintain a long-term credit rating in the Single A category from both Moody's and Standard & Poor's (S&P). The Single A category is defined as A1 – A3 by Moody's and A+ – A– by S&P.

Outcome 2011

On 9 December 2011 S&P lowered its long-term rating for Vattenfall from A to A– and at the same time changed its outlook from negative to stable. In February 2012 Moody's confirmed Vattenfall's rating (A2) but at the samt time changed its rating outlook from stable to negative.

Ratings



Dividend

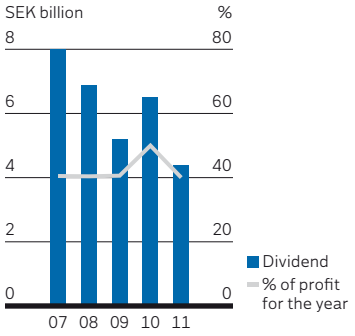
Target

Vattenfall's dividend should amount to 40%–60% of profit after tax over the long term. However, yearly decisions on the dividend shall take implementation of the company's strategy, financial position and other economic targets into account.

Outcome 2011

The proposed dividend for 2011 amounts to SEK 4.4 billion, which corresponds to 40% of profit after tax.

Dividend



Important events 2011

Changes in Board of Directors and Executive Group Management

18/3 On 18 March Björn Savén was appointed as interim Chairman and Deputy Chairman of Vattenfall AB following the departure of Lars Westerberg. Björn Savén served as regular Chairman of the Board as from 27 April 2011.

27/4 At the Annual General Meeting on 27 April, Ingrid Bonde and Håkan Erixon were elected as new board members.

14/6 At an Extraordinary General Meeting of Vattenfall on 14 June, Lars G. Nordström was elected as new Chairman of the Board of Vattenfall AB. Christer Bådholm was elected as Deputy Chairman.

28/10 Peter Smink was appointed as acting CFO, effective 28 October 2011. On 19 December, Ingrid Bonde was appointed as Deputy CEO and new CFO. She will take office not later than 1 July 2012.

Divestments and acquisitions during the year

1/2 On 1 February Vattenfall sold its 25% interest in the Rostock hard coal–fired plant in Germany to RheinEnergie AG. The power plant has installed capacity of 553 MW. The purchase price has not been publicly disclosed by the parties.

23/6 On 23 June Vattenfall sold its 21.3% shareholding in the German energy company Energieversorgung Sachsen Ost AG (ENSO) to EnergieVerbund Dresden GmbH (EVD). The purchase price was EUR 147 million (approximately SEK 1.3 billion).

30/6 On 30 June Vattenfall sold the Helsingør combined heat and power (CHP) plant to Forsyning Helsingør. The sale also included the heat transmission line from the plant. The purchase price has not been publicly disclosed by the parties.

30/6 On 30 June Vattenfall sold its gas production operations in the Dutch company Nuon Exploration & Production B.V. to Tullow Oil plc. The purchase price was EUR 281 million (approximately SEK 2.5 billion).

15/7 On 15 July Vattenfall sold parts of its Swedish engineering consultancy to Pöyry PLC. The purchase price has not been publicly disclosed by the parties.

27/7 On 27 July Vattenfall signed an agreement with the Italian energy company Eni on the sale of Vattenfall's operations in Belgium, based on an enterprise value of EUR 157 million (approximately SEK 1.4 billion). The sale covered Nuon Belgium NV, which services approximately 550,000 electricity and gas connections, and the companies Nuon Wind Belgium NV and Nuon Power Generation Walloon NV. The sale was completed on 10 January 2012.

23/8 On 23 August Vattenfall signed an agreement with the Polish company Tauron S.A. on the sale of Vattenfall's subsidiary GZE, in Upper Silesia. An agreement was also signed with the Polish company PGNiG S.A. on the sale of Vattenfall Heat Poland S.A. (VHP). The purchase price for GZE, based on enterprise value, was approximately PLN 3.5 billion (approximately SEK 7.4 billion), while the sale of VHP was based on an enterprise value of approximately PLN 3.7 billion (approximately SEK 7.8 billion). The transactions were completed on 13 December 2011 and 11 January 2012, respectively.

3/10 In early October Vattenfall acquired full ownership of the Zuidlob land-based wind farm in the Netherlands, which will be one of the country's largest wind farms. Starting in 2013, the wind farm's 36 wind turbines will provide power for 88,000 households. Zuidlob will have installed capacity of 122 MW.

25/11 On 25 November Vattenfall announced that it had purchased the licences to build the Sandbank offshore wind farm off the island of Sylt in the German North Sea. The project is initially for up to 575 MW (96 turbines), but can be further expanded. Start of construction is planned for 2014.

29/11 On 29 November Vattenfall announced that it had signed an agreement with the City of Hamburg under which the City of Hamburg will acquire 25.1% of Vattenfall's electricity distribution and district heating networks in Hamburg for a combined total of EUR 463.1 million (approximately SEK 4.2 billion). Vattenfall will retain operational management of the networks. The transaction is contingent upon approval by Hamburg's parliament.

16/12 On 16 December Vattenfall announced that it had signed an agreement with LNI Acquisition Oy – a consortium of the companies 3i Infrastructure plc, 3i Group plc, GS Infrastructure Partners and Ilmarinen Mutual Pension Insurance Company – on the sale of Vattenfall's electricity distribution and heat businesses in Finland. Vattenfall will retain ownership of its electricity sales organisation and its hydro power operations in Finland. The purchase price was EUR 1.54 billion (approximately SEK 14 billion). The transaction was completed on 10 January 2012, and the capital gain is reported during the first quarter of 2012.

Other important events

16/3 On 16 March SKB (the Swedish Nuclear Fuel and Waste Management Company), which is 56%-owned by Vattenfall, submitted a formal licence application to build a repository for spent nuclear fuel as well as an encapsulation facility for storage of spent nuclear fuel before it is transferred to the repository. SKB's application is being reviewed by the Swedish Radiation Safety Authority (SSM) and the Environmental Court. The application will thereafter be taken up for political decisions in the affected municipalities and by the Swedish government.

11/5 On 1 April Ringhals 2 was taken off line for an audit. In the final stages of the audit, on 11 May, a short circuit in a water vacuum cleaner caused a small fire in a reactor containment unit. The fire did not have any effect on safety in the reactor, but produced a large amount of soot. The resulting clean-up and restoration work has taken longer time than expected. Restart is expected to take place in early April 2012.

30/6 On 30 June Germany's parliament decided that all 17 of the country's nuclear power plants shall be closed by 2022 at the latest (Germany's new Atomic Energy Act took effect on 6 August 2011). The consequence of the decision for Vattenfall is that the Brunsbüttel and Krümmel nuclear power plants, for which Vattenfall has operating responsibility and owns 66.7% and 50%, respectively, may not be restarted. Vattenfall thereby lost 1,187 MW of installed capacity and was forced by the decision to recognise an impairment loss for the book value of these two plants and increase provisions for dismantling the plants and handling nuclear fuel, for a total cost of SEK 10.5 billion. Vattenfall has announced that the company expects to receive fair compensation for its financial losses.

Income statement

Condensed income statement[1]

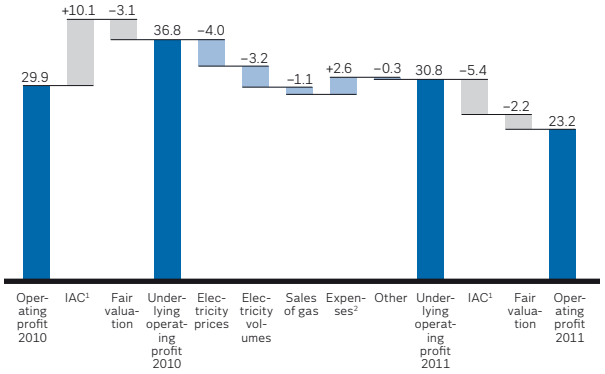
Amounts in SEK million, unless otherwise stated	2011	2010	Change, %
Net sales	181,040	213,572	–15.2
Profit before depreciation/amortisation (EBITDA)	54,538	60,706	–10.2
Operating profit (EBIT)	23,209	29,853	–22.3
Operating profit excl. items affecting comparability	28,562	39,952	–28.5
Underlying operating profit[2]	30,793	36,838	–16.4
Financial items, net	–8,911	–8,430	–5.7
Profit before tax	14,298	21,423	–33.3
Income tax expense	–3,882	–8,238	–
Profit for the year	10,416	13,185	–21.0

1) See complete income statement on page 66.

2) Operating profit excluding items affecting comparability and unrealised changes in the fair value of energy derivatives, which according to IAS 39 may not be reported using hedge accounting, and fair valuation of inventories.

Factors affecting the change in operating profit (EBIT)

SEK billion



1) IAC = Items affecting comparability.
2) Operations and maintenance, sales and administration.

Sales

Consolidated net sales in 2011 decreased by SEK 32.5 billion compared with 2010. The sale of the German transmission business, 50Hertz Transmission GmbH, in May 2010, resulted in a decrease in consolidated net sales of SEK 20 billion. Average lower electricity prices received and lower production volumes decreased net sales by SEK 6.0 billion. Currency effects of the stronger Swedish krona had a negative impact on net sales by approximately SEK 8.0 billion.

Underlying operating profit

The underlying operating profit for 2011 decreased by SEK 6.0 billion. This is mainly attributable to:

- Average lower electricity prices received (SEK –4 billion)
- Lower electricity volumes (SEK –3.2 billion)
- Lower gas sales (SEK –1.1 billion)
- Lower costs for operations, maintenance, sales, administration, and research and development (SEK 2.6 billion, net)
- Other items, net (SEK –0.3 billion)

Items affecting comparability in 2011 amounted to SEK –5.3 billion, net, and consist mainly of impairment of book value and increased provisions for dismantling and handling of nuclear fuel as a result of the decision to close the Krümmel and Brunsbüttel nuclear power plants in Germany (SEK –10.5 billion), and capital gains on sales of operations in 2011 (SEK 4.8 billion). Items affecting comparability for 2010 consisted primarily of impairment of goodwill pertaining to the former Benelux operating segment (SEK –4.3 billion) and impairment of 50Hertz Transmission GmbH (SEK –5.1 billion).

Amounts in SEK million	Full year 2011	Full year 2010	Change, %
Operating profit (EBIT)	**23,209**	**29,853**	**–22.3**
Items affecting comparability	–5,353	–10,099	–52.3
Capital gains	4,780	195	
Capital losses	–58	–444	
Impairment	–11,301	–11,152	
Reversed impairment	386	1,302	
Other items affecting comparability	840	–	
Fair valuation[1]	–2,231	3,114	
Underlying operating profit	**30,793**	**36,838**	**–16.4**

1) Refers to unrealised changes in the fair value of energy derivatives, which according to IAS 39 may not be reported using hedge accounting, and fair valuation of inventories.

Financial items, net

The deterioration of financial items is mainly attributable to impairment of the value of Vattenfall's shareholding in the energy company Enea S.A. (SEK 1.6 billion) and a negative change in the value of derivatives (SEK 1.5 billion) during the fourth quarter. For the full year 2011, an improved return from the Swedish Nuclear Waste Fund (SEK 0.9 billion) and improvement in net interest income (SEK 0.6 billion – mainly refunded interest on tax) had a positive impact on financial items compared with 2010.

Taxes

The tax expense for 2011 decreased by SEK 4.4 billion to SEK 3.9 billion (8.2). The lower tax expense is a result of the considerably lower profit before tax. The effective tax rate was 27.1% (38.5%). Vattenfall's theoretical tax rate is 25.4%. The higher effective tax rate is attributable to nondeductible impairment charges and taxes pertaining to previous years.

Balance sheet

Non-current assets

Non-current assets decreased by 2.5%, mainly attributable to the divestment of operations in Poland and Belgium, among others.

Current assets

Current assets decreased by 4.6%. This is mainly attributable to a decrease in Cash and cash equivalents, and short-term investments, mainly pertaining to payment for an additional 15% of the shares in N.V. Nuon Energy, as planned.

Financial assets, 31 December 2011

Amounts in SEK million	
Cash and cash equivalents, and short-term investments	28,685
Committed credit facilities (unutilised)	42,297
Other credit facilities (unutilised)	2,901

Vattenfall's target is to have no less than 10% of the Group's net sales, but at least the equivalent of the next 90 days' maturities, in the form of liquid assets and/or committed credit facilities. As per 31 December 2011, available liquid assets and/or committed credit facilities amounted to 36% of net sales.

Current and non-current liabilities

Total interest-bearing liabilities decreased by 9.5%, from SEK 188.3 billion to SEK 170.4 billion. Consideration for the remaining 36% of N.V. Nuon Energy (Nuon) is reported as an interest-bearing liability of SEK 30.5 billion to Nuon's shareholders. The remaining consideration will be paid in two tranches during the coming four years (2013 and 2015). Interest-bearing liabilities also include SEK 8.9 billion (8.9) in Hybrid capital, which were issued in June 2005. The rating agencies classify a large part of this Hybrid capital as equity (Moody's 75% and Standard & Poor's 50%).

Further, interest-bearing liabilities include SEK 10.5 billion (10.5) in loans from Vattenfall's minority-owned German nuclear power companies, and SEK 10.2 billion (9.3) in loans from minority owners in Vattenfall's Swedish nuclear power plants, among others. The Group's reported net debt decreased by SEK 3 billion, to SEK 141.1 billion.

Condensed balance sheet[1]

Amounts in SEK million, unless stated otherwise	31 December 2011	31 December 2010	Change, %
Non-current assets	378,443	388,263	–2.5
Current assets	146,115	153,169	–4.6
Total assets	524,558	541,432	–3.1
Equity incl. minority interests	138,931	133,621	–4.0
Non-current liabilities	286,611	278,693	–2.8
Current liabilities	99,016	129,118	–23.3
Total equity and liabilities	524,558	541,432	–3.1

1) See complete balance sheet on page 68.

Net debt, 31 December 2011

Amounts in SEK million	2011	2010
Hybrid capital	–8,883	–8,929
Bond issues, commercial paper and liabilities to credit institutions	–102,234	–110,038
Present value of liabilities pertaining to acquisitions of subsidiaries	–30,472	–43,438
Liabilities to associated companies	–10,521	–10,493
Liabilities to minority owners	–10,240	–9,327
Other liabilities	–8,000	–6,052
Total interest-bearing liabilities	**–170,350**	**–188,277**
Cash and cash equivalents	11,268	12,595
Short-term investments	17,417	31,278
Loans to minority owners in foreign subsidiaries	576	295
Net debt	**–141,089**	**–144,109**

Adjusted gross debt and net debt

When rating agencies and analysts assess a company's credit, they commonly make a number of adjustments of various balance sheet items in order to come up with an adjusted figure for gross debt and net debt. The table at right shows adjusted figures for gross and net debt calculated by Vattenfall, but according to principles applied by analysts in the market. There is no uniform method for such adjustment, however, the calculation can be considered to be conservative.

Adjusted gross debt and net debt, 31 December 2011

Amounts in SEK million	2011	2010
Total interest-bearing liabilities	–170,350	–188,277
50% of Hybrid capital	4,442	4,464
Present value of pension obligations	–22,461	–19,992
Provisions for mining, gas and wind operations and other environment-related provisions	–12,542	–12,760
Provisions for nuclear power (net)	–18,470	–12,794
Currency derivatives for hedges of loans in foreign currency	3,282	2,668
Margin calls received	7,369	5,149
Liabilities to minority owners related to consortium agreements	9,771	8,923
Adjusted gross debt	**–198,959**	**–212,619**
Reported cash and cash equivalents and short-term investments	28,685	43,873
Unavailable liquidity	–5,757	–4,663
Adjusted cash and cash equivalents and short-term investments	**22,928**	**39,210**
Adjusted net debt	**–176,031**	**–173,409**

Equity

The Group's equity increased by SEK 5.3 billion to SEK 138.9 billion. The change in equity is mainly attributable to profit for the year and the dividend, totalling approximately SEK 6.7 billion.

Cash flow

Condensed cash flow statement[1]

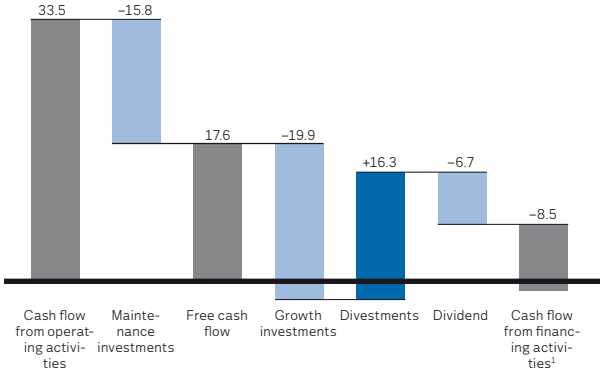
Amounts in SEK million unless indicated otherwise	2011	2010	Change, %
Funds from operations (FFO)	38,256	40,108	–4.6
Cash flow from changes in operating assets and operating liabilities	–4,788	1,123	–
Cash flow from operating activities	33,468	41,231	–18.8
Cash flow from investing activities	–20,802	–34,783	40.2
Cash flow from financing activities	–13,842	–5,147	–
Cash flow for the year	–1,176	1,301	–
Free cash flow[2]	17,637	23,846	–26.0

1) See complete cash flow statement on page 69.

2) Free cash flow = Cash flow from operating activities less maintenance investments.

Factors affecting the change in cash flow

SEK billion



1) Consists of Change in short-term investments (11.3), Loans raised (10.5), Amortisation of debt (acquisitions) (–13.5), Amortisation of other debt (–15.7), Cash and cash equivalents in divested companies (–1.3), and other items (0.2).

Funds from operations (FFO)

Compared with 2010, funds from operations (FFO) decreased by SEK 1.9 billion in 2011. The decrease is mainly attributable to lower production volumes, average lower electricity prices received and lower sales of gas. Lower costs for operations and maintenance, sales and administration, and research and development, and lower paid tax and lower interest expenses had a positive impact.

Changes in operating assets and operating liabilities (working capital)

Working capital decreased by SEK 4.8 billion, which is mainly attributable to an increase in inventories (SEK 3.3 billion) – mainly of oil and gas. Margin calls decreased by SEK 4.2 billion, of which SEK 3.3 billion pertains to a net change in Credit Support Annexes[1] (CSAs) in the trading operation. Cash flow from changes in operating assets and operating liabilities, and realised equity hedge items had a positive effect of SEK 2.7 billion on working capital.

Cash flow from operating activities

Cash flow from operating activities amounted to SEK 33.5 billion, which was SEK 7.8 billion lower than a year earlier.

Cash flow from investing activities

Cash flow from investing activities was SEK –20.8 billion (–34.8). Total investments in 2011 amounted to SEK 35.8 billion (41.8). Divestments during the year gave rise to cash flow of SEK 16.3 billion (7.2), and pertained to the following:

- Vattenfall's 25% interest in the Rostock coal-fired power plant in Germany
- Vattenfall's 21.3% shareholding in the German energy company Energiversorgung Sachsen Ost AG (ENSO)
- Vattenfall's sale of parts of its Swedish engineering consultancy
- Nuon Exploration and Production B.V.
- Helsingør CHP
- Vattenfall's distribution and electricity trading company in Poland, Gornoslaski Zaklad Electroenergetyczny (GZE)

In January 2012, payment was received for:

- Vattenfall's operations in Belgium, comprising Nuon Belgium NV, Nuon Wind Belgium NV and Nuon Power Generation Walloon NV
- Vattenfall's heat operations in Poland, Vattenfall Heat Poland (VHP)
- Vattenfall's distribution and heat business in Finland, which was divested in January 2012

Investments

Amounts in SEK million	2011	2010
Maintenance investments	15,831	17,385
Growth investments	19,919	24,409
– of which, shares	396	1,085
Total investments	**35,750**	**41,794**

Divestments

Amounts in SEK million	2011	2010
Divestments	16,280	7,197
– of which, shares	13,553	5,200

Cash flow from financing activities

Cash flow from financing activities was SEK –13.8 billion (–5.1). The acquisition of an additional 15% of the shares in the subsidiary N.V. Nuon Energy is included in cash flow from financing activities. Loans raised during the year amounted to SEK 10.5 billion. Loan amortisation totalled SEK 15.7 billion.

1) A Credit Support Annex (CSA) is a legal document that sets forth the rules governing the posting of margin calls for derivative transactions. It defines the terms and conditions that apply for the posting of collateral or transfer of funds between two parties to reduce credit risk.

Operating segments

Generation

Amounts in SEK million	Full year 2011	Full year 2010	Change, %
Net sales	123,111	129,882	–5.2
External net sales[1]	59,347	71,567	–17.1
Operating profit (EBIT)	10,545	30,388	–65.3
Items affecting comparability	–9,342	–3,814	144.9
Fair valuation[2]	–2,231	3,114	–
Underlying operating profit	22,118	31,088	–28.9
Sales of heat, TWh	9.9	11.9	–16.8
Electricity generation[3], TWh	148.2	153.9	–3.7
– of which, hydro power	34.5	35.4	–2.5
– of which, nuclear power	42.5	43.6	–2.5
– of which, fossil-based power	70.8	74.7	–5.2
– of which, biomass, waste	0.4	0.2	100.0
External electricity sales, TWh	18.3	18.6	–1.6

1) Excluding intra-Group transactions.

2) Pertains to unrealised changes in the fair value of energy derivatives, which according to IAS 39 may not be reported using hedge accounting, and changes in the fair value of inventories.

3) Of electricity generation 2011, Vattenfall disposed over 132.6 TWh (138.0), while the rest went to the minority part-owners or was deducted as replacement power.

Generation

The Generation operating segment is Vattenfall's interface towards the wholesale market and includes development and building of production assets, generation of electricity and heat, and sales of electricity on the wholesale energy market. The Generation segment comprises three Business Divisions:

- Asset Development
- Production
- Asset Optimisation & Trading

Operations are conducted in Sweden, Denmark, Finland, Germany, the Netherlands and Poland.

The Generation segment includes a total of 17,078 employees (full-time equivalents).

Underlying operating profit

The underlying operating profit fell by SEK 9.0 million, which was mainly attributable to average lower electricity prices received, lower production volumes and increased depreciation.

Items affecting comparability in 2011 amounted to SEK –9.3 billion. These consist mainly of impairment of book value and increased provisions for the dismantling and handling of nuclear fuel as a result of the decision to close the Krümmel and Brunsbüttel nuclear power plants in Germany (for a combined total of SEK –10.5 billion), and capital gains (SEK 0.7 billion). Items affecting comparability in 2010 consisted primarily of impairment of goodwill in the former Benelux operating segment (SEK 4.3 billion).

Electricity generation and sales of heat 2011

Total electricity generation decreased by 3.7% to 148.2 TWh (153.9). Hydro power generation decreased by 2.5% to 34.5 TWh (35.4).

Nuclear power generation decreased by 2.5% to 42.5 TWh (43.6), mainly attributable to the Ringhals nuclear power plant. Availability of the Forsmark nuclear power plant was 86% (72%) in 2011, while availability of Ringhals was 60% (76%) due to extensive audits, modernisation and maintenance work, and an unplanned outage caused by a fire in a water vacuum cleaner at Ringhals unit 2. Nuclear power generation at Forsmark increased by 20.4% to 23.6 TWh (19.6), while nuclear power generation at Ringhals decreased by 21.3% to 18.9 TWh (24.0).

Fossil-based generation decreased by 5.2% to 70.8 TWh (74.7). Electricity generation in Germany based on coal decreased by 1.5% to 12.8 TWh (13.0). The decrease is mainly attributable to the sale of Vattenfall's interest in the Rostock power plant. Fossil-based generation in the Netherlands decreased by 3.1% to 12.4 TWh (12.8) due to operational disruptions at the Hemweg 8, Velsen and Purmerend power stations. Fossil-based generation in Denmark decreased by 36.5% to 4.7 TWh (7.4). The decrease is mainly attributable to the divestment of the Hillerød and Helsingør power stations, extended audits at the Fyn 7 and Nordjylland 3 power station, and a shortage of straw at the Fyn 8 power station.

Sales of heat decreased by 16.8% to 9.9 TWh (11.9) as a result of warmer weather.

Distribution and Sales

Amounts in SEK million	Full year 2011	Full year 2010	Change, %
Net sales	155,299	165,529	–6.2
External net sales[1]	144,575	151,850	–4.8
– of which, Distribution	17,965	17,968	–
– of which, Heat	17,481	19,626	–10.9
Operating profit (EBIT)	11,123	8,340	33.4
– of which, Distribution	5,035	5,906	–14.7
– of which, Heat	4,895	4,388	11.6
Items affecting comparability	627	–86	–
– of which, Distribution	–32	202	–
– of which, Heat	386	–307	–
Underlying operating profit	10,496	8,426	24.6
Sales of gas, TWh	51.6	58.3	–11.5
Sales of heat, TWh	31.7	35.2	–9.9
External sales of electricity, TWh	137.9	135.3	1.9
– of which, private customers	34	34.3	–0.9
– of which, resellers	28.7	27.4	4.7
– of which, business customers	74.8	70.2	6.6
Electricity generation[2], TWh	15.1	16.3	–7.4
– of which, fossil-based power	14.2	15	–5.3
– of which, biomass, waste	0.9	1.3	–30.8
Transited volume, excl. production transiting	118.8	121	–1.8

1) Excluding intra-Group transactions.

2) Of electricity generation in 2011, Vattenfall disposed over 15.1 TWh (16.3), while the rest went to the minority part-owners or was deducted as replacement power.

Distribution and Sales

The Distribution and Sales operating segment and Business Division is responsible for Vattenfall's electricity sales and heat businesses, electricity distribution and other downstream businesses. The Division is responsible for all relationships with Vattenfall's end customers. Operations are conducted in Sweden, Denmark, Finland, Norway, Germany, France, and the Netherlands. The Distribution and Sales segment includes a total of 12,166 employees (full-time equivalents).

Underlying operating profit

The underlying operating profit improved by SEK 2.0 billion. The improvement is mainly attributable to higher profitability for the Sales B2C (Business to Consumers) unit, primarily in Germany and the Netherlands. Lower costs for sales and administration had a positive earnings impact.

Items affecting comparability in 2011 amounted to SEK 0.6 billion and consisted of capital gains on the sale of a property on Spitalerstraße in Hamburg (SEK 0.4 billion) and of Vattenfall's interest in the German energy company ENSO (SEK 0.2 billion), reversed impairment of heating assets in the Netherlands (SEK 0.4 billion), and a provision pertaining to the distribution operations in Germany (SEK –0.3 billion).

Sales of gas, heat and electricity, and electricity generation 2011

Sales of gas to end customers decreased by 11.5% to 51.6 TWh (58.3) as a result of warmer weather. Sales of heat decreased by 9.9% to 31.7 TWh (35.2), mainly in Germany and Sweden, as a result of warmer weather. External sales of electricity increased by 1.9% to 137.9 TWh, of which the largest increase consisted of sales to business customers.

Electricity generation decreased by 7.4%, to 15.1 TWh (16.3), mainly attributable to Germany.

Renewables

Amounts in SEK million	Full year 2011	Full year 2010	Change, %
Net sales	3,131	2,078	50.7
External net sales[1]	1,820	1,040	75.0
Operating profit (EBIT)	496	–1,620	–
Items affecting comparability	36	–1,019	–
Underlying operating profit	460	–601	–
Electricity generation[2], TWh	3.4	2.2	54.5
– of which, wind power	3.4	2.2	54.5
External sales of electricity, TWh	0.3	0.3	–

1) Excluding intra-Group transactions.

2) Of electricity generation in 2011, Vattenfall disposed over 3.4 TWh (2.2), while the rest went to the minority part-owners or was deducted as replacement power.

Other

Amounts in SEK million	Full year 2011	Full year 2010	Change, %
Net sales	7,303	31,482	–76.8
External net sales[1]	983	21,464	–95.4
Operating profit (EBIT)	1,045	–7,255	–114.4
Items affecting comparability	3,326	–5,180	–
Underlying operating profit	–2,281	–2,075	9.9

1) Excluding intra-Group transactions.

Renewables

The Renewables operating segment and Business Division is responsible for capacity development, and operation and maintenance of Vattenfall's renewable energy operations – primarily in wind power and upstream biomass. Operations are conducted in Sweden, Denmark, Germany, the Netherlands, Belgium, the UK and Liberia. The Renewables segment includes a total of 350 employees (full-time equivalents).

Underlying operating profit

The underlying operating profit improved by SEK 1.1 billion. The improvement is mainly attributable to greater wind power generation. Items affecting comparability in 2010 consisted mainly of goodwill impairment attributable to Nuon (SEK –0.8 billion).

Electricity generation 2011

Wind power generation increased by 55% to 3.4 TWh (2.2). The increase is mainly attributable to high availability at all wind farms and favourable wind conditions. However, winds primarily in Denmark and the UK were occasionally too strong, resulting in lower availability and difficulties in servicing offshore wind farms.

Other

"Other" comprises all Staff Functions including Treasury activities and Shared Service Centres. The Dutch company Nuon Exploration & Production B.V. which was divested during the second quarter of 2011, and the German transmission business, which was divested in May 2010, are reported under "Other". "Other" includes a total of 5,091 employees (full-time equivalents).

Underlying operating profit

The underlying operating profit fell by SEK 0.2 billion, which is mainly explained by the 2010 operating profit from 50Hertz Transmission GmbH, which was divested in mid-May 2010. Lower costs for Staff Functions had a positive impact.

Items affecting comparability in 2011 amounted to SEK 3.3 billion and consist of capital gains on part of the sales of Vattenfall's operations in Poland and Belgium, and the sale of Nuon Exploration & Production B.V. during the second quarter of 2011. Items affecting comparability in 2010 consisted of impairment of 50Hertz Transmission GmbH (SEK –5.1 billion).

Other disclosure requirements according to the Swedish Annual Accounts Act

Impact of environmental issues on the Group

Vattenfall's vision is to be a leader in the development of environmentally sustainable energy production. Environmental matters are therefore critical and an integrated part of the company's operations and strategy.

The greatest individual environmental impact from Vattenfall's operations is from the generation of electricity and heat in power plants. Electricity and heat are generated through a range of technologies used for several different types of energy, such as hydro power, nuclear power, wind power, coal power, natural gas and biomass.

Vattenfall's operations have significant environmental impact associated with emissions to the air, uses of water and land, handling of resources, biological diversity and nuclear power safety.

The environmental impact from combustion facilities consists mainly of various types of air emissions. The main environmental impact from Vattenfall's nuclear power operations is associated with the handling of radioactive waste. The main environmental impact from hydro power, wind power, lignite combustion and network activities is water and land use. Other significant environmental impact includes the production of waste and solid residuals, the use of water for cooling at power plants, and the impact of gas production in the North Sea (this latter operation was divested during the year).

Impact of policy instruments and taxes

Economic environmental policy instruments are a factor that have a major impact on Vattenfall's result of operations and financial position. A few examples of such instruments are the EU Emissions Trading System (EU ETS), the fee system for nitrogen oxide emissions in Sweden, trading in the Netherlands in nitrogen oxide emission allowances, and sulphur taxes imposed in certain countries.

The EU ETS cap and trade system is the environmental policy issue that has the greatest impact on Vattenfall's result of operations and financial position in both the short and long term. Most other environmental issues are regulated through operating permits and restrictions. Many more stringent demands are being implemented within the framework of the permit-issuing process in environmental legislation in the respective countries, based on EU directives.

Operations requiring permits

During the year, Vattenfall conducted operations that require permits under national legislation in Sweden, Finland, Denmark, Germany, Poland, the Netherlands, Belgium and the UK. The Parent Company conducts operations that require permits in accordance with the Swedish Environmental Code. These consist primarily of electricity and heat production plants that require permits and/or registration.

Vattenfall's other operations requiring permits in accordance with the Swedish Environmental Code that make up a significant part of the business are conducted primarily by subsidiaries. Several large hydro power plants with associated water regulation facilities, as well as fish farms requiring permits, have been operated since 1 January 2011 through a number of wholly owned subsidiaries. Forsmarks Kraftgrupp AB and Ringhals AB generate electricity in nuclear power plants. SKB (the Swedish Nuclear Fuel and Waste Management Company) operates a repository for low- and medium-level nuclear waste in Forsmark and an intermediate repository for spent fuel in Oskarshamn. The Group also conducts network operations for distribution of electricity under concessions granted to Swedish subsidiaries.

Research and development (R&D) at Vattenfall

The R&D Projects Business Unit of BD Asset Development is responsible for all of Vattenfall's research and development (R&D) activities. The Group's R&D expenditure in 2011 was approximately 0.6% (0.7%) of consolidated net sales. This share has decreased but is still considered to be reasonable considering that Vattenfall is a technology-using, rather than product-developing company.

R&D is an integrated part of Vattenfall's operations and supports the company's strategy and investment plan. The main purpose of Vattenfall's R&D work is to improve the business activities in both the near and long term. As part of Vattenfall's strategy, a review of R&D projects was carried out which led to greater focus on Vattenfall's existing production portfolio along with efficiency improvements and reductions in CO_2 emissions from existing plants.

Vattenfall spent a total of SEK 1,099 million (1,545) on R&D in 2011. Of this, SEK 210 million (371) pertained to Vattenfall's share of the work on developing a safe and approved method for final storage of spent nuclear fuel, which is conducted by the subsidiary SKB.

The R&D portfolio is designed to support the current shift in Vattenfall's generation mix. For example, offshore wind power projects are aimed at lowering the risks associated with the very extensive investments that are planned in this area. During the year, Vattenfall continued its work on increasing the flexibility of existing heat and hydro power plants. Together with the development of smart grids, this gives Vattenfall better conditions to meet the adaptation to a growing share of intermittent power generation from wind, for example.

Reducing CO_2 exposure in Vattenfall's production portfolio is another driver of R&D work. R&D activities surrounding biomass and gas are lending support to Vattenfall's investments in these areas.

R&D in the area of carbon capture and storage (CCS) has decreased dramatically, as investments in commercial-scale CCS plants have been pushed forward into the future, and the focus has now been narrowed to carbon dioxide storage. Hopefully, the long development horizon for CCS and storage tests on an R&D scale will facilitate the public dialogue and lead to greater acceptance of storage among the general public in time for future investments.

Vattenfall is participating in a large number of collaboration projects funded within the EU's Seventh Framework Programme (FP7). Vattenfall is also a partner in the European KIC InnoEnergy initiative. Active participation in EU-funded research projects gives Vattenfall access to expertise and research institutions throughout Europe. Vattenall also participates in a large number of university collaborations.

Vattenfall continuously evaluates new technologies that have not yet been commercialised and makes assessments about which technologies should be supported and further developed.

Examples of R&D projects conducted in 2011:

Smart grids

Dynamic upgrades of existing power lines

The energy system of the future must be able to integrate a larger share of electricity generated by intermittent sources, such as wind power, without being unstable. One research project has studied possible upgrades of the grid by using the cooling effect of wind on power lines. The project has shown that there is a large share of unutilised capacity in the grid that can be used to transport large volumes of electricity if the wind's cooling effect on overhead power lines is taken into account. New investments in overhead power lines can thereby be avoided or pushed forward in time, despite the fact that the share of electricity from wind power is steadily increasing.

Improved measurements of delivery quality to electricity network customers
By monitoring delivery quality in real time, it is possible to discover power outages, abnormal current levels or if circuit breakers have been tripped at individual customers. This allows Vattenfall to act faster and solve customers' problems, which leads to lower compensation for power outages.

CCS

Demonstration of CO_2 storage
A total of 1,500 tonnes of carbon dioxide have been delivered from the oxyfuel pilot plant in Schwarze Pumpe, Germany, for injection in the test facility for carbon dioxide storage at Ketzin in Brandenburg, Germany. A secondary purpose of this project is to promote greater long-term acceptance and knowledge about CCS technology among the public.

Fossil fuels and biomass

Development of pressurised drying of lignite
Burning dried lignite is more efficient due to considerably lower water content. The technology results in potential efficiency increases of 1%–2% in existing lignite-fired power plants. Availability of the lignite-drying pilot plant in Schwarze Pumpe has increased to more than 90%, compared with the original level of 60%. Three months' continuous operation has been achieved. Attaining higher fuel efficiency is an important step towards making lignite-fired power plants more efficient.

Evaluation of refined wood pellets
A research project involving co-firing of refined wood pellets has been concluded with favourable results and is currently being evaluated. The test results have been used to build a database for biomass-related investments in support of Vattenfall's strategy to reduce its CO_2 exposure.

Wind

Reduction of ice formation on the blades of wind turbines
Ice formation on the blades of wind turbines poses a significant risk to wind farms in cold climates. During the 2011 winter season, measurements were taken of ice formation which have yielded results and insight into the problem. The project is continuing into the 2012 winter months.

Wave energy

Investment in wave power outside the Shetland Islands
A permit has been granted to develop to develop an area outside the Shetland Islands for wave power. Vattenfall has begun environmental studies and an evaluation of the area by installing two test buoys. Vattenfall has also entered into a co-operation agreement with the local authorities in the Shetland Islands to develop wave power together.

Human Resources

Talent management

Talent management at Vattenfall aims at securing succession and high performance of managers at various levels in the Group.

In addition, Vattenfall works strategically with competence planning to ensure that the company has access to the competence needed for its operations. The annual strategic competence planning process is mandatory throughout the organisation and links business plans with future competency needs. Vattenfall takes an active role in initiating and participating in initiatives aiming at securing future availability of competence.

As a consequence of Vattenfall's new business-led organisation, leadership has gone from being geographically structured to a hierarchy based on the business operations. Leadership is defined at Vattenfall as leading people, leading operations and being clear, visible and showing courage. These three leadership qualities set the tone for the leadership that Vattenfall wants.

Vattenfall's leadership programme, which is open to all managers within the Group, gives the company the ability to work with the Group's strategy and core values while promoting a shared understanding of Vattenfall's business and leadership criteria.

Co-determination

The right to co-determination is regulated primarily at the country level and is based on the respective countries' labour market laws. In all Business Divisions and at the Group level, Vattenfall works with employee representatives and local unions. At the Group level this work is conducted primarily via the European Works Council (EWC–Vattenfall). Collective bargaining agreements are entered into locally in the respective countries as needed.

Parent Company

Sales amounted to SEK 31,655 million (36,538). Profit before appropriations and tax amounted to SEK 16,448 million (31,236).

In 2011 Vattenfall's Polish electricity distribution, network services and electricity sales operation – Gornoslaski Zakland Electroenergetyczny S.A. (GZE) – and Vattenfall's electricity and heat production operation in Warsaw, Poland – Vattenfall Heat Poland S.A. – were divested. Capital gains from these sales amounted to SEK 2.3 billion and SEK 1.1 billion, respectively. Aside from these, Vattenfall AB recognised a capital loss of approximately SEK 3 billion from the sale of all hydro power assets to newly formed subsidiaries. On 1 January 2011, the sales were conducted at residual tax values. In connection with these sales, Vattenfall AB dissolved untaxed reserves (accelerated depreciation) with a value of SEK 4.3 billion.

In 2011 Vattenfall AB repaid part of its liability to Nuon's shareholders, for which the Parent Company has recognised a realised foreign exchange gain in the income statement of slightly more than SEK 2 billion.

During the year, the shareholding in the Polish company Enea S.A. was impaired by SEK 1.6 billion.

In other respects, the decrease in earnings compared with the preceding year is attributable to lower dividends from subsidiaries. The balance sheet total was SEK 323,251 million (341,722). Investments for the year amounted to SEK 755 million (2,286). Cash and cash equivalents and short-term investments amounted to SEK 19,104 million (34,222).

Events after the balance sheet date

Divestments after the balance sheet date, 31 December 2011

On 16 December 2011 Vattenfall announced that it had signed an agreement with LNI Acquisition Oy – a consortium of the companies 3i Infrastructure plc, 3i Group plc, GS Infrastructure Partners and Ilmarinen Mutual Pension Insurance Company – on the sale of Vattenfall's electricity distribution and heat businesses in Finland. Vattenfall will retain ownership of its electricity sales organisation and its hydro power operations in Finland. The sales price was based on an enterprise value of EUR 1.54 billion (approximately SEK 14 billion). The transaction was completed on 10 January 2012.

Corporate governance report

The following pages include information on corporate governance at Vattenfall during the 2011 financial year in accordance with the Swedish Code of Corporate Governance. Vattenfall's Articles of Association, previous corporate governance reports and material from the most recent general meetings are available on Vattenfall's website, www.vattenfall.com, "Corporate Governance", where links are also provided to the Swedish state's ownership policy and the Swedish Code of Corporate Governance.

The Parent Company of the Vattenfall Group, Vattenfall AB, is a Swedish public limited liability company with registered office in Stockholm. The Swedish Companies Act thus applies for Vattenfall AB.

Important internal and external rules and regulations

Corporate governance in the Group is based on:

External rules and regulations:

- Swedish and foreign legal rules, particularly the Swedish Companies Act and the Swedish Annual Accounts Act
- The Swedish state's ownership policy and other owner directives
- The Swedish Code of Corporate Governance ("the Code")

Internal rules and regulations:

- The Articles of Association
- The Board's Rules of Procedure, including the CEO instruction and instruction on reporting to the Board of Directors
- Internal documents – particularly the Vattenfall Management System (VMS), which includes the company's Code of Conduct and instructions on roles and responsibilities, and on the delegation of authority

Vattenfall also adheres to the stipulations that apply for companies registered on Nasdaq OMX Stockholm, Sweden, as well as in the other marketplaces in which Vattenfall has securities registered.

Vattenfall is 100%-owned by the Swedish state, and thus certain stipulations of the Code are not applicable for Vattenfall. See the deviations from the Code below.

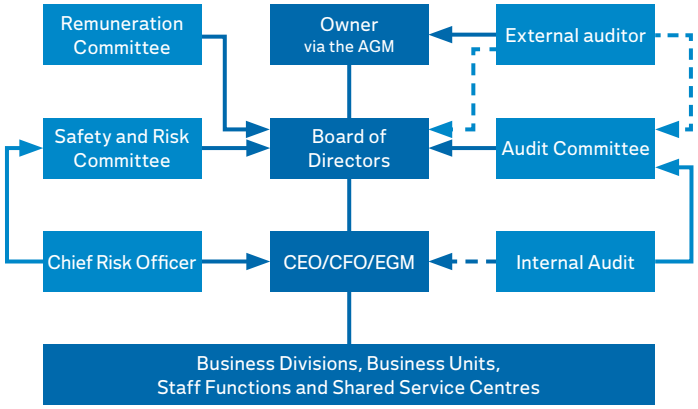
Annual General Meeting

Under Swedish law, the Annual General Meeting (AGM) of Vattenfall AB shall be held within six months after the end of each financial year. The AGM elects the Board of Directors and auditors (based on the recommendations of the owner), adopts the income statement and balance sheet, grants discharge from liability and deals with other matters of business that are incumbent upon the AGM pursuant to the Swedish Companies Act or the company's Articles of Association.

Vattenfall's Annual General Meeting was held on 27 April 2011, in Stockholm. The AGM adopted the annual report and consolidated financial statements for 2010 submitted by the Board of Directors and CEO, resolved to distribute the company's profit and discharged the members of the Board and the CEO from liability. The Board reported on compliance with applicable guidelines for remuneration of senior executives, after which the AGM adopted updated guidelines in accordance with previously applicable principles. The AGM also resolved to make minor amendments to the Articles of Association with respect to election of directors and auditors, notices of general meetings and the right of outside parties to participate at general meetings.

As in previous years, the meeting was open to the public,

Governance and reporting structure



Deviations from the Code

Vattenfall's corporate governance for the 2011 financial year deviates from the requirements stipulated in the Swedish Code of Corporate Governance on the following points. The stipulations that are not applicable for Vattenfall on account of the company's ownership structure are addressed in more detail in the main text.

Code requirement	Description	Chosen solution and justification
1.4 Chairman to preside over the Annual General Meeting	The nomination committee shall propose a person to serve as AGM chairman.	Due to its ownership structure, Vattenfall has no nomination committee. Election of an AGM chairman is instead done at the AGM in accordance with the stipulations of the Swedish Companies Act. This is also in line with the Swedish state's ownership policy.
2. Nomination committee	The company shall have a nomination committee.	Due to its ownership structure, Vattenfall has no nomination committee. The nomination process for the Board of Directors and auditors is instead conducted in accordance with the Swedish state's ownership policy. Thus the references to the nomination committee in points 1.3, 1.4, 4.6, 8.1 and 10.2 are not applicable either. However, information on the nomination of board members for new election or re-election is posted on the website in accordance with point 2.6.

and an open Q&A session was arranged, in accordance with the Swedish state's ownership policy. Members of Parliament were given the right to ask questions, as stipulated in Vattenfall's Articles of Association. The meeting was aired live via webcast. A recorded version of the AGM can be viewed on www.vattenfall.se, along with the minutes and other material, under "Bolagsstyrning".

Extraordinary General Meeting

Vattenfall held an Extraordinary General Meeting on 14 June 2011. At this meeting, Lars G. Nordström was elected as new Chairman of the Board, succeeding Björn Savén, who submitted his resignation on the same day. Christer Bådholm, a current director on the Board, was elected as Deputy Chairman. In addition, the directors' fees were set. The Extraordinary General Meeting was aired live via webcast. A recorded version can be viewed on www.vattenfall.se, along with the minutes, under "Bolagsstyrning".

The Board's composition

Appointment of the Board

For enterprises that are wholly owned by the Swedish state, uniform and joint principles for a structured nomination process are applied, which take the place of the Code's rules on drafting work for decisions on the nomination of board members and auditors.

According to these principles, the process for nominating directors is co-ordinated by the State Enterprises Division of the Ministry of Finance. A work group analyses competency needs based on the company's operations, situation and future challenges, as well as the board's composition. Thereafter, any recruitment needs are determined and recruitment work is initiated. Board members are chosen from a broad recruitment pool in the aim of benefiting from the expertise of women and men as well as of individuals with varying backgrounds and experience. Once this process has been completed, any nominations are to be publicly announced in accordance with the Code; however, no report is made on the directors' independence with respect to the state as a major shareholder. Vattenfall provides orientation training for new directors who are elected by the AGM.

Additional stipulations on the nomination of board members are set forth in the Swedish state's ownership policy, which is published in the annual report for state-owned companies, issued by the Swedish Government Offices.

Board members

Vattenfall's Articles of Association stipulate that the Board – apart from the employee representatives – shall have a minimum of five and a maximum of ten directors without deputies. The board members are elected yearly by the General meeting. The Chairman of the Board shall be elected by the General Meeting.

In 2011, through 18 March, Vattenfall's board was made up of seven AGM-elected directors, with Lars Westerberg as Chairman of the Board. For the time between 18 March and the Annual General Meeting, the Board was made up of six AGM-elected directors, whereby Björn Savén – by order of the Board of Directors – served as interim Chairman and Deputy Chairman of Vattenfall. For the period after the AGM, the Board was made up of eight AGM-elected directors until 20 December, after which the Board had seven members. Björn Savén was Chairman of the Board from the AGM until the Extraordinary General Meeting that was held on 14 June. For the time thereafter, Lars G. Nordström was Chairman of the Board, and Christer Bådholm was Deputy Chairman.

By law, the unions are entitled to appoint three board members plus three deputies, and they have exercised this right. No members of the Executive Group Management (EGM) are directors on the Board. Four board members (three as from 20 December) and one deputy are women. Two board members are foreign citizens. The average age of board members in 2011 was 55, based on the Board's composition after 14 June.

The work of the Board

The Board's duties

The matters reserved for the Board are prescribed primarily by the Swedish Companies Act and the Board's Rules of Procedure. The main duties of the Board, apart from appointing the President and CEO, the deputy CEO and company signatories, are:

- to set Vattenfall's strategy;
- to ensure that Vattenfall has effective management and to monitor and control the Executive Group Management's organisation and administration;
- to ensure that Vattenfall has good internal control and stays continuously informed about and evaluates how the systems of internal control work;
- to continuously assess Vattenfall's financial situation;
- to ensure that the organisation of Vattenfall's bookkeeping and treasury management include means of maintaining satisfactory control; and
- to continuously oversee the extent to which the CEO is fulfilling his responsibility for the day-to-day administration.

In addition, the Board shall approve major investments, acquisitions and divestments, and set central policies and instructions. The Board's duties pertain to Vattenfall AB as well as to the Vattenfall Group.

The Board decides on the entry into contracts and renegotiation of contracts between Vattenfall AB and the CEO, the Deputy CEO and other persons in the Group whom the AGM has defined as senior executives. A clarification of this purport was added to the Board's Rules of Procedure in 2011. In addition, the Board shall approve significant assignments that the CEO has outside of Vattenfall AB and the Group.

Each year the Board establishes its Rules of Procedure. Apart from mandatory items stipulated by the Swedish Companies Act, the Rules of Procedure regulate such matters as the Chairman's duties, information provided to the Board, the form of board meetings, the establishment of board committees, and evaluation of the work of the Board and the CEO.

The Chairman leads the work of the Board and is responsible for ensuring that other board members receive adequate information.

