

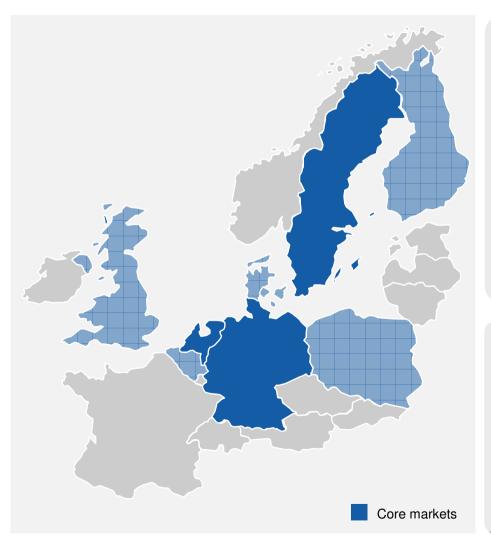
## Today's focus

- Vattenfall at a glance
- Delivering the strategy
- Vattenfall's key strengths
- Electricity demand outlook
- Political and regulatory outlook
- German nuclear phase out
- CO<sub>2</sub> reduction





## Vattenfall at a glance



#### Facts (2010)

Number of employees (FTE): 38,179 Net sales (MSEK): 213,572 Operating profit (MSEK): 29,853 Total assets (MSEK): 541,432 Electricity generation (TWh): 172.5 Heat sales (TWh): 44.5 Numbers of customers (million): -Electricity 7.8 -Gas 2.1 -Network 5.7 100% owned by the Swedish state

## Vattenfall - a leading European energy company

- Operations in eight markets
- concentrating on 3 core countries
- Number 6 in electricity generation
- Number 1 in heat production



### Owner's mandate, Vattenfall's vision and strategic direction

#### The owners mandate:

"The object for the Company's activities is to generate a market rate of return by operating a commercial energy business that enables the company to be among the leaders in developing environmentally sustainable energy production."

#### Vattenfall's vision:

Vattenfall will create a strong and diversified European energy portfolio with sustainable and increased profits, significant growth options and will be among the leaders in developing environmentally sustainable energy production.

#### Vattenfall's strategic direction:

- Greater focus on profitability and value creation
- Focus on three core markets
- Three main products electricity, heat and gas
- Reduced CO<sub>2</sub> exposure and growth in low CO<sub>2</sub> emitting energy production and in gas



## Vattenfall's new strategic direction in brief

#### **CONSOLIDATION PHASE** 2010-2013

#### Improve operating performance

Cost reduction and revenue improvement

#### **Create financial** flexibility

Revised CAPEX and divestment of non-strategic business operations

#### Start reshaping the business portfolio

Focus on core markets and reduced CO2 exposure

New business-led organisational structure Operational 1 January, 2011

#### **GROWTH PHASE** 2014-

Growth in low CO2-emitting energy production and gas

Focus on wind, nuclear, biomass, hydro and gas power

Secure strong positions in core European markets

Focus on core markets with potential to maintain or build critical size – currently Sweden, Germany and the Netherlands



### **Prioritised actions**

## Improve operating performance



SEK 6 bn annual cost reduction (11%), by end of 2013

## Create financial flexibility



5 year CAPEX programme 2011-2015: reduced to SEK 165 bn (2010-2014: SEK 201 bn)

Divest assets that are not in line with Vattenfall's strategic direction

Maintain single A category rating

## Reshape the business portfolio



Remain an integrated but generation-focused utility; keep electricity, heat and gas

Focus on attractive markets with growth opportunities where Vattenfall has or can build a strong size position

Pursue a diversified portfolio and grow in low CO<sub>2</sub>-emitting energy production and gas

Decrease absolute CO<sub>2</sub> emissions from 90 Mt\* to ~65 Mt \*\*



<sup>\* 2009, \*\*</sup> by 2020

## **Main achievements**

Cost-cutting programme SEK 6 billion	On track
Divestments of non-core business	Cash proceeds in H1 2011 SEK 5.9 billion
Revised capex plan	<ul> <li>SEK 165 billion for 2011-2015 (compared with SEK 201 billion for 2010-2014). Further reductions planned</li> </ul>
New business-led organisational structure	• 1 January 2011



## Vattenfall's strengths from a credit perspective

#### **Governance & Strategy**

- Strong owner
- Clear mandate
- Experienced Board and company management
- Clear, focused corporate strategy
- · Firm "A range" rating commitment

