A New Energy Landscape

Sustainability Performance Report 2012 according to GRI

VATTENFALL

Contents

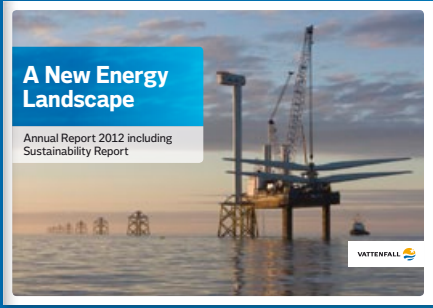
Disclaimer

Vattenfall considers that the information in this report gives a true and fair presentation of Vattenfall. The Sustainability Performance Report has been examined by a third party as described in the combined assurance report.

The financial data presented in the report is taken from Vattenfall's audited annual accounts. The reporting currency of Vattenfall AB is Swedish kronor (SEK). For detailed information on Vattenfall's financial status and performance, please refer to the Annual Report 2012 including Sustainability Report.

Vattenfall's Annual Report 2012 including Sustainability Report

Vattenfall's Annual Report 2012 including Sustainability Report is available at www.vattenfall.com/sustainability.



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Cover photo

Construction of Vattenfall's Ormonde offshore wind farm in the UK .

GRI Content Index

Vattenfall reports in accordance with the Global Reporting Initiative's (GRI) G3 sustainability reporting guidelines in order to measure performance and achieve transparency and international comparability in sustainability performance reporting. Vattenfall has reported in accordance with the GRI guidelines since 2003 and has chosen to report in accordance with Level B since 2011, instead of level A as previously, entailing that the company limits the number of reported indicators and instead focuses on matters that are relevant and important. For further information, see www.globalreporting.org.

Following is a content index for indicators and sector supplements. It includes indicator names and GRI identification numbers and provides references to the pages where relevant information can be found. In addition, relevant UN Global Compact Principles are indicated for each indicator. Statements of status and boundaries are provided in the respective indicator reporting text.

GRI index

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AR	Annual Report 2012 including Sustainability Report
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Indicator		Page	Related UN Global Compact Principles[1]
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EU20	Managing impacts of displacement	PR 22	
EU21	Emergency management and contingency planning	PR 24	
	Performance indicators		
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Product responsibility

Indicator		Page	Related UN Global Compact Principles[1]
	Management approach	PR 25	
	Performance indicators		
EU25	Number of injuries and fatalities to the public	PR 25	
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PR3	Product and service information	PR 25	8
PR5	Customer satisfaction	PR 26	
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PR7	Non-compliance with regulations and codes	PR 26	
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Economic performance

Indicator		Page	Related UN Global Compact Principles[1]
	Management approach	PR 27	
EU6	Approach to ensure availability and reliability	PR 29	
EU8	Research and development activities	PR 29	
EU9	Provisions for decommissioning of nuclear power sites	PR 29	
	Performance indicators		
EC1	Economic value generated and distributed	PR 28	
EC2	Financial implications due to climate change	PR 28	7
EC3	Coverage of benefit plan obligations	PR 28	
EC4	Government financial assistance	PR 29	
EC6	Spending on locally-based suppliers	PR 29	
EC7	Local workforce and management	PR 29	6
EC8	Investments and services for public benefit	PR 29	

Vattenfall does not report on the following core and sector supplement indicators

Indicator	
EN19	Ozone-depleting substances – *Not material, ozone depleting substances are used only to a very limited extent*
EN26	Mitigation of environmental impact of products – *Not material due to the nature of our products*
EN27	Percentage of products sold and packaging materials reclaimed – *Not material due to the nature of our products*
LA14	Ratio of salary of men to women – *data not available*
EU7	Demand side management – *Not material, Vattenfall operates in a deregulated market*
EU10	Planned capacity (MW) against projected electricity demand – *Not applicable, Vattenfall operates in a deregulated market*
EU11	Average generation efficiency by energy source – *Data not available*
EU12	Transmission and distribution losses – *Data not available at Group level*
EU23	Programmes that improve access to electricity – *Not material at Vattenfall's markets*
EU24	Provision of information – *Data not available at Group level*
EU26	Percentage of population unserved – *Not material at Vattenfall's markets*
EU27	Number of residential disconnections for non-payment – *Data not available at Group level*
EU28	Power outage frequency - *Data not available at Group level*
EU29	Power outage duration – *Data not available at Group level*
EU30	Average plant availability – *No data available. Data considered confidential*

1) The UN Global Compact is an initiative to encourage businesses worldwide to adopt sustainable business practices and comprises ten principles in the areas of human rights, labour, environment and anti-corruption. Vattenfall adopted the principles in 2002 and became a signatory to the UN Clobal Compact in July 2008. For further information, see Glossary in the Performance Report.

Profile

Report profile, scope and boundaries (3.1-3.11)

The numerical data provided in the reporting section refers to 2012. Vattenfall has an annual reporting cycle and has published sustainability reports according to the GRI guidelines since 2003. Starting in 2012 the sustainability report is included in the Annual Report. Vattenfall's Annual Report 2012 including Sustainability Report was published on 26 March 2013. The previous report was published on 29 March 2012, covering performance in 2011. The scope of this report is for the Vattenfall Group and its operations, which is the same as for the Annual Report including Sustainability Report. Contact points for questions regarding the report or its contents can be found on the inside front cover.

Boundaries (3.6)

Vattenfall has limited the reporting boundaries to areas in which the company has full control over data collection and information quality. Downstream impacts of heat and electricity use are so widespread that it would be difficult to measure them in a reliable manner.

Accounting policies

The financial data as well as data related to human resources presented in the Annual Report are taken from Vattenfall's audited annual accounts. The reporting currency of Vattenfall AB is Swedish kronor (SEK). The accounting policies for financial reporting are outlined in Vattenfall's 2012 Annual Report.

The consolidation principles for environmental data are the same as for the financial statements, i.e., they include subsidiaries in which Vattenfall AB holds more than 50% of the voting power or in any other way has management control. Regarding historical data, Vattenfall reports in accordance with the Greenhouse Gas Protocol,[1] which is the standard for greenhouse gas accounting that stipulates that data shall be updated retroactively; this means that, in contrast to the financial reporting, an acquisition would result in the addition of historical data, including production, to previous years' accounting, while a divestment would result in the elimination of data for the divested units from historical accounting. Any other restatements or changes in environmental reporting are described in comments adjacent to the respective tables.

Environmental data is collected via the Group's environmental reporting process. Group-wide definitions for all environmental parameters are used to enhance quality.

Reported CO_2 emissions are based on fuel consumption. It should be noted that calculation methods differ from country to country. Calculation methods are stipulated by national legislation, among other things in connection with the EU Emissions Trading System. All other emissions have either been measured or based on periodic measurements.

Materiality

Vattenfall continually tracks concerns of stakeholders who relate to the company as a whole, with particular focus on expectations on Vattenfall for social and environmental responsibility.

Vattenfall monitor a large amount of issues related to corporate responsibility and sustainability, tracking how they are viewed in the political debate, the media, academia and in direct dialogues with Vattenfall's stakeholders. Vattenfall assess the issues' importance to its stakeholders, the potential impact on its business, its ability to influence the issues, and changes in perception over time.

Awards received (2.10)

No sustainability related awards were received during the reporting period.

1) www.ghgprotocol.org See page 9 for further information.

Governance and sustainability management

Governance and direction of sustainability

The Swedish government has identified certain sustainability issues that state-owned companies shall adhere to and serve as a role model for with respect to sustainable business. This applies to the Group's seven defined focus areas: the environment, business ethics, anti-corruption, human rights, labour rights, gender equality and diversity.

Overall sustainability responsibility at the Group level rests with Vattenfall's CEO. The day-to-day running of operations is delegated to the Business Divisions, which are managed through the strategic planning and business planning processes. The strategic sustainability targets to reduce CO_2 emissions and expand in renewables have been set by the Board of Directors. A sustainability function was established in 2012 to further strengthen co-ordination and governance of sustainability activities.

In 2012, an Ethics & Legal Compliance organisation was established. The aim is to ensure transparency, understanding and compliance with applicable laws, regulations and standards in the countries where Vattenfall operates. As emphasised by the ethical guidelines in Vattenfall's Code of Conduct, every employee is responsible for ensuring that the company lives up to the high expectations of its stakeholders. Vattenfall has a Group-wide whistleblowing function with locally appointed external ombudsmen 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.

A comprehensive disclosure of how Vattenfall is governed (with respect to GRI indicators 4.1–4.3, 4.5, 4.7–4.8, 4.10) can be found in the 2012 Annual Report in the Gorporate Governance Report. Further up-to-date information can be found under Corporate Governance on www.vattenfall.com.

Recommendations to highest governance body (4.4)

The owner's direct influence over the parent company Vattenfall AB is exercised at the Annual General Meeting, which is the highest decision-making body in the company. Vattenfall AB has held open Annual General Meetings since 2005, in line with the Swedish State Ownership Policy. See further information in the 2012 Annual Report, Corporate Governance Report.

Processes to ensure conflicts of interest are avoided (4.6)

The rules governing conflicts of interest are described in the Code of Conduct. In addition, the provisions of the Swedish Companies Act apply. For additional information, see the Corporate Governance section in the Annual Report. To raise awareness of the ethical guidelines in Vattenfall's Code of Conduct on conflicts of interest, in 2012 Vattenfall's top-level management responded to a questionnaire on conflicts of interest.

Board procedures for management of sustainable performance (4.9)

As stated in the Board's Rules of Procedure, the Board must annually decide on the Group's strategic plan and discuss the Group's total risk exposure. At board seminars held each year, the Board receives in- depth information about and discusses Vattenfall's long-term development, strategy, competitive scenario and risk management. The most important policies and instructions related to the environment, risks and risk mandate, as well as the Code of Conduct, are to be approved by the Board. Any antitrust issues and major legal disputes are reported annually to the Board.

The Board has an established Audit Committee. The Board has also established a Safety and Risk Committee, which is tasked with strengthening Vattenfall's risk and safety work and culture. The tasks of the Committees and further issues related to the Board's work, rules of procedure and risk management process are described in the Corporate Governance Report and on the corporate governance pages of www.vattenfall.com.

Precautionary principle (4.11)

At Vattenfall the precautionary principle is formalised through risk management. The main purpose of risk management at Vattenfall is to identify, manage and control risks that the Group is exposed to in a way that is aligned with the strategic, environmental and financial targets. In addition, risks should be managed in a manner that is transparent towards the Executive Group Management, the Board of Directors and ultimately Vattenfall's owner.

The Board of Vattenfall has overarching responsibility for risk management in the Group. For this purpose the Board has a Safety and Risk Committee. The Board receives independent information on risk issues through Vattenfall's Chief Risk Officer, who manages the Group's risk management organisation and framework. Risk governance, control and support are ensured through Vattenfall's risk framework.

More detailed information about risk management and Vattenfall's risks are provided in the risk management section of Vattenfall's 2012 Annual Report.

Endorsed sustainability initiatives and principle memberships in associations (4.12–13)

Vattenfall has been a signatory to the UN Global Compact since 2008. But already in 2002, Vattenfall joined the Swedish initiative "Globalt Ansvar" (Swedish Partnership for Global Responsibility). Through such participation, Vattenfall has undertaken to support and respect the UN Global Compact and to adhere to the OECD guidelines for multinational companies. Since then, Vattenfall has endorsed and joined a number of different sustainability initiatives and organisations. Some examples are:

- Partnering Against Corruption Initiative (PACI) of the World Economic Forum and the PACI Principles for Countering Bribery
- World Economic Forum
- World Business Council on Sustainable Development
- Centre for European Policy Studies (CEPS)
- CSR Europe
- Global CCS Institute
- European Technology Platform for Zero Emission Fossil Fuel Power Plants
- Swedish Association of Environmental Directors (NMC)

Stakeholders and identification (4.14–15)

Vattenfall has identified its stakeholders by mapping the impact Vattenfall has on certain groups, or the impact that these groups have on the company. Nine major stakeholder groups have been identified through this impact assessment: Owner, Decision-makers, Authorities, NGOs, Financial Market, Suppliers, Customers, Vattenfall Employees and the General Public.

Stakeholder engagement (4.16–17)

By listening to its stakeholders, Vattenfall can more easily distinguish challenges, opportunities and weaknesses related to its business. Stakeholder information makes Vattenfall better understand what actions to take and what priorities to make. Information provided by stakeholders provides insight into such areas as concerns regarding climate change, renewable energy sources, security of supply, energy efficiency and equality policies.

Communicating with stakeholders is part of the daily business, whether it is with customers, business partners, government representatives, local authorities or NGOs. Following are some examples of our stakeholder consultations, broken down into four groupings: Society, Customers, Financial and Internal.

Examples of Vattenfall's stakeholder consultations in 2012

Stakeholder group	Central level (Group)	Local or Business Unit level
Society	• Ongoing dialogue with a broad spectrum of stakeholders in the EU, including European institutions, various non-governmental organisations, trade associations and think-tanks • The Annual General Meeting, which is open to the general public • Group-wide Brand Reputation Index measurement • Updated materiality study through interviews with external stakeholders	• Contacts with affected stakeholders regarding acceptance for the construction of new plants and infrastructure • Student relations are handled locally with well defined key universities, colleges and other schools and with specific messages for defined target groups. Special emphasis is put on encouraging women to choose a technical education
Customers	• Group-wide Brand Reputation Index measurement	• Customer Satisfaction Index measurements (see PR5, page 26) • Customer events
Internal	• The annual My Opinion employee survey • European Works Council – dialogue with employee representatives • Group-wide Brand Reputation Index measurement • Annual management conference gathering 250 executives • Vattenfall Management Institute (training) • Employee events	• Ongoing implementation of company philosophy, core values and Code of Conduct • Annual individual development dialogues between managers and their employees • Discussion of the results of the My Opinion employee survey and action planning in all work teams

Stakeholder group	Central level (Group)	Local or Business Unit level
Financial	• Group-wide Brand Reputation Index measurement • Annual General Meeting – open to the general public • Capital Markets Day, an event that gathers analysts, investors and bankers in a dialogue with Vattenfall's senior management on current status and the strategic direction of the company • Conference calls (audiocasts) with capital providers and journalists with the opportunity to ask questions. Investor presentations and one-on-one meetings with capital providers • Annual review meetings as well as ad hoc meetings with rating agencies (Standard & Poor's and Moody's) • Publication of annual and quarterly reports	

Environmental performance

Management approach

Vattenfall considers environmental performance to be a foundation for sound business development, by improving the company's competitive position and protecting the value of current and future assets. Vattenfall manages many different energy sources and technologies, all with different environmental aspects and challenges. Most of Vattenfall's operations are strictly regulated by laws, regulations, and permits – at the global, EU, national, regional and local levels.

Vattenfall's key environmental aspects

Vattenfall's significant environmental aspects include resource efficiency, emissions to air, soil and water, management of waste and by-products, responsible land use and biodiversity.

Environmental targets and performance

Vattenfall sets business planning targets for reducing CO_2 emissions. The target is to reduce Vattenfall's CO_2 emissions to a total of 65 million tonnes by 2020, compared with 93.7 million tonnes in 2010 in pro rata terms. See follow up on page 12. Apart from the focus on CO_2 emissions and climate change, Vattenfall will also give priority to work on biodiversity and resource efficiency in the coming years.

Environmental Management System

Vattenfall's Group Environmental Management System includes the environmental policy, which is the central document. Annual Environmental Management Reviews are performed with the Business Divisions and Business Units, where corrective actions can be initiated. Results and actions from the reviews are presented to Vattenfall's EGM.

At the Group level, environmental data from operations is reported and consolidated annually. In addition, reporting on qualitative issues, such as general status development, red flags/green flags, accidents and external analyses, is done quarterly.

Most parts of Vattenfall have their own environmental management systems aligned with recognised standards, such as ISO 14001 and EMAS. The certificates cover approximately 50% of installed production capacity.

Organisational responsibility for environmental performance

The business units have full responsibility for planning, carrying out, following up on and developing their business.

Vattenfall manages and follows up environmental issues within the Group and ensures that an efficient and competent environmental organisation is in place to support the entire organisation. Vattenfall also monitors and evaluates environmental opportunities and risks of importance for the Vattenfall Group and the Vattenfall brand.