Assuring the quality of financial reporting

In the section on internal control (see page 49), the Board has reported on the company's internal control structure for the financial reporting routines. The Audit Committee's work is a part of this control exercised by the Board. At all regular Audit Committee meetings held in 2011, external and internal auditors reported their observations concerning the full-year and half-year book closing, among other things. In conjunction with the planning work for the annual audit, discussions are held between the external auditors and the internal audit unit concerning Vattenfall's risk situation.

The Board's risk management process

Vattenfall's Chief Risk Officer (CRO) is responsible for organising risk management within the Group. The CRO is responsible for this organisation at the Group level and is responsible for providing information to the Safety and Risk Committee, and the Audit Committee.

The Board sets the overall risk mandates for the Group in the areas of energy and commodity trading, as well as for financial, insurance and credit risks. At each meeting, the Board receives information about the Group's financial position. The Board also holds an annual risk management seminar at which a more in-depth review is made of the Group's financial and operational risks.

For a more detailed description of Vattenfall's risks and risk management, see pages 57–65.

Board meetings

The Board's Rules of Procedure stipulate that eight to twelve regular meetings are to be held each year. In addition to the regular meetings, the Board is summoned to further meetings if the need arises. The Rules of Procedure stipulate that the following items, among others, are to be included on the agenda once a year:

- The Group's business and communication plan, financial plan and investment plan
- The Group's total risk exposure
- Review of strategic personnel issues, including competence succession
- The Group's research and development activities

In addition, a report is presented at every regular meeting on the following:

- Important business events since the previous meeting
- The financing situation
- Safety at the Group's nuclear power plants
- Updates regarding acquisitions and divestments

Investments are followed up and analysed by the Board three years after they have been decided on by the Board. The Board also holds a number of board seminars every year. At these seminars the Board receives more detailed information about and discusses Vattenfall's long-term development, strategy, competitive scenario and risk management.

The Board met 19 times in 2011, including two statutory meetings. A quorum existed at all meetings. According to the Rules of Procedure, at least one meeting every year is to be held at another location than the head offices. In 2011 a meeting was held in Berlin, which was combined with a visit to operations in the area.

In addition to the items of business prescribed for a board decision by the Rules of Procedure, in 2011 the Board dealt with and decided on the following matters:

- Recommendations, implementation and follow-up of guidelines for remuneration and other terms of employment for senior executives
- The decision-making process and drafting of matters for consideration by the Board
- Divestments of non-core operations
- The consequences of political decisions on the closure of nuclear power operations in Germany
- Matters in connection with the implementation of the new strategic direction, organisation and business model for the entire Group, and in connection with this, an update of the Vattenfall Management System

Evaluation of the Board's and CEO's work

The Board evaluates its own work and the CEO's work once a year through a systematic and structured process in the aim of developing the Board's work forms and effectiveness. This evaluation is conducted under the direction of the Chairman and is reported to the Board. The most recent evaluation was presented at the board meeting on 13 December 2011.

Board committees

The Board has established within itself an audit committee, a remuneration committee, and in 2011 a newly formed safety and risk committee, along with rules of procedure for these committees. For each committee, the Board has appointed three AGM-elected directors to serve as members, of whom one is to serve as committee chair. In addition, the Board can, where necessary, establish other committees to look into matters in more defined areas. In other respects, the Board shall not delegate any special areas of responsibility or duties among its members.

All committees report their work to the Board in accordance with a procedure whereby the committee chair submits a report at the next regularly scheduled board meeting and by providing the Board with minutes of committee meetings at the next regularly scheduled board meeting. Except for certain matters conducted by the Audit Committee, the committees are only drafting bodies.

Audit Committee

The Audit Committee is a board committee that is tasked with the following duties, among others:

a) Conducting drafting work for the Board's work on monitoring and quality assuring Vattenfall AB's financial reporting and internal control
b) Meeting with external and internal auditors on a regular basis to stay informed about the planning, direction and scope of the audit, and discussing co-ordination between the external and internal audit, and views of the company's risks
c) Discussing important issues in the annual report and interim reports prior to being addressed by the Board, and staying informed about the audit of the annual report and consolidated financial statements
d) Assisting the Board in preparation of a recommendation for decision by the Annual General Meeting on election of the auditor and on auditors' fees
e) Conducting an annual evaluation of the external auditors' work, including a review and supervision of the auditors' impartiality and independence
f) Setting guidelines for determining the suitability of other services than auditing that Vattenfall AB and the Group may procure from the company's external auditors
g) Approving the budget for the Vattenfall Group's internal audit and approving the Internal Audit Charter, which regulates the work of internal audit

The CFO and the Head of Internal Audit serve in a reporting role at Audit Committee meetings. The company's external auditors attend all regular meetings and report their observations regarding the audit. Until the time that the Safety and Risk Committee was established, the Chief Risk Officer (CRO) reported on risk management issues at every meeting of the Audit Committee.

The Board of Directors authorised the Audit Committee to – on behalf of the Board – approve the quarterly report for the first quarter of 2011. In addition to this authorisation, the Audit Committee has the right to approve the budget for the Vattenfall Group's internal audit, the Internal Audit Charter, and to approve guidelines for procuring other services than auditing from the auditors. In other respects, the committee serves only in a drafting function and has no decision-making right.

Remuneration Committee

The Board has established a remuneration committee that is tasked with the following, main duties:

a) Serve as a drafting body in ensuring implementation and compliance with the guidelines for terms of employment for senior executives that have been adopted by the Annual General Meeting
b) Conduct drafting work for the Board's proposal to the 2012 Annual General Meeting on principles for remuneration of senior executives
c) Conduct drafting work on matters related to the entering into new contracts and renegotiation of existing contracts with senior executives ahead of decisions by the Board
d) Where applicable, to conduct drafting work for any special reasons that may exist in an individual case to deviate from the guidelines
e) Review the Board's report on compensation of senior executives, monitor and follow up the auditors' review, and inform the Board about such

Safety and Risk Committee

The Board has established a safety and risk committee, which is tasked with the following, main duties:

a) Conduct drafting for the Board's work on monitoring and quality-assuring safety and risk work within the Vattenfall

Group with respect to financial and non-financial risks, including the focus areas nuclear power safety, dam safety and the environment
b) Conduct an annual review and, when the committee deems it suitable, provide suggestions on the Group's strategy, management, guidelines and instructions concerning the safety and risk matters described above
c) Monitor and review development of the Group's overall framework for management and control of safety and risk issues
d) Review and make recommendations regarding risk appetite and risk exposure within the Group

The Chief Risk Officer (CRO) serves in a reporting role on the Safety and Risk Committee.

The Safety and Risk Committee was first established after the 2011 Annual General Meeting and has taken over some of the Audit Committee's previous duties regarding risk reporting.

Guidelines for compensation of the Board

Directors' fees and fees for committee work are set by the AGM, based on the Swedish state's ownership policy. For information on directors' fees in 2011, see Note 50 to the consolidated accounts.

Guidelines for remuneration to senior executives

AGM resolution on guidelines

The 2011 AGM resolved that, on the issue of compensation and other terms of employment for senior executives, Vattenfall AB shall apply the principles adopted by the government in its "Guidelines for terms of employment for senior executives of state-owned companies".

The government's guidelines pertain to companies in which the state, through its ownership, has control, such as by owning more than 50% of the votes. Such companies shall apply the government's guidelines in their subsidiaries. By subsidiary is meant in the guidelines such legal entities referred to in Ch. 1 § 11 of the Companies Act (2005:551).

The 2011 AGM also approved Vattenfall's deviation from application of the government's guidelines in Vattenfall's subsidiaries, insomuch as the definition of senior executives in these subsidiaries is limited to individuals that have a significant influence on the Group's earnings and not only that they have a senior role in the subsidiary in question in accordance with the definition in the Companies Act. Thus through use of the International Position Evaluation (IPE) model, managers with positions of IPE 68 and higher shall be considered to be senior.

Ahead of the AGM's resolution in 2011, the Board issued a reasoned explanation for the deviation from the government's guidelines with respect to how these shall be applied in Vattenfall's subsidiaries. The Board's explanation ahead of the AGM's resolution in 2011 is presented in its entirety in the 2010 Annual Report. The proposed guidelines ahead of the 2012 AGM are provided on page 56.

Implementation of the guidelines

According to the AGM's definition, a total of 18 persons excluding the CEO were covered by the stipulations on contracts with senior executives in 2011. Remuneration for these individuals is shown in Note 50 to the consolidated accounts.

Against the background of the attention that arose in spring 2011 on executive compensation, Vattenfall has – by order of the Board of Directors – taken an inventory of contracts for these senior executives and 228 senior managers.

Vattenfall has identified the following four areas for action:

- A clearer decision-making structure has been adopted regarding terms of employment and remuneration of senior executives and senior managers, with a clear division of roles for the Board, the Remuneration Committee and the CEO.
- Remuneration and terms of employment for senior executives that deviate from the guidelines have been renegotiated to the extent allowed by law and collective agreements.
- Stipulations on notice periods and severance pay for fixed-term contracts will be added in connection with contract extensions and for new hires of all senior managers, including the Group's senior executives.
- Processes for remuneration and terms of employment have been centralised, and joint principles for salaries and benefits have been drawn up.

The inventorying and actions taken within Vattenfall have been reported on a regular basis to the Remuneration Committee and the Board. Compliance with the adopted guidelines is described in more detail in Note 50.

Auditors

The Swedish state's ownership policy states that the owner is responsible for the election of auditors and that the auditors are to be elected at the Annual General Meeting. According to Vattenfall's Articles of Association, the company shall have one or two auditors with or without one or two deputy auditors, or an auditing firm as auditor.

The 2008 Annual General Meeting re-elected the auditing firm Ernst & Young AB as auditor, with Authorised Public Accountant Hamish Mabon as auditor-in-charge. In accordance with the stipulations of the Swedish Companies Act at the time, this election applies for a term until the 2012 AGM. Apart from his assignment for Vattenfall, Hamish Mabon is auditor of Hexagon AB, Dustin AB, Ålö AB and Ambea AB, among others.

In accordance with the Act on Auditing of State Activities, etc., the Swedish National Audit Office may appoint one or more auditors to participate in the annual audit. Up until the 2011 AGM, Authorised Public Accountant Per Redemo was appointed in accordance with this law, with Authorised Public Accountant Göran Selander as deputy. For the time thereafter, the Swedish National Audit Office has not appointed any auditor for Vattenfall.

None of the auditors has assignments for companies that affect their independence as an auditor of Vattenfall.

The auditors reported on their audit of the year-end book-closing to the entire board at the board meeting on 9 March 2011, and also reported on their remarks at the board meeting on 13 December 2011. In connection with the report on 9 March 2011, the Board also had the opportunity to meet the auditors without the presence of the CEO or other member of the Executive Group Management. The auditors also provided more detailed reports at meetings of the Audit Committee. In addition, the auditors meet Vattenfall's CEO and CFO on numerous occasions during the year.

The Audit Committee has approved guidelines for how procurement of other services than auditing shall take place. These guidelines apply for all of the Group's external auditors. In cases where more extensive consulting activities are to be performed by the elected auditors, the assignment must first be discussed and approved by the Audit Committee or CFO. The Group's auditing costs are described in more detail in Note 53 to the consolidated accounts and Note 39 to the Parent Company accounts. Consulting provided by Ernst & Young AB from 2009 to 2011 pertained primarily to taxation and accounting issues, as well as to special matters in connection with the divestment of subsidiaries that are no longer regarded as core businesses.

In 2011 Vattenfall conducted a Group-wide procurement process for its auditor for election by the 2012 AGM. From now on, the intention is that the auditors will be elected at every AGM, in accordance with the main rule that now applies

in the Swedish Companies Act and the Swedish state's current ownership policy.

Internal governance

Core values and vision

Vattenfall's core values are Safety, Performance and Co-operation.

Vattenfall's vision is to develop a sustainable, diversified European energy portfolio with long-term increased profits and significant growth opportunities. At the same time, Vattenfall will be among the leaders in developing environmentally sustainable energy production.

Guiding business ethics

Vattenfall's Group-wide Code of Conduct stipulates that all employees shall adhere to and work in accordance with Vattenfall's core values, policies and instructions. The stipulations of the Code of Conduct are concretised in other parts of the Vattenfall Management System.

Vattenfall has had a Group-wide whistleblowing function in place since 2010, with locally appointed external ombudsmen (advocates) to whom employees, consultants and contractors can turn to report suspected, serious improprieties that the whistleblower for some reason does not want to report internally via the normal reporting channels. Further initiatives for ensuring internal regulatory compliance were taken in 2011.

Additional information on guiding business ethics is provided in Vattenfall's Corporate Social Responsibility Report.

Strategic direction

The new strategic direction adopted by the Board in 2010 entails greater focus on profitability and value creation, focus on the core markets (Sweden, Germany and the Netherlands) and the three main products – electricity, heat and gas – reduced CO_2 exposure, and growth in low CO_2-emitting energy production and in gas. Vattenfall is thereby aiming to be among the leaders in developing environmentally sustainable energy production. The decision entails that Vattenfall will continue to be an integrated, European company with a diversified energy portfolio.

New organisational structure

Effective 1 January 2011, a new, business-led organisational structure has been implemented for the Vattenfall Group. The new structure consists of a function-based organisation that is divided into three operating segments (five cross-border Business Divisions) and further into Business Units. It has replaced the organisational structure that was broken down mainly according to the value chain in the various geographic regions.

The extensive project of preparing for the implementation of the new organisation continued until the second quarter of 2011 and focused particularly on organisational matters and governance, finance, human resources, functional area, shared services, systems, and the actual transition to the new organisational structure.

CEO and Executive Group Management

The President, who is also CEO of the Vattenfall Group, is responsible for the day-to-day administration in accordance with the Swedish Companies Act. The CEO has appointed decision-making bodies for the Group and makes decisions independently or with the support of these decision-making bodies. The most important of these decision-making bodies is the Executive Group Management (EGM) and the Vattenfall Risk Committee (VRC).

The Executive Group Management focuses on the Group's overall direction and decides – within the framework of the CEO's mandate from the Board of Directors – on matters of importance for the Group, such as certain investments. Information on the members of the Executive Group Management is provided on pages 54–55.

Vattenfall's Risk Committee is tasked with, among other things, setting the organisation's risk appetite, making decisions related to risk mandates and credit limits, and exercising oversight of the risk framework.

Organisation

Vattenfall's governance relies on transparency in responsibility and results.

The governance model rests on a business-led structure that is based on the value chain for electricity and heat (production, distribution and sales). The functional areas are centralised and co-ordinated for the entire Vattenfall Group. Operations have three building blocks:

a) Business activities, broken down into three operating segments, which comprise five cross-border Business Divisions which are further structured into Business Units. The Generation segment comprises three Business Divisions: Asset Development, Production, and Asset Optimisation and Trading. The Distribution and Sales segment consists of Business Division Distribution and Sales, and the Renewables segment consists of Business Division Renewables.
b) Functional areas, organised Staff Functions, which lead, manage and support the business activities. The Staff Functions are managed as cost centres.
c) A Shared Services function, which provides services for supporting the internal users in the optimisation of their operations. A Shared Service function is managed with the purpose of promoting efficiency and capitalising on economies of scale. From a management perspective, the Shared Service function is a cost centre, but they use market prices for their transactions.

Vattenfall's Business Divisions have full responsibility for management of their business activities, which are conducted in Business Units. In a similar manner, each function area has authority and responsibility within the entire Vattenfall Group. The areas of responsibility are regulated in the VMS (see below), which lays out the limits for this responsibility, especially with respect to specific areas, amounts and risk mandates.

Planning and processes

The framework for governance at the management level is based on four Corporate Governance Processes:

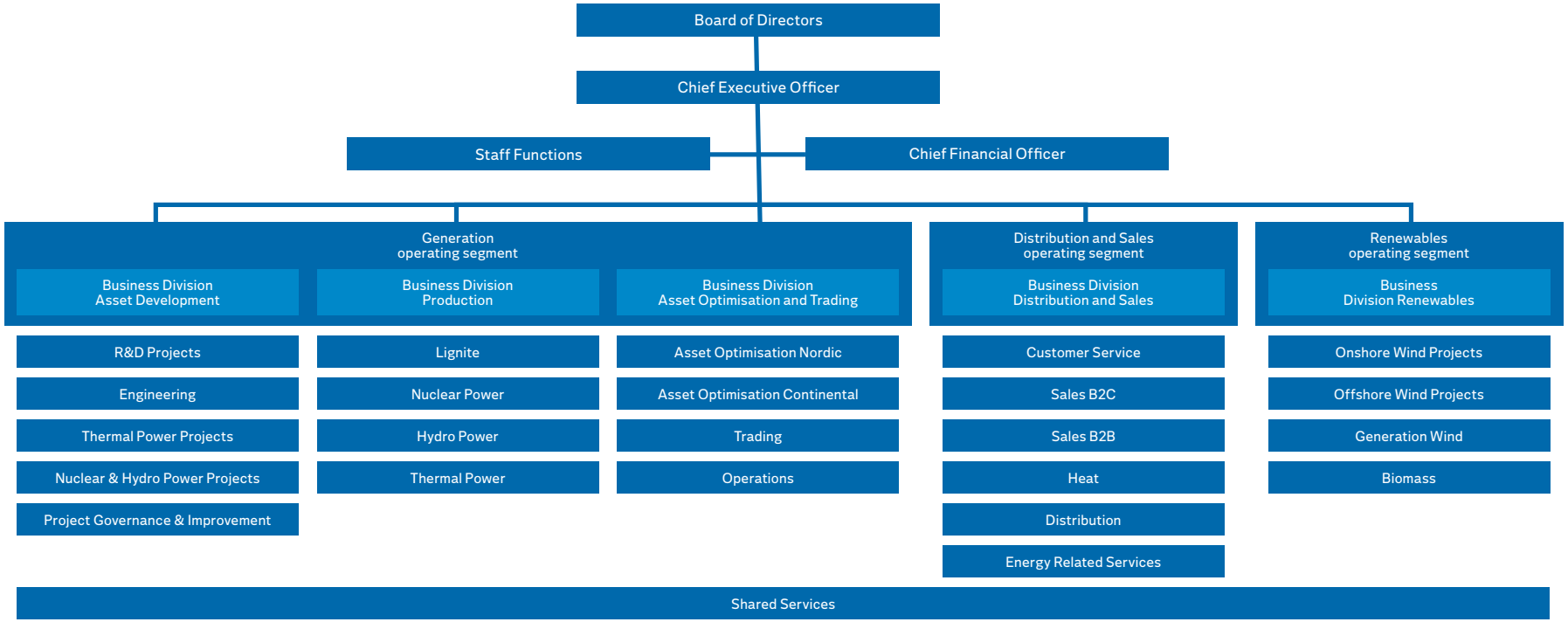
- The strategic development process
- The business planning and follow-up process
- The CEO decision-making process
- The Enterprise Risk Management (ERM) process

The planning consists of several parts of a process during the year that culminates in the one-year business plan. The four elements that are governed centrally are:

- The Group's strategic plan, which includes the Group Strategic Direction (GSD) and which is drawn up with the support of the operations. The strategic plan contributes to the content of the one-year business plan.
- The Group's investment plan, which includes the comprehensive investment plan for all Business Divisions during the coming five-year period. This is then adjusted at the management level.
- The Group's five-year financial forecast, which is the starting point for the five-year financial model for the Group, which is updated continuously.
- The Group's one-year business plan, which includes the financial forecast for the coming year, which is transformed into budgets containing descriptions of activities.

The GSD is approved by the Board in mid-September. All other aspects of the planning are approved in a co-ordinated fashion by the Board at the end of the year.

Vattenfall's organisational structure



Vattenfall Management System (VMS)

The Vattenfall Management System is the framework that ensures that Vattenfall's governance adheres to formal requirements as well as to requirements from the business operations and the staff functions. The VMS is documented in binding governance documents. These consist of policies, instructions and process documents on three different levels: corporate level, functional level and business level. Certain central documents have been approved by the Board of Vattenfall AB. The Quality function in the CEO Office is responsible for the VMS.

The VMS is an integrated management system that applies for the entire Vattenfall Group, along with the limitations that may arise from legal requirements, such as regarding the unbundling of the electricity distribution business. It is accessible for all employees on Vattenfall's intranet. Integrated with the VMS is an Environmental Management System.

The VMS was updated in 2011. The main objective was to adapt the system to the new organisation, starting with Group-wide stipulations for roles and areas of responsibility, decision-making and delegation of authority within the Group. Integration of the previous national management system in a Group-wide system was another objective.

Special routines are in place to ensure that the management system is also applied by subsidiaries. With respect to the German subsidiaries, since June 2008 a special agreement (Beherrschungsvertrag) has been in place between Vattenfall AB and the German holding company, Vattenfall Europe AG. Under this agreement, the board (Vorstand) of the holding company is subordinate to Vattenfall AB, and Vattenfall AB has the right to issue directives regarding governance.

Internal control of the financial reporting

This report has been prepared in accordance with the Swedish Code of Corporate Governance. Further information related to internal control is provided in the section "Risks and risk management" on pages 57–65.

Control environment

The formal decision-making structure in the Group is based on the division of responsibility between the Board and CEO, which is set forth in the Board's Rules of Procedure. The Board has adopted Vattenfall's Group-wide Code of Conduct, which defines the obligation of all employees to adhere to Vattenfall's company philosophy, Code of Conduct, core values, and norms for the employees. The Vattenfall Management System (VMS), which has been established by the CEO, contains governing documents that include, among other

things, Group instructions for authorisations, governance, risk management and internal control.

Vattenfall applies the "three lines of defence" model, in accordance with the Basel II recommendations, where management and control of risks are divided into three lines of defence. The first line of defence consists of the Business Units, which own and manage risks. The risk organisation makes up the second line of defence and is responsible for monitoring risks. The internal auditor makes up the third line of defence and perform an independent review and oversight of both the first and second lines of defence.

Risk analysis

The rules and outcome of the Group's risk assessment and risk management processes are reviewed by the Board each year. The Group's risk management and reporting are coordinated by Vattenfall's risk committee. The Board evaluates and monitors risks and the quality of financial reporting via the Audit Committee, which maintains continuous and regular contact with the Group's internal and external audit functions in order to evaluate risk in the financial reporting. The VMS includes a framework for internal control that identifies and defines material risks related to financial reporting. The Finance Compliance function within the Staff Function Finance performs yearly analyses of risks related to financial reporting and is responsible for updating this framework.

Control activities and follow-up

The Board monitors the Parent Company's and Group's financial position and addresses this matter at every regular board meeting. The EGM has regular follow-up meetings on the financial outcome with the management and finance functions of Vattenfall's various Business Divisions, Staff Functions and Shared Service Units. The VMS contains governance documents for the essential financial reporting processes. The VMS serves as a platform for internal control for all units within the Group.

The Finance Compliance function is responsible for overseeing self assessments, follow-up, reporting and improvements in the control activities for financial reporting. These control activities are intended to prevent, discover and correct errors in the financial reporting. The Finance Compliance function reports to Vattenfall's CFO and Audit Committee on a quarterly basis.

Internal Audit is an independent and objective assurance and advisory function that is organised to create value and improve Vattenfall's operations. This is done by evaluating and recommending improvements with respect to the effectiveness of Vattenfall's risk management, internal control and governance processes in such areas as order handling, invoicing, production, trading, purchasing, financial reporting, IT systems, HR matters and various types of projects. This also applies for compliance with Vattenfall's policies and governance documents, including the Code of Conduct.

The function has 39 employees and reports directly to the Board of Directors and Audit Committee, to which the Head of Internal Audit reports. Internal Audit also reports on an administrative level directly to the CEO and informs the management teams of the divisions and other units about audit activities that have been performed. The function is localised in Sweden, Germany and the Netherlands, but works throughout the entire Group.

Information and communication

Information about the Group's policies, instructions, guidelines and manuals is posted on Vattenfall's intranet, which is accessible to all employees in the Group. The Group's accounting and reporting policies are laid out in the Group reporting manual. Updates and changes of these policies are communicated on a continuous basis via Vattenfall's intranet as well as at meetings with representatives of Vattenfall's Business Divisions, Staff Functions and Shared Service Units.

Composition of the Board and meeting attendance

Name	Function	Nationality	Independence in relation to the company and EGM (according to the Code)	Committee assignments	Attendance at board meetings	Attendance at committee meetings
Lars G. Nordström	Chairman of the Board from 14 June	Swedish	Yes	Remuneration Committee, from 14 June	8 of 8	6 of 6
Carl-Gustaf Angelin	Employee representative	Swedish	–	–	18 of 19	–
Eli Arnstad	Director	Norwegian	Yes	Safety and Risk Committee, from 27 April	18 of 19	3 of 3
Lennart Bengtsson	Employee representative, deputy, from 27 April	Swedish	–	–	11 of 12	–
Johnny Bernhardsson	Employee representative	Swedish	–	Safety and Risk Committee, from 27 April	18 of 19	3 of 3
Christer Bådholm	Director, Deputy Chairman from 14 June	Swedish	Yes	Audit Committee (chair) through 3 May; Safety and Risk Committee (chair), from 27 April	18 of 19	AC: 3 of 3 S&R: 3 of 3
Lars Carlsson	Employee representative, deputy, until 27 April	Swedish	–		6 of 7	–
Ronny Ekwall	Employee representative	Swedish	–	Audit Committee, from 27 April	19 of 19	5 of 5
Håkan Erixon	Director, from 27 April	Swedish	Yes	Safety and Risk Committee, from 27 April; Audit Committee (chair) from 13 December	12 of 12	S&R: 3 of 3
Lone Fønss Schrøder	Director	Danish	Yes	Audit Committee	11 of 19	5 of 8
Lars-Göran Johansson	Employee representative, deputy	Swedish	–		19 of 19	–
Patrik Jönsson	Director	Swedish	Yes	Remuneration Committee, Audit Committee	18 of 19	RC: 14 of 14 AC: 8 of 8
Per-Ove Lööv	Employee representative, deputy, until 27 April	Swedish	–	Audit Committee, until 27 April	4 of 7	1 of 2
Jeanette Regin	Employee representative, deputy, from 27 April	Swedish	–	–	11 of 12	–
Ingrid Bonde	Director, from 27 April until 20 December	Swedish	Yes	Audit Committee (chair) from 4 May until 13 December	8 of 11	5 of 5
Björn Savén	Director until 27 April; from 18 March as interim Chairman and Deputy Chairman. Chairman of the Board from 27 April to 14 June	Swedish	Yes	Remuneration Committee, from 29 March until 14 June	11 of 11	3 of 3
Lars Westerberg	Chairman of the Board until 18 March	Swedish	Yes	Remuneration Committee, until 18 March	3 of 4	4 of 4
Cecilia Vieweg	Director	Swedish	Yes	Remuneration Committee (chair)	17 of 19	14 of 14

Board of Directors


Lars G Nordström


Christer Bådholm


Carl-Gustaf Angelin


Eli Arnstad


Lennart Bengtsson


Johnny Bernhardsson

Lars G. Nordström (born 1943), Chairman of the Board since June 2011. Studied law at Uppsala University. Held several positions with Skandinaviska Enskilda Banken 1970–1983, including as Executive Vice President since 1989. Appointed as Executive Vice President of Nordea and its predecessor in 1993, and President and CEO of the Nordea Group 2002–2007. President and CEO of Posten Norden 2008–2011. Director on the boards of Nordea Bank, Viking Line and the Swedish–American Chamber of Commerce, and Chairman of the Finnish–Swedish Chamber of Commerce. Former Chairman of the Royal Swedish Opera and EFMA, director of TeliaSonera, and member of the Royal Swedish Academy of Engineering Sciences (IVA).

Christer Bådholm (born 1943), Deputy Chairman of the Board, elected as director in 2002. M.Sc. Eng., from Chalmers University of Technology (Gothenburg), studies in Corporate and Group Management at IFL and in International Management at MiL. Long record of experience as a CEO for various companies in the transport industry, including ABV Southern Region, NCC International AB, ABB Traction AB, Adtranz GmbH and Bombardier Transportation GmbH. Active in own consultancy business since 2002. Director of Svevia AB and Chairman of Bombardier Transportation Sweden AB, Balfour Beatty Rail AB and VINN Group AB.

Carl-Gustaf Angelin (born 1951), elected to the Board in 2003 as employee representative for Akademikerrådet. M.Sc. Eng. from the Royal Institute of Technology in Stockholm. Employee of AB Svenska Fläktfabriken 1977–1988, various positions within the Vattenfall Group 1988–present. Currently active in Business Division Distribution and Sales.

Eli Arnstad (born 1962), elected as director in 2008. Studies in public law and political science at the University of Oslo, Cand. Mag. from Nord-Trøndelag University College (HiNT). Employee of Stiklestad Nasjonale Kultursenter, 1999, and of Stjørdal Naeringsforum, 2000. CEO of Enova SF 2001–2007. Currently Vice Chairman of Sparebank 1 Midt-Norge and Norway Post. Director of the Center for Economic Research at the Norwegian University of Science and Technology (NTNU), AF-gruppen and Stiftelsen Nidarosdomens Restaureringsarbeider.

Lennart Bengtsson (born 1958), elected as deputy board member in 2011 as employee representative for SEKO Facket för Service och Kommunikation. Two-year secondary school degree in mechanics, and network technology training in IT. Active in operations and maintenance at Vattenfall Vattenkraft 1979–1999, currently an IT technician at Vattenfall IT.

Johnny Bernhardsson (born 1952), elected to the Board in 1995 as employee representative for Unionen. Education in engineering, with supplementary studies in economics from TBV. Has held various positions within the Vattenfall Group since 1970.

Ronny Ekwall (born 1953), elected to the Board in 1999 as employee representative for SEKO Facket för Service och Kommunikation. Degree in electrical engineering from Stora Kopparberg Vocational College. Master fitter at Stora Kopparberg 1969–1977, fitter for the Vattenfall Group 1977–present.

Håkan Erixon (born 1961), elected as director in 2011. Degree in International Economics, 1987, from the Gothenburg School of Economics. Industry expert for Swedish Ministry of Finance with overall responsibility for sales of state-owned companies and other company transactions 2007–2010, during which time he also worked for the Swedish Debt Office. Twenty years of international experience as a financial adviser in M&As with Merrill Lynch International and Citicorp Investment Bank, London, among others. Employed by UBS Investment Bank, London, 1997–2007, most recently as head of Nordic activities, and Vice Chairman of the UBS Investment Banking division. Member of the Nasdaq OMX Stockholm AB Company Committee. Former director of Vasakronan AB and Carnegie Investment Bank AB, among others.


Ronny Ekwall


Håkan Erixon


Lone Fønss Schrøder


Lars-Göran Johansson


Patrik Jönsson


Jeanette Regin


Cecilia Vieweg

Lone Fønss Schrøder (born 1960), elected as director in 2003. LL.M., University of Copenhagen, MBA, Copenhagen Business School. Various executive positions at A.P. Møller/Maersk A/S 1982–1983, Managing Director of Wallenius Lines AB 2005–2010. Director of Volvo Car Corporation, NKT A/S, Aker Solution ASA, Kvaerner ASA, Svenska Handelsbanken AB, Heidelberger AG and Bilfinger Berger SE.

Lars-Göran Johansson (born 1953), elected as a deputy board member in 2008 as employee representative for Ledarna (the Association of Managers). Secondary school education, has served as a foreman and technician within the Vattenfall Group since 1971. Currently employed by Vattenfall Services Nordic.

Patrik Jönsson (born 1971), elected as director in 2010. M.Sc. Econ., Stockholm University. Controller for Svenska Statoil 1997–1998. Account manager for Trevise Unibank Investment Management 1998–2000, management consultant at Brögger & Partners 2000–2001, investment analyst at Bure AB 2001–2003. Deputy Director at the Unit for State Ownership in the Ministry of Finance since 2003. Responsible for the owner's administration and board member of Svevia AB. Former director of Vin & Sprit, Sveaskog, Göta kanalbolaget and Skeppshypotekskassan. Participated in the owner's administration of SAS, Sweden Post, Green Cargo and SJ AB.

Jeanette Regin (born 1965), elected as deputy board member as employee representative for Unionen in 2011. Secondary school diploma and two-year education in healthcare. Former experience as practical nurse, currently head of customer service/office services for Gotland Energientreprenad (a subsidiary of the Vattenfall Group).

Cecilia Vieweg (born 1955), elected as director in 2009. LL.B. Lund University. Attorney at Berglund & Co Advokatbyrå 1987–1990. Company lawyer for AB Volvo 1990–1992. General Counsel of Volvo Car Corporation 1992–1998. Attorney and partner of Wahlin Advokatbyrå 1998, joined Electrolux as a member of the executive management in 1999 with responsibility for legal affairs, intangible rights, risk management and security. Currently Company Secretary for AB Electrolux and director of PMC Group AB. Member of the Swedish Securities Council.

Board members who left the Board in 2011:
Lars Westerberg (born 1948), elected to the Board as Chairman in 2008, resigned on 18 March 2011.

Lars Carlsson (born 1951), elected as deputy board member as employee representative for Unionen in 1991, resigned at the 2011 Annual General Meeting.

Per-Ove Lööv (born 1961), elected as deputy board member as employee representative of SEKO, resigned at the 2011 Annual General Meeting.

Björn Savén (born 1950), elected as director in 2009, resigned at the Extraordinary General Meeting in 2011.

Ingrid Bonde (born 1959), elected as director in 2011, resigned on 20 December 2011 in connection with her appointment as Deputy CEO and new CFO of Vattenfall.

Executive Group Management


Øystein Løseth


Peter Smink


Anders Dahl


Tuomo Hatakka


Harald von Heyden

Øystein Løseth (born 1958), President and CEO of Vattenfall AB since 12 April 2010. Head of Generation operating segment. Master of Civil Engineering, Technical University of Trondheim, Norway; studies in economics at Bedriftsøkonomisk Intitutt, Bergen, Norway. Statoil, Norway 1984–1993. Planning Manager, Alliance Gas, London 1993–1994. Commercial Director, Naturkraft, Oslo 1994–1997. Various positions for Statkraft in Norway and the Netherlands 1997–2003, including member of the executive management of Statkraft from 2002 to 2003. Joined Nuon N.V., Amsterdam, in 2003 as Managing Director of Nuon Energy Sourcing and President and CEO of Nuon N.V. Appointed CEO of Nuon Energy N.V. in April 2008. In 2011 Øystein Løseth did not have any significant shareholdings in companies with which Vattenfall has business relations.

Peter Smink (born 1965), Acting CFO since 28 October 2011. Economics degree and studies in accounting at Erasmus University, Rotterdam. Head of Control for Vattenfall's Business Division Asset Development, and CFO and member of the executive management of N.V. Nuon Energy 2011. Active in several management positions with N.V. Nuon Energy since 2001. Employee of KPN and various subsidiaries 1996–2001. Employee of PWC 1989–1993.

Anders Dahl (born 1957), Senior Vice President, Business Division Renewables. M.Sc. Eng., Royal Institute of Technology, Stockholm. Acting Head of Business Group Pan Europe (excl. Nuclear) from 15 March–31 December 2010. Head of Wind business unit 2005–2010. Production Director for Vattenfall's Polish CHP operations 2002–2005. Head of Hydro Power operations for Birka Energi 1997–2002 and Plant Manager for CHP Hässelby. Various positions in heat production operations for Stockholm Energi 1985–1996.

Tuomo Hatakka (born 1956), Senior Executive Vice President, Business Division Production. Executive Vice President of Vattenfall AB since 26 October 2005. Economics studies at the Helsinki School of Economics and Business Administration and Instituto de Estudios Superiors de la Empresa, Barcelona, Spain. Head of Business Group Central Europe 2008–2010. Head of Business Group Poland 2005–2007. Experience as consultant for Bain Company, London, Executive Vice President and partner of Enterprise Investors, Warsaw. Former President and CEO of Elektrim Kable SA, Warsaw.

Harald von Heyden (born 1971), Senior Vice President, Business Division Asset Optimisation and Trading. Head of Trading and Co-ordination of Generation Management from 3 May to 31 December 2010. B.Sc. Management Sciences, Warwick Business School, Coventry, and M.Phil. Management Studies, University of Cambridge. Managing Director of EGL Nordic AS, Norway 2009–2010. Chief Trading Officer and director of EGL AG, Zurich 2007–2009. Founder and Managing Director of EGL Nordic AS, Norway 2003–2007. Managing Director of Statkraft Continental Markets in Germany and the Netherlands 1999–2003. Consultant at McKinsey & Company, Norway, 1995–1999. Announced in January 2012 that he will be leaving Vattenfall by 30 June 2012 at the latest.

Olof Gertz (born 1963), Senior Vice President, Human Resources from 5 March 2012. Active in the DeLaval Group 1994–2012, incl. as Senior Vice President, Human Resources and member of executive management 2001–2012. M.Sc. in Human Resources and Work Life matters, Uppsala University.

Anne Gynnerstedt (born 1957), Senior Vice President, General Counsel and Secretary to the Board of Directors. Joined Vattenfall on 9 January 2012. General Counsel, Secretary to the Board and member of executive management of SAAB AB 2004–2012. General Counsel, member of executive management of the Swedish National Debt Office 2002–2004. Corporate Legal Counsel, SAS 1990–2002. Bachelor of Law, Stockholm University.


Olof Gertz


Anne Gynnerstedt


Huib Morelisse


Andreas Regnell


Elisabeth Ström


Torbjörn Wahlborg

Huib Morelisse (born 1964), Senior Vice President Business Division Asset Development, CEO of N.V. Nuon Energy since 1 July 2010. M.Sc. Mechanical Engineering, MBA, Columbia Business School. Chief Technology Officer, Essent, the Netherlands 2009–2010. Employee of RWE 2001–2009: as CEO of RWE's Dutch entities 2007–2009, and Vice President Corporate Strategy 2005–2007. Employed by Goldman Sachs & Co. 1999–2001. Served in various positions for Booz Allen & Hamilton 1991–1997.

Andreas Regnell (born 1966), Senior Vice President, Staff Function Strategies and Environment. B.Sc. Econ., Stockholm School of Economics/Wharton Graduate School of the University of Pennsylvania. Held various positions with Citibank, Stockholm and New York 1989–1992. Served with The Boston Consulting Group from 1992 until joining Vattenfall, incl. as Head of the Nordic region 2005–2010.

Elisabeth Ström (born 1962), Senior Vice President, Staff Function External Relations and Communications. Head of Group Function Communications in 2010. Degree in Marketing Economics, Berghs School of Communication. Head of curriculum at Berghs School of Communication, 1985–1988, President and Rector 1996–1997. Marketing Manager, Nordiska Kompaniet 1991–1995. Member of executive management of Föreningssparbanken (today Swedbank) 1997–2000. Recruited in 2000 as Vice President for the Swedish Co-operative Union (KF) and Vice President of Coop Sverige AB. Deputy CEO and Vice President of Posten AB 2003–2005. Active in own consulting business as adviser in business development and branding 2005–2009.

Torbjörn Wahlborg (born 1962), Senior Executive Vice President, Business Division Distribution and Sales, Executive Vice President of Vattenfall AB since 3 February 2010. Head of Business Group Nordic 2010. M.Sc., Eng., Chalmers University of Technology, Gothenburg. Nynäs Petroleum, Nynäshamn, Sweden 1988–1990. Head of Electricity, Vattenfall Värmekraft, Stenungssund, Sweden 1990–1994. Project Manager, Sjælendske Kraftverker, Copenhagen, Denmark 1994–1996. Project Manager, Vattenfall International, Stockholm 1996–1997. Active in Poland since 1997: acting President of Vattenfall Poland 1997–2001, Acting President of GZE SA, Gliwice, 2001–2006. Head of Vattenfall Sales business unit, Poland, 2006–2008, and country manager for Vattenfall Poland, 2008–2009.

Ingrid Bonde (born 1959), appointed as Deputy CEO and as CFO on 19 December 2011, and will take office on 1 July 2012 at the latest.

Stefan Dohler (born 1966), appointed as Senior Vice President, Business Division Asset Optimisation and Trading on 16 February 2012. He takes office on 1 April 2012.

Persons who left the Executive Group Management in 2011
Lars Gejrot (born 1954) left his position as Senior Vice President, Staff Function Human Resources, on 18 March 2011.

Dag Andresen (born 1964) left his position as CFO on 28 October 2011.

Kerstin Ahlfont (born 1971) served as acting Senior Vice President, Staff Function Human Resources between March 2011 and March 2012.

AGM proposal

Proposed distribution of profit

See page 122.

Proposed principles for compensation and other terms of employment for senior executives

The Board proposes that the 2012 Annual General Meeting resolve to adopt the Board's proposal for unchanged guidelines for compensation of senior executives.

The Board's proposed guidelines correspond to the government's guidelines for terms of employment for senior executives of state-owned companies, adopted by the government on 20 April 2009, with the deviation set out below. The government's guidelines are available in their entirety on the Swedish government's website, www.regeringen.se.

In application of the government's guidelines, it is proposed that Vattenfall deviate from these with respect to how they are applied for Vattenfall's subsidiaries. In accordance with the owner's decision at the Annual General Meeting on 27 April 2011, Vattenfall's board proposes that positions in Vattenfall's subsidiaries that are to be regarded as senior shall continue to be defined based on whether they have significant impact on the Group's earnings, and not based on the definition in the Swedish Companies Act. Through application of the International Position Evaluation (IPE) model, managers with positions of IPE 68 and higher shall be considered to be senior.

The Board certifies that the compensation in question is in compliance with the guidelines set by the Annual General Meeting, in the following respects. Before a decision is made on compensation and other terms of employment for a senior executive, written documentation shall be available that shows the company's total cost. The proposal for decision shall be drafted by the Board's remuneration committee and thereafter be put to the Board for a decision. The company's auditors shall perform a review to ensure that the set compensation levels and other terms of employment have not been exceeded and, in accordance with the Companies Act, shall once a year – not later than three weeks before the Annual General Meeting – issue a statement as to whether the adopted guidelines have been adhered to.

The Board's explanation for deviations from the guidelines

The main reasons for the deviation are the costs and difficulties associated with renegotiating existing contracts for executives who, according to the definition used in the government's guidelines, would have been defined as senior. In the Board's opinion, renegotiation of a large number of contracts with national variations would entail unreasonable costs as well as a significant risk of losing key competence.

For commercial and legal reasons, the Vattenfall Group has more than 400 subsidiaries. Through strict application of the government's guidelines also for subsidiaries, a very large number of executives would be considered to be senior. Moreover, like other international groups, Vattenfall governs its operations from a commercial perspective (via the business areas) and not primarily according to the legal company structure.

The proposed deviation reflects these circumstances. The criteria used to define what constitutes a senior executive are the individual subsidiary's size, based on sales, the number of employees and number of links in the value chain, as well as the requirements on the individual executive for innovation, knowledge, strategic/visionary role and international responsibility. The International Position Evaluation (IPE) model is used as support for determining in a systematic manner which positions can be considered to be senior.

Risks and risk management

In recent years, the approach to risk management has changed. As a result of turbulence in the financial markets, it is becoming increasingly important for companies to have good control over their risks. Vattenfall applies conscious and balanced risk-taking in which business transactions are reviewed from both profitability and risk perspectives. Moreover, thoroughly considered and well balanced risk-taking provides scope to take advantage of business opportunities.

Vattenfall is exposed to a number of risks that could have an adverse effect on business activities. The better understanding and control Vattenfall has over these risks, the better result it can generate from its business activities. In accordance with the Swedish Code of Corporate Governance and the Board's Rules of Procedure, Vattenfall has developed a robust framework for risk management to ensure acceptable risk exposure, independent oversight of Vattenfall's governance and a thorough and transparent analysis of Vattenfall's risks. In 2011, the risk function's role was further strengthened and has become a natural and integrated part of the operations. For example, risk management has become an obligatory part of management's decision-making, where an analysis and independent recommendation from the risk function are included as basis for all important decisions.

Vattenfall's risks and how the company manages them are described on the pages that follow. The risk management process entails that risks that could jeopardise Vattenfall's goal fulfilment are identified and remedied, but also that Vattenfall – aided by balanced risk-taking – can enhance value creation and the company's competitiveness.

Vattenfall's risk framework and risk function

The Board of Directors has overarching responsibility for risk management within Vattenfall. To live up to this responsibility the Board established a safety and risk committee during 2011, which is described in more detail on page 46. Vattenfall's Chief Risk Officer (CRO) is responsible for the risk framework at Vattenfall and reports to both the CFO and the Board of Directors, which ensures the risk function's independence from the business activities. Risk decisions of strategic importance are made by the Vattenfall Risk Committee (VRC), which is chaired by the Group CEO.

Vattenfall applies the "three lines of defence" model, in accordance with the Basel II recommendations, where management and control of risks are structured into three lines of defence. The first line of defence consists of the business units, which own and manage risks. The risk organisation makes up the second line of defence and is responsible for monitoring risks. The internal auditor makes up the third line of defence and performs an independent review and oversight of both the first and second lines of defence.

Since 2010 the risk management organisation has been functionally organised and clearly segregated from the business owners, i.e., the Business Units. In addition, thorough quality assurance work ensures that the risk management framework is fully implemented and aligned with Vattenfall's overall governance.

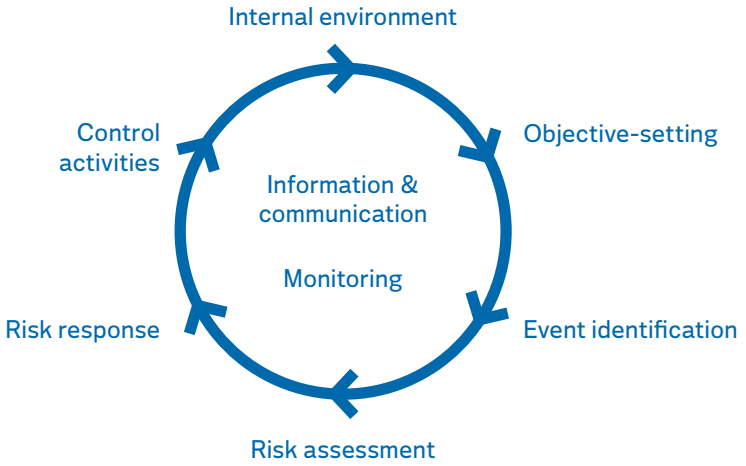
Vattenfall's risk framework was updated in 2011, and all risk processes have been reviewed, adapted and improved to ensure that the company has the most effective risk management as possible.

The Enterprise Risk Management process at Vattenfall

In the course of its operations, Vattenfall is exposed to financial risks (such as price and credit risks) as well as non-financial risks (such as political, technical and environmental risks). Enterprise Risk Management (ERM) is a continuous process for identifying, assessing, managing and following up risks in the business at an early stage (see illustration at left).

ERM is based on the risk management standards of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and is conducted on a continuous basis in connection with the company's financial reporting. ERM enables quantification and comparability of financial and non-financial risks. This provides strong support to decision-makers in managing risks and opportunities, and has led to greater transparency and risk awareness throughout the entire organisation.

The ERM process at Vattenfall



The internal environment, which encompasses Vattenfall's vision, values and risk tolerance, among other things, is the starting point when the goals for the respective business units are set in the business planning process. When setting these goals, events are identified that could hinder goal fulfilment. Identified events are assessed, and against the background of the business's risk tolerance, a decision is then made on suitable risk measures: avoid, reduce, share or accept the risks. The business units' most important risks and measures are followed up as part of the financial monitoring. Information and communication are provided on a regular basis to the Executive Group Management and to the business units. The risk function monitors, reviews and develops the process.

Vattenfall's risk categories and risk areas

Market & financial
Risks related to competition, prices and sales volumes, interest rates, currencies, credit and counterparties.
See page 58–63.

Technology
Risks related to all technology that is needed to produce, distribute and sell electricity, gas, heat and other related products and services.
See page 63.

Infrastructure
Risks related to all infrastructure that Vattenfall needs for its operations. This includes IT infrastructure (hardware and software), telecommunications, buildings and safety systems.
See page 64.

Politics & society
Risks that are affected by regional and global political and social trends.
See page 64.

Laws & regulations
Risks related to all laws and regulations that apply for Vattenfall.
See page 64.

Personnel & organisation
Risks related to Vattenfall's organisation, processes and employees, such as company culture, leadership and motivation.
See page 65.

Examples of risks in the respective risk areas (which are described on the following pages):

Market & financial	Technology	Infrastructure	Politics & society	Laws & regulations	Personnel & organisation
Electricity price risk	Operational asset risks	IT and information security risks	Political risk	Legal risks	Risk of losing expertise and key persons
Volume risk	Environmental risks		Investment risk (political decisions)	Environmental risks	Safety and health risks
Price area risk	Investment risk (technology)				Fraud
Fuel price risk					Security risks
Credit risk					
Liquidity risk					
Currency risk					
Price risk in equities					
Investment risk (financing)					

Risk measures

Avoid | Reduce | Share | Accept

In 2011 the ERM process was identified as one of Vattenfall's most important processes, since it ensures that Vattenfall's risks are identified at all levels and because thorough risk analysis is the foundation for all important business decisions.

