

Vattenfall Capital Markets Day 2006

Presentation by

Dr. Klaus Rauscher
Head of Business Group Vattenfall Europe

Gothenburg, 9 August 2006

Content

- German electricity market – Key facts
- BG Vattenfall Europe – Financial Performance
- Future energy mix – Perspectives for Germany
- Investment strategy: Planned Projects
- Vattenfall Europe: Strategic Outlook



German market: Macro economic facts

- **Net power generation 2005: 536 TWh**

Hard coal	20.71 %
Lignite	26.12 %
Uranium	28.92 %
Natural gas	9.70 %
Fuel Oil/ PSW	3.54 %
Renewables	11.01 %

- **Power consumption 2005: 536.8 TWh**

Industry	46.83 %
Household	26.42 %
Trade	13.86 %
Public facilities	8.33 %
Traffic/transport	3.02 %
Agriculture	1.55 %

- **Traded Volume at Electricity Power Exchange Leipzig (EEX): 620 TWh**

- **Installed power plant capacity: approx. 132.3 GW**



Vattenfall Europe: Market positions (1)

Capacity (MW)

- RWE 33,418 25%
- E.ON 25,623 19%
- VE 15,750 * 12%
- EnBW 14,020 11%
- Others 43,319 33%

Generation (TWh)

- Total 581.26
- Public Supply 498.15 (85.70%)
- Industry 45.62 (7.85%)
- Private 37.49 (6.45%)
- Market Share VE 80.7 * (14.02%)
- VE No 3 in German Market

