Vattenfall Capital Markets Day 2007

Presentation by

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Polish Energy Market – Key Facts

- Population: 38 million
- Number of electricity customers: 15.6 million
- Total gross electricity consumption: 135 TWh
- Electricity consumption per capita is only 40% of EU-15 average
- Fuel mix – hard coal and lignite dominate with 60% and 35% of total electricity generation
• Vattenfall currently has a 75% shareholding both in VHP (Vattenfall Heat Poland, former EWSA) and in GZE
• Total investment in Poland: 960 mEUR
• Annual sales: 3,975 mPLN (1,020 mEUR) in 2006
• Revenue mix of Vattenfall in Poland
Vattenfall Market Position

- Market position by business area:
  - Electricity generation – 7th
  - Electricity sales and distribution – 6th
  - Heat production – 1st

- Vattenfall has an overall market share of 7% in the Polish energy market

Vattenfall Market Share, %

- Heat by CHPs 24%
- Electricity Distribution & Sales 10%
- Electricity Generation 2.4%

Sector Size, PLN

21.4 bn 7.5 bn 2.9 bn
## Key data

<table>
<thead>
<tr>
<th></th>
<th>H1 2007</th>
<th>H1 2006</th>
<th>% Change</th>
<th>LTM</th>
<th>FY 2006</th>
<th>FY 2005</th>
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<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>5.1</td>
<td>4.9</td>
<td>+3.1</td>
<td>9.6</td>
<td>9.4</td>
<td>8.8</td>
</tr>
<tr>
<td>**EBIT * **</td>
<td>0.7</td>
<td>0.8</td>
<td>-15.3</td>
<td>0.8</td>
<td>0.9</td>
<td>0.8</td>
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<tr>
<td>**Net assets **</td>
<td>9.3</td>
<td>8.3</td>
<td>+12.0</td>
<td>n.a.</td>
<td>8.8</td>
<td>9.3</td>
</tr>
<tr>
<td><strong>Electr. generation, TWh</strong></td>
<td>1.8</td>
<td>2.0</td>
<td>-10.0</td>
<td>3.2</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Heat generation, TWh</strong></td>
<td>5.8</td>
<td>7.1</td>
<td>-18.3</td>
<td>9.8</td>
<td>11.2</td>
<td>11.4</td>
</tr>
<tr>
<td>**Employees ***</td>
<td>2 737</td>
<td>2 853</td>
<td>-4.1</td>
<td>n.a.</td>
<td>2 836</td>
<td>3 029</td>
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* Excl. items affecting comparability (IAC)
** At the end of the period
*** Full time equivalents (FTE)
LTM = last twelve months
Financial Performance 2002 – H1 2007

- Strong profit growth and improvement in RoNA in the last five years
- Weaker financial performance in the first half of 2007
Results in the 1st half of 2007

• Despite controllable operating costs being slightly below last year’s level, all business units recorded an operating profit lower than last year.

• The performance of BU Heat was adversely affected by lower heat and electricity volumes resulting from the warm winter and by flat heat prices as the Regulator did not agree to a tariff increase in 2007.

• The profit performance of BU Sales and BU Distribution was below last year’s level because of Regulator’s tariff decisions: the distribution tariff was reduced by 8.6% and the increase in sales tariff was not enough to compensate for the increase in electricity purchase costs.

Underlying operating profit at BG Poland, mPLN

<table>
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<tr>
<th>H1 2006</th>
<th>H1 2007</th>
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<tbody>
<tr>
<td>324</td>
<td>256</td>
</tr>
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</table>
Consolidated Sales and Employment productivity improvement

Consolidated sales BG Poland, mPLN

Total employment at BG Poland
Vattenfall Poland has become the Polish benchmark for productivity and we are approaching the Western European levels of efficiency.
Important events in 2007 – BG Poland (1)

- Reduced free allocation of CO₂-emission allowances by 26.7% to 208.5 tons.
  - Probably result in a shortfall of 3.5 – 5.0 million tons for BU Heat 2008-2012 and increased operating costs by €15-20 million annually (at 20€/t of CO₂). Unclear whether the Regulator will allow an increase in tariffs.

  - As a test electricity prices to industrial and commercial customers were increased by 1 - 5% July 1, 2007 by BU Sales. Neither customers nor the Regulator have challenged the price increases.

- As of July 1, 2007 residential customers can choose supplier.
  - BU Sales has acquired 1,500 new customers since then. We are currently testing and refining the customer switching process and developing system support before any major expansion of customer base.
• **Employment level down by 4.7%** from 2006 level at the end of the 2nd quarter thanks to continued improvement of business processes – in particular support services.

• **Pilot project** in Silesia to **modernize street lighting** in the city of Tarnowskie Góry. 3,761 light sources have been changed in a joint project with the city authorities. The investment has resulted in a 50% reduction in electricity consumption for street lighting in the city. Project will be extended to all cities in the Silesian region as **one of the energy efficiency initiatives**.
Polish electricity market – consumption growth expected

- Electricity consumption currently 135 TWh. Historic growth very low despite solid GDP-growth of 4.2% p.a. last 10 years as restructured industry with an improvement in energy efficiency.
- Industrial restructuring completed and it is expected that demand growth will accelerate to 1.8 - 3.0% annually on the back of strong GDP-growth.
- Electricity prices in Poland below European level (€32 vs. €50) but growing demand and limited supply will create upward pressure.
- Prices expected to converge to German level

Domestic electricity consumption forecast

- Low-growth scenario 1.8% p.a.
- High-growth scenario 3.0% p.a.
Polish electricity market – ageing production facilities

- 44% of production facilities more than 30 years old
- About 15 GW of existing capacity will have to be replaced by 2030 to comply with the EU-norms for SO$_2$ and NO$_x$ emissions
- Need for application of CCS technologies on a commercial scale since fuel mix is dominated by fossil fuels

Age of generation units

- Less than 10y: 13%
- 10 - 20y: 11%
- 20 - 30y: 32%
- 30y and more: 44%

Fuel mix

- Lignite: 35%
- Hard coal: 60%
- Gas: 2%
- Green: 3%
Supply/demand-balance – a need for new generation capacities

- Between 40 to 53 GW of generation capacity will be required around year 2030 to keep supply/demand balance.
- To cover replacement needs and growing demand for electricity, Poland will need 22 - 33 GW of new capacity by 2030.

Electricity generation capacities in 2006 and 2030

- High-growth scenario
- Low-growth scenario

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Polish heat market – opportunity for co-generation

- Present Polish heat production mix is dominated by individual house heating and heat-only boilers leaving only 32% for co-generation, well below the 54% co-generation share in Denmark.
- Well-developed district heating networks creates potential in Poland to significantly increase the penetration of co-generation.
Polish Electricity and Heat market

- Major heat and electricity growth opportunity in Poland
- Key priority for Vattenfall to establish significant generation presence in Poland with 15-20 TWh of annual production
- Green field development and acquisitions will be pursued to achieve this