Vattenfall Capital Markets Day 2008

Presentation by

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Head of Business Group Vattenfall Central Europe

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## Key data – Business Group Central Europe

<table>
<thead>
<tr>
<th></th>
<th>H1 2008</th>
<th>H1 2007</th>
<th>% Change</th>
<th>LTM 2007</th>
<th>FY 2007</th>
<th>FY 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External net sales *</td>
<td>48.4</td>
<td>43.6</td>
<td>10.9</td>
<td>91.5</td>
<td>86.7</td>
<td>78.9</td>
</tr>
<tr>
<td><strong>EBIT</strong></td>
<td>8.4</td>
<td>9.9</td>
<td>-15.1</td>
<td>14.9</td>
<td>16.5</td>
<td>15.0</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td>81.6</td>
<td>75.1</td>
<td>8.7</td>
<td>n.a.</td>
<td>78.7</td>
<td>70.6</td>
</tr>
<tr>
<td><strong>Electr. generation, TWh</strong></td>
<td>36.1</td>
<td>37.7</td>
<td>-4.2</td>
<td>76.8</td>
<td>76.6</td>
<td>79.5</td>
</tr>
<tr>
<td><strong>Heat generation, TWh</strong></td>
<td>14.0</td>
<td>13.2</td>
<td>6.1</td>
<td>25.9</td>
<td>25.5</td>
<td>26.7</td>
</tr>
<tr>
<td><strong>Employees</strong>*</td>
<td>22 222</td>
<td>22 327</td>
<td>-0.5</td>
<td>n.a.</td>
<td>22 396</td>
<td>22 657</td>
</tr>
</tbody>
</table>

* Excl. intra group transactions
** At the end of the period
*** Full time equivalents (FTE)
### Vattenfall in Germany: market positions (1)

<table>
<thead>
<tr>
<th>Installed capacity (GW) *</th>
<th>Electricity generation (TWh)**</th>
<th>Transmission Grid***</th>
</tr>
</thead>
<tbody>
<tr>
<td>RWE 31,716 22 %</td>
<td>Total Germany 597.3</td>
<td>RWE 32 % (11,300 km)</td>
</tr>
<tr>
<td>E.ON 26,251 18 %</td>
<td>Public Supply 492.1</td>
<td>E.ON 30 % (10,600 km)</td>
</tr>
<tr>
<td>Vattenf. 15,934 11 %</td>
<td>Industry 47.3</td>
<td>Vattenf. 27 % (9,540 km)</td>
</tr>
<tr>
<td>EnBW 14,963 10 %</td>
<td>Private 57.9</td>
<td>EnBW 10 % (3,600 km)</td>
</tr>
<tr>
<td>Others ~ 40 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RWE** 32 % (11,300 km)

**E.ON** 30 % (10,600 km)

**Vattenf.** 27 % (9,540 km)

**EnBW** 10 % (3,600 km)

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Total 143,337*

**Vattenfall is number 3 in Germany with 76.9 TWh (12.9%)**

*) Data and fact publications of utilities

**) BDEW, development of electricity supply in Germany

***) Publication of TSO
Vattenfall in Germany: market positions (2)

Vattenfall's electricity supply market shares in Berlin and Hamburg, July 2008

- Household Customers: Berlin 78%, Hamburg 83%
- C&I Segment: Berlin 42%, Hamburg 34%
Vattenfall in Poland

Good market base for future development

- Biggest foreign investor in the Polish energy sector
- Largest cogenerated heat producer with 21.5% market share
- 7% of electricity supply
- 10% of electricity distribution

Ownership shares

- VATTENFALL HEAT POLAND S.A.
  - Vattenfall 74.6%
  - State Treasury 25.2%
  - Other 0.2%

- VATTENFALL DISTRIBUTION POLAND S.A.
  - Vattenfall 74%
  - Gliwice
  - State Treasury
Key issues and challenges
Regulatory and legal framework in Germany

New Renewable Energy Act
• Increase of promotion for Off-Shore Wind Energy
• Prolongation of free grid connection for Off-Shore-Operators until 2015.

New CHP Act
• Funding for modernization and building of new CHP power plants
• Funding for expansion or building new district heating grids.

Ahead: Acceleration Act for grid extension
• Requirements schedule (Bedarfsplan) includes all important VE-projects
• Risk: Cable projects could lead to extra costs for customers.
Key projects - nuclear

• Technical problems that led to the shutdown of Krümmel and Brunsbüttel last summer have all been remedied.

• However, in the course of regular annual review of the plants the following issues were identified: corrosion in austenitic valves in the cooling system; mounting of certain heavy-load anchoring bolts and mounting of steel platforms in the reactor building in Brunsbüttel.

• The plants will restart production as soon as all necessary renovation works are completed. The re-start date is still open in both plants.