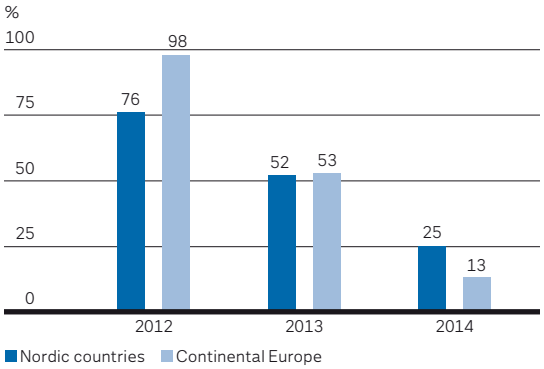
The risk function's proximity to operations is ensured through risk managers, who support the business in risk management and control. Local co-ordination of the ERM process is conducted by designated risk co-ordinators, whose role was strengthened considerably in 2011 to ensure that the risk management work is fully integrated in all parts of the operations.

During the year, Vattenfall's risk function developed the long-term, strategic and risk-prevention ERM work, which is strongly tied to Vattenfall's business planning.

Market risks and financial risks

Vattenfall's board of directors has given the CEO a risk

Vattenfall's degree of price hedging in various markets per 31 December 2011

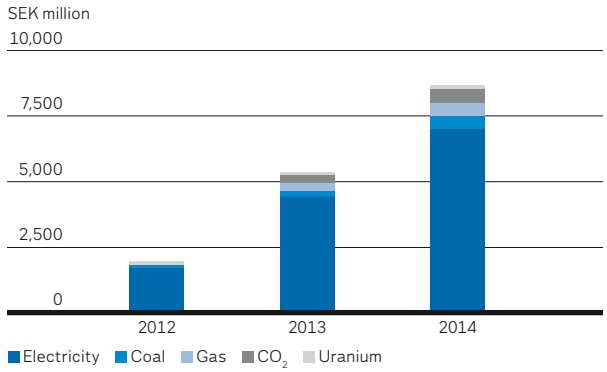


The chart above shows Vattenfall's price hedging of planned electricity generation in the Nordic countries and Continental Europe. Vattenfall continuously hedges its electricity generation through sales in the forward and futures market. Average prices for this are shown below. In the 2010 Annual Report, the degree of price hedging and average prices for the years 2011, 2012 and 2013 were reported. For the Nordic countries, the figures were as follows: 2011: 74% (EUR 45/MWh); 2012: 73% (EUR 44/MWh); 2013: 32% (EUR 44/MWh). For Continental Europe, the following figures were reported: 2011: 98% (EUR 55/MWh); 2012: 64% (EUR 54/MWh); 2013: 13% (EUR 59/MWh).

Average price hedges as per 31 December 2011

EUR/MWh	2012	2013	2014
Nordic countries	45	46	43
Continental Europe	55	58	60

Sensitivity analysis, impact of price movements (+/– 10+%) on Vattenfall's operating profit before tax



Market-quoted risks

	Impact on Vattenfall's operating profit before tax, SEK million			Observed yearly volatility[1], %
	2012	2013	2014	
Electricity	+/–1,700	+/–4,400	+/–7,000	12–19
Coal	+/–90	+/–230	+/–490	13–14
Gas	+/–8	+/–330	+/–520	15–17
CO_2	+/–30	+/–280	+/–530	44–45
Uranium	+/–120	+/–120	+/–120	–

1) Yearly volatility for daily price movements for each commodity, based on forward contracts for the period 2012–2014. Volatility normally declines the further ahead in time the contract pertains to.

Vattenfall continuously hedges its exposure against the price of electricity and other commodities in the various markets. There exposures are monitored daily. The table at left shows what effect price movements of electricity and other commodities are expected to have on Vattenfall's operating profit. The effect of price movements increases as the share of exposure that is not hedged increases. Usually the hedged portion of the exposure increases closer to maturity the exposure for the next-coming year is hedged to a higher degree than the exposure three years ahead. Price movements have the greatest impact on electricity (where Vattenfall is a net seller) and the commodities coal, gas, CO_2 emission allowances and uranium (where Vattenfall is a net buyer).

The effect on Vattenfall's operating profit before tax is calculated with a price movement of +/– 10% and is based on the degree of hedging in December 2011. For example, a price movement of +/– 10% for electricity in Vattenfall's markets has an effect on profit of +/– SEK 4.4 billion for 2013. Observed yearly volatilities for 2011 are provided in the table to further illustrate the relative weight of the sensitivity analysis. For CO_2 emission allowances, the CO_2-free allocation mechanism differs between the EU ETS phase II (2008–2012) and phase III (2013–2020). As a consequence of this increased uncertainty, Vattenfall's hedging levels are slightly lower from 2013 onward.

mandate for the Group, which is delegated onward to the business units. To ensure transparency and clear governance, the CRO is responsible for co-ordinating and documenting the risk mandate delegation process. Every business unit has scope to manoeuvre within its mandate and is responsible for ensuring that appropriate risk measures are undertaken. Vattenfall's risk mandate contains limits that the business operations may work within. For trading in commodities, a maximum loss per year of 1.5% of equity is allowed, while for the treasury operations the limit is 1%. On average, 25%–30% of these limits is used.

The vast majority of Vattenfall's exposures in the proprietary trading portfolio are valued based on market prices (mark-to-market). In cases where market prices cannot be observed, modelled prices are used (mark-to-model). Mark-to-model positions occur primarily in the asset- and sales-related portfolios. An example is that a market valuation of production from the plants or sales demand requires the derivation of an hourly forward curve. Such granularity is not available in the market and hence these positions are value based on modelled prices (mark-to-model). Approval of these valuation models is strictly regulated and monitored by the risk organisation.

Electricity price risk

The price of electricity has the single greatest bearing on Vattenfall's earnings. Electricity prices are determined by fundamental factors such as supply (water levels and available generation capacity, etc.), demand (impacted by electricity use, which in turn can be affected by weather and the economy), fuel prices and the price of CO_2 emission allowances. Vattenfall analyses these factors on a continuous basis in order to be able to optimally manage electricity price risk.

Vattenfall hedges its electricity generation and electricity sales with the help of physical and financial forward contracts and long-term customer contracts. Such hedging is done while taking into account liquidity in the market at different periods in time. As the sharp fluctuations in elec-

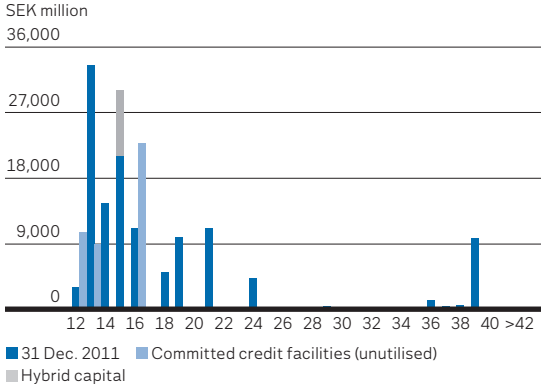
Borrowing programmes and credit facilities

SEK million 2011 (2010)	Maximum aggregated amount		Currency	Maturity		Used portion, %		Reported external liability	
Borrowing programmes									
Commercial Paper	15,000	(15,000)	SEK			11	(30)	1,581	(4,495)
Euro Commercial Paper	2,000	(2,000)	EUR			–	(–)	–	(–)
Euro Medium Term Note	15,000	(15,000)	EUR			66	(70)	96,047	(99,391)
Committed credit facilities									
Revolving Credit Facility[1]	1,000	(1,000)	EUR	2013	(2013)				
Revolving Credit Facility[1]	2,550	(–)	EUR	2016	(–)				
Multi-option Credit Facility (rolling 12 months)	1,300		EUR	2012	(–)	10	(–)	–	(–)
Bank overdraft facilities	100	(100)	SEK	2012	(2011)				
Other credit facilities									
Bank overdraft facilities and other lines of credit	4,628	(9,544)	SEK			37	(28)	322	(1,341)

1) Back-up facility for short-term borrowing.

The table shows Vattenfall's borrowing programmes and credit facilities. In 2011 Vattenfall contracted a Revolving Credit Facility of EUR 2.55 billion (maturity in January 2016) and a Multi-option Credit Facility of EUR 1.3 billion (rolling 12 months).

Maturity profile of debt portfolio 2011



1) Excl. loans from minority owners and associated companies.

The table shows the maturity structure of the debt portfolio compared with the preceding year, excl. loans from minority owners and associated companies. No major changes took place in loans in the maturity structure for 2011 compared with 2010. However, Vattenfall did contract new back-up facilities during the year.

tricity prices have shown in recent years (as shown in the sensitivity analysis, se page 59), hedging is an important way of stabilising earnings and reducing exposure to variations in electricity prices. The amount of electricity generation that is hedged varies, as shown in the chart on page 59.

Vattenfall also enters into long-term contracts with major industrial customers. These contracts pertain to time horizons in which there is no possibility to hedge prices in the liquid part of the futures market and stretch as far as to 2022. The total hedged volume for the period 2015–2022 is 81 TWh, where most is hedged in the beginning of the period, with falling volumes over time. This can be put in relation to Vattenfall's annual generation for 2011, which amounted to 166.7 TWh. The level of price hedges on electricity generation is decided by Vattenfall's risk committee, within the risk mandate given by the Board of Directors. Vattenfall conducts its hedging in the market through BD Asset Optimisation and Trading via electricity exchanges, such as Nord Pool and the European Energy Exchange (EEX), as well as through bilateral trading with other counterparties. BD Asset Optimisation and Trading's mandate is monitored on a daily basis. In order to measure electricity price risk, Vattenfall uses methods such as Value at Risk (VaR) and Gross Margin at Risk along with various stress tests.

Volume risk

Volume risk is the risk of deviations between the forecast and the actual volume. In hydro power generation, volume risk is managed by analysing and forecasting such factors

Maturity profile of debt portfolio, 2011/2010[1]

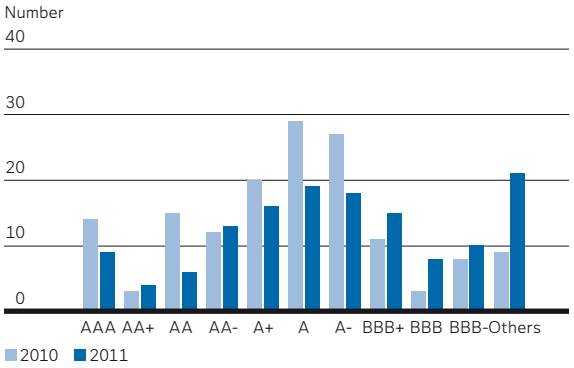
SEK million	Debt		Derivatives		Hybrid capital[2]		Unutilised back-up facilities	
< 1 year	4,336	(27,792)	2	(130)	–	(–)	10,557	(100)
1 year–5 years	80,427	(70,390)	–1,606	(–1,187)	8,940	(9,002)	31,737	(9,002)
>5 years	63,064	(56,795)	–1,986	(–1,720)	–	(–)	–	(–)
Total	**147,827**	**(154,977)**	**–3,590**	**(–2,777)**	**8,940**	**(9,002)**	**42,294**	**(9,102)**

1) Loans from minority owners and associated companies are broken down into non-current and current liabilities. Current <1 year, non-current >5 years.

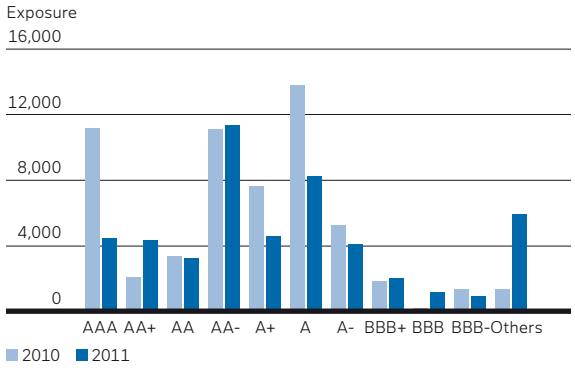
2) Hybrid capital are reported as an interest-bearing non-current liability. Hybrid capital have a perpetual term.

The table shows the maturity structure for the debt portfolio including loans from minority owners and associated companies – both with respect to remaining maturities for liabilities and for derivatives. The maturities for the loans in the debt portfolio are specified in more detail in the chart "Maturity profile of debt portfolio, above. For further information, see Note 37 to the consolidated accounts.

Number of counterparties per rating category

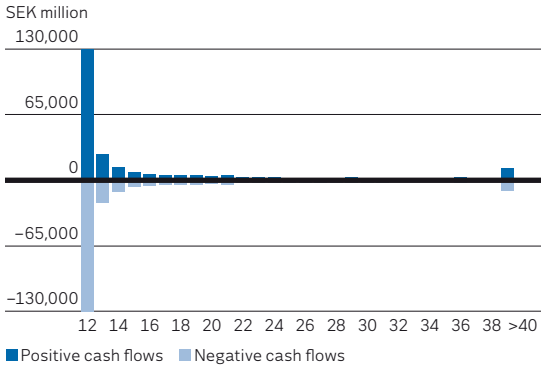


Exposure, SEK million, per rating category



The charts show the counterparties where the exposure is greater than SEK 50 million per counterparty. Counterparties with an exposure greater than SEK 10 million must be reviewed by Vattenfall's credit risk department. Smaller exposures are considered to have such a large diversification effect that the net risk for Vattenfall is judged to be low. Sales and heat exposures in Benelux as well as procurement exposures are not included. Other financial assets are considered to have good creditworthiness. The item "Others" in the charts represents mainly counterparties covered by policy and limit exceptions, mainly pertaining to long-term electricity and heat sales contracts and exceptions pertaining to contracts in force that Vattenfall has taken over in connection with previous acquisitions.

Maturity structure, derivatives



The chart shows the maturity structure for all of Vattenfall's derivatives in nominal amounts. The positive cash flows for 2011 amounted to SEK 254,301 million, and the negative cash flows were SEK –245,568 million.

Comparative figures for 2010 showed SEK 280,601 million in positive cash flows and SEK –275,670 million in negative cash flows.

as precipitation and snowmelt. The models are based on extensive weather history and other key factors. Volume risk also arises in the sales activities as deviations in anticipated vs. actual volumes delivered to customers. This risk is managed by improving and developing forecasts of electricity consumption. There is a correlation between electricity price and generated electricity volume. The impact of the price of electricity on Vattenfall's electricity generation volume is therefore included in the calculation of price sensitivity in the sensitivity analysis on page 59. The table also takes into account the volume risk that generated electricity volume will vary along with varying fuel prices, such as coal and gas prices.

Price area risk

Price area risk arises when the price of electricity differs between various geographic areas. Vattenfall's price area risk is centralised and managed by BD Asset Optimisation and Trading. In the Nordic countries, NordPool provides financial instruments – price area swaps (Contracts for Differences, CfDs) – which can be used to manage price area risk. Vattenfall also acts as a CfD price area market maker on Nord Pool. Through this undertaking, liquidity is ensured in these financial instruments. Price differences also exist between other geographic areas in which Vattenfall is active. These are managed through contracts in these price areas and contracts for transmission capacity.

Credit risk

Credit risk can arise if a counterparty or contractor cannot is not willing to fulfil its obligations and exists in Vattenfall's commodity trading, sales activities, treasury activities and investments. Vattenfall has a strict framework for governing and reporting credit risks to ensure that they are monitored, measured and minimised in a suitable manner. The framework ensures consistent application of credit risk management within the entire Vattenfall Group. As part of this framework, Vattenfall has a clear credit risk mandate that reflects the company's risk appetite.

Vattenfall's credit risk function analyses Vattenfall's counterparties before any undertakings are made, and credit limits are set in accordance with the credit risk framework. A thorough counterparty analysis and reporting of exposures as well as risk mitigation measures are central activities in Vattenfall's credit risk management.

Against the background of the financial turbulence, monitoring of Vattenfall's credit risks has been intensified, and certain precautionary measures have been taken, including reductions in risk exposure, shortened maturities and the obtaining of additional collateral. Reporting to the Executive Group Management was also increased during the year.

A number of tools are used to determine existing and potential future exposures. In addition to the company's internal assessment, the credit ratings provided by the major credit rating agencies are used. Credit exposures and the number of counterparties per rating category, according to Standard & Poor's rating scale, are shown in the charts above.

Fuel price risk

Fuel price risk pertains to the risk of a change in Vattenfall's earnings caused by a change in fuel prices. Fuel prices are primarily affected by macroeconomic factors. Fuel price risk is minimised through analysis of the various commodity markets and diversification of contracts with respect to price

Remaining fixed rate term in loan portfolio 2011 (2010)

SEK million	Debt		Derivative		Total	
< 3 months	6,685	(8,526)	22,925	(61,373)	29,610	(69,899)
3 months–1 year	1,860	(22,367)	18,503	(1,655)	20,364	(24,022)
1 year–5 years	77,304	(68,446)	–33,072	(–44,501)	44,232	(23,945)
>5 years	44,601	(55,638)	–11,945	(–21,304)	32,656	(34,334)
Total	**130,452**	**(154,977)**	**–3,590**	**(–2,777)**	**126,862**	**(152,200)**

The table shows the fixed rate terms in Vattenfall's loan portfolio. The loan portfolio includes loans and interest rate derivatives in order to steer the duration of borrowing. Negative amounts are explained by the use of derivatives, such as interest rate swaps and interest rate forwards. The sum of derivatives is not equal to zero due to currency effects. Excluding Hybrid capital and loans from minority owners and associated companies. Nominal amounts. The average financing rate as per 31 December 2011 was 3.75%.

Debt portfolio, breakdown per currency 2011 (2010)

Original currency	Debt		Derivative		Total	
CHF	4,229	(4,160)	–4,229	(–4,160)	–	(–)
DKK	–	(607)	–	(–)	–	(607)
EUR	106,406	(125,032)	20,963	(18,093)	127,370	(143,125)
GBP	14,422	(14,243)	–14,418	(–14,239)	4	(4)
JPY	4,558	(4,389)	–4,558	(–4,389)	–	(–)
NOK	2,617	(2,621)	–2,617	(–2,621)	–	(–)
PLN	22	(10)	–	(–)	22	(10)
SEK	18,630	(23,736)	1,270	(4,539)	19,900	(28,275)
Total	**150,886**	**(174,798)**	**–3,590**	**(–2,777)**	**147,296**	**(172,021)**

The table shows the currency risk in the debt portfolio and the currencies that Vattenfall is exposed to. The debt, and thus the currency risk, decreased in 2011 compared with 2010. Incl. loans from minority owners and associated companies but excl. Hybrid capital. Nominal amounts in SEK million.

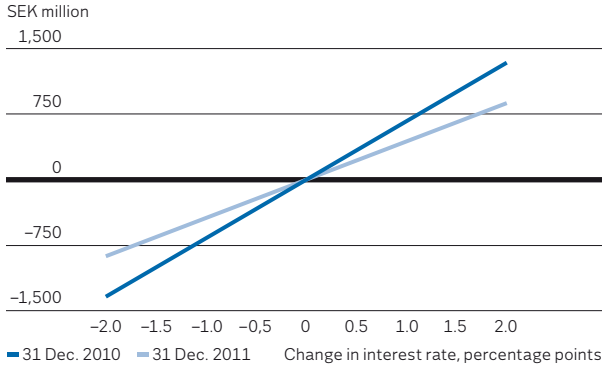
model and terms. Both financial and physical instruments for e.g., coal, gas and oil are used to smooth Vattenfall's earnings over time. Most of Vattenfall's coal-fired plants in Germany use lignite from Vattenfall's own mines, consequently there is no market price risk for that fuel. Regarding hard coal–fired electricity generation, hedges on electricity and coal prices are co-ordinated to ensure a set fuel cost and thus the gross margin on the electricity generation. Uranium is used as fuel in Vattenfall's nuclear power plants. This price risk is limited, however, since uranium makes up a relatively small proportion of the total cost of generation. The sensitivities of Vattenfall's fuel prices are shown in the sensitivity analysis on page 59.

Liquidity risk

Liquidity risk pertains to the risk of not being able to pursue the trading strategy due to insufficient liquidity in the electricity and fuel markets. This risk is managed through proxy hedging (hedging with the help of an instrument that correlates with the risk to be hedged) and collateral agreements as well as by securing an optimal number of counterparties. Liquidity risk can also be described as the risk for a financing crisis, where Vattenfall does not have the ability to finance its capital needs. In this respect, liquidity risk is mitigated by maintaining an even maturity structure and a long average remaining term in the company's debt portfolio. Liquidity risk is also mitigated by having several types of debt issuance programmes and thereby ensuring access to capital and flexibility. The Group has a defined target for its short-term accessibility to capital: funds corresponding to no less than 10% of the Group's sales, or the equivalent of the next 90 days' maturities, shall be available. This is measured daily, and the target was met with a good margin throughout 2011.

For a capital-intensive company like Vattenfall, it is important to have access to financing in the international credit market at favourable terms. One prerequisite for this is that Vattenfall maintains a high credit rating from the leading credit rating agencies – Moody's and Standard & Poor's (S&P). For information on Vattenfall's credit ratings, see page 34.

Interest rate sensitivity



The chart shows how changes in interest rates affect the Group's interest income and expenses during a 12-month period given the Group's current fixed rate structure. Incl. derivatives and excl. Hybrid capital and loans from minority owners. Nominal amounts.

Changes in credit ratings or rating outlook had only a marginal impact on Vattenfall's liquidity risk in 2011. Nor has the turbulence in the capital markets caused by the debt crisis in the euro zone had any negative impact on Vattenfall's financing situation.

A rating downgrade from the single A category to BBB would entail that market players would regard Vattenfall as a less credit worthy counterparty, wich in such case could result in considerably poorer business conditions, especially in trading.

Benchmark bonds

Type	Currency	Amount	Coupon, %	Maturity
Euro Medium Term Note	EUR	850	5.750	2013
Euro Medium Term Note	EUR	500	4.125	2013
Euro Medium Term Note	EUR	1,350	4.250	2014
Euro Medium Term Note	EUR	1,100	5.250	2016
Euro Medium Term Note	EUR	500	5.000	2018
Euro Medium Term Note	EUR	650	6.750	2019
Euro Medium Term Note	GBP	350	6.125	2019
Euro Medium Term Note	EUR	1,100	6.250	2021
Euro Medium Term Note	EUR	500	5.375	2024
Euro Medium Term Note	GBP	1,000	6.875	2039

The table shows the largest issues made in Vattenfall's borrowing programmes. No new issues were made in 2011.

Translation exposure, SEK million, 2011 (2010)

Original currency	Equity		Hedging after tax		Net exposure after tax		Average exposure after tax
EUR	160,190	(165,412)	56,506	(92,892)	103,685	(72,520)	92,685
PLN	–	(16,940)	–	(2,509)	–	(14,430)	9,822
DKK	9,476	(9,492)	–	(–)	9,476	(9,492)	9,635
GBP	14,136	(7,479)	–	(–)	14,136	(7,479)	9,905
Other	3	(1)	–	(–)	3	(1)	2
Total	**183,805**	**(199,324)**	**56,506**	**(95,402)**	**127,299**	**(103,922)**	**122,048**

The table shows Vattenfall's equity exposure in other currencies than SEK.

Interest rate risk

Interest rate risk in Vattenfall's debt portfolio is measured in terms of duration, which is permitted to vary from a norm of four years by up to 12 months either way. The duration of the company's debt portfolio at year-end was 4.33 years (3.87). Including Hybrid capital the duration was 4.25 years (3.88). To adjust the duration of borrowing, Vattenfall uses interest rate swaps, interest rate forwards and options, among other instruments. See the table on page 62 for the remaining fixed rate term in Vattenfall's debt portfolio.

Currency risk

Currency risk pertains to the risk of a negative impact on the consolidated income statement and balance sheet caused by changes in exchange rates. Vattenfall is exposed to currency risk through exchange rate movements attributable to future cash flows (transaction exposure) and in the revaluation of net assets in foreign subsidiaries (translation or balance sheet exposure). Vattenfall's debt portfolio per currency is displayed in the table on page 62. The objective in managing the Group's currency risk is to minimise exchange rate effects while taking into account hedging costs and tax aspects. Currency exposure in borrowing is eliminated using currency interest rate swaps for the purpose of avoiding the effect of exchange rate differences on Vattenfall's earnings. Vattenfall has limited transaction exposure, since most generation, distribution and sales of electricity take place in the respective local markets, see the table "Consolidated operating revenues and expenses per currency". Sensitivity to currency movements is thus also relatively low. In the Nordic operations, most transaction exposures arise in conjunction with hedging of electricity prices, primarily on NordPool, since trading is conducted mainly in EUR. In the German, Dutch and Danish operations, transaction exposures arise primarily in conjunction with purchases of fuel. In these cases, currency risk is managed through the use of foreign exchange contracts.

Consolidated operating income and expenses per currency, %, 2011 (2010)

Currency	Income		Expenses	
EUR	67	(68)	76	(77)
SEK	25	(15)	16	(14)
PLN	–	(8)	1	(1)
DKK	5	(5)	6	(7)
Others	3	(4)	1	(–)
Total	**100**	**(100)**	**100**	**(100)**

The table shows a breakdown of the Group's operating income and expenses per currency. The values are calculated based on a statistical compilation of external operating income and expenses. Changes in inventories and investments are not included in the compilation.

The business units are required to hedge contracted transaction exposure when it exceeds the equivalent of SEK 10 million. Hedges are made through Vattenfall's Treasury department, where currency risks are managed within risk limits for interest rates and currencies that have been established by the Board of Directors. The Board has delegated the responsibility to the CFO to decide how much translation exposure is to be hedged. The goal over time is to match the currency composition in the debt portfolio with the currency composition of the Group's funds from operations (FFO). The average level of hedges of translation exposure over the year is shown in the table "Translation exposure" above.

With respect to currency movements, a 5% change in exchange rates would affect the Group's equity by approximately SEK 6,365 million (5,196), where a strengthening of the currencies indicated in the table would result in a positive change in equity. Reporting of translation exposure is described in Note 2 to the consolidated accounts, Accounting policies, under the headings Derivative instruments and Hedge accounting.

Price risk in equities

Vattenfall is also exposed to a certain level of price risk in equities. This exposure is shown in Note 25 to the consolidated accounts and pertains mainly to Vattenfall's shareholding in the Polish energy company Enea S.A. In this case, a change in the share price by 5% would affect comprehensive income by SEK 150 million. Price risk in listed equities consists of the price trend in the respective stock exchanges combined with currency movements in the event it pertains to a foreign stock exchange.

Technology

Operational asset risks

Vattenfall's largest operational asset risks are associated with the operation of power generation and heat production plants, which can be damaged as a result of incidents such as breakdowns or failures of components and equipment. This could give rise to volume losses and outage costs. These operational risks are mitigated through measures such as maintenance, training, advanced planning of plant maintenance and effective administrative routines. A rolling inspection programme for the plants is an important part of the continuous risk management work.

Vattenfall has identified nuclear power safety as a particular focus area. Vattenfall's Chief Nuclear Safety Officer (CNSO) is responsible for overseeing nuclear safety at the Group level. The ambition is to be world-leading in nuclear safety. This is achieved by promoting a strong safety culture, by having competent employees and by establishing clear and effective processes. Detailed analyses are conducted of Vattenfall's nuclear power plants to identify risks. These analyses are updated continuously in consultation with the safety authorities in the respective countries and form the basis for continuous improvement work. Vattenfall also participates in research and development, and in various exter-

nal collaborations to ensure that the company is using best practice technical and organisational solutions in nuclear power.

Dam safety is another focus area involving substantial investments. Much of the work associated with traditional hydro power today focuses on increasing the safety of dams, modernising existing plants and minimising adverse effects on the surrounding natural environment. Safety aspects are primarily aimed at preventing dam leakage and ruptures. Advances in meteorology and hydrology have increased hydro power plant risk awareness, and Vattenfall is investing in improving dam safety in general. Many plants have been fortified to be able to handle water flows that are so high that, statistically speaking, they would occur less than once every 10,000 years.

Further operational asset risks include damage to machinery and other equipment at Vattenfall's open-cast lignite mines. A disruption in mining operations could cause a halt in lignite deliveries, which could lead to a disruption in generation and loss of revenue for Vattenfall.

Risks associated with operational assets concern not only electricity generation but also damage to distribution networks. In the Nordic countries Vattenfall is continuously working to make electricity networks less vulnerable by replacing overhead power lines with underground cables. This work has already been completed for the most part for the German networks.

Risk mitigation through insurance

Vattenfall protects itself against economic loss to the greatest extent possible through insurance. Vattenfall has two captive insurance companies (companies that insure the Group's own risks exclusively) – Vattenfall Insurance and Vattenfall Reinsurance (Luxembourg). Vattenfall Insurance optimises the risk financing of insurable risks within the Group. Reinsurance is procured in the international reinsurance market and provides Vattenfall Insurance with some reinsurance capacity.

Vattenfall Insurance underwrites insurance for most of the Group's property and business interruption exposure as well as for construction and design risks. Most of the actual power lines in the distribution networks are uninsured. This is due to the difficulty of finding cost-effective insurance solutions. In addition, Vattenfall Insurance provides Group-wide general liability insurance, including consultant and product liability. With respect to dam liability, Swedish dam owners have strict and unlimited liability for damage to third parties caused by dam accidents. In co-operation with other Swedish and a number of Norwegian dam owners, Vattenfall procures dam liability insurance with an insured amount of SEK 9 billion.

Property insurance for Vattenfall's nuclear power plants is issued by EMANI (the European Mutual Association for Nuclear Insurance), and for the Swedish power plants also by Nordic Nuclear Insurers. Nuclear power liability in Sweden is strict and limited to 300 million Special Drawing Rights (SDRs), corresponding to approximately SEK 3.2 billion, which means that owners of nuclear power plants are only liable for damage up to this amount. Obligatory nuclear liability insurance is issued by Nordic Nuclear Insurers and by the mutual insurance company ELINI (European Liability Insurance for the Nuclear Industry).

In Germany, nuclear liability is strict and unlimited. By law, nuclear power plants are required to have insurance or other financial guarantees for up to EUR 2.5 billion. The German Atomic Insurance Pool issues insurance for up to EUR 256 million. Thereafter, the nuclear power plants and their German parent companies (in Vattenfall's case, Vattenfall Europe AG) are liable for amounts exceeding this level, in proportion to the respective ownership interest the parent companies have in the nuclear power plant. It is not until these resources are exhausted that a solidarity agreement ("Solidarvereinbarung") between the German nuclear power plant owners (Vattenfall, E.ON, RWE and EnBW) would take force for up to EUR 2.5 billion. Since the liability is unlimited, the nuclear power plants and their German parent companies are ultimately liable also for amounts in excess of this level. See also Note 48 to the consolidated accounts and Note 34 to the Parent Company accounts for further information on contingent liabilities.

Infrastructure

Vattenfall's IT structure supports several of the company's most important operating processes and plays a decisive role in Vattenfall's safety, compliance, earnings and power generation availability. An error or disruption in the IT infrastructure could seriously affect the availability and earnings of the business operations. For example, a breakdown in a customer management system could lead to a loss of trust in Vattenfall, while a disruption in a trading system could lead to lost opportunities.

IT security risks are mitigated through controls at the technical, organisational and physical levels, which guarantee confidentiality, integrity, availability and traceability. For example, the risk for errors in Supervisory Control and Data Acquisition (SCADA) systems, which support the production and distribution of electricity and heat, is mitigated through specific IT security controls and through strict segregation of various systems. Vattenfall is part of the national, critical infrastructure and co-operates with national authorities and other national and international organisations.

Politics and society

Political risk

Political risk is defined as the business risk that can arise as a result of political decisions, such as price regulations in electricity distribution, uncertainty regarding a new political majority, or changes in finance policies. In connection with acquisitions and other investments, this type of risk is taken into account by e.g., adjusting the cost of capital or through scenario analyses.

Another type of political risk stems from changes in legislation and in the rules and regulations that govern the energy industry. These can be factors such as changes in taxes, surcharges, environmental legislation and permit requirements, as well as changes in how natural monopolies are regulated and political objectives regarding the energy mix. For example, the EU Emissions Trading System will change in 2013. For Vattenfall this will essentially result in a discontinuation of the free allocation of CO_2 emission allowances, which will affect the cost of Vattenfall's CO_2-intensive generation.

To protect itself from political risk, Vattenfall conducts active business intelligence activities and maintains contacts with decision-makers. For example, changes in EU regulations could affect commodity trading. Vattenfall monitors market developments in order to be prepared to adapt the company's instructions and policies when and if this should be necessary. In addition, Vattenfall belongs to various national and international trade organisations to safeguard the company's interests.

Laws and regulations

Legal risks

Legal risk can be defined as the risk of loss of value and reputation due to failure to comply with relevant laws, regulations, codes of conduct, or (contractual) claims by third parties, or changes in legislation.

Staff Function Legal Affairs supports the business units in formulating their legal risks via the Vattenfall Enterprise Risk Management process. Vattenfall mitigates legal risks through Staff Function Legal Affairs, which performs legal analyses and participates in the decision-making process. In addition, Legal Affairs is involved, together with the risk co-

ordinators, in the process to mitigate and manage legal risks by establishing appropriate measures, including procedures, standards, guidelines and training. Vattenfall's General Counsel regularly reports on ongoing disputes to the Executive Group Management and the Board of Directors.

Personnel and organisation

Risk of losing unique expertise and key persons

Vattenfall has unique expertise and key persons in certain areas, where the impact would be particularly tangible if the individuals in question were to leave Vattenfall. To manage this risk, a record is kept of where persons with these qualities work in the organisation, and the risk is mitigated through efforts to spread their expertise. Vattenfall takes a structured approach to succession and competence planning, as well as to leadership and management development programmes, especially in view of the demographic trend and competition for specialists.

Risks associated with health and personal safety

Health and safety are important elements in Vattenfall's corporate culture and an integrated part of the company's business strategy and objectives. In Vattenfall's new strategy, safety is one of the company's three core values. Vattenfall works with preventive measures and adopts best practices in its health and safety work to reduce risk. Quantitative targets are defined and evaluated based on Vattenfall's Health and Safety policy, and all managers are responsible for preventing work-related accidents and health hazards. Furthermore, Vattenfall's production sites adhere to a high level of process safety to ensure the safety of both employees and society in general.

Fraud

Vattenfall strives for good internal governance and control. Preventive measures ensure that assets and information are protected from improprieties and fraud. The so-called four eyes principle is used within the Group, which entails that most decisions must be approved by at least two persons. In addition, various forms of analyses and follow-ups are performed as an effective means of discovering any improprieties.

Security risks

The Group's security organisation works with loss prevention and mitigating security measures to protect the Group's assets, IT systems, information, personnel and thereby the continuing operations. This also includes protecting the company and its customers against various types of crimes.

Risks that are part of several risk areas

Investment risk

Vattenfall is a highly capital-intensive company and has an extensive investment programme. Before every investment decision, a risk analysis is performed. By simulating various outcomes resulting from such factors as price, cost, delays and the cost of capital, risks are estimated for an investment. Several different types of investment risk exist in the various risk areas, including procurement risk, financing risk, market risk, risk in the choice of technology and the risk of changes regarding environmental permits.

Vattenfall's Staff Function Asset Management ensures that capital is invested in a manner that maximises long-term economic value. In addition to a strategic investment roadmap, a detailed plan of investment projects is updated yearly to provide the Executive Group Management with guidance in the investment decision process. Projects are ranked according to a number of criteria, including support of Vattenfall's overall strategy, consequences for the existing generation portfolio, risk profile and profitability.

Environmental risk

The overarching concept of environmental risk can be subdivided into three categories: technical environmental risks, legal and regulatory environmental risks, and environmental liabilities. Every year a compilation is made of the company's environmental risks, environmental liabilities, as well as of any provisions and measures that may be needed. In 2011 Vattenfall expanded its routines for environment risk reporting to further adapt to the ERM (Enterprise Risk Management) process. The environmental risk report is based on Group-wide reporting standards in accordance with set definitions. The analysis covers a general evaluation of Vattenfall's environmental risks and trend in recent years. The Business Units are responsible for identifying and reporting environmental risks in order to create a holistic picture of the Group's environmental risks. The annual environmental report is presented to Vattenfall's Safety and Risk Committee, and the Board of Directors.

The work on continuously preventing and controlling the effect of measures is largely conducted locally and is based on the knowledge and experience that exists within Vattenfall. Advance planning in this respect is a way of strengthening the Group's competitiveness over the long term. For example, provisions have been made for contaminated land areas as well as for the restoration of land after lignite mining. Risk response measures for environmental risks were expanded in 2011.

Consolidated income statement

Amounts in SEK million, 1 January–31 December	Note	2011	2010
Net sales	6, 7, 8	181,040	213,572
Cost of products sold[1]	9	–144,492	–159,098
Gross profit		**36,548**	**54,474**
Other operating income	10	7,169	2,169
Selling expenses		–6,838	–7,451
Administrative expenses		–10,912	–11,098
Research and development costs		–1,099	–1,545
Other operating expenses	11	–1,691	–7,320
Participations in the results of associated companies	7, 24, 54	32	624
Operating profit (EBIT)[2]	7, 12, 13, 14, 52, 53	**23,209**	**29,853**
Financial income[3]	15	3,843	2,514
Financial expenses[4]	16	–12,754	–10,944
Profit before tax[5]		**14,298**	**21,423**
Income tax expense	18	–3,882	–8,238
Profit for the year[6]		**10,416**	**13,185**
Attributable to:			
Owners of the Parent Company		11,083	12,997
Non-controlling interests (minority interests)	19	–667	188
Total		**10,416**	**13,185**
Earnings per share			
Number of shares in Vattenfall AB, thousands		131,700	131,700
Earnings per share, basic and diluted, SEK		84.15	98.69
Dividend, SEK million		4,433[7]	6,500
Dividend per share, SEK		33.66[7]	49.35

Amounts in SEK million, 1 January–31 December	2011	2010
Supplementary information		
Operating profit before depreciation and amortisation (EBITDA)	54,538	60,706
Financial items, net excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund	–7,893	–6,179
1) Of which, depreciation, amortisation and impairment losses related to intangible assets (non-current) and property, plant and equipment	–30,737	–25,257
2) Of which, depreciation, amortisation and impairment losses related to intangible assets (non-current) and property, plant and equipment	–31,329	–30,853
2) Including items affecting comparability attributable to:		
Capital gains/losses, net	4,722	–250
Impairment losses and other close-down costs for German nuclear plants	–10,513	–
Other impairment losses and impairment losses reversed, net	–402	–9,849
Other items affecting comparability	840	–
Total of items affecting comparability in Operating profit	**–5,353**	**–10,099**
3) Including return from the Swedish Nuclear Waste Fund	1,948	1,011
4) Including interest components related to pension costs	–1,043	–1,138
4) Including discounting effects attributable to provisions	–2,966	–3,262
5) Including items affecting comparability attributable to:		
Capital gains/losses, net	4,826	–247
Impairment losses and other close-down costs for German nuclear plants	–10,414	–
Other impairment losses and impairment losses reversed, net	–2,113	–9,849
Other items affecting comparability	840	–
Total of items affecting comparability in Profit before tax	**–6,861**	**–10,096**
6) Including items affecting comparability stated above adjusted for tax	–4,726	–10,009
7) Proposed dividend.		

Consolidated statement of comprehensive income

Amounts in SEK million, 1 January–31 December	2011	2010
Profit for the year	**10,416**	**13,185**
Other comprehensive income:		
Cash flow hedges:		
Changes in fair value	–4,675	–1,189
Dissolved against the income statement	6,668	–684
Transferred to cost of hedged item	224	246
Tax attributable to cash flow hedges	–638	494
Total cash flow hedges	**1,579**	**–1,133**
Hedging of net investments in foreign operations	960	19,831
Tax attributable to hedging of net investments in foreign operations	–242	–5,215
Total hedging of net investments in foreign operations	**718**	**14,616**
Translation differences	–2,014	–30,727
Translation differences and exchange rate effects net, divested companies	621	–
Revaluation of available-for-sale financial assets	–1,591	–
Transferred to the income statement, available-for-sale financial assets	1,591	–
Total other comprehensive income, net after tax	**904**	**–17,244**
Total comprehensive income for the year	**11,320**	**–4,059**
Total comprehensive income for the year attributable to:		
Owners of the Parent Company	12,008	–3,717
Non-controlling interests (minority interests)	–688	–342
Total	**11,320**	**–4,059**

Consolidated balance sheet

Amounts in SEK million	Note	31 December 2011	31 December 2010
Assets	7		
Non-current assets			
Intangible assets: non-current	8, 20	46,229	49,787
Property, plant and equipment	8, 21	279,445	285,631
Investment property	8, 22	539	626
Biological assets		8	4
Participations in associated companies and joint ventures	24	12,344	12,949
Other shares and participations	25	3,235	4,954
Share in the Swedish Nuclear Waste Fund	26	28,430	26,791
Current tax assets, non-current	18	990	1,184
Prepaid expenses		188	171
Deferred tax assets	18	1,303	1,397
Other non-current receivables	27	5,732	4,769
Total non-current assets		**378,443**	**388,263**
Current assets			
Inventories	28	18,564	16,825
Biological assets		1	–
Intangible assets: current	29	5,627	8,330
Trade receivables and other receivables	30	41,880	36,380
Advance payments to suppliers	31	6,368	3,904
Derivatives with positive fair values	44	30,099	29,338
Prepaid expenses and accrued income	32	6,450	10,597
Current tax assets	18	1,853	2,311
Short-term investments	33	17,417	31,278
Cash and cash equivalents	34	11,268	12,595
Assets held for sale	35	6,588	1,611
Total current assets		**146,115**	**153,169**
Total assets		**524,558**	**541,432**

Amounts in SEK million	Note	31 December 2011	31 December 2010
Equity and liabilities			
Equity attributable to owners of the Parent Company			
Share capital		6,585	6,585
Reserve for cash flow hedges		245	–1,315
Other reserves		–8,203	–7,568
Retained earnings incl. profit for the year		133,361	129,002
Total equity attributable to owners of the Parent Company		**131,988**	**126,704**
Equity attributable to non-controlling interests (minority interests)		**6,943**	**6,917**
Total equity		**138,931**	**133,621**
Non-current liabilities			
Hybrid capital	36	8,883	8,929
Other interest-bearing liabilities	37	149,602	144,599
Pension provisions	38	17,995	18,137
Other interest-bearing provisions	39	66,487	62,494
Deferred tax liabilities	18	35,406	36,125
Other noninterest-bearing liabilities	40	8,238	8,409
Total non-current liabilities		**286,611**	**278,693**
Current liabilities			
Trade payables and other liabilities	41	35,108	33,184
Advance payments from customers	42	1,142	1,912
Derivatives with negative fair values	44	22,454	25,216
Accrued expenses and deferred income	43	18,507	24,804
Current tax liabilities	18	844	2,062
Interest-bearing liabilities	37	11,865	34,749
Interest-bearing provisions	39	7,237	7,191
Liabilities associated with assets held for sale	35	1,859	–
Total current liabilities		**99,016**	**129,118**
Total equity and liabilities		**524,558**	**541,432**

See also information on Collateral (Note 47), Contingent liabilities (Note 48) and Commitments under consortium agreements (Note 49).

Consolidated statement of cash flows

Amounts in SEK million, 1 January–31 December	Note	2011	2010
Operating activities			
Profit before tax		14,298	21,423
Reversal of depreciation, amortisation and impairment losses[1]		33,040	30,853
Tax paid		–5,250	–8,901
Capital gains/losses, net		–4,827	245
Other, incl. non-cash items	45	995	–3,512
Funds from operations (FFO)		**38,256**	**40,108**
Changes in inventories		–3,350	–2,407
Changes in operating receivables		944	–12,612
Changes in operating liabilities		668	5,681
Other changes		–3,050	10,461
Cash flow from changes in operating assets and operating liabilities		**–4,788**	**1,123**
Cash flow from operating activities		**33,468**	**41,231**
Investing activities			
Acquisitions in Group companies	4	–257	–577
Investments in associated companies and other shares and participations	4	–140	–508
Other investments in non-current assets	45	–35,353	–40,709
Total investments		**–35,750**	**–41,794**
Divestments	45	16,280	7,197
Cash and cash equivalents in acquired companies		–	111
Cash and cash equivalents in divested companies		–1,332	–297
Cash flow from investing activities		**–20,802**	**–34,783**
Cash flow before financing activities		**12,666**	**6,448**
Financing activities			
Changes in short-term investments		11,292	–1,919
Changes in loans to owners of non-controlling interests (minority owners) in foreign Group companies		–287	1,135
Loans raised[2]	45	10,511	13,325
Amortisation of debts pertaining to acquisitions of Group companies		–13,538	–
Amortisation of other debts		–15,688	–12,389
Dividends paid to owners		–6,701	–5,311
Contribution from owners of non-controlling interests (minority interests)		569	12
Cash flow from financing activities		**–13,842**	**–5,147**
Cash flow for the year		**–1,176**	**1,301**

Amounts in SEK million, 1 January–31 December	Note	2011	2010
Cash and cash equivalents			
Cash and cash equivalents at start of year		12,595	10,555
Cash and cash equivalents included in assets held for sale		–	653
Cash flow for the year		–1,176	1,301
Translation differences		–151	86
Cash and cash equivalents at end of year		**11,268**	**12,595**
Supplementary information			
Cash flow before financing activities		**12,666**	**6,448**
Financing activities			
Dividends paid to owners		–6,701	–5,311
Contribution from owners of non-controlling interests (minority interests)		569	12
Cash flow after dividend		**6,534**	**1,149**
Analysis of change in net debt			
Net debt at start of year		–144,109	–154,987
Changed calculation of net debt		–	–11,252
Cash flow after dividends		6,534	1,149
Changes as a result of valuation at fair value		–2,210	–1,743
Change in interest-bearing liabilities for leasing		114	111
Interest-bearing liabilities/short-term investments acquired/divested		–459	4,002
Changes in liabilities pertaining to acquisitions of Group companies		–	–122
Changes in liabilities pertaining to acquisitions of Group companies, discounting effects		–549	–627
Cash and cash equivalents included in assets held for sale		–	653
Interest-bearing liabilities associated with assets held for sale		344	–
Translation differences on net debt		–754	18,707
Net debt at end of year		**–141,089**	**–144,109**
Free cash flow (Cash flow from operating activities less maintenance investments)		17,637	23,846

1) In this context, impairment losses also include other close-down costs than impairment in 2011 pertaining to nuclear power plants in Germany. The total of these impairment losses and other close-down costs amounts to SEK 10,513 million.

2) Short-term borrowings in which the duration is three months or shorter are reported net.

Consolidated statement of changes in equity

Amounts in SEK million	Attributable to equity owners of the Parent Company					Attributable to non-controlling interests (minority interests)	Total equity
	Share capital	Reserve for cash flow hedges	Other reserves	Retained earnings	Total		
Balance brought forward 2010	**6,585**	–259	8,090	121,204	**135,620**	6,784	**142,404**
Dividends paid to owners	–	–	–	–5,240	**–5,240**	–71	**–5,311**
Group contributions from owners of non-controlling interests (minority interests), net after tax	–	–	–	–	**–**	402	**402**
Changes in ownership	–	–	–	41	**41**	144	**185**
Cash flow hedges:							
Changes in fair value	–	–1,086	–	–	**–1,086**	–103	**–1,189**
Dissolved against income statement	–	–684	–	–	**–684**	–	**–684**
Transferred to cost of hedged item	–	247	–	–	**247**	–1	**246**
Tax attributable to cash flow hedges	–	467	–	–	**467**	27	**494**
Total cash flow hedges	**–**	**–1,056**	**–**	**–**	**–1,056**	**–77**	**–1,133**
Hedging of net investments in foreign operations	–	–	19,831	–	**19,831**	–	**19,831**
Tax attributable to hedging of net investments in foreign operations	–	–	–5,215	–	**–5,215**	–	**–5,215**
Total hedging of net investments in foreign operations	**–**	**–**	**14,616**	**–**	**14,616**	**–**	**14,616**
Translation differences	–	–	–30,274	–	**–30,274**	–453	**–30,727**
Total other comprehensive income for the year	**–**	**–1,056**	**–15,658**	**–**	**–16,714**	**–530**	**–17,244**
Profit for the year	–	–	–	12,997	**12,997**	188	**13,185**
Total comprehensive income for the year	**–**	**–1,056**	**–15,658**	**12,997**	**–3,717**	**–342**	**–4,059**
Balance carried forward 2010	**6,585**	**–1,315**	**–7,568**	**129,002**	**126,704**	**6,917**	**133,621**

Amounts in SEK million	Attributable to equity owners of the Parent Company					Attributable to non-controlling interests (minority interests)	Total equity
	Share capital	Reserve for cash flow hedges	Other reserves	Retained earnings	Total		
Balance brought forward 2011	**6,585**	**–1,315**	**–7,568**	**129,002**	**126,704**	**6,917**	**133,621**
Dividends paid to owners	–	–	–	–6,500	**–6,500**	–201	**–6,701**
Group contributions from owners of non-controlling interests (minority interests), net after tax	–	–	–	–	**–**	358	**358**
Changes in ownership	–	–	–	–224	**–224**	557	**333**
Cash flow hedges:							
Changes in fair value	–	–4,689	–	–	**–4,689**	14	**–4,675**
Dissolved against income statement	–	6,667	–	–	**6,667**	1	**6,668**
Transferred to cost of hedged item	–	213	–	–	**213**	11	**224**
Tax attributable to cash flow hedges	–	–631	–	–	**–631**	–7	**–638**
Total cash flow hedges	**–**	**1,560**	**–**	**–**	**1,560**	**19**	**1,579**
Hedging of net investments in foreign operations	–	–	960	–	**960**	–	**960**
Tax attributable to hedging of net investments in foreign operations	–	–	–242	–	**–242**	–	**–242**
Total hedging of net investments in foreign operations	**–**	**–**	**718**	**–**	**718**	**–**	**718**
Translation differences	–	–	–1,974	–	**–1,974**	–40	**–2,014**
Translation differences and exchange rate effects net, divested companies	–	–	621	–	**621**	–	**621**
Revaluation of available-for-sale financial assets	–	–	–1,591	–	**–1,591**	–	**–1,591**
Transferred to the income statement, available-for-sale financial assets	–	–	1,591	–	**1,591**	–	**1,591**
Total other comprehensive income for the year	**–**	**1,560**	**–635**	**–**	**925**	**–21**	**904**
Profit for the year	–	–	–	11,083	**11,083**	–667	**10,416**
Total comprehensive income for the year	**–**	**1,560**	**–635**	**11,083**	**12,008**	**–688**	**11,320**
Balance carried forward 2011	**6,585**	**245**	**–8,203**	**133,361**	**131,988**	**6,943**	**138,931**

See also Note 46 to the consolidated accounts, Specifications of equity.

