

ENERGY  
WITH CLIMATE  
VATTENFALL DISTRIBUTION POLAND



Energy makes human life pleasant, comfortable and brighter. Nowadays, it is an essential part of our existence. We painfully experience what is electric energy for the contemporary world only when it fades away. Bulbs go off, air conditioners stop, trains come to a halt along with lifts and underground trains, phones become mute, computer and TV screens go blank, banks, cash dispensing machines and cash registers at stores are out of order ...

We regard heat and electricity in our everyday life as something obvious and generally available. The job of Vattenfall - the generator and distributor of those products - is to ensure comfort and safety for its users by providing reliable heat and electricity supplies so that our customers experience such scenarios only in films. Working in the power sector means a great accountability. For this reason accountability is one of our key values. We are accountable towards our customers, employees and society.

Power enterprises should be a transparent and responsible social partner subject to public control and conducting a constant dialogue with the environment.

As we are fully aware of this obligation, we make available to you this publication

## VATTENFALL IN EUROPE

Vattenfall is one of the largest and most advanced European power enterprises. It is operating in eight European countries:

- Sweden
- Norway
- Finland
- Denmark
- Germany
- Poland
- Netherlands
- Great Britain



## ESSENTIAL INFORMATION

Vattenfall is operating at each stage of the energy value chain - in generation, transmission, distribution and sales. The company is the largest European heat producer and the fourth largest electricity generator. It has 6 million customers and employs 32 thousand people with extensive professional experience. The parent company - Vattenfall AB - is fully controlled by the Swedish state treasury.

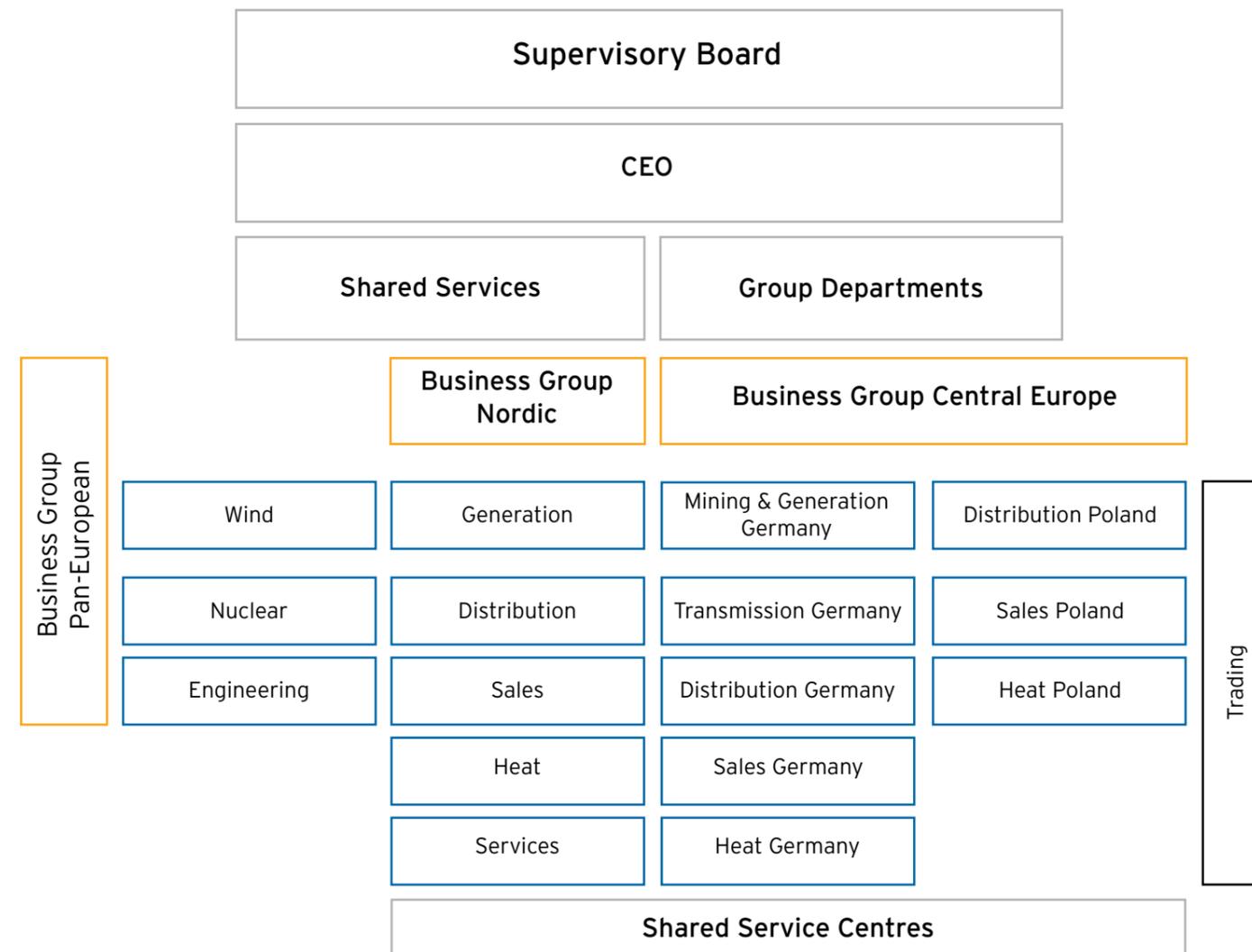
The company's origins date back to the end of the 19th cent., when the Swedish state bought a majority right for the waters of Trollhättan waterfall (1899) and declared its will to participate in the then innovative undertaking - electricity generation. The Royal Waterfalls Administration established by the Parliament had assumed management for the Trollhättan Canal and Waterfall where the first water plant operated by Vattenfall was erected - Olidan. The outset of the 20th century marks the period of investments in water plants: Porjus, Älvkalreby, coal-fired power plant in Väste and in power network. In the 60's Vattenfall puts into operation its first power unit supplied with uranium-based heavy water in Barsebäck. The 70's is the time of nuclear power development. The following plants were erected: Oskarshamn, Barsebäck and Ringhals.



