Vattenfall Capital Markets Day 2006

Presentation by

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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
Customer Market Shares, Q2 2006

- Private Customers and Commercial Enterprise:
  - Berlin: 87%
  - Hamburg: 91%

- C&I Customers:
  - Berlin: 35%
  - Hamburg: 31%
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**
  → **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**
  - 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

- 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

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)
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 (CO$_2$-free power plant)
• Optimize power plant park by investments up to 6 billion € until 2012
EBIT development 2002 - 2006

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

Performance figures 2006 (in mill. €)

- Requirements: 1,172
- Target figure: 1,250
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