Notes to the consolidated accounts

Contents

Note 1 Company information

The year-end report for Vattenfall AB for 2011 was approved for publication on 8 February 2012 in accordance with a decision by the Board of Directors. The Annual Report was approved in accordance with a decision by the Board of Directors on 21 March 2012. The Parent Company, Vattenfall AB, is a limited liability company with its registered office in Stockholm and with the address SE-162 87 Stockholm, Sweden. The consolidated balance sheet and income statement disclosed in the Annual Report will be submitted at the Annual General Meeting (AGM) on 25 April 2012.

The main activities of the Group are described in Note 7 to the consolidated accounts, Operating segments.

Note 2 Accounting policies

Conformity with standards and regulations

The consolidated accounts have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) as well as the interpretations issued by the IFRS Interpretations Committee (IFRIC) as endorsed by the European Commission for application within the EU.

In addition, recommendation RFR 1 – *Supplementary Accounting Policies for Groups*, issued by the Swedish Financial Reporting Board (RFR), has been applied. RFR 1 specifies the mandatory additions to the IFRS disclosure requirements in accordance with the Swedish Annual Accounts Act.

Basis of measurement

Assets and liabilities are reported at cost or amortised cost, with the exception of certain financial assets and liabilities and inventories held for trading, which are recognised at fair value. Financial assets and liabilities recognised at fair value consist of holdings in the categories financial assets and liabilities recognised at fair value through profit or loss, and all derivatives.

Functional and presentation currencies

The functional currency is the currency of the primary economic environment in which each entity operates.

The Parent Company's functional currency is Swedish kronor (SEK), which is also the presentation currency of both the Parent Company and the Group. This means that the financial statements are presented in Swedish kronor. Unless otherwise stated, all figures are rounded off to the nearest million Swedish kronor (SEK million).

Estimations and assessments

Preparation of the financial statements in accordance with IFRS requires the company's executive management and Board of Directors to make estimations and assessments as well as to make assumptions that affect the application of the accounting policies and the reported amounts of assets, liabilities, income and expenses.

Assessments made by the company's executive management and Board of Directors, when applying IFRS, that have a material effect on the financial statements, and estimations that may result in substantial adjustments to the following year's financial statements, are described in greater detail in Note 3 to the consolidated accounts.

Accounting policies

The accounting policies of the Group detailed below, with exception for what is stated below under the heading New IFRSs and interpretations effective as of 2011, have been applied consistently for all periods presented in the consolidated financial statements.

New IFRSs and interpretations effective as of 2011

The new standards and amendments to standards and interpretations described below, and endorsed by the EU, are effective as of the 2011 financial year. Amendments to IFRS 1 – *First-time Adoption of IFRS* have been omitted as these are not relevant for Vattenfall.

Revised IAS 24 – *Related Party Disclosures*. The revised standard includes certain clarifications and simplifications of the definition of a related party and provides relief for government-related entities to disclose details of transactions with other government-related entities. However, Vattenfall's transactions with government-related entities do not represent a significant part of the Vattenfall Group's net sales, purchasing or earnings. The amendments in IAS 24 have not had any impact on Vattenfall's financial statements.

Amendments in IAS 32 – *Classification of Right Issues*. Share subscription rights denominated in a currency other than the company's functional currency are classified as equity instruments under certain conditions. The amendments are not relevant for Vattenfall.

Amendment in IFRIC 14, *Prepayments of a Minimum Funding Requirement*, corrects an unintended consequence of IFRIC 14 and provides guidance on determining the recoverable value of a net pension asset. The amendment has not had any impact on Vattenfall's financial statements.

IFRIC 19 – *Extinguishing Financial Liabilities with Equity Instruments*. The interpretation deals with the accounting of creditors that settle liabilities by issuing equity instruments, but is not relevant for Vattenfall.

"Improvements to IFRSs" (issued in May 2010) aim to streamline and clarify the accounting standards concerning presentation, recognition and measurement including changes in terminology or amendments of an editorial nature. Certain relief from the disclosure requirements has been introduced. For example, an amendment to IFRS 7 – *Financial Instruments: Disclosures*, entails that Vattenfall no longer discloses its maximum credit risk exposure for financial instruments. In other respects, these amendments have had no or negligible impact on Vattenfall's financial statements.

New IFRSs and interpretations not yet adopted

New standards, amendments to standards and interpretations endorsed by the EU as per 31 December 2011, which are effective as of the 2012 financial year and which have not been applied prospectively:

Amendments in IFRS 7 – *Financial Instruments: Disclosures*. The amendments require additional quantitative and qualitative disclosures when derecognising financial instruments from the balance sheet. If transferred assets are not derecognised in their entirety, this fact shall be disclosed. In the same way, if the entity has a continuing involvement in the derecognised asset, this shall also be disclosed.

New standards, amendments to standards and interpretations issued by IASB/IFRIC which at 31 December 2011 had not yet been endorsed by the EU but which are expected to take effect in 2013 at the earliest:

IFRS 9 – *Financial Instruments: Recognition and Measurement*. This standard is part of a complete revision of the present standard IAS 39 – *Financial Instruments: Recognition and Measurement*. The standard involves a reduction in the number of measurement categories of financial assets and entails that the main categories for measurement are amortised cost and fair value through profit or loss. For certain investments in equity instruments, it is allowed to recognise them at fair value on the balance sheet with the changes in value recognised directly in Other comprehensive income, with no reclassification (recycling) to the income statement for the period upon their disposal.

Rules on impairment, hedge accounting and derecognition will be added to the standard subsequently.

Awaiting the completion of all parts of the standard, Vattenfall has not yet evaluated the effects of the new standard.

IFRS 10 – *Consolidated Financial Statements*. The standard contains uniform rules for determining which units are to be consolidated and will supersede the major parts of IAS 27 – *Consolidated Accounting and Separate Financial Statements* and SIC 12, which addresses Special Purpose Entities. The rules in IAS 27 on consolidation and on when consolidated financial statements are to be prepared have been transferred unchanged from IAS 27. Vattenfall is currently analysing the effects that application of the new standard will entail.

IFRS 11 – *Joint Arrangements*. The standard addresses the reporting of joint arrangements, i.e., arrangements in which two or more parties have joint control, and will supersede IAS 31 – *Interests in Joint Ventures*. Vattenfall is currently analysing the effects that application of the new standard will entail.

IFRS 12 – *Disclosures of Interests in Other Entities*. Expanded disclosure requirements regarding subsidiaries, joint arrangements and associates have been gathered in a single standard. The disclosures address the effects of holdings on the financial statements and risks associated with the current holdings. Vattenfall is currently analysing the effects that application of the new standard will entail.

IFRS 13 – *Fair Value Measurement*. The standard includes uniform rules for measuring fair value where another IFRS requires fair value measurements or disclosures about fair value measurements. New types of disclosures are to be made in order to clarify which valuation techniques are used and which inputs are used. Vattenfall is currently analysing the effects that application of the new standard will entail.

Amendments in IAS 1 – *Presentation of Items of Other Comprehensive Income*. The amendment entails a change in the categories of transactions that are reported in Other comprehensive income. Items that are to be reclassified (recycled) to the income statement are to be reported separately. The proposal does not affect the actual content of Other comprehensive income, but only the presentation format.

Amendments in IAS 12 – *Income Taxes* pertaining *to Deferred tax: Recovery of Underlying Assets*. Deferred taxes on property that is measured at fair value are to be calculated based on the property's sales value if there are no indications that the property will be recovered in another manner. Vattenfall is not affected by this amendment, as its properties are not measured at fair value.

Amendments in IAS 19 – *Employee Benefits*. Significant changes mainly pertaining to the reporting of defined benefit pension plans, where there the opportunity to distribute actuarial gains and losses over time as part of the so called corridor rule cannot be applied; instead these are to be reported continuously in Other comprehensive income. The current year's earning of defined benefit pensions, gains and losses that arise from settlement of a pension liability, and financial items pertaining to the defined benefit plan, are reported in the income statement.

Actuarial gains/losses as per 31 December 2011 for the Vattenfall Group are reported in Note 39 to the consolidated accounts.

Amendment and change of name for IAS 27 – *Separate Financial Statements* where the requirements concerning separate financial statements are unchanged, while other parts of IAS 27 are superseded by IFRS 10.

Amendment of IAS 28 – *Investments in Associates and Joint Ventures*, which has been adapted to IFRS 10, IFRS 11 and IFRS 12.

Amendments in IAS 32 – *Financial Instruments: Presentation* and amendments in IFRS 7 – *Financial Instruments: Disclosures* clarifying some of the requirements for offsetting financial assets and financial liabilities in the balance sheet. Vattenfall is currently analysing the effects that application of the amendments will entail.

IFRIC 20 – *Stripping Costs in the Production Phase of a Surface Mine*. The interpretation addresses how costs for stripping the surface layer of an open cast (surface) mine are to be deter-

Continued on page 74

Note 2 continued

mined and reported, initially and on a continuous basis, during the production phase. Vattenfall already applies the valuation and reporting stipulated in IFRIC 20.

Segment information

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses and for which discrete financial information is available. An operating segment's result is reviewed regularly by "the chief operating decision maker" which in Vattenfall is the Chief Executive Officer, to assess its performance and to make decisions about resources to be allocated to the operating segment. Segmental information (see Note 7 to the consolidated accounts) is only provided for the Group.

Classification of current and non-current assets and liabilities

An asset is classified as a current asset when it is held primarily for the purpose of trading or is expected to be realised within twelve months after the balance sheet date or consists of cash and cash equivalents, provided it is not subject to restrictions on its exchange or use for regulating a liability at least twelve months after the balance sheet date.

All other assets are classified as non-current assets.

A liability is classified as a current liability when it is held primarily for the purpose of trading or is expected to be settled within twelve months after the balance sheet date or one for which the Group does not have an unconditional right to defer settlement of for a minimum of twelve months after the balance sheet date.

All other liabilities are classified as non-current liabilities.

Assets held for sale

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. The assets are valued at the lower of their carrying amount and fair value less costs to distribute and are not subject to amortisation or depreciation.

Assets (and liabilities) held for sale are classified as current assets (current liabilities) since the sale transaction is expected to be settled within twelve months after the balance sheet date.

Principles of consolidation

Subsidiaries

Subsidiaries are all subsidiaries over which the Parent Company, Vattenfall AB, has the power to govern the financial and operating policies generally accompanying a shareholding of more than 50% of the voting power.

Business combinations are accounted for using the purchase method. This method entails that the acquisition of a subsidiary is considered to be a transaction through which the Group indirectly acquires the subsidiary's assets and takes over its liabilities and contingent liabilities. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration agreement.

Through purchase price allocation (PPA) of the business acquisition, the cost of the participating interests or business activities is established as well as the fair value of acquired identifiable assets and assumed liabilities and contingent liabilities. Deferred tax is taken into account for differences between the carrying amount and the corresponding tax base on all items except goodwill. The difference between the cost of the subsidiaries' shares and the fair value of acquired assets, assumed liabilities and contingent liabilities constitutes goodwill. If the cost of the subsidiaries' shares is less than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the income statement. There is a choice on an acquisition-by-acquisition basis to measure the non-controlling interest (minority interest) in the acquiree at fair value or at the non-controlling interest's (minority interest's) proportionate share of the acquiree's net assets.

Contingent payments are classified as liabilities subsequently remeasured through profit or loss.

All acquisition-related costs are expensed.

The subsidiary's financial statements, which are prepared in accordance with the Group's accounting policies, are included in the consolidated accounts from the point of acquisition to the date when the controlling influence ceases.

Acquisitions and divestments of non-controlling interests (minority interests) in subsidiaries are recognised in equity.

When the Group ceases to have control in a subsidiary, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associated company, joint venture or financial asset.

A discontinued operation is reported separately from continuing operations if the discontinued operation amounts to a significant value.

Associated companies

Associated companies are companies in which the Group has a significant – but not controlling – influence over their operational and financial management, usually through shareholdings corresponding to between 20% and 50% of the votes. In conjunction with the acquisition of an associated company, a purchase price allocation similar to that of a business combination is made. Identifiable surplus values are handled in a similar manner to surplus values in business combinations. From the point at which the significant influence is acquired, participations in associated companies are reported in the consolidated accounts in accordance with the equity method. The equity method entails that the value of the shareholding in associated companies reported in the consolidated accounts corresponds to the Group's share of the associated companies' equity plus consolidated goodwill and any unamortised value of consolidated surplus and deficit values less internal profit reserves. Dividends received from an associated company reduce the carrying amount of the investment.

In the consolidated income statement, the item Participations in the results of associated companies is shown net after tax.

The equity method is applied from the point of acquisition up to the point when the significant influence ceases.

Joint ventures

In the accounts, joint ventures are activities in which the Group has a joint controlling influence over the operational and financial management through collaborative agreement with one or more parties. In the consolidated accounts, holdings in joint ventures are consolidated in accordance with the equity method.

Transactions that are eliminated upon consolidation

Intra-Group receivables and liabilities, income and expenses, as well as gains or losses arising from intra-Group transactions between Group companies, are eliminated in their entirety when preparing the consolidated accounts.

Gains arising from transactions with associated companies and joint ventures are eliminated to an extent that corresponds to the Group's holding in the company. Losses are eliminated in the same manner as gains, but are treated as an indicator of impairment.

Foreign currencies

Transactions in foreign currencies

Transactions in foreign currencies are translated to the functional currency at the exchange rate on the day of the transaction. On the balance sheet date, monetary assets and liabilities in foreign currencies are translated to the functional currency at the exchange rate applicable on that day. Exchange rate differences arising from translation of currencies are reported in the income statement. Operationally derived exchange gains and losses are shown under Other operating income and Other operating expenses, respectively. Financially derived exchange gains and losses are shown as financial income and expenses, respectively.

Financial reporting of foreign activities

Assets and liabilities of foreign activities, including goodwill and other consolidated surplus and deficit values, are translated to

SEK at the exchange rate in effect on the balance sheet date. Income and expenses of foreign activities are translated to SEK using an average exchange rate. Translation differences arising from foreign currency translation of foreign activities are reported in Other comprehensive income.

For the Vattenfall Group, key exchange rates applied in the accounts are provided in Note 5 to the consolidated accounts.

Revenue recognition

Net sales include sales proceeds from core businesses, i.e., generation, sales and distribution of electricity, sales and distribution of heat, sales of gas, energy trading and other revenues such as service and consulting assignments and connection fees.

Sales of electricity, heat and gas

Sales of electricity, heat and gas and related distribution are recognised as revenue at the time of delivery, excluding value-added tax and excise taxes.

Starting in 2006, Vattenfall has replaced intra-Group physical electricity transactions between Nordic electricity generation and sales activities in the Nordic countries with transactions vis-à-vis NordPool. The purchases that the sales activities make from NordPool are, at the Group level, offset against sales of generation to NordPool.

The change in fair value of derivatives, including commodity derivatives, that does not qualify for hedge accounting is reported in gross profit unless it does relate to derivative instruments used in financial activities.

Other revenues

In the case of service and consulting assignments, the percentage of completion method is applied, i.e., revenues and expenses are reported in proportion to the degree of completion. The degree of completion is established according to the relation between accrued expenses on the balance sheet date and estimated total expenses. In cases where losses are expected, a provision is established immediately.

Connection fees for electricity distribution and heat distribution are reported as revenues to the extent that they are not required to cover future obligations.

Government grants

Grants are reported at fair value when it can reasonably be assumed that the grant will be received and that the Group will meet the conditions of the grant.

A grant tied to a non-current asset reduces the reported cost of the asset.

A grant intended to cover expenses is reported in the income statement as Other operating income.

Operating expenses

Operating leases

Expenses paid for operating leases are reported in the income statement on a straight-line basis over the leasing period. For a definition of operating leases, see below under the heading Property, plant and equipment/Leasing.

Financial income and financial expenses

Financial income

Financial income consists of interest income on bank balances, receivables and interest-bearing securities, returns from the Swedish Nuclear Waste Fund, dividend income, exchange rate differences, and positive changes in values of financial investments and derivative instruments used in financial activities.

Interest income is adjusted for transaction costs and any rebates, premiums and other differences between the original value of the receivable and the amount received when due. Interest income is reported as it is earned. The calculation is made on the basis of the return on underlying assets in accordance with the effective interest method.

Dividend income is reported when the right to receive payment is established.

Financial expenses

Financial expenses consist of interest expenses on loans, discounting effects and interest attributable to provisions, exchange rate differences, and negative changes in values of financial investments and derivative instruments used in the financial activities. Discounting effects are defined here as the periodic change of the present value which reflects the time value of money.

Issue expenses and similar direct transaction costs for raising loans are distributed over the term of the loan in accordance with the effective interest method.

Borrowing costs directly attributable to investment projects in non-current assets which take a substantial period of time to complete, are not reported as a financial expense but should be included in the cost of the non-current asset during the construction period.

Leasing fees pertaining to finance leases are distributed between interest expense and amortisation of the outstanding debt. Interest expenses are distributed over the leasing period so that each accounting period is charged in the amount corresponding to a fixed interest rate for the reported debt in each period. Variable fees are carried as an expense in the period in which they arise.

Financial assets and financial liabilities

General principles

Financial instruments are reported initially at cost, corresponding to the instrument's fair value plus transaction costs for all financial instruments, except for those that belong to the category "financial assets at fair value through profit or loss" and all derivatives, which are reported at fair value excluding transaction costs.

A financial asset or financial liability is recognised on the balance sheet when Vattenfall becomes a party to such in accordance with terms of the instrument's contract. A trade receivable is recognised on the balance sheet when an invoice has been sent. A liability is recognised when the counterparty has performed a service and a contractual obligation to pay exists, even if the invoice has not yet been received. A trade payable is recognised when the invoice has been received.

A financial asset is derecognised from the balance sheet when the rights under the contract are sold, expire, or when Vattenfall loses control over them. The same applies for parts of a financial asset. A financial liability is derecognised from the balance sheet when the contractual obligation has been fulfilled or in some other way extinguished. The same applies for parts of a financial liability.

Foreign exchange gains and losses concerning operating receivables and liabilities in foreign currencies are reported under operating profit, while foreign exchange gains and losses concerning other receivables and liabilities in foreign currencies are reported under net financial items.

For financial instruments traded in active financial markets, the fair value is set at the rate applicable when the market closes on the balance sheet date. The same rule applies for fixing the fair value of bilaterally traded financial instruments (OTC trading). For unlisted financial instruments, fair value is set by discounting estimated future cash flows. Discounting is done using discounting factors based on return curves in the cash flows of the respective currencies. The return curves are based on the market interest rates, such as swap rates, that apply on the balance sheet date.

Financial assets

Financial assets are classified in various categories depending on the purpose of the acquisition of the financial asset. The classification is determined at the original point of acquisition.

Settlement day accounting is applied for spot purchases and spot sales of financial assets.

Financial assets at fair value through profit or loss

This category includes assets classified as held for the purpose of trading, which means that the intention is for them to be divested in the near term. Derivative instruments not held for hedging purposes are always regarded as held for trading. For foreign exchange contracts, fair value is based on quoted exchange rates, if such are available. If such are not available,

Continued on page 76

Note 2 continued

fair value is determined by discounting future cash flows translated at the balance sheet date exchange rate. Discounting is done at a risk-free interest rate based on government bonds. Fair value of interest rate swaps is based on a discounting of calculated future cash flows in accordance with the contract's terms and due dates, based on the market rate of interest. Fair value of options is based on quoted prices, where such are available. The value of unquoted options is calculated using the Black-Scholes model, based on underlying market data.

For Vattenfall, the category "Financial assets at fair value through profit or loss" also includes short-term liquid investments with terms of less than three months, since Vattenfall follows up and measures these based on fair values. The category also includes short-term investments with original maturities in excess of three months. For listed securities, fair value is based on the quoted buying price on the balance sheet date. For other short-term investments, fair value is calculated by discounting estimated future cash flows in accordance with the contract's terms and maturity dates, and based on the market rate of interest for similar instruments on the balance sheet date.

The assets are remeasured on a continuous basis to fair value, with changes in value stated through profit or loss.

Loans and receivables

Loans and receivables are financial assets with fixed payments or payments whose amounts can be determined. Receivables arise when the company provides money, goods and services directly to the debtor without the intention of trading in the receivable rights. Acquired receivables are also covered. Loans and receivables are measured at amortised cost. Amortised cost is defined as the value at which a financial asset or liability is stated when it is initially recorded in the balance sheet, less any repayments, and with additions or deductions for the distribution over time of any differences between the amount initially recognised and the repayment amount.

Trade receivables are reported at the amount expected to be paid, i.e., less doubtful debts. Impairment losses on trade receivables are reported under operating expenses. Trade receivables have a short anticipated term and are therefore valued at a nominal amount without discounting.

Fair value of loans is calculated for disclosure purposes by discounting future cash flows using the current interest rate. For trade receivables, the reported value is considered to reflect fair value.

The category Loans and receivables also includes Cash and bank balances, i.e., immediately available balances with banks and similar institutions, and Shares in the Swedish Nuclear Waste Fund.

Available-for-sale financial assets

Financial assets that are available for sale are carried at fair value on the balance sheet, with changes in value recognised in Other comprehensive income. On the date that the assets are derecognised from the balance sheet, any previously recognised accumulated gain or loss in Other comprehensive income is transferred to the income statement.

Holdings in listed companies are measured based on the share price on the balance sheet date.

Shares and participations for which there are no balance sheet date quotations and for which a fair value cannot be established are valued at cost, after taking accumulated impairment losses into account.

Financial liabilities

Financial liabilities have been classified in various categories depending on the purpose of the acquisition of the financial liability. The classification is determined at the date of original acquisition.

Financial liabilities at fair value through profit or loss

Derivative instruments not held for hedging purposes are always classified in this category. These financial liabilities are measured at fair value with changes in value recognised in profit or loss. For a description of how fair value is measured, see above under the heading "Financial assets at fair value through profit or loss".

Other financial liabilities

In this category, interest-bearing and noninterest-bearing financial liabilities that are not held for commercial purposes are reported. Other financial liabilities are measured at amortised cost.

Trade liabilities have a short anticipated term and are therefore valued at a nominal amount without discounting.

Fair value of Other financial liabilities is calculated for disclosure purposes by discounting future cash flows using the current interest rate for the remaining term, with the exception of trade payables, where the reported value is considered to reflect fair value.

Liabilities included in a hedge relationship are reported in accordance with the principles described below.

Derivative instruments

Vattenfall uses various types of derivative instruments (forwards, futures and swaps) to hedge various financial risks, primarily interest rate risks, currency risks and commodity price risks.

Derivative instruments with a positive fair value are reported as a separate line item in the balance sheet under current assets, while derivative instruments with a negative fair value are reported as a separate line item under current liabilities.

Derivative instruments are reported at fair value on the balance sheet date. The reporting of changes in value depends on whether the derivative instrument is classified as a hedge or not. In a situation where hedging is not applied, the change in value is recognised in profit or loss in the period in which it arises. Based on the purpose of the contract, changes in value are reported either under operating profit or as financial income/expense. Effects of hedge accounting are described below.

Embedded derivatives

Embedded derivatives are parts of another contract (the host contract), whose terms and conditions meet the definition of a derivative instrument. In cases where embedded derivatives are identified, and where the risk profile of the embedded derivative is not considered to be closely related to the risk profile of the host contract, the embedded derivative is separated and accounted for as if it were a free-standing derivative instrument, in accordance with what is described under the heading Derivative instruments above.

Hedge accounting

Hedge accounting is adopted for derivative instruments that are included in a documented hedge relationship. For hedge accounting to be applied, a direct connection between the hedge and the hedged item is required. Further, it is necessary for the hedge to protect the risk effectively as intended, that the effectiveness of the measure can be demonstrated at all times to be sufficiently high through effectiveness testing, and that hedging documentation has been prepared. The reporting of changes in value depends on the type of hedge entered into.

Cash flow hedges

Cash flow hedges are used primarily in the following cases: i) when forward commodity contracts are used to hedge commodity price risk in future purchases and sales, ii) when forward exchange rate contracts are used to hedge currency risk in future purchases and sales in foreign currencies, and iii) when interest rate swaps are used to replace borrowing at a floating interest rate with a fixed interest rate.

For derivative instruments that constitute a hedge instrument in a cash flow hedge, the effective part of the change in value is reported in Other comprehensive income while the ineffective part is recognised directly in profit or loss. The part of the change in value that is reported in Other comprehensive income is then transferred to the income statement in the period when the hedged item affects the income statement. In cases where the hedged item refers to a future transaction, which is later capitalised as a non-financial asset or liability in the balance sheet (for example, when hedging future purchases of non-current assets in a foreign currency), the part of the change in value reported in Other comprehensive income is transferred to and included in the cost of the asset or liability.

If the conditions for hedging are no longer met, the accumulated changes in value that were reported in Other comprehensive income are transferred to the income statement/balance sheet in the later period when the hedged item affects the income statement/balance sheet. Changes in value from the day on which the conditions for hedging ceased to be met are recognised directly in profit or loss. If the hedged transaction is no longer expected to occur, the hedge's accumulated changes in value are immediately transferred from Other comprehensive income to the income statement.

Hedges of fair value
For hedges of fair value, hedge accounting is applied in cases where the hedge pertains to an item that is normally stated at amortised cost. In such cases, hedge accounting entails that changes in fair value of the hedged item relating to the hedged risk are recognised in profit or loss when they occur. The carrying amount of the hedged item is adjusted with these changes.

A hedge of fair value is primarily used in cases where interest rate swaps are used for hedging interest rate risk on borrowings at a fixed interest rate.

Hedges of net investments in foreign operations
For derivative instruments and loans in foreign currencies that constitute hedge instruments in hedging of net investments in foreign operations, the effective part of the change in value is reported in Other comprehensive income while the ineffective part is recognised directly in profit or loss. The changes in value reported in Other comprehensive income are transferred to the income statement at the later date when the foreign activity is divested.

Hedging of net investments is primarily used when forward exchange rate contracts and loans in foreign currencies are used to hedge the currency risk of the company's investments in foreign subsidiaries.

Intangible assets: non-current

Capitalised development costs
Development costs resulting from the application of research findings or other knowledge to produce new or improved products or processes are reported as an asset in the balance sheet from the time when the product or process is expected to become technically and commercially viable and the company has sufficient resources to complete the development work and subsequently use or sell the intangible assets. The reported value includes costs for materials, direct costs for salaries and indirect costs, all of which can be attributed to assets. Other development costs are recognised in profit or loss as expenses as they arise. In the balance sheet, development costs are reported at cost less accumulated amortisation and impairment losses.

Research costs with the purpose of obtaining new scientific or technical knowledge are reported as expenses as they arise.

Goodwill
Goodwill represents the difference between the cost of a business combination and the fair value at the point of acquisition of acquired assets, assumed liabilities and contingent liabilities. The difference is the cost of goodwill.

Goodwill is valued at cost less any accumulated impairment losses. Goodwill is not subject to amortisation but is tested at least annually for impairment. Goodwill that arises on acquisition of associated companies or joint ventures is included in the carrying amount of Participations in associated companies and joint ventures.

Exploration and evaluation assets
Exploration and evaluation assets represent capitalised costs for exploration and evaluation of gas reserves. Examples of costs eligible for capitalisation include exploration rights, geological and other studies, and exploration drillings in relation to either prospective or possible reserves under evaluation, or prospective deposit sites.

Costs that are not eligible for capitalisation are costs incurred before obtaining exploration rights and other general costs that are not related to a specific exploration well.

Exploration and evaluation assets are valued at cost less any accumulated impairment losses. Exploration and evaluation assets are not amortised.

When a specific exploration and evaluation asset is designated as technically feasible and commercially viable and a management decision to extract the exploration well has been taken, the capitalised costs are reclassified to Property, plant and equipment – Construction in progress. If management makes a decision not to extract the exploration well, any costs already capitalised are charged as an impairment loss to the income statement.

Other non-current intangible assets
Other non-current intangible assets such as concessions, patents, licences, trademarks and similar rights as well as renting rights, mining rights and similar rights acquired by the Group are reported at cost less accumulated amortisation and impairment losses.

Principles for amortisation
Amortisation for other non-current intangible assets than goodwill and exploration and evaluation assets is reported on a straight-line basis in the income statement over the estimated useful life of the asset, provided the useful life not is indefinite. Estimated useful lives are unchanged compared with a year ago and are further described in Note 20 to the consolidated accounts, Intangible assets: non-current. Assessments of the residual value and useful life of an asset are conducted at least annually.

Property, plant and equipment

Owned assets
Property, plant and equipment are reported as assets on the balance sheet if it is likely that there will be future financial benefit for the company and the cost of the asset can be calculated in a reliable manner.

Assets reported as property, plant and equipment are land and buildings, plant and machinery as well as equipment, tools and fixtures and fittings. These assets are valued at cost less accumulated depreciation and impairment losses.

Cost includes the purchase price and costs directly attributable to putting the asset in place and in a suitable condition for use in accordance with the management's intention of the acquisition. Examples of directly attributable expenses included in cost are delivery and handling, installation, land registration and consulting services. Borrowing costs directly attributable to investment projects in property, plant and equipment, which take a substantial period of time to complete, are included in cost of the asset during the construction period.

Within nuclear power operations in Germany (impaired during 2011) and Sweden, cost at the time of acquisition includes a calculated present value for estimated costs for dismantling and removing the plant and restoring the site where the plant is located. Similarly, for example for mining operations in Germany, and for gas operations in the Netherlands (divested during 2011), cost at the time of the acquisition includes a calculated present value for estimated costs for restoring undertakings.

The equivalent estimated cost calculated on the basis of the present value is reported initially as a provision.

See also below under the heading Other provisions than provisions for pensions.

Leasing
Leases are classified as either finance or operating leases. A finance lease exists when the economic risks and benefits associated with ownership are, in essence, transferred to the lessee; if this is not the case, it is classified as an operating lease.

Leased assets
Assets leased under finance leases are reported as assets in the consolidated balance sheet. A commitment to pay future leasing charges is reported as a non-current or current liability. The leased assets are depreciated on a straight-line basis over the shorter of the leasing period or the useful life while the leasing payments are reported as interest and amortisation of the debts.

Operating leases normally entail recognising the leasing

Continued on page 78

Note 2 continued

charge as an expense on a straight-line basis over the leasing period.

Assets leased out

Assets that are leased out under finance leases are not reported as property, plant and equipment, since the risks associated with ownership are transferred to the lessee. Instead, a financial receivable is entered for the future minimum lease payments.

Assets leased out under operating leases are reported as property, plant and equipment and are subject to depreciation.

Subsequent costs

Subsequent costs for property, plant and equipment are only added to the acquisition cost if it is likely that there will be future financial benefits associated with the asset for the company and the cost can be calculated in a reliable manner. All other future costs are reported as expenses in the period when they arise.

What is decisive for the assessment when a subsequent cost is added to the acquisition cost is whether the cost concerns the replacement of identified components, or parts of them, whereby such costs are capitalised. Also in cases where new components are created, the cost is added to the cost of the asset. Any undepreciated reported values of replaced components, or parts of components, are retired and carried as an expense in connection with the replacement. Repairs and maintenance are expensed as incurred.

Depreciation principles

Depreciation is reported on a straight-line basis in the income statement over the estimated useful life of the asset except for depreciation related to the German nuclear power plants (impaired during 2011) and to gas operations in the Netherlands (divested during 2011) (see below). The Group applies component depreciation, which means that the components' estimated useful life provides the basis for the straight-line depreciation. Estimated useful lives are unchanged compared with last year for all property, plant and equipment. Estimated useful lives are further described in Note 21 to the consolidated accounts, Property, plant and equipment. Assessments of the residual value and useful life of an asset are conducted annually.

For the German nuclear power plants, as per 1 April 2008 the depreciation method was changed from the straight-line method to the units of production method, since this better reflects the expected pattern of consumption of the future economic benefits embodied in the assets.

Gas fields and platforms are also depreciated according to the units of production method. The basis for depreciation is the expected remaining production volume and is determined annually on the basis of recognised industry practice. New discoveries during ongoing extraction activities can also cause changes in the expected remaining production volume. The depreciation amount per unit produced is thus adjusted for the coming periods to the new expected remaining production volume.

Land and water rights are not subject to depreciation.

Investment property

Investment property is property held in order to earn rental income or an increase in value or a combination of these two objectives.

Investment property is reported on the balance sheet at cost less accumulated depreciation and impairment losses. Depreciation is done on a straight-line basis, and an assessment of residual value and useful life of an asset is conducted annually.

Biological assets

By biological assets is meant so-called energy forests that Vattenfall grows – following harvest and thereafter reported as inventory – for use as biofuel in own plants.

Biological assets are reported on the balance sheet as current assets or non-current assets and are measured at fair value less costs to sell.

Inventories

Nuclear fuel, fossil fuels, emission allowances and materials and sparte parts

Inventories (except for inventories held for trading) are valued at the lower of their cost and net realisable value. Net realisable value is the estimated sales price in operating activities, less estimated costs for completion and to bring about a sale.

The consumption of nuclear fuel is calculated as a depletion of the energy content of the fuel rods, and is based on the cost of each batch of fuel loaded into the core.

The cost of inventories is estimated through the application of the first-in first-out method (FIFO) and includes costs that arose on acquisition of the inventory items.

Inventories held for trading are valued at fair value less costs to sell.

The value of the energy stored in the form of water in reservoirs is not reported as an asset.

Intangible assets: current

Emission allowances

Since 2005, a trading system applies in the EU (the Emission Trading Scheme – ETS) with the purpose of reducing emissions of the greenhouse gas carbon dioxide. Within the framework of this system, some concerned plants have received, without payment or for prices below fair value, so-called emission allowances (European Union Allowances – EUAs) from the authorities in each country. Sales and purchases of emission allowances are conducted on designated exchanges, where plants that have a greater need for emission allowances than their free-of-charge or subsidised allocation are required to purchase allowances to cover their remaining need and thereby settle their obligations.

During the first trading period, 2005–2007, trading was conducted only in EUAs. During the second trading period, 2008–2012, the trading being conducted in parallel with the first commitment period in the Kyoto Protocol and the EU's Emission Trading Scheme is being opened up to international trading in Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs).

Purchased emission allowances held for own use are reported as intangible assets under current assets at cost less accumulated impairment losses, while emission allowances that have been received free of charge from the respective countries' authorities are stated at a value of SEK nil. As carbon dioxide is emitted, an obligation arises to deliver emission allowances (EUAs, CERs, ERUs) to the authorities in the respective countries. An expense and a liability are recognised only in cases where the emission allowances that were received free of charge do not cover this obligation. This liability is valued in the amount at which it is expected to be settled.

Certificates

With the aim to increase renewable energy sources for electricity generation, among others, Sweden, UK and Poland have so-called electricity certificate systems. Plants included in these systems receive, earned free of charge, certificates from the authorities in Sweden and Poland, respectively, in pace with their generation of electricity qualifying for certificates.

Accumulated certificates, earned free of charge, are reported as an intangible asset under current assets at fair value when obtained. The corresponding amount is recognised as revenue under Net sales. Purchased certificates held for own use are reported at cost less accumulated impairment losses.

When electricity is sold, an obligation arises to deliver certificates to the authorities in the respective countries. This obligation is reported as an expense and as a liability. The liability is valued at the amount at which it is expected to be settled.

Impairment losses

Impairment of non-financial assets

General principles

Assessments are made throughout the year for any indication that an asset may have decreased in value. If there is an indication of this kind, the asset's recoverable amount is estimated. For goodwill and other intangible assets with an indefinite useful life and for intangible assets that are still not ready for use, the recoverable amount is calculated at least annually or as soon an indication is present that an asset has decreased in value.

If the essentially independent cash flow for an individual asset cannot be established for the assessment of any need for impairment, the assets must be grouped at the lowest level where it is possible to identify the essentially independent cash flow (a so-called cash-generating unit). An impairment loss is reported when an asset or cash-generating unit's reported value exceeds the recoverable amount. Any impairment loss is recognised in the income statement.

Impairment of assets attributable to a cash-generating unit is allocated primarily to goodwill. Thereafter, a proportional impairment loss is conducted of other assets that are part of the unit.

Calculation of the recoverable amount
The recoverable amount is the higher of fair value less costs to sell and value in use. When calculating value in use, the future cash flow is discounted by a discounting factor that takes into consideration risk-free interest and the risk associated with the specific asset. For an asset that does not generate cash flow independently of other assets, the recoverable amount is calculated for the cash-generating unit to which the asset belongs.

Reversal of impairment losses
Impairment losses of financial assets that are reported at amortised cost are reversed if a later increase of the recoverable amount can be attributed to an event that occurred after the impairment loss was made.

Impairment losses on goodwill are never reversed. Impairment losses on other assets are reversed if a change has occurred in the assumptions that formed the basis for the calculation of the recoverable amount. An impairment loss is only reversed if the asset's reported value after reversal does not exceed the reported value that the asset would have had if the impairment loss had not been made.

Impairment of financial assets
General principles
On each reporting occasion, it is assessed if there is objective evidence that a financial asset has become impaired. Objective evidence consists in part of observable conditions that have occurred that have a negative impact on the ability to recover the cost of the asset, and in part of a significant or permanent decrease in the fair value of an investment in a financial asset that is classified as an available-for-sale financial asset.

Vattenfall classifies trade receivables as doubtful when – after a missed or significantly late payment and individual assessment of the debtor's financial conditions – they are impaired. Impairment is determined on the basis of historical experience of customer losses for similar receivables. Impaired trade receivables are reported at the present value of anticipated future cash flows. When determining any need to recognise impairment, the existence of any credit insurance and other forms of security is also taken into account.

Listed shareholdings that are classified as an available-for-sale financial asset are considered to be in need of impairment and are impaired if the fair value falls below cost by a significant amount, or when the decrease in value has become permanent over time.

Reversal of impairment
Impairment of financial assets reported at amortised cost is reversed if a subsequent increase in the recoverable amount can objectively be attributed to an event that occurred after the impairment was recognised.

Impairment of listed shareholdings that are classified as available-for-sale financial assets, which was previously reported in the income statement, is not reversed via the income statement but in Other comprehensive income.

Employee benefits
Defined contribution pension plans
Defined contribution pension plans are post-employment benefit plans according to which fixed fees are paid to a separate legal entity. There is no legal or constructive obligation to pay additional fees if the legal entity does not have sufficient assets to pay all benefits to the employees. Fees for defined contribution pension plans are reported as an expense in the income statement in the period they apply to.

Defined benefit pension plans
Defined benefit pension plans consist of other post-employment benefit plans than defined contribution pension plans. The Group's defined benefit pension obligations are calculated separately for each plan in accordance with the Projected Unit Credit Method by calculating employees' current and past service cost. Estimated future salary adjustments are taken into consideration. The net obligation comprises the discounted present value of the total earned future salaries less the fair value of any plan assets. The discount rate consists of the interest rate on the balance sheet date of a first-class corporate bond with a lifetime that corresponds to the Group's pension obligations. When there is no deep market in corporate bonds of this kind, the market rate yield on government bonds with an equivalent lifetime shall be used instead.

When benefits in a plan are improved, the proportion of the increased benefit attributable to the employees' past service cost is reported as an expense in the income statement on a straight-line basis distributed over the average period until the benefits are fully earned. If the benefits are fully earned, an expense is reported directly in the income statement.

For actuarial gains and losses, the so-called corridor rule is applied. Actuarial gains and losses arise from the effects of changes in actuarial assumptions. The corridor rule entails that the part of the net amount of the accumulated actuarial gains and losses that exceeds 10% of the greater of the obligations' present value and the fair value of plan assets is reported in the income statement, starting in the year after that they arise, over the expected average remaining service period for the employees covered by the plan.

When the calculation leads to an asset for the Group, the reported value of the asset is limited to the net of unreported actuarial losses and unreported past service costs and the present value of future repayments from the plan or reduced future payments to the plan.

Other provisions than pension provisions
A provision is reported in the balance sheet when the Group has a legal or constructive obligation as a result of an event and it is probable that an outflow of financial resources will be required to regulate the obligation and a reliable estimate of the amount can be made. Where the effect of the time when payment is made is important, provisions are estimated by discounting the anticipated future cash flow at an interest rate before tax that reflects current market estimates of the money's time value. The discount rate does not reflect such risks that are taken into consideration in the estimated future cash flow.

Changes in discounted provisions for dismantling, restoration or similar measures, which at the time of acquisition have also been reported as tangible non-current assets, are reported as follows: In cases where the change is due to a change in the estimated outflow of resources or a change in the discount rate, the cost of a non-current tangible asset is changed in an amount corresponding to the provision. The periodic change of the present value is recognised as a financial expense. See also above under the heading Property, plant and equipment/Owned assets.

Provisions are also reported for onerous contracts, i.e., where unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract.

Income taxes
Income tax comprises current tax and deferred tax. Income tax is reported in the income statement except when the underlying transaction is reported in Other comprehensive income, whereby also the associated tax effect is reported in Other comprehensive income.

Current tax is tax to be paid or received for the current year, with the application of the tax rates that are established or, established in practice as of the balance sheet date. Adjustments of tax paid attributable to previous periods are also included in this.

Deferred tax is calculated in accordance with the balance

Continued on page 80

Note 2 continued

sheet method on the basis of temporary differences between the reported and taxable values of assets and liabilities. The following temporary differences are not taken into account: for a temporary difference that arises with the initial reporting of goodwill, initial reporting of assets and liabilities which are not business combinations and at the time of the transaction do not affect either reported or taxable profit. Further, such temporary differences attributable to shares or participations in subsidiaries or associated companies which are not expected to be reversed in the foreseeable future are not taken into account either. The valuation of deferred tax is based on how the reported value of assets or liabilities is expected to be realised or settled. Deferred tax is calculated in accordance with the tax rates and tax rules that have been established or have been established in practice by the balance sheet date.

Deferred tax assets concerning non-deductible temporary differences and tax-loss carryforwards are only reported to the extent that it will be possible for these to be used. The value of deferred tax assets is reduced when it is no longer considered likely that they can be used.

Deferred tax is not recognised on temporary differences relating to investments in subsidiaries and associated companies to the extent that they will probably not be reversed in the foreseeable future.

Note 3 Important estimations and assessments in the preparation of the financial statements

Preparation of the financial statements in accordance with IFRS requires the company's executive management and Board of Directors to make estimations and assessments as well as to make assumptions that affect application of the accounting policies and the reported amounts of assets, liabilities, income and expenses. The estimations and assessments are based on historic experience and other factors that seem reasonable under current conditions. The results of these estimations and assessments are then used to establish the reported values of assets and liabilities that are not otherwise clearly documented from other sources. The final outcome may deviate from the results of these estimations and assessments. The estimations and assessments are revised on a regular basis. The effects of changes in estimations are reported in the period in which the changes were made if the changes affected this period only, or in the period the changes were made and future periods if the changes affect both the current period and future periods. Important estimations and assessments are described below.

Assessing whether there is any indication that intangible assets and property, plant and equipment may be impaired

The Group has substantial values reported in the balance sheet regarding intangible assets and property, plant and equipment. These are tested for impairment in accordance with the accounting policies described in Note 2 to the consolidated accounts, Accounting policies. The recoverable amount for cash-generating units is determined by calculating the value in use of fair value less costs to sell. For these calculations, certain estimations must be made regarding future cash flows and other adequate assumptions regarding the required rate of return, for example. See also Note 20 to the consolidated accounts, Intangible assets.

For 2011 the Group has reported impairment losses including reversed impairment losses in the amount of SEK 10,916 million (9,849). These impairment losses are further described in Note 13 to the consolidated accounts, Impairment losses and reversed impairment losses.

The largest impairment loss in terms of amount during 2011 is an effect of the decisions in 2011 by the German government and Germany's parliament that all German nuclear power plants are to be closed by 2022 at the latest. The decisions entail that the Brunsbüttel and Krümmel nuclear power plants, for which Vattenfall has operating responsibility and owns 66.7% and 50%, respectively, may not be restarted. Because of this, Vattenfall is forced to recognise an impairment loss for the entire book value of these two plants and increase its provisions for dismantling and handling of nuclear fuel. A charge of EUR 1,145 million (SEK 10,240 million) was booked against operating profit (EBIT) for the second quarter of 2011 for these measures. Calculated at the average exchange rate applicable after four quarters in 2011, the corresponding effect on income is SEK 10,330 million. In addition, during the fourth quarter of 2011, provisions for dismantling and handling of nuclear fuel have been increased by an additional SEK 183 million.

Pension provisions

The value of pension obligations for defined benefit obligations is determined through actuarial calculations based on assumptions about the discount rate, the anticipated return on plan assets, future salary increases, inflation and demographic conditions. Every change in these assumptions affects the calculated value of pension obligations.

For pension provisions in Sweden, the discount rate has been lowered to 3.5% (4.5%) compared with the preceding year. For Sweden, through 2009 the judgement has been made that in the absence of an effective market for high-grade corporate bonds, the interest rate for government bonds has instead been used as the discount rate. For 2010 and 2011, the judgement has been made that the discount rate should be based on mortgage bonds with high credit ratings, the market for which is large and liquid.

In Germany, where the discount rate is based on high-grade corporate bonds, the discount rate is unchanged at 5.0% (5.0%) compared with the preceding year.

For further information on pension provisions, see Note 38 to the consolidated accounts.

Provisions for future expenses of nuclear operations

Provisions for future expenses of nuclear operations, which pertain to future obligations for handling the decommissioning of Vattenfall's nuclear power plants in Sweden and Germany as well as for handling nuclear waste, are based on long-term cash flow estimations with respect to future expenses. These long-term cash flow estimations mainly pertain to technical plans, estimations on the amount of the expenses, when in time these are expected to fall due, and the discount rate. In many cases, these cash flow estimations are to be approved by the pertinent authorities.

For provisions for future expenses of nuclear operations in Sweden, the discount rate is unchanged at 4.25% (4.25%) compared with the preceding year. The corresponding discount rate in Germany is also unchanged at 4.75% (4.75%) compared with the preceding year.

For further information on provisions for future expenses of nuclear operations, see Note 39 to the consolidated accounts.

Other provisions than pension provisions and provisions for future expenses of nuclear power operations

For other types of provisions, such as provisions for future expenses of mining, gas and wind operations and other environmental measures/undertakings, and for personnel-related provisions for non-pension purposes, provisions for tax and legal disputes, or other provisions, the following discount rates are used: Sweden 4.25% (4.25%), Germany 4.5%–4.75% (4.5%–4.75%), Netherlands 2.5% (3.5%), Finland 4.0% (4.0%), Poland 6.0% (5.5%) and the UK 5.0% (5.0%).

For further information on these provisions, see Note 39 to the consolidated accounts.

Income taxes and deferred taxes

On its balance sheet, Vattenfall reports deferred tax assets and liabilities that are expected to be realised in future periods. In calculating these deferred taxes, certain assumptions and estimations must be made regarding future tax consequences pertaining to the difference between assets and liabilities reported on the balance sheet and their corresponding tax values.

The estimations also take into account the fact that future

earnings for the Group's units will correspond to previously reported earnings, that applicable tax laws and tax rates will be unchanged in the countries in which the Group is active, and that applicable rules for exercising tax loss carryforwards will not be changed.

The Group also reports future expenses arising out of ongoing tax audits or tax disputes under Provisions. The outcome of these may deviate from the estimations made by Vattenfall.

For further information on taxes, see Note 18 to the consolidated accounts.