Vattenfall's environmental policy

Vattenfall's environmental policy, which applies throughout the Group, states the following (extract):

An important part of Vattenfall's vision is to be among the leaders in developing environmentally sustainable energy production. This means that:

- For each energy source and each type of technology, we strive to be amongst the best in class
- Safety, performance and co-operation are fundamental in our operation
- We do our utmost to choose modern, efficient and environmentally effective technologies while making a sound assessment, balancing environment and economy when making investments
- We strive to increase our use of energy sources and technologies that have low emissions of carbon dioxide and other emissions
- We invest in research and development to improve energy efficiency in our operations, to increase the competitiveness of our renewable and low emission energy sources and to reduce carbon dioxide emissions from our power plants
- We have a structured and systematic approach to taking environmental and other essential sustainability aspects into account, including setting requirements and targets as well as performing follow-ups. We handle this as an integral part of our business management and have regular strategic discussions within top management
- We specify and assess environmental, social and ethical performance when selecting suppliers, contractors and business partners
- We promote customers' efficient use of energy as a means to reduce environmental impact

Vattenfall governs environmental issues at all organisational levels. Environmental performance is a business responsibility and is described in the Vattenfall Management System, which applies for the entire Vattenfall Group.

Environmental risk management

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 and environmental liabilities as well as of any provisions and measures that may be needed. The annual environmental report is presented to Vattenfall's Safety and Risk Committee, and the Board of Directors.

The work on continuously identifying and preventing risks is largely conducted locally and is based on the knowledge and experience that exists within Vattenfall.

Technical risk response focuses mainly on strategically important areas for Vattenfall, such as climate adaptation, biomass sustainability and environmental aspects of nuclear power decommissioning. Risk knowledge is also used to support asset management and project assurance processes and to provide a basis for cross-border learning in the organisation.

Training and awareness

E-learning programmes for important environmental issues are available for all employees. The purpose of Group-wide environmental training is to give basic knowledge and promote an understanding of the environmental effects from Vattenfall's diverse energy mix, and what Vattenfall is doing to limit the negative consequences.

Material use

The largest quantities of materials used by Vattenfall are fuels for electricity generation and heat production.

Other large quantities of materials include auxiliary chemicals used mainly for flue gas cleaning, such as limestone, ammonia and urea. Improved flue gas cleaning normally leads to increased use of these chemicals.

Both industrial and household waste is also a part of Vattenfall's fuel mix. They are used for heat production and electricity generation, both in waste incinerators as well as in co-combustion with other fuels.

GHG Protocol[1]

Environmental data in this report has been consolidated in accordance with the Greenhouse Gas Protocol unless otherwise stated. This means that, unlike in financial accounting, historical data has been updated retroactively to reflect material changes in the organisational boundaries. This is done to make meaningful comparisons of organic changes between years possible without being influenced by acquisitions or divestments. For further information see the Greenhouse Gas Protocol.[1]

[1] www.ghgprotocol.org

Materials used (EN1)

ktonnes	Lime expressed as CaO	Ammonia	Other chemicals for flue gas cleaning
Sweden	5.1	0.9	0.4
Finland	—	—	—
Denmark	17.1	3.1	18.8
Germany	1,120.9	3.5	5.6
Netherlands	14.0	4.1	—
UK	—	—	—
Total 2012	**1,157.1**	**11.6**	**24.8**
Total 2011	1,105.9	11.0	23.8
Total 2010	922.1	11.8	31.6
Total 2009	938.7	12.3	26.9
Total 2008	954.6	11.0	29.1

Materials used that are waste (EN2)

Percentage of fuel that is waste

% (not including uranium)	
Sweden	43.2
Finland	1.8
Denmark	—
Germany	3.5
Netherlands	—
UK	—
Total 2012	3.5
Total 2011	3.5
Total 2010	3.4
Total 2009	2.9
Total 2008	3.0

Energy

Energy efficiency is identified as a key component under resource efficiency. Improved efficiency in power plants means that society's need for energy will be met while using less resources and causing less environmental impact per generated unit of energy (see also EN5-7).

Energy use (EN3–4)

Vattenfall's major energy use consists of fuels. Uranium is used in nuclear power plants to generate electricity. Fossil fuels (lignite, hard coal, oil and natural gas), peat, biomass fuels, blast furnace gas and waste are used to generate electricity and heat. Electricity is also generated in hydro power plants, wind power plants and to a small extent using photovoltaics.

The largest indirect source of energy consumption is electricity for operating power plants. This electricity is derived primarily from own generation, and data is not gathered at the Group level. The environmental impact of this electricity is accounted for through reporting of net production. Other large indirect use of energy consists of losses in energy transfer and energy consumption in the mining operations. For data on energy use, see page 11.

Energy-efficient and renewable energy–based products (EN5–7)

Vattenfall provides retail and industrial customers with support and expertise regarding energy efficiency measures (see PR3 page 25).

Initiatives and activities to increase efficiency are performed across Vattenfall's operations, and efficiency measures in power plants target both direct and indirect energy use. Continuous improvement work is long-term, and data on energy savings is not currently gathered at the Group level. Vattenfall has set a sustainability target for energy efficiency improvements. This target will be further developed in 2013.

Water use

Water is used in many of Vattenfall's operations. In mining, ground water is removed, cleaned and returned to water bodies. In combustion power plants and nuclear power plants, water is used for cooling. Hydro power plants affect the hydrology of rivers. Vattenfall takes a water balance perspective to its management of water use, considering impacts of water withdrawal as well as discharge. Impacts of water use include temperature changes and the impact on biodiversity in surrounding water bodies, among other things. Risks for emissions and leakages, for example of oils, into water bodies are carefully monitored, and preventive measures are taken.

Use of water for cooling

The largest amount of cooling water is used in Vattenfall's nuclear power plants in Sweden and Germany, and most of the water is taken from the sea. The temperature increase from discharges of cooling water is monitored and kept within specific limits for each respective plant. In terms of the plant's environmental performance, the benefits of efficient cooling exceed the temperature increase caused from discharges of cooling water into a large body of water.

Combustion power plants with inland locations use cooling towers and thereby significantly less water. For example, Vattenfall's lignite power plants use state-of-the-art industrial cooling systems, with cooling towers and closed cooling cycles, demonstrating water consumption generally less than 2 m^3/MWh.

Use of water in lignite mining

The water sources most significantly affected by withdrawal of water are around Vattenfall's lignite mines in Germany: Jänschwalde, Cottbus–Nord, Welzow–Süd, and Nochten.

In 2012, approximately 401 million m^3 of groundwater was removed to make fuel extraction possible. The removed groundwater is cleaned and used to cover the freshwater requirements of the nearby lignite-fired power plants, thereby sparing other water sources. Vattenfall's need for freshwater is well below the amount of removed groundwater, and the treated excess groundwater is made available to nearby municipalities and industries. Even though Vattenfall and the surrounding municipalities and industries make use of the water, most of the cleaned groundwater is returned to rivers and lakes.

So-called eco-water inlets are used to support protected rivers and watercourses around the mines from running dry as a result of lowered groundwater levels during mining. About a fourth of the extracted mine water is used for this purpose.

To further limit the impact of lowering the groundwater when draining open-cast mines, "sealing wall" technology has been developed by Vattenfall. Inflows from watercourses, valley plains or wetlands are sealed off by underground sealing walls on the periphery of the open-cast mine.

Total water withdrawal and discharge (EN8, EN21)

Vattenfall has conducted a thorough analysis to assess the largest streams and impacts from the use of water by the Group.

This analysis has resulted in the reporting of ten water parameters, covering both water withdrawal and water discharge.

Million m^3	
Sea water	9,400
Fresh surface water	3,030
Ground water	425
Bought water	28
Total in	**12,883**
Cooling water to sea water	9,400
Cooling water to fresh surface water	2,913
Treated waste water to water bodies	18
Clean water to water bodies	377
Evaporation	118
Sold process water	35
Total out	**12,860**

Most water intake is used for cooling. The largest part is taken from the open sea and returned to the sea. Input and output flows will not match exactly as minor flows are left out.

Effect on water sources and biotopes (EN9, EN25)

Due to the diverse nature of Vattenfall's operations and large number of sites, information on water sources, protected status and biodiversity values of water bodies is handled locally. Information is therefore not aggregated at the Group level.

Land use and biodiversity

The nature of Vattenfall's operations, with large power plants, dams, open-cast mines, wind farms and electricity networks, has a physical and visual impact on the landscape.

The affected areas have differing biodiversity value, and the conservation processes and actions differ accordingly.

Before starting new construction or major rebuilding work, environmental impact assessments are carried out, including impacts on biodiversity. Vattenfall strives to harmonise operational facilities with the landscape and the environment, and is committed to the protection of flora and fauna in the surrounding area. This is often a requirement of the permits granted by the regulatory authorities to operate power plants, and processes to obtain permits and protect biodiversity are well established within Vattenfall.

Land use in protected area (EN11)

Vattenfall´s most significant land use pertains to electric transmission corridors, power plants – especially hydro power plants – and lignite mining in Germany. Due to the diverse nature of the operations and the large number of sites, information on protected status and biodiversity values of sites is handled locally.

Description of impacts, protection and management of biodiversity (EN12–14, EU13)

Land use in lignite mining

Vattenfall's lignite mining in Lausitz, Germany, is conducted in open-cast mines, which claim land areas. The impact on the landscape is considerable when the cast is open, but mining and re-cultivation of mined areas are two phases of the same operation.

Re-cultivation planning starts during the early planning stages of mining. The interests of authorities and business as well as the concerns of the local community are taken into consideration in the early planning, and affected stakeholders are invited to take part in the process. All land used for open-cast lignite mines is acquired by Vattenfall. The objective is to allow for sustainable agriculture, forestry and water management in the post-mining areas in combination with desirable biodiversity, a harmonious landscape and possibilities for outdoor life. The factors that characterise the new landscape are soil quality, land and water distribution, and topography.

During the active operational period of Vattenfall's five lignite mines in Germany, to date 185.3 km^2 have been claimed. Land use in 2012 was 3.91 km^2 (4.77 km^2 in 2011). Large quantities of land mass are redistributed in order to enable lignite extraction from the open-cast mines. In 2012, a total of 350 million m^3 of land mass (414.7 million m^3 in 2011), mainly sand, was moved to extract 62.4 million tonnes (59 million tonnes in 2011) of lignite.

A total of 2.89 km^2 (3.75 km^2 in 2011) were re-cultivated, of which 0.73 km^2 have been restored to forestland and 1.09 km^2 to agricultural land.

Land use and biodiversity around electricity transmission corridors

Electricity networks also have an impact on large land areas. Overhead transmission and distribution lines, in particular, claim significant land areas. The length of transmission and distribution grid lines provides an indication of the land areas used. The total length of Vattenfall's local and regional distribution grid lines measures 132,400 km in Sweden. The regional distribution grid system length measures 24,042 km in Berlin and 27,738 km in Hamburg.

Vattenfall takes measures to reduce this risk by equipping power lines with devices to prevent birds from flying into the power lines.

In Sweden, studies show that many rare species have found refuge around overhead distribution grid lines thanks to the regularly recurring right-of-way clearance. Sections of Vattenfall's Swedish power line corridors have been declared "Natura 2000" areas, harbouring rare and red-listed species. This means these areas represent valuable natural habitats to be preserved with the help and support of the EU, with the aim of protecting biodiversity.

Land use for power plants

The nature of Vattenfall's operations, with large power plants, dams, open-cast mines, wind farms and electricity networks, has a physical and visual impact on the landscape. The affected areas have diverse biodiversity value, and the conservation processes and actions differ accordingly.

Vattenfall's most significant impact comes from the large reservoirs for river regulation in Sweden, involving both natural lakes and inundated land. The reservoirs hold approximately 9,500 million m^3 of water, during an average year, and cover an area of approximately 640 km^2. The variation in storage period is from zero to several years. The area in which the water is allowed to vary is defined in water rights, and the deviation is between zero to 34 metres, depending on the reservoir.

Fish ladders for salmon and trout have been constructed on some of the regulated rivers where spawning areas exist upstream of power stations. Every year, Vattenfall plants about 2 million fish in rivers and streams.

The impact of the large reservoirs on river regulation in Sweden is followed up every three years using the Biotope Method, which is an assessment tool for quantifying the impacts on biodiversity of land and water use. Impact assessments of Vattenfall's Nordic generation are described in Environmental Product Declarations.

In Sweden, a Group-wide biodiversity programme was launched in 2012, focusing on restoration of migration barriers for fish in side streams that feed rivers with large-scale hydro power generation. For small-scale hydro power, the focus is on stations lacking fishways and with dry water channels. The programme is organised in three steps. The first step involves field studies of selected side streams and hydro power stations in order to gain a description and assessment of action needs and consequences for production. The second step involves carrying out pilot projects to evaluate. The third step is to conduct measures in which biodiversity is positively affected while limiting production loss to the greatest possible extent.

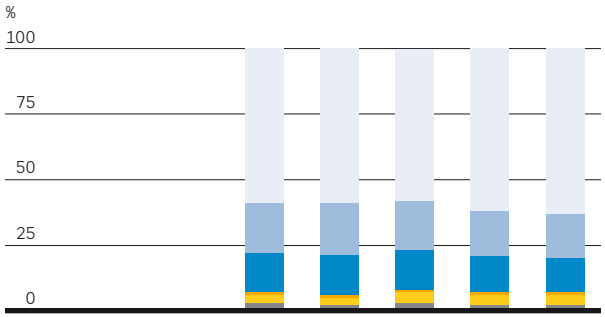
Emissions

The most significant environmental impact of Vattenfall's operations is emissions of CO_2 from fossil fuel combustion.

Other significant emissions from Vattenfall's operations are sulphur dioxide (SO_2), nitrogen oxides (NO_x) and particulates. These emissions are significantly reduced by flue gas cleaning. Small amounts of nitrous oxide (N_2O) and methane (CH_4),are produced during any fuel combustion. Sulphur hexafluoride (SF_6) is still used in some electrical equipment.

Energy use (EN3–4)

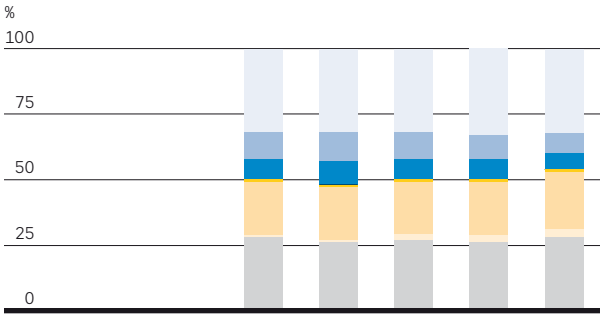
Total use of fuels per year



TWh	2008	2009	2010	2011	2012
Lignite	143.6	140.3	143.3	147.4	152.8[1]
Hard coal	46.0	48.5	47.3	41.1	41.5
Gas	36.4	36.2	37.5	33.3	32.5
Peat	0.8	0.9	1.1	0.7	0.6
Waste, non-biogenic	2.2	2.0	2.6	2.8	2.9
Biomass & biogenic waste	7.2	7.2	10.2	10.2	10.5
Other fuel, incl. oil	6.2	5.6	6.6	5.2	5.9
Total	242.5	240.6	248.6	240.6	246.7
Uranium, tonnes	145.7	140.0	104.0	103.9	125.6

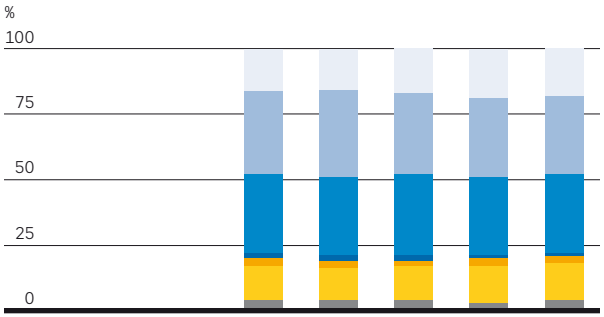
1) Increase of absolute emissions (of fuel use) due to high availability at the lignite-fired power plants and the commissioning of Boxberg Unit R.

