

# Vattenfall Introduction Pack

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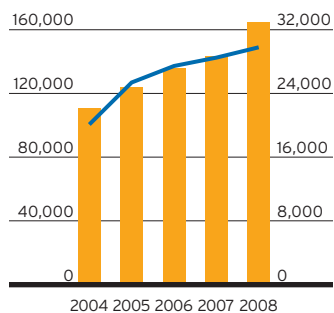
# VATTENFALL AT A GLANCE

Vattenfall is Europe's fifth largest generator of electricity and the largest producer of heat. Consolidated sales in 2008 amounted to SEK 164,549 million. Vattenfall's vision is to be a leading European energy company, and its main products are electricity and heat. Vattenfall works in all parts of the electricity value chain: generation, transmission, distribution and sales, and generates, distributes and sells heat. Vattenfall also conducts energy trading and lignite mining. The Group has approximately 33,000 employees. The Parent Company, Vattenfall AB, is 100%-owned by the Swedish state. Operations in 2008 were conducted in Sweden, Denmark, Finland, Germany, Poland and the UK. Through the planned acquisition<sup>1</sup> of the Dutch energy company Nuon, starting in 2009 Vattenfall will also have operations in the Netherlands and Belgium.

1) Read more on page 70.

## Sales and operating profit

Sales, SEK million      Operating profit, SEK million  
200,000                      40,000

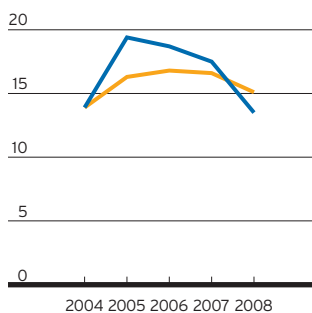


■ Sales  
■ Operating profit<sup>1</sup>

1) Excl. items affecting comparability.

## Profitability

%  
25

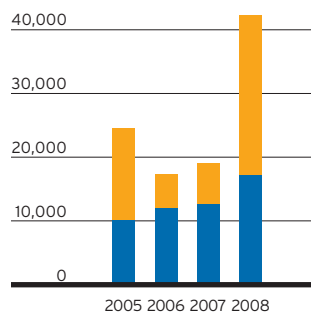


■ Return on equity (IFRS)<sup>1</sup>  
■ Return on net assets<sup>1</sup>

1) Excl. items affecting comparability.

## Investments

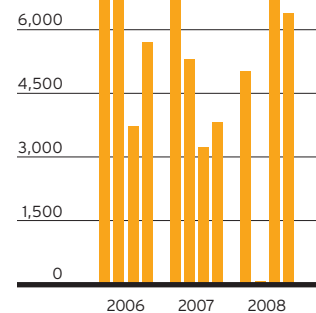
SEK million  
50,000



■ Maintenance investments  
■ Growth investments

## Free cash flow<sup>1</sup>, quarterly

SEK million  
7,500



1) Cash flow from operating activities less maintenance investments.

## Key data

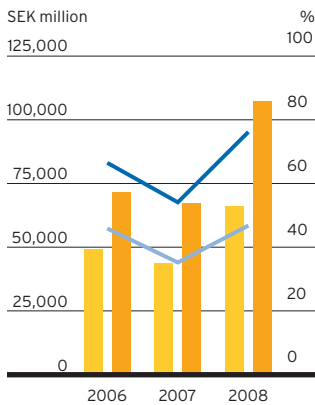
	2008	2007	Change, %	2008, EUR m <sup>1</sup>	2007, EUR m <sup>1</sup>
Net sales, SEK million	164,549	143,639	14.6	15,041	13,130
Operating profit before depreciation/amortisation (EBITDA), SEK million	45,960	45,821	0.3	4,201	4,188
Operating profit, SEK million	29,895	28,583	4.6	2,733	2,613
Operating profit excl. items affecting comparability, SEK million	29,797	28,497	4.6	2,724	2,605
Profit before tax, SEK million	23,498	23,933	-1.8	2,148	2,188
Profit for the year, SEK million	17,763	20,686	-14.1	1,624	1,891
Earnings per share, SEK	129.80	150.11	-13.5	11.86	13.72
Return on equity, %	13.6	17.6			
Return on net assets, %	15.1	16.6			
Total assets, SEK million	445,827	338,236	31.8	40,752	30,917
Equity/total assets, %	31.6	36.7			
Funds from operations (FFO), SEK million	30,735	34,049	-9.7	2,809	3,112
Free cash flow, SEK million	18,963	19,650	-3.5	1,733	1,796
Investments, SEK million	42,296	18,964	123.0	3,866	1,733
Electricity generation, TWh	163.1	167.6	-2.7		
Heat sales, TWh	35.6	36.2	-1.7		
Average number employees, full time equivalents	32,801	32,396	1.3		