Valuation of embedded derivatives

A limited number of Vattenfall's long-term electricity contracts include specific pricing clauses. For example, the price in an electricity contract may have couplings to the price trend for commodities and indirectly also to exchange rate movements, since the current commodity prices are quoted in foreign currency. In such contracts, the clauses entail that the contracts contain embedded derivatives. In valuations of these contracts containing embedded derivatives, the company's executive management must make certain estimations and assessments.

For example, the company has contracts with terms extending through 2019. In view of the structure of these contracts in general and their duration in particular, plus the fact that reliable market quotations are only available for a period of 27 months ahead in time, an estimation must be made of the price development beyond this 27–month period. Through the first quarter of 2011, the value of these embedded derivatives for the period beyond 27 months has been set to zero.

In a review conducted during the second quarter of 2011 of the valuation of these long-term electricity contracts, Vattenfall has determined that, for valuation of the period beyond 27 months, i.e., the time horizon for which market quotations are available and up until the contract's expiration date, the use of modelled prices provides a reliable value. The effect of this review on the value of these embedded derivatives amounted to SEK +1,120 million as per 30 June 2011 and affected operating profit (EBIT) in its entirety while increasing net sales. The value of these derivatives at 31 December 2011 was SEK +785 million. See also Note 44 to the consolidated accounts.

Valuation of available-for-sale financial assets

Vattenfall owns approximately 19% of the shares in the energy company Enea S.A., which is listed on the stock exchange in Warsaw, Poland. Enea's share price has a history of relatively high volatility, which is coupled to very limited trading.

The holding in Enea is classified as a financial instrument in the subcategory "Available-for-sale financial assets". Such assets are to be carried at fair value with changes in fair value recognised in Other comprehensive income; alternatively, they are to be recognised as being impaired in the income statement.

As per 31 December 2010, the cumulative changes in the fair value of the holding were negligible. During the first three quarters of 2011, Vattenfall recognised the changes in fair value in Other comprehensive income, which thereby have been charged against consolidated equity. However, as per 31 December 2011, since the changes in fair value are considered to be both significant and permanent over time, a decision has been made to recognise impairment of the shareholding in Enea to fair value, while also taking into account the decrease in value of the Polish zloty (PLN). The impairment amounts to SEK 1,591 million and has been recognised as a Financial expense in the income statement.

Note 4 Acquired and divested operations

Acquisitions of Group companies in 2011

The Dutch wind power company Zuidlob B.V. was acquired for SEK 228 million.

Acquisitions of associated companies and other shares and participations in 2011

During 2011 investments in associated companies and other shares and participations amounted to SEK 140 million. Se Notes 24 and 25 to the consolidated accounts.

Acquisitions of Group companies in 2010

In 2010, SEK 478 million of Vattenfall's outstanding liability to the part-owners of N.V. Nuon Energy was paid.

The Belgian wind power company Les Eoliennes des Perwez was acquired for SEK 93 million.

In addition, Vattenfall Biomass Liberia AB was acquired for SEK 122 million.

Small companies/minority interests were acquired for combined consideration of SEK 8 million.

Acquisitions of associated companies and other shares in 2010

In 2010 a total of SEK 508 million was invested in associated companies and other shares and participations. The largest investment, SEK 287 million, pertained to Buchanan Renewables Fuel Group Liberia B.V.

	Fair value	
Acquired operations	2011	2010
Intangible assets: non-current	308	–
Property, plant and equipment	268	148
Trade receivables and other receivables	147	6
Cash and cash equivalents	–	111
Borrowings	–	–26
Provisions	–30	–1
Deferred tax liabilities	–80	–37
Trade payables and other liabilities	–385	–8
Total net assets	**228**	**193**
Acquisition of non-controlling interests (minority interests)	–	5
Goodwill	29	23
Part payment of the Nuon investment	–	478
Total purchase consideration	**257**	**699**
Liabilities pertaining to acquisitions of Group companies	–	122
Cash flow for the year	**257**	**577**

Divestments in 2011

In June the Dutch company Exploration and Production B.V. was divested. Consideration for the sale amounted to EUR 281 million.

In December the heating and distribution operations in Poland were divested for combined consideration of SEK 15,251 million.

Also in December, all operations in Belgium were divested. Consideration for the sale amounted to EUR 214 million.

The associated company Energieversorgung Sachsen Ost AG (ENSO) has been divested for consideration of EUR 147 million. In addition, Vattenfall divested its 25% interest in the German hard coal–fired plant in Rostock and the combined heat and power plant in Helsingør, Denmark. Also, parts of the Swedish engineering consultancy were divested during the year.

Divestments in 2010

In May 2010 the sale was completed of Vattenfall's high voltage transmission grid in Germany, owned by the subsidiary 50Hertz Transmission GmbH. The sales price was EUR 465 million. In addition, the buyers redeemed shareholder loans of EUR 320 million from Vattenfall.

In December, Vattenfall sold its holding in the German associated company Stadtwerke Kassel, and in November, 49% of the holding in the wind power company DanTysk Offshore GmbH was sold. The combined consideration for these two divestments was EUR 53 million. Vattenfall retained 51% of the shares in DanTysk Offshore GmbH.

Continued on page 82

Note 4 continued

Divested operations	Carrying amount 2011	2010
Intangible assets: non-current	2,093	333
Property, plant and equipment	14,172	14,325
Deferred tax assets	93	6
Other non-current assets	68	95
Inventories	696	16
Intangible assets: current	294	–
Trade receivables and other receivables	4,026	8,262
Derivatives with positive fair values	468	–
Short-term investments	2,181	–
Cash and cash equivalents	1,332	297
Assets held for sale	1,130	391
Borrowings	–1,722	–4,028
Provisions	–1,088	–966
Deferred tax liabilities	–2,140	–1,480
Trade payables and other liabilities	–4,103	–6,645
Impairment of net assets	–	–5,315
Total net assets	**17,500**	**5,291**
Divestment of non-controlling interests (minority interests)	5	181
Proceeds of sale	**21,211**	**5,200**
Of which, proceeds of sale received during 2012	7,658	–
Cash flow for the year	**13,553**	**5,200**
Capital gain/loss according to the income statement	**3,706**	**–272**

Note 5 Exchange rates

Key exchange rates applied in the accounts of the Vattenfall Group:

	Currency	Average rate 2011	2010	Balance sheet date rate 31 Dec. 2011	31 Dec. 2010
Europe	EUR	9.0215	9.5694	8.9400	9.0020
Denmark	DKK	1.2110	1.2850	1.2033	1.2075
Norway	NOK	1.1579	1.1920	1.1505	1.1520
Poland	PLN	2.1900	2.3831	2.0300	2.2700
UK	GBP	10.3810	11.1573	10.6800	10.5475
USA	USD	6.4922	7.2152	6.9200	6.8025

Note 6 Net sales

	2011	2010
Sales including excise taxes		
sale of goods (electricity, heat, gas, etc.)	180,239	209,644
rendering of services	8,310	8,396
Excise taxes	–7,509	–4,468
Net sales	**181,040**	**213,572**

Note 7 Operating segments

Effective 1 January 2011 Vattenfall moved from a geographical to a business-led organisational structure that is based on the value chain and which comprises the following three operating segments: Generation, Distribution and Sales, and Renewables.

Responsibilities of the operating segments:

The Generation segment is Vattenfall's interface towards the wholesale market and includes development and building of production assets, generation of electricity and heat, and sales of electricity on the wholesale energy market.

Vattenfall's management believes that a composite assessment of the following three divisions' operations is needed to gain a complete picture of the operations' performance at the Group level. Together they form the Generation operating segment.

- Business Division Asset Development is responsible for project development and execution of new build generation projects in electricity and large modification projects in thermal power, heat, infrastructure, nuclear power and hydro power. Business Division Asset Development is also responsible for the Group's R&D activities and Engineering consulting business.
- Business Division Production operates Vattenfall's lignite mining and power generation assets (including hydro power but excluding other renewable generation assets) as cost-effectively as possible to ensure optimal levels of generation capacity and availability. The Division also operates Vattenfall's combined heat and power (CHP) plants in Germany, Denmark and the Netherlands.
- Business Division Asset Optimisation and Trading is responsible for optimising the dispatch of all of Vattenfall's generation assets (i.e., it manages when and how the plants generate electricity) and hedges the production output of those assets for maximum profitability within a given risk mandate. This Business Division also conducts proprietary trading under defined risk mandates.

The Distribution and Sales segment is Vattenfall's interface towards the end-customer market and includes the unbundled and regulated electricity distribution business.

- Business Division Distribution and Sales is responsible for Vattenfall's electricity sales and heat businesses, the regulated electricity distribution business and other downstream businesses. This Business Division is responsible for all relationships with Vattenfall's end customers.

The Renewables segment is responsible for asset development, and operation and maintenance of Vattenfall's renewable energy assets and operations, except for hydro power, which is managed within the Generation segment.

- Business Division Renewables is responsible for asset development, and operation and maintenance of Vattenfall's renewable energy assets and operations, primarily wind power and upstream biomass.

Staff Functions and Shared Service Centres

A number of Group-wide Staff Functions support Vattenfall's business as well as the decision-making process of the Executive Group Management (EGM) and CEO. The Staff Functions also govern relevant business processes in Vattenfall as a whole. The Staff Functions are managed and co-ordinated centrally with employees located at both the corporate level and closer to the business. Shared Service Centres (SSCs) are an important and integral element of Vattenfall's business operations and focus on transaction–related processes. Shared Services are led with a focus on process efficiency and utilisation of economies of scale. Shared Services provide such services and specialist functions which, from a cost perspective, are advantageous to handle and perform on a shared basis. Staff Functions and Shared Service Centres are reported under the heading "Other".

The heading "Other" for 2010 also includes the divested transmission business of the German subsidiary 50Hertz Transmission GmbH and the divested gas exploration business of the subsidiary Exploration and Production B.V. in the Netherlands. The latter is also included under the heading "Other" for 2011.

All operating segments are followed up according to operating profit (EBIT), which is why financial items and expenses as well as taxes are reported in their entirety under the heading "Other", as shown below. All segments apply IFRS.

Deliveries of electricity, heat and gas between segments are made at market prices. For services between segments, cost price generally applies, although in certain cases market prices are applied.

Comparison figures for 2010 have been recalculated to reflect the new segmental structure.

Operating segments

2011	Generation	Distribution and Sales	Renewables	Other	Eliminations	Total
External net sales	59,347	144,575	1,820	983	–25,685[1]	**181,040**
Internal net sales	63,764	10,724	1,311	6,320	–82,119	**–**
Total net sales	**123,111**[2]	**155,299**	**3,131**	**7,303**	**–107,804**	**181,040**
Operating profit (EBIT)	10,545[2]	11,123	496	1,045	–	**23,209**
– including items affecting comparability	–9,342	627	36	3,326	–	**–5,353**
Financial income and expenses	–	–	–	–8,911	–	**–8,911**
Profit before tax	**10,545**	**11,123**	**496**	**–7,866**	**–**	**14,298**
Income tax expense	–	–	–	–3,882	–	**–3,882**
Profit for the year	**10,545**	**11,123**	**496**	**–11,748**	**–**	**10,416**
Underlying operating profit (for a definition, see page 128)	22,118	10,496	460	–2,281	–	**30,793**
Participations in the results of associated companies	–499	352	179	–	–	**32**
Depreciation and amortisation	11,441	6,606	1,602	764	–	**20,413**
Impairment losses affecting Operating profit (EBIT)	11,282[3]	–	–	20	–	**11,302**
Reversed impairment losses affecting Operating profit (EBIT)	–	–386	–	–	–	**–386**
Total	**22,723**	**6,220**	**1,602**	**784**	**–**	**31,329**
Investments	23,620	8,247	3,407	–881	1,357	**35,750**
Assets	423,956	153,938	40,488	257,277[5]	–351,101	**524,558**

2010	Generation	Distribution and Sales	Renewables	Other	Eliminations	Total
External net sales	71,567	151,850	1,040	21,464	–32,349[1]	**213,572**
Internal net sales	58,315	13,679	1,038	10,018	–83,050	**–**
Total net sales	**129,882**[2]	**165,529**	**2,078**	**31,482**	**–115,399**	**213,572**
Operating profit (EBIT)	30,388[2]	8,340	–1,620	–7,255	–	**29,853**
– including items affecting comparability	–3,814	– 86	–1,019	–5,180	–	**–10,099**
Financial income and expenses	–	–	–	–8,430	–	**–8,430**
Profit before tax	**30,388**	**8,340**	**–1,620**	**–15,685**	**–**	**21,423**
Income tax expense	–	–	–	–8,238	–	**–8,238**
Profit for the year	**30,388**	**8,340**	**–1,620**	**–23,923**	**–**	**13,185**

Continued on page 84

Note 7 continued

2010	Generation	Distribution and Sales	Renewables	Other	Eliminations	Total
Underlying operating profit (for a definition, see page 128)	31,088	8,426	–601	–2,075	–	**36,838**
Participations in the results of associated companies	337	221	66	–	–	**624**
Depreciation and amortisation	11,213	6,823	1,417	1,551	–	**21,004**
Impairment losses affecting Operating profit (EBIT)	4,869[4]	337	841	5,104[4]	–	**11,151**
Reversed impairment losses affecting Operating profit (EBIT)	–1,034	–268	–	–	–	**–1,302**
Total	**15,048**	**6,892**	**2,258**	**6,655**	**–**	**30,853**
Investments	24,214	8,221	8,022	–7,790	9,127	**41,794**
Assets	405,024	179,027	36,989	238,670[5]	–318,278	**541,432**

1) Pertains to Generation's sales to NordPool, the Nordic electricity exchange. Vattenfall's sales organisation buys the corresponding electricity from NordPool.

2) Of which, changes in market value of financial instruments, inventories and embedded derivatives not subject to hedge accounting (changes in fair value) in total net sales SEK –253 million (200) and in operating profit SEK –1,067 million (1,099).

3) In this context, impairment losses also include other close-down costs than impairment in 2011 pertaining to nuclear power plants in Germany, SEK 10,513 million.

4) Includes impairment losses pertaining to the acquisition of N.V. Nuon Energy amounting to SEK 4,507 million and impairment losses of assets pertaining to the divestment of 50Hertz Transmission GmbH amounting to SEK 5,085 million.

5) Chiefly concerns Treasury's liquid assets and financial receivables from other operating segments.

Note 8 Information about geographical areas

Geographical areas

2011	Nordic countries	Germany and Poland	Netherlands and Belgium	Other[1]	Eliminations	Total
External net sales	53,505[2]	73,433	38,361	15,741	–	**181,040**
Internal net sales	–1,327	36,290	8,243	75,819	–119,025	**–**
Total net sales	**52,178**	**109,723**	**46,604**	**91,560**	**–119,025**	**181,040**
Operating profit (EBIT)	17,330	1,138	1,883	2,822	36	**23,209**
– including items affecting comparability	1,284	–12,030	1,979	3,380	34	**–5,353**
Intangible assets: non-current, Property, plant and equipment and Investment property	109,488	112,736	65,737	38,252	–	**326,213**

2010	Nordic countries	Germany and Poland	Netherlands and Belgium	Other[1]	Eliminations	Total
External net sales	59,829[2]	95,974	41,990	15,779	–	**213,572**
Internal net sales	–4,368	40,402	7,338	70,999	–114,371	**–**
Total net sales	**55,461**	**136,376**	**49,328**	**86,778**	**–114,371**	**213,572**
Operating profit (EBIT)	21,196	9,908	–5,570	4,319	–	**29,853**
– including items affecting comparability	–148	–3,989	–5,153	–809	–	**–10,099**
Intangible assets: non-current, Property, plant and equipment and Investment property	111,109	124,232	63,087	37,616	–	**336,044**

1) Chiefly concerns Trading, Treasury operations and other staff functions. Also includes operations in the UK.
2) Of which, Sweden SEK 46,075 million (50,638).

Vattenfall did not have transactions in 2010 or 2011 with a single external customer where revenues amounted to more than 10% of the Group's total net sales.

Note 9 Cost of products sold

Direct costs include production taxes and duties of SEK 5,742 million (5,848) and property taxes of SEK 2,298 million (1,854).

Note 10 Other operating income

Other operating income comprises capital gains from the sale non-current assets, emission allowances and certificates, SEK 1,019 million in operationally derived exchange rate gains, rental income, SEK 269 million (138) in governmental grants, and insurance compensation.

Note 11 Other operating expenses

Other operating expenses primarily comprise capital losses from the sale of non-current assets, emission allowances and certificates, SEK 653 million (1,028) operationally derived exchange rate losses, and closure and restructuring expenses. For 2010 is also included the impairment loss of assets in Vattenfall's German subsidiary owning the transmission grid, 50Hertz Transmission GmbH, amounting to SEK 5,085 million.

Note 12 Depreciation and amortisation

Depreciation of property, plant and equipment and of investment property and amortisation of non-current intangible assets in the income statement are broken down as follows:

	2011	2010
Cost of products sold	19,841	20,460
Selling expenses	352	327
Administrative expenses	201	196
Research and development costs	7	8
Other operating expenses (investment property)	12	13
Total	**20,413**	**21,004**

Amortisation of non-current intangible assets is included in Cost of products sold above in the amount of SEK 1,591 million (1,695), Selling expenses in the amount of SEK 90 million (57) and Administrative expenses in the amount of SEK 93 million (82).

Note 13 Impairment losses and reversed impairment losses

Impairment losses of non-current intangible assets, property, plant and equipment and investment property in the income statement are broken down as follows:

	2011	2010
Cost of products sold	11,282[1]	6,061
Administrative expenses	5	–
Other operating expenses	15	5,090
Total	**11,302**	**11,151**

1) In this context, impairment losses also include other close-down costs than impairment in 2011 pertaining to nuclear power plants in Germany, amounting to SEK 10,513 million.

Reversed impairment losses of non-current intangible assets, property, plant and equipment and investment property in the income statement are broken down as follows:

	2011	2010
Cost of products sold	386	1,264
Selling expenses	–	38
Total	**386**	**1,302**

The following large impairment loss is included under the heading above:

Generation operating segment:
The decisions in 2011 by the German government and Germany's parliament that all German nuclear power plants are to be closed by 2022 at the latest entail that the Brunsbüttel and Krümmel nuclear power plants, for which Vattenfall has operating responsibility and owns 66.7% and 50%, respectively, may not be restarted. Because of this, Vattenfall is forced to recognise an impairment loss for the entire book value of these two plants and increase its provisions for dismantling and handling of nuclear fuel. A charge of EUR 1,145 million (SEK 10,240 million) was booked against operating profit (EBIT) for the second quarter of 2011 for these measures. Calculated at the exchange rate applicable after four quarters in 2011, the corresponding effect on income is SEK 10,330 million. In addition, during the fourth quarter of 2011, provisions for dismantling and handling of nuclear fuel were increased by an additional SEK 183 million.

An impairment loss of SEK 257 million has been recognised for the Jänschwalde CCS demonstration project in eastern Germany. An impairment loss of SEK 387 million has been recognised for the CCS project in Buggenum, the Netherlands, of which SEK 155 million pertains to impairment of goodwill.

Distribution and Sales operating segment:
Previously recognised impairment of the heat production plant has been reversed in the amount of SEK 379 million.

Note 14 Operating costs according to type

	2011	2010
Personnel costs	24,253	26,020
Depreciation and amortisation	20,413	21,004
Impairment losses of non-current assets	11,302	11,151
Reversed impairment losses of non-current assets	–386	–1,302
Other operating costs incl. input commodities	109,450	129,639
Total	**165,032**	**186,512**

Note 15 Financial income

	2011	2010
Dividends	101	109
Interest income attributable to investments, etc.	1,454	1,131
Return from the Swedish Nuclear Waste Fund	1,948	1,011
Exchange rate differences, net	235	–
Net change in value from reassessment of derivatives	–	249
Net change in value from reassessment of other financial assets	–	8
Capital gains from divestments of shares and participations	105	6
Total	**3,843**	**2,514**

Note 16 Financial expenses

	2011	2010
Interest expenses attributable to loans, etc.	6,176	6,447
Interest components related to pension costs, net after deductions for expected returns on plan assets	1,043	1,138
Discounting effects attributable to provisions	2,966	3,262
Exchange rate differences, net	–	96
Net change in value from reassessment of derivatives	837	–
Net change in value from reassessment of other financial assets	21	–
Impairment losses for shares and participations	1,711	–
Capital losses from divestments of shares and participations	–	1
Total	**12,754**	**10,944**

Note 17 Ineffectiveness of hedges

	2011	2010
Ineffectiveness of fair value hedges[1]	–719	–536
Ineffectiveness of cash flow hedges	77	13
Ineffectiveness of hedging of net investments in foreign operations	–	–5
Total	**–642**	**–528**
1) Ineffectiveness of fair value hedges is distributed as follows:		
Gains(+)/losses(–) from hedging instruments	2,210	171
Gains(+)/losses(–) from hedged items	–2,929	–707
Total	**–719**	**–536**

Note 18 Income tax expense

Profit before tax amounted to:

	2011	2010
Sweden	7,737	11,510
Other countries	6,561	9,913
Total	**14,298**	**21,423**

The reported income tax expense breaks down as follows:

	2011	2010
Current tax		
Current taxes related to the period:		
Sweden	2,234	–1,941
Other countries	1,433	4,990
Adjustment of current tax for prior periods:		
Sweden	–506	130
Other countries	–1,079	–117
	2,082	**3,062**
Deferred tax		
Sweden	1,695	5,345
Other countries	105	–169
	1,800	**5,176**
Total income tax expense	**3,882**	**8,238**

The difference between the nominal Swedish tax rate and the effective tax rate is explained as follows:

Per cent (%)	2011	2010
Swedish income tax rate	26.3	26.3
Difference in tax rate in foreign operations	–0.9	0.7
Tax adjustment for previous periods[1]	1.4	0.2
Utilisation of previously non-valued losses and other temporary differences	–	–0.8
Tax-loss carryforwards from current year that are not valued	0.2	0.2
Capital gains	–4.4	–0.1
Participations in the results of associated companies	–	–0.7
Non-deductible impairment losses[2]	3.4	12.7
Changed tax rates	–0.4	–0.7
Non-deductible interest[3]	3.1	2.2
Other non-deductible expenses	1.8	2.0
Non-taxable income	–3.4	–3.5
Effective tax rate	**27.1**	**38.5**

1) Includes change in tax provisions in Sweden (3.2%) and Germany (–1.8%).

2) See Note 13 to the consolidated accounts, Impairment losses and reversed impairment losses.

3) Pertains mainly to the effect of non-deductible interest expenses reported by the Parent Company, Vattenfall AB.

Accumulated tax-loss carryforwards are broken down as follows:

	2011	2010
Sweden	66	42
Other countries	2,696	2,474
Total	**2,762**	**2,516**

The tax-loss carryforwards fall due as follows:

	2011
2012	2
2013–2016	101
2017 and beyond	23
No time limit	2,636
Total	**2,762**

In the balance sheet, unrecognised tax-loss carryforwards represent a tax value of SEK 175 million (189).

A non-current tax asset for current tax has arisen following changed legislation in Germany (December 2006) which entails that a tax credit received during the years 2002–2005 pertaining to previously abolished rules regulating tax on dividends, can now be recovered without conditions for further distribution. The relaxed tax credit will be paid out during the years 2009–2017. The non-current part is represented in the balance sheet by a discounted value.

Balance sheet reconciliation – Current tax[1]	2011	2010
Balance brought forward	1,797	2,637
Reclassification	1,283	–100
Translation differences	–14	–259
Divested companies including liabilities associated with assets held for sale	–41	–187
Interest- and discounting effetcs on non-current tax items	–354	186
Change via income statement	2,082	3,062
Tax effect to equity	370	5,359
Taxes paid, net	–5,250	–8,901
Balance carried forward	**–127**	**1,797**

1) Including tax liabilities reported under provision for tax disputes.

Balance sheet reconciliation – Deferred tax	Balance brought forward 2011	Translation differences	Acquired companies	Divested companies	Assets held for sale	Changes via income statement	Changes via Other comprehensive income	Balance carried forward 2011
Non-current assets	44,660	143	71	–2,496	–969	1,065	–	**42,474**
Current assets	2,426	–13	–	–50	–	1,178	–	**3,541**
Provisions	–10,496	18	–	136	–	29	–	**–10,313**
Other non-current liabilities	3,421	5	–	–	–	–560	–	**2,866**
Current liabilities	–4,335	11	2	39	–	212	–	**–4,071**
Cash flow hedges	–460	5	–	–	–	–	638	**183**
Tax losses carried forward	–488	–2	–	37	–	–124	–	**–577**
Total	**34,728**	**167**	**73**	**–2,334**	**–969**	**1,800**	**638**	**34,103**

Balance sheet reconciliation – Deferred tax	Balance brought forward 2010	Translation differences	Acquired companies	Divested companies	Assets held for sale	Changes via income statement	Changes via Other comprehensive income	Balance carried forward 2010
Non-current assets	42,927	–3,009	37	–1,061	–	5,766	–	**44,660**
Current assets	6,837	–323	–	8	–	–4,096	–	**2,426**
Provisions	–10,037	266	–	18	–	–743	–	**–10,496**
Other non-current liabilities	–40	75	–	12	–	3,374	–	**3,421**
Current liabilities	–4,859	192	–	–457	–	789	–	**–4,335**
Cash flow hedges	–45	79	–	–	–	–	–494	**–460**
Tax losses carried forward	–650	76	–	–	–	86	–	**–488**
Total	**34,133**	**–2,644**	**37**	**–1,480**	**–**	**5,176**	**–494**	**34,728**

Note 19 Non-controlling interests (minority interests)

	2011	2010
Share in profit before tax	–578	266
Share in income tax expense	–89	–78
Total	**–667**	**188**

Note 20 Intangible assets: non-current

	Development costs, ongoing projects		Capitalised development costs		Goodwill		Exploration and evaluation assets		Concessions and similar rights with finite useful lives		Renting rights, mining rights and similar rights with finite useful lives		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Cost														
Cost brought forward	92	161	2,068	1,907	40,179	46,088	1,635	2,785	15,411	17,124	4,180	4,807	**63,565**	**72,872**
Acquired companies	–	–	–	–	29	23	–	–	308	–	–	–	**337**	**23**
Investments	51	49	28	286	–	–	–	18	362	293	18	32	**459**	**678**
Advance payments capitalised	–	–	–	–	–	–	–	–	13	4	–	–	**13**	**4**
Divestments/Disposals	–2	–5	20	–6	–	–	–	–	–50	–21	–6	–2	**–38**	**–34**
Reclassifications	–105	–97	117	73	–	11	–	–855	84	378	–11	–143	**85**	**–633**
Assets held for sale	–	–	–135	–	–	–	–	–	24	45	–166	–	**–277**	**45**
Divested companies	–	–	–	–2	–273	–	–1,638	–	–414	–416	–	–	**–2,325**	**–418**
Translation differences	–	–16	–11	–190	–265	–5,943	3	–313	–74	–1,996	–21	–514	**–368**	**–8,972**
Accumulated cost carried forward	**36**	**92**	**2,087**	**2,068**	**39,670**	**40,179**	**–**	**1,635**	**15,664**	**15,411**	**3,994**	**4,180**	**61,451**	**63,565**

Continued on page 88

Note 20 continued

	Development costs, ongoing projects		Capitalised development costs		Goodwill		Exploration and evaluation assets		Concessions and similar rights with finite useful lives		Renting rights, mining rights and similar rights with finite useful lives		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Accumulated amortisation according to plan[1]														
Amortisation brought forward	–	–	–1,374	–1,436	–	–	–	–	–4,157	–3,088	–1,989	–2,043	**–7,520**	**–6,567**
Amortisation for the year	–	–	–168	–94	1	–	–	–	–1,430	–1,536	–177	–204	**–1,774**	**–1,834**
Divestments/Disposals	–	–	–20	–	–	–	–	–	41	–4	6	2	**27**	**–2**
Reclassifications	–	–	–56	3	–	–	–	–	34	17	9	–	**–13**	**20**
Assets held for sale	–	–	111	–	–	–	–	–	–20	–25	85	–	**176**	**–25**
Divested companies	–	–	–	1	–1	–	–	–	215	102	–	–	**214**	**103**
Translation differences	–	–	7	152	–2	–	–	–	37	377	12	256	**54**	**785**
Accumulated amortisation carried forward	**–**	**–**	**–1,500**	**–1,374**	**–2**	**–**	**–**	**–**	**–5,280**	**–4,157**	**–2,054**	**–1,989**	**–8,836**	**–7,520**
Impairment losses														
Impairment losses brought forward	–	–	–195	–195	–5,245	–1,112	–18	–	–283	–52	–527	–527	**–6,268**	**–1,886**
Impairment losses for the year	–	–	–9	–	–155	–4,518	–	–	–4	–246	–	–	**–168**	**–4,764**
Divestments/Disposals	–	–	–	–	–	–	–	–	1	–1	–	–	**1**	**–1**
Reclassifications	–	–	–33	–	–	–	–	–	34	–	–	–	**1**	**–**
Divested companies	–	–	–	–	–	–	18	–18	–	–	–	–	**18**	**–18**
Translation differences	–	–	1	–	30	385	–	–	–2	16	–	–	**29**	**401**
Accumulated impairment losses carried forward	**–**	**–**	**–236**	**–195**	**–5,370**	**–5,245**	**–**	**–18**	**–254**	**–283**	**–527**	**–527**	**–6,387**	**–6,268**
Residual value according to plan carried forward	**36**	**92**	**351**	**499**	**34,298**	**34,934**	**–**	**1,617**	**10,130**	**10,971**	**1,413**	**1,664**	**46,228**	**49,777**
Advance payments to suppliers													**1**	**10**
Total													**46,229**	**49,787**

1) Estimated useful lives are 3–4 years for Capitalised development costs, 3–30 years for Concessions etc., and 3–50 years for Renting rights, mining rights, etc.

At 31 December 2011, contractual commitments for the acquisition of non-current intangible assets amounted to SEK 16 million (131).

Goodwill is mainly allocated to the Generation segment, SEK 20,796 million (21,119), Distribution and Sales, SEK 12,896 million (12,872), and Renewables, SEK 529 million (523).

In the Generation segment, goodwill is mainly allocated to the CGUs Trading, SEK 17,233 million (17,352), and Thermal, SEK 3,563 million (3,612). In the Distribution and Sales segment, goodwill is mainly allocated to the CGUs B2C, SEK 11,971 million (11,721), and Heat, SEK 754 million (1,008). In the Renewables segment, goodwill is mainly allocated to the CGU Wind, SEK 504 million (498).

Impairment testing has been conducted through calculation of the value in use for the Group's Business Units, which make up the the smallest cash-generating units (CGUs).

As a result of Vattenfall's new organisation, the structure of the smallest cash-generating units (CGUs) changed during the year.

Goodwill is not subject to amortisation, but is tested annually for impairment. During the year, an impairment loss of SEK 155 million (4,306) was recognised for the Generation segment. Impairment in the preceding year was attributable to the former Business Group Benelux.

Earnings performance for Vattenfall's operating segments is shown in Note 7 to the consolidated accounts, Operating segments.

The main assumptions that Company management has used in calculating projections of future cash flows for the Generation segment are – for the power-generating assets – based on forecasts of the useful life of the respective assets. In other respects, they are based on the business plan for the coming five years, after which their residual value is taken into account, based on a growth factor of 1.5%. The calculated revenues in these forecasts are based on Vattenfall's long-term pricing projections, which are the result of a very large number of simulations. In calculations of the value of power-generating assets in Business Division Generation, a so-called flexibility value is taken into account. Most of the power-generating assets have a technical degree of flexibility that gives the owner the opportunity to adapt generation to current prices in the market. If spot prices are low, a production plant can reduce its generation or even go off line during the time in which generation would be unprofitable. On the other hand, a production plant can be brought back on line or be ramped up in cases where spot prices allow for positive production margins. In option valuation theory, this asymmetry in potentially earned margins results is an additional value component. This flexibility value is mainly dependent on two key elements: the volatility of energy prices, and the technical flexibility of the power plants, which affects decisions in the daily production optimisation. The calculation models that have been developed in previous years and which include both of these factors were further evaluated and improved in 2011 in a Group-wide process involving experts from Group Asset Management, Vattenfall Energy Trading, Group Risk Management and Energy Business Management.

The main driving force behind the estimated flexibility value for the power generating assets in the Generation segment consists of the effects of production optimisation; however, calculation of the flexibility value is also affected by a multitude of simulation scenarios for future prices of electricity, fuel and

CO_2 emission allowances. The calculation of these scenarios takes into account fundamental market dynamics, including the historical as well as the anticipated future level of volatility. Future cash flows have been discounted to value in use using a discount rate of 5.26% (5.75%) after tax. A change of the discount rate by +/– 0.5% would affect the estimated value in use by approximately SEK –/+ 14,000 million. An increase in the discount rate by 0.5% would give rise to a need to recognise goodwill impairment of approximately SEK 1,900 million in one of the Generation segment's CGUs. The impairment of SEK 155 million reported in the Generation segment is attributable to impairment of a CCS project.

The main assumptions that Company management has used in calculating the projected future cash flows for the Distribution and Sales segment are based on the business plan for the coming five years and residual value, based on a growth factor of 1.5%. Future cash flows have been discounted to value in use using a discount rate of 5.26% (5.75%) after tax. In the year's impairment testing, the calculated value in use exceeds the carrying amount, which is why no impairment has been recognised. A change of the discount rate by +/– 0.5% would affect the estimated value in use of the CGUs in the Distribution and Sales segment that contain goodwill by approximately SEK –/+ 17,000 million and would not require further impairment.

The main assumptions that Company management has used in calculating the projected future cash flows for the wind power operations in the Renewables segment are based on forecasts of the useful life of the respective assets and the commercialisation of planned projects in the existing investment plan. The calculated revenues in these forecasts are based on Vattenfall's long-term price forecasts, which are the result of a large number of simulations. Future cash flows have been discounted to value in use using a discount rate of 5.26% (7.0%) after tax. In the year's impairment testing, the calculated value in use exceeds the carrying amount, which is why no impairment has been recognised. A change of the discount rate by +/– 0.5% would affect the estimated value in use by approximately SEK –/+ 1,800 million for the CGUs that contain goodwill and would not lead to any need to recognise impairment.

Note 21 Property, plant and equipment

	Land and buildings[1]		Plants and other technical installations		Equipment, tools, and fixtures and fittings		Construction in progress[2]		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Cost										
Cost brought forward[3]	74,424	81,622	438,184	464,967	14,363	20,374	52,373	55,553	**579,344**	**622,516**
Acquired companies	–	19	765	167	1	–	–	–	**766**	**186**
Investments[4]	262	161	2,485	4,395	911	913	31,398	33,604	**35,056**	**39,073**
Advance payments capitalised	3	50	547	1,193	9	8	1,467	5,015	**2,026**	**6,266**
Capitalised/Reversed future expenses for decommissioning, restoration, etc.	46	–40	844	4,476	–	–	–	–	**890**	**4,436**
Transfer from construction in progress	1,464	1,520	17,133	32,004	363	775	–18,960	–34,299	**–**	**–**
Divestments/Disposals	–445	–516	–6,268	–2,637	–588	–1,717	–847	–172	**–8,148**	**–5,042**
Other reclassifications	–5,324	–422	–5,986	3,471	–557	–3,309	–593	–1,104	**–12,460**	**–1,364**
Assets held for sale	–179	–71	–12,221	201	–259	18	–181	3	**–12,840**	**151**
Divested companies	–4,099	–1,225	–19,727	–25,859	–986	–642	–1,055	–912	**–25,867**	**–28,638**
Translation differences	–414	–6,674	–2,133	–44,194	–81	–2,057	–357	–5,315	**–2,985**	**–58,240**
Accumulated cost carried forward	**65,738**	**74,424**	**413,623**	**438,184**	**13,176**	**14,363**	**63,245**	**52,373**	555,782	579,344
Accumulated depreciation according to plan[5]										
Depreciation brought forward	–35,966	–38,924	–241,474	–265,427	–9,523	–12,180	–	–	**–286,963**	**–316,531**
Acquired companies	–	–	–497	–17	–1	–	–	–	**–498**	**–17**
Depreciation for the year	–1,474	–1,704	–16,005	–16,257	–1,148	–1,196	–	–	**–18,627**	**–19,157**
Divestments/Disposals	327	148	4,928	2,295	551	491	–	–	**5,806**	**2,934**
Other reclassifications	6,103	535	5,959	–1,575	285	1,613	–	–	**12,347**	**573**
Assets held for sale	65	61	6,773	–86	236	–9	–	–	**7,074**	**–34**
Divested companies	2,033	436	9,271	13,770	397	472	–	–	**11,701**	**14,678**
Translation differences	222	3,482	1,388	25,823	54	1,286	–	–	**1,664**	**30,591**
Accumulated depreciation carried forward	**–28,690**	**–35,966**	**–229,657**	**–241,474**	**–9,149**	**–9,523**	**–**	**–**	–267,496	–286,963

Continued on page 90

Note 21 continued

	Land and buildings[1]		Plants and other technical installations		Equipment, tools, and fixtures and fittings		Construction in progress[2]		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Impairment losses										
Impairment losses brought forward	–1,245	–1,287	–7,703	–9,403	–223	–178	–301	–136	**–9,472**	**–11,004**
Impairment losses for the year	–80	–117	–2,754	–871	–147	–134	–116	–175	**–3,097**	**–1,297**
Reversed impairment losses for the year	2	26	382	1,275	–	1	2	–	**386**	**1,302**
Divestments/Disposals	38	95	583	69	1	47	–	–	**622**	**211**
Assets held for sale	5	–	–	–	–	–	–	–	**5**	**–**
Other reclassifications	–	–6	28	–13	13	15	–	–	**41**	**–4**
Divested companies	24	19	–9	96	–	–	–	–	**15**	**115**
Translation differences	8	25	49	1,144	3	26	6	10	**66**	**1,205**
Accumulated impairment losses carried forward	**–1,248**	**–1,245**	**–9,424**	**–7,703**	**–353**	**–223**	**–409**	**–301**	**–11,434**	**–9,472**
Residual value according to plan carried forward	**35,800**	**37,213**	**174,542**	**189,007**	**3,674**	**4,617**	**62,836**	**52,072**	**276,852**	**282,909**
Advance payments to suppliers									**2,593**	**2,722**
Total									**279,445**	**285,631**

1) Cost for land and buildings includes cost of land and water rights amounting to SEK 14,306 million (14,883), which are not subject to depreciation.

2) Interest during the construction period has been reported as an asset in the amount of SEK 953 million (874) for the year. The average interest rate for 2011 was 4.97% for borrowings in SEK and 4.41% for borrowings in EUR.

3) Government grants received, balance brought forward, amount to SEK 5,157 million (4,983). Accumulated interest reported as an asset totalling SEK 3,477 million (2,524) is included in cost of buildings.

4) Government grants received during the year amounted to SEK 170 million (178).

5) Estimated useful lives are 5–40 years for hydro power installations, 5–50 years for Combined Heat and Power installations, 20–35 years for wind power installations, 5–35 years for electricity distribution lines, 5–20 years for mining operations, 5–10 years for office equipment, and 25–50 years for office and warehouse buildings and workshops.

At 31 December 2011, contractual commitments for the acquisition of property, plant and equipment amounted to SEK 25,741 million (37,444).

Note 22 Investment property

	2011	2010
Cost		
Cost brought forward	1,715	2,027
Investments	3	37
Divestments/Disposals	–153	–81
Reclassifications	–	–6
Translation differences	–11	–262
Accumulated cost carried forward	**1,554**	**1,715**
Accumulated depreciation according to plan[1]		
Depreciation brought forward	–473	–560
Depreciation for the year	–12	–13
Divestments/Disposals	41	30
Translation differences	3	70
Accumulated depreciation carried forward	**–441**	**–473**
Impairment losses		
Impairment losses brought forward	–616	–744
Impairment losses for the year	–15	–5
Divestments/Disposals	52	30
Reclassifications	–	6
Translation differences	5	97
Accumulated impairment losses carried forward	**–574**	**–616**

	2011	2010
Residual value according to plan carried forward	**539**	**626**
Estimated fair value	**669**	**746**

1) The estimated useful life for investment property ranges from 25–50 years.

Investment property encompasses 105 (119) properties located in Berlin, Hamburg and eastern Germany. The estimated fair value has been defined as the amount at which the concerned property could be exchanged between knowledgeable, willing partners in an arm's length transaction. The fair value calculations have mainly been made by Vattenfall's own assessors.

Rental income from external customers amounted to SEK 91 million (105). Direct costs for the concerned properties amounted to SEK 153 million (215), of which SEK 40 million (83) is related to properties that did not generate rental income.

At 31 December 2011, contractual obligations to purchase, construct or develop investment property or for repairs, maintenance or enhancements amounted to SEK 173 million (104).

Note 23 Shares and participations owned by the Parent Company Vattenfall AB and other Group companies

Shares and participations owned by Parent Company Vattenfall AB

	Corporate Identity Number	Registered office	Number of shares 2011	Participation in % 2011	Carrying amount 2011	Carrying amount 2010
Sweden						
Borås Elhandel AB	556613-7765	Borås	1,000	100	100	100
Chlorout AB	556840-9253	Stockholm	500	100	–	–
Forsaströms Kraft AB	556010-0819	Åtvidaberg	400,000	100	48	48
Forsmarks Kraftgrupp AB	556174-8525	Östhammar	198,000	66	198	198
Försäkrings AB Vattenfall Insurance	516401-8391	Stockholm	200,000	100	200	200
Gotlands Energi AB	556008-2157	Gotland	112,500	75	13	13
Haparanda Värmeverk AB	556241-9209	Haparanda	200	50	1	1
Produktionsbalans PBA AB	556425-8134	Stockholm	4,800	100	5	5
Ringhals AB	556558-7036	Varberg	248,572	70	379	379
Svensk Kärnbränslehantering AB	556175-2014	Stockholm	360	36[1]	–	–
Vattenfall Biomass Liberia AB	556809-8809	Stockholm	3,317	66[2]	314	314
Vattenfall Business Services Nordic AB	556439-0614	Stockholm	100	100	130	130
Vattenfall Elanläggningar AB	556257-5661	Sundsvall	1,000	100	1	1
Vattenfall Eldistribution AB	556417-0800	Stockholm	8,000	100	11	11
Vattenfall France Holding AB	556815-4214	Stockholm	30,500	100	11	6
Vattenfall Inlandskraft AB	556528-2562	Jokkmokk	3,000	100	4	4
Vattenfall Kalix Fjärrvärme AB	556012-9958	Kalix	1,880	94	–	–
Vattenfall Kundservice AB	556529-7065	Stockholm	100,000	100	31	–
Vattenfall Nuclear Fuel AB	556440-2609	Stockholm	100	100	96	96
Vattenfall PHEV Holding AB	556785-9383	Stockholm	100	100	–	–
Vattenfall Power Consultant AB	556383-5619	Stockholm	12,500	100	15	15
Vattenfall Power Management AB	556573-5940	Stockholm	6,570	100	12	12
Vattenfall Research & Development AB	556390-5891	Älvkarleby	14,000	100	17	17
Vattenfall Services Nordic AB	556242-0959	Luleå	26,000	100	19	19
Vattenfall Treasury Financing AB	556752-2858	Stockholm	100	100	–	–
Vattenfall Vattenkraft AB	556810-1520	Stockholm	1,000	100	1	1
Vattenfall Vindkraft AB	556731-0866	Stockholm	1,000	100	–	–
Vattenfall Vätter El AB	556528-3180	Motala	100	100	291	291
Västerbergslagens Energi AB	556565-6856	Ludvika	14,674	51	15	15
Övertorneå Värmeverk AB	556241-9191	Övertorneå	200	50	2	2
3C – Combat Climate Change AB	556765-0444	Stockholm	100	100	–	–
Bergeforsens Kraft AB	–	–	–	–	–	3
Kraftgården AB	–	–	–	–	–	1
Säffle Årjäng Energi AB	–	–	–	–	–	12
Vattenfall Tuggen AB	–	–	–	–	–	1
Västerbergslagens Kraft AB	–	–	–	–	–	19
Denmark						
Vattenfall A/S	21 311 332	Copenhagen	10,040,000	100	10,705	10,705
Vattenfall Energy Trading A/S	3181181	Copenhagen	500	100	49	49

Continued on page 92

Note 23 continued

	Corporate Identity Number	Registered office	Number of shares 2011	Participation in % 2011	Carrying amount 2011	Carrying amount 2010
Finland						
Vattenfall Oy	1071366-1	Helsinki	10,000	100	1,483	1,483
Vattenfall Sähkömyynti Oy Sales B2B	1842073-2	Helsinki	85	100	–	–
Germany						
Vattenfall (Deutschland) GmbH	(HRB) 124048	Berlin	2	100	64,066	64,066
Vattenfall Energy Trading GmbH	–	–	–	–	–	1,245
Poland						
Vattenfall IT Services Poland Sp.z.o.o	0000402391	Gliwice	58,000	100	12	–
Vattenfall Energy Trading Sp.z.o.o.	0000233066	Warsaw	80,000	100	9	9
Vattenfall Poland Sp.z.o.o.	0000270893	Warsaw	10,000	100	5	5
Vattenfall Heat Poland S.A.	–	–	–	–	–	4,855
GZE S.A.	–	–	–	–	–	6,925
Netherlands						
Vattenfall Nederland B.V.	34116939	Hoofdorp	200	100	–	–
N.V. Nuon Energy	33292246	Amsterdam	87,548,782	64[3]	97,273	98,076
Other countries						
Aegir Wave Power Limited, Scotland	SC367232	Edinburgh	19,129	66	7	–
Ormonde Energy Holdings Ltd, UK	5532528	Grantham	1	100	4	–
Pandion Ocean Power Limited, Ireland	E0461126	Maynooth	51	51	1	6
Vattenfall Reinsurance S.A., Luxembourg	(B) 49528	Luxembourg	13,000	100	111	111
Total					**175,639**	**189,449**

1) The Group owns a further 20% through Forsmarks Kraftgrupp AB.

2) Vattenfall AB owns 66.34% of the shares but as a result of the contract design with other owners, 100% is consolidated in Vattenfall's accounts.

3) The remaining 36% of the shares will be paid in two tranches: in July 2013 and 2015.

Larger shareholdings owned by other Group companies than the Parent Company Vattenfall AB
Calculations of the participation percentages take into account the minority ownership in the respective companies.

	Registered office	Participation in % 2011
Sweden		
Barsebäck Kraft AB	Malmö	70
Vattenfall Dalälven AB	Stockholm	100
Vattenfall Göta Älv AB	Stockholm	100
Vattenfall Indalsälven AB	Bispgården	74
Vattenfall Lilla Luleälven AB	Stockholm	100
Vattenfall Nedre Luleälven AB	Stockholm	100
Vattenfall Skellefteälven AB	Stockholm	100
Vattenfall Småskalig Kraft AB	Stockholm	100
Vattenfall Stora Luleälven AB	Stockholm	100
Vattenfall Umeälven AB	Stockholm	100
Vattenfall Vindkraft Sverige AB	Stockholm	100
Vattenfall Ångermanälven AB	Stockholm	100
Denmark		
Vattenfall Vindkraft A/S	Esbjerg	100
Vattenfall Vindkraft Nørrekær Enge A/S	Esbjerg	96
Finland		
Pamilo Oy	Uimaharju	100
Vattenfall Sähköntuotanto Oy	Helsinki	100
Germany		
DanTysk Offshore Wind GmbH	Hamburg	51
Fernheizwerk Märkisches Viertel GmbH	Berlin	100
Fernheizwerk Neukölln AG	Berlin	81
Kernkraftwerk Brunsbüttel GmbH & Co. oHG	Hamburg	67
Kraftwerke Schwarze Pumpe GmbH	Spremberg	100
Müllverwertung Borsigstraße GmbH	Hamburg	86
MVR Müllverwertung Rugenberger Damm GmbH & Co. KG	Hamburg	55
Nuon Energie und Service GmbH	Heinsberg	100
Nuon Epe Gasspeicher GmbH	Heinsberg	100
Vattenfall Europe AG	Berlin	100
Vattenfall Europe Business Services GmbH	Hamburg	100
Vattenfall Europe Distribution Berlin GmbH	Berlin	100
Vattenfall Europe Distribution Hamburg GmbH	Hamburg	100
Vattenfall Europe Generation AG	Cottbus	100
Vattenfall Europe Kundenservice GmbH	Hamburg	100
Vattenfall Europe Mining AG	Cottbus	100
Vattenfall Europe Netzservice GmbH	Berlin	100
Vattenfall Europe New Energy GmbH	Hamburg	100
Vattenfall Europe Nuclear Energy GmbH	Hamburg	100
Vattenfall Europe Sales GmbH	Hamburg	100
Vattenfall Europe Technology Research GmbH	Cottbus	100
Vattenfall Europe Windkraft GmbH	Hamburg	100
Vattenfall Europe Wärme AG	Berlin	100
Netherlands		
Emmtec Services B.V.	Emmen	100
Feenstra Verwarming B.V.	Lelystad	100
N.V. Nuon Duurzame energie	Arnhem	100
N.V. Nuon Energy Sourcing	Amsterdam	100

	Registered office	Participation in % 2011
N.V. Nuon Sales	Amsterdam	100
N.V. Nuon Sales Nederland	Amsterdam	100
N.V. Nuon VAS	Amsterdam	100
N.V. Nuon Warmte	Amsterdam	100
Nuon Epe Gas Service B.V.	Amsterdam	100
Nuon Isolatie B.V.	Veendam	100
Nuon Power Generation B.V.	Utrecht	100
Nuon Renewables NSW I B.V.	Amsterdam	100
Nuon Retail Installatie Service B.V.	Amsterdam	100
Nuon Storage B.V.	Amsterdam	100
Vattenfall Energy Trading Netherlands N.V.	Amsterdam	100
Zuidlob B.V.	Ede	100
UK		
Eclipse Energy UK Plc	Grantham	100
Kentish Flats Ltd	London	100
Nuon UK Ltd	Cornwall	100
Thanet Offshore Wind Ltd	London	100
Vattenfall Wind Power Ltd	Hexham	100

Note 24 Participations in associated companies and joint ventures

	2011	2010
Balance brought forward	12,949	10,927
Acquired companies	2	272
Assets held for sale	–	3,468
New share issues and shareholders' contributions	101	104
Reclassifications from other shares and participations	–	68
Other changes	–118	–320
Profit participations and dividends	–512	–239
Translation differences	–78	–1,331
Balance carried forward	**12,344**	**12,949**

Shares and participations owned by the Parent Company Vattenfall AB or by other Group companies.