Electricity generation mix per year



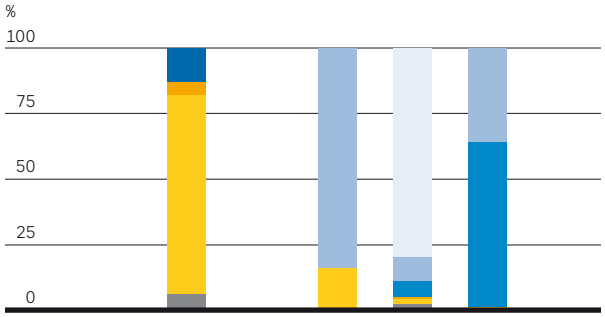
TWh	2008	2009	2010	2011	2012
Lignite	51.5	50.3	51.4	53.0	55.3
Hard coal	16.1	17.3	16.1	14.1	14.2
Gas	13.8	13.6	13.8	12.5	11.5
Peat	0.2	0.2	0.2	0.1	0.1
Waste, non-biogenic	0.4	0.3	0.5	0.5	0.5
Biomass & biogenic waste	1.1	1.0	1.9	2.0	2.0
Hydro power	33.8	31.7	32.3	32.0	39.4
Pumped storage	*2.9*	*2.5*	*3.0*	*2.5*	*2.8*
Wind, incl. solar	1.7	1.7	2.2	3.4	3.6
Nuclear power	46.2	41.5	43.6	42.5	48.9
Other fuel, incl. oil	0.6	0.6	0.8	0.5	0.6
Total generation excl. pumped storage	165.4	158.2	162.8	160.6	176.1

Heat production mix per year



TWh	2008	2009	2010	2011	2012
Lignite	5.1	5.3	6.1	5.6	5.9
Hard coal	9.4	10.1	11.1	9.3	9.6
Gas	8.9	9.0	11.2	9.4	9.6
Peat	0.5	0.6	0.7	0.4	0.4
Waste, non-biogenic	0.8	0.8	0.8	0.9	0.9
Biomass & biogenic waste	3.8	3.7	4.6	4.2	4.5
Other fuel, incl. oil	1.2	1.1	1.4	1.0	1.2
Total	29.7	30.6	35.9	30.9	32.1

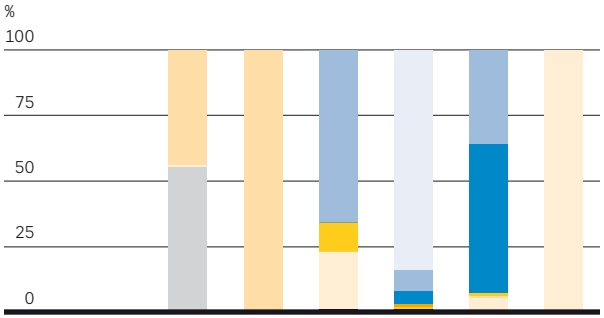
Total use of fuels per country



TWh	SE	FI	DK	DE	NL	UK
Total	4.5	—	14.0	193.7	33.3	—

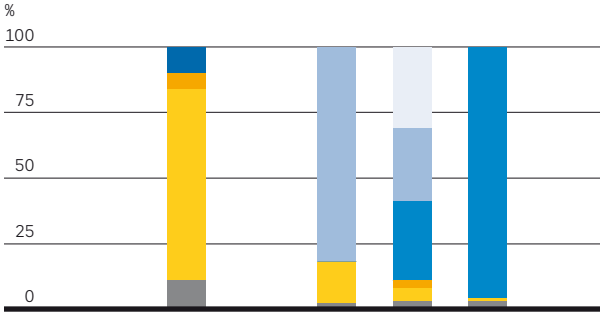
Only renewable energy sources in Finland and the UK.

Electricity generation mix per country



TWh	SE	FI	DK	DE	NL	UK
Total generation excl. pumped storage	88.8	0.6	5.7	66.0	13.3	1.7

Heat production mix per country



TWh	SE	FI	DK	DE	NL	UK
Total production	3.8	—	5.0	19.3	4.0	—

No heat production in Finland and the UK.

External conditions

Emissions are dependent on weather conditions and the economic trend. During cold winters, demand for heat and electricity is higher, resulting in more generation and consequently more emissions. During a very dry year, when there is less availability of hydro power, generation from other – possibly fossil-based – energy sources will increase. This is also the case when nuclear power plants are offline. This makes it difficult to monitor short-term trends in emissions.

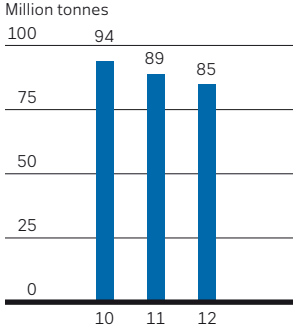
Method for calculating specific emissions

$$\frac{\text{Emissions (total)}}{\text{Production (electricity+heat)}} = \text{Specific emissions}$$

Greenhouse gas emissions (EN16–17)

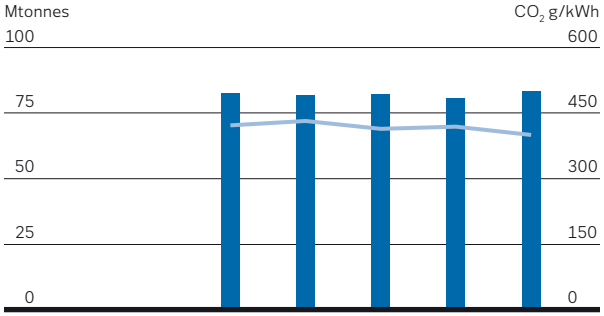
The predominant greenhouse gas emission consists of direct CO_2 emissions from fossil fuel combustion for electricity generation and heat production. Direct emissions of other greenhouse gases than CO_2 and direct emissions from other activities than energy generation, amount to approximately 1 million tonnes of CO_2-equivalents, which corresponds to approximately 1% of reported CO_2emissions. Indirect emissions from fuel transport and business travel account for less than 0.5% of total greenhouse gas emissions. Emissions from the use of electricity (scope 2 according to the Greenhouse Gas Protocol) are included in direct emission data, since most electricity used is from Vattenfall's own generation. Indirect CO_2 emissions from sales of natural gas to customers (scope 3) amount to 10.7 million tonnes.

Follow-up of the 65 million tonne CO_2 target



Expressed in pro rata terms (corresponding to Vattenfall's share of ownership in the respective plants) and financial consolidation. Historical data are not recalculated in accordance with the Greenhouse Gas Protocol.

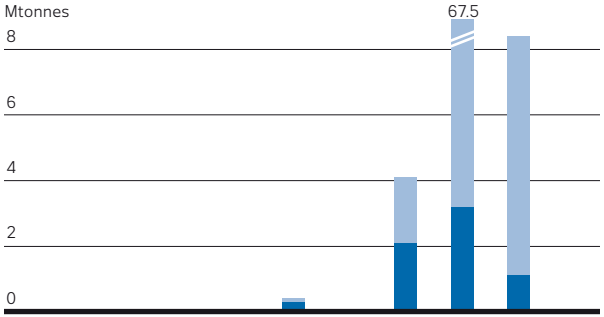
CO_2 emissions per year (total and specific, consolidated)[1]



TWh	2008	2009	2010	2011	2012
CO_2 Mtonnes	82.6	81.8	82.4	80.6	83.5
CO_2 g/kWh[2]	422	432	414	419	400

Increase of absolute emissions (of fuel use) due to high availability at the lignite-fired power plants and the commissioning of Boxberg Unit R. Decrease of specific emissions due to increased generation of nuclear power and hydro power.

Total CO_2 per country



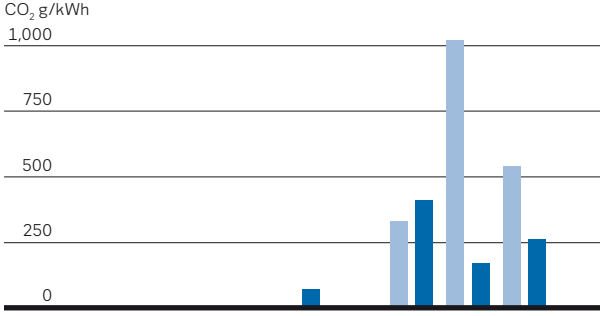
	SE	FI	DK	DE	NL	UK
CO_2 electricity[3]	0.1	—	2.0	67.5	7.3	—
CO_2 heat[3]	0.3	—	2.1	3.2	1.1	—

1) See facts regarding GHG protocol, page 9.

2) Specific emissions, see description of calculation method.

3) Allocation of CO_2 between electricity and heat is based on national methods.

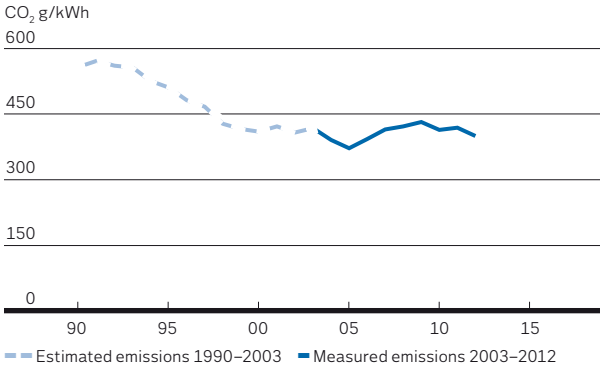
Specific CO_2 emissions per country[4]



	SE	FI	DK	DE	NL	UK
CO_2 electricity	1	—	331	1,020	541	—
CO_2 heat	71	—	410	168	263	—

4) Allocation of CO_2 between electricity and heat is based on national methods.

Specific emissions of CO_2[5]



The reduction of specific CO_2 emissions since 1990 is 28.5 %, in accordance with the GHG Protocol.

5) Historical data for Nuon before 2003 is based on an estimation of constant market share. Total energy sector emissions in the Netherlands have been used to estimate Vattenfall's total emissions, recalculated according to the Greenhouse Gas Protocol.

Initiatives to reduce greenhouse gas emissions (EN18)

Vattenfall is involved in a number of both large- and small-scale initiatives aimed at reducing greenhouse gas emissions. Activities and investments to reduce such emissions include increasing generation from renewable energy sources, co-firing of biomass in coal-

fired plants and increasing nuclear power capacity. Improvements are also being made to existing technology in an effort to increase efficiency, resulting in reduced emissions per generated unit of electricity and heat. In addition, Vattenfall has an R&D programme that is supporting the development of new renewable energy sources as well as CCS (Carbon Capture and Storage) technology.

NO_X, SO_2 and other emissions to air (EN20)

Other emissions to air include SO_2, NO_X and particulates, which have decreased in recent decades due to the modernisation of generation facilities and installation of flue-gas cleaning equipment.

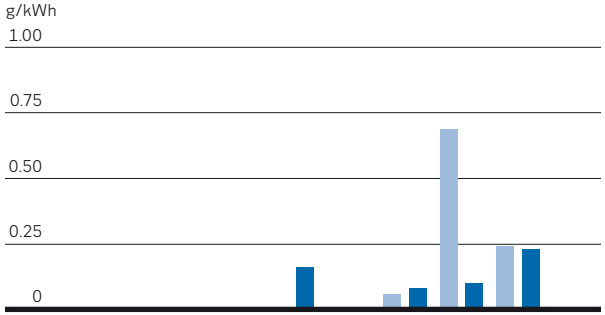
Total emissions NO_X, SO_2 and particulates

Absolute emissions, ktonnes[1]	SE	FI	DK	DE	NL	UK
NO_X electricity	0.1	—	0.4	45.7[2]	3.2	—
NO_X heat	0.6	—	0.4	1.9	0.9	—
SO_2 electricity	0.1	—	0.2	52.4[2]	1.4	—
SO_2 heat	0.3	—	0.2	1.5	0.04	—
Particulates electricity	0.01	—	0.1	1.5[2]	0.1	—
Particulates heat	0.04	—	0.1	0.04	0.002	—

1) Allocation of emissions between electricity and heat is based on national methods.

2) Emissions from test operations of Boxberg R not included.

Specific NO_X

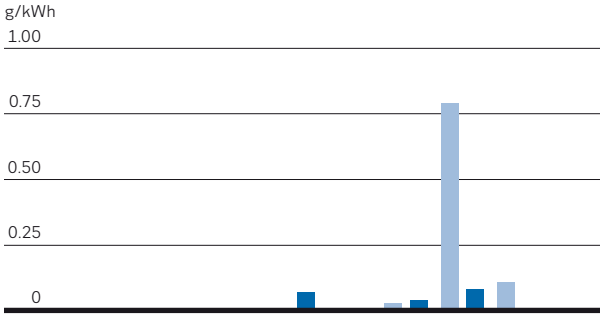


Specific emissions, g/kWh[3]	SE	FI	DK	DE	NL	UK
NO_X electricity	0.001	-	0.06	0.71[4]	0.24	-
NO_X heat	0.16	-	0.08	0.10	0.23	-

3) Allocation of emissions between electricity and heat is based on national methods.

4) Test operations of Boxberg R not included.

Specific SO_2

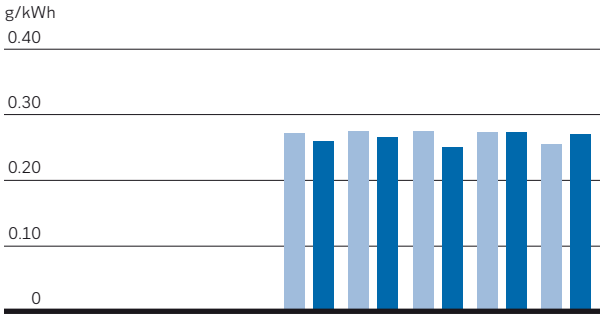


Specific emissions, g/kWh[5]	SE	FI	DK	DE	NL	UK
SO_2 electricity	0.001	—	0.03	0.81[6]	0.11	—
SO_2 heat	0.07	—	0.04	0.08	0.01	—

5) Allocation of emissions between electricity and heat is based on national methods.

6) Test operations of Boxberg R not included.

Specific NO_X and SO_2 emissions per year, electricity and heat, average



Specific emissions[8]	2008	2009	2010	2011	2012[7]
NO_X	0.273	0.276	0.276	0.274	0.258
SO_2	0.261	0.267	0.251	0.275	0.272

7) Test operations of Boxberg R are not included.

8) Specific emissions, see description of calculation method, page 12.

Radioactive releases

As Low As Reasonably Achievable (ALARA) is a core principle in radiation protection work at any nuclear facility. According to Swedish legislation, every operational unit must prove that it not only meets the regulatory limits and quotas, but that it is working continuously to improve its radiological performance. All Swedish nuclear power plants develop and implement ALARA programmess that are reported to the Swedish Radiation Safety Authority. Although the Authority is satisfied with the work, our ambition is higher than that, and in 2012 an initiative was started to benchmark the ALARA programmes against other nuclear power plants in Europe in order to see how Vattenfall works compared to others and if there are possibilities to do more.

Waste, residues, by-products and spills

Vattenfall's operations generate various types of waste and residues. Nuclear power plants generate radioactive waste. Combustion of solid fuels such as hard coal, lignite, biomass and waste generate ash and mineral by-products, such as gypsum, which can be reused.

Waste management

Depending on different national legislation, some of the ash generated in Vattenfall's power plants falls under waste legislation. Vattenfall strives to enable reuse of ash by applying quality and environmental standards. Hazardous waste is treated in accordance with permits and regulations.

Waste from construction and the decommissioning of power plants, distribution grids, etc., is handled in accordance with the respective national legislation. Vattenfall strives to promote reuse and recycling of construction waste. Amounts of waste vary from year to year, depending on the type of operation, ongoing construction work, etc.

Most waste from Vattenfall's administrative offices, such as paper, etc., is recycled. Waste from IT is handled locally by the vendor of the equipment, or by specialised companies.

Use of residues, ash and mineral by-products

Combustion of solid fuels and flue gas cleaning result in large amounts of ash and gypsum, which are considered as by-products. When ash and by-products are substituted for other materials, it leads to less consumption of new resources. It also significantly reduces the amount of ash that has to be deposited. Most ash and mineral by-products from Vattenfall's plants are reused, and increased use is encouraged. Studies show that the risks associated with using ash as construction material are very small. Vattenfall undertakes research efforts together with the construction industry to improve the use of ash.