The end of the 20th century brought political shifts to the political map of Europe and electricity market deregulation. After 1992, Vattenfall changed from the company operating at the Swedish market only to an international group with a new development strategy. The company's vision was to become a leading European energy enterprise. For this reason Vattenfall started to seek customers outside Sweden.

In 1996 the company entered the Finnish market, in 1999 the Polish and Norwegian market and in 2000 the German market, in 2005 the Danish market and the British market in 2008.

At present, the Vattenfall group consists of three Business Groups including: Business Group Pan-European, Business Group Nordic and Business Group Central Europe.



### Business Group Pan - European

Vattenfall combines modern technology with environmental activity. Therefore, the Business Group Pan - European was set up in December 2008 with the key area of activity including research and development over nuclear, wind and ocean energy including CO2 technologies (CCS - Carbon Capture and Storage).

### Business Group Nordic - Scandinavia

Vattenfall generates over 20% of electricity used in Scandinavia. Generation in this region is based on nuclear energy and wind energy (mainly in Denmark).

The local combined heat and power plants and heat plants near large urban centres generate mainly energy coming from renewable sources (biofuels, municipal waste) and energy generated from fossil fuels.

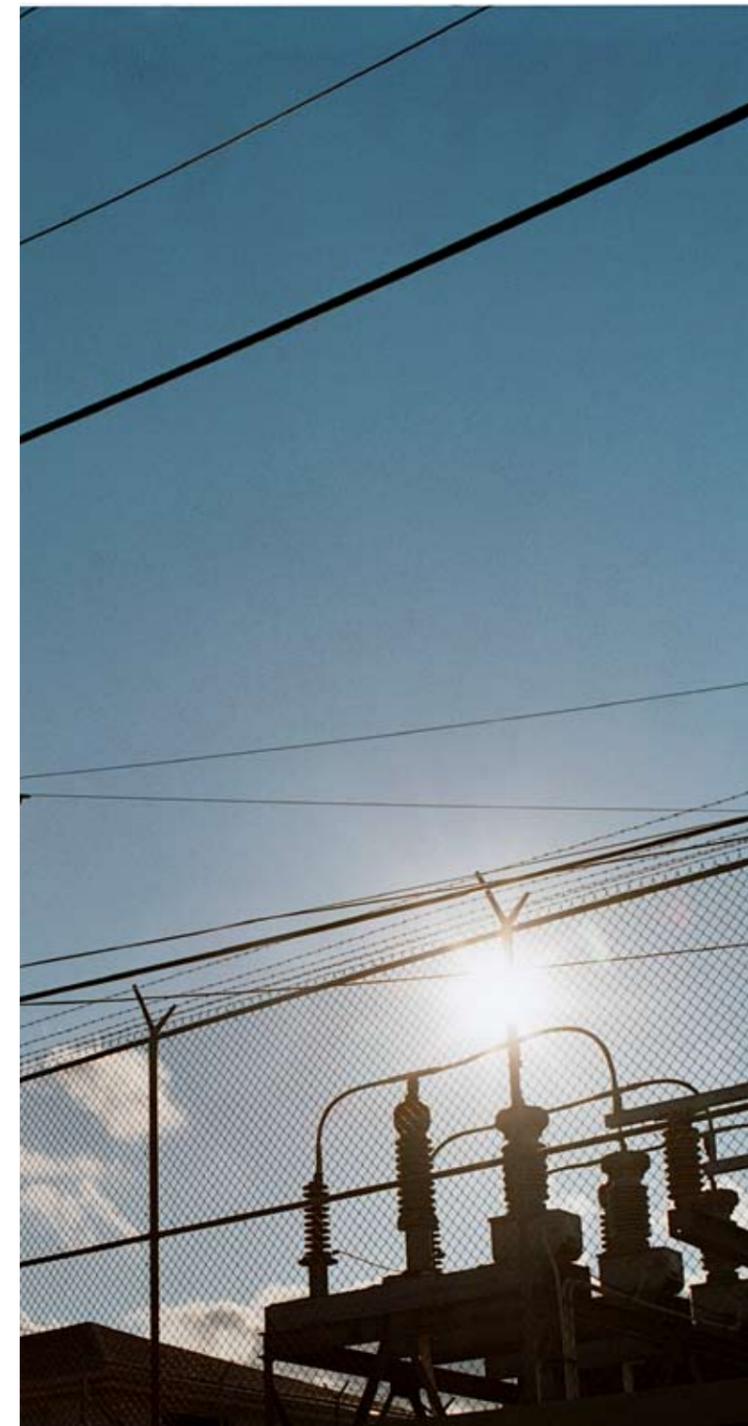
Vattenfall supplies energy in Scandinavia to over a million electricity users, approx. 1.3 million network customers and over 16 thousand heat users.