	Corporate Identity Number	Registered office	Participation in % 2011	Carrying amount Group 2011	Carrying amount Group 2010	Carrying amount Parent Company 2011	Carrying amount Parent Company 2010
Associated companies and joint ventures owned by the Parent Company Vattenfall AB							
Sweden							
Preem Gas AB	556037-2970	Stockholm	30	15	14	6	6
Norway							
Northconnect KS	996625001	Kristiansand	23	5	–	7	–
Northconnect AS	995878550	Kristiansand	25	1	–	1	–
Associated companies and joint ventures owned by other Group companies than the Parent Company Vattenfall AB							
Sweden							
Taggen Vindpark AB	556739-6287	Sölvesborg	50	–	–	–	–
V² Plug-In Hybrid Vehicle Partnership HB	969741-9175	Gothenburg	50	477	243	–	–
Denmark							
Ensted Havn I/S	29636223	Aabenraa	50	597	599	–	–
UK							
East Anglia Offshore Wind Ltd	06990367	Hexham	50	35	20	–	–
Germany							
DOTI Deutsche Offshore Testfeld und Infrastruktur GmbH & Co. KG	A 200395	Oldenburg	26	478	562	–	–
EHA Energie Handels Gesellschaft mbH & Co.KG	HRA 92729	Hamburg	50	70	79	–	–
GASAG Berliner Gaswerke AG	HRB 965	Berlin	32	3,543	3,541	–	–
Kernkraftwerk Brokdorf GmbH & Co. oHG	HRB 17623	Hamburg	20	1,822	1,774	–	–
Kernkraftwerk Krümmel GmbH & Co. oHG	HRB 15033	Hamburg	50	3,513	4,274	–	–
Kernkraftwerk Stade GmbH & Co. oHG	HRB 12163	Hamburg	33	716	730	–	–

Continued on page 94

Note 24 continued

	Corporate Identity Number	Registered office	Participation in % 2011	Carrying amount Group 2011	Carrying amount Group 2010	Carrying amount Parent Company 2011	Carrying amount Parent Company 2010
Netherlands							
B.V. NEA	09018339	Dodewaard	23	14	14	–	–
C.V. De Horn	34227063	Amsterdam	42	3	2	–	–
C.V. Groettocht	37085868	Amsterdam	50	6	5	–	–
C.V. Oudelandertocht	37085867	Amsterdam	50	15	10	–	–
C.V. Waardtocht	37085866	Amsterdam	50	7	5	–	–
C.V. Waterkaaptocht	37085865	Amsterdam	50	14	8	–	–
C.V. Windpoort	34122462	Heemskerk	40	14	19	–	–
NoordzeeWind c.v.	34195602	Oegstgeest	50	802	811	–	–
V.O.F. Windpark Oom Kees	09210903	Ede	13	1	1	–	–
Wagendorp C.V.	37073928	Middenmeer	25	3	2	–	–
Westpoort Warmte B.V.	34121626	Amsterdam	50	–2	–2	–	–
Windpark Willem-Annapolder B.V.	22049359	Ede	33	3	3	–	–
Other countries							
Buchanan Renewables Fuel Group Liberia B.V.	343005514	Amsterdam	30	192	235	–	–
Total				**12,344**	**12,949**	**14**	**6**

Amounts pertaining to Vattenfall-owned participation of associated companies' revenues, profit, assets and liabilities:

	Revenues 2011	Profit 2011	Assets 31 Dec. 2011	Liabilities 31 Dec. 2011
Kernkraftwerk Krümmel GmbH & Co. oHG, Kernkraftwerk Stade GmbH & Co. oHG and Kernkraftwerk Brokdorf GmbH & Co. oHG	5,380	–497	21,316	14,818
Other companies	6,267	173	10,034	6,217
Total	**11,647**	**–324**	**31,350**	**21,035**

Amounts relating to Vattenfall-owned participation of joint ventures' revenues, profit, assets and liabilities:

	Revenues 2011	Expenses 2011	Non-current assets 31 Dec. 2011	Current assets 31 Dec. 2011	Non-current liabilities 31 Dec. 2011	Current liabilities 31 Dec. 2011
NoordzeeWind c.v.	247	70	713	87	30	96
V² Plug-In Hybrid Vehicle Partnership HB	–	38	532	20	–	75
Total	**247**	**108**	**1,245**	**107**	**30**	**171**

Note 25 Other shares and participations

	2011	2010
Balance brought forward	4,954	5,007
Investments	–	99
New share issues and shareholders' contributions	36	19
Divested companies	–7	–55
Assets held for sale	–35	–
Reclassifications to participations in associated companies	–	–68
Impairment losses[1]	–1,711	–
Translation differences	–2	–48
Balance carried forward	**3,235**	**4,954**

1) Pertains mainly to impairment of the shareholding in Enea S.A. See also Note 3 to the consolidated accounts.

	Participation in %	Carrying amount Group		Carrying amount Parent Company	
	2011	2011	2010	2011	2010
Shares and participations owned by the Parent Company Vattenfall AB					
Enea S.A., Poland	19	3,011	4,602	3,011	4,602
Other companies		7	7	7	7
Shares and participations owned by other Group companies than the Parent Company Vattenfall AB					
Germany					
EHA Energie Handels Gesellschaft mbH & Co. KG	50	–	–	–	–
European Energy Exchange	2	14	14	–	–
GNS Gesellschaft für Nuklear-Service GmbH	6	22	23	–	–
Sulfurcell Solartechnik GmbH	–	–	18	–	–
BEU Berliner Energie Umweltsfonds GbR	–	–	56	–	–
Other companies		22	23	–	–
Netherlands					
Cuculus GmbH	17	14	14	–	–
Electrisk Verzekeringsmaatschappij	21	23	23	–	–
Energie Service Noord West C.V.	30	15	15	–	–
Entellos AG	21	19	–	–	–
Locamation Control Systems B.V.	39	22	23	–	–
Tri-O-Gen Group B.V.	19	24	24	–	–
P21 GmbH	–	–	32	–	–
Other companies		12	11	–	–
Other countries/companies					
Asikkalan Voima Oy, Finland	–	–	28	–	–
ELINI (European Liability Insurance for the Nuclear Industry), Belgium	13[1]	29	29	–	–
Other companies		1	12	–	–
Total		**3,235**	**4,954**	**3,018**	**4,609**

1) The share of voting rights is 7%.

Note 26 Share in the Swedish Nuclear Waste Fund

	2011	2010
Balance brought forward	26,791	26,027
Payments	486	490
Disbursements	–795	–737
Returns	1,948	1,011
Balance carried forward	**28,430**	**26,791**

According to the Swedish Nuclear Activities Act (1984:3), any organisation in Sweden with a permit to own or run a nuclear installation is obligated to dismantle the plant in a safe manner, to manage spent fuel and other radioactive waste and to conduct necessary research and development. The permit holder shall also finance said management, etc.

The financing of future fees for spent nuclear fuel, etc., is currently ensured by the Swedish Act on the Financing of Future Expenses of Spent Nuclear Fuel, etc. Pursuant to this law, the reactor owner shall continue to pay a generation–based fee to the board of the Swedish Nuclear Waste Fund, which manages paid–in funds. The fund reimburses the owner of the reactor for expenses as the owner's obligations pursuant to the Swedish Nuclear Activities Act are fulfilled. According to agreements between the Swedish state, Vattenfall AB and E.ON Sverige AB, fund assets for Ringhals AB shall be managed by Vattenfall AB and fund assets for Barsebäck Kraft AB by E.ON Kärnkraft Sverige AB.

On 31 December 2011, the fair value of the Vattenfall Group's share of the Swedish Nuclear Waste Fund was SEK 29,546 million (27,321).

As stated in Note 39 to the consolidated accounts, provisions for future expenses for decommissioning, etc. within Swedish nuclear power operations amount to SEK 35,705 million (34,345).

Contingent liabilities attributable to the Swedish Nuclear Waste Fund are described in Note 48 to the consolidated accounts.

Note 27 Other non-current receivables

	Receivables from associated companies		Other receivables		Total	
	2011	2010	2011	2010	2011	2010
Balance brought forward	382	76	4,387	4,056	**4,769**	**4,132**
New receivables	12	18	658	110	**670**	**128**
Payments received	–22	293	30	–92	**8**	**201**
Impairment losses	–	–	–8	–3	**–8**	**–3**
Divested companies	–	–2	–13	–2	**–13**	**–4**
Reclassifications	–37	–	359	633	**322**	**633**
Translation differences	–	–3	–16	–315	**–16**	**–318**
Balance carried forward	**335**	**382**	**5,397**	**4,387**	**5,732**	**4,769**

Breakdown of non-current receivables:	2011	2010	2011	2010	2011	2010
Non-current interest-bearing receivables	335	382	502	433	**837**	**815**
Non-current noninterest-bearing receivables	–	–	4,895	3,954	**4,895**	**3,954**
Total	**335**	**382**	**5,397**	**4,387**	**5,732**	**4,769**

Note 28 Inventories

	2011	2010
Inventories held for own use		
Nuclear fuel	8,354	7,139
Materials and spare parts	3,246	3,236
Fossil fuel	2,794	2,138
Other	955	928
Total	**15,349**	**13,441**
Inventories held for trading		
Fossil fuel	1,147	1,769
Emission allowances/certifcates	2,068	1,615
Total	**3,215**	**3,384**
Total inventories	**18,564**	**16,825**

Inventories recognised as an expense in 2011 amount to SEK 19,771 million (18,711). Inventory write–downs amounted to SEK 219 million (3) during the year. Reversed write–downs amounted to SEK 0 million (22).

Note 29 Intangible assets: current

Attributable to emission allowances and certificates held for own use.

	Emission allowances		Certificates		Total	
	2011	2010	2011	2010	2011	2010
Balance brought forward	7,307	11,410	1,023	1,022	**8,330**	**12,432**
Purchases	9,739	4,576	2,105	2,191	**11,844**	**6,767**
Received free of charge	–	–	602	642	**602**	**642**
Sold	–5,710	–2,027	–1,676	–1,627	**–7,386**	**–3,654**
Redeemed	–4,942	–3,748	–1,366	–1,160	**–6,308**	**–4,908**
Disposals	–1,069	–1,076	–48	–14	**–1,117**	**–1,090**
Reclassification to inventories	–	–511	–	–	**–**	**–511**
Divested companies	–9	–	–284	–	**–293**	**–**
Translation differences	–32	–1,317	–13	–31	**–45**	**–1,348**
Balance carried forward	**5,284**	**7,307**	**343**	**1,023**	**5,627**	**8,330**

Note 30 Trade receivables and other receivables

	2011	2010
Accounts receivable – trade	25,900	30,222
Receivables from associated companies	64	1,099
Other receivables	15,916	5,059
Total	**41,880**	**36,380**

Age analysis
The collection period is normally between 10 and 30 days.

	2011			2010		
	Receivables, gross	Receivables impaired	Receivables, net	Receivables, gross	Receivables impaired	Receivables, net
Accounts receivable – trade						
Not due	23,075	30	23,045	27,653	42	27,611
Past due 1–30 days	1,467	25	1,442	1,332	37	1,295
Past due 31–90 days	713	29	684	573	45	528
Past due > 90 days	1,594	865	729	2,293	1,505	788
Total	**26,849**	**949**	**25,900**	**31,851**	**1,629**	**30,222**
Receivables from associated companies						
Not due	34	–	34	1,091	–	1,091
Past due 1–30 days	1	–	1	3	–	3
Past due 31–90 days	1	–	1	4	–	4
Past due > 90 days	30	2	28	3	2	1
Total	**66**	**2**	**64**	**1,101**	**2**	**1,099**
Other receivables						
Not due	15,900	–	15,900	5,031	–	5,031
Past due 1–30 days	6	–	6	5	–	5
Past due 31–90 days	3	–	3	3	–	3
Past due > 90 days	17	10	7	35	15	20
Total	**15,926**	**10**	**15,916**	**5,074**	**15**	**5,059**

Receivables impaired as above:

	2011	2010
Balance brought forward	1,646	1,955
Provision for impairment losses	504	369
Impairment losses	–198	–340
Reversed impairment losses	–266	–39
Reclassifications	15	8
Divested companies	–678	–219
Translation differences	–62	–88
Balance carried forward	**961**	**1,646**

Note 31 Advance payments to suppliers

	2011	2010
Margin calls paid, energy trading	5,771	3,392
Other advance payments	597	512
Total	**6,368**	**3,904**

A margin call is a marginal security (collateral) which Vattenfall pays its counterpart, i.e. to the holder of a derivative position to cover the counterpart's credit risk, either bilaterally via OTC or through an exchange. In Vattenfall's business activities, margin calls occur in energy trading and in the treasury operations.

Margin calls paid within energy trading are in the balance sheet recognised as Advance payments to suppliers and are therby recognised in the statement of cash flows as cash flows from changes in operating assets while margin calls paid within financing activities are in the balance sheet recognised as Short-term investments (Note 33 to the consolidated accounts) and are thereby in the statement of cash flows recognised as cash flows from financing activities.

Note 32 Prepaid expenses and accrued income

	2011	2010
Prepaid insurance premiums	44	33
Prepaid expenses, other	534	930
Prepaid expenses and accrued income, electricity	2,621	4,663
Accrued income, other	3,251	4,971
Total	**6,450**	**10,597**

Note 33 Short-term investments

	2011	2010
Interest-bearing investments	16,036	30,602
Margin calls, financing activities	1,381	676
Total	**17,417**	**31,278**

Note 34 Cash and cash equivalents

	2011	2010
Cash and bank balances	9,973	7,655
Cash equivalents	1,295	4,940
Total	**11,268**	**12,595**

Note 35 Assets held for sale

On 16 December 2011 Vattenfall announced that it had signed an agreement on the sale of Vattenfall's electricity distribution and heat businesses in Finland. Assets and liabilities at 31 December 2011 attributable to these businesses are stated below. See also Note 55 to the consolidted accounts.

	2011	2010
Intangible assets: non-current	101	–
Property, plant and equipment	5,761	484
Other non-current assets	47	1,127
Inventories	121	–
Trade receivables and other receivables	196	–
Other current assets	362	–
Total assets	**6,588**	**1,611**
Other interest-bearing provisions	2	–
Deferred tax liabilities	969	–
Interest-bearing liabilities	344	–
Trade payables and other liabilities	282	–
Accrued expenses and deferred income	262	–
Total liabilities	**1,859**	**–**

Note 36 Hybrid capital

In June 2005, Vattenfall issued Hybrid capital, which are reported as interest-bearing non-current liabilities. The maturity of the Hybrid capital is perpetual and they are junior to all of Vattenfall's unsubordinated debt instruments. There is no redemption requirement, although the intention is to repay the loan in 2015. The interest is fixed for the initial ten-year period, thereafter a floating rate is applied. The interest is conditional upon, among other things, Vattenfall's means of paying dividends to owners and the key ratio "Interest Coverage Trigger Ratio" amounting to at least 2.5.

	2011	2010
Balance brought forward	8,929	10,250
Discount allocation	15	5
Translation differences	–61	–1,326
Balance carried forward	**8,883**	**8,929**

The Interest Coverage Trigger Ratio key ratio is calculated as follows:

	2011	2010
Funds from operations (FFO)	38,256	40,108
Interest paid	4,871	4,866
FFO plus interest paid (a)	**43,127**	**44,974**
Interest expenses (b)	6,176	6,447
Interest Coverage Trigger Ratio (a/b)	6.98	6.98

Note 37 Other interest-bearing liabilities

	Non-current portion, maturity 1–5 years		Non-current portion, maturity >5 years		Total non-current portion		Current portion		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Bond issues	48,124	33,696	47,744	57,008	**95,868**	**90,704**	179	8,688	**96,047**	**99,392**
Commercial paper	–	–	–	–	**–**	**–**	1,581	4,495	**1,581**	**4,495**
Liabilities to credit institutions	2,752	4,040	445	770	**3,197**	**4,810**	1,408	1,341	**4,605**	**6,151**
Liabilities pertaining to acquisitions of Group companies[1]	30,472	30,119	–	–	**30,472**	**30,119**	–	13,319	**30,472**	**43,438**
Liabilities to minority owners	150	150	9,686	8,803	**9,836**	**8,953**	404	374	**10,240**	**9,327**
Liabilities to associated companies	9,645	9,228	–	–	**9,645**	**9,228**	876	1,265	**10,521**	**10,493**
Other liabilities	323	704	261	81	**584**	**785**	7,417[3]	5,267	**8,001**	**6,052**
Total	**91,466**	**77,937**	**58,136**	**66,662**	**149,602**	**144,599**	**11,865**	**34,749**	**161,467**	**179,348**
Undiscounted future cash flows including interest payments and derivatives for the interest-bearing liabilities listed above including Hybrid capital[2] according to Note 36 amount to:	117,592	107,315	58,058	92,730	**175,650**	**200,045**	17,141	41,289	**192,791**	**241,334**

1) The liability pertaining to the acquisition of the remaining 36% of the shares in N.V. Nuon Energy, SEK 30,353 million, shall according to agreement be paid in two tranches: in July 2013 and 2015.

2) Floating interest cash flows with future fixing dates are estimated using the forward interest rates expected by the market at year-end for each business- and interest fixing date. All future cash flows in foreign currency are translated to SEK using the balance sheet date rate at year-end.

3) Of which, margin calls within financing activities SEK 7,369 million (5,128).

Note 38 Pension provisions

General

Vattenfall's pension obligations in the Group's Swedish, German and Dutch companies are predominantly defined benefit pension obligations. The pension plans are primarily retirement pensions, disability pensions and family pensions. The assets in these funds (the plan assets) are reported at fair value. There are also pension plans in these and other countries that are defined contribution plans.

Swedish pension plans

The Swedish pension plans supplement the Swedish social insurance system and are the result of agreements between employer and employee organisations. Practically all of Vattenfall's employees in Sweden are covered by a pension plan that is primarily a defined benefit plan, known as ITP–Vattenfall. This pension plan guarantees employees a pension based on a percentage of their salary. These benefits are chiefly secured in a pension trust or through provisions in the balance sheet.

Some of Vattenfall's obligations in the ITP plan, such as family and disability pension, are secured through insurance with Alecta (a Swedish mutual insurance company). According to a statement issued by the Swedish Financial Reporting Board, UFR 3, this plan is a multi–employer defined benefit plan. As in previous years, Vattenfall has not had access to such information to make it possible to report this plan as a defined benefit plan. The ITP pension plan, which is secured through insurance with Alecta, is therefore reported as a defined contribution plan. Contributions for the year for pension insurance policies from Alecta amounted to SEK 84 million (98). Alecta's surplus can be distributed among the policyholders and/or the insureds. At the end of 2011, Alecta's surplus in the form of its so–called collective funding amounted to 113% (143%). Collective funding consists of the fair value of Alecta's assets as a percentage of the insurance obligations calculated in accordance with Alecta's actuarial calculation assumptions.

German pension plans

The pension plans in Germany are based on collective agreements in line with market terms and conditions. Substantial defined benefit plans exist for employees in Germany.

Two pension plans exist, both secured through Pensionskasse der Bewag, a mutual insurance company. Obligations are secured through funds from Vattenfall and its employees. One plan has been classified as a defined contribution plan and is reported as such since the benefit is based on paid-in contributions and Pensionskasse der Bewag's financial position. For employees who began their employment before 1 January 1984, there is a supplementary agreement providing employees working until retirement age with a pension equal to up to 80% of the salary on which the pension is based. Half of the statutory pension and the entire benefit from Pensionskasse der Bewag, including profits, are credited to the guaranteed amount. Vattenfall's obligations encompass the entire pension obligation. The plan assets attributable to personnel employed since before 1 January 1984 are reported as plan assets at fair value.

In addition, Vattenfall has pension obligations for employees in Hamburg that consist mainly of the company's obligations to personnel employed before 1 April 1991 and who have been employed for at least 10 years. The sum of the retirement pension, statutory pension and pensions from third parties normally amounts to a maximum of 65% of pensionable salary.

Dutch pension plans

In the Netherlands Vattenfall has a number of defined benefit plans and defined contribution plans for which premiums are paid to pension funds or insurance companies. The most significant pension plans have been transferred to the ABP pension fund and the "Metaal en Techniek" pension fund. These plans can be characterised as multi-employer plans.

The pension plans offered by these funds are defined benefit pension obligations. However, as Vattenfall does not have access to the required information and Vattenfall's participation in the multi-employer plans exposes Vattenfall to actuarial risks that pertain to present and former employees of other entities, both pension plans are classified as defined contribution plans. The pension premiums paid during the financial year are accounted for as pension costs in the financial statements. In cases where a contractual agreement has been made for a multi-employer plan that determines how a surplus is to be distributed to the participants or how a deficit is to be financed, and the plan is classified as a defined contribution plan, according the agreement a receivable or liability should be recognised on the balance sheet. The resulting gains or losses are to be recognised in the income statement.

The pensions for the majority of the workforce have been transferred to the ABP pension fund and the "Metaal en Techniek" pension fund. These plans do not contain the aforementioned contractual agreements. As a result, no receivable or liability has been recognised on the balance sheet.

Defined benefit obligations

	2011	2010
Present value of unfunded obligations	20,040	19,355
Present value of fully or partly funded obligations	18,925	17,346
Present value of obligations	**38,965**	**36,701**
Fair value of plan assets	16,504	16,709
Present value of net obligations	**22,461**	**19,992**
Unrecognised actuarial gains(+)/ losses(–) of the obligations	–4,527	–2,374
Unrecognised actuarial gains(+)/ losses(–) of plan assets	61	519
Pension provisions	**17,995**	**18,137**

Changes in obligations

	2011	2010
Balance brought forward	36,701	38,617
Divested companies	–	–88
Benefits paid by the plan	–2,078	–2,104
Service costs	620	622
Actuarial gains(–) or losses(+)	2,167	1,910
Current interest expense	1,761	1,888
Translation differences	–206	–4,144
Balance carried forward	**38,965**	**36,701**

Changes in plan assets

	2011	2010
Balance brought forward	16,709	17,420
Benefits paid by the plan	–415	–522
Anticipated return on plan assets	718	750
Difference between expected and actual return (actuarial gain(+) or loss(–))	–442	519
Translation differences	–66	–1,458
Balance carried forward	**16,504**	**16,709**

Plan assets consist of the following

	2011	2010
Shares and participations	3,592	5,117
Interest-bearing instruments	9,140	9,149
Real estate	650	639
Other	3,122	1,804
Total	**16,504**	**16,709**

Continued on page 100

Note 38 continued

Historical information

	2011	2010	2009	2008	2007
Present value of obligations	38,965	36,701	38,617	39,275	33,757
Fair value of plan assets	16,504	16,709	17,420	17,436	16,684
Present value of net obligations	**22,461**	**19,992**	**21,197**	**21,839**	**17,073**
Experience adjustments of obligations	498	–105	711	2,126	–300
Experience adjustments of plan assets	–442	519	953	–1,057	–171

Payments for contributions to defined benefit plans in 2012 are estimated at SEK 1,400 million.

Pension costs

	2011	2010
Defined benefit plans:		
Current service cost	524	528
Interest expense	1,761	1,888
Expected return on plan assets	–718	–751
Past service cost	56	88
Other	–4	79
Total cost for defined benefit plans	**1,619**	**1,832**
Cost for defined contribution plans	615	644
Total pension costs	**2,234**	**2,476**

Pension costs are reported in the following lines in the income statement:

	2011	2010
Cost of products sold	967	1,145
Selling expenses	36	54
Administrative expenses	188	139
Financial expenses	1,043	1,138
Total pension costs	**2,234**	**2,476**

In calculating pension obligations, the following actuarial assumptions have been made (%):

	Sweden		Germany	
	2011	2010	2011	2010
Discount rate	3.5	4.5	5.0	5.0
Expected return on plan assets	5.25	5.25	3.0–5.0	4.0–5.0
Future annual salary increases	3.5	3.5	1.6–3.4	2.5
Future annual pension increases	2.0	2.0	1.0–3.4	1.0–2.6

Note 39 Other interest-bearing provisions

	Non-current position		Current position		Total	
	2011	2010	2011	2010	2011	2010
Provisions for future expenses of nuclear operations	49,275	44,944	1,668	484	**50,943**	**45,428**
Provisions for future expenses of mining, gas and wind operations and other environmental measures/undertakings	11,041	11,384	1,501	1,376	**12,542**	**12,760**
Personnel-related provisions for non-pension purposes	2,137	2,532	1,838	1,707	**3,975**	**4,239**
Provisions for tax and legal disputes	1,767	1,711	2,061	3,484	**3,828**	**5,195**
Other provisions	2,267	1,923	169	140	**2,436**	**2,063**
Total	**66,487**	**62,494**	**7,237**	**7,191**	**73,724**	**69,685**

In Sweden a discount rate of 4.25% (4.25%) has been used for all the provisions specified below.

In Germany a discount rate of 4.75% (4.75%) has been used for provisions for future expenses of nuclear operations and for provisions for future expenses of mining operations and other environmental measures/undertakings. For all other provisions in Germany, a discount rate of 4.5% (4.5%) has been used.

In the Netherlands a discount rate of 2.5% (3.5%) has been used for all the provisions specified below.

See also Note 3 to the consolidated accounts.

Provisions for future expenses of nuclear operations:
Vattenfall's nuclear power producers in Sweden and Germany have a legal obligation upon the cessation of production to decommission and dismantle the nuclear power plants and to restore the plots of land where the plants were located. Further, this obligation also encompasses the safeguarding and final storage of spent radioactive fuel and other radioactive materials used by the plants. The provisions include future expenses for the management of low- and medium-level radioactive waste.

For the Swedish operations, current assumptions indicate that all provisions will result in disbursements later than 2026.

Current plans for the decommissioning of the German nuclear power operations entail that approximately 44% of the provisions will result in cash flows relatively evenly distributed over the period 2012–2016, a further approximately 40% over the period 2017–2025, and approximately 16% thereafter.

Provisions for future expenses of nuclear operations (changes in 2011)

	Sweden	Germany	Total
Balance brought forward	34,345	11,083	**45,428**
Provisions for the period	50	4,720	**4,770**
Discounting effects	1,402	528	**1,930**
Revaluations versus non-current assets	853	–	**853**
Provisions used	–945	–978	**–1,923**
Translation differences	–	–115	**–115**
Balance carried forward	**35,705**[1]	**15,238**[2]	**50,943**

1) Of which, approximately 29% (27%) pertains to the dismantling, etc. of nuclear power plants and approximately 71% (73%) to the handling of spent radioactive fuel.

2) Of which, approximately 75% (49%) pertains to the dismantling, etc. of nuclear power plants and approximately 25% (51%) to the handling of spent radioactive fuel.

Provisions for future expenses of mining, gas and wind operations and other environmental measures/undertakings:
Provisions are made to restore sites and for other undertakings associated with the Group's permits to conduct lignite mining in Germany, and in the Netherlands for the dismantling and removal of assets and restoration of sites where the Group conducts gas operations. Provisions are also made for restoration of sites where the Group conducts wind operations and for environmental measures/undertakings within other activities carried out by the Group.

According to current estimations, approximately 74% of the provisions will result in cash outflows later than 2014. For 2012, disbursements corresponding to 12% of the provisions are estimated, while disbursements for the years 2013 and 2014 are estimated at 9% and 5% of the provisions, respectively.

Provisions for mining operations, etc. (changes in 2011)	
Balance brought forward	12,760
Provisions for the period	996
Discounting effects	460
Revaluations versus non-current assets	48
Provisions used	–572
Provisions reversed	–379
Divested companies	–684
Translation differences	–87
Balance carried forward	**12,542**

Personnel-related provisions for non-pension purposes:
Provisions are made for future costs pertaining to redundancy in the form of severance pay and other costs for giving notice to personnel.

Approximately 32% of the provisions that have been made are estimated to result in disbursements in 2012, while approximately 41% are estimated to be disbursed from 2013 to 2015.

Personnel-related provisions for non-pension purposes (changes in 2011)	
Balance brought forward	4,239
Provisions for the period	1,280
Discounting effects	186
Revaluations	–201
Provisions used	–1,015
Provisions reversed	–35
Divested companies	–445
Translation differences	–34
Balance carried forward	**3,975**

Provisions for tax and legal disputes:
Provisions are made for possible future tax expenses due to ongoing tax audits and for ongoing legal disputes and actions. These include provisions related to ongoing legal actions concerning encroachment regarding cable laying on land in eastern Germany.

Approximately 77% of the provisions for tax and legal disputes are expected to result in disbursements in 2012 and 2013. The remaining provisions are estimated to result in cash flows during the years 2014–2015 (19%), and 4% thereafter.

Provisions for tax and legal disputes (changes in 2011)	
Balance brought forward	5,195
Provisions for the period	732
Discounting effects	–258
Revaluations	–36
Provisions used	–322
Provisions reversed	–1,443
Divested companies	–13
Translation differences	–27
Balance carried forward	**3,828**

Other provisions:
Other provisions include, among others, provisions for losses on contracts, restructuring and guarantee commitments.

Approximately 70% of these provisions are estimated to result in disbursements in 2012 to 2016, while the remaining approximately 27% are estimated to result in disbursements during the years 2017–2032, and 3% thereafter.

Other provisions (changes in 2011)	
Balance brought forward	2,063
Acquired companies	30
Provisions for the period	704
Discounting effects	55
Revaluations	10
Provisions used	–359
Provisions reversed	48
Divested companies	–102
Translation differences	–13
Balance carried forward	**2,436**

Note 40 Other noninterest-bearing liabilities (non-current)

Of the total liabilities of SEK 8,238 million (8,409), SEK 4,769 million (5,614) falls due after more than five years. Of the total liabilities SEK 14 million (662) refer to accrued expenses, SEK 5,562 million (5,032) to deferred income and SEK 2,662 million (2,715) to other liabilities.

Note 41 Trade payables and other liabilities

	2011	2010
Accounts payable – trade	21,051	24,580
Liabilities to associated companies	4,162	647
Other liabilities	9,895	7,957
Total	**35,108**	**33,184**

Note 42 Advance payments from customers

	2011	2010
Margin calls received, energy trading	776	1,606
Other advance payments	366	306
Total	**1,142**	**1,912**

A margin call is a marginal security (collateral) which Vattenfall's counterpart pays to Vattenfall as the holder of a derivative position to cover Vattenfall's credit risk, either bilaterally via OTC or through an exchange. In Vattenfall's business activities, margin calls occur in energy trading and in the treasury operations.

Margin calls received within energy trading are in the balance sheet recognised as Advance payments from customers and are therby recognised in the statement of cash flows as cash flows from changes in operating liabilities while margin calls received within financing activities are in the balance sheet recognised as Current interest-bearing liabilities (Note 34 to the consolidated accounts) and are thereby in the statement of cash flows recognised as cash flows from financing activities.

Note 43 Accrued expenses and deferred income

	2011	2010
Accrued personnel-related costs	3,792	3,712
Accrued expenses, emission allowances	3,684	5,452
Accrued expenses, connection fees	97	215
Accrued nuclear power-related fees and taxes	34	83
Accrued interest expense	3,868	4,207
Other accrued expenses	4,132	7,627
Deferred income and accrued expenses, electricity	2,634	3,091
Other deferred income	266	417
Total	**18,507**	**24,804**

Note 44 Financial instruments by category and related effects on income

Risk arising from financial instruments are described under the heading Risk and risk management on pages 57–65 in this Annual Report.

Financial instruments by category: Carrying amount and fair value

	2011		2010	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets at fair value through profit or loss				
Derivatives with positive fair values for financial assets held for trading	15,591	15,591	21,101	21,101
Short-term investments	16,036	16,036	30,602	30,602
Cash equivalents (Note 34)	1,295	1,295	4,940	4,940
Total	**32,922**	**32,922**	**56,643**	**56,643**
Derivatives for hedging purpose (with positive fair values) for:				
Fair value hedges	4	4	4,135	4,135
Cash flow hedges	14,504	14,504	4,084	4,084
Hedges of net investments in foreign operations	–	–	18	18
Total	**14,508**	**14,508**	**8,237**	**8,237**
Loans and receivables				
Share in the Swedish Nuclear Waste Fund	28,430	29,546	26,791	27,321
Other non-current receivables	5,732	5,732	4,769	4,770
Trade receivables and other receivables	41,880	41,880	36,380	36,380
Advance payments to suppliers	5,771	5,771	3,392	3,392
Short-term investments	1,381	1,381	676	676
Cash and bank balances (Note 34)	9,973	9,973	7,655	7,655
Total	**93,167**	**94,283**	**79,663**	**80,194**
Available-for-sale financial assets				
Other shares and participations carried at fair value	3,011	3,011	4,602	4,602
Other shares and participations carried at cost	224	224	352	352
Total	**3,235**	**3,235**	**4,954**	**4,954**

	2011		2010	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities at fair value through profit or loss				
Derivatives with negative fair values for financial liabilities held for trading	15,589	15,589	19,619	19,619
Total	**15,589**	**15,589**	**19,619**	**19,619**
Derivatives for hedging purpose (with negative fair values) for:				
Fair value hedges	36	36	645	645
Cash flow hedges	6,829	6,829	4,952	4,952
Total	**6,865**	**6,865**	**5,597**	**5,597**
Other financial liabilities				
Hybrid capital	8,883	10,085	8,929	10,113
Other non-current interest-bearing liabilities	149,602	168,340	144,599	166,964
Other non-current noninterest-bearing liabilities	8,238	8,238	8,409	8,409
Current interest-bearing liabilities	11,865	11,654	34,749	35,020
Trade payables and other liabilities	31,723	31,723	33,184	33,184
Advance payments from customers	776	776	1,606	1,606
Total	**211,087**	**230,816**	**231,476**	**255,296**

For assets and liabilities with a remaining maturity less than three months (e.g. Cash and bank balances, Trade receivables and other receivables and Trade payables and other payables) the fair value is considered to be equal to the carrying amount.

Financial instruments that in the balance sheet are measured at fair value are below described according to the fair value hierarchy (levels) which in IFRS 7 is defined as:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices). In Level 2 Vattenfall reports mainly interest rate swaps.
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

Financial assets and liabilities that are measured at fair value in the balance sheet at 31 December 2011

	Level 1	Level 2	Level 3	Total
Assets				
Derivatives with positive fair values	7,364	19,903	2,832	**30,099**
Short-term investments and cash equivalents	17,331	–	–	**17,331**
Other shares and participations	3,011	–	–	**3,011**
Total assets	**27,706**	**19,903**	**2,832**	**50,441**
Liabilities				
Derivatives with negative fair values	7,353	12,176	2,925	**22,454**
Total liabilities	**7,353**	**12,176**	**2,925**	**22,454**

Financial assets and liabilities that are measured at fair value in the balance sheet at 31 December 2010

	Level 1	Level 2	Level 3	Total
Assets				
Derivatives with positive fair values	12,170	14,651	2,517	**29,338**
Short-term investments and cash equivalents	29,526	6,016	–	**35,542**
Other shares and participations	4,602	–	–	**4,602**
Total assets	**46,298**	**20,667**	**2,517**	**69,482**
Liabilities				
Derivatives with negative fair values	13,960	8,910	2,346	**25,216**
Total liabilities	**13,960**	**8,910**	**2,346**	**25,216**

Changes in level 3 financial instruments

Financial instruments at fair value through profit or loss

	2011	2010
Balance brought forward	171	–134
Revaluations recognised in Operating profit (EBIT)	–272	306
Translation differences	8	–1
Balance carried forward	**–93**	**171**
Total revaluations for the period included in Operating profit (EBIT) for assets and liabilities held at 31 December	25	131

Sensitivity analysis for Level 3 contracts

TGSA:

A TGSA (Troll[1] Gas Sales Agreement) is a large gas supply agreement (coal price–indexed) that extends further ahead in time than liquid trading in the gas market. Valuation of the agreement is against the market price, as long as a market price can be observed. For deliveries beyond the market horizon modelled prices are used for the relevant commodities. TGSA is hedged with OTC forward trades of underlying products. These trades are also marked against the same market and modelled prices. The modelled prices are benchmarked against reliable financial information obtained from the company Markit; this information is well-known and is used by many energy companies, which entails a fair valuation of the portion of the TGSA that cannot be valued against market prices.

The net value as per 31 December has been calculated at SEK –366 million. The price of the coal price index used in the model (API#2) has a large impact on the modelled price. A change in this index of +/– 5% would affect the total value by approximately SEK –/+ 17 million.

1) Troll is a gas field in the North Sea west of Norway.

CDM:

Clean Development Mechanism (CDM) is a Kyoto Protocol initiative under which projects set up in developing countries to reduce atmospheric carbon generate tradable carbon credits called CERs (Certified Emissions Reductions). CERs can be used by industrialised nations to offset carbon emissions at home and meet their Kyoto Protocol reduction targets. Valuation of CERs is derived from so-called Risk Adjustment Factors (RAFs). These factors are calculated using the Carbon Valuation Tool developed by Point Carbon to quantify the risk and calculate the fair value of CDM projects or contracts. The tool is based on Point Carbon's valuation methodology, which was developed by several experienced market players. The valuation methodology is strictly empirical, and all risk parameters are extracted from Point Carbon's proprietary databases of CDM project data, which entails a correct valuation of the contracts even where market prices are not listed.

The net value as per 31 December has been calculated at SEK –512 million. A change in the modelled price of CERs of +/– 5% would affect the total value by approximately SEK +/– 31 million.

Long-term electricity contracts:

Vattenfall has long-term electricity contracts with a customer extending until 2019 that include embedded derivatives in which the electricity price for the customer is coupled to the price development of aluminium and exchange rate movements of the Norwegian krone (NOK) in relation to the US dollar (USD). Reliable market quotations for aluminium are available for a period of 27 months forward in time. Starting from 30 June 2011, Vattenfall estimates that the use of modelled prices provides reliable values for valuation of the period beyond 27 months, that is, the time horizon during which market quotations are not available until the contracts' expiration date. Through the first quarter of 2011, the value of these embedded derivatives for the period beyond 27 months has been set to zero.

The value as per 31 December 2011 has been calculated at SEK +785 million. The price of aluminium is the factor that has the greatest bearing on the modelled price. A change in the price of aluminium of +/– 5% would affect the total value by approximately SEK +/– 175 million.

Financial instruments: Effects on income by category

Net gains(+)/losses(–) and interest income and expenses for financial instruments recognised in the income statement:

	2011			2010		
	Net gains/losses[1]	Interest income	Interest expenses	Net gains/losses[1]	Interest income	Interest expenses
Financial assets and financial liabilities at fair value through profit or loss (held for trading)	–924	474	13	2,406	407	–281
Available-for-sale financial assets	–1,505	–	–	113	–	–
Loans and receivables	164	2,361	–	68	1,610	–
Financial liabilities measured at amortised cost	–424	–	–6,003	–1,041	–	–5,973
Total	**–2,689**	**2,835**	**–5,990**	**1,546**	**2,017**	**–6,254**

1) In net gains/losses exchange rate gains and losses are included.

Note 45 Specifications of the cash flow statement

Other, incl. non-cash items

	2011	2010
Undistributed results from participation in associated companies	179	277
Unrealised foreign exchange gains	–199	–3,279
Unrealised foreign exchange losses	30	–41
Unrealised changes in values related to derivatives	814	–2,056
Changes in fair values for inventories	541	–255
Changes in interest receivables	–1,119	–424
Changes in interest liabilities	1,594	1,481
Changes in the Swedish Nuclear Waste Fund	–1,639	–764
Changes in provisions	847	1,569
Revenue recognition of negative goodwill	–53	–20
Total	**995**	**–3,512**

Interest paid totalled SEK 4,871 million (4,866) and interest received totalled SEK 635 million (912). Dividends received totalled SEK 420 million (760).

Other investments in non-current assets

	2011	2010
Investments in intangible assets: non-current, including advance payments	–460	–681
Investments in property, plant and equipment, including advance payments	–34,890	–39,991
Investments in investment property including advance payments	–3	–37
Total	**–35,353**	**–40,709**

Divestments

	2011	2010
Divestments of shares and participations	13,553	5,200
Divestments of intangible assets: non-current	2,718	50
Divestments of property, plant and equipment	9	1,947
Total	**16,280**	**7,197**

Note 46 Specifications of equity

Share capital:
As of 31 December 2011 the registered share capital comprised 131,700,000 shares with a share quota value of SEK 50.

Reserve for cash flow hedges:
The reserve for cash flow hedges includes mostly unrealised changes in values of commodity derivatives used to hedge future sales.

Other reserves:
Other reserves chiefly comprise the translation reserve, SEK –8,203 million (–7,568), which includes all exchange rate differences arising in the translation of financial reports from non-Swedish operations that prepare their reports in a currency other than that in which the Group reports. Further, the translation reserve includes exchange rate differences arising in the reassessment of debts raised as hedges for net investments in non-Swedish operations. Other reserves also comprise revaluations of financial instruments belonging to the category available-for-sale financial assets, SEK 0 million (0).

The reserve for cash flow hedges is expected to affect the income statement and cash flow, respectively, in the periods indicated below:

	2011		2010	
	Cash flow	Income statement	Cash flow	Income statement
Within 1 year	709	305	–1,039	–1,132
Between 1–5 years	1,072	278	–731	–440
More than 5 years	53	53	37	37
	1,834	**636**	**–1,733**	**–1,535**
Other	–111	–2	201	285
Total	**1,723**	**634**	**–1,532**	**–1,250**

Amounts that were removed from the reserve for cash flow hedges are included in the following line items in the income statement:

	2011	2010
Net sales	–4,481	1,791
Cost of products sold	–2,191	–895
Other operating income	–	37
Other operating expenses	4	–243
Financial expenses	–	–6
Total	**–6,668**	**684**

Amounts that were removed from the reserve for cash flow hedges are included in the following line items in the balance sheet:

	2011	2010
Property, plant and equipment	51	449
Inventories	146	–203
Other assets	27	–
Total	**224**	**246**

Retained earnings including profit for the year:
Retained earnings including profit for the year includes earned profits in the Parent Company and its subsidiaries, associated companies and joint ventures.

Note 47 Collateral

	2011	2010
For own liabilities and provisions		
Liabilities to credit institutions:		
Real estate mortgages as security for loans	–	604
Blocked bank funds as security for guarantees issued by bank	79	–
Blocked bank funds as security for redemption of minority shares	–	30
Total	**79**	**634**

To fulfil the requirements for security in the derivative market, in its energy trading and financial operations Vattenfall has pledged security to counterparties for the negative fair value of derivative positions. As per 31 December 2011 this security amounted to SEK 5,771 million (3,392) for energy trading and SEK 1,381 million (676) for the financial operations. The amounts are reported as assets on the balance sheet under Advance payments to suppliers for the energy trading portion (Note 31 to the consolidated accounts) and under Short-term investments for the financial operations portion (Note 33 to the consolidated accounts). The counterparties are obligated to repay this security to Vattenfall in the event the negative fair value decreases.

In a similar manner, Vattenfall's counterparties in energy trading and the financial operations have pledged security to Vattenfall. Security received as per 31 December 2011 amounted to SEK 776 million (1,606) for energy trading and SEK 7,369 million (5,128) for the financial operations. The amounts are reported as liabilities on the balance sheet under Advance payments from customers for the energy trading portion (Note 42 to the consolidated accounts) and Interest-bearing liabilities (current) for the financial operations (Note 37 to the consolidated accounts).

Note 48 Contingent liabilities

	2011	2010
Guarantees	566	643
Other contingent liabilities	3,018	3,899
Total	**3,584**	**4,542**

In certain rivers, joint regulation facilities exist for several hydro power plants. The owners of the power plants have payment obligations for their share of these regulation costs. Vattenfall has an obligation to compensate certain owners of water rights, in rivers where hydro power stations are built, through the delivery of power. In 2011, such compensation deliveries amounted to 0.90 TWh (0.78), for a value of approximately SEK 369 million (443).

Under Swedish law, Vattenfall has strict and unlimited liability for third-party loss resulting from dam accidents. Together with other hydro power producers in Sweden, Vattenfall has liability insurance that is limited to payment of a maximum of SEK 9,000 million in benefits for these types of claims.

In its German operations, Vattenfall has conducted a number of leasing transactions involving power plants. These agreements took effect in 2001. The basis for the transactions is the right of use of power plants leased to US counterparties as part of so-called head leases, lasting a maximum of 99 years, and thereafter leased back for 24 years as part of subleases. After the subleases expire, Vattenfall has the right to regain the right of use through a call option. At the inception of the leases, deposits were made of the present value of future lease payments, including the option amount, in financial institutions with high credit ratings. Payment of the amounts under the lease contracts is made from these deposits. In the event that the lessees or the underlying customers fail to meet their obligations under the leases, this would give rise to termination costs for Vattenfall. As per 31 December 2011 these obligations amounted to a maximum of SEK 341 million (367), which is included in Other contingent liabilities above.

In its Swedish operations, Vattenfall conducted a number of leasing transactions involving power plants in 2003 and 2005. The transactions are based on sale & leaseback agreements for each power plant, which were sold to French counterparties to be leased back for 15 years. Once the lease periods expire, Vattenfall has the right to purchase the plants through call options. The present value of the future lease payments, including the option amount, has been deposited with financial institutions with high credit ratings for the disbursement of the lease payments in accordance with the leases. In the event Vattenfall should wish to prematurely redeem the lease agreements, this would give rise to costs for Vattenfall. As per 31 December 2011 these costs amounted to a maximum of SEK 54 million (57). This amount is not included in the reported Other contingent liabilities above.

In Germany, nuclear power operators have strict and unlimited liability to third parties. By law, nuclear power plants are required to have insurance or other financial guarantees for amounts up to EUR 2,500 million. Claims of up to EUR 256 million are covered by the German Mutual Atomic Energy Reinsurance Pool. The nuclear power plants and their German parent companies (in Vattenfall's case, Vattenfall Europe AG) are liable for amounts in excess of this, in proportion to the ownership interests the respective parent companies have in the nuclear power plants. It is not until these resources are exhausted that a joint liability insurance agreement (Solidarvereinbarung) takes force between the owners of the German nuclear power plants (Vattenfall Europe, E.ON, RWE and EnBW), for amounts up to EUR 2,500 million. Since the liability is unlimited, the nuclear power plants and their German parent companies are ultimately liable for losses that exceed this amount. See also Note 34 to the Parent Company accounts on Contingent liabilities.

Atomic liability in Sweden is strict and limited to 300 million Special Drawing Rights (SDRs), corresponding to SEK 3,189 million (3,143), which means that the companies that are owners of nuclear power plants are only liable for damage to the surrounding environment up to this amount. The obligatory atomic liability insurance for this amount is issued by the Nordic Atomic Insurance Pool and by the mutual company ELINI (European Liability Insurance for the Nuclear Industry).

According to the Swedish Act (2006:647) on the Financing of Future Expenses for Nuclear Waste Management, Sweden's nuclear power companies are required to pledge security to the Swedish state (the Swedish Nuclear Waste Fund) as a guarantee that sufficient funds exist to cover the future costs of nuclear waste management. The security is pledged in the form of guarantee commitments to the owners of the nuclear power companies. As security for the subsidiaries Forsmarks Kraftgrupp AB and Ringhals AB, the Parent Company Vattenfall AB has made guarantee commitments for a combined value of SEK 8,698 million (8,698). In a decision made on 22 December 2011, the Swedish government set new guarantee amounts for the years 2012–2014. In 2012 Vattenfall AB will issue new guarantees, to replace existing, for a combined value of SEK 12,025 million.

