Vattenfall Capital Markets Day 2009

Presentation by:

Tuomo Hatakka
Senior Executive Vice President
Head of Business Group Central Europe

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  – Ongoing investments in fossil-based generation
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Business Group Central Europe comprises Vattenfall’s operations in Germany and Poland.

**Business Units:** Mining & Generation, Transmission, Distribution Germany, Sales Germany, Heat Germany, Distribution Poland, Sales Poland and Heat Poland.

<table>
<thead>
<tr>
<th>2008</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating profit (EBIT), MSEK</td>
<td>16,872</td>
</tr>
<tr>
<td>Electricity generation, TWh</td>
<td>72.3</td>
</tr>
<tr>
<td>- of which, fossil-based power</td>
<td>69.0</td>
</tr>
<tr>
<td>- of which, hydro power</td>
<td>3.0</td>
</tr>
<tr>
<td>- of which, biomass &amp; waste</td>
<td>0.4</td>
</tr>
<tr>
<td>Heat sales, TWh</td>
<td>25.3</td>
</tr>
<tr>
<td>Employees</td>
<td>21,245</td>
</tr>
<tr>
<td>Electricity customers (million)</td>
<td>3.7</td>
</tr>
<tr>
<td>Network customers (million)</td>
<td>4.3</td>
</tr>
</tbody>
</table>
Overview - Business Group Central Europe

Vattenfall in Germany
- #3 in electricity generation with 70.8 TWh (11.8%)
- #3 in transmission with 9,755 km (27.8%)
- Major supplier of district heat in Western Europe
- Market share in Berlin
  - 78% household customers
  - 47% C&I segment
- Market share in Hamburg:
  - 82% household customers
  - 34% C&I segment
Overview - Business Group Central Europe

Vattenfall in Poland

- Largest foreign investor in the Polish energy sector to date
- Largest cogeneration (CHP) heat producer – 21.5% market share
- Electricity sales – approx. 7% market share
- Electricity distribution – approx. 10% market share
Ongoing investments in fossil-based generation

**Boxberg (Saxony)**
- Power Plant Unit R
- 675 MW lignite
- Net degree of efficiency > 43.7 %
- Investment sum EUR 890 million
- Planned start of commercial operation February 2011

**Moorburg (Hamburg)**
- Hard coal CHP gross 1,640 MW (2 units)
- Use of steam for district heating: 650 MWel
- Net degree of efficiency > 46.5 %
- Plans to add a hybrid cooling tower
- Investment sum EUR 2,6 billion
- Planned start of operation 2012/2013
The CO$_2$ challenge

- ETS is tightened:
  - Until 2012: free allocation of approx. 65% of allowances (76.5 Mton in 2008)
  - From 2013 onwards:
    • full auctioning of CO2-allowances for electricity generation
    • Exception: stepwise introduction in Poland (30% in 2013, 100% in 2020)
    • stepwise decreasing of free allocation of allowances for heat production

- Stress tests have been made on the Moorburg and Boxberg investments:
  • These investments are profitable even allowing for CO2-auctioning

- Increasing costs for generation in conventional plants: ~ EUR 1 bn / year from 2013*
  - old, inefficient power plants will have to be decommissioned
  - profitability of new investments in conventional plants will decrease

* assuming 20 €/t CO$_2$
Making electricity clean – CCS

• Inauguration of the CCS pilot plant (30 MW, Oxyfuel-method) in September 2008
• Test phase shows promising results
• Plan to explore possible storage sites for CO2 in Brandenburg
• Build a demonstration plant (approx. 375 MW) in Jänschwalde
• Vattenfall expect CCS-legislation in Germany before year end 2010
Focus on customer growth

• Growth in German retail segment
  – over 200,000 new household customers in 2008-2009
• Create products and services to support “Making electricity clean"
• Customer Satisfaction Index (CSI) has increased from 63% to 72%
• Nationwide launch of SME business in Germany
Benchmarking & further analyses

• External benchmarking of all BU’s carried out
• “Benchmarking” potential of approx. EUR 340 m identified
Summary and conclusions

• Realization of Making Electricity Clean Strategy
  – CCS, “Energy Concept for Berlin” etc.
• Continued focus on operating costs and cash flow
  – Divestments
  – Benchmarking gap and investments
• Image recovery post-Krümmel including further growth in household customer segment
• Further streamlining of organization and management structures
Back-up
# Key data – BG Central Europe

**Amounts in SEK billion**

<table>
<thead>
<tr>
<th></th>
<th>H1 2009</th>
<th>H1 2008</th>
<th>% Change</th>
<th>LTM 2008</th>
<th>FY 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>83.0</td>
<td>68.4</td>
<td>21.4</td>
<td>155.6</td>
<td>141.0</td>
</tr>
<tr>
<td><strong>External net sales</strong>*</td>
<td>58.8</td>
<td>47.8</td>
<td>23.0</td>
<td>108.9</td>
<td>97.9</td>
</tr>
<tr>
<td><strong>EBIT</strong>*</td>
<td>11.0</td>
<td>9.2</td>
<td>19.6</td>
<td>18.7</td>
<td>16.9</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td>99.6</td>
<td>82.8</td>
<td>21.5</td>
<td>--</td>
<td>94,3</td>
</tr>
<tr>
<td><strong>Electr. generation, TWh</strong></td>
<td>34.2</td>
<td>36.1</td>
<td>-5.3</td>
<td>70.4</td>
<td>72.3</td>
</tr>
<tr>
<td><strong>Heat sales, TWh</strong></td>
<td>15.0</td>
<td>14.0</td>
<td>7.1</td>
<td>26.3</td>
<td>25.3</td>
</tr>
<tr>
<td><strong>Employees</strong>*</td>
<td>21,335</td>
<td>21,102</td>
<td>1.1</td>
<td>--</td>
<td>21,245</td>
</tr>
</tbody>
</table>

* Excl. intra group transactions
** At the end of the period
*** Full time equivalents (FTE)
Vattenfall Poland: market basis for future development

- Largest foreign investor in the Polish energy sector to date
- Largest cogeneration (CHP) heat producer – 21.5% market share
- Electricity sales – approx. 7% market share
- Electricity distribution – approx. 10% market share
Boxberg Power Plant, Unit R

- Investment: EUR 890 million
- Gross electricity capacity: 675 MWel lignite
- 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°C; p =285 bar)
- Coal requirements: 4.5 million t/a
- Specific CO₂ emissions: 924 g/kWh
- 1st synchronisation: June 2010
- Start of commercial operations: February 2011
Hamburg-Moorburg CHP Plant

- Estimated investment sum: EUR 2.6 billion
- Gross electricity capacity: 1,640 MWel
- Use of steam for district heating: 650 MWth
- **30th September 2008**: final permit for the construction
- **October 2008**: Vattenfall filed lawsuit
- **March 2009**: Vattenfall filed request for arbitration
- **June 2009**: plans to add a hybrid cooling tower