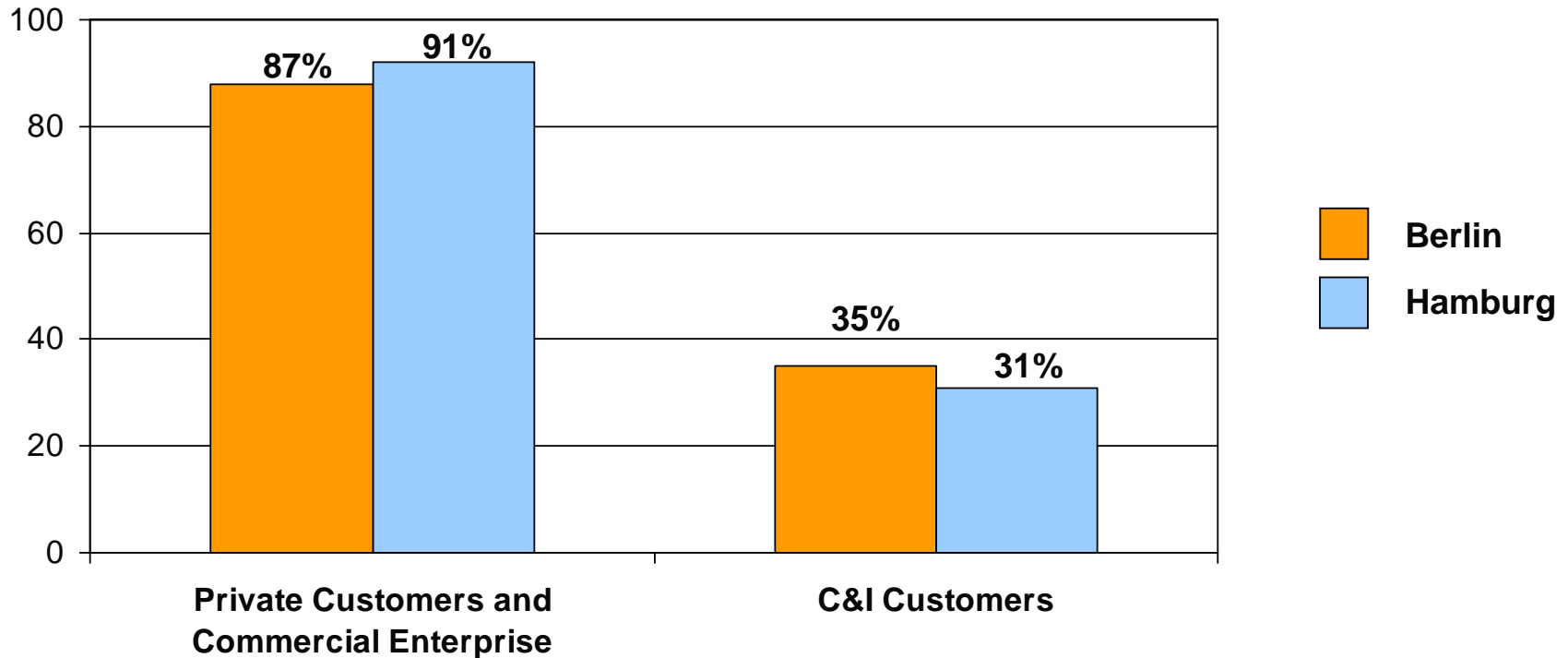
Transmission grid

- RWE 33%
- E.ON 30%
- VE 27%
- EnBW 10%

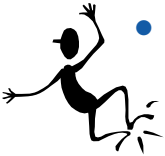
*) pro rata share, source Vattenfall Annual Report 2005

Vattenfall Europe: Market positions (2)

Customer Market Shares, Q2 2006



Vattenfall Europe in 2006: Major events



- **Successful Brand migration** (Jan 2006):

- Unified market performance
- Strengthening of Vattenfall's competitiveness

- **Further optimization power plant park**

- **April:** Supervisory Board decision for investment in 675 MW lignite power plant in Boxberg
- **May:** Ground-breaking ceremony for the CO₂-free lignite-fired pilot plant with chancellor Angela Merkel



- **Risk:** Harsher grid regulation by the Federal Network Agency (Bundesnetzagentur)

- 6 June: Decision to cut Vattenfall Europe's grid tariffs by 17.9% for July-Dec 2006
- Legal action taken → pending court case

Future political challenges and risks

- **Generation**

- Future of Emission Trading System: Further development of climate protection measures after 2012 by extension of ETS or related mechanisms probable.
→ **Impact on power plant assets can not yet be determined**

- **Grids**

- **Future EU Policies:** On European level continued demands for „ownership unbundling“ of grids
- **Regulatory Development:** New grid regulation poses major threats on future earnings and cash flow

