# **Vattenfall Capital Markets Day 2008**

Presentation by

Lars G. Josefsson CEO

Berlin, 8 September 2008



# **Contents**

- Vattenfall overview
- Industry trends
- Strategic direction

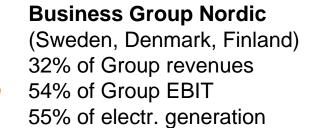
# Vattenfall – company overview

- Founded 1909 in Sweden
- Europe's 5<sup>th</sup> largest electricity generator;
  - total electricity production of 168 TWh
  - total installed capacity of > 35,000 Megawatts
- No. 1 in the Nordic market, with 20% market share in generation
- No. 3 in Germany, with 13% market share in generation
- No. 1 in Europe in district heating
- Well diversified generation mix; hydro, nuclear and fossil. Increasing wind power
- Core products are electricity and heat
- Vattenfall is 100% owned by the Kingdom of Sweden.
- Commitment to maintain credit rating in the single "A" range

## **Our Vision: A Leading European Energy Company**



# Vattenfall's geographical markets



#### **Business Group Central Europe**

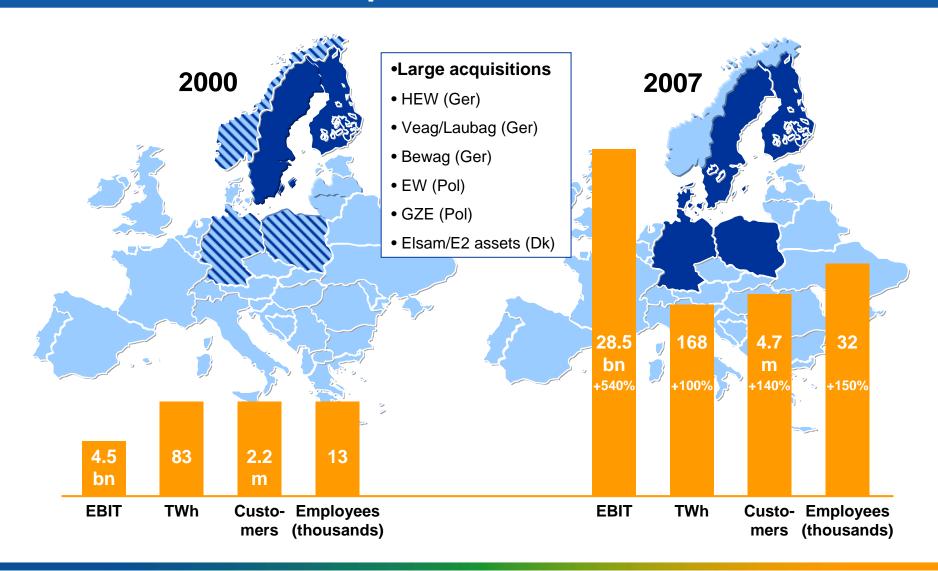
(Germany, Poland) 61% of Group revenues 51% of Group EBIT 45% of electr. generation

A third segment "Other operations" accounts for 7% of Group revenues and -5% of Group EBIT

Last 12 months (LTM) figures



# Vattenfall's development



## The strategic priorities have shifted over the last years

1999 - 2001

#### Growth

- German and Polish acquisitions
- A integrated international company
- Business and steering model for deregulated markets

2002 - 2005

# Consolidation (with price increases)

- Implementation of several cost effectiveness and performance programs
- Initial efforts to capture cross-border synergies
- Modest growth through acquisition in Denmark