The most significant by-products are ash from lignite- and coal-fired plants, and gypsum from flue-gas desulphurisation. This gypsum is sold to Europe's gypsum and cement industry.

Ash from lignite-fired power plants is mainly used in the opencast mining area for landscaping in the post-mining environment. Ash from Vattenfall's hard coal combustion in Germany, Poland and Denmark is used in the construction industry and for road construction.

Ash from waste incineration is strictly regulated. Ash is reused to the greatest possible extent, and smaller fractions with high metal content are deposited at special sites. Fly ash

from the Uppsala waste incineration plant is sent to Langøya, Norway for reuse as filling material.

Radioactive waste

Vattenfall operates nuclear power plants in Sweden and Germany. It is the operator's responsibility to have reliable and acceptable solutions for managing nuclear waste. High-level long-life radioactive waste, which consists primarily of spent nuclear fuel, must be carefully shielded during handling and transportation. It takes approximately 100,000 years for the radioactivity to decline to the level that occurs in the uranium ore from which the fuel was originally extracted. Vattenfall supports research and development on final disposal solutions for radioactive waste, a process that is conducted according to different time plans in Sweden and Germany.

In Sweden, the Swedish Nuclear Fuel and Waste Management Company (SKB) has developed a solution for a final repository for spent nuclear fuel. SKB is jointly owned by Sweden's nuclear power operators.

In 2009 SKB selected a site near the Forsmark nuclear power plant, in Östhammar municipality, as the most suitable location for a final repository. In 2011 SKB applied for the necessary permits for the final repository in accordance with the Swedish Act on Nuclear Activities, and plans to simultaneously apply for permits for the interim storage facility, the encapsulation facility and the final repository in accordance with the Swedish Environmental Code.

The first spent nuclear fuel can be deposited in the final repository by 2027 at the earliest. Meanwhile, all spent nuclear fuel in Sweden is stored in water basins 30 metres below ground level at a central interim storage facility in Oskarshamn municipality.

Swedish radioactive operational waste consisting mainly of low and intermediate radioactive level waste is deposited in a final repository (SFR) 50 metres under the bottom of the Baltic Sea, which is also near the Forsmark nuclear power plant.

In Germany, plans to establish two final repositories, both in deep geological formations, are being investigated. Following initial studies, the use of a salt formation near Gorleben for high-level waste has been explored. This exploration has still not been finalised. The Gorleben repository was chosen out of more than 140 salt formations in the 1970s. For Gorleben (or any other repository in salt formations), all basic technology and tools have already been developed. In Germany the interim facilities are located at the nuclear power plants and are operated by the nuclear power companies.

For low- and intermediate-level waste with negligible heat generation, the former Konrad iron mine is fully licensed and under construction. Start of operations is now planned for 2015.

Costs associated with the final disposal of radioactive waste from today's nuclear electricity generation are borne today. It has been taken into consideration that a significant part of the costs for the final disposal of high-level radioactive waste is incurred many years after production has been closed down. In Sweden, the nuclear power companies pay fees on a regular basis to the Swedish Nuclear Waste Fund, which is a state fund created to cover all costs associated with waste handling and storage, and dismantling of nuclear reactors. In Germany, costs associated with the final disposal of nuclear waste are to be borne by the operators that produce the radioactive waste. Normally, in Germany, provisions are built up to cover the cost of handling nuclear waste and decommissioning. These provisions remain within the nuclear industry, i.e., the utilities and energy companies. These provisions are reported in the companies' respective financial statements (see also EU9 page 29).

Waste and mineral by-products (EN 22)

Treatment of waste[1]

	Hazardous waste excl. radioactive		Non-hazardous waste	
ktonnes	Recovered	Deposited	Recovered	Deposited
Sweden	1.0	1.3	7.3	0.4
Finland	0.002	—	0.02	0.002
Denmark	5.3	1.9	1.5	0.1
Germany	112.4	308.0	396.4	28.5
Netherlands	—	0.9	—	13.0
UK	—	—	—	—
Total 2012	**118.7**	**312.0**	**405.3**	**42.1**
Total 2011	119.5	108.6.	258.4	40.5
Total 2010	108.6	97.4	228.0	30.1
Total 2009	82.2	35.4	305.9	26.2
Total 2008[2]	79.3	32.4	263.9	26.6

No waste reported from the UK.

1) Hazardous waste includes fly ash from waste incineration.

2) The Netherlands are not included in the total figures for 2008.

By-products

ktonnes	Fly ash	Furnace bottom ash	Ash from biomass fuels	Slag from waste incineration	Gypsum	Other by-products
Sweden	—	—	41.4	68.7	1.2	12.2
Finland	—	—	—	—	—	—
Denmark	169.0	14.1	5.3	—	39.7	24.1
Germany	4,436.9	1,210.2	17.0	247.8	3,071.4	36.7
Netherlands	—	—	—	—	—	—
UK	—	—	—	—	—	—
Total 2012	**4,606**	**1224**	**64**	**317**	**3,112**	**73**
Total 2011	4,474	1,254	71	301	3,087	88
Total 2010	4,506	1,136	98	305	2,718	102
Total 2009	4,551	1,143	53	255	2,902	73
Total 2008	4,725	1,150	59	287	2,930	80

Other by-products mainly consist of desulphurisation products other than gypsum.

Radioactive waste

Radioactive waste	Medium and low-level radioactive operational waste (m^3)	Nuclear core components (tonnes)	Spent nuclear fuel – assemblies taken out (tonnes)	Spent nuclear fuel – original uranium content (tonnes)[1]
Sweden	1,165	18	147	136
Germany	112	—	—	—
Total 2012	1,277	18	147	136
Total 2011	3,390	842	157	103
Total 2010	1,031	494	135	82
Total 2009	553	—	185	141
Total 2008	3,700	0.3	206	147

1) Original uranium content in assemblies taken out.

Spills and contamination (EN23)

The risk for spills and other contamination is monitored, managed and mitigated locally. Incidents that could possibly result in significant environmental impact, such as spills, leaks and contamination, are reported in accordance with Vattenfall's Incident and Crisis Management (ICM) framework, see EU21, page 24. Known contaminated sites have been identified and characterised. Action to restore such land is taken when necessary and in dialogue with the authorities. Monitoring programmes have been developed. The plan for taking care of contaminated land is progressing on schedule.

Electromagnetic fields (EMFs)

Vattenfall is committed to complying with recommended and legal guidelines regarding electromagnetic fields.

Fines and incidents (EN28)

Vattenfall has a Group-wide Incident and Crisis Management (ICM) organisation. For additional information, see EU21, page 24. Environmental incidents and the handling of fines are regulated under Vattenfall's environmental policy, which stipulates that Vattenfall shall comply with existing laws, regulations and permits and take preventive and/or remedial action in order to reduce environmental impact as well as make advance assessments of the environmental impact of new activities. When accidents occur, Vattenfall acts to reduce the damage, restore any damage caused and take precautionary measures to avoid future incidents.

Social Performance

Management approach

Vattenfall's human resources steering principles describe the Group's approach to the following six areas: Compliance and Processes, Core Values and Corporate Culture, Leadership and Management, Competence Development, Compensation and Benefits, and Organisational Design. Briefly, these principles contribute to:

- developing people's performance in an efficient and effective way
- retaining the people necessary to achieve the strategic targets

Labour practices

Vattenfall strives to foster a corporate culture and work environment that attracts, develops and retains people with cutting-edge competence, and encourages extraordinary performance. Vattenfall's Core Values – Safety, Performance and Cooperation – support these undertakings.

Vattenfall is a signatory of the UN Global Compact and is thereby committed to complying with the Global Compact's principles regarding responsible labour practices. The principles are based on international frameworks such as the core conventions of the ILO and the OECD development guidelines for multinational enterprises.

Human resource goals and performance

Vattenfall's annual employee survey, My Opinion, measures a broad range of aspects that reflect Vattenfall's company culture and work environment. The overall response rate in the My Opinion survey was 75% in 2012, which remains stable in comparison with last year's response rate (76%). The ambition is to maintain this participation rate and ideally to attain an even higher level of employee response.

Vattenfall's aspiration to be an attractive and relevant employer is followed up explicitly by measuring employee commitment. In 2012 Vattenfall introduced new questions to the survey to measure employee performance according to the latest research. Vattenfall scored 66% (65%) on engagement, which is below the high-performance norm. On enablement, however, Vattenfall achieved a continued strong score of 71% (69%) in 2012.

Targets for the overall average (the average of all questions in the survey that were answered in a favourable way) are part of the Group's and the individual business units' business plans. In 2012, Vattenfall scored 66% (63%) (+2% over the target for 2012).

Vattenfall measures its attractiveness among engineering students using external benchmarks, such as a ranking performed by the employer branding company Universum. In 2012 Vattenfall ranked fourth among engineering students in Sweden (number 5 in 2011), 26th in Germany (number 27 in 2011), and 55th in the Netherlands with the NUON brand position (number 80 in 2011).

Organisational responsibility

Staff Function Human Resources (Group HR) supports and advises the business on strategic development and execution. The aim is to enable the business to co-operate efficiently across national borders to the maximum extent.

Employment

Securing competence requires monitoring conditions in the labour markets and careful planning. Critical future competence areas that have been identified across Business Divisions include project management, multi-skilled engineering, leadership, and commercial skills. In particular, Vattenfall has observed an increase in competition for engineering competencies.

Market-oriented salaries and benefits – including performance-based compensation – are a prerequisite for being able to recruit and retain competent employees. Vattenfall offers competitive salaries and benefits and strives to be an employer that rewards strong performance, identifies potential and applies flexible solutions to facilitate employees' work. Accordingly, Vattenfall offers individual and differentiated salaries with focus on performance and potential.

Vattenfall's business strategy includes the use of key competencies across geographical and organisational borders. A proactive strategy for workforce mobility ensures that processes and tools are in place to facilitate international assignments and projects.

Workforce (LA1, EU17)

Total full-time equivalents[2] (as of 31 December)[1]

	2012			2011		
	Men	Women	Total	Men	Women	Total
Sweden	6,634	2,297	8,931	6,455	2,158	**8,613**
Denmark	573	104	677	544	105	**649**
Finland	24	28	52	221	156	**377**
Poland	71	20	91	76	23	**99**
Germany	13,635	4,094	17,728	14,886	4,522	**19,408**
Netherlands	3,872	1,245	5,117	4,163	1,254	**5,417**
Belgium	1	2	3	-	-	-
UK	101	60	161	60	41	**101**
France	12	10	22	3	5	**8**
Serbia	8	4	12	10	3	**13**
Total	**24,930**	**7,864**	**32,794**	**26,418**	**8,267**	**34,685**

1) Employment categories are not defined in Vattenfall, and data is therefore not divided between categories. The breakdown reflects where each individual is employed.

2) FTE (Full-time equivalent) is the number of employees re-calculated into full-time employees. For example, two half-time positions are equal to one full-time equivalent.

Subcontractors

Contract workers are used in daily operations to temporarily fill competence gaps. In order to handle these contracts centrally, Vattenfall has set up a separate project, "Resource Management Center". In the first stage, the Resource Management Center covers external contractors in Germany, the Netherlands and Sweden. However, the intention is to extend its activities to the entire Group level and to track accordingly the amount of external support.

Seasonal employees are hired when needed. Consultants are used both during peaks in the work load and as a source of additional competence.

Employee turnover (LA2)

Employee turnover,[1] %
(external recruitment/external resignations)

	2012	2011
Sweden (including residual)	4.5	7.3
Denmark	3.1	13.5
Finland	-	8.7
Germany	3.4	2.0
Poland	-	4.0
UK	5.5	6.9
Netherlands	5.3	7.9

1) Employee turnover is based on the number of employees holding permanent employment who have left the Vattenfall Group of their own accord. Employee turnover data according to gender or age is not gathered at the Group level.

Processes to ensure the availability of a skilled workforce (EU14, EU15)

Ensuring the availability of a skilled workforce is one of the most important areas from a human resource perspective. During the next five years, approximately 9% of Vattenfall's employees will retire, and within the next ten years, roughly 20% of the number of employees will be retiring. Furthermore, as market and political conditions change over time, as well as consumer behaviours, the demand for competencies and skills also change.

Vattenfall's Talent Management processes are integrated with the business strategies to ensure the Group's ability to attract, develop and retain the talent its needs to meet future challenges. These processes include competence planning, management planning, leadership development and cross-border mobility (these processes are described on pages 17-18).

Vattenfall has an internal job market, where all internal vacancies are advertised Group-wide. The job database ensures a single global system that offers many opportunities to search for jobs across geographical and functional borders.

Safety training for contractors (EU16, EU18)

All contractors and subcontractors working at Vattenfall's plants and at Vattenfall's facilities receive necessary health and safety information. The content and the extent of instructions and training depend on the work area and work tasks of the respective contractors and subcontractors. On all new construction projects, 100% of all contractors undergo initial training followed by a test. All workers must pass the test before being allowed on the construction site. The training programmes are specifically designed for each construction site. Moreover, everyone working at the site needs to be certified. Large construction site projects have subsesquently reached milestones in terms of hours worked without LTI (Lost Time Injury): The Magnum project in the Netherlands surpassed 5,000,000 hours worked without LTI. The Twingo projects in the Netherlands reached 1,000,000 hours worked without LTI, and the Moorburg project in Germany reached the 1,000,000 hour milestone twice (as of Nov. 2012, numbers for employees and contractors combined). LTIF rates have also fallen dramatically. In a 12-month period the LTIF decreased by 6.6 percentage points to 1.5 (September 2011–September 2012). Preventive health and safety measures cover essential dangers related to Vattenfall's facilities, plants and processes, and are adapted to the specific national legal requirements of the specific plant or facility.

As part of the procurement process, suppliers, their subcontractors and sub-suppliers sign the Vattenfall Code of Conduct for suppliers. This includes complying with the respective countries' health and safety legislation and ensuring that employees have undergone necessary health and safety training. Vattenfall's health and safety policy states that personnel of contractors shall be treated in the same way as Vattenfall's own employees with respect to health and safety issues. At the same time, Vattenfall expects contractors to adhere to the Group's health and safety standards while working for Vattenfall. Instruction and training are carried out in the decentralised line organisation, and data on the number of participants is not aggregated at the Group level.

Labour/management relations

The annually recurring My Opinion employee survey covers a wide range of topics and aspects. Through My Opinion, employees have an opportunity to express their opinions about everyday work, managers and the company. The tool is used throughout the organisation as a basis for action plans to improve the work environment. Best practices derived from the action plans are shared and become a useful tool for management.

In addition, corporate actions are taken to provide support from a Group perspective. Defined Corporate Focus Areas set the focus for relevant Group-wide improvement aspects.

Collective bargaining agreement coverage (LA4)

Employees covered by collective bargaining agreements, estimation in %[1]

	2012	2011
Sweden	98	98
Denmark	44	44
Finland	95	95
Poland	76	98
Germany	98	98
Netherlands	98	98
UK	n.a	n.a

Employees represented by trade unions, estimation (in %)

	2012	2011
Sweden	85	85
Denmark	70	70
Finland	85	85
Poland	0	55
Germany	70	70
UK	n.a	n.a.
Netherlands	n.a	n.a.

1) Data on contractors not collected at the Group level.

Operational changes (LA5)

Collective agreements and regulations regarding operational procedures differ between the countries where Vattenfall operates, depending on national legislation and collective bargaining agreements.

Occupational health and safety

Protection of the health and safety of the people who are affected by Vattenfall's activities is such an important issue that Vattenfall has defined Safety as one of the company's core values. Vattenfall is committed to creating a safe and healthy work environment; this means that the company aims for zero injuries, zero occupational illness and zero process safety incidents. Vattenfall's efforts to achieve this target include a systematic and proactive approach to the management of health and safety in all of the Group's activities.

Vattenfall's Health and Safety Policy expresses the goal that no one at Vattenfall should be injured or fall ill as a result of their work. Risks should be reduced as much as possible. No work is so important that it is allowed to be performed in an unsafe manner. When a situation becomes unsafe, every employee is required to stop working immediately.

Top management is involved in health and safety work by setting and monitoring safety goals. Vattenfall's managers also

serve as role models by promoting and demonstrating health and safety-oriented behaviour.