### Business Group Central Europe - Germany and Poland

Vattenfall has over 3.3 million network customers and 2.9 electricity users in Germany, mainly in Hamburg and Berlin. There, it also supplies heat to municipal heat distribution networks. Vattenfall generates over 14 percent of electricity consumed in Germany. The energy is mostly generated in lignite-fired plants (87%) with lignite being extracted in the company's mines, and the remaining part of energy is generated from nuclear and water energy. Lignite plants have been upgraded thus their efficiency has improved and adverse environmental impact has drastically decreased.

Vattenfall's operations in Poland encompass electricity and heat generation, distribution and sales (for details see the next page).



# VATTENFALL IN POLAND

Vattenfall is the largest heat generator and the seventh largest electricity generator in Poland which also makes it the biggest foreign investor in the Polish power industry. Three business units manage operations in Poland:

## Heat

- Vattenfall Heat Poland in Warsaw

## Distribution

- Vattenfall Distribution Poland in Gliwice
- Vattenfall Network Services Poland in Gliwice

## Sales

- Vattenfall Sales Poland in Gliwice

## Heat

The unit is involved in combined heat and electricity generation (two types of energy are generated in combined generation: electricity and heat) and heat sales, transmission and distribution. The key fuel used in Vattenfall Heat Poland (VHP) is hard coal that is being gradually replaced with environmental friendly biomass.

