

Vattenfall Capital Markets Day 2009

Presentation by:

Tuomo Hatakka

Senior Executive Vice President

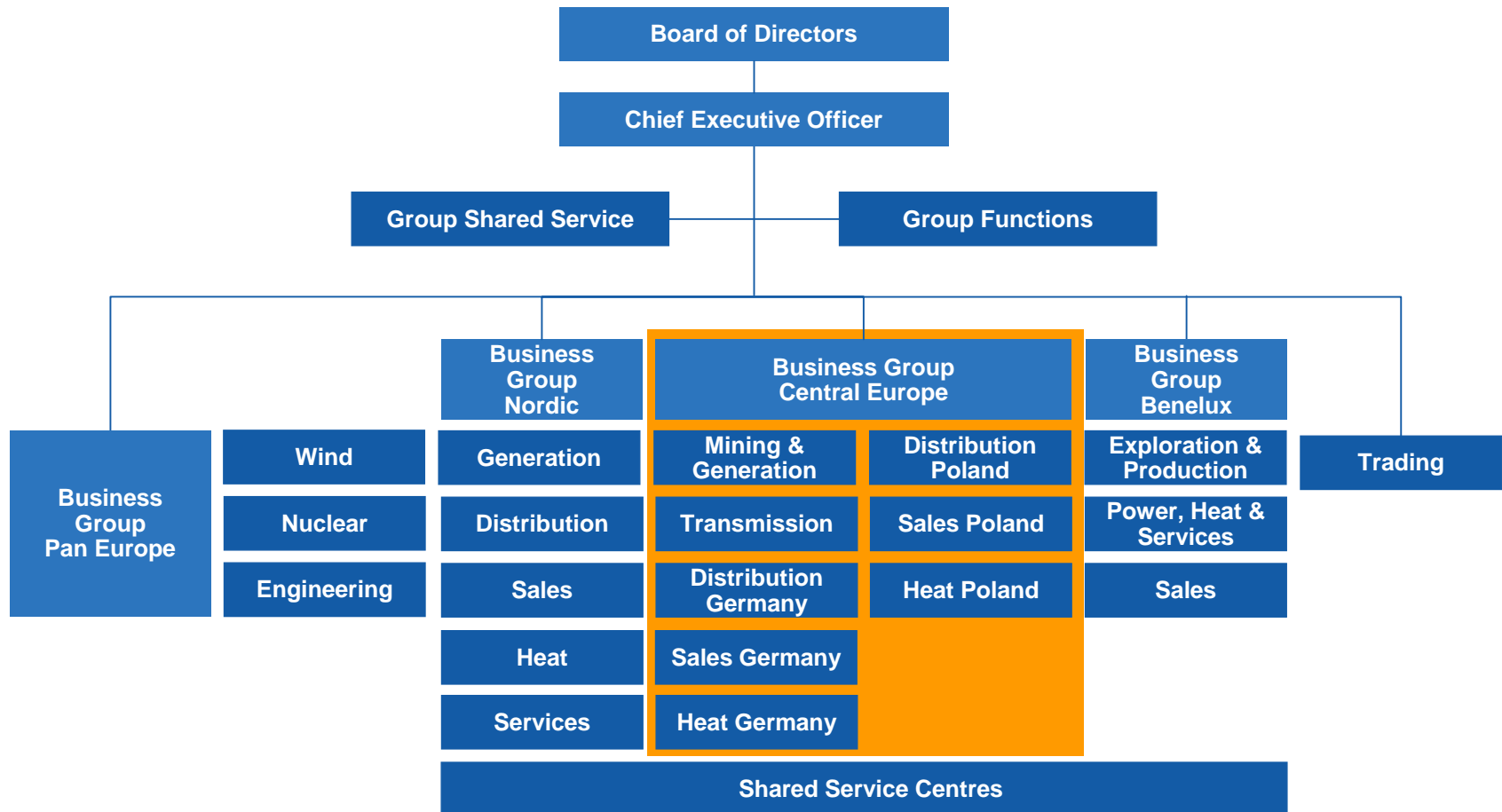
Head of Business Group Central Europe

Amsterdam, 23 September 2009

Contents

- Overview Business Group Central Europe
- Key issues and challenges
 - Ongoing investments in fossil-based generation
 - The CO₂ challenge
 - Making electricity clean
- Summary and conclusions

Overview Business Group Central Europe



Overview Business Group Central Europe

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.