Overall, Vattenfall takes a preventive approach and implements best practices in health and safety management at all times. To promote high levels of health and safety, Vattenfall maintains a continuous improvement process. Health and safety are part of the management scorecards and the business planning process. Additionally, a safety culture development programme is up and running. These activities have contributed to a 30% reduction in accidents compared with the preceding year's results (see also LA7).

Vattenfall also works actively to improve employees' health by offering regular health check-ups and taking preventive measures according to national legislation. The company actively supports employees with prolonged illnesses so they can return to work.

Each year well-being and safety are also measured in the My Opinion employee survey. This instrument allows analyses of the health and safety status of every unit and serves as a basis for adequate action for each group within Vattenfall. In 2010 the survey was revised with regard to health and safety questions in order to obtain in-depth information in this area. In 2012 the score for positive was 61% for Health and 67% for Safety.

Health and safety committees (LA6)

Health and safety committees are organised at the operational level. The committees deal with local problems and provide management with suggestions for improvements. Vattenfall's employees are well informed about initiatives and programmes that contribute to safe working conditions. More than 75% of the total workforce is represented in formal joint management/worker health and safety committees.

Injuries, absentee rates and fatalities (LA7)

In 2012 Vattenfall managed to reduce its LTIF (Lost Time Injury Frequency) rate by about 30%. This can be credited to higher safety awareness driven by the core value of Safety as well as to various preventive measures. Unfortunately, a contractor´s foreman was deadly injured at our coal fired power plant in Wedel, Germany. The accident was investigated, and Vattenfall has taken several actions to improve safety in the respective work environments.

The absentee rate varies in Vattenfall's different core countries. Vattenfall is currently working on implementation of a Group-wide health management system which will enable the sharing of best practice health activities among the Group's units and countries.

	2012	2011	2010	2009
LTIF				
Reported accidents at work				
(per 1,000,000 hours worked)	2.3	3.3	4.5	4.3
Sick leave (%)	4.2[1]	3.9	3.8	3.2
Work-related fatalities	1[2]	2[3]	2[4]	3[5]

1) The basis of the calculation for 2012 has changed due to international adaptation. The increase in sick leave rate corresponds with the European trend.

2) On 25 February 2012, a contractor's foreman was fatally injured at Vattenfall´s coal-fired plant in Wedel, Germany, while working in the coal unloading and storage installation.

3) On 23 February 2011, an employee died from electrocution during maintenance work on a substation. On 11 July 2011 an employee of a contractor company fell from a height of 25 m and died. He was renovating the steel construction of a power pole.

4) On 10 February 2010, a contractor who was delivering wood shred to a plant biomass receiving station fell on a conveyor system and was pulled into the shredder. On 24 March 2010, a linesman from a contractor came in contact with electric current (10 kV) when climbing a pole, and was electrocuted.

5) A diver (contractor) was sucked underwater and died. An employee entered a wrong switchgear station and died from electocution. During maintenance in the basin of a pump plant, a rope from the working machine broke and a man on it drowned.

Figures are reported from all parts of the organisation on a quarterly basis as part of the regular reporting system. An accident is defined as an acute incident that occurred in the course of work and which resulted in personal injury. Work-related fatalities include external contractors. For the occupational disease rate (ODR), qualitative data is not available at the Group level. However, occupational diseases are followed up in accordance with national practice by the health and safety organisation and management. Because of different regulations in the Group's countries of operation, commuting accidents and the number of lost days per employee due to accidents are not reported.

Support regarding serious diseases (LA8)

Vattenfall's various companies have a long tradition of promoting employee health and measures to prevent accidents and serious diseases. Accordingly, preventive medical check-ups are provided in compliance with the national health and safety legislation in the respective countries. Employees exposed to night shift work, noise, heat, hazards to eyesight, work at heights, chemicals, ionising radiation, dust, etc., can seek medical assistance and undergo additional tests from various specialists if needed. Employees who have been exposed to high risks, such as exposure to asbestos, undergo regular follow-up examinations to ensure early diagnosis of related diseases.

In addition, various measures are offered to employees, such as back exercise courses and health promotion activities. In large parts of the organisation, vaccination programmes for influenza and other diseases are further elements of health promotion. Medical emergency aid is an integral part of occupational safety and health protection. Vattenfall has a permanent first aid training programme for employees. All employees have access to individual counseling and assistance by professional counsellors or psychologists. Reintegration and disability management programmes have been established.

Health and safety and union agreements (LA9)

Health and safety are strategically important matters for Vattenfall, and co-operation with the unions is an important aspect. Regulations differ in the countries where Vattenfall operates. In all countries where Vattenfall operates, health and safety matters are covered by law, and union agreements generally do not cover these issues in detail.

Competence planning (EU14)

Ensuring the right competence is a crucial task for Vattenfall. Accordingly, the Group has an annual competence planning process to analyse the organisation's current competence status and future competence needs. The analyses are made as an integrated part of the business plan and identify competence gaps. The purpose of the process is to ensure that the organisation has the proper skill sets from both the short- and long-term perspectives.

The competence plans define the needs for recruitment (competencies from the external market) and competence development (developing existing employees). New or fast-growing business areas require a higher recruitment rate. For other areas or business stages, competence development and training strategies are the most important tools in reducing identified competence gaps.

Action plans are developed to meet the Group's needs as well as local requirements to ensure sufficient competence in the future. The competence planning process covers areas such as efficiency improvement, implementation of new technology, investments, skills development, recruitment, job rotation, trainee programmes, demographic analyses and the use of consultants. Some competence needs are generic in Vattenfall and require Group-wide initiatives, such as leadership and project management capabilities, health & safety, or language skills. Other competencies are business-unique and require local competence plans. For example, long-term partnerships with selected schools and universities are used to secure future supply of regional core competencies.

Management planning

The annual management planning process provides an analysis of management capacity, potential and development needs in the Group as well as information to support succession planning. To ensure a high rate of internal succession, Vattenfall focuses on early development of its leaders, based on a leadership development strategy and framework.

In co-operation with the EGM and the Business Divisions, Vattenfall Management Institute (VMI) provides opportunities for leadership development and management training for individuals at all levels of management at different stages in their professional careers. Increased focus is given to international leadership and change training – programmes designed to help leaders develop their ability to work under rapidly changing conditions as well as in different cultures.

Succession planning and development for project managers – a key competence group within Vattenfall's operations – are managed and steered.

Training of employees (LA10)

The Performance Management Process is a platform for individual competence development needs, where employees and managers define and agree on individual development plans and actions.

In the annual My Opinion employee survey, in 2012 69% (well above the external benchmark) of employees responded that there are sufficient opportunities to receive training to help them perform their current job well, which is at the same level as in 2010 and 2011.

Individual development plans include development activities on the job as well as off site. While training programmes are important development tools, employees' skills and competencies develop mainly in their daily work, through co-operation with colleagues and in assignments and projects.

The individual development plans are followed up at least twice a year.

Programmes for skills management and life-long learning (LA11)

Vattenfall offers various training programmes to make sure that employees have the skills necessary to maintain high performance and fulfil the company's strategic ambitions as well as to facilitate their personal development and life-long learning. For selected core competencies, internal training programmes are being developed to ensure business-critical skills and compliance with legal requirements – such as certain areas in nuclear power. For other technical or functional competencies, Vattenfall works in partnership with specialised training providers. All training programmes are evaluated for continuous improvement.

Several assistance programmes are in place to support internal training courses, funding support for external training or education and sabbatical periods.

Performance and career development reviews (LA12)

Reviews of performance and career development are an important means of ensuring that Vattenfall's work environment and competence development objectives are met. In the 2012 My Opinion employee survey, 85% of Vattenfall's employees responded that they had conducted a detailed discussion in the last 12 months with their manager to clarify their job objectives, which is two percentage points more than in 2011. Moreover, 89% knew which skills and competencies they need to develop in order to meet their performance objectives (also +2%-points compared with last year's survey). Performance reviews and continuous follow-up by employees and managers are at the core of the performance culture that Vattenfall is growing from within. The target is for 100% of employees to have an individual development plan that includes actions for development through training, assignments and work experience.

Diversity and equal opportunity

Vattenfall's Human Resources Policy states the company's view of diversity and equal opportunity as well as their importance:

"We strive for diversity in teams and units with regards to gender, age, background and experience, enabling employees from different units and of different nationalities to work together. It adds value to our business by creating development opportunities for the employees at the same time as it increases our total competence base and strengthens our cultural understanding."

The policy lays out Vattenfall's ambition that the workforce should reflect the societies in which the company operates. Vattenfall is committed to ensuring equal opportunities and rights for all employees, and to establishing diversity as a natural part of the daily business.

Goals and activities to improve diversity

Vattenfall aspires to be a role model in the area of diversity. Vattenfall is working to attain at least an equal ratio of female managers to female employees. To increase the number of female managers, Vattenfall has set a common target for 2015 that is regularly monitored. The focus is on gender diversity in all HR processes, including the recruitment, succession planning and management planning processes as well as competence development activities.

In order to gain diverse talents and increase Vattenfall´s attractiveness as an employer in the target group of engineering students, Vattenfall conducts in-house events in all countries. For example, once a year Vattenfall arranges a "Ladies Day" in co-operation with Swedish universities to encourage aspiring young women to choose an engineering education.

Special focus has been put on the German market, where Vattenfall continues to strengthen its efforts to achieve a better gender balance. For example, to promote equal working conditions, Vattenfall is working together with "pme Familienservice GmbH", a foundation that helps families achieve a better work/life balance by providing advice and arranging various forms of care, such as child care and senior care.

In addition, Vattenfall aspires to mirror society in terms of ethnic background. One Vattenfall initiative in the Netherlands is called "Giving Back", which stimulated talented foreign students to fully exploit their skills to become a role model later.

To obtain a more balanced age structure, Vattenfall uses output from the competence planning process as a basis for student relations activities, knowledge-sharing programmes and general competence development. Special activities for securing internal knowledge transfer have been established, such as duplicate positions. Vattenfall strives to ensure optimal working conditions for all employees, such as by offering age-appropriate positions, a variety of health activities (e.g., yoga, Weight Watchers courses) and life-long learning.

Composition of governance bodies (LA13)

Composition of governance bodies (managers), %

Country	Female	Male	Total
France		2	**2**
Germany	160	1,173	**1,334**
Denmark	8	40	**48**
Finland	2	2	**4**
Netherlands	113	320	**433**
Poland	4	5	**9**
Sweden	223	638	**861**
UK	2	7	**9**
Total 2012	**512**	**2,187**	**2,699**
Total 2011	519	2,288	**2,807**

N-Level[1]			
N	2	7	**9**
N-1	20	38	**58**
N-2	38	149	**187**
N-3	89	353	**442**
N-4	150	566	**716**
N-5	174	648	**823**
N-6	38	398	**436**
N-7	1	29	**30**
Total	**512**	**2,187**	**2,699**

1) The reporting level identifies where in the hierarchy an organisational unit is located and reflects the number of reporting levels below an EGM member.

Data on age groups is not available. Data on minority groups may not be collected by law.

Human rights

Management approach

Vattenfall respects universal human rights when conducting its operations and strives to be a good and reliable corporate citizen by always adhering to laws, regulations and good practices relating to human rights. Vattenfall operates in regions where rules and regulations governing basic human rights have a long history and are well established. For example, labour standards, such as working conditions, freedom of association and on the prohibition of forced labour are regulated and enforced not only at a constitutional level but also on a more detailed level. However, there is a risk for human rights violations in Vattenfall's supply chain. Human rights risks are identified and mitigated as an integral part of day-to-day business activities within the general management framework.

Policy

Vattenfall's position on human rights issues is expressed in the Group's Code of Conduct, the Code of Conduct for Suppliers, the Human Resources Policy and by Vattenfall's commitment to the UN Global Compact.

Vattenfall has a Code of Conduct for Suppliers, based on the UN Global Compact, and urges all of its suppliers to adhere to the ten principles of the UN Global Compact, including human rights.

Vattenfall became a signatory to the UN Global Compact in July 2008. However, through its support of the Swedish Government's "Globalt Ansvar" programme (Swedish Partnership for Global Responsibility), Vattenfall committed itself to the principles of the UN Global Compact and the OECD's guidelines for multinational enterprises already in 2002 and will integrate the Guiding Principles on Business and Human Rights.

Investments and procurement practices

Vattenfall sources substantial amounts of fuel and material worth several billion euros along with services to operate its business. Regardless of whether the company is mining lignite in its own operations, purchasing other fuels through a partner or contracting a partner to perform maintenance in power plants, Vattenfall sets high standards.

Vattenfall's Group-wide Code of Conduct for Suppliers is based on the UN Global Compact and has been communicated to thousands of suppliers and is included in Vattenfall's agreements since the beginning of 2009.

To make sure that suppliers accept the Code of Conduct for Suppliers and agree to adhere to the minimum standards, Vattenfall's Group Procurement has developed a solution in which Vattenfall 's main suppliers of goods and services are asked to go through a pre-qualification process. The process is managed in the Vattenfall Supplier Bank (VSB), a web-based solution that can be accessed via Vattenfall's website.

Vattenfall is currently reviewing and updating its Code of Conduct for Suppliers and improving its processes for screening and monitoring suppliers. Implementation of the new Code of Conduct for Suppliers and the improved processes will start in 2013.

Human rights screening (HR 1-2)

Vattenfall conducts its operations in countries with well established regulations, and human rights screening of investment agreements is generally not performed. However, in specific cases, human rights assessment is performed, such as when Vattenfall acquired 20% of Buchanan Renewables Fuel in Liberia in 2010 through the subsidiary Vattenfall Biomass Liberia. Vattenfall divested its stake in the company in 2012.

All of Vattenfall's nuclear fuel suppliers in all steps of the nuclear fuel supply chain are regularly audited on their performance in the areas of quality, environment and sustainability as a part of the normal procedure for supplier evaluation. In addition, all originating countries (i.e., location of the production facility) are subject to human rights screening as part of a documented procedure that includes reviewing supplier policies, and communication and implementation of practices as part of the effort to respect and support human rights. These reviews also cover other aspects of the UN Global Compact, such as labour standards and environmental impact. All nuclear fuel–related contracts signed after 2008 include a clause on the principles of the UN Global Compact.

Vattenfall is a member of the newly launched Bettercoal initiative, whose mission is to advance continuous improvement of corporate responsibility in the coal supply chain.

Vattenfall plans to increase the use of biomass in its operations. Specific criteria are currently being developed to manage risks in the biomass supply chain.

Code of Conduct

- Vattenfall's Code of Conduct covers compliance topics related to legal requirements (business ethics) and Corporate Social Responsibility (e.g., people and the environment). The rules of the Code are set out in the form of eight principles and, these, together with the Group's core values, guide our behaviour. The Code of Conduct is supplemented by policies and detailed instructions.
- Health and Safety – We operate our plants and facilities safely in order to protect the health of our employees as well as the general public.
- People – We empower our employees to develop to their full potential with equal opportunities for all.
- Customers and Suppliers – We take responsibility along the whole value chain with regard to setting standards for suppliers, taking into account customer needs and fair competition.
- Business Ethics – We comply with all laws and regulations that apply to our work, have a zero tolerance policy against bribes and avoid conflicts of interest.
- Communication – We should at all times take action when it comes to potential reputational impact, to co-ordinate messages so that the communication is coherent and correct. Whenever we communicate – as an employee or as a private person – we are aware of the effect our words or behaviour may have on the reputation of Vattenfall.
- Information Security – We are aware that information is an important asset for Vattenfall. We secure essential and sensitive information, to ensure its integrity, availability and confidentiality.
- Company Resources – We take into consideration sustainability and cost effectiveness whenever we use company resources.
- Environment – We consider our impact on people, the environment and society when choosing between alternative solutions. We use all resources efficiently and minimise impacts wherever possible.

Human rights training (HR3)

Vattenfall's employees are obligated to know and act in accordance with the company's Code of Conduct, which contains basic information about human rights. The Code of Conduct is part of the management system and is accessible by employees via the company's intranet. The number of hours spent on training is not measured.