1) Exchange rate SEK 10.94=EUR 1.



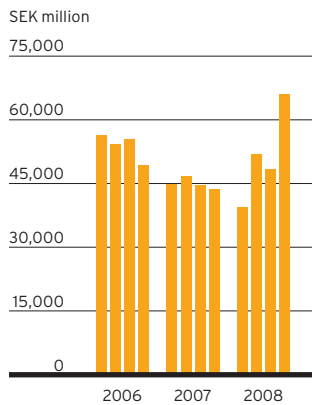
1) As a result of the planned acquisition of the Dutch energy company Nuon, starting in 2009 Vattenfall will also have operations in the Netherlands and Belgium (read more on page 70).

### Debt/equity ratio

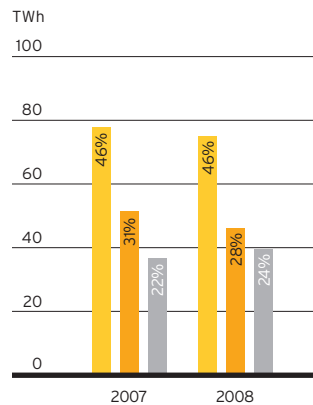


■ Net debt  
 ■ Total interest-bearing liabilities  
 — Gross debt/equity ratio, %  
 — Net debt/equity ratio, %

### Net debt, quarterly

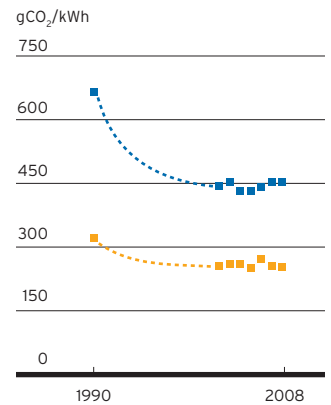


### Total electricity generation<sup>1</sup>



■ Fossil-based power  
 ■ Nuclear power  
 ■ Hydro power  
 1) Wind power, biomass and waste amounted to 2.4 TWh for 2008 and 1.9 TWh in 2007, corresponding to approximately 1–2% of Vattenfall's total electricity generation.

### CO<sub>2</sub> emissions per generated unit



■ Heat production  
 ■ Electricity generation  
 Specific CO<sub>2</sub> emissions from Vattenfall's total electricity and heat production, incl. acquired companies. Approximate values for 1991–2002.

## Business Group Nordic

Vattenfall is the leading energy group in the Nordic region, with a market share of approximately 20% in electricity generation. Operations cover Sweden, Finland and Denmark as well as Vattenfall's wind power investments in the UK. Vattenfall produces, distributes and sells both electricity and heat. Hydro and nuclear power are the base of electricity generation, while wind power, biomass, waste and fossil fuels are also used. Vattenfall sells district heating and has a substantial volume of heat production, largely based on biomass, and is the fourth-largest supplier of heat in the Nordic countries. Vattenfall also conducts consulting and contracting activities, mainly in the energy sector.

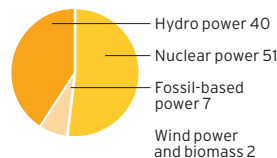
Share of Group's external net sales<sup>1</sup>, 33%



Share of Group operating profit<sup>1</sup>, 56%



Production mix, generated electricity, %



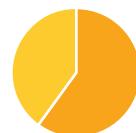
1) The segment Other reported external net sales of SEK 10,635 million (7%) and an operating loss of SEK -2,005 million (-7%).