## Distribution

Vattenfall Distribution Poland (VDP) is the owner of the distribution grid and is responsible for its operation and development. Vattenfall Network Services Poland (VNSP) is responsible for Vattenfall's power grid maintenance and modernisation and for providing energy services. Business Unit Distribution (BUD) does not have its own legal personality as a business organisation - its goal is to integrate the both companies' efforts to achieve competitive edge at the market and hence putting Vattenfall's strategic ambition into life.

## Sales

Responsible for electricity marketing and sales and for serving over a million retail and institutional customers. Since July 2007, when the Polish electricity market was deregulated, Vattenfall Sales Poland (VSP) has been selling energy to customers countrywide.



## Business Services

The operations of Vattenfall Business Services Poland (VBSP) are based on a Shared Service Centre model, i.e. as a separated unit it provides services related to customer service, accounting, human resources and IT and ICT services only for the companies of the Business Group Vattenfall Poland.

## Country Organisation Poland (COP)

It plays the role of the headquarters for Country Organisation Poland (COP) in the Business Group Central Europe. Its role is first of all to support operations and exercise ownership supervision over the Vattenfall units in Poland, and also to expand Vattenfall's operations in Poland.

## Wolin North

Since 1 July 2006 Vattenfall is the owner of Vattenfall Wolin - North generating electricity in 15 wind turbines with the capacity of 2 MW each situated near Zagórze, Wolin commune. The turbines are 80 meter high and their 40-meter fans rotate at a speed of 15 to 30 rpm.

The Zagórze wind farm is capable of supplying 10 thousand households with power. It is one of the biggest such investments in Poland, its market share in wind energy generation is estimated at 8%. Such wind farms supply ecologic electricity in its purest form.



## BUSINESS UNIT DISTRIBUTION

Business Unit Distribution is a separated part within the organisation structure comprising Vattenfall Distribution Poland and Vattenfall Network Services Poland. Its operations are concentrated at the territory of Upper Silesia and encompass over 50 Silesian communes. Vattenfall Distribution Poland is accountable for issues related to the electricity grid's ownership, operation and development. Vattenfall Network Services Poland is accountable for maintaining all facilities of Vattenfall Distribution Poland's distribution network.

Business Unit Distribution does not have its own legal personality as a business organisation - its goal is to integrate the both companies' efforts to achieve competitive edge at the market and hence putting Vattenfall's strategic ambition into life. The unit is involved in distribution network ownership, operation and development.

### Business Unit Distribution

- is part of the Vattenfall group
- operates at the territory of Upper Silesia
- accountable for electricity distribution
- serves over a million customers
- employs 1.1 thousand people
- supplies 11% of total electricity sold domestically
- the owner of power lines with the total length of 26,757 km at the area of 4,221 km<sup>2</sup>

## BUSINESS UNIT DISTRIBUTION'S STRATEGY DISTRIBUTION

BU Distribution's operations are based on the business strategy established in consistency with the Vattenfall group's ambitions and goals. The strategy is a response to the current market conditions and our Customers' needs. It is distinctive for its sustainable and responsible growth both, from the Owner's and Society's perspective.

BU Distribution sets the following goals:

- Benchmark for the industry. To become a leader and a benchmark for the European energy enterprises.
- Increased efficiency within BU Distribution. There are plans to undertake multiple actions to improve the processes handled in BU Distribution.
- Number 1 for the Environment. The BU Distribution's strategy envisages CO<sub>2</sub> reduction by 3% until 2010 versus the 2007 level.

- Number 1 for the Customer. BU Distribution adopted CSI\*, SAIDI\* and SAIFI indicators as a measure of achieving this ambition. In long-term, all indicators are to achieve the performance of the best companies in Central Europe.
- Employer of Choice. The score in "engagement" category is a measure of this ambition for BU Distribution in the My Opinion staff satisfaction survey. BU Distribution sets an objective of 75% positive answers until 2010.