Non-discrimination

Vattenfall does not tolerate any form of insulting behaviour or harassment at work or in work-related situations. Everyone is to be treated with respect. This applies to all areas, including recruitment, salaries, benefits, work environment, education, promotion and leadership. It also applies not only to employees, but to all people in contact with Vattenfall, including customers and potential employees in the recruitment process. Each and everyone in contact with Vattenfall should always be treated with respect regardless of his or her background and traits.

Vattenfall's policy is to offer equal opportunity – Vattenfall strictly condemns every act of discrimination – concerning all situations in work life and beginning with employee recruitment. All employees and prospective employees are given equal opportunities and rights regardless of their age, gender, religion, sexual orientation, disability, political opinions or affiliations, ethnicity, national or social origin or any other factors.

Vattenfall supports the human rights principles set out in the UN Global Compact, and we ensure that Vattenfall is not a party to human rights violations.

Discrimination incidents (HR4)

One case of discrimination was reported in 2012.

Freedom of association and collective bargaining and preventing child and forced labour (HR5–7)

In Vattenfall's markets, freedom of association is both constitutionally guaranteed and governed by a number of specific laws. Likewise, child and forced labour are prohibited by a number of specific laws. These laws are adhered to throughout the organisation.

Vattenfall opposes all forms of child labour and forced labour.

Complaints and grievance practices

Vattenfall has a Group-wide whistleblowing system; see also "Governance and direction of sustainability", page 6.

Indigenous rights

Vattenfall's operations have both social and environmental impacts. Two main indigenous and ethnic minorities are directly affected by Vattenfall's operations: the Sorbs in Germany and the Samis in the Nordic region.

The Sorbs are an ethnic minority who live in eastern Germany in areas where Vattenfall has considerable operations. To support and preserve the Sorb culture, Vattenfall subsidises the Sorb organisation Domowina in eastern Germany. Domowina and Vattenfall want to strengthen their existing constructive co-operation in the future. A milestone was reached in 2007, when representatives from Domowina and Vattenfall adopted a joint declaration in which Vattenfall has expressed its support of the Sorbian population in the mining regions by ensuring the preservation of their social and ethnic identity. Initiatives include promotion of the Sorbian language, economics and tourism, support of Sorbian media, traditions and art, and documentation of Sorbian history and development.

In northern Sweden, Vattenfall operates several hydro power plants. The Samis, an indigenous population of formerly nomadic, reindeer-herding people, have inhabited the northern parts of Norway, Sweden, Finland and Russia since ancient times. The Samis are an ethnic minority in Sweden today, with their own language and a rich cultural tradition.

Vattenfall's hydro power expanded from the beginning of the 20th century until the 1960s, and the building of hydro power plants in the northern parts of Sweden had an impact on reindeer husbandry. As with all stakeholder groups, Vattenfall is engaged in a continuous dialogue with Sami communities. A large number of mitigation programmes have been initiated and sponsored by Vattenfall, including construction of alternative crossing routes for reindeer herds.

In addition, Vattenfall is helping to preserve Sami cultural heritage by supporting cultural projects, such as sponsorship of the Ájtte Sami Museum in Jokkmokk as well as other small-scale cultural preservation projects. A more organised dialogue between Sami villages affected by hydro power and Vattenfall is currently being developed.

Impact on society

Management approach

Energy is a basic requirement in modern society. Vattenfall serves society by delivering the energy needed to make society work and be prosperous. Vattenfall also plays an important role in society as an employer and business partner, and corporate citizenship is emphasised in markets where the company operates. Vattenfall's responsibility is to contribute to sustainable development of society while providing energy solutions that meet customers' – and thus society's – needs.

Policy

Vattenfall has no specific, formal framework for managing societal interaction and support. Instead, it relies on several principles and tools, for example:

- The company's philosophy, business ethics, principles and Code of Conduct. High ethical standards must be maintained in all actions and in all contexts
- Vattenfall has formal processes for assessing stakeholders' expectations and opinions. This forms a basis for operational and reporting matters, such as for improving this report
- Vattenfall is a signatory of the UN Global Compact
- The World Economic Forum's Partnering against Corruption Initiative – Principles for Countering Bribery (the PACI Principles)

Impact on society – goals and performance

Customer Satisfaction Index

Vattenfall has created a Customer Satisfaction Index to measure success. For more information on the CSI, see indicator PR5 on page 26.

Vattenfall Reputation Monitor

Vattenfall is interested in how the company is perceived in society and strives to continuously improve its relationships with stakeholders. One important tool for capturing stakeholder perceptions and identifying areas for improvement is the bi-annual Reputation Monitor, which measures the company's overall reputation with the general public as well as with opinion-makers and the drivers of perceptions.

Organisational responsibility

Organisational responsibility for managing societal impact and interaction follows the regular governance structure. Organisational responsibility for managing the impact of operations (including sponsoring and donations) is handled by the respective Business Units. However, some of these tasks are centralised or managed in co-operation with Staff Functions.

With respect to community and public policy development, a separate organisation exists within Vattenfall – Vattenfall Business and Stakeholder Relations, under Staff Function Communications. This is a wide-ranging function that co-ordinates Vattenfall's positions on key issues and is the direct link to Vattenfall's owner – the Swedish state. Public affairs functions exist in every country in which Vattenfall operates and at Vattenfall's European Affairs Office in Brussels.

The General Counsel of the Vattenfall Group co-ordinates the instructions and follow-up of measures to prevent corruption and anti-competitive behaviour. It is the responsibility of each manager in the line organisation to ensure compliance (e.g., by implementing local instructions) and to report on this compliance. The line organisation also reports all major disputes to Corporate Legal Affairs regularly and on specific cases.

Training and awareness

Vattenfall's managers and employees throughout the Group carry on a continuous dialogue with stakeholders in society. Vattenfall strives to improve communication skills at all levels of the company, such as through media training and workshops.

Effective and fair competition is vital to ensuring market efficiency. Competition rules are important tools that serve this purpose. To increase awareness about competition law issues throughout the Group and to instil a common, basic understanding of rules and how to comply with them as well as with Vattenfall's internal policies and rules, in 2005 Vattenfall initiated the Vattenfall Antitrust Compliance Programme. The Vattenfall Antitrust Compliance Programme includes training in competition law and anti-corruption.

Community

Vattenfall strives to manage the impact of its business in a responsible manner, balancing the needs of different stakeholders.

It is important for Vattenfall that the people living in the vicinity of the company's operations are affected as little as possible. Regardless of the type of impact the operations may cause, Vattenfall as a company tries to be as receptive as possible to the needs and demands of affected stakeholders. Vattenfall has therefore established processes to interact with communities when planning for new operations. This is to ensure that everyone has an opportunity to have their say and suggest possible improvements.

Including stakeholders in decision-making processes (EU19)

Vattenfall's stakeholder dialogue is conducted on many levels throughout the Group, centrally as well as at local, operational levels. Vattenfall has identified its stakeholders by mapping the impact Vattenfall has on certain groups, or the impact that these groups have on the company. Stakeholders are involved in many decision-making processes, especially changes affecting the specific stakeholder group, such as people living in the vicinity of the company's operations. For additional information, see also Governance of Sustainability, 4.14–15 and 4.16–17, page 6-7 and on national websites.

Managing impacts of operations and displacement (SO1, EU20, EU22)

Resettlement and mining operations

The most significant impact on communities is related to Vattenfall's lignite mining operation in Germany, where several small communities have been resettled as a consequence of the Group's mining activities. In 2012 seven estates were resettled, while larger resettlements are planned for the future. For this purpose, a formalised socially acceptable resettlement process is used for all lignite mining operations to ensure that Vattenfall is a benchmark of the industry by handling the issue with great care and respect. The resettlement programme involves all aspects, from financial compensation to preserving the village's social structure. At the beginning of the resettlement process an assessment is performed that involves all citizens. This assessment results in a specification of social requirements (Soziales Anforderungsprofil, SAP). The resettling community and Vattenfall then sign specific resettlement agreements that address the following points:

The aim is for all inhabitants to move to a common location together. New villages are connected to existing communities. If there is no access to services (e.g., schools, utilities, healthcare) in the existing community, new institutions are built. In this way both communities benefit.

The resettlers are included in the overall process of resettlement and are involved in shaping it. The resettlers are part of a working group together with Vattenfall and the county. As part of this working group, the resettlers are fully involved in the complete process of resettlement. It is the resettlers who decide on the new location, usually by choosing from among up to five different locations. The next step is that all resettlers are

given the opportunity to choose their new place of property and direct neighbours. Furthermore, all residents' requests and suggestions are considered, such as clubs and social associations of the resettled and the new communities. The affected villages are developed and preserved until the time of resettlement.

Property owners are compensated on the basis of their existing property by providing them with adequate family-based replacement property with no need for new funding.

A tenant action concept provides a number of guarantees, including acceptable rents in apartments at the resettlement location. Small businesses are preserved and continued.

Community life in clubs and associations is kept functioning and is supported. The resettled community has all necessary infrastructure to conduct social activities, sports or other recreational activities, including stadiums and community centres. Items of cultural heritage, such as historical monuments or buildings, are transferred to the new location. Furthermore, funds are raised to support social and sports activities, events such as anniversaries and local traditions, social work and economic development. For the move itself, an action concept is drawn up together with the resettling and the absorbing communities. The move is carried out in the shortest time possible.

Four villages have been resettled since 1993, and plans have been drawn to resettle parts of three more municipalities in the next few years. For the future there are plans to resettle parts of one more municipality.

Preventing corruption and bribery

Vattenfall works against corruption in all forms, including extortion and bribery. Vattenfall's business ethics principles state that no employee may offer or accept improper benefits or benefits that may be regarded as improper remuneration in order to obtain, retain or direct business or in order to secure any other improper advantage in business conduct. Such prohibited benefits (bribes, etc.) include cash, items, pleasure trips or services of another nature.

The key to anti-corruption work at Vattenfall is to educate all managers and others with extensive external contacts on all levels of the organisation about internal and external rules and, for management, to ensure compliance with these rules.

Vattenfall has signed an anti-corruption initiative launched by the World Economic Forum in co-operation with Transparency International and the Basel Institute of Governance. Vattenfall thereby supports "Partnering against Corruption – Principles for Countering Bribery" (the PACI Principles), derived from Transparency International's Business Principles for Countering Bribery. Adherence to the PACI Principles means adopting a zero-tolerance policy on bribery and a commitment to develop a practical and effective internal programme for implementing this policy. More information about the PACI Principles and definitions can be found at www.weforum.org.

Vattenfall has a zero-tolerance policy regarding the giving and accepting of bribes, and it also expects its suppliers to respect this position.

Risks related to corruption (SO2)

Managements of the Business Units are required on an annual basis to confirm compliance with the relevant Group and Business Division guidelines for the use of benefits and gifts. This confirmation is a part of general risk reporting within the Vattenfall Group.

Anti-corruption policies, procedures and training (SO3)

Training in antitrust compliance and anti-corruption policies has been conducted since 2005 within the Vattenfall Antitrust Compliance Programme. All managers and other employees with extensive external and competitor contacts are required to participate in at least one antitrust compliance seminar or in a similar education programme. In 2012, training in anti-corruption was provided in Sweden, Germany, the Netherlands and in the UK. In addition, similar training courses were arranged in Denmark, Finland and France, and awareness of anti-corruption was raised by posting information on the Vattenfall intranet.

In 2012 a new Group-wide instruction on prevention of bribery and corruption was adopted and rolled out in the organisation. Guidelines regarding gifts and invitations were added as an appendix, and an action plan to improve awareness about bribery and corruption risks has been further developed. This renewed attention was an initiative spurred by the UK Anti-bribery Act, which took force in July 2011.

Actions against corruption (SO4)

No cases of anti-corruption actions at Vattenfall were reported in 2012, in which employees were dismissed for corruption. One contract with external hires was terminated due to a corruption-related violation.

Public policy

The energy sector is a complex industry that is highly dependent on public policy and political decisions. As a large energy supplier, Vattenfall is an important actor in society and actively participates in the public debate and democratic process. For example, one major challenge that society and Vattenfall faces is to increase generation from renewable energy. A number of factors must be taken into account when planning for new energy investments, such as environmental concerns, public confidence, and legal and regulatory aspects. All public policy work at Vattenfall aims to create the best possible conditions for providing energy to society on commercial grounds.

Through openness and transparency, Vattenfall strives to maintain a continuous dialogue with decision-makers and other stakeholders at the regional, national and international levels. Vattenfall's business ethics principles stipulate that all actions and activities must be based on full respect for democratic principles as well as for laws, rules and regulations.

Vattenfall's main operations in 2012 were in the countries in which the company is a provider of electricity and heat: the Nordic countries, Germany, the Netherlands, France and the UK. Vattenfall is active at the EU level through the Vattenfall European Affairs Office in Brussels.

Public policy positions and development (SO5)

Vattenfall engages in public policy and lobbying discussions on all relevant energy sector issues, from development of joint policy papers with other actors in industry and society (for example, on climate change) to direct recommendations from Vattenfall regarding local, national, and European laws and directives.

Dealing with climate change is a key issue for Vattenfall. Vattenfall fully recognises the risks of climate change and wants to contribute constructively to efforts to find solutions to the problem. Accordingly, Vattenfall has engaged in this issue internationally. The 3C (Combat Climate Change) Initiative started by Vattenfall in 2007 came to its close in 2012 with the completion of a joint research programme with the Stockholm Environment Institute and publication of studies on Driving Technological Innovation for a Low-carbon Society, and Resource Scarcity in a Low-Carbon Economy.

Political contributions (SO6)

Vattenfall does not give support to political parties, politicians or related institutions. Vattenfall is a state-owned company, and shares in the company are not publicly available.

Preventing anti-competitive behaviour

Vattenfall has numerous principles, policies and rules designed to ensure that it does not engage in anti-competitive behaviour. Effective and fair competition is vital to ensuring market efficiency. Competition rules are important tools that serve this purpose. As it is truly beneficial from a business perspective, the Vattenfall Group is dedicated not only to complying with competition rules, but also to acting in accordance with business standards that meet high expectations from customers and the public.

One of Vattenfall's policy statements regarding competition declares: "The Vattenfall Group shall not only comply with competition rules but act accordingly to high business standards and expectations from customers and the public". Vattenfall has also adopted specific internal antitrust and competition compliance rules designed to ensure fair trade and practice in the market.

The key to preventing anti-competitive behaviour at Vattenfall is to educate all managers and others with extensive external contacts at all levels in the organisation about internal and external rules and, for management, to ensure compliance with these rules. Therefore, a Vattenfall Antitrust Compliance Programme has been initiated by the Executive Group Management (EGM).

All of Vattenfall's Business Units are analysed by the Business Unit management on an annual basis for risks related to anti-competitive behaviour, as part of the Group-wide risk reporting structure. The results of this annual review are reported to the General Counsel, the EGM and the Vattenfall AB Board of Directors.

One specific issue related to competition among energy utilities is unbundling. These rules form part of national legislation, based on EU directives, and stipulate that transmission and distribution businesses must be separated (for instance placed in separate legal entities) from other businesses, especially the electricity generation and sales businesses. Accordingly, the regulated monopoly business is separated from businesses that operate under free competition. Compliance with unbundling rules is essential to ensuring that Vattenfall uses only fair means of competition.

In cases of non-compliance, Vattenfall's management may, in accordance with internal instructions, take all necessary action. Employees found responsible for a breach of the instructions and/or competition rules will be held accountable. Depending on the nature of the breach, appropriate disciplinary action, not excluding dismissal, will be considered and taken.

Legal actions pertaining to anti-competitive behaviour (SO7)

In 2012, the Office of Energy Regulation in the Netherlands imposed a fine of EUR 208 million on Nuon Customer Care Center. After the legal unbundling between Nuon and its former grid company Alliander, Nuon Customer Care Center continued performing activities on behalf of the grid company. The regulator ruled that Nuon Customer Care Center violated the Dutch Electricity/Gas Act by not securing the confidentiality of the customers' data in the grid company. Nuon Customer Care Center has filed an appeal against the fine.

Sanctions (SO8)

No sanctions for non-compliance with laws and regulations were reported in 2012.

Emergency management and contingency planning (EU21)

Incident and Crisis Management (ICM) within the Vattenfall Group is governed by functional instructions that are part of the Vattenfall Management System (VMS). The purpose of ICM is to ensure that all types of incidents and crises are managed in a professional, secure and responsible manner. The main objective is that the organisation shall work proactively to detect, avoid or mitigate any event that could lead to an incident or crisis, and to always be prepared and equipped to perform effectively in an incident or crisis situation.