## Business Group Central Europe

Business Group Central Europe comprises operations in Germany and Poland. In Germany Vattenfall produces, distributes and sells electricity and heat and is currently the country's third-largest producer of electricity and the largest supplier of district heat. Production is based mainly on lignite. Operations include open-cast lignite mines in Lausitz, power plants in eastern and northern Germany, the transmission grid in eastern Germany, and local distribution networks in Berlin, Hamburg and Mecklenburg Vorpommern.

In Poland, heat production and heat sales are the largest part of operations, where Vattenfall has a market share of approximately 12%. Electricity and heat production are based primarily on coal. Vattenfall also owns and operates electricity networks, and distributes and sells electricity, mainly in south-west Poland.

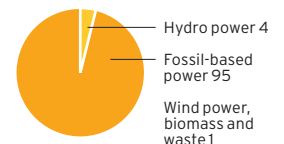
Share of Group's external net sales<sup>1</sup>, 60%



Share of Group operating profit<sup>1</sup>, 51%



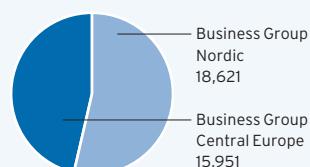
Production mix, generated electricity, %<sup>2</sup>



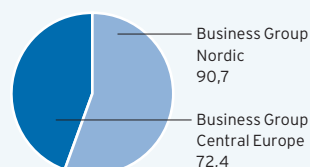
2) In the German operations, Vattenfall normally generates electricity also from nuclear power. However, in 2008 two of the German nuclear power plants were off-line (see page 2).

# FACTS ABOUT VATTENFALL'S MARKETS

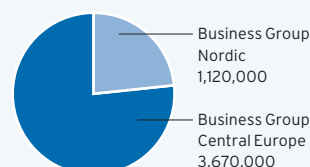
Installed capacity electricity & heat, MW (2008)



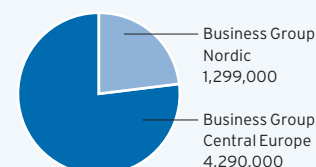
Generated electricity, TWh (2008)



Number of electricity customers (2008)



Number of network customers (2008)