Vattenfall Europe: Financial Performance H1 2006

Net Sales and EBIT

- **Net sales**

H1 2006:	€ 6,102 million
H1 2005:	€ 5,603 million / + 9 %
- **EBIT***

H1 2006:	€ 1,036 million
H1 2005:	€ 702 million / + 48 %

Net assets

30.06.2006:	€ 7,171 million
30.06.2005:	€ 7,637 million / - 6 %

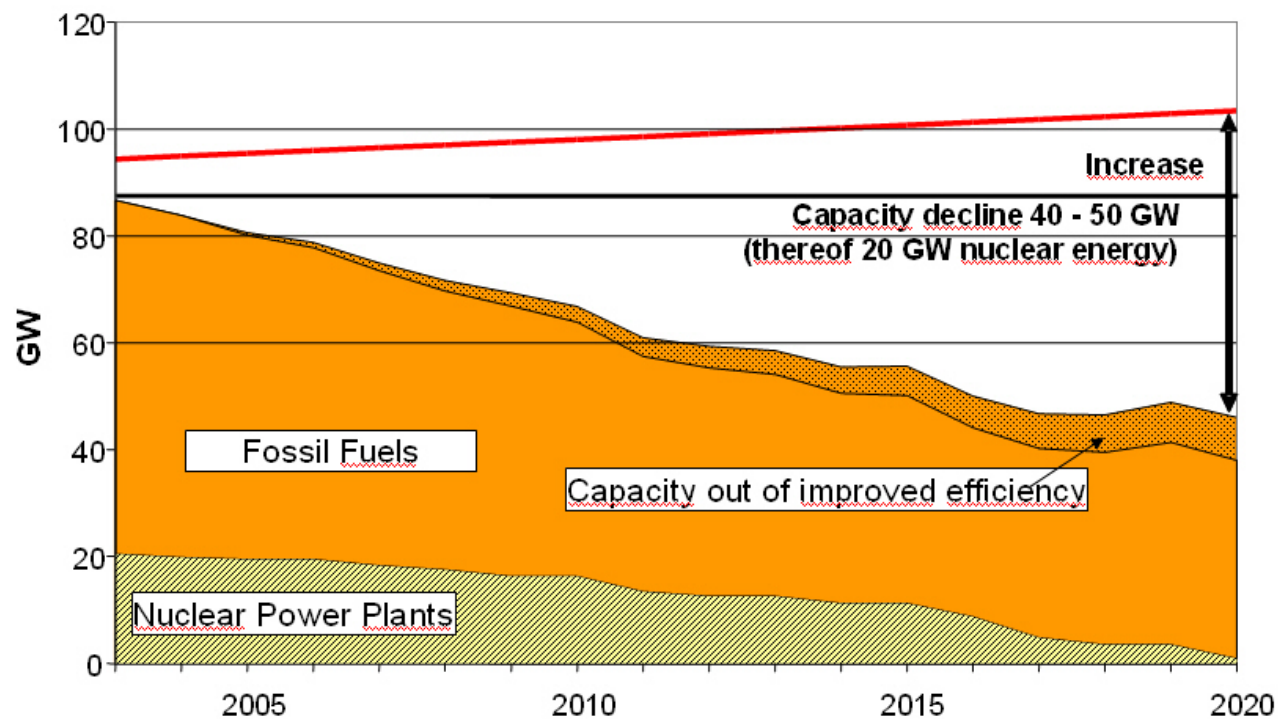
Generation volumes

H1 2006:	38.9 TWh
H1 2005:	37.8 TWh / + 3 %

* IAC: Items affecting comparability

Capacity outlook for Germany without new plants 9

- Capacity in Germany to go down by 40-50 GW till 2020
- Continued slight increase in electricity demand
- Continued importance of fossil fuels (predominantly coal)
- Further investments in conventional power plants (capacity: 19.5 GW)
→ Vattenfall Europe's share: approx. 15 %)



Fuel procurement – VE's competitive advantage

- **Mining and lignite-based generation**
 - Lignite covers 66% of VE's total power generation, mostly from VE-owned lignite mining
 - Open-cast mines in Lusatia and Saxonia offer geological supply of 13 billion tons
 - Extraction of 59.4 million tons in 2005
 - VE is independent of global developments
- **Hard Coal generation**
 - Excellent transport facilities for planned combined heat and power plant in Hamburg's port area
 - Project to be operational by 2012



Investments: Conventional generation and CHP

Planned Investments

Hamburg-Moorburg

1,676 MW hard coal-CHP-power plant
operational in 2012
capital expenditure **1.8 billion €**