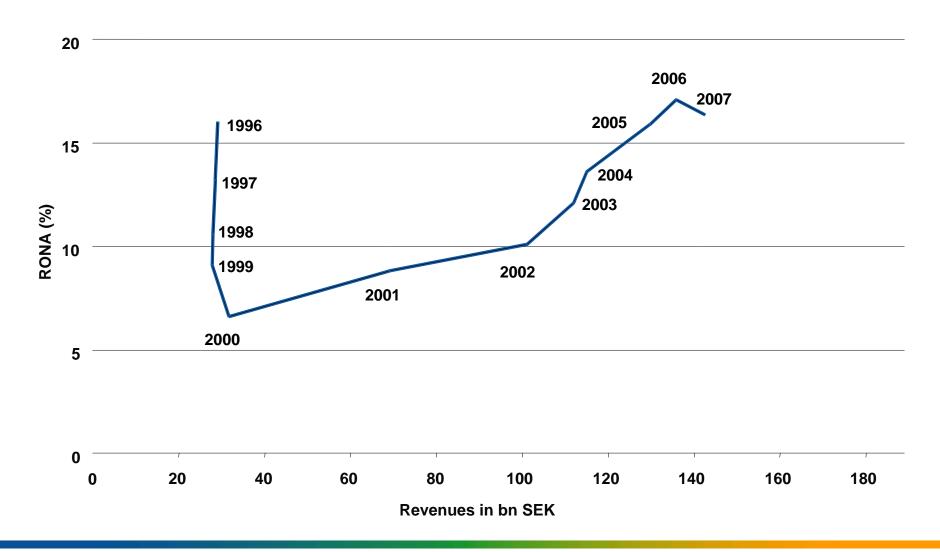
2006 -

# Growth and climate change

- Continued focused efforts to grow through organic expansion and M&A
- Establish a strong and global climate change position
- Commitment to adapt the generation portfolio to new requirements



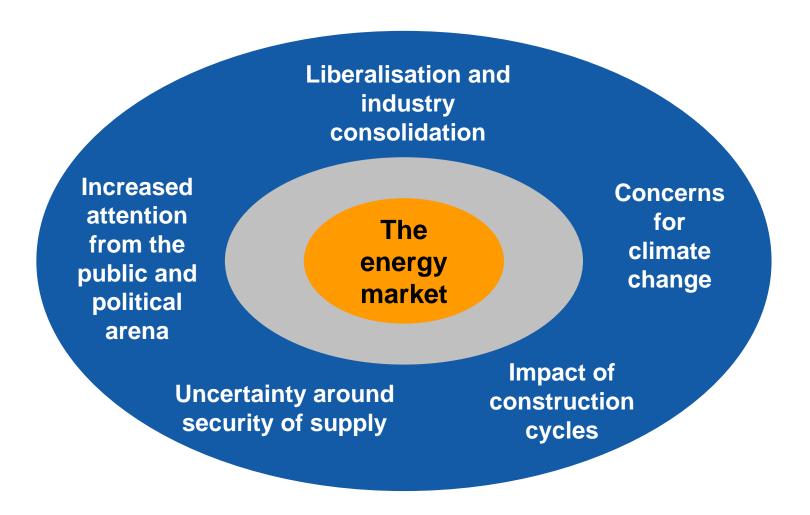
# The financial development has been very attractive