\*CSI - Customer Satisfaction Index

\*SAIDI - System Average Interruption Duration Index per customer a year

\*SAIFI - System Average Interruption Frequency Index per customer a year



## VATTENFALL FOR THE ENVIRONMENT



One of the strategic ambitions is to become Number One for the Environment. We strive towards sustainable development where balance is maintained between the needs of our Customers, environmental care and sound economy.

All energy sources utilised globally will still be needed in the future. It is thus necessary to make long-term choices and ensure effective and responsible management of energy sources.

### Crucial Balance

The use of electricity always affects the environment. The landscape is affected and resources and energy itself are consumed when power plants and power lines are built and operated. Besides, many energy sources contribute to the production of emissions and wastes. We must keep in mind, however, that energy is indispensable for our life and electricity largely influences our health and well-being.

The key areas of our operations embrace:

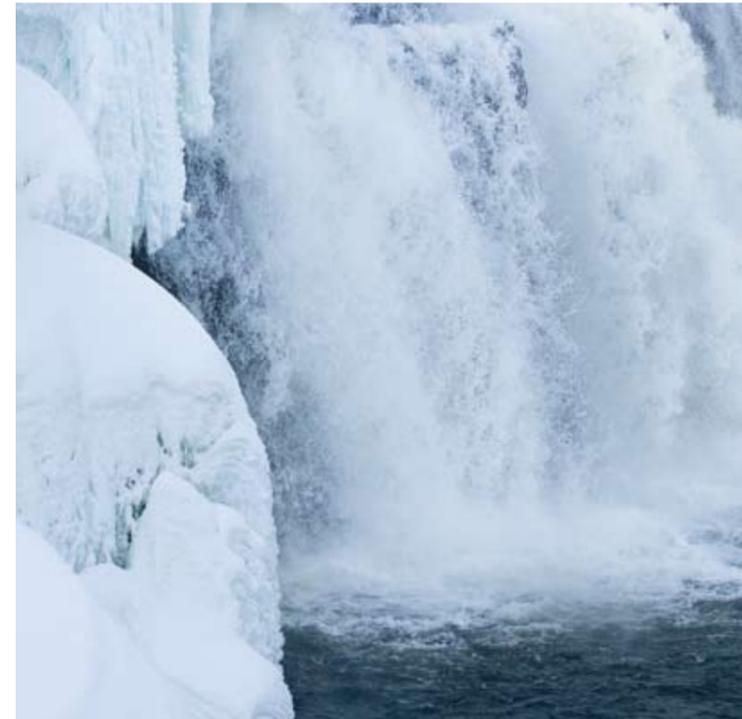
- climate change
- air quality
- soil protection
- use of land
- water protection
- waste management
- security
- energy efficiency
- electromagnetic fields

## VATTENFALL FOR CLIMATE

The climate change is the greatest challenge of our times. It is necessary to radically limit the emissions of greenhouse gases. The issue of climate is a global problem, therefore the whole world economy should be channelled in the same direction. Contamination emission and resource waste should be replaced with sustainable solutions and responsibility.

Vattenfall's vision is to be completely neutral towards the climate by eliminating the emission of greenhouse gasses from our operations. This goal will be achieved in a multistage process and the vision can come into life only when the actions of the company, its customers and society will be pursued in the same direction.

Hard work will be needed for many years to put our vision into life. We have been successful in reducing the emissions of greenhouse gases since 1990 by one third - and we still must follow this path. We intend to reduce emission by one third until 2030, and until 2050 our products will be completely free of environmental impact.





First of all we intend to reduce the emissions of greenhouse gases with the technologies allowing for such reduction.

As emission cannot be entirely prevented though, the actions will be complemented by the capture of carbon dioxide emitted to the atmosphere.

The similar approach will be used for the emission unrelated to our direct generation, by choosing first of all the emission reducing solutions, and if it is feasible to eliminate emission completely – by using the capture technology.

We will be fully responsible for our indirect role in emitting greenhouse gases and, as far as possible, we will require from our suppliers a declaration on the climate impact of their products and services.

We use three types of low emission processes: renewable energy, low emission fossil fuels and nuclear energy.

We intend to approach the responsible management of forest resources in developing countries with priority with regard to the release of carbon dioxide.