Berlin

CCP or hard coal-CHP- power plant
operational post 2012



Decided Investments

Boxberg

675 MW lignite power plant
operational in 2011
capital expenditure **800 million €**

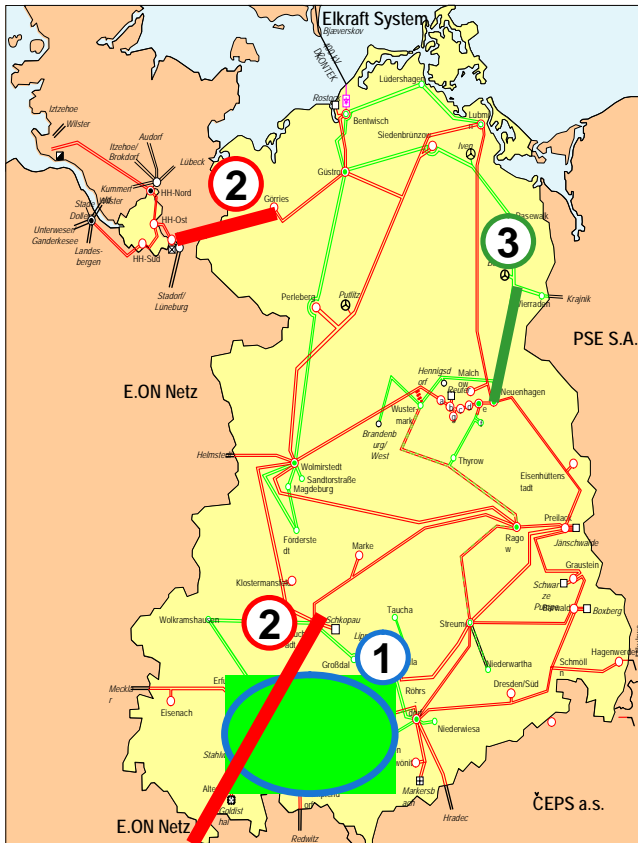
Hamburg Tiefstack

130 MW gas-steam-CHP-
power plant
operational in 2007/2008
capital expenditure **82 million €**

Rüdersdorf

30 MW waste power plant
operational before 2008
capital expenditure **111 million €**

Investments in transmission grids



Grid:

Transmission capacity to E.ON Grid will be doubled by 2011

- 1 Southwest-reinforcement: Southern part completed in 2005 Capital expenditure: **34.5 million €**
- 2 Extension of transmission grid in the North: New connection to Hamburg´s transmission grid completed by 2007
 Southern Part: New connection to E.on Grid, to be completed in 2011
 Combined capital expenditure: **258 million €**
- 3 380 kV-Reinforcement South-Uckermark
 Capital expenditure: **129.3 million €**

Investments in Renewable Energy Projects

Planned Investments

Hamburg:
second hydrogen fueling-station, operational in 2007

Offshore Wind:
Examining Projects in North- and Baltic Sea

Geesthacht:
River Power Plant



Decided Investments

Groß Schönebeck:
up to 1 MW Geothermal, operational in 2007/08

Berlin:
second hydrogen fueling-station, operational in 2006

Schwarze Pumpe:
30 MW CO2-free lignite-fired pilot power plant, operational in 2008

Sellessen:
2,5 MW biomass, operational in 2006

Hamburg:
20 MW biomass, operational in 2006
250 kW-fuel cell, operational in 2006

Offshore Wind:
Borkum Riffgrund (24,5%)
Test Field Borkum West

Vattenfall Europe: Benchmark of the Industry

- VE operates the world's technologically most advanced lignite power plant park
- VE operates completely renewed transmission grid in Eastern Germany
- VE furthers market understanding and credibility to safeguard positive business environment:
 - VE's transparency initiative (example followed by other big utility companies)
 - Active participation in legislative processes (e.g. regulatory issues)