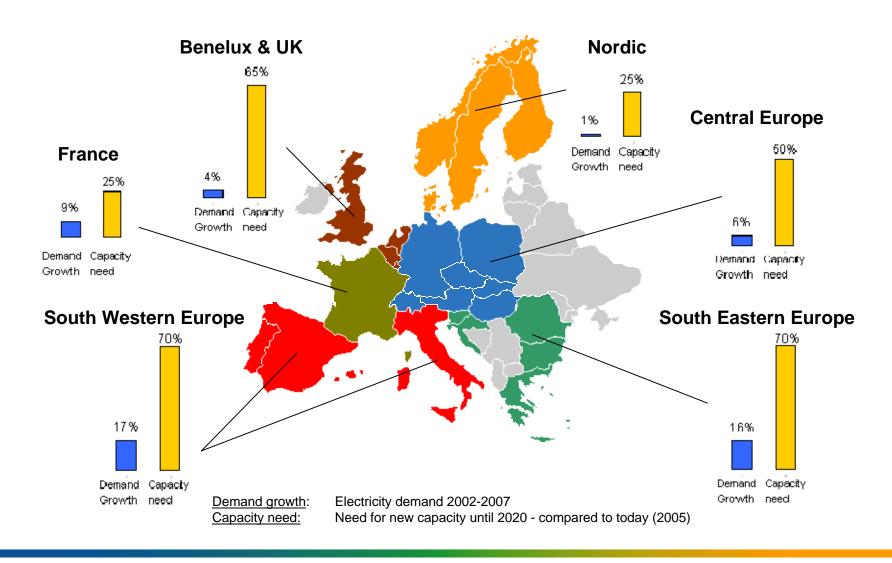
# **Industry trends**



# Several major trends influencing the energy industry

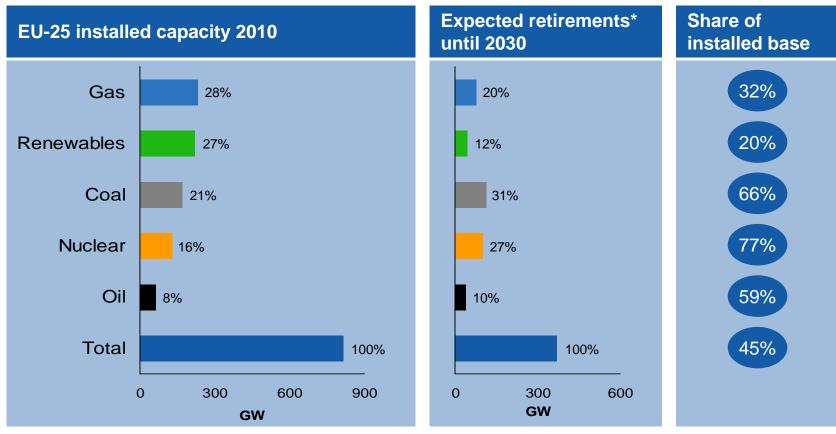


# Market characteristics vary in different regions



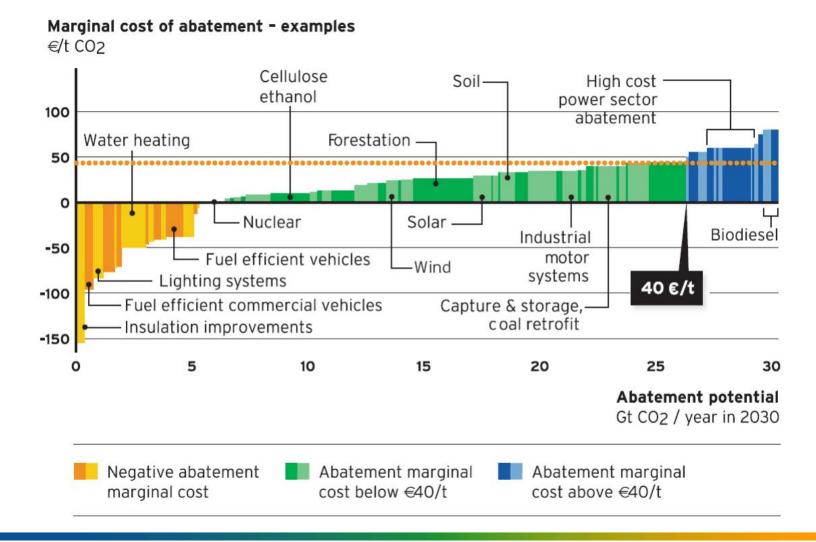
# **Security of supply concerns**

Substantial parts of the old generation assets will be retired, which facilitates the move towards low CO<sub>2</sub>.

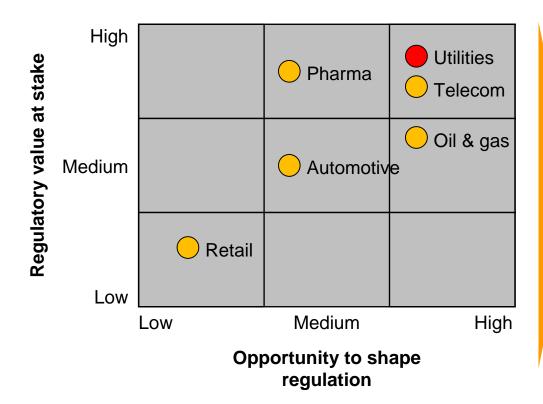


Source: Eurelectric "The role of electricity", June 2007

## Combating climate change is possible



# The regulatory environment remains essential



#### **Key success factors:**

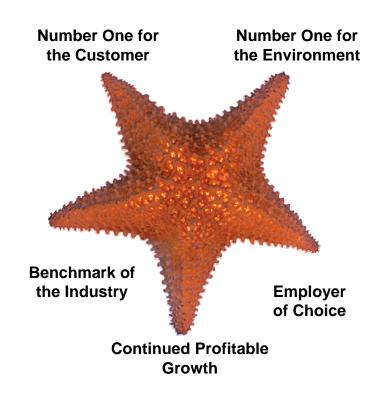
- Convincing fact-based argumentation on preferred regulation
- Effective and systematic stakeholder management
- Strong regulatory organisation
- Active listening mode in relation to external stakeholders

# **Strategic direction**

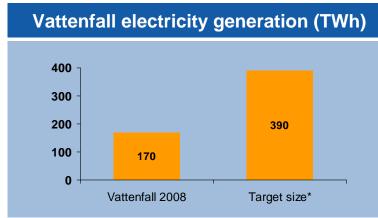
# The five strategic ambitions have matured