#### **Markets & Products**

- Good geographical base
- · Good product mix; Electricity, Heat, Gas
- · Low cost generation portfolio:
  - Low CO<sub>2</sub> and high margin hydro and nuclear in Nordic
  - Low cost lignite in Germany
- Increasing wind power; leading offshore wind position
- Significant share of cash flow from regulated business
- No material exposure to oil-indexed long-term gas procurement contracts

#### **Cash position & Hedging**

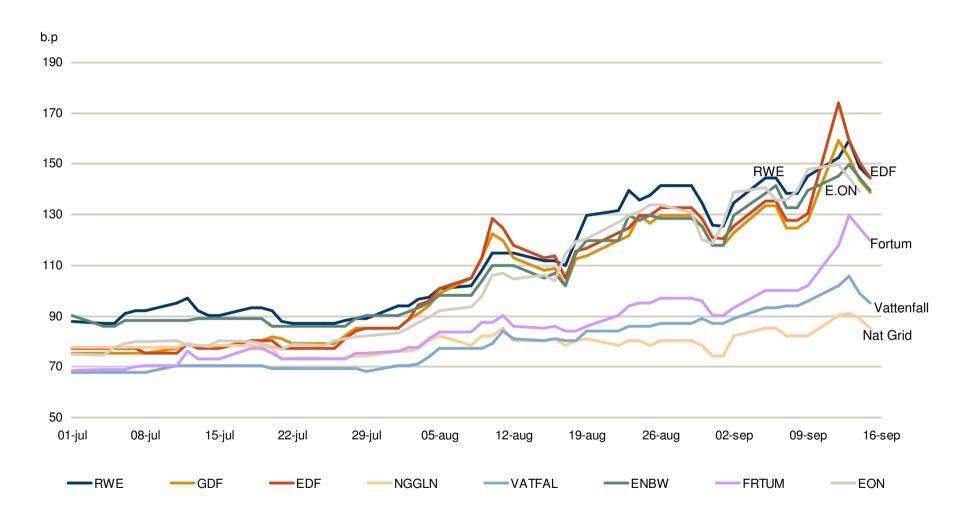
- Strong liquidity
- Excellent relationship banks
- No immediate funding need
- Prudent hedging strategy

#### Proven execution ability

- Integration of Nuon completed synergies captured
- Divestment programme on track
- Cost reduction programme on track
- New business-led Group structure successfully implemented



# 5 year CDS development reflects the market's view on Vattenfall's low credit risk vs peers



Source: Barclays Capital 15 September 2011



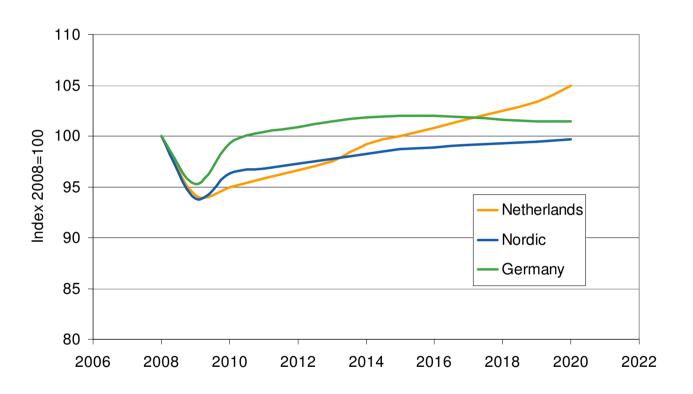
## Long-term market outlook

- European energy policies sending mixed signals:
  - EU market and policy integration vs. national solutions
  - Decarbonisation goals vs. reduced efforts to mitigate CO<sub>2</sub>
- EU's 20-20-20 targets driving market developments:
  - 20% renewables target pushes low marginal cost generation into the market
  - 20% CO<sub>2</sub> reduction seems reachable without substantial increase of EU-ETS prices
  - 20% reduction of energy use seems too ambitious but intensified action from EU and national policy makers has been taken
- Going forward we see:
  - Current economic instability potentially leading to a reduced speed of the energy transition
  - Increased uncertainty in UK, France, and Poland where significant market reforms are executed
  - Electricity demand only slowly recovering, not reaching pre recession levels for several years
  - The German nuclear phase-out influencing capacity balances in North West Europe, leaving room for increased production from existing fossil fuelled assets and new build gas-fired assets predominantly after 2020