	Business Group Nordic		Business Group Central Europe		Total	
	2008	2007	2008	2007	2008	2007
<b>Installed capacity electricity &amp; heat, MW<sup>1</sup></b>						
Hydro power	8,362	8,417	2,894	2,894	11,256	11,311
Nuclear power	6,788	6,860	771	771	7,559	7,631
Fossil-based power	2,603	2,708	12,141	12,141	14,744	14,849
Wind power	568	556	43	43	611	599
Biomass, waste	300	361	102	102	402	463
<b>Total electricity</b>	<b>18,621</b>	<b>18,902</b>	<b>15,951</b>	<b>15,951</b>	<b>34,572</b>	<b>34,853</b>
<b>Total Heat</b>	<b>4,354</b>	<b>4,987</b>	<b>13,518</b>	<b>13,483</b>	<b>17,872</b>	<b>18,470</b>
<b>Generated electricity, TWh<sup>2</sup></b>						
Hydro power	36.5	33.6	3.0	3.1	39.5	36.6
Nuclear power	46.2	48.8	0.0	2.5	46.2	51.3
Fossil-based power	6.1	7.1	69.0	70.6	75.1	77.7
Wind power	1.5	1.2	0.1	0.1	1.6	1.3
Biomass, waste	0.5	0.4	0.4	0.3	0.8	0.6
<b>Total electricity</b>	<b>90.7</b>	<b>91.1</b>	<b>72.4</b>	<b>76.6</b>	<b>163.1</b>	<b>167.6</b>
<b>Heat sales, TWh<sup>2</sup></b>						
Fossil-based power	6.4	6.6	25.2	25.3	31.6	31.9
Biomass, waste	3.9	4.1	0.0	0.1	3.9	4.2
Other	-	-	-	-	-	-
<b>Total heat</b>	<b>10.4</b>	<b>10.7</b>	<b>25.3</b>	<b>25.5</b>	<b>35.6</b>	<b>36.2</b>
<b>External electricity trading volume, TWh<sup>3</sup></b>	<b>332</b>	<b>238</b>	<b>675</b>	<b>435</b>	<b>1,007</b>	<b>673</b>
<b>Number of electricity customers</b> (Retail customers, small and medium-sized companies)	<b>1,120,000</b>	<b>1,034,000</b>	<b>3,670,000</b>	<b>3,668,000</b>	<b>4,790,000</b>	<b>4,702,000</b>
<b>Volume, TWh</b> Large electricity customers (industries, resellers, etc.)	<b>49.9</b>	<b>49.0</b>	<b>44.0</b>	<b>36.3</b>	<b>93.9</b>	<b>85.3</b>
<b>Number of network customers</b>	<b>1,299,000</b>	<b>1,302,000</b>	<b>4,290,000</b>	<b>4,427,000</b>	<b>5,589,000</b>	<b>5,729,000</b>
<b>Electricity networks</b>						
Transited volume, TWh	79.8 <sup>4</sup>	80.5 <sup>4</sup>	43.1 <sup>5</sup>	42.2 <sup>5</sup>	122.9	122.7
Transmission grid, km	-	-	9,755	9,755	9,755	9,755
Distribution network, km	189,300	187,500	103,100	103,200	292,400	290,700
<b>Number of employees (full-year equivalents)</b>						
Business Groups	9,507	9,489	22,387	22,396	31,894	31,885
Group total <sup>6</sup>					<b>32,801</b>	<b>32,396</b>

1) Certain values for 2007 have been adjusted compared with previously published information.

2) Rounding differences of 0.1 TWh exist for some items.

3) OTC and exchanges.

4) Excl. generation transmission.

5) Excl. transmission grid.

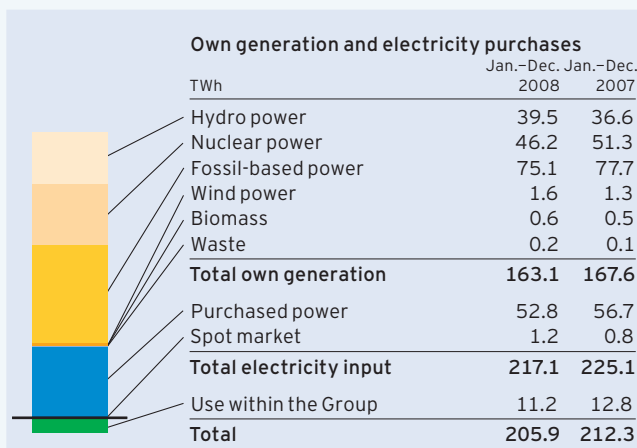
6) There are 909 (511) employees in Energy Trading, Treasury operations, other Group Shared Services and Group staffs.