Incident and crisis management must be an integrated part of the daily business activities in order to be able to deal with extraordinary situations that can occur.

The ICM unit includes crisis management and crisis communication duty officers with around-the-clock responsibilities, at both the Group and core country levels. The ICM organisation focuses on monitoring events that affect Vattenfall's business while analysing and supporting the line organisation in crisis management to ensure proactiveness.

The basic requirement is that all units within the Vattenfall Group whose operations involve risks that could lead to an incident or crisis must be able to manage any such incident or crisis. This implies that:

- assessments should be performed of all incidents that could lead to a crisis,
- a crisis management plan shall be in place, and
- a country crisis management team shall be appointed, prepared and trained.

Product responsibility

Management approach

Vattenfall's main products are electricity, heat and gas. The nature of these products implies that when used correctly, they have little direct adverse impact on the environment, public health and safety. Vattenfall works actively with energy efficiency, in its own operations as well as by providing customers with advice and support on improving their energy efficiency. Vattenfall also informs customers about safe use of electricity and provides information on electromagnetic fields based on current research in this area.

Managing product responsibility issues

Vattenfall strives to take an advisory role in helping customers save energy. What the company can control pertains to the generation and distribution of electricity and heat and the use of the resources it requires. Vattenfall is actively working to avoid and reduce any adverse impact of its operations, including emissions, effluents, waste and noise from power plants.

Goals, performance and risks

Vattenfall does not control the use of its products, and the products are neither a liability nor a risk to the company as such. However, Vattenfall acts immediately whenever safety risks are discovered and actively promotes energy efficiency. Vattenfall does not track performance regarding product responsibility other than measuring customer satisfaction (which to some extent correlates with how customers perceive information).

Organisational responsibility

Vattenfall provides information on the safe use of electricity to customers via various communication channels. Responsibility for communication with customers lies with the marketing and sales functions. For further information, see Product and service information (PR3) indicator, page 25.

Customer health and safety

Most health and safety issues associated with Vattenfall's products arise when customers use electricity to operate other products, not from the electricity itself. Although there are certain direct risks in the use of electricity, these are usually negligible in correct everyday use. The same applies for heat and cooling.

Vattenfall's marketing and sales functions have a high-profile role in promoting safety by informing customers about safety issues in connection with their use of electricity. Information for customers is generally communicated in brochures, newsletters and marketing material in all countries. Customers are also continuously informed through Vattenfall's websites and via customer service in all countries. The information that Vattenfall provides ranges from electricity safety in general to topics such as safety measures during thunderstorms and power outages.

Health and safety impacts (PR1)

Vattenfall actively strives to take the initiative in detecting serious hazards that pose a risk to customers, especially with respect to incorrect use.

Power lines, like any electrical device, generate electromagnetic fields (EMFs). Concerns have been raised about whether electricity could be hazardous to people's health, and whether EMFs could cause cancer or any other disease. Over the past thirty years considerable effort has been dedicated to investigating this issue. The research is ongoing, and there is a range of divergent views. However, the balance of scientific evidence to date suggests that normal levels of EMFs do not cause diseases. Vattenfall actively monitors related international scientific work in this field and complies with the international industry standard set by the International Commission on Non-Ionising Radiation Protection as well as related national regulatory requirements. Vattenfall contributes to the collaborative research undertaken by Elforsk (the Swedish Electrical Utilities' R&D company).

Number of injuries and fatalities to the public (EU25)

Vattenfall's Incident and crisis management (ICM) had six reports concerning injuries in 2012. No fatal accidents were reported.

Product and safety labelling

In addition to information regarding safety, Vattenfall strives to play a role in helping customers save energy.

Product and service information (PR3)

Vattenfall is committed to complying with local regulatory requirements regarding product information and labelling, and issues regarding this are dealt with by the local marketing organisations. Vattenfall meets the product information requirements on electricity labelling in national legislation (based on EU directives), which require that electricity suppliers provide information to all customers on the fuel mix and environmental performance.

In addition, Vattenfall describes its environmental impact in a transparent and detailed manner using life cycle assessments and environmental product declarations. Vattenfall uses life cycle assessments (LCAs) as one method to assess the environmental impact of its operations "from the cradle to the grave". LCAs have led to improved environmental performance in many areas, including reduced use of water in operations, reduced risk of oil leaking to soil and water, and increased recycling of materials. In 1999 Vattenfall was the first company in the world to obtain an Environmental Product Declaration certified according to the EPD® (Environmental Product Declarations) system for the electricity generated by its hydro power plants on Lule River in Sweden.

Customer satisfaction (PR5)

Customer satisfaction issues have gained increased attention during the last couple of years and will continue to have high priority in the future.

Customer Satisfaction Index (CSI)	B2C		B2B[1]			
			Small Business		Large	
	2012	2011	2012	2011	2012	2011
Electricity sales						
Sweden	69	65	65	59	71	68
Finland	76	73	69	67	79	69
Germany	71	66	62	60	65	61
Netherlands	70	71	65	65	63	63
Distribution						
Sweden	67	61		56	65	64
Germany	69	63	62	59	66	61
Heat						
Sweden	73	66	67	63	—	—
Germany	—	—	68	67	—	—
Netherlands	69	68	62	60	—	—

1) Segmentation has been aligned according to organisational responsibility. Figures for 2011 have been recalculated accordingly.

Together with the overall Customer Satisfaction Index, a number of parameters/factors such as image, customer service, product range, price value, etc. are measured. Statistical modelling then provides insight into influences from each area on overall satisfaction.

Targeting and measuring customer satisfaction

Vattenfall's process of measuring customer satisfaction is centralised in order to ensure quality and comparability of results between markets and customer segments within the Group.

The objectives of the centralised process are to enable transparent internal and external benchmarking, target-setting and utilisation of links with other Group-wide stakeholder measurements. The Customer Satisfaction Index (CSI) process covers retail customers as well as business-to-business customers within Electricity Sales, Distribution and Heat.

Customer satisfaction targets have been set in comparison with leading service companies in Europe (mainly the major power, telecom and insurance companies). The long-term target is that Vattenfall's CSI score should be in the top tier among the leading competitors in each market. Customer satisfaction should also be at the same level as leading actors in similar industries, such as telecom. The CSI methodology used gives an index result on a scale of 0 to 100. The long-term CSI target for retail customers is set at 75.

Development of customer satisfaction

Following the downturn seen in Vattenfall's CSI scores in 2011, which was mainly due to an intensive media debate about rising energy prices, fuelled by a cold and long winter, and the debate about nuclear power, particularly in Germany, customer satisfaction levels broadly recovered in 2012.

Actions that have improved customer satisfaction

Vattenfall has taken a number of actions in all its geographical areas to maintain and increase customer satisfaction, mainly on the operational level:

- Energy saving services – Vattenfall has developed new energy saving services for customers. Examples include the launch of EnergyWatch in Sweden – a device with related software that allows customers to remotely view their energy consumption in real time – the re-launch of Vattenfall's advisory web portal on energy efficiency, and the launch of a web shop offering energy saving devices in Germany (similar web shops already exist in Sweden and the Netherlands). In the Netherlands, E-manager was launched, a mobile application that provides data about customers' gas and electricity use, including information about energy consumption of devices and remote control of lights and appliances. In Sweden and Finland, a successful initiative was launched to sell heat pumps.
- Simplifications for customers – Examples of initiatives to simplify customer interactions include a project in Germany to shorten and simplify the wording in customer communication, and the implementation of regional telephone numbers for Customer Service in Berlin and Hamburg. In the Netherlands, a personal video explaining customers' annual energy bills was developed. Further, Vattenfall increased the number of visits to B2B customers in order to proactively meet the needs of customers, while in Finland, an account manager function was created.
- Product portfolio development – The product portfolios have been developed to better suit customers' specific needs and preferences. Examples of product development efforts include the launch of a new online product (Easy Flex) for electricity customers looking for fair and transparent products; a renewable energy product (Naturwärme) for district heating customers in Germany; the average-price product MittPris in Sweden; continued campaigns for binding electricity prices over the winter (Vintersäkring) in Sweden; and introduction of Nuon Ideal in the Netherlands, a fixed price contract that protects customers against price increases but still lets them benefit from price decreases.

Other efforts include information-related services such as a smart phone app for outages in Sweden, promotion of the continued customer promises from Distribution Germany through a new campaign, and the launch of a web portal that provides customers with real-time data on energy generation and energy demand in Hamburg.

Responsibility in marketing communications (PR6)

Vattenfall is committed to complying with international codes, such as the ICC International Code of Advertising Practice and the OECD Guidelines for Multinational Enterprises. In the countries where Vattenfall operates, Vattenfall also complies with national legislation, which is often more stringent than international codes and frameworks. Review of compliance is handled locally, and the frequency is not measured at the Group level.

Non-compliance with regulations and codes (PR7)

In 2012 one case in the Netherlands and two cases in Germany were reported where Vattenfall had to adjust its marketing communication, but no fines were imposed.

Customer privacy

Vattenfall is committed to protecting its customers' personal data. The Vattenfall Code of Conduct states that "we recognise the importance of protecting personal data of employees and customers. Therefore Vattenfall handles personal data responsibly and in compliance with the respective personal data protection laws in the various countries in which Vattenfall operates".

Customer privacy and customer data (PR8)

No substantial complaints regarding breaches of customer privacy were reported in 2012.

Laws and regulations on products and services (PR9)

No incidents of non-compliance with laws and regulations concerning the provision and use of products and services were reported in 2012.

Economic performance

Management approach

Vattenfall's assignment is to conduct energy operations with a market rate of return and be a leader in developing environmentally sustainable energy production. During the year Vattenfall's owner, the Swedish state, set new financial targets for the company, while Vattenfall's board of directors adopted special targets for Vattenfall's sustainability work.

Measuring and managing performance

The new financial targets were adopted by an extraordinary general meeting on 28 November 2012 against the background of considerably changed market conditions compared with 2006, when the previous targets were set. The new targets, just like the previous ones, will be evaluated over a business cycle, which is defined as a period of 5–7 years. The targets are intended to ensure that Vattenfall creates value and generates a market rate of return, that the company strives for an efficient capital structure, and that its financial risk is kept at a reasonable level.

The overarching aim of the profitability target is to create value for the company's owner. Value creation is defined as return on capital employed[1] less the company's cost of capital (the cost of equity and borrowed capital). Vattenfall's cost of capital has been calculated by the owner to be 6.8% before tax.

In addition to the financial targets set by the owner, Vattenfall has defined a number of Key Performance Indicators for its Business Divisions. These are followed up through the use of balanced scorecards.

Financial and sustainability targets

The following new financial targets were adopted at an extraordinary general meeting on 28 November 2012:

Profitability

- 9% return on capital employed[1]. (Operating profit/average capital employed).

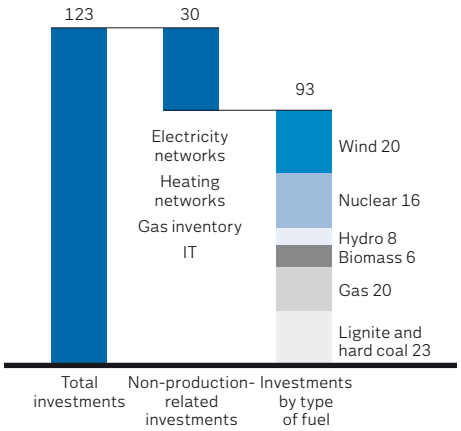
Capital structure

- Debt/equity ratio of 50%–90% (financial net debt/equity)
- FFO/adjusted net debt of 22%–30% (funds from operations/adjusted net debt).

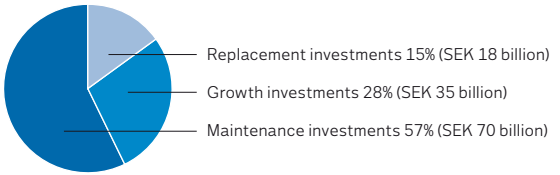
1) Balance sheet total less financial assets and noninterest-bearing liabilities.

Investment plan 2013–2017

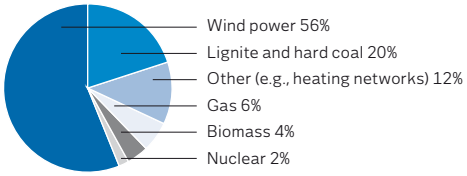
Total investments 2013–2017



28% pertains to growth investments



Wind power accounts for the largest share of growth investments



Dividend policy

- The dividend should amount to 40%–60% of the year's profit after tax, entailing that Vattenfall will retain its current dividend policy. However, yearly decisions on the dividend shall take implementation of the company's strategy, financial position and other economic targets into account.

Lower CO_2 emissions

- Vattenfall will reduce the company's CO_2 emissions to 65 million tonnes of absolute emissions by 2020. The target is an ultimate goal for year-end 2020. Until then, yearly CO_2 emissions will be reported along with Vattenfall's strategy for reducing its emissions. CO_2 emissions pertain to Vattenfall's share of ownership in the respective plants (electricity and heat).

Renewable energy generation

- Vattenfall's rate of growth of installed renewable energy capacity will be higher than the average rate of growth for ten defined countries in northern and central Europe. Follow-up measurements of this target will begin on 1 January 2013. The target is measured yearly as the rate of growth of installed capacity. Renewable energy is defined as wind power and biomass. Hydro power is not included. The ten defined countries are Finland, Sweden, Norway, Denmark, Germany, Poland, the Netherlands, Belgium, France and the UK.

Energy efficiency improvements

- Targets will be set as soon as the EU directives for energy efficiency improvement have been translated into concrete national targets in the countries in which Vattenfall works. Vattenfall will also help the company's customers reduce their energy consumption by offering products and services for energy efficiency improvement.

Five-year investment programme

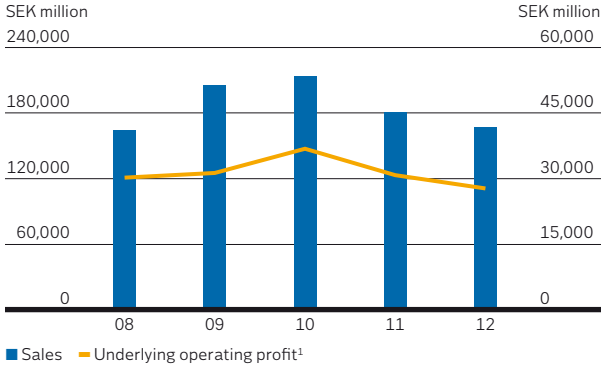
Vattenfall's investment plan for the coming five years (2013–2017) amounts to SEK 123 billion, representing a decrease of SEK 24 billion compared with the preceding five-year period (2012–2016). Of the total investment amount, SEK 93 billion is earmarked for production of electricity and heat. The remaining amount will be allocated to investments in electricity and heating networks, and IT.

Investments in new production capacity (so-called growth investments) account for SEK 35 billion (28%) of total investments. The remaining amount will go towards maintenance and replacement investments.

Economic value generated and distributed (EC1)

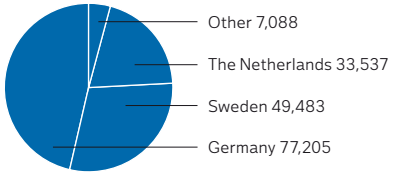
Economic value distributed 2012

Sales and underlying operating profit 2012



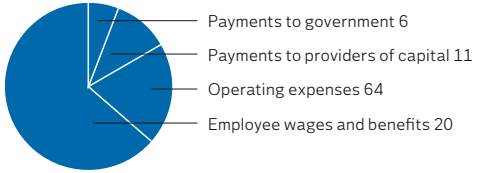
1) Excl. items affecting comparability.

External net sales 2012
Geographic breakdown, SEK million
Total SEK 167,313 million



External net sales as stated in the 2012 Annual Report, Note 9 to the consolidated accounts.