Vattenfall Europe: Strategic outlook



Strategic Outlook

Status Quo

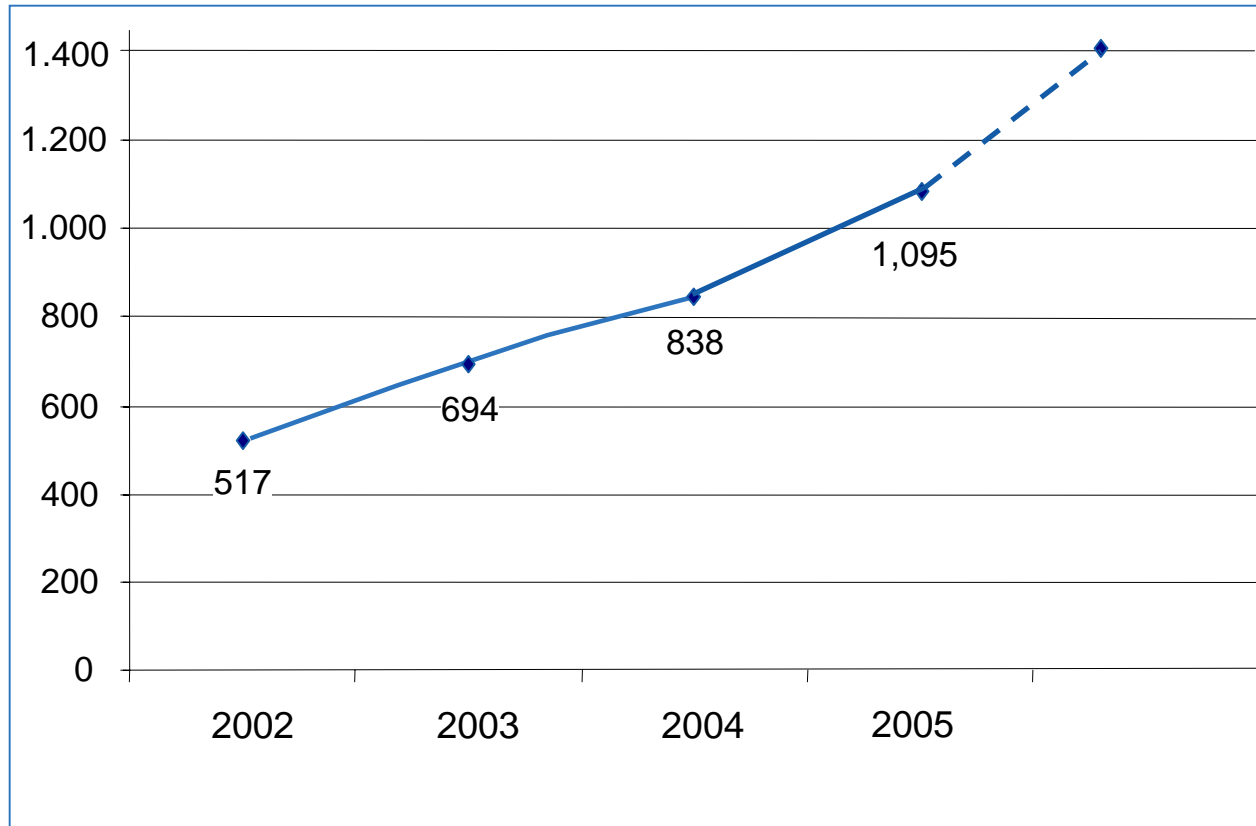
- Largest supplier of heat
- Third largest generator of electricity in Germany
- Fourth largest electricity network company

Objectives:

- Safeguard profitable growth under new legal conditions (New German Energy Industry Act – EnWG)
- Stabilize current market shares in home markets
- Secure broad energy mix in generation to optimize profitability
- Develop marketable new technologies in generation (CO₂-free power plant)
- Optimize power plant park by investments up to 6 billion € until 2012

EBIT development 2002 - 2006

in mill. €



Performance figures 2006 (in mill. €)

Requirements

1,172

Target figure

1,250



EBIT within four years almost three times as high due to cost savings, higher electricity prices (Generation) and improved margin situation (Sales)



VATTENFALL



Thank you for your attention

BACK-UP SLIDES

Vattenfall Europe Group – Key facts



- **Turnover:** € 11.3 billion (2005)
- **Employees:** 20,199 (FTE)
- **Customers:** Electricity: 3 million
Network: 3.3 million
Heat: 1.2 million residential units
- **Network:** 10,000 km (transmission)
75,000 km (distribution)
- **Mining:** 59 million tons of lignite coal
- **Energy mix:** Lignite (66%), nuclear (13%),
hard coal (12%), water, gas, waste