	2008
Operating profit (EBIT), MSEK	16,872
Electricity generation, TWh	72.3
- of which, fossil-based power	69.0
- of which, hydro power	3.0
- of which, biomass & waste	0.4
Heat sales, TWh	25.3
Employees	21,245
Electricity customers (million)	3.7
Network customers (million)	4.3



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 MWeI
- 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 CO₂ 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
- Stresstests 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 CO₂

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 Jämschwalde
- Vattenfall expect CCS-legislation in Germany before year end 2010

Phase I:
Test rig
Jämschwalde
0,5 MW_{th}
April 2006

Phase II:
Pilot Plant
Schwarze Pumpe
30 MW_{th}
September 2008

Phase III:
Demo-plant
Jämschwalde
375 MW_{el}
2012 - 2015

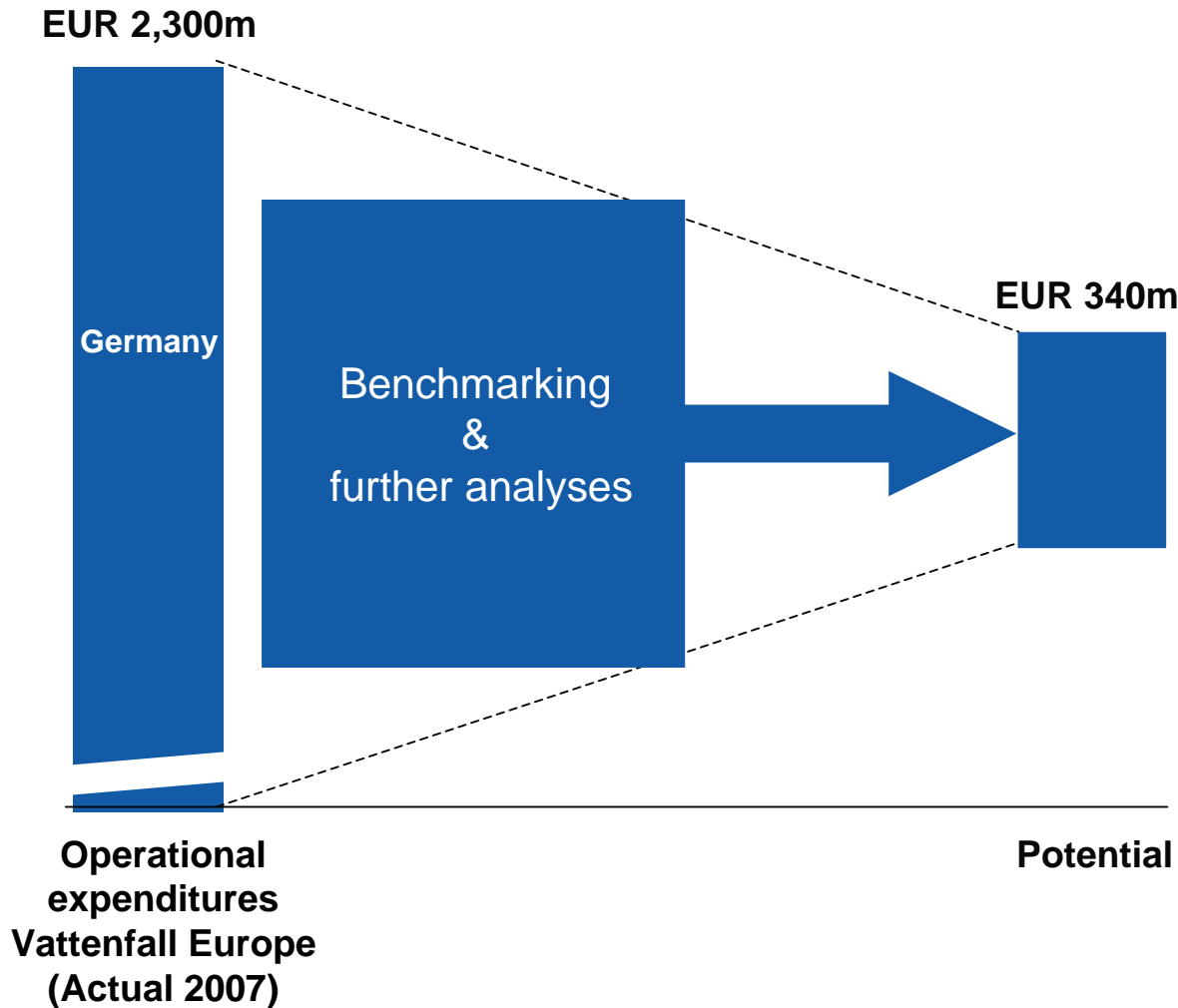
Phase IV:
Commercial plant

Approx. 1,000 MW_e
2015 - 2020

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

Benchmark of the industry – OpEx programme



- 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

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

* *Excl. intra group transactions*

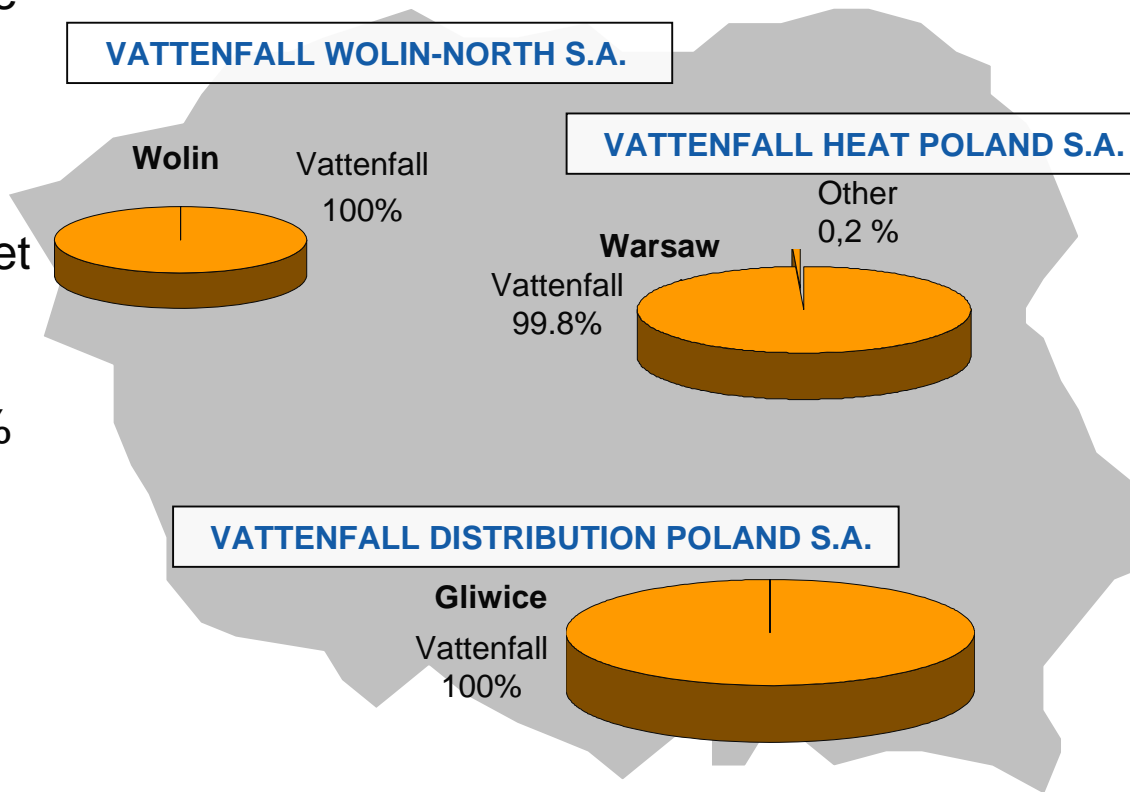
** *At the end of the period*

*** *Full time equivalents (FTE)*

Overview - Business Group Central Europe

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 MWe/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: $T = 600^{\circ}\text{C}$; $p = 285 \text{ bar}$)
- Coal requirements: 4.5 million t/a
- Specific CO_2 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 MWeI
- 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