Two types of guarantees have been issued. The first guarantee – so-called Financing Security – is intended to cover the requisite need for fees that has been decided on but not yet been paid in during the so-called earnings period (25 years of operation). The amount of this guarantee was SEK 3,589 million, and as from 2012 the amount is SEK 6,821 million. The second guarantee pertains to future cost increases stemming from unforeseen events (so-called Complementary Security). The amount of this security was SEK 5,109 million, and as from 2012 the amount is SEK 5,204 million. The amounts for both of these types of security have been determined based on a probability-based risk analysis in which the former amount has been determined as such that there is a 50% probability that it, together with currently funded amounts (the median value), will provide full cost coverage. The latter amount essentially consists of the supplement that would be required if the corresponding probability was 90%. See also Note 26 to the consolidated accounts on the Share in the Swedish Nuclear Waste Fund and Note 39 on Provisions.

In 2009 Vattenfall AB, together with its subsidiary SKB (the Swedish Nuclear Fuel and Waste Management Company) and the other part-owners of that company, signed a long-term co-operation agreement with the Östhammar and Oskarshamn municipalities. The agreement covers the period 2010 to approximately 2025 and regulates development efforts in association with the implementation of the Swedish nuclear waste programme. Through development initiatives in areas such as training, enterprise and infrastructure, over time the parties will generate value-added worth SEK 1,500 million to SEK 2,000 million. The parties will finance the development efforts in proportion to their ownership interests. The Vattenfall Group's ownership interest is 56%. Implementation of the efforts will be carried out across two periods: a period before all necessary permits have been received (Period 1), and a period during implementation and operation of the facilities (Period 2). Vattenfall has reported SEK 156 million (159) as a provision for its share of Period 1 activities in 2011.

In the Group's operations, it occurs that certain land areas are used without leases having been signed with the landowners or that the landowners are not known. As part of the Group's continuing business activities, the companies in the Group become parties to legal processes. In addition, disputes arise in the Group's operations that do not lead to legal processes. Vattenfall's management assesses these legal processes and disputes on a regular basis and makes provisions in cases where it believes an obligation exists and this can be judged with a reasonable degree of certainty. For legal processes or disputes where at present it cannot be determined whether an obligation exists or where for other reasons it is not possible to calculate the amount of a possible provision with a reasonable degree of certainty, management makes the overall judgement that there is no risk for material impact on the Group's result of operations or financial position.

As part of the Group's business activities, in addition to the contingent liabilities stated here, guarantees are made for the fulfilment of various contractual obligations.

Note 49 Commitments under consortium agreements

Power plants are often built on a joint venture basis. Under the consortium agreements, each owner is entitled to electricity in proportion to its share of ownership, and each owner is liable, regardless of output, for an equivalent proportion of all the joint venture's costs.

Vattenfall's investments in heating companies and other businesses often entail a liability for costs in proportion to its share of ownership.

Vattenfall bears full financial responsibility for SwePol Link through July 2020.

Note 50 Number of employees and personnel costs

Number of employees at 31 December, full-time equivalents	2011			2010		
	Men	Women	Total	Men	Women	Total
Sweden	6,455	2,158	**8,613**	6,784	2,242	**9,026**
Denmark	544	105	**649**	576	111	**687**
Finland	221	156	**377**	224	174	**398**
Germany	14,886	4,522	**19,408**	14,911	4,585	**19,496**
Poland	76	23	**99**	2,189	630	**2,819**
Netherlands	4,163	1,254	**5,417**	4,225	1,291	**5,516**
Belgium	–	–	**–**	89	55	**144**
UK	60	41	**101**	48	27	**75**
France	3	5	**8**	2	1	**3**
Serbia	10	3	**13**	12	3	**15**
Total	**26,418**	**8,267**	**34,685**	**29,060**	**9,119**	**38,179**

Average number of employees during the year, full-time equivalents	2011			2010		
	Men	Women	Total	Men	Women	Total
Sweden	6,591	2,188	**8,779**	6,856	2,266	**9,122**
Denmark	558	105	**663**	583	111	**694**
Finland	221	162	**383**	238	179	**417**
Germany	14,837	4,533	**19,370**	14,986	4,612	**19,598**
Poland	2,176	630	**2,806**	2,197	638	**2,835**
Netherlands	4,191	1,266	**5,457**	4,342	1,386	**5,728**
Belgium	70	42	**112**	–	–	**–**
UK	54	34	**88**	41	23	**64**
France	3	3	**6**	1	–	**1**
Serbia	12	3	**15**	–	–	**–**
Total	**28,713**	**8,966**	**37,679**	**29,244**	**9,215**	**38,459**

Personnel costs	2011	2010
Salaries and other remuneration	18,418	20,158
Social security costs[1]	5,835	5,862
Total	**24,253**	**26,020**

1) Pension costs are specified in Note 39 to the consolidated accounts.

Benefits for board members of Vattenfall AB and senior executives of the Vattenfall Group

SEK thousands	2011			2010		
	Directors' fees and base salary 2011 including vacation pay	Other remuneration and benefits 2011	Pension and severance costs 2011	Directors' fees and base salary 2010, including vacation pay	Other remuneration and benefits 2010	Pension and severance costs 2010
Board of Directors						
Lars G. Nordström, Chairman of the Board from 14 June 2011	338	–	–	–	–	–
Lars Westerberg, Chairman of the Board until 18 March 2011	124	–	–	580	–	–
Björn Savén, board member, interim Chairman of the Board as well as Deputy Chairman and Chairman of the Board (Board member: 1 January–18 March, Deputy Chairman: 18 March–27 April, Chairman: 27 April–14 June 2011)	168	–	–	280	–	–
Christer Bådholm, board member, and Deputy Chairman of the Board (board member: 1 January–14 June, Deputy Chairman of the Board: from 14 June)	392	–	–	350	–	–
Ingrid Bonde, board member from 27 April 2011, resigned 20 December 2011	217	–	–		–	–
Cecilia Vieweg, board member	320	–	–	280	–	–
Eli Arnstad, board member	310	–	–	280	–	–
Håkan Erixon, board member from 27 April 2011	219	–	–		–	–
Lone Fønss Schrøder, board member	336	–	–	350	–	–
Patrik Jönsson, board member	–	–	–	–	–	–
Employee representatives[1]	–	–	–	52	–	–
Former board members[1]	–	–	–	117	–	–
Total Board of Directors	**2,424**	**–**	**–**	**2,289**	**–**	**–**

SEK thousands	2011 Directors' fees and base salary 2011 including vacation pay	2011 Other remuneration and benefits 2011	2011 Pension and severance costs 2011	2010 Directors' fees and base salary 2010, including vacation pay	2010 Other remuneration and benefits 2010	2010 Pension and severance costs 2010
Executive Group Management						
Øystein Løseth, President and CEO	12,667	389	3,770	10,587	942	3,724
Dag Andresen, CFO until 28 October 2011	4,787	107	13,405	5,498	109	1,621
Peter Smink, acting CFO from 28 October 2011	963	36	80	–	–	–
Tuomo Hatakka, Senior Executive Vice President, Head of Business Division Production	9,927	34	2,481	10,532	26	2,681
Torbjörn Wahlborg, Head of Business Division Distribution and Sales	5,664	67	1,677	3,361	23	1,081
Harald von Heyden, Head of Business Division Asset Optimisation and Trading	4,415	82	1,355	2,638	145	861
Huib Morelisse, Head of Business Division Asset Development	6,766	171	1,138	3,589	7,408	593
Anders Dahl, Head of Business Division Renewables	2,802	57	814	1,698	34	298
Lars Gejrot, Head of Staff Function Human Resources until 18 March 2011	824	47	8,623	3,933	69	1,117
Kerstin Alfont, acting Head of Staff Function Human Resources from 18 March 2011	1,439	33	359	–	–	–
Andreas Regnell, Head of Staff Function Strategy & Environment	4,013	2	1,205	1,000	2	–
Elisabeth Ström, Head of Staff Function External Relations and Communications	4,386	147	809	4,435	130	1,331
Former members of Executive Group Management[1]	–	–	–	14,997	391	38,962
Other senior executives						
Stefan Dohler, Finance Director Vattenfall Europe AG	5,863	88	1,290	5,634	95	1,179
Hartmuth Zeiss, Head of Business Unit Mining & Generation, Vattenfall Europe Mining AG	4,961	181	513	2,632	94	308
Jan Homan, Head of Business Unit Thermal	4,567	149	350	–	–	–
Frank May, Head of Business Unit Heat, Vattenfall Europe Wärme AG	3,788	94	819	3,876	100	–
Peter Gango, Head of Business Unit Nuclear	3,558	53	541	–	–	–
Gunnar Axheim, Head of Business Unit Hydro	2,916	4	5,962	–	–	–
Helmar Rendez, Head of Business Unit Distribution	4,194	128	687	4,192	122	628
Former senior executives[1]	–	–	–	14,358	346	2,896
Total Executive Group Management and other senior executives	**88,500**	**1,869**	**45,878**	**92,960**	**10,036**	**57,280**
Total Board of Directors, Executive Group Management and other senior executives	**90,924**	**1,869**	**45,878**	**95,249**	**10,036**	**57,280**

1) See Vattenfall's 2010 Annual Report, page 119.

Board of Directors

Fees paid to the Chairman of the Board were paid as follows:

Lars Westerberg was paid a fee of SEK 124 thousand for the period 1 January–18 March 2011. Björn Savén was paid a fee of SEK 164 thousand for his service as interim Chairman and Deputy Chairman for the period 18 March–27 April 2011, and for his service as Chairman of the Board from 27 April to 14 June 2011. Lars G. Nordström was paid a fee of SEK 314 thousand for his service as Chairman of the Board as from 14 June 2011.

In addition, Björn Savén and Lars G. Nordström were paid fees of SEK 4 thousand and SEK 24 thousand, respectively, for their assignments as members of the Remuneration Committee.

Combined fees of SEK 1,534 thousand were paid to other directors.

In accordance with AGM resolutions of 29 April 2010 and 27 April 2011, the chair and members of the Audit Committee were each paid a yearly fee of SEK 70 thousand.

A yearly fee of SEK 40 thousand was paid to the chair of the Remuneration Committee, and in accordance with an AGM resolution of 27 April 2011, a yearly fee of SEK 30 thousand was paid to the member of the Remuneration Committee who is entitled to remuneration for such work.

At the Extraordinary General Meeting held on 14 June 2011, it was resolved that a yearly fee of SEK 60 thousand shall be paid to the respective chairs of the Audit Committee, Remuneration Committee and the Safety and Risk Committee, and that a yearly fee of SEK 45 thousand shall be paid to the members of the respective committees.

No fees are paid to board members and committee members who are employed by Vattenfall or the Swedish Government Offices.

President and Chief Executive Officer

Øystein Løseth (born 1958) has been employed as President and Chief Executive Office of Vattenfall AB since 12 April 2010.
In his employment as President and CEO of Vattenfall AB in 2011, Mr Løseth received salary of SEK 12,667 thousand. In addition, he received a housing benefit worth SEK 233 thousand plus cost-free travel home to Oslo for a value of SEK 149 thousand.

Mr Løseth has no variable salary component in his employment as President and CEO of Vattenfall AB.

Mr Løseth has a defined contribution pension solution. The

Continued on page 108

Note 50 continued

premium for 2011 amounted to SEK 3,770 thousand, which corresponds to 30% of his 2011 salary.

Øystein Løseth's term of employment is for a set period through 31 March 2015. Prior to that date, a mutual notice period of six months applies for both parties. In the event Vattenfall serves notice, Mr Løseth is entitled to a maximum of 18 months' severance pay after the notice period, but not longer than until 31 March 2015. The amount of the severance pay shall be calculated based on the fixed salary that applied at the time the notice was served. In the event Mr Løseth accepts new employment or earns income from other business activities, the severance pay shall be reduced by an amount corresponding to the new income or other benefit received during the period in question. Severance pay is to be paid out monthly.

Other members of the Executive Group Management

Salaries and other compensation

For other members of the Executive Group Management – a total of 11 individuals (12) – the sum of salaries and other compensation for 2011, including the value of company cars and other benefits, was SEK 46,769 thousand.

For other persons defined as senior executives by Vattenfall, but not members of the Executive Group Management – a total of 7 individuals (6) – the sum of salaries and other compensation for 2011, including the value of company cars and other benefits, was SEK 30,544 thousand.

Pension benefits

Dag Andresen, Lars Gejrot, Harald von Heyden, Andreas Regnell, Elisabeth Ström, Torbjörn Wahlborg, Peter Gango, Tuomo Hatakka, Stefan Dohler and Frank May all have defined contribution pension solutions. Anders Dahl has a defined benefit pension solution under a collective agreement within the framework of a defined contribution solution, and Kerstin Ahlfont has an applicable solution under a Swedish collective agreement. Huib Morelisse, Jan Homan and Peter Smink have applicable pension solutions under collective agreements in the Netherlands. All pensions for these executives are in compliance with the Swedish government's guidelines.

Effective 1 January 2012, the pension terms for the German executives Helmar Rendez and Hartmuth Zeiss have been adapted so that future pension premium contributions will be changed from a defined benefit pension plan to a defined contribution pension plan for both individuals, with premiums not exceeding 30% of their respective fixed salaries. Their pension terms are thereby in compliance with the government's guidelines going forward. Due to his personal situation, Harthmuth Zeiss has not approved of the change to his retirement age and will continue to have the opportunity to retire at 59 years of age.

In 2011, extra pension contributions were made toward an early retirement solution that Gunnar Axheim was entitled to in his former position in the Vattenfall Group when he was not a senior executive. The aim of the contribution was to make Mr Axheim's pension solution compliant with the Swedish government's guidelines. However, the extra contribution represents a deviation from the government's guidelines, since it is not within the scope of either the collective pension plan or within the cap of 30% of fixed monthly salary for defined contribution pension solutions.

Terms of notice on the part of the company

According to the government's guidelines, the notice period for a senior executive in the event the company serves notice shall not exceed six months. In addition, the guidelines allow, in cases where the company serves notice, payment of severance pay equivalent to a maximum of eighteen months' salary. In the event the individual in question accepts new employment or receives income from business activities, the severance pay shall be reduced by an amount corresponding to the new income received during the time termination salary and severance pay are paid out. Severance pay is paid out monthly.

All senior executives have terms that are in compliance with the government's guidelines on terms of notice and severance pay.

Incentive programmes

The members of the Executive Group Management and other senior executives do not receive any variable salary component.

Deviations regarding former senior executives who have left the company

In previous reports (see Vattenfall's 2010 Annual Report, page 121), deviation reporting has been provided with respect to Reinhardt Hassa, Klaus Pitschke and Werner Süss. These individuals received benefits subject to a disclosure requirement and are entitled to continue receiving such benefits until December 2013 (for Reinhardt Hassa) and during 2012 (for Klaus Pitschke and Werner Süss). No new deviation reporting is provided for these individuals.

Note 51 Gender distribution among senior executives

	Women, %		Men, %	
	2011	2010	2011	2010
Gender distribution among board members	22	17	78	83
Gender distribution among other senior executives	25	18	75	82

Note 52 Leasing

Leasing expenses

Equipment leased by the Group through finance leases and reported as property, plant and equipment is reported as follows:

	2011	2010
Machinery/equipment		
Cost	457	1,077
Accumulated depreciation according to plan	–319	–544
Residual value according to plan	**138**	**533**

Future payment commitments, as of 31 December 2011, for leasing contracts and rental contracts are broken down as follows:

	Finance leasing, nominal	Finance leasing, present value	Operating leasing
2012	34	34	1,056
2013	37	36	917
2014	20	18	814
2015	–	–	743
2016	–	–	340
2017 and beyond	20	16	739
Total	**111**	**104**	**4,609**

The current year's leasing expenses for Group assets amounted to SEK 1,200 million (660).

Leasing revenues

Certain Group companies own and operate power facilities on behalf of customers. Revenues from customers are broken down into two components – a fixed component to cover capital expenses and a variable component based on the quantity delivered.

Facilities are classified in accordance with standard leasing principles, based on the fixed revenue component.

On 31 December 2011, cost of assets reported under Operating leases amounted to SEK 2,870 million (2,707). Accumulated depreciation amounted to SEK 1,402 million (1,317) and accumulated impairment losses amounted to SEK 30 million (30).

Future payments for this type of facility are broken down as follows:

	Finance leasing	Operating leasing
2012	3	338
2013	3	330
2014	3	324
2015	3	318
2016	1	312
2017 and beyond	–	242
Total	13	**1,864**

Note 53 Auditors' fees

	2011	2010
Annual audit assignment		
Ernst & Young	52	39
PwC	20	23
Swedish National Audit Office	1	1
Total	**73**	**63**
Audit related mandates besides the annual audit assignment		
Ernst & Young	3	3
PwC	3	6
Total	**6**	**9**
Tax consultancy		
Ernst & Young	3	2
PwC	2	3
Total	**5**	**5**
Other mandates		
Ernst & Young	5	9
PwC	9	6
Total	**14**	**15**

Note 54 Related party disclosures

Vattenfall AB is 100%-owned by the Swedish state. The Vattenfall Group's products and services are offered to the state, state authorities and state companies in competition with other vendors under generally accepted commercial terms. In a similar manner, Vattenfall AB and its Group companies purchase products and services from state authorities and companies at market prices and otherwise under generally accepted commercial terms. No significant share of the Vattenfall Group's net sales, purchasing or earnings is attributable to the Swedish state or any of its authorities or companies.

Disclosures of transactions with key persons in executive positions in the company are shown in Note 50 to the consolidated accounts, Number of employees and personnel costs.

Disclosures of transactions with major associated companies in 2011 and associated receivables and liabilities as per 31 December 2011 are described below.

V² Plug-In Hybrid Vehicle Partnership HB
The company's business is to develop and sell technology related to hybrid electrical power of automobiles. Vattenfall has an obligation to contribute an additional SEK 90 million (86) to the company.

Ensted Havn I/S
This is a deep-sea harbour that Vattenfall uses as a coal depot. Vattenfall's sales revenue from the company amounted to SEK 1 million (11), while purchases from the company amounted to SEK 78 million (127). Trade receivables amounted to SEK 0 million (1).

Kernkraftwerk Brokdorf GmbH & Co. oHG
This is a nuclear power plant from which Vattenfall purchases electricity. Purchases amounted to SEK 940 million (691). Sales revenue from the company amounted to SEK 1 million (1). Vattenfall's interest expense to the company amounted to SEK 5 million (26). Trade liabilities and loan liabilities amounted to SEK 104 million (234) and SEK 450 million (171), respectively.

Kernkraftwerk Krümmel GmbH & Co. oHG
This is a nuclear power plant that is being decommissioned. Vattenfall's expenses to the company amounted to SEK 4,425 million (1,305). Sales revenue from the company amounted to SEK 449 million (492). Vattenfall's interest expense to the company amounted to SEK 99 million (98). Trade receivables amounted to SEK 23 million (8). Trade liabilities and loan liabilities amounted to SEK 3,836 million (145) and SEK 10,003 million (9,588), respectively.

Kernkraftwerk Stade GmbH & Co. oHG
This is a nuclear power plant that is being decommissioned. Vattenfall's sales revenue from the company amounted to SEK 0 million (514) while expenses to the company amounted to SEK 278 million (0). Vattenfall's interest expense to the company amounted to SEK 1 million (21). Trade liabilities and loan liabilities amounted to SEK 211 million (0) and SEK 67 million (728), respectively.

GASAG Berliner Gaswerke AG
The company sells, distributes and stores natural gas in the Berlin area. Vattenfall received SEK 106 million (124) in sales revenue from the company, and purchases from the company totalled SEK 179 million (1,015). Trade receivables and trade liabilities amounted to SEK 3 million (4) and SEK 0 million (1), respectively. Vattenfall's part of contingent liabilities of the company amounted to SEK 165 million (142).

EHA Energie Handels Gesellschaft mbH & Co. KG
The company buys and sells electricity and gas. The company also provides administrative and consulting services. Vattenfall's sales revenue from EHA amounted to SEK 678 million (991), while purchases from the company amounted to SEK 70 million (374). Operating receivables amounted to SEK 4 million (6).

DOTI Deutsche Offshore Testfeldt und Infrastructure GmbH KG
DOTI conducts planning work and operates an offshore wind power test facility. Sales revenue from the company amounted to SEK 1 million (2). Operating receivables amounted to SEK 0 million (2).

Note 55 Events after the balance sheet date

On 16 December 2011 Vattenfall announced that it had signed an agreement with LNI Acquisition Oy – a consortium of the companies 3i Infrastructure plc, 3i Group plc, GS Infrastructure Partners and Ilmarinen Mutual Pension Insurance Company – on the sale of Vattenfall's electricity distribution and heat businesses in Finland. Vattenfall will retain ownership of its electricity sales organisation and its hydro power operations in Finland. The sales price is based on an enterprise value of EUR 1.54 billion (approximately SEK 14 billion). The transaction was completed on 10 January 2012.

Parent Company

Parent Company income statement[1]

Amounts in SEK million, 1 January – 31 December	Note	2011	2010
Net sales	4, 5	31,655	36,538
Cost of products sold	6	–19,037	–19,190
Gross profit		**12,618**	**17,348**
Selling expenses		–739	–738
Administrative expenses		–2,445	–1,935
Research and development costs		–354	–438
Other operating income	7	157	334
Other operating expenses	8	–3,293	–31
Operating profit	9, 10	**5,944**	**14,540**
Result from participations in subsidiaries	11	13,935	15,456
Result from participations in associated companies	12	1	2
Result from other shares and participations	13	–1,523	73
Group contributions received		1,921	1,379
Group contributions paid		–2,862	–3,918
Other financial income	14	6,037	10,765
Other financial expenses	15	–7,005	–7,061
Profit before appropriations and tax		**16,448**	**31,236**
Appropriations	16	3,253	–3,602
Profit before tax		**19,701**	**27,634**
Income tax expense	17	–2,847	–3,577
Profit for the year		**16,854**	**24,057**

Parent Company statement of comprehensive income[1]

Amounts in SEK million, 1 January – 31 December	2011	2010
Profit for the year	16,854	24,057
Total other comprehensive income	–	–
Total comprehensive income for the year	**16,854**	**24,057**

1) The Parent Company's 2010 income statement, statement of comprehensive income, balance sheet, statement of changes in equity and cash flow statement have been restated compared with earlier published information. See Note 2 to the Parent Company accounts, Accounting policies.

Parent Company balance sheet[1]

Amounts in SEK million	Note	31 December 2011	31 December 2010
Assets			
Non-current assets			
Intangible assets	18	206	166
Property, plant and equipment	19	4,086	22,138
Shares and participations	20	178,670	194,064
Deferred tax assets	17	–	417
Other non-current receivables	21	72,495	55,899
Total non-current assets		**255,457**	**272,684**
Current assets			
Inventories	22	360	268
Intangible assets: current	23	334	660
Current receivables	24	47,431	33,888
Current tax assets	17	565	–
Short-term investments	25	12,839	26,874
Cash and cash equivalents	26	6,265	7,348
Total current assets		**67,794**	**69,038**
Total assets		**323,251**	**341,722**

Parent Company balance sheet, *cont.*

Amounts in SEK million	Note	31 December 2011	31 December 2010
Equity, provisions and liabilities			
Equity			
Restricted equity			
Share capital (131,700,000 shares with a share quota value of SEK 50)		6,585	6,585
Statutory reserve		1,286	1,286
Non-restricted equity			
Retained earnings		62,789	45,232
Profit for the year		16,854	24,057
Total equity		**87,514**	**77,160**
Untaxed reserves	16	**10,355**	**13,819**
Provisions	27	**191**	**195**
Non-current liabilities			
Hybrid capital	28	8,883	8,929
Other interest-bearing liabilities	29	134,970	131,234
Deferred tax liabilities	17	932	–
Other noninterest-bearing liabilities	30	5,864	4,341
Total non-current liabilities		**150,649**	**144,504**
Current liabilities			
Interest-bearing liabilities	29	50,204	79,641
Current tax liabilities	17	–	1,394
Other noninterest-bearing liabilities	31	24,338	25,009
Total current liabilities		**74,542**	**106,044**
Total equity, provisions and liabilities		**323,251**	**341,722**
Collateral	33	79	86
Contingent liabilities	34	42,043	42,388
Commitments under consortium agreements	35		

Parent Company statement of changes in equity[1]

Amount i SEK million	Share capital	Statutory reserve	Non-restricted equity	Total
Balance brought forward 2010	6,585	1,286	48,548	**56,419**
Dividend paid to owners	–	–	–5,240	**–5,240**
Result of merger with Vattenfall Treasury AB	–	–	1,924	**1,924**
Profit for the year	–	–	24,057	**24,057**
Total other comprehensive income	–	–	–	–
Balance carried forward 2010	**6,585**	**1,286**	**69,289**	**77,160**
Dividend paid to owners	–	–	–6,500	**–6,500**
Profit for the year	–	–	16,854	**16,854**
Total other comprehensive income	–	–	–	–
Balance carried forward 2011	**6,585**	**1,286**	**79,643**	**87,514**

As of 31 December 2011 the registered share capital comprised 131,700,000 shares with a share quota value of SEK 50.

Parent Company cash flow statement[1]

Amounts in SEK million, 1 January – 31 December	2011	2010
Operating activities		
Profit before tax	19,701	27,634
Reversal of depreciation, amortisation and impairment losses	2,473	5,759
Tax paid	–3,457	–2,387
Capital gains/losses, net	–1,102	–
Other, incl. non-cash items	–5,412	–3,548
Funds from operations (FFO)	**12,203**	**27,458**
Changes in inventories	–92	93
Changes in operating receivables	–9,241	–8,145
Changes in operating liabilities	–1,794	–1,493
Other changes	–	447
Cash flow from changes in operating assets and operating liabilities	**–11,127**	**–9,098**
Cash flow from operating activities	**1,076**	**18,360**
Investing activities		
Investments in subsidiaries	–215	–657
Investments in associated companies and other shares and participations	–38	–
Other investments in non-current assets	–502	–1,590
Total investments	**–755**	**–2,247**
Divestments	9,412	457
Cash and cash equivalents taken over through merger	–	3,891
Cash flow from investing activities	**8,657**	**2,101**
Cash flow before financing activities	**9,733**	**20,461**
Financing activities		
Changes in short-term investments	14,035	–1,321
Loans raised	7,992	2,151
Amortisation of debt pertaining to acquisitions of subsidiaries	–13,538	–
Amortisation of other debts	–12,805	–8,984
Dividends paid to owners	–6,500	–5,240
Cash flow from financing activities	**–10,816**	**–13,394**
Cash flow for the year	**–1,083**	**7,067**
Cash and cash equivalents		
Cash and cash equivalents at start of year	7,348	281
Cash flow for the year	–1,083	7,067
Cash and cash equivalents at end of year	**6,265**	**7,348**

Notes to the Parent Company accounts

Contents

Note 1 Company information

Vattenfall AB's 2011 Annual Report was approved in accordance with a decision by the Board of Directors on 21 March 2012. Vattenfall AB, which is the Parent Company of the Vattenfall Group, is a limited liability company with its registered office in Stockholm and with the address SE-162 87 Stockholm, Sweden. The balance sheet and income statement of the Parent Company included in the Annual Report will be submitted at the Annual General Meeting (AGM) on 25 April 2012.

Note 2 Accounting policies

General

The Parent Company Vattenfall AB's accounts are prepared in accordance with the Swedish Annual Accounts Act and recommendation RFR 2 – *Accounting for Legal Entities,* issued by the Swedish Financial Reporting Board (RFR). RFR 2 entails that Vattenfall AB shall apply all standards and interpretations issued by IASB and IFRIC as endorsed by the European Commission for application within the EU. This should be done as far as this is possible within the framework of the Swedish Annual Accounts Act by taking into consideration the relationship between accounting and taxation.

Vattenfall AB has adopted the exemption rule regarding IAS 39 according to RFR 2, which entails that financial instruments are reported at cost. As a consequence, financial instruments are not disclosed by category according to the definition of IAS 39.

The accounting policies and methods of calculations are unchanged from those applied in the 2010 Annual Accounts with the exception that the Parent Company, as of the 2011 financial year, recognises Group contributions received as financial income and Group contributions paid as financial expenses. Comparison figures for 2010 have been restated to reflect this new accounting policy.

New and amended accounting standards effective as of 2012 are expected to have no or minimal impact on Vattenfall AB's financial statements.

The accounting policies applied are stated in the applicable parts of Note 2 to the consolidated accounts with the following amendments for the Parent Company Vattenfall AB.

On 1 January 2011 Vattenfall AB divested all hydro power operations to wholly owned, newly formed subsidiaries. The divestments were made at residual tax values.

Depreciation and amortisation

As in the consolidated accounts, depreciation and amortisation are based on cost and are applied on a straight-line basis over the estimated useful life of the asset in question. In addition, certain accelerated depreciation/amortisation (the difference between depreciation/amortisation according to plan and depreciation/amortisation for tax purposes) in the Parent Company is reported under Appropriations and Untaxed reserves, respectively.

Pension provisions

Pension obligations in the Parent Company are calculated in accordance with generally accepted Swedish actuarial principles and are recognised according to the Act on Safeguarding of Pension Obligations, ("Tryggandelagen"). The provision reported in the balance sheet corresponds to these pension obligations, recognised net against plan assets of Vattenfall's Pension Foundation.

Foreign currency

The Parent Company applies hedge accounting for assets in a foreign currency effectively hedged by loans in a foreign currency according to the Swedish standard BFN R7 – *Measurement of assets and liabilities in foreign currency*. Effects from changes in currency rates are not recognised for loans raised for the financing of foreign subsidiaries, associated companies and joint ventures. Nonmonetary assets acquired in a foreign currency are recognised at the currency rate at the time for the acquisition. The loans raised in connection with the acquisition of N.V. Nuon Energy are hedged, as in the consolidated accounts, from the date of the acquisition, 1 July 2009.

Other assets and liabilities in foreign currencies are recognised at the exchange rates of the balance sheet date.

Income taxes

Tax legislation in Sweden allows companies to defer tax payments by making provisions to untaxed reserves. In the Parent Company, untaxed reserves are reported as a separate item in the balance sheet that includes deferred tax. In the Parent Company's income statement, provisions to untaxed reserves and dissolution of untaxed reserves are reported under the heading Appropriations.

The recognised income tax expense of the Parent Company, Vattenfall AB, consists of income tax on profit after appropriations.

Note 3 Exchange rates

See Note 5 to the consolidated accounts.

Note 4 Net sales

	2011	2010
Sales including excise taxes		
sale of goods (electricity, heat, etc.)	33,771	35,741
rendering of services	865	1,076
Excise taxes	–2,981	–279
Net sales	**31,655**	**36,538**

Net sales per geographic area

	2011	2010
Nordic countries	31,189	34,285
Germany and Poland	304	2,090
Other	162	163
Total	**31,655**	**36,538**

Net sales for products and services

	2011	2010
Electricity Generation	6,491	9,028
Trading	1,342	889
Energy Sales	20,676	23,424
Heat	2,241	2,546
Other	905	651
Total	**31,655**	**36,538**

Note 5 Intra-Group transactions

Of the Parent Company's total income from sales and total purchase costs, transactions with Group companies account for 13% (9%) of sales and 38% (25%) of purchase costs.

Note 6 Cost of products sold

Direct costs include production taxes and duties of SEK 82 million (271) and property taxes of SEK 1 million (1,265).

Note 7 Other operating income

Other operating income consists primarily of capital gains from the sale of non-current assets, emission allowances and certificates, rental income, insurance compensation and operationally derived foreign exchange gains.

Note 8 Other operating expenses

Other operating expenses consist primarily of capital losses on divestments of non-current assets, emission allowances and certificates and operationally derived exchange rate losses.

Vattenfall AB has recognised a capital loss of SEK 3,239 million in connection with the divestment of all hydro power operations on 1 January 2011 to wholly owned, newly formed subsidiaries. The divestments were made at residual tax values.

Note 9 Depreciation and amortisation

Amortisation of non-current intangible assets and depreciation of property, plant and equipment in the income statement are broken down as follows:

	2011	2010
Cost of products sold	366	808
Selling expenses	–	24
Administrative expenses	1	26
Total	**367**	**858**

Amortisation of non-current intangible assets is included above in Cost of products sold in the amount of SEK 63 million (12), in Selling expenses in the amount of SEK 0 million (24) and in Administrative expenses in the amount of SEK 1 million (23).

Note 10 Impairment losses

Impairment losses of non-current intangible assets, property, plant and equipment in the income statement are broken down as follows:

	2011	2010
Cost of products sold	–	3
Total	**–**	**3**

Note 11 Result from participations in subsidiaries

	2011	2010
Dividends	10,088	20,355
Impairment losses	–514	–4,898
Capital gains/losses on divestments	4,361	–1
Total	**13,935**	**15,456**

Note 12 Result from participations in associated companies

	2011	2010
Dividends	1	2
Total	**1**	**2**

Note 13 Result from other shares and participations

	2011	2010
Dividends	68	73
Impairment of shares in Enea S.A.	–1,591	–
Total	**–1,523**	**73**

Note 14 Other financial income

	2011	2010
Interest income from subsidiaries	3,091	2,523
Other interest income	236	972
Foreign exchange gains	2,710	7,270
Total	**6,037**	**10,765**

Note 15 Other financial expenses

	2011	2010
Interest expenses to subsidiaries	211	58
Other interest expenses	6,794	7,003
Total	**7,005**	**7,061**

Note 16 Appropriations and untaxed reserves

	Balance brought forward	Provision/Dissolution (–)	Group transfers	Balance carried forward
Accelerated depreciation	904	–4,123	–	**–3,219**
Replacement reserve	211	–	–211	**–**
2006 Tax allocation reserve	1,730	–1,730	–	**–**
2007 Tax allocation reserve	2,307	–	–	**2,307**
2008 Tax allocation reserve	1,522	–	–	**1,522**
2010 Tax allocation reserve	2,992	–	–	**2,992**
2011 Tax allocation reserve	4,153	–	–	**4,153**
2012 Tax allocation reserve	–	2,600	–	**2 600**
Total	**13,819**	**–3,253**	**–211**	**10,355**

Note 17 Income tax expense

The reported income tax expense is broken down as follows:

	2011	2010
Current tax	1,498	3,324
Deferred tax	1,349	253
Total	**2,847**	**3,577**

The income tax expense for the year attributable to previous years amounts to SEK –862 million (127). The tax effect of the standard tax interest on tax allocation reserves amounts to SEK 68 million (58).

The difference between the nominal Swedish tax rate and the effective tax rate is explained as follows:

Per cent (%)	2011	2010
Swedish income tax rate	26.3	26.3
Tax adjustment attributable to previous periods[1]	–4.4	0.5
Revaluation of tax-loss carryforwards and other temporary differences pertaining to prior years[1]	5.0	–0.4
Capital gain, non-taxable	–4.3	–
Non-taxable income[2]	–13.6	–20.0
Impairment loss	2.7	4.7
Non-deductible interest	2.2	1.6
Non-deductible expenses	0.5	0.2
Effective tax rate	**14.4**	**12.9**

1) Chiefly concerns prior year adjustment with corresponding inverse effect on deferred tax.
2) Chiefly concerns non-taxable dividends from subsidiaries.

Balance sheet reconciliation – Deferred tax	Balance brought forward 2011	Changes via income statement	Balance carried forward 2011
Non-current assets	–303	301	–2
Current assets	–643	472	–171
Provisions	–34	–1	–35
Other non-current liabilities	215	577	792
Current liabilities	348	–	348
Total	**–417**	**1,349**	**932**

Balance sheet reconciliation – Deferred tax	Balance brought forward 2010	Balance brought forward, merger	Changes via income statement	Balance carried forward 2010
Non-current assets	–402	1	98	–303
Current assets	361	18	–1,022	–643
Provisions	–27	–	–7	–34
Other non-current liabilities	–988	339	864	215
Current liabilities	–67	95	320	348
Total	**–1,123**	**453**	**253**	**–417**

Note 18 Intangible assets: non-current

	Capitalised development costs		Goodwill		Concessions and similar rights		Renting and similar rights		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Cost										
Cost brought forward	301	301	13	13	585	523	112	95	1,011	932
Investments	–	–	–	–	140	62	–6	17	134	79
Divestments/Disposals	–	–	–	–	–26	–	–11	–	–37	–
Accumulated cost carried forward	**301**	**301**	**13**	**13**	**699**	**585**	**95**	**112**	1,108	1,011
Accumulated amortisation according to plan										
Amortisation brought forward	–185	–185	–13	–13	–498	–440	–33	–33	–729	–671
Amortisation for the year	–	–	–	–	–64	–58	–	–	–64	–58
Divestments/Disposals	–	–	–	–	1	–	6	–	7	–
Accumulated depreciation carried forward	**–185**	**–185**	**–13**	**–13**	**–561**	**–498**	**–27**	**–33**	–786	–729
Impairment losses										
Impairment losses brought forward	–116	–116	–	–	–	–	–	–	–116	–116
Accumulated impairment losses carried forward	**–116**	**–116**	**–**	**–**	**–**	**–**	**–**	**–**	–116	–116
Carrying amount	**–**	**–**	**–**	**–**	**138**	**87**	**68**	**79**	206	166

At 31 December 2011 there were no contractual commitments for the acquisition of non-current intangible assets.

Note 19 Property, plant and equipment

	Buildings and land[1]		Plants and machinery and other technical installations		Equipment tools, and fixtures and fittings		Construction in progress		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Cost										
Cost brought forward	18,238	17,726	17,739	16,428	91	114	2,243	2,299	**38,311**	**36,567**
Cost brought forward, merger	–	135	–	226	–	–	–	–	**–**	**361**
Investments	–	27	4	181	3	4	336	1,338	**343**	**1,550**
Grants received	–	–	–	–	–	–	25	–7	**25**	**–7**
Transfer from construction in progress	323	356	599	1,031	–	–	–922	–1,387	**–**	**–**
Divestments/Disposals	–17,306	–6	–11,179	–127	–43	–27	–1,305	–	**–29,833**	**–160**
Accumulated cost carried forward	**1,255**	**18,238**	**7,163**	**17,739**	**51**	**91**	**377**	**2,243**	**8,846**	**38,311**
Accumulated depreciation according to plan										
Depreciation brought forward	–6,795	–6,518	–9,307	–8,814	–62	–83	–	–	**–16,164**	**–15,415**
Depreciation brought forward, merger	–	–39	–	–68	–	–	–	–	**–**	**–107**
Depreciation for the year	–31	–241	–269	–553	–3	–6	–	–	**–303**	**–800**
Divestments/Disposals	6,188	3	5,505	128	23	27	–	–	**11,716**	**158**
Accumulated depreciation carried forward	**–638**	**–6,795**	**–4,071**	**–9,307**	**–42**	**–62**	**–**	**–**	**–4,751**	**–16,164**
Impairment losses										
Impairment losses brought forward	–1	–2	–8	–6	–	–	–	–	**–9**	**–8**
Impairment losses for the year	–	–1	–	–2	–	–	–	–	**–**	**–3**
Divestments/Disposals	–	2	–	–	–	–	–	–	**–**	**2**
Accumulated impairment losses carried forward	**–1**	**–1**	**–8**	**–8**	**–**	**–**	**–**	**–**	**–9**	**–9**
Carrying amount	**616**	**11,442**	**3,084**	**8,424**	**9**	**29**	**377**	**2,243**	**4,086**	**22,138**

1) Cost brought forward for buildings and land 2011 includes cost for land and water rights amounting to SEK 6,619 million, which are not subject to depreciation and which are, during 2011, divested to subsidiaries.

At 31 December 2011 there were no contractual commitments for the acquisition of property, plant and equipment.

Note 20 Shares and participations

	Participations in subsidiaries		Participations in associated companies		Other shares and participations		Total shares and participations	
	2011	2010	2011	2010	2011	2010	2011	2010
Balance brought forward	189,449	194,067	6	339	4,609	4,609	**194,064**	**199,015**
Merged shareholdings	–	–342	–	–	–	–	**–**	**–342**
Investments/acquisitions	27	462	8	–	3	–	**38**	**462**
Shareholders' contributions[1]	215	195	–	–	–	–	**215**	**195**
Divestments[1]	–13,109	–35	–	–333	–3	–	**–13,112**	**–368**
Purchase price adjustment	–430	–	–	–	–	–	**–430**	**–**
Impairment losses	–514	–4,898	–	–	–1,591	–	**–2,105**	**–4,898**
Balance carried forward	**175,638**	**189,449**	**14**	**6**	**3,018**	**4,609**	**178,670**	**194,064**

1) Shareholders' contributions and divestments are mainly attributable to restructuring within the Group.

For a breakdown of the Parent Company's shares and participations in subsidiaries, associated companies and other shares and participations, see Notes 23–25 to the consolidated accounts.

Note 21 Other non-current receivables

	Receivables from subsidiaries		Receivables from associated companies		Other receivables		Total other non-current receivables	
	2011	2010	2011	2010	2011	2010	2011	2010
Balance brought forward	55,508	9,472	7	–	384	434	**55,899**	**9,906**
New receivables	27,680	46,036	–	49	–	65	**27,680**	**46,150**
Payments received	–11,031	–	–	–42	–53	–115	**–11,084**	**–157**
Balance carried forward	**72,157**	**55,508**	**7**	**7**	**331**	**384**	**72,495**	**55,899**

Note 22 Inventories

	2011	2010
Bio fuels	63	38
Fossil fuels	255	193
Materials and spare parts	42	37
Total	**360**	**268**

Inventories recognised as an expense in 2011 amount to SEK 829 million (1,023). No impairment losses of inventories or reversal of impairment losses were recognised during the year.

Note 23 Intangible assets: current

Attributable to emission allowances and certificates. See Note 2 to the consolidated accounts, Accounting policies.

	Emission allowances		Certificates		Total	
	2011	2010	2011	2010	2011	2010
Balance brought forward	49	43	611	719	**660**	**762**
Purchases	137	162	1,434	1,599	**1,571**	**1,761**
Received free of charge	–	–	179	235	**179**	**235**
Sold	–91	–107	–1,168	–1,269	**–1,259**	**–1,376**
Redeemed	–65	–49	–752	–673	**–817**	**–722**
Balance carried forward	**30**	**49**	**304**	**611**	**334**	**660**

Note 24 Current receivables

	2011	2010
Accounts receivable – trade	1,998	3,546
Receivables from subsidiaries	30,951	23,856
Other receivables	7,251	909
Prepaid expenses and accrued income	7,231	5,577
Total	**47,431**	**33,888**

Age analysis of current receivables
The collection period is normally 30 days.

	2011			2010		
	Receivables gross	Receivables impaired	Receivables net	Receivables gross	Receivables impaired	Receivables net
Accounts receivable-trade						
Not due	1,776	–	1,776	3,354	–	3,354
Past due 1–30 days	86	–	86	49	–	49
Past due 31–90 days	13	–	13	16	–	16
Past due > 90 days	123	–	123	127	–	127
Total	**1,998**	**–**	**1,998**	**3,546**	**–**	**3,546**
Receivables from subsidiaries						
Not due	30,951	–	30,951	23,856	–	23,856
Total	**30,951**	**–**	**30,951**	**23,856**	**–**	**23,856**
Other receivables						
Not due	7,188	–	7,188	905	–	905
Past due > 90 days	63	–	63	4	–	4
Total	**7,251**	**–**	**7,251**	**909**	**–**	**909**

Note 25 Short-term investments

	2011	2010
Interest-bearing investments	11,458	26,198
Margin calls, financing activities	1,381	676
Total	**12,839**	**26,874**

Note 26 Cash and cash equivalents

	2011	2010
Cash and bank balances	5,641	3,117
Cash equivalents	624	4,231
Total	**6,265**	**7,348**

Note 27 Provisions

	2011	2010
Personnel-related provisions for non-pension purposes	61	73
Provisions for environmental measures/ undertakings	124	122
Other provisions	6	–
Total	**191**	**195**

	2011	2010
Pension obligations[1, 2]	3,196	3,016
Less: Plan assets, carrying amount	–3,196	–3,016
Total provisions at year-end	**–**	**–**

	2011	2010
1) Of which, information registered by PRI	2,154	2,020
2) Of which, covered by credit insurance with FPG/PRI	2,832	2,724

The Parent Company's pension obligations are subject in their entirety to the Act on Safeguarding of Pension Obligations ("Tryggandelagen").

	2011	2010
Fair value of plan assets at start of year	3,723	3,349
Return on plan assets	–117	374
Fair value of plan assets at end of year	**3,606**	**3,723**

Plan assets consist of the following:

	2011	2010
Shares and participations	1,089	1,917
Interest-bearing instruments	1,111	1,031
Other	1,406	775
Total	**3,606**	**3,723**

Note 28 Hybrid capital

See Note 36 to the consolidated accounts.

Note 29 Other interest-bearing liabilities

	Non-current portion, maturity 1–5 years		Non-current portion, maturity >5 years		Total non-current portion		Current portion		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Bond issues	51,322	35,782	46,188	58,898	**97,510**	**94,680**	180	8,876	**97,690**	**103,556**
Commercial paper	–	–	–	–	**–**	**–**	1,581	4,495	**1,581**	**4,495**
Liabilities to credit institutions	864	750	250	–	**1,114**	**750**	701	200	**1,815**	**950**
Liability pertaining to acquisition of N.V. Nuon Energy[1]	36,148	35,603	–	–	**36,148**	**35,603**	–	15,889	**36,148**	**51,492**
Liability pertaining to acquisition of Vattenfall Biomass Liberia AB	118	114	–	–	**118**	**114**	–	–	**118**	**114**
Liabilities to subsidiaries	80	–	–	87	**80**	**87**	40,373	45,053	**40,453**	**45,140**
Other liabilities (margin calls, financing activities)	–	–	–	–	**–**	**–**	7,369	5,128	**7,369**	**5,128**
Total	**88,532**	**72,249**	**46,438**	**58,985**	**134,970**	**131,234**	**50,204**	**79,641**	**185,174**	**210,875**
Undiscounted future cash flows including interest payments and derivatives for the interest-bearing liabilities listed above excluding liabilities to subsidiaries but including Hybrid capital[2] according to Note 28 amount to:	107,554	94,056	48,111	83,176	**155,665**	**177,232**	48,817	37,649	**204,482**	**214,881**

1) The liability pertaining to the acquisition of the remaining 36% of the shares in N.V. Nuon Energy shall according to agreement be paid in two tranches: in July 2013 and 2015.

2) Floating interest cash flows with future fixing dates are estimated using the forward interest rates expected by the market at year-end for each business- and interest fixing date. Any cash flow in foreign currency is translated to SEK using the balance sheet date rate at year-end.

Note 30 Other noninterest-bearing liabilities (non-current)

	2011	2010
Liabilities to subsidiaries	5,431	3,910
Other liabilities	433	431
Total	**5,864**	**4,341**

Liabilities to subsidiaries pertain mainly to long-term liabilities to Forsmarks Kraftgrupp AB for power charges. For this liability there shall be, in accordance with an agreement between the co-owners, no interest payable on the debt. Of other liabilities, SEK 218 million (216) falls due after more than five years.

Note 31 Other noninterest-bearing liabilities (current)

	2011	2010
Advance payments from customers	44	44
Accounts payable – trade	566	717
Liabilities to subsidiaries	19,134	18,087
Liabilities to associated companies	–	6
Other liabilities	783	810
Accrued expenses and deferred income	3,811	5,345
Total	**24,338**	**25,009**

Breakdown of accrued expenses and deferred income:

	2011	2010
Accrued personnel-related costs	231	194
Other accrued expenses	2,880	3,951
Deferred income and accrued expenses, electricity	694	1,178
Other deferred income	6	22
Total	**3,811**	**5,345**

Note 32 Financial instruments: Carrying amount and fair value

Shares and participations exclude shares and participations in subsidiaries. Receivables and liabilities exclude receivables and liabilities where subsidiaries are counterparties.

	2011		2010	
	Carrying amount	Fair value	Carrying amount	Fair value
Assets:				
Other shares and participations	3,032	3,032	4,615	4,615
Other non-current receivables	338	338	391	392
Current receivables	9,249	9,249	3,921	3,921
Short-term investments	12,839	12,839	26,874	26,874
Cash equivalents	6,265	6,265	7,348	7,348
Total	**31,723**	**31,723**	**43,149**	**43,150**
Liabilities:				
Hybrid capital	8,883	10,085	8,929	10,113
Other interest-bearing liabilities (non-current)	134,892	146,190	133,831	141,050
Other noninterest-bearing liabilities (non-current)	433	433	431	431
Other interest-bearing liabilities (current)	9,829	9,585	30,518	30,679
Other noninterest-bearing liabilities (current)	1,349	1,349	1,532	1,532
Total	**155,386**	**167,642**	**175,241**	**183,805**

Of which, derivatives (net assets) with a carrying amount of SEK 5,133 million (4,815) and fair value of SEK 9,573 million (1,205).

Note 33 Collateral

	2011	2010
Blocked bank funds as security for trading on Nord Pool	–	56
Blocked bank funds as security for redemption of minority shares	–	30
Blocked bank funds as security for guarantees issued by bank	79	–
Total	**79**	**86**

To fulfil the requirements for security in the derivative market, in its financial operations Vattenfall has pledged security to counterparties for the negative fair value of derivative positions. As per 31 December 2011 this security amounted to SEK 1,381 million (676). The counterparties are obligated to repay this security to Vattenfall in the event the negative fair value decreases. The amount is reported as an asset on the balance sheet under Short-term investments. See also Note 25 to the Parent Company accounts.