## Pro rata – Generation data corresponding to Vattenfall's ownership in the respective facilities

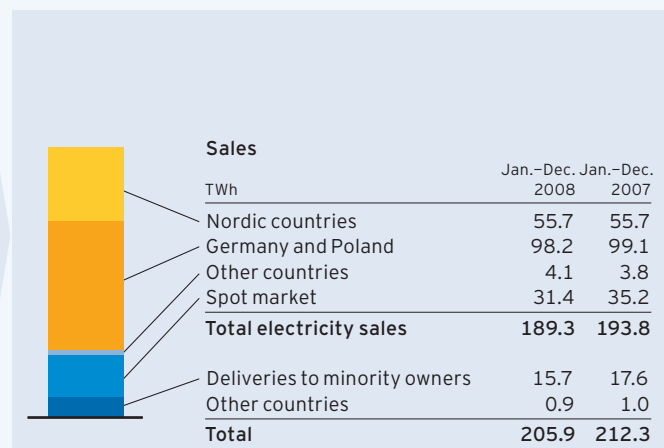
	Business Group Nordic		Business Group Central Europe		Total	
	2008	2007	2008	2007	2008	2007
<b>Installed capacity electricity &amp; heat, MW<sup>1</sup></b>						
Hydro power	7,901	7,961	2,894	2,894	10,795	10,855
Nuclear power	4,642	4,691	1,469	1,461	6,111	6,152
Fossil-based power	2,589	2,694	11,928	11,928	14,517	14,622
Wind power	568	556	36	36	604	592
Biomass, waste	300	361	83	83	383	444
<b>Total electricity</b>	<b>16,000</b>	<b>16,263</b>	<b>16,410</b>	<b>16,402</b>	<b>32,410</b>	<b>32,665</b>
<b>Total Heat</b>	<b>4,325</b>	<b>4,847</b>	<b>12,175</b>	<b>12,140</b>	<b>16,500</b>	<b>16,987</b>
<b>Generated electricity, TWh<sup>2</sup></b>						
Hydro power	34.4	31.3	3.0	3.1	37.4	34.4
Nuclear power	31.7	33.4	2.2	6.6	33.9	40.0
Fossil-based power	6.1	7.1	68.0	69.7	74.1	76.8
Wind power	1.5	1.2	0.1	0.1	1.6	1.3
Biomass, waste	0.5	0.4	0.2	0.3	0.7	0.7
<b>Total electricity</b>	<b>74.1</b>	<b>73.4</b>	<b>73.6</b>	<b>79.7</b>	<b>147.7</b>	<b>153.1</b>
<b>Heat sales, TWh<sup>2</sup></b>						
Fossil-based power	6.4	6.6	22.4	22.6	28.8	29.2
Biomass, waste	3.9	4.0	0.0	0.1	3.9	4.1
Other	-	-	-	-	-	-
<b>Total heat</b>	<b>10.4</b>	<b>10.6</b>	<b>22.5</b>	<b>22.6</b>	<b>32.9</b>	<b>33.2</b>

1) Certain values for 2007 have been adjusted compared with previously published information.

2) Rounding differences of 0.1 TWh exist for some items.

Vattenfall's electricity balance<sup>1</sup>

**Comments:** Total electricity generation decreased by 2.7% in 2008. The decrease is mainly attributable to lower nuclear power generation – partly due to the outage at the Brunsbüttel nuclear power plant in Germany, but also to shutdowns and planned outages at the Ringhals and Forsmark nuclear power plants in Sweden. Fossil-based power decreased by 3.3% due to lower availability and planned outages at the German coal-fired plants and lower generation in Denmark. Hydro power generation increased by 7.9% due to high water levels, and wind power generation increased by 23.1% due to the new Lillgrund wind farm and favourable wind conditions. Electricity generation based on biomass and waste increased by 0.1 TWh each. Consumption within the Group pertains primarily to transmission losses within the electricity networks and consumption within the German pumped storage plants.



**Comments:** Total electricity sales decreased by 2.3%, mainly due to lower spot sales on EEX in Germany and slightly lower sales with delivery in Germany and Poland. Deliveries to minority part owners decreased by 10.8% due to lower nuclear power generation in both the Nordic countries and Germany.

1) Rounding differences of 0.1 TWh exist for some items. Certain values for 2007 have been adjusted compared with previously published information.

# VATTENFALL'S HISTORY



Olidan, on the Göta River, was one of the first hydro power stations built between 1909 and 1916 by the newly formed Swedish State Power Board.

**1909** The restructuring of the Trollhättan canal and hydro power plant to the Swedish State Power Board marks the birth of Vattenfall. The Swedish state had bought the water rights in Trollhättan a few years earlier and was now taking an active involvement in this emerging electricity generation technology.

**1909–1916** The first large hydro power plants – Olidan, Porjus and Älvkarleby – are built.

**1951** Inauguration of the Harsprånget hydro power plant, the world's largest hydro power plant in many respects. During the same year, the world's first 400 kilovolt transmission line is put in operation, stretching from northern Norrland to Hallsberg in Central Sweden.