We have prepared an internal map of emission reduction on our current markets until 2030. The map shows the opportunities that we now intend to turn into projects feasible for implementation as part of our operations.

The basis of our strategy is development at the European market – development is necessary to be able to ensure the best solutions.

Our calculations show that we will be able to double our generation until 2030. At present, 45% of our generation is from fossil fuels, 25% from renewable sources and 30% from nuclear power plants.

The target for 2030 is to generate 40% of energy from renewable sources, 20% from nuclear plants and 40% from fossil fuels, and the majority of fossil fuel plants will be equipped with CO2 carbon and storage technology.

We have formulated five steps to narrow the gap between the future opportunities and the present status in order to cover the distance from the today status to full neutrality with regard to carbon dioxide emission.

Vattenfall's vision and the above steps will be the key drivers in setting the goals for the Group's future operations.

### Climate vision according to Vattenfall in short

Vattenfall intends to achieve its climate neutrality by reducing greenhouse gas emissions in its operations to zero. The vision includes both, emission reduction in current generation as well as a development strategy.

We will achieve climate neutrality by choosing consistently low emission solutions. A project will be developed allowing to absorb the existing carbon dioxide from the atmosphere to balance the emission that we will not be able to eliminate.

Steps:	
<b>Rok 2010</b>	Full inventory of our emissions of all six greenhouse gases will be made*. Our ambition is that 99% of such emission is subject to the emission trade system, other valuation instruments or other market instruments.
<b>Rok 2020</b>	Carbon dioxide emission from coal per the generated unit of energy (including traceable release points of carbon dioxide) will be lower by 25% than in 2005. The remaining part of emission will be covered by the emission trade system, other valuation instruments or other market instruments.
<b>Rok 2030</b>	Carbon dioxide emission from coal per the generated unit of energy (including traceable ujęć of carbon dioxide) will be lower by 50% than in 2005. The remaining part of emission will be covered by the emission trade system, other valuation instruments or other market instruments.
<b>Rok 2040</b>	Carbon dioxide emission from coal per the generated unit of energy (including traceable ujęć of carbon dioxide) will be lower by 75% than in 2005. The remaining part of emission will be covered by the emission trade system, other valuation instruments or other market instruments.
<b>Rok 2050</b>	Carbon dioxide emission from coal per the generated unit of energy will reach the lowest possible level, i.e. it will be 95-99% lower than in 2005. The remaining part of emission will be covered by other market instruments.

2010	2020	2030	2040	2050
• 100% catalogued	• 25% eliminated or balanced	• 50% eliminated or balanced	• 75% eliminated or balanced	• 95-99% eliminated or balanced
• 99% compensated	• the rest compensated	• the rest compensated	• the rest compensated	• the rest compensated

\* According to IPPC definition

## VATTENFALL FOR THE SOCIETY



Vattenfall follows a number of initiatives in the field of culture, art and sports as part of its social responsibility programme. An important element of the company's activity are environmental campaigns. Vattenfall is conducting society-oriented actions in all its operating regions.

### Safe Citizen

Vattenfall has initiated a number of actions to promote safe electricity use as part of the Safe Citizen campaign.

Many initiatives have been taken to counteract electricity stealing that is posing a threat to human health and life:

- Students education
- Training for the service team responsible for safety on the issue of improved safety of residents, on counteracting illegal electricity consumption and power infrastructure stealing
- Information and promotion action
- Launching special Safety Line - 303-5-303

### Light at school

Vattenfall, by supporting this healthcare initiative, attempted to shed light on sight related problems caused by inappropriate or low lighting amongst a large group of children. A campaign was held in Upper Silesia together with the Gazeta Wyborcza daily, Philips and the Ophthalmology Clinic in Katowice where ophthalmological tests were made for school students and several dozens of classrooms were equipped with modern light systems.

### My Idea for Business

Vattenfall is the founder of awards in "My Idea for Business" competition where the most promising business ideas are chosen. The competition aimed at invigorating entrepreneurship and innovativeness among the workers, students and graduates of the Silesian University of Technology. One of the aims of the competition was to put into life business undertakings on the basis of the awarded works. The idea was to combine modern environmental-friendly technologies and create new jobs.