#### Key market developments last 10 years

- Liberalisation and market integration across Europe
- Industry consolidation
- Continuously enhanced competition between key players
- Increasing importance of environment, climate change and sustainability
- Growing competition for customers
- Strong public opinion/criticism related to price/performance and environment
- Changing demographics and expected upcoming gaps in key skills



# **Growth strategy – organic and geographic expansion**



#### \*10% of EU-27+2 electricity generation in 2030

# Vattenfall core and target markets

# Vattenfall shall increasingly pursue <u>organic</u> <u>growth</u> in both core and new target markets

- Enables possibility to "steer" the portfolio towards the prioritised generation mix
- Avoids price premiums
- Facilitates timing and control needs

# Vattenfall should continue to use <u>M&A</u>, in particular to enter into new markets

- Degree of market liberalisation
- Proximity to core markets
- Need for new capacity
- Potential for clean capacity
- Cultural fit



# **Growth strategy - highlights**

- Consolidation phase ended (Germany and Denmark).
- Substantially increased size targeted.
- Focus on electricity generation.
- Low-intensive CO<sub>2</sub> essential (nuclear, renewables, CCS).
- Organic and M&A.
- A third and possibly a fourth major geographical market targeted.
- United Kingdom and Benelux of very high interest.
- Possibly wider geographical scope.
- Growth in end-customers interesting (quality check, cost-to-serve).

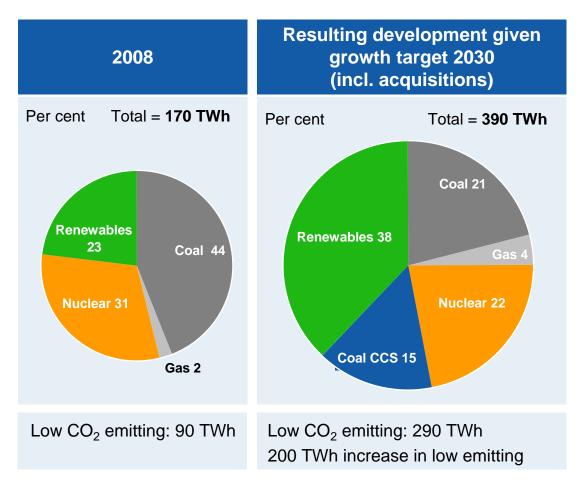
# Reduction CO<sub>2</sub> - extensive growth of renewables

Portfolio strategy - reshape the generation portfolio towards clean

energy

#### **Drivers:**

- Emissions reduction
- Technological development/R&D
- Increasing financial attractiveness of renewables
- Preference for base load
- Public opinion



## Vattenfall's internal Abatement Map

- Apply learning from external work to improve Vattenfall's internal strategic overview
- Measures assessed by Business Groups, with methodology and project support from central expertise
- Analysis identifies potential and incremental costs for Vattenfall to reduce emissions:
  - Compared to a situation where carbon was not constrained
  - Including both existing and expanded production (current markets only)
  - Throughout Vattenfall's value chain
- Analysis is NOT an evaluation of various investment options from a corporate perspective or a substitute for other related processes (capacity management, business planning)

# Development of CCS and R&D continued key priority



#### **European Test Center Mongstad**

Research new techn. 'chilled ammonia'

**Demo Plant Nordjyllandsvaerket** (~300 MW <sub>th</sub>) Post combustion

Pilot Plant Schwarze Pumpe (30 MW  $_{\rm th}$ ) Oxyfuel

**Demo Plant Jänschwalde** (~300 MW <sub>th</sub>) Oxyfuel & Post combustion

**Demo Plant Siekierki** (~150 MW <sub>th</sub>) Post combustion

# Operational excellence strategy – next steps

#### **Ongoing OPEX program**

- 11% productivity increase, equaling SEK 5 bn cost reduction
- Implementation and delivery ongoing

# Next steps – Continue to enhance operational excellence through continued increases in:

- Productivity
  - Use benchmarking to clarify company position
  - Set new improvement targets according to benchmark results
  - Increase efficiency of SSCs
- Cross-border synergies
  - Identify key processes
  - Increase cooperation and learning within Group
  - Develop structured bench learning processes



### **Future of networks**

#### **Situation today**

- Major investments necessary
  - development of offshore wind power,
  - replacement of old equipment
  - measures to increase the grid quality
- Essential unbundling requirements reduces strategic advantages of grids
- Regulation pressure on big 'utilities' reduces attractiveness

#### Consequences

- Transmission: integrated grids are offered for sale
- Distribution: evaluation of the future role of the grids