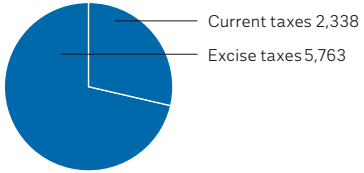
Overview of economic value distributed 2012, %



1) Note on operating expenses: The cost of all goods, materials and services is based on the information in Notes 7, 8, 13,14 and 53 to the consolidated accounts in the 2012 Annual Report and is calculated as follows:

- External net sales less depreciation/amortisation/impairment losses/reversed impairment losses and operating profit.
- Voluntary contributions and investment of funds in the broader community (includes donations) are not included in the chart above, but are disclosed below.

Payment to government – total taxes, 2012
Total SEK 8,101 million



Economic value retained, SEK million	
External net sales	167,313
Operating costs	-81,914
Employee wages and benefits	-25,148
Payments to providers of capital	-13,563
Payments to government	-8,101
Economic value retained	**38,587**

Financial implications of climate change (EC2)

Major environmental issues enailing financial risk/adverse financial impact

Vattenfall's business environment contains several uncertain factors that are related to climate change. Risks and opportunities are considered and managed throughout the organisation.

The primary impact of climate change for Vattenfall is regulatory, as the EU Emissions Trading System (EU ETS) creates a cost for the emission of greenhouse gases and a corresponding value for reductions of emissions. A cornerstone of Vattenfall's long-term strategy is to reduce negative exposure to rising CO_2 prices by reducing emissions from the Group's portfolio and increasing the Group's investments in low-emitting electricity generation, including gas.

Vattenfall is also exposed to physical risks, including changing weather patterns that could affect demand as well as supply from hydro power plants. Water shortages and warmer water temperatures could also affect cooling of combustion plants, and more frequent and intensive storms could have an impact on transmission and distribution networks. In hydro power, dam safety could be affected by higher precipitation levels.

Major environmental issues that represent an economic/financial opportunity

Concerns about climate change will likely lead to higher demand for efficient and low-emitting energy solutions. The ability to provide heat and electricity with inherent efficiency and the potential for sustainable generation technology could prove to be a tangible competitive advantage. Vattenfall is investing in renewable energy generation and sees significant business opportunities in areas such as sustainable cities and e-mobility.

Coverage of benefit plan obligations (EC3)

Defined benefit pension plans

Vattenfall's pension obligations in the Group's Swedish, German and Dutch companies are predominantly defined benefit pension obligations. The concerned 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. See also notes 3 and 41 to the consolidated accounts in the 2012 Annual Report.

Government financial assistance (EC4)

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 book value of the asset. A grant intended to cover expenses is reported in the income statement as Other operating income. Government grants received, balance brought forward, amounted to SEK 4,983 million (6,439). Accumulated interest reported as an asset, totalling SEK 2,524 million (1,650), is included in cost of building. Vattenfall is 100%-owned by the Swedish state.

Spending on locally-based suppliers (EC6)

Vattenfall's policy is to support competition where possible. Vattenfall will always buy from the supplier that is the most competitive and that fulfils established requirements. Although Vattenfall is an important contributor to the business life in the regions in which it operates, local suppliers will never be favoured solely on basis of being local. Furthermore, sourcing will become more global as more of the world's suppliers gain access to the European markets. Vattenfall's procurement function embraces this development.

However, local and regional suppliers are competitive and still receive a large share of Vattenfall's order volume

Local workforce and management (EC7)

In the countries where Vattenfall operates, local residents represent the recruiting base. In regions where Vattenfall is one of the biggest employers (e.g., Cottbus in Brandenburg, Germany), local residents make up the employment base. In metropolitan areas, the employment base is made up of a mixture of local residents and people from different regions. For Vattenfall, the local workforce is the foundation for setting up a new business, so knowledge of local people is crucial for operations.

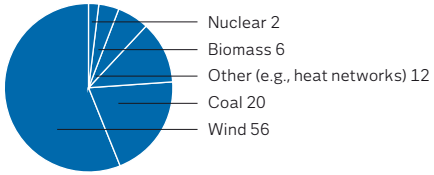
Investments and services for public benefit (EC8)

Vattenfall creates and distributes what is perceived as a common good, hence it is hard to separate and distinguish investments by the degree of public benefit. Most investments made represent public benefit in one way or another. For additional information see 4.16–4.17, EN3–4, EN5–7, EN16–18, EU23 and EU26.

Plans for generation portfolio (EU6)

Vattenfall's assignment is to be a leader in developing environmentally sustainable energy production. Vattenfall's five-year investment plan represents a transition to new energy sources to ensure future value creation and to reach the tough targets on reducing CO_2 emissions. Of growth investments totalling SEK 35 billion for the coming years (2013–2017), SEK 21 billion (62%) pertains to investments in low CO_2-emitting technologies (wind, hydro and nuclear power, and biomass). Wind power is the largest single category of growth investments, and during the next five years Vattenfall intends to invest SEK 19 billion in new capacity, roughly equally distributed among onshore and offshore wind power.

Growth investments 2013–2017, %
Total SEK 35 bn



Research and development activities (EU8)

Vattenfall's R&D plays an important role in supporting the Group's strategic ambition to increase electricity generation and heat production from low-emitting energy sources, reduce CO_2 exposure, and be among the leaders in sustainable development. 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 successful adapt to a growing share of intermittent power generation. In 2012 Vattenfall invested a total of SEK 463 million (1,092) on R&D activities.

Provisions for decommissioning of nuclear power sites (EU9)

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 56% of the provisions will result in cash flows after 2017. For the period 2013–2017, disbursements are estimated at about 44% of the provisions.

Provisions for future expenses of nuclear operations

Changes in 2012, SEK million	Sweden	Germany	Total
Balance brought forward	35,705	15,238	50,943
Provisions for the period	44	—	44
Discounting effects	1,271	705	1,976
Revaluations vs. non-current assets	2,012	—	2,012
Provisions used	-1,178	-1,000	-2,178
Provisions reversed	—	-469	-469
Translation differences	—	-599	-599
Balance carried forward	**37,854**[1]	**13,875**[2]	**51,729**

1) Of which, approximately 30% (29%) pertains to the dismantling, etc. of nuclear power plants and approximately 70% (71%) to the handling of spent radioactive fuel.

2) Of which, approximately 68% (75%) pertains to the dismantling, etc. of nuclear power plants and approximately 32% (25%) to the handling of spent radioactive fuel.

Glossary

Base load A term that describes electricity or district heating demand that exists irrespective of load fluctuations. This constant demand is met by power plants that operate 24 hours a day, 365 days a year (see also peak load).

Bioenergy Bioenergy is generated by the use of biomass fuels.

Biogenic The term means something generated by living organisms and is used to differentiate between waste fractions that are biogenic compounds (such as food residues, paper, etc.) and fossil-based compounds (such as plastic, etc.).

Biomass Biomass refers to products, waste and residues from agriculture, forestry and related industries, as well as the biogenic fraction of industrial and municipal waste.

Biomass fuel Biomass fuels are solid, liquid or gaseous fuels with biomass origin, which are used for energy purposes. (This is contrary to biofuel, which predominantly refers to gaseous and liquid fuels used for transportation.)

Capacity Capacity is the maximum ability of a power plant to generate electricity or an electricity distribution grid to transfer electricity. It is usually measured in megawatts (MW). It can refer to input (fuel or thermal capacity, MWth) or output (electric capacity, MWe or heat capacity).

Carbon dioxide (CO_2) Carbon dioxide is naturally present in the atmosphere and involved in photosynthesis, but is also formed during combustion. The chemical formula is CO_2. Carbon dioxide is necessary for life on earth to exist. It is a greenhouse gas in the atmospheree, see GHG.

CCS Carbon Capture and Storage involves technologies for isolating carbon dioxide from flue gas (at combustion plants) and storing it. This means that a significantly lower amount of CO_2 is emitted into the atmosphere. There are three principal ways to capture CO_2 produced in large power plants:

- Oxyfuel combustion, where fuel is combusted in oxygen instead of air
- Postcombustion, where CO_2 is removed from the flue gas
- Precombustion, where carbon is removed from the fuel before combustion

CHP Combined Heat and Power. CHP plants generate both electricity and heat.

Climate change Increase of the global temperature caused by a higher concentration of greenhouse gases in the atmosphere, adding to the natural greenhouse effect.

Coal (hard coal and lignite) is combusted to generate electricity and produce district heating. Coal is a major energy source worldwide and is used to produce about 67% of global electricity supply.

CO_2-neutral A fuel or process is termed CO_2-neutral if it does not lead to the accumulation of excess CO_2 in the atmosphere.

Deregulate Deregulation removes legal restrictions on economic activity in order to facilitate freer competition. In the power sector, this often refers to the elimination of monopoly rights for utilities and the creation of a competitive electricity industry.

District heating A method for distributing heat energy for heating a number of buildings from a central location. To achieve this, hot water is circulated through a system of pipes, usually underground.

Efficiency The efficiency of a power plant denotes the percentage of the input energy that is converted into electricity and/or heat.

EGM Executive Group Management

EMAS Eco Management and Audit Scheme. European Commission regulations for environmental management and auditing.

Energy Several different forms of energy exist, for example potential energy, kinetic energy, thermal energy, and electromagnetic energy. Energy is measured in joule (J) or watt-hours (Wh), meaning power (watt) multiplied by time. It is common practice to use an appropriate prefix, such as kilo for 1,000, mega (M) for 10^6 (1,000,000), giga (G) for 10^9 or tera (T) for 10^{12} (1,000,000,000,000).

EPD Environmental Product Declaration. An ISO standard for certified environmental product declarations (see www.environdec.com).

EU ETS, the European Union Emissions Trading Scheme, wherein companies buy and sell permits to emit greenhouse gases under a shared cap. The EU ETS covers electricity generation and much of heavy industry, and will also cover airlines from 2012.

Fossil fuels Fossil fuels are originally formed from vegetation and microorganisms that have been transformed into coal, oil and natural gas over the course of millions of years. Today, fossil fuels are the world's biggest source of energy, supplying some 80% of all used energy.

Gas Natural gas is a fossil fuel consisting mainly of methane. Natural gas is commercially produced from oil fields and natural gas fields.

Generation Generation of electricity.

GHG Greenhouse gases – gases in the atmosphere, such as carbon dioxide, methane and nitrous oxide (N_2O), that trap heat and thus contribute to the greenhouse effect.

Global Compact The UN Global Compact is an initiative to encourage businesses worldwide to adopt sustainable business practices and comprises ten principles in the areas of human rights, labour, environment and anti-corruption.

The UN Global Compact´s ten principles:

Human Rights

Principle 1 – Businesses should support and respect the protection of internationally proclaimed human rights.

Principle 2 – Businesses should make sure that they are not complicit in human rights abuses.

Labour

Principle 3 – Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4 – Businesses should uphold the elimination of all forms of forced and compulsory labour.

Principle 5 – Businesses should uphold the effective abolition of child labour.

Principle 6 – Businesses should uphold the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7 – Businesses should support a precautionary approach to environmental challenges.

Principle 8 – Businesses should undertake initiatives to promote greater environmental responsibility.

Principle 9 – Businesses should encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10 – Businesses should work against corruption in all its forms, including extortion and bribery.

GWh A measurement of energy. Abbreviation of gigawatt-hour, or 10^9 (1,000,000,000) watt-hours.

Hard coal Hard coal is a black, sedimentary rock type with a carbon content of 84%–91%. See also fossil fuel.

Hydro power Hydro power plants use the gravitational force of

running water to generate electricity. In reservoir plants, water is kept in dams to be able to regulate power generation. In run-of-river plants, turbines are placed directly in the water stream. Pumped storage plants are used to store energy generated from other sources.

IAEA International Atomic Energy Agency. The UN's centre of co-operation in the nuclear field. The IAEA works with its member states and multiple partners worldwide to promote safe, secure and peaceful nuclear technologies (www.iaea.org).

IEA International Energy Agency. The International Energy Agency (IEA) is an intergovernmental organisation that acts as energy policy advisor to 28 member countries in their efforts to ensure reliable, affordable and clean energy for their citizens.

ISO14001 An international standard to certify environmental management systems.

Joule Unit of work or energy. 1 joule = 1 watt second = 2.7778 ×10−4 watt-hour. Since a joule is a small unit, giga joule (GJ) is often used, 109 Joules, which is equivalent to 278 kWh.

kWh Unit of energy. Abbreviation of kilowatt-hour, or 1,000 watt-hours.

Lignite Lignite is a soft, brown type of coal, with characteristics that places it somewhere between hard coal and peat. Lignite has a lower energy content and different characteristics than the longer-compacted hard coal.

MW, MWe, MWth A unit of power (energy per unit of time). See also capacity.

MWh Unit of energy. Abbreviation of megawatt-hour, or 106 watt-hours.

NordPool The Nordic electricity exchange.

NO_x Nitrogen oxides (NO and NO_2) are formed when nitrogen reacts with oxygen during combustion. NO_x have many adverse effects on the environment, such as causing ground-level ozone that triggers respiratory problems, and contributing to acidification and eutrophication.

Nuclear power In nuclear reactors, uranium is used to heat water to generate electricity. Nuclear power is used as base load power in many energy systems.

Ocean energy Energy in waves, currents and tidal streams is used to generate electricity. For example, surface buoys may be used to absorb wave energy.

Oil A mixture of different hydrocarbons, usually called crude oil. Crude oil cannot be used directly, but is a raw material that is refined at an oil refinery into a range of products. See also fossil fuel.

OSART Operational Safety Review Team, an IAEA programme under which international teams of experts conduct in-depth reviews of operational safety performance at nuclear power plants

Oxyfuel combustion A type of CCS technology. The Oxyfuel combustion process eliminates nitrogen from the flue gas by combusting the fuel in a mixture of oxygen and recycled flue gases. After combustion, the flue gas is cleaned.

Peak load Short-term peak demand of electricity or district heating is called peak load (see also base load).

Peat Peat is an accumulation of partially decayed vegetation matter and forms in wetlands or peat lands, variously called bogs, moors, muskegs, pocosins, mires, and peat swamp forests. Peat is not classified as biomass or as fossil fuel according to IPCC, although it could be defined as slowly renewable.

Plug-in-hybrid car A plug-in hybrid electric car is a hybrid vehicle with batteries that can be recharged by connecting a plug to an external electric power source. It has an electric motor and an internal combustion engine.

Renewable energy Energy from natural resources that are renewable, or naturally replenished. For example wind, solar, geothermal, wave, tidal, hydro power, biomass and biogas.

SKB Svensk Kärnbränslehantering AB. The Swedish Nuclear Fuel and Waste Management Company, tasked with managing Swedish nuclear and radioactive waste in a safe way. Partly owned by Vattenfall.

Smart grid A smart grid, or intelligent network, delivers electricity from suppliers to consumers using two-way digital technology to control appliances at consumers' homes to save energy, reduce cost and increase reliability and transparency.

SO_2 Sulphur dioxide is formed when fuels containing sulphur compounds, such as coal and oil, are combusted. When SO_2 is emitted to the air, it causes acidification of water and soil.

Stakeholder A stakeholder is a person, group, organisation, or system that affects or can be affected by an organisation's actions or that is interested in an incident, process or the economically development of a company.

Thermal power Electricity generated via a heating process, such as a gas turbine or a steam cycle in a coal-fired or nuclear power plant (compare CHP plant).

TWh Unit of energy. Abbreviation of terawatt-hour, or 10^{12} watt-hours.

Unbundling Unbundling rules form part of national legislation, based on EU directives, and state that transmission and distribution businesses must be separated (for instance placed in separate legal entities) from other businesses, especially the electricity generation and sales businesses. Accordingly, the regulated monopoly business is separated from the businesses under free competition.

Uranium A silvery-gray metallic chemical element with the highest atomic weight of the naturally occurring elements. Uranium is weakly radioactive and occurs naturally in low concentrations (a few parts per million) in soil, rock and water. It is commercially extracted from uranium-bearing minerals such as uraninite. When used in nuclear reactors, uranium is enriched, which means that the content of the isotope U235 has been increased.

Value chain Set of interrelated economic activities that combine to create value in the production of goods and services.

Waste incineration Waste incineration plants generate heat and/or electricity. As combustible waste mainly consists of organic (biogenic) material, waste is considered to mainly generate bioenergy.

Wind power Electricity is generated by wind turbines, often built in clusters called wind farms. Wind power generation is dependent on wind conditions.

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