### Shell Eco Marathon

Every year Vattenfall supports Polish students participating in Shell Eco Marathon in the "Prototypes" category - vehicles with futuristic shapes powered with ethanol. The vehicles participating in the race show that the technologies used nowadays in practice by the students of technical schools from all over the world may in the future contribute to changes in our attitude for the whole motor industry in respect of environmental solutions. The organisers especially value the solutions increasing energy capacity of the used fuel and reducing carbon dioxide emission by combustible engine vehicles.

### The global initiative "Combat Climate Change"

Vattenfall jointly with the European Commission President, José Manuel Barroso, and over fifty international companies, launched "3C - Combat Climate Change" initiative.

The purpose of the 3C initiative is to establish a global opinion-making group. The companies participating in the undertaking are to make the market and business circles aware of the climate issue. It should be easier due to global cooperation that is to be started in 2013. Vattenfall is responsible for project coordination.

### Clean the World - Poland

It is the biggest social and environmental initiative in Poland and one of the biggest in the world. The main purpose of the action is to broaden environmental awareness and initiate environmental protection actions, in particular rubbish cleaning or selective waste collection. Vattenfall was awarded the Friend of the Earth title and statuette from the Our Globe Foundation for supporting the greatest domestic campaign promoting environmental protection.

### Tree of Joy

Vattenfall is also supporting environmental protection in the region. 70 000 trees were planted in Autumn 2008 during the Tree of Joy action lasting three days at the area of the Rudziniec and Rybnik forestry. The Management Board President of Business Unit Distribution, Silesian Voivode and the Mayors of the local cities also planted their trees.

### Stork Nests

As part of the Common Pillar action Vattenfall for years has been placing stork nests on special platforms so that they are not situated directly on conductors. In April 2007, the initiative was extended with actions allowing to see the life and customs of these beautiful birds with the cameras fitted in their nests. The storks' behaviour, while they stay in the nests, can be viewed 24 hours a day on Vattenfall website ([www.vattenfall.pl](http://www.vattenfall.pl)). The Polish Television is the media patron of the action.



## VATTENFALL AS THE EMPLOYER

We, at Vattenfall, know that people are a key of success. By working with Vattenfall, we want them to have an opportunity of personal and professional development in a safe, healthy and stimulating environment. For this reason we think that each employee should have an opportunity of complete self-fulfilment to assure the company's excellent performance. In addition Vattenfall set the five strategic goals to put into life a vision of becoming a leading European energy enterprise. One of them is Vattenfall as the employer of choice.

A performance-oriented culture must be created to put such goal into life. In such culture employees understand and accept the set tasks and their role in task fulfilment and also show personal responsibility and engagement. A performance-oriented culture needs leaders who constantly formulate new goals, follow up their accomplishment and provide feedback. Improvement in this area is therefore the strategic goal of the entire Vattenfall Group.



### **Good leaders**

We think that Vattenfall's management should be capable of managing business and people. Vattenfall is running leadership enhancement projects to improve managerial skills. The participants of are trained by leaders from Vattenfall and the whole power sector as well as by the lecturers of the best universities and business schools.

### **Proper competencies**

We have clearly defined the skills required for all the employees. Thus we give them an opportunity to assume responsibility for their professional and personal development in an informed manner. The company is then confident that its personnel will have the skills necessary in a dynamic power industry.

### **Employee engagement**

The essential factor allowing Vattenfall to achieve success is improvement in staff engagement. The My Opinion satisfaction survey held every year creates an opportunity for the employees to voice their opinion on working conditions in all the Group companies. Management discusses certain survey results with their teams and set an action plan leading to further improvements.

VATTENFALL DISTRIBUTION POLAND S.A.  
Internal Communications Department  
44-100 Gliwice  
ul. Portowa 14a  
tel.: 0 32 303 51 54, 56, 52  
fax: 0 32 303 51 02

[www.vattenfall.pl](http://www.vattenfall.pl)  
[distribution@vattenfall.pl](mailto:distribution@vattenfall.pl)