• There is an ongoing discussion in Germany about extension of operational lifespan of German nuclear power plants. The lifetime extension will depend on the outcome of next year’s parliamentary elections.
Key projects - sales

Last year’s customer losses stopped.
Test phase for nationwide sales project completed.

Future challenges:
- C&I customer growth
- Further develop nationwide market share.
- Further develop broad, customer-targeted product portfolio.
Key projects - heat

• Major supplier of district heat in Western Europe.

• Leading position in combined heat and power (CHP) in Germany.

• Investments in Berlin and Hamburg until 2020: Up to EUR 4 billion.

• Thermal output increases by 100 MW per year. This corresponds to about 20,000 new households using district heat every year in Berlin and Hamburg.
Key projects – transmission grids

Potential sale of Vattenfall’s German TSO

TSO Profile:
- Sales revenues: EUR 3,295.3 million, of which network fees: EUR 593 million.
- Operating profit / loss (according to German GAAP): EUR -127.9 million
- Significant profitability increase expected due to German regulator’s improvement of equity return rates and regulatory framework.
- TSO carve-out process ongoing (to be established as separate unit).

Political Background:
- Ongoing EU-debate on Ownership.
- First grid ownership divestment process in Germany.
- Broad discussion about future of grids („Netz AG“).

Sales Process:
- End of July 08: Teaser sent out to potential investors.
- Mid-August 08: Expression of interest from potential investors.
- October/November 08: Indicative offers.
- Possible closing: Q 1/2 2009.
Projects in environmental technology, renewable energy and innovations

- **World Premiere**: Launch of CCS plant (Schwarze Pumpe/Lausitz area, 9 September 2008).
- **Offshore-Wind** (alpha ventus, Borkum Riffgrund, Dan Tysk).
- **Biomass plants** (Sellessen, Hamburg).
- **Waste incineration** (Rostock, Rüdersdorf).
- **Fuel cell projects** (HafenCity Hamburg, Berlin).
Key Projects - offshore Wind

- **alpha-ventus**: 12 WPP, together with E.ON Climate and Renewables and EWE.

- **DanTysk**: Pilot phase 71 km² with 80 WPP, max. 600 km².

- **Borkum Riffgrund**: with DONG and Plambeck, 25.1% with option on 50%; pilot phase 77 WPP.
Key Projects - CCS plant

9 September 2008: Launch of the world’s first CCS pilot plant

- World premiere: CO₂ to be separated and liquified for safe transport and storage underground.
- First step in technology-chain leading to industrial-sized CCS plant.
- Pilot plant with installed capacity of 30 megawatt (thermal) will be delivering research results from September 2008 on.

The next steps

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
<th>Capacity</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Test facility</td>
<td>0.5 MW&lt;sub&gt;th&lt;/sub&gt;</td>
<td>April 2006</td>
</tr>
<tr>
<td>II</td>
<td>Pilot plant</td>
<td>30 MW&lt;sub&gt;th&lt;/sub&gt;</td>
<td>Sommer 2008</td>
</tr>
<tr>
<td>III</td>
<td>Demo plant</td>
<td>300 MW&lt;sub&gt;el&lt;/sub&gt;</td>
<td>2012 - 2015</td>
</tr>
<tr>
<td>IV</td>
<td>Commercial plant</td>
<td>ca. 1.000 MW&lt;sub&gt;el&lt;/sub&gt;</td>
<td>2015 - 2020</td>
</tr>
</tbody>
</table>
Key projects - conventional generation

CHP Plant Hamburg-Moorburg

- Electric gross capacity: $1640 \text{ MW}_{\text{el}}$
- Use of steam for district heating: $650 \text{ MW}_{\text{th}}$
- Estimated investment sum: EUR 2.2 bn
Moorburg - status quo licensing procedure

• **March and June 2008**
  Authority extended term on conferral of the decisions several times, last on 10 September. Full license still to be issued.

• **April 2008**
  Vattenfall went to court on grounds of inactivity on the side of authority

• **August 2008**
  Indicative court order of court in Hamburg. Not legally binding.

**Summary:**
• Vattenfall has met all requirements.
• Hamburg authority to decide until the end of September.
Key projects - conventional generation

Power plant Boxberg Block R

- Amount invested: EUR 890 million
- Base load operation
- Availability > 91%
- Regulation ability 50 - 103%
- High automation level
- Compliance with Transmission Code
- Net degree of efficiency > 43.7%
  (live steam: $T = 600^\circ C; p = 285$ bar)
- Coal demand: 4.5 Mio. t/a
- Specific CO2-emission: 924 g/kWh
- 1st Synchronization June 2010
- Start of commercial operation February 2011
Key objectives - BG Central Europe

Key Objective I: further growth and development of power plant park in order to avoid the imminent electricity generation gap

Key Objective II: turnaround in supply business

Key Objective III: reduce carbon footprint → goal: 50% until 2030

Key Objective IV: expansion in renewable energies

Key objective V: growth in Poland