**1952** The entire Swedish national electricity grid is hooked together.

**1954** Vattenfall commissions the world's first commercial high-voltage direct current line – between the mainland and the island of Gotland.

**1975–1976** Vattenfall's first two nuclear reactors, Ringhals 1 and 2, are commissioned. During the 1970s and '80s, 12 reactors were built across Sweden, of which seven are owned by Vattenfall.

**1992** Vattenfall is transformed from a state enterprise to the limited liability company Vattenfall AB. Responsibility for the national grid – the Swedish high-voltage network – is transferred to the newly formed state authority Svenska Kraftnät.

**1995** Vattenfall's board charts out an international growth strategy for Vattenfall.

**1996** The Swedish electricity market is deregulated. The electricity grid operations are legally separated from electricity generation and sales.

## European expansion

**1996** Vattenfall's international expansion is initiated in 1996 through the acquisition of Hämeen Sähkö, a Finnish electricity distribution company. A representative office is opened in Hamburg, and Vattenfall begins working in the German market through the joint venture company VASA Energy.

**1998** The German electricity market is deregulated in April.

**1999** Vattenfall agrees to acquire 25.1% of the shares in HEW from the City of Hamburg, with an option for the city to sell another 25.1% to Vattenfall. The Barsebäck 1 nuclear reactor is decommissioned following a decision by Swedish parliament.

**2000** In January, 55% of the Polish heat production company EW is acquired in Warsaw, Poland. In August an agreement is signed with E.ON to acquire a majority shareholding in Berlin's energy company, Bewag. However, the deal is blocked by the US company Southern Energy (renamed Mirant).

**2001** In February a 32% stake is acquired in the Polish distribution company GZE. In May Vattenfall becomes a majority owner in HEW through share purchases from E.ON and Sydkraft. Also in May, HEW acquires the electricity generator VEAG, which also owns the electricity grid in eastern Germany, and the lignite producer LAUBAG.

**2002** In January Vattenfall acquires all of Mirant's shares in Bewag. Vattenfall's various acquisitions in Germany are gathered under the name Vattenfall Europe AG, which is formally established in August through the merger between HEW and VEAG, including LAUBAG. Vattenfall thereby becomes Germany's third-largest electricity generator.

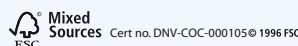
**2003** In January/February, Bewag is merged into Vattenfall Europe AG. Vattenfall increases its stake in the Polish company EW to 70% and in GZE to 54%.

**2005** In April, 35.3% of the shares in the Danish company Elsam A/S are acquired. The nuclear reactor Barsebäck 2 is closed 31 May. In August, Vattenfall announces that it has gained possession of more than 95% of the shares in Vattenfall Europe AG and initiates compulsory redemption of the minority owners' shares.

**2006** On 1 January the local German brands HEW and Bewag, and the Polish brands EW and GZE, are replaced with the Vattenfall brand. Vattenfall increases its ownership in both Polish companies to 75%. On 1 July a number of Danish wind power and combined heat and power assets are acquired from the Danish company DONG in exchange for ownership stakes in Elsam A/S and I/S Avedøre 2. Construction begins of a pilot Carbon Capture and Storage (CCS) plant at Schwarze Pumpe.

**2007** The Lillgrund wind farm, with 48 turbines, is commissioned and begins delivering electricity at the end of the year. In December the decision is made to merge Business Group Europe and Business Group Poland into the single Business Group Central Europe.

**2008** Vattenfall lays out its strategic direction during the autumn – Making electricity clean. This also summarises Vattenfall's climate vision – to be climate-neutral by 2050. In September the world's first pilot CCS plant using oxyfuel technology is inaugurated in Germany. During the autumn Vattenfall acquires several wind power companies in the UK: AMEC Wind Energy Ltd, Eclipse Energy UK Plc, and Thanet Offshore Wind Ltd, the UK's largest offshore wind farm ready for construction.



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