In a similar manner, counterparties of Vattenfall have pledged security to Vattenfall in the financial operations. Security received amounted to SEK 7,369 million (5,128) as per 31 December 2011. The amount is reported as a liability on the balance sheet under Interest-bearing liabilities (short-term). See also Note 29 to the Parent Company accounts.

Note 34 Contingent liabilities

	2011	2010
Guarantees		
of which, for borrowings by:		
subsidiaries, associated companies and other	9,962	11,123
Swedish Nuclear Waste Fund	8,698	8,698
Contract guarantees provided by order of subsidiaries	12,754	8,823
Guarantees provided as collateral for the subsidiaries Vattenfall Energy Trading's energy trading	5,851	9,784
Other contingent liabilities	4,778	3,960
Total	**42,043**	**42,388**

The Parent Company's contingent liabilities pertaining to subsidiaries amounted to SEK 41,054 million (40,454), which are included in the reported contingent liabilities.

In 2009 Vattenfall AB, together with its subsidiary SKB (the Swedish Nuclear Fuel and Waste Management Company) and the other part-owners of that company, signed a long-term co-operation agreement with the Östhammar and Oskarshamn municipalities. The agreement covers the period 2010 to approximately 2025 and regulates development efforts in association with the implementation of the Swedish nuclear waste programme. Through development initiatives in areas such as training, enterprise and infrastructure, over time the parties will generate value-added worth SEK 1,500 million to SEK 2,000 million. The parties will finance the development efforts in proportion to their ownership interests. The Vattenfall Group's ownership interest is 56%. Implementation of the efforts will be carried out across two periods: a period before all necessary permits have been received (Period 1), and a period during implementation and operation of the facilities (Period 2). Vattenfall has reported SEK 156 million (159) as a provision for its share of Period 1 activities in 2011.

As security for energy trading conducted by the subsidiary Vattenfall Energy Trading GmbH, Vattenfall AB has provided guarantees for a total value of SEK 19,844 million (20,148). At 31 December, utilised guarantees totalling approximately SEK 5,643 million (3,835) were included in reported contingent liabilities.

Atomic liability in Sweden is strict and limited to 300 million Special Drawing Rights (SDRs), corresponding to approximately SEK 3,189 million (3,143), which means that the companies that own nuclear power plants are only liable for damage to the surrounding environment up to this amount. The obligatory atomic liability insurance for this amount is issued by the Nordic Atomic Insurance Pool and by the mutual company ELINI (European Liability Insurance for the Nuclear Industry).

According to the Swedish Act (2006:647) on the Financing of Future Expenses for Nuclear Waste Management, Sweden's nuclear power companies are required to pledge security to the Swedish state (the Swedish Nuclear Waste Fund) as a guarantee that sufficient funds exist to cover the future costs of nuclear waste management. The security is pledged in the form of guarantee commitments to the owners of the nuclear power companies. As security for the subsidiaries Forsmarks Kraftgrupp AB and Ringhals AB, Vattenfall AB has made guarantee commitments for a combined value of SEK 8,698 million (8,698). The amounts are included in the Company's reported contingent liabilities. In a decision made on 22 December 2011, the Swedish government set new guarantee amounts for the years 2012–2014. In 2012 Vattenfall AB will pledge new guarantees, to replace existing, for a combined value of SEK 12,025 million.

Two types of guarantees have been issued. The first guarantee – so-called Financing Security – is intended to cover the requisite need for fees that has been decided on but not yet been paid in during the so-called earnings period (25 years of operation). The amount of this guarantee was SEK 3,589 million, and as from 2012, the amount is SEK 6,821 million. The second guarantee pertains to future cost increases stemming from unforeseen events (so-called Complementary Security). The amount of this guarantee was SEK 5,109 million, and as from 2012 the amount is SEK 5,204 million. The amounts for both of these types of security have been determined based on a probability-based risk analysis in which the former amount has been determined as such that there is a 50% probability that it, together with currently funded amounts (the median value), will provide full cost coverage. The latter amount essentially consists of the supplement that would be required if the corresponding probability was 90%.

In June 2008 Vattenfall AB and its wholly owned subsidiary Vattenfall Europe AG entered into a so-called control agreement (Beherrschungsvertrag). Such control arrangements are very common in German company groups. The agreement in question gives Vattenfall AB the opportunity to effectively govern the German part of the Vattenfall Group and the opportunity to use Vattenfall Europe AG's capital and cash flow. In the event that a net loss should arise in Vattenfall Europe AG's annual report during the term of the control agreement, and such net loss cannot be compensated through the dissolution of reserves that have been set off during the term of the control agreement, Vattenfall AB is obligated to cover the net loss.

See also Note 48 to the consolidated accounts on Contingent liabilities.

Note 35 Commitments under consortium agreements

See Note 49 to the consolidated accounts.

Note 36 Average number of employees and personnel costs

	2011			2010		
Average number of employees	Men	Women	Total	Men	Women	Total
Sweden	719	340	**1,059**	778	301	**1,079**

Personnel costs	2011	2010
Salaries and other remuneration	800	794
Social security expenses	464	571
(of which pension costs)[1]	(201)	(258)
Total	**1,264**	**1,365**

1) SEK 7 million (19) of the pension costs are attributable to senior executives, i.e., presidents and vice presidents and former presidents and vice presidents. The company's outstanding pension obligations attributable to these executives total SEK 3 million (87).

None of the board members receive any pension benefits in connection with their board duties.

	2011			2010		
Salaries and other remuneration	Senior executives[1]	Other employees	Total	Senior executives[1]	Other employees	Total
Sweden	18	782	**800**	52	744	**796**

1) Senior executives comprise board members and senior executives but also deputy board members and vice presidents and former board members, deputy board members, presidents and vice presidents.

Total salaries and other remunerations to directors and presidents include bonuses of SEK 0 million (0).

For benefits to senior executives at Vattenfall AB, see Note 50 to the consolidated accounts.

Note 37 Gender distribution among senior executives

	Women, %		Men, %	
	2011	2010	2011	2010
Gender distribution among board members	31	23	69	77
Gender distribution among other senior executives	20	21	80	79

Note 38 Leasing

Leasing expenses

Future payment commitments, as of 31 December 2011, for leasing contracts and rental contracts break down as follows:

	Finance leasing	Operating leasing
2012	–	17
2013	–	18
2014	–	10
2015	–	–
2016	–	–
2017 and beyond	–	–
Total	**–**	**45**

Leasing expenses for the year attributable to the Parent Company amounted to SEK 19 million (10).

Leasing revenues

Vattenfall AB owns and operates energy facilities on behalf of customers. Revenues from customers are broken down into two components – a fixed component to cover capital expenses and a variable component based on the quantity delivered.

Facilities are classified in accordance with standard leasing principles, based on the fixed revenue component.

On 31 December 2011, the cost of assets reported under Operating leases amounted to SEK 662 million (655). Accumulated depreciation amounted to SEK 251 million (220) and accumulated impairment losses to SEK 30 million (30).

Future payments for this type of facility break down as follows:

	Finance leasing	Operating leasing
2012	–	1
2013	–	1
2014	–	1
2015	–	1
2016	–	1
2017 and beyond	–	3
Total	**–**	**8**

Note 39 Auditors' fees

	2011	2010
Annual audit assignment		
Ernst & Young	18	10
Swedish National Audit Office	–	1
Total	**18**	**11**
Audit related mandates besides the annual audit assignment		
Ernst & Young	–	1
Total	**–**	**1**
Other mandates		
Ernst & Young	–	1
Total	**–**	**1**

Note 40 Related party disclosures

On 1 January 2011 Vattenfall AB divested all hydro power operations to wholly owned, newly formed subsidiaries. The divestments were made at residual tax values.

See also Note 54 to the consolidated accounts.

Note 41 Events after the balance sheet date

On 16 December 2011 Vattenfall announced that it had signed an agreement with LNI Acquisition Oy – a consortium of the companies 3i Infrastructure plc, 3i Group plc, GS Infrastructure Partners and Ilmarinen Mutual Pension Insurance Company – on the sale of Vattenfall's electricity distribution and heat businesses in Finland. Vattenfall will retain ownership of its electricity sales organisation and its hydro power operations in Finland. The sales price is based on an enterprise value of EUR 1.54 billion (approximately SEK 14 billion). The transaction was completed on 10 January 2012.

Proposed distribution of profits

The Annual General Meeting has at its disposal retained profits, including profit for the year, totalling SEK 79,643,407,543.

The Board of Directors and President propose that the profits be distributed as follows:

To be distributed to the shareholders	SEK 4,433,000,000
To be carried forward	SEK 75,210,407,543

The proposed distribution corresponds to a dividend of SEK 33.66 per share. The dividend is proposed for payment on 2 May 2012.

Statement by the Board of Directors pursuant to the Swedish Companies Act, Chapter 18, Section 4

Based on the Parent Company's and Group's financial position, earnings and cash position, the Board of Directors is of the opinion that the proposed distribution of profits will not lead to any material limitation of the Parent Company's or Group's ability to make any necessary investments or to meet their obligations in the short and long term.

In view of the above, the Board of Directors finds the proposed distribution of profits, totalling SEK 4,433,000,000, to be carefully considered and justified. Further, the Board of Directors finds that the proposed distribution of profits adheres to the principles of the adopted dividend policy (page 34).

The Board of Directors and President's affirmation upon signing the Annual Report for 2011

The undersigned certify that the consolidated accounts and the Annual Report have been prepared in accordance with International Financial Reporting Standards (IFRS), as endorsed by the European Commission, for application within the EU, and generally accepted accounting principles, respectively, and give a true and fair view of the Parent Company's and Group's financial position and earnings, and that the Administration Report for the Parent Company and Group presents a fair overview of the development of the Parent Company's and Group's operations, financial position and earnings and describes significant risks and uncertainties that the companies in the Group face.

Stockholm, 21 March 2012

Lars G. Nordström
Chairman of the Board

Christer Bådholm Vice Chairman of the Board	Carl-Gustaf Angelin	Eli Arnstad
Johnny Bernhardsson	Ronny Ekwall	Håkan Erixon
Patrik Jönsson	Lone Fønss Schrøder	Cecilia Vieweg

Øystein Løseth
President and CEO

Auditor's report

To the annual meeting of the shareholders of Vattenfall AB, corporate identity number 556036-2138

Report on the annual accounts and consolidated accounts

We have audited the annual accounts and consolidated accounts of Vattenfall AB for the year 2011, except for the corporate governance statement on pages 44–51. The annual accounts and consolidated accounts of the company are included in the printed version of this document on pages 34–122.

Responsibilities of the Board of Directors and the President for the annual accounts and consolidated accounts

The Board of Directors and the President are responsible for the preparation and fair presentation of the annual accounts in accordance with the Annual Accounts Act, and of the consolidated accounts in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as the Board of Directors and the President determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these annual accounts and consolidated accounts based on our audit. We conducted our audit in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the annual accounts and consolidated accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the annual accounts and consolidated accounts. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the annual accounts and consolidated accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company's preparation and fair presentation of the annual accounts and consolidated accounts 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 the Board of Directors and the President, as well as evaluating the overall presentation of the annual accounts and consolidated accounts.

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

Opinions

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2011 and of its financial performance and its cash flows for the year then ended in accordance with the Annual Accounts Act, and the consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2011 and of its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards, as adopted by the EU, and the Annual Accounts Act. Our opinions do not cover the corporate governance statement on pages 44–51. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the annual meeting of shareholders adopt the income statement and balance sheet for the Parent Company and the Group.

Report on other legal and regulatory requirements

In addition to our audit of the annual accounts and consolidated accounts, we have examined the proposed appropriations of the company's profit or loss and the administration of the Board of Directors and the President of Vattenfall AB for the year 2011. We have also conducted a statutory examination of the corporate governance statement.

Responsibilities of the Board of Directors and the President

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. The Board of Directors and the President are responsible for administration under the Companies Act and that the corporate governance statement on pages 44–51 has been prepared in accordance with the Annual Accounts Act.

Auditor's responsibility

Our responsibility is to express an opinion with reasonable assurance on the proposed appropriations of the company's profit or loss and on the administration based on our audit. We conducted the audit in accordance with generally accepted auditing standards in Sweden.

As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss, we examined the Board of Directors' reasoned statement and a selection of supporting evidence in order to be able to assess whether the proposal is in accordance with the Companies Act.

As a basis for our opinion concerning discharge from liability, in addition to our audit of the annual accounts and consolidated accounts, we examined significant decisions, actions taken and circumstances of the company in order to determine whether any member of the Board of Directors or the President is liable to the company. We also examined whether any member of the Board of Directors or the President has, in any other way, acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

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

Furthermore, we have read the corporate governance statement and based on that reading and our knowledge of the Company and the Group we believe that we have obtained a sufficient basis for our opinion. This means that our statutory examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden.

Opinions

We recommend to the annual meeting of shareholders that the profit be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the President be discharged from liability for the financial year.

A corporate governance statement has been prepared, and its statutory content is consistent with the other parts of the annual accounts and the consolidated accounts.

Stockholm, 21 March 2012

Ernst & Young AB
Hamish Mabon
Authorised Public Accountant

Quarterly review

	2010				2011			
Amounts in SEK million	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Income statement items								
Net sales	70,657	49,713	37,665	55,537	51,868	40,443	38,276	50,453
EBITDA	20,799	13,867	10,685	15,355	16,932	12,566	9,593	15,447
Operating profit (EBIT)	10,115	8,963	5,829	4,946	11,842	–3,239	4,447	10,159
Operating profit (EBIT)[1]	15,376	8,936	5,908	9,732	11,153	4,907	4,418	8,084
Underlying operating profit	17,095	8,744	1,890	9,109	12,294	5,382	5,774	7,343
Financial income	566	295	870	783	792	802	930	1,319
Financial expenses	–3,465	–2,427	–4,131	–921	–2,685	–2,392	–3,730	–3,947
Profit before tax	7,216	6,831	2,568	4,808	9,949	–4,829	1,647	7,531
Profit for the period	3,787	5,185	1,749	2,464	7,203	–3,235	1,345	5,103
– of which, attributable to owners of the Parent Company	3,746	5,077	1,597	2,577	7,117	–2,742	1,106	5,602
– of which, attributable to non-controlling interests (minority interests)	41	108	152	–113	86	–493	239	–499
Cash flow items								
Funds from operations (FFO)	9,820	11,679	6,939	11,670	12,156	6,125	9,855	10,120
Free cash flow	–1,057	14,288	7,260	3,355	5,063	8,410	6,434	–2,270
Balance sheet items								
Cash and cash equivalents and short-term investments	30,190	45,644	42,855	43,873	39,556	39,197	31,346	28,685
Equity	139,461	140,215	135,605	133,621	140,948	132,493	133,223	138,931
– of which, attributable to owners of the Parent Company	132,889	133,572	128,953	126,704	133,754	125,715	126,032	131,988
– of which, attributable to non-controlling interests (minority interests)	6,572	6,643	6,652	6,917	7,194	6,778	7,191	6,943
Interest-bearing liabilities	197,588	198,537	188,344	188,277	178,330	181,893	175,755	170,350
Net debt	165,581	151,071	145,155	144,109	138,282	142,153	143,808	141,089
Provisions	87,178	85,957	85,977	87,822	84,799	93,357	93,873	91,719
Noninterest-bearing liabilities	144,868	119,198	118,808	131,712	130,671	115,447	121,637	123,558
Net assets, weighted average value	267,998	289,487	297,163	293,298	288,502	284,639	283,848	283,957
Balance sheet total	569,095	543,907	528,734	541,432	534,748	523,190	524,488	524,558
The key ratios are presented as percentages (%) or times (x)								
Operating margin, %	14.3	18.0	15.5	8.9	22.8	–8.0	11.6	20.1
Operating margin, %[1]	21.8	18.0	15.7	17.5	21.5	12.1	11.5	16.0
Pre-tax profit margin, %	10.2	13.7	6.8	8.7	19.2	–11.9	4.3	14.9
Pre-tax profit margin, %[1]	17.7	13.7	7.0	17.3	17.9	7.9	4.2	14.1
Return on equity, %[2]	6.6	8.7	9.3	10.0	12.6	6.6	6.3	8.6
Return on net assets, %[2]	8.1	8.6	9.2	9.1	9.9	5.7	5.3	7.1
Return on net assets, %[1,2]	11.4	11.6	12.1	12.5	11.3	10.1	9.6	9.0

1) Excl. items affecting comparability.

2) Last 12-month values.

Amounts in SEK million	2010 Q1	2010 Q2	2010 Q3	2010 Q4	2011 Q1	2011 Q2	2011 Q3	2011 Q4
cont. **The key ratios are presented as percentages (%) or times (x)**								
EBIT interest cover, (x)[2]	2.6	3.0	3.1	4.1	4.7	3.0	2.9	2.5
EBIT interest cover, (x)[1,2]	3.4	3.9	3.9	5.4	5.3	4.7	4.7	3.1
FFO interest cover, (x)[2]	3.7	4.7	4.8	6.2	7.0	6.2	6.9	4.8
FFO interest cover, net, (x)[2]	4.2	5.4	5.4	7.5	9.0	8.1	8.6	5.8
Cash flow interest cover after maintenance investments, (x)[2]	3.0	4.1	3.9	4.6	6.1	5.0	5.1	3.0
FFO/gross debt, %[2]	14.0	18.6	21.1	21.3	23.8	20.3	22.6	22.5
FFO/net debt, %[2]	16.8	24.4	27.4	27.8	30.7	26.0	27.7	27.1
EBITDA/net financial items, (x)	8.9	10.7	3.7	–	11.8	10.4	3.3	6.7
EBITDA/net financial items, (x)[1]	11.2	10.6	3.8	–	11.4	17.1	3.3	5.8
Equity/total assets, %	24.5	25.8	25.6	24.7	26.2	25.3	25.4	26.5
Gross debt/equity, %	141.7	141.6	138.9	140.9	126.5	137.3	131.9	122.6
Net debt/equity, %	118.7	107.7	107.0	107.8	98.1	107.3	107.9	101.6
Gross debt/gross debt plus equity, %	58.6	58.6	58.1	58.5	55.9	57.9	56.9	55.1
Net debt/net debt plus equity, %	54.3	51.9	51.7	51.9	49.5	51.8	51.9	50.4
Net debt/EBITDA, (x)	3.0	2.6	2.4	2.4	2.4	2.6	2.6	2.6
Other information								
Investments	8,935	8,973	11,281	12,605	6,199	7,854	9,122	12,575
Electricity generation, TWh	47.9	41.4	36.8	46.3	49.8	37.7	35.5	43.7
Average number employees	38,926	38,283	38,438	38,179	37,768	37,524	37,540	34,685

1) Excl. items affecting comparability.

2) Last 12-month values.

Comments

Vattenfall's earnings vary sharply during the year. Normally, the large part of annual profit is generated during the first and fourth quarters, when demand for electricity and heat is at its highest.

Ten-year review

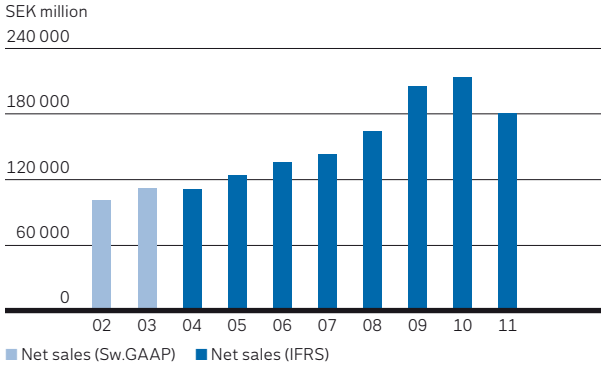
	Swedish GAAP			IFRS							
Amounts in SEK million	2002	2003	2004	2004	2005	2006	2007	2008	2009	2010	2011
Income statement items											
Net sales	101,025	111,935	111,016	111,016	123,794	135,802	143,639	164,549	205,407	213,572	181,040
EBITDA	25,489	24,450	31,347	33,161	43,175	43,938	45,821	45,960	51,777	60,706	54,538
Operating profit (EBIT)	13,997	14,868	19,501	17,887	28,363	27,821	28,583	29,895	27,938	29,853	23,209
Operating profit (EBIT)[1]	13,550	14,605	18,682	20,102	25,377	27,448	28,497	30,220	31,294	39,952	28,562
Financial income	3,010	2,267	1,772	2,969	3,810	3,839	2,276	3,412	2,814	2,514	3,843
Financial expenses	–6,386	–5,203	–4,020	–6,297	–6,013	–6,135	–6,926	–9,809	–13,018	–10,944	–12,754
Profit before tax	10,621	11,932	17,253	14,559	26,160	25,525	23,933	23,498	17,734	21,423	14,298
Profit for the year	8,224	9,529	12,348	9,604	20,518	19,858	20,686	17,763	13,448	13,185	10,416
– of which, attributable to owners of the Parent Company	7,566	9,123	11,776	8,944	19,235	18,729	19,769	17,095	12,896	12,997	11,083
– of which, attributable to non-controlling interests (minority interests)	658	406	572	660	1,283	1,129	917	668	552	188	–667
Cash flow items											
Funds from operations (FFO)	17,106	18,804	24,159	24,302	31,386	35,673	34,049	30,735	36,700	40,108	38,256
Free cash flow	10,820	11,606	15,684	15,684	14,341	23,178	19,650	18,963	27,566	23,846	17,637
Balance sheet items											
Cash and cash equivalents and short-term investments	15,473	14,647	13,616	13,616	14,074	22,168	22,659	40,236	56,940	43,873	28,685
Equity	57,532	64,328	73,947	85,551	90,909	107,674	124,132	140,886	142,404	133,621	138,931
– of which, attributable to owners of the Parent Company	47,572	54,949	64,759	75,437	80,565	96,589	111,709	129,861	135,620	126,704	131,988
– of which, attributable to non-controlling interests (minority interests)	9,960	9,379	9,188	10,114	10,344	11,085	12,423	11,025	6,784	6,917	6,943
Interest-bearing liabilities	94,838	85,631	73,013	73,013	78,663	71,575	67,189	107,347	213,494	188,277	170,350
Net debt	75,207	66,890	55,411	55,411	64,343	49,407	43,740	66,000	154,987	144,109	141,089
Provisions	–	–	–	61,941	65,123	66,094	73,985	89,799	91,100	87,822	91,719
Noninterest-bearing liabilities	123,906	115,006	109,955	64,700	90,373	77,823	72,930	107,795	155,129	131,712	123,558
Net assets, weighted average value	127,479	124,229	123,423	134,125	143,001	151,155	157,252	179,114	245,016	293,298	283,957
Balance sheet total	276,276	264,965	256,915	285,205	325,068	323,166	338,236	445,827	602,127	541,432	524,558
The key ratios are presented as percentages (%) or times (x)											
Operating margin, %	13.9	13.3	17.6	16.1	22.9	20.5	19.9	18.2	13.6	14.0	12.8
Operating margin, %[1]	13.4	13.0	16.8	18.1	20.5	20.2	19.8	18.4	15.2	18.7	15.8
Pre-tax profit margin, %	10.5	10.7	15.5	13.1	21.1	18.8	16.7	14.3	8.6	10.0	7.9
Pre-tax profit margin, %[1]	10.1	10.4	14.8	15.1	18.7	18.5	16.6	14.5	10.2	14.8	11.7
Return on equity, %	18.0	19.2	21.4	12.2	23.2	19.1	17.6	13.6	9.5	10.0	8.6
Return on net assets, %	11.0	12.0	15.8	12.2	18.4	17.1	16.6	15.1	10.0	9.1	7.1
Return on net assets, %[1]	10.6	11.8	15.1	13.9	16.3	16.8	16.6	15.3	11.4	12.5	9.0

1) Excl. items affecting comparability.

Amounts in SEK million	Swedish GAAP 2002	2003	2004	IFRS 2004	2005	2006	2007	2008	2009	2010	2011
cont. **The key ratios are presented as percentages (%) or times (x)**											
EBIT interest cover, (x)	2.7	3.3	5.3	4.4	7.6	7.2	6.7	4.5	3.1	4.1	2.5
EBIT interest cover, (x)[1]	2.6	3.2	5.1	5.0	6.9	7.1	6.7	4.6	3.4	5.4	3.1
FFO interest cover, (x)	3.7	4.6	7.0	6.6	8.9	9.7	8.6	5.4	4.8	6.2	4.8
FFO interest cover, net, (x)	6.1	7.4	11.7	8.9	15.1	15.9	12.2	7.1	5.6	7.5	5.8
Cash flow interest cover after maintenance investments, (x)	2.7	3.2	4.9	5.5	5.5	7.9	6.4	4.1	4.3	4.6	3.0
FFO/gross debt, %	18.0	22.0	33.1	30.0	39.9	49.8	50.7	28.6	17.2	21.3	22.5
FFO/net debt, %	22.7	28.1	43.6	43.9	48.8	72.2	77.8	46.6	23.7	27.8	27.1
EBITDA/net financial items, (x)	7.6	8.3	13.9	10.8	19.3	18.4	15.1	9.1	6.5	9.8	6.9
EBITDA/net financial items, (x)[1]	7.4	8.2	13.6	11.5	18.0	18.2	15.0	9.2	6.9	11.5	7.6
Equity/total assets, %	20.9	24.4	28.8	30.0	28.0	33.3	36.7	31.6	23.7	24.7	26.5
Gross debt/equity, %	164.7	133.0	98.7	85.3	86.5	66.5	54.1	76.2	149.9	140.9	122.6
Net debt/equity, %	130.7	104.0	74.9	64.8	70.8	45.9	35.2	46.8	108.8	107.8	101.6
Gross debt/gross debt plus equity, %	62.2	57.1	49.7	46.0	46.4	39.9	35.1	43.2	60.0	58.5	55.1
Net debt/net debt plus equity, %	56.7	51.0	42.8	39.3	41.4	31.5	26.1	31.9	52.1	51.9	50.4
Net debt/EBITDA, (x)	3.0	2.7	1.8	1.7	1.5	1.1	1.0	1.4	3.0	2.4	2.6
Other information											
Dividend to owners of the Parent Company	1,675	2,400	5,600	5,600	5,800	7,500	8,000	6,900	5,240	6,500	4,433[2]
Investments	39,932	11,356	12,601	12,731	24,497	17,220	18,964	42,296	102,989	41,794	35,750
Electricity generation, TWh	158.5	155.8	167.1	167.1	169.1	165.4	167.6	162.1	158.9	172.4	166.7
Average number employees	34,248	35,296	33,017	33,017	32,231	32,308	32,396	32,801	36,593	38,459	37,679

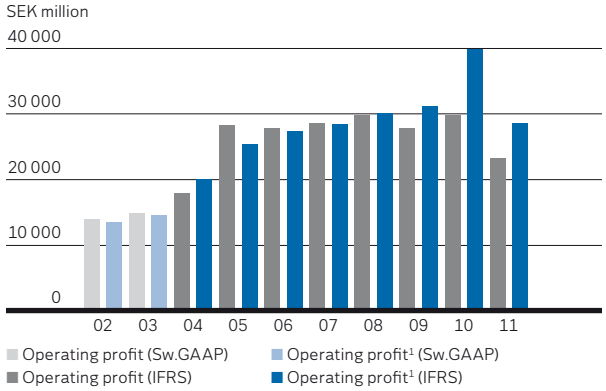
1) Excl. items affecting comparability. 2) Proposed dividend.

Net sales



Comment: Net sales have risen sharply since 2002, mainly due to Vattenfall's considerable international expansion. The decrease in 2011 is mainly attributable to divestments, lower production volumes and currency effects.

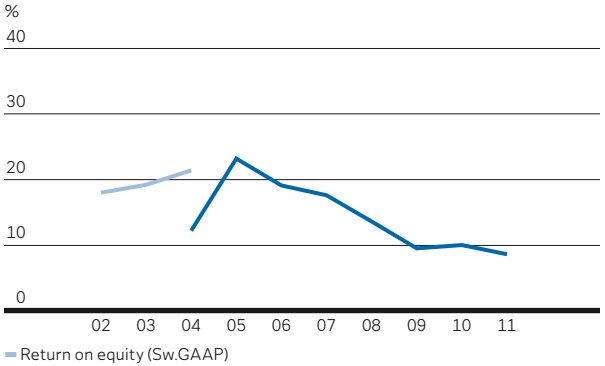
Operating profit



1) Excl. items affecting comparability

Comment: Vattenfall's operating profit has risen sharply during the last ten years due to successful integration work as well as to higher production volumes and higher wholesale electricity prices. Operating profit for 2011 was affected by lower production volumes and lower wholesale electricity prices.

Return on equity



Comment: Return on equity has varied between 8.6% (2011) and 23.2% (2005) during the ten-year period, compared with Vattenfall's current target return of 15% over a business cycle.

Definitions and calculations of key ratios

Figures for the Group in 2011. Amounts in SEK million unless stated otherwise.

EBIT = Earnings Before Interest and Tax.

EBITDA = Earnings Before Interest, Tax, Depreciation and Amortisation. Also other close-down costs than impairment losses pertaining to the close-down of German nuclear power plants during 2011 are here treated as Amortisation.

Underlying operating profit = Operating profit (EBIT) excluding items affecting comparability and excluding unrealised changes in the fair value of energy derivatives, which according to IAS 39 can not be reported using hedge accounting, and changes in the fair value of inventories.

FFO = Funds From Operations.

Items affecting comparability = Capital gains and capital losses from shares and other non-current assets, impairment losses and impairment losses reversed pertaining to non-current assets, and other non-recurring items.

Free cash flow = Cash flow from operating activities less maintenance investments.

Hybrid capital = Perpetual subordinated securities, junior to all Vattenfall's unsubordinated debt instruments. Reported as interest-bearing non-current liabilities.

Net assets = Balance sheet total less noninterest-bearing liabilities, provisions, interest-bearing receivables, funds in the Swedish Nuclear Waste Fund, cash and cash equivalents, short-term investments.

Net debt = Interest-bearing liabilities less loans to non-controlling interests (minority owners) in foreign subsidiaries, cash and cash equivalents, short-term investments.

The key ratios are presented as percentages (%) or times (x).

Key ratios based on full year amounts 2011:

Operating margin, % = 100 x Operating profit (EBIT) / Net sales = 23,209 / 181,040 = 12.8

Operating margin excl. items affecting comparability, % = 100 x Operating profit (EBIT) excl. items affecting comparability / Net sales = 28,562 / 181,040 = 15.8

Pre-tax profit margin, % = 100 x Profit before tax / Net sales = 14,298 / 181,040 = 7.9

Pre-tax profit margin excl. items affecting comparability, % = 100 x Profit before tax excl. items affecting comparability / Net sales = 21,159 / 181,040 = 11.7

Return on equity, % = 100 x Profit for the period attributable to owners of the Parent Company / Average equity for the period attributable to owners of the Parent Company excl. the Reserve for cash flow hedges = 11,083 / 129,479 = 8.6

Return on net assets, % = 100 x Operating profit (EBIT) + discounting effects attributable to provisions / Weighted average of net assets for the period = 20,243 / 283,957 = 7.1

Return on net assets excl. items affecting comparability, % = 100 x Operating profit (EBIT) excl. items affecting comparability + discounting effects attributable to provisions / Weighted average of net assets for the period = 25,596 / 283,957 = 9.0

EBIT interest cover, (x) = Operating profit (EBIT) + financial income excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund / Financial expenses excl. discounting effects attributable to provisions = 25,359 / 10,043 = 2.5

EBIT interest cover excl. items affecting comparability, (x)	=	Operating profit (EBIT) excl. items affecting comparability + financial income excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund	30,712	=	3.1
		Financial expenses excl. discounting effects attributable to provisions	10,043		
FFO interest cover, (x)	=	Funds from operations (FFO) + financial expenses excl. discounting effects attributable to provisions	48,299	=	4.8
		Financial expenses excl. discounting effects attributable to provisions	10,043		
FFO interest cover, net, (x)	=	Funds from operations (FFO) + net financial items excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund	46,149	=	5.8
		Financial items excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund	7,893		
Cash flow interest cover after maintenance investments, (x)	=	Cash flow from operating activities less maintenance investments + financial expenses excl. discounting effects attributable to provisions and interest components related to pension costs	26,637	=	3.0
		Financial expenses excl. discounting effects attributable to provisions and interest components related to pension costs	9,000		
FFO/gross debt, %	= 100 x	Funds from operations (FFO)	38,256	=	22.5
		Interest-bearing liabilities	170,350		
FFO/net debt, %	= 100 x	Funds from operations (FFO)	38,256	=	27.1
		Net debt	141,089		
EBITDA/net financial items, (x)	=	Operating profit before depreciation and amortisation (EBITDA)	54,538	=	6.9
		Financial items excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund	7,893		
EBITDA excl. items affecting comparability/net financial items, (x)	=	Operating profit before depreciation and amortisation (EBITDA) excl. items affecting comparability	59,891	=	7.6
		Financial items excl. discounting effects attributable to provisions and return from the Swedish Nuclear Waste Fund	7,893		

Key ratios based on the balance sheet per 31 December 2011:

Equity/total assets, %	= 100 x	Equity	138,931	=	26.5
		Balance sheet total	524,558		
Gross debt/equity, %	= 100 x	Interest-bearing liabilities	170,350	=	122.6
		Equity	138,931		
Net debt/equity, %	= 100 x	Net debt	141,089	=	101.6
		Equity	138,931		
Gross debt/gross debt plus equity, %	= 100 x	Interest-bearing liabilities	170,350	=	55.1
		Interest-bearing liabilities + equity	309,281		
Net debt/net debt plus equity, %	= 100 x	Net debt	141,089	=	50.4
		Net debt + equity	280,020		
Net debt/EBITDA, (x)	=	Net debt	141,089	=	2.6
		Operating profit before depreciation and amortisation (EBITDA)	54,538		

Facts about Vattenfall's markets

	Sweden		Finland		Denmark		Germany		Poland[1]		Netherlands		Belgium[2]		UK		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010[3]
Installed capacity electricity, MW																		
Hydro power[4]	8,215	8,510	126	126	–	–	2,880	2,880	–	–	24	24	–	–	–	–	11,245	11,540
Nuclear power	6,815	6,792	–	–	–	–	–[5]	771	–	–	–	–	–	–	–	–	6,815	7,563
Fossil-based power	1,212	1,212	–	45	1,333	1,757	11,006	11,292	878	878	3,680	3,764	–	–	–	–	18,109	18,948
of which, gas	–	–	–	45	–	137	1,777	1,712	–	–	2,797	2,861	–	–	–	–	4,574	4,755
of which, lignite	–	–	–	–	–	–	7,123	7,123	–	–	–	–	–	–	–	–	7,123	7,123
of which, hard coal	–	–	–	–	1,333	1,620	1,318	1,826	878	878	883	903	–	–	–	–	4,412	5,227
of which, oil	1,212	1,212	–	–	–	–	788	631	–	–	–	–	–	–	–	–	2,000	1,843
Wind power	245	258	–	–	415	388	13	13	30	30	276	313	5	15	581	431	1,565	1,448
Biomass, waste	185	179	65	20	104	126	123	123	–	–	20	–	–	–	–	–	497	448
Total electricity	**16,672**	**16,951**	**191**	**191**	**1,852**	**2,271**	**14,022**	**15,079**	**908**	**908**	**4,000**	**4,101**	**5**	**15**	**581**	**431**	**38,231**	**39,947**
Installed capacity heat, MW	**2,255**	**2,441**	**965**	**930**	**1,632**	**2,223**	**10,034**	**10,013**	**4,707**	**4,235**	**2,987**	**2,844**	–	–	–	–	**22,580**	**22,686**
Generated electricity, TWh																		
Hydro power[4]	31.5	31.9	0.3	0.3	–	–	2.6	3.1	–	–	0.1	0.1	–	–	–	–	34.5	35.4
Nuclear power	42.5	43.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	42.5	43.6
Fossil-based power	–	0.1	–	0.1	4.9	7.4	63.3	65.2	3.7	3.6	13.1	13.3	–	–	–	–	85.0	89.7
of which, gas	–	–	–	0.1	–	0.5	3.7	3.9	–	–	8.8	9.3	–	–	–	–	12.5	13.8
of which, lignite	–	–	–	–	–	–	53.5	52.4	–	–	–	–	–	–	–	–	53.5	52.4
of which, hard coal	–	–	–	–	4.9	6.9	6.1	8.9	3.7	3.6	4.3	4.0	–	–	–	–	19.0	23.4
of which, oil	–	0.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1
Wind power	0.8	0.5	–	–	1.0	0.7	–	–	0.1	0.1	0.2	0.2	–	–	1.3	0.7	3.4	2.2
Biomass, waste	0.4	0.5	0.2	0.1	0.2	0.2	0.4	0.7	–	–	0.1	–	–	–	–	–	1.3	1.5
Total electricity	**75.2**	**76.6**	**0.5**	**0.5**	**6.1**	**8.3**	**66.3**	**69.0**	**3.8**	**3.7**	**13.5**	**13.6**	–	–	**1.3**	**0.7**	166.7	172.4
Heat sales, TWh																		
Fossil-based power	0.2	0.1	0.6	0.8	4.1	5.4	14.4	16.3	10.3	11.5	4.5	4.3	–	–	–	–	34.1	38.4
of which, gas	–	–	0.6	0.7	0.5	0.8	5.0	5.1	–	–	4.5	4.3	–	–	–	–	10.6	10.9
of which, lignite	–	–	–	–	–	–	4.0	4.5	–	–	–	–	–	–	–	–	4.0	4.5
of which, hard coal	0.1	–	–	–	3.6	4.6	5.4	6.7	10.3	11.5	–	–	–	–	–	–	19.4	22.8
of which, oil	0.1	0.1	–	0.1	–	–	–	–	–	–	–	–	–	–	–	–	0.1	0.2
Biomass, waste	3.7	4.5	0.9	0.9	1.7	1.6	0.8	1.3	0.4	0.4	–	–	–	–	–	–	7.5	8.7
Total heat	**3.9**	**4.6**	**1.5**	**1.7**	**5.8**	**7.0**	**15.2**	**17.6**	**10.7**	**11.9**	**4.5**	**4.3**	–	–	–	–	41.6	47.1
Gas sales, TWh	–	–	0.2	0.2	–	–	1.0	0.1	–	–	49.4	58.8	3.2	4.1	–	–	53.8	63.2

	Sweden		Finland		Denmark		Germany		Poland[1]		Netherlands		Belgium[2]		UK		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010[3]
Number of retail customers, electricity	964,000	983,000	354,000	347,000	–	–	2,756,000	2,823,000	1,012,000	1,012,000	2,267,000	2,288,000	342,000	320,000	–	–	**7,695,000**	**7,773,000**
Electricity volume, TWh, retail customers	8.4	9.5	2.6	2.8	–	–	8.8	9.0	2.8	2.7	9.9	8.8	1.5	1.5	–	–	**34.0**	**34.3**
Electricity volume, TWh resellers	5.1	4.3	1.4	0.7	1.3	1.7	20.2	20.0	0.7	0.7	–	–	–	–	–	–	**28.7**	**27.4**
Electricity volume, TWh, industries	33.7[6]	34.2[6]	5.6	4.9	–	–	19.9[7]	19.4[7]	4.1	4.1	8.4	5.8	3.1	1.8	–	–	**74.8**	**70.2**
Number of network customers	922,000	921,000	399,000	393,000	–	–	3,240,000	3,273,000	1,133,000	1,132,000	–	–	–	–	–	–	**5,694,000**	**5,719,000**
Number of gas customers	–	–	400	300	–	–	11,700	9,300	–	–	1,943,100	1,935,000	204,800	190,000	–	–	**2,160,000**	**2,134,600**
Electricity network																		
Transited volume, TWh[8]	71.1	73.4	6.1	6.4	–	–	27.0	27.1	14.6	14.0	–	–	–	–	–	–	**118.8**	**120.9**
Distribution network, km	176,000	168,000	75,000	74,000	–	–	137,000	137,000	71,000	70,000	–	–	–	–	–	–	**459,000**	**449,000**
Number of employees (full-year equivalents)																		
Countries	8,591	9,000	377	398	649	687	19,414	19,395	99	2,819	5,417	5,770	–	–	102	58	**34,649**	**38,127**
Group total[9]																	**34,685**	**38,179**
CO_2 emissions per country, mtonnes	0.4	0.6	0.2	0.3	4.4	6.4	67.8	70.1	5.8	6.4	8.1	7.8	–	–	–	–	**86.7**	**89.2**
CO_2 emission allowances in mtonnes CO_2/year, trading period 2008–2012[10]	–	–	0.2	0.2	2.7	2.7	44.1	44.1	6.1	6.1	7.9	7.9	–	–	–	–	**61.0**	**61.0**

Market position

	Sweden	Germany	Netherlands	Denmark	Finland	UK
Electricity generation	1	3	3	2	>10	–[11]
Electricity distribution	2	4	–	–	–	–
Electricity sales	1	4	2	–	3	–
District heating	4	1	2	2	–	–
Gas sales	–	–	1	–	–	–

1) Vattenfall's Polish operations were divested in December 2011.

2) Vattenfall's Belgian operations were divested in December 2011.

3) Certain values for 2010 have been adjusted compared with previously published information.

4) In Germany, mainly pumped storage power.

5) In 2011, Germany's parliament decided to immediately close eight nuclear power plants, including Vattenfall's Brunbüttel plant (ownership interest 66.7%)

6) 5.5 TWh (3.6) to Norwegian business customers.

7) 6.7 TWh (5.6) to French business customers.

8) Excl. transited production.

9) There are 36 employees (52) in other countries.

10) The EU Emissions Trading System (EU ETS) covers most of Vattenfall's fossil-based emissions. The annual allocation is 61 million tonnes. Additional emission allowances are bought on the market.

11) Top 2 in offshore wind power.

Pro rata — Generation data corresponding to Vattenfall's ownership of the respective facilities

	Sweden		Finland		Denmark		Germany		Poland[1]		Netherlands		Belgium[2]		UK		Total	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010[3]
Installed capacity electricity, MW																		
Hydro power[4]	7,803	8,097	126	126	–	–	2,880	2,880	–	–	24	24	–	–	–	–	10,833	11,127
Nuclear power	4,661	4,645	–	–	–	–	282[5]	1,469	–	–	–	–	–	–	–	–	4,943	6,114
Fossil-based power	1,212	1,212	–	45	1,333	1,757	11,006	11,292	877	877	3,680	3,764	–	–	–	–	18,108	18,947
of which, gas	–	–	–	45	–	137	1,777	1,712	–	–	2,797	2,861	–	–	–	–	4,574	4,755
of which, lignite	–	–	–	–	–	–	7,123	7,123	–	–	–	–	–	–	–	–	7,123	7,123
of which, hard coal	–	–	–	–	1,333	1,620	1,318	1,826	877	877	883	903	–	–	–	–	4,411	5,226
of which, oil	1,212	1,212	–	–	–	–	788	631	–	–	–	–	–	–	–	–	2,000	1,843
Wind power	245	258	–	–	351	324	28	28	30	30	230	211	5	8	581	431	1,470	1,290
Biomass, waste	185	179	65	20	104	126	100	100	20	20	20	–	–	–	–	–	494	445
Total electricity	**14,106**	**14,391**	**191**	**191**	**1,788**	**2,207**	**14,296**	**15,769**	**927**	**927**	**3,954**	**3,999**	**5**	**8**	**581**	**431**	**35,848**	**37,923**
Installed capacity heat, MW	**2,118**	**2,304**	**961**	**926**	**1,632**	**2,223**	**9,946**	**9,896**	**4,699**	**4,699**	**2,987**	**2,844**	–	–	–	–	**22,343**	**22,892**
Generated electricity, TWh																		
Hydro power[4]	29.5	29.8	0.4	0.3	–	–	2.6	3.1	–	–	0.1	0.1	–	–	–	–	32.6	33.3
Nuclear power	28.9	29.9	–	–	–	–	2.1	2.3	–	–	–	–	–	–	–	–	31.0	32.2
Fossil-based power	–	–	–	0.1	4.4	7.1	62.8	65.1	3.5	3.6	13.2	13.2	–	–	–	–	83.9	89.2
of which, gas	–	–	–	0.1	–	0.5	3.8	3.9	–	–	8.8	9.2	–	–	–	–	12.6	13.7
of which, lignite	–	–	–	–	–	–	53.4	52.3	–	–	–	–	–	–	–	–	53.4	52.3
of which, hard coal	–	–	–	–	4.4	6.6	5.6	8.9	3.5	3.6	4.4	4.0	–	–	–	–	17.9	23.1
of which, oil	–	0.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1
Wind power	0.8	0.5	–	–	0.8	0.7	0.1	–	0.1	0.1	0.5	0.4	–	–	1.3	0.7	3.6	2.4
Biomass, waste	0.4	0.5	0.2	0.5	0.7	0.4	1.1	0.6	0.1	0.1	0.1	–	–	–	–	–	2.6	2.1
Total electricity	**59.6**	**60.7**	**0.6**	**0.9**	**5.9**	**8.2**	**68.7**	**71.1**	**3.7**	**3.8**	**13.9**	**13.7**	–	–	**1.3**	**0.7**	153.7	159.2
Heat sales, TWh																		
Fossil-based power	0.1	0.1	0.7	0.7	4.1	5.4	14.3	16.1	10.3	11.5	4.4	4.3	–	–	–	–	34.0	38.1
of which, gas	–	–	0.6	0.6	0.5	0.8	4.9	5.0	–	–	4.4	4.3	–	–	–	–	10.4	10.7
of which, lignite	–	–	–	–	–	–	4.1	4.5	–	–	–	–	–	–	–	–	4.1	4.5
of which, hard coal	0.1	–	–	–	3.6	4.6	5.3	6.6	10.3	11.5	–	–	–	–	–	–	19.3	22.7
of which, oil	0.1	0.1	0.1	0.1	–	–	–	–	–	–	–	–	–	–	–	–	0.2	0.2
Biomass, waste	3.6	4.3	0.9	0.9	1.7	1.5	0.6	1.3	0.4	0.4	–	–	–	–	–	–	7.2	8.4
Total heat	**3.8**	**4.4**	**1.6**	**1.6**	**5.8**	**6.9**	**14.9**	**17.4**	**10.7**	**11.9**	**4.4**	**4.3**	–	–	–	–	41.2	46.5
Gas sales, TWh	–	–	0.2	0.2	–	–	1.5	1.1	–	–	51.3	59.0	3.3	4.1	–	–	56.3	64.4
CO_2 emissions per country, mtonnes	**0.4**	**0.6**	**0.2**	**0.3**	**4.4**	**6.4**	**67.7**	**70.0**	**7.8**	**8.3**	**8.1**	**8.2**	–	–	–	–	88.6	93.7

Footnotes: For explanations, see page 131.

Financial calendar

9 February 2012	Year-end report 2011
29 March 2012	Annual Report 2011
25 April 2012	Annual General Meeting
3 May 2012	Interim report for January–March
31 July 2012	Interim report for January–June
30 October 2012	Interim report for January–September
12 February 2013	Year-end report 2012

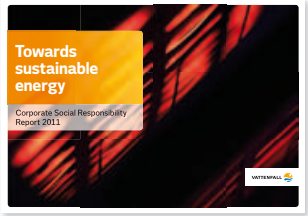
Investor Relations contacts

Klaus Aurich, klaus.aurich@vattenfall.com
Annika Winlund, annika.winlund@vattenfall.com
Anna Viefhues, anna.viefhues@vattenfall.com
Tel. +46-8-739 50 00

Forecasts and forward-looking statements
This document contains forward-looking statements that are based on Vattenfall's current expectations. Even if Vattenfall's management believes that these expectations are reasonable, no guarantee can be made that these expectations will prove to be correct. The forward-looking statements herein pertain to risks and uncertainties that could have a material impact on future earnings. The statements are based on certain assumptions, including such that pertain to financial conditions in general in the company's markets and the level of demand for the company's products. The outcome may vary significantly compared with what is presented in the forward-looking statements, depending on, among other things, changed conditions regarding the economy, markets and competition, legal requirements, and other political actions and variations in exchange rates, as well as other factors referred to in the administration report.

This English version of Vattenfall's Annual Report is a translation of the Swedish original, which is the binding version and shall govern in the event of any discrepancies.

Other publications



Vattenfall's CSR report describes Vattenfall's operations from a sustainability perspective.

Reports can be ordered or downloaded from Vattenfall's websites
www.vattenfall.se
www.vattenfall.com

Reports can also be ordered from:
Vattenfall AB, SE-162 87 Stockholm
Tel. +46-8-739 50 00

Production: Vattenfall AB and Intellecta Corporate AB.
Photos: Vattenfall AB. Printing: Ineko. Repro: Turbin.

Vattenfall AB (publ)
SE-162 87 Stockholm, Sweden
Corporate Identity Number 556036-2138

T +46 8 739 50 00

www.vattenfall.com
www.vattenfall.se