# Customer strategy – increase market shares





Note: EDF 2006, Vattenfall April 2008

# Grow the customer base and increase market shares:

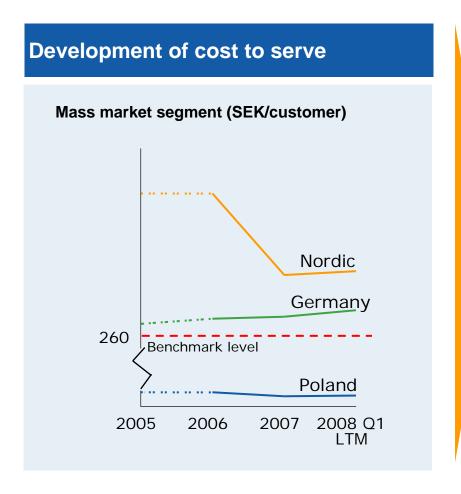
- Strengthen the relationship with the consumer base
- Allows Vattenfall to better capitalise on fixed costs in sales and services
- Contributes to overall growth

#### Increase customer orientation:

- Strong linkage between customer satisfaction and shareholder value
- Basis for promoting a more commercial mindset
- Necessary in order to gain license to operate our current/future assets



# Customer strategy – reduce cost to serve



#### Reduce cost to serve:

- Necessary to create an economically sound basis
- Facilitates possibilities to grow customer base through competitive prices
- Contributes to creation of efficient processes
- Can be contributed to by increasing market share
- Differentiate between different segments



# Our five strategic ambitions and key strategies

#### **Number One for the Customer**

Increase customer orientation and market shares as well as reduce cost to serve

#### **Benchmark of the Industry**

Improve operational excellence through increased productivity and cross-border synergies

#### Number One for the Environment

Reshape the generation portfolio towards **clean energy** (renewables, clean coal and nuclear)

#### **Employer of Choice**

Attract, retain and develop people and competencies for the future

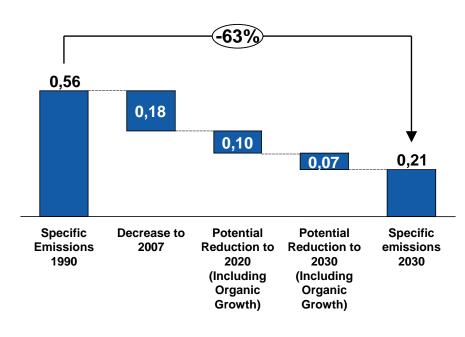
#### **Continued Profitable Growth**

Drive growth through
organic expansion and
business development
in combination with
acquisitions in new markets



# Back up

# Preliminary conclusions: Group level abatement



#### **Abatement potential**

- Significant potential identified to 2030
- Few alternatives identified, especially for existing production
- Focus of measure identification is CCS

#### **Abatement cost**

- Cost curve relatively 'flat': no tipping points identified
- Abatement by expansion is economically favourable

#### Roadmap 2030: Major abatement levers

1990-present
 Replacement and upgrading of inefficient production

• Organic growth in wind • Co-firing of biomass

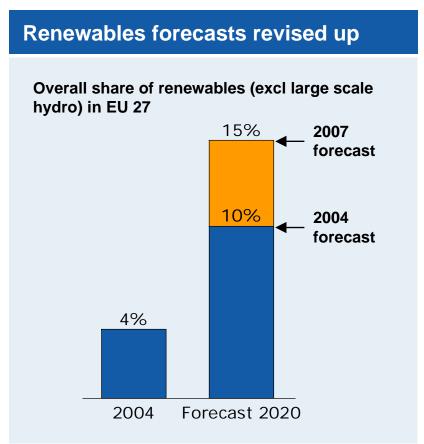
M&A in renewables, nuclear
 CCS Demonstrations

2020-2030 • Commercial CCS • Organic growth and M&A in renewables, nuclear

## Major upgrading attractiveness of renewables

#### **Drivers for higher attractiveness**

- Learning curve leading to lower costs for renewables
- Continuous development of new and better renewables
- Fuel prices up leading to higher costs for traditional capacities
- ETS starting to generate high costs
- Expansion of renewables contributes to industrial growth in home markets
- Large competitors moving now



Source: IEA World Energy Outlook

# **Growth strategy – business development**

# Organic growth and M&A should be complemented with business development efforts

- Provide additional growth
- · Promote electricity demand
- Increase perceived value of electricity
- Capitalise on R&D and innovation skills and stimulate entrepreneurship



# Plug-in Electric Hybrid Vehicles 60–85 TWh el. XX = potential in core markets by 2030