## Electricity demand will only slowly recover after the recession

#### Nordic, German and the Netherlands electricity demand development



#### Nordic:

Industrial electricity demand growth but to some extent offset by energy conservation in all sectors

#### Germany:

Moderate increase in the mid-term but expected decline over time due to population decrease and structural changes

#### Netherlands:

Steady growth due to less intensive energy savings measures in combination with industry growth

#### **Uncertainties:**

- Long-term effects of recent economic turmoil
- Implementation of energy efficiency measures
- Electrification of transport sector



## Political and regulatory outlook: Sweden and UK

#### Political outlook

Swedish government stable on Energy Policy to increase renewables and reduce CO<sub>2</sub>

- Higher renewable ambitions than EU RES target
- Costly for consumers, subsidy regime likely to be reduced

#### Regulatory environment

- Strong Nordic market integration
- New crossborder connection to UK and continent expected
- Electricity certificates main driver for renewables, joint support scheme planned with Norway 2012
- "Hybrid renewable supplier obligation"
  - Subsidies & renewable obligation
  - Co-firing biomass
- Implementation of the **Energy Efficiency** Directive

#### Impact on different energy sources

- Nuclear: Upgrades and replacement accepted
- Wind: Growth area, but starting from low level

- Gas: Likely to remain gascountry
- Wind: Potential introduction of renewable obligation for suppliers
  - Nuclear: Investigation for new build plans ongoing



Sweden/Nordic



## Political and regulatory outlook: Germany and NL



- Nuclear decommissioning
- Regional politics increasingly important to realize green energy mix
- Opt out clause in CCS legislation – uncertainty for near-term investments
- High replacement need of UK production
- · Ambitious targets for secure, affordable, low carbon generation

#### Regulatory environment

- Feed in tariffs for renewables
- More "command & control" and less market based mechanisms
- Incentives for small. decentralised, renewable power production
- **Electricity Market Reform** with CO<sub>2</sub> price floor, feedin tariffs nuclear, renewables, EPS 1), capacity payments
- Next step expected to focus on increased liquidity and stronger competition between "Big 6" 2)

#### Impact on different energy sources

- Coal: Pressure over time due to ETS, higher need due to nuclear phase-out
- Gas: Higher need due to nuclear phase-out
- Wind: Strong support for offshore
- PV: Strong support
- Wind: Most aggressive offshore plans in Europe
- Nuclear: New build plans ongoing
- Gas: Potentially gap-filler
  - 1) Emission Performance Standard that limits the emissions to 450 CO<sub>2</sub>/kWh
  - 2) Centrica/British Gas, nPower, EdF, Scottish Power, E.ON, Southern Electric



Germany



### German nuclear phase-out





- German parliament decided to reverse last year's lifetime extension decision on German nuclear plants. New legislation became effective beginning of August 2011.
- Remaining 9 German nuclear plants to be phased out step by step by end of 2022.
- All pre-1980 nuclear plants, including Krümmel, (in total 8 plants) not permitted to restart.
  - Consequence: Vattenfall's nuclear plants Brunsbüttel (66.7%) and Krümmel (50%) will not restart.
- Dismantling of both plants is estimated to start 2019.
  - Estimated dismantling periods:

 Brunsbüttel: 2019-2032 Krümmel: 2019-2036

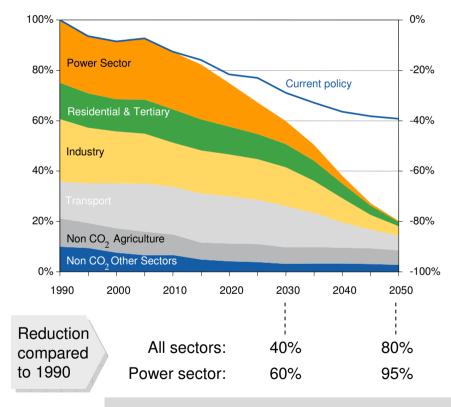
Vattenfall expects compensation for its financial losses



### EU aims at decarbonising the power sector by 2050

## EU aims at 80% reduction of GHG by 2050...





## ... but there are different views on the path to get there

- Strong consensus in EU to reduce CO<sub>2</sub> emissions, but...
  - Some member states are asking for more aggressive reductions
  - Signs of member states introducing own national regulations, e.g. EMR in UK
  - Discussion of most effective policy regime, market mechanism vs.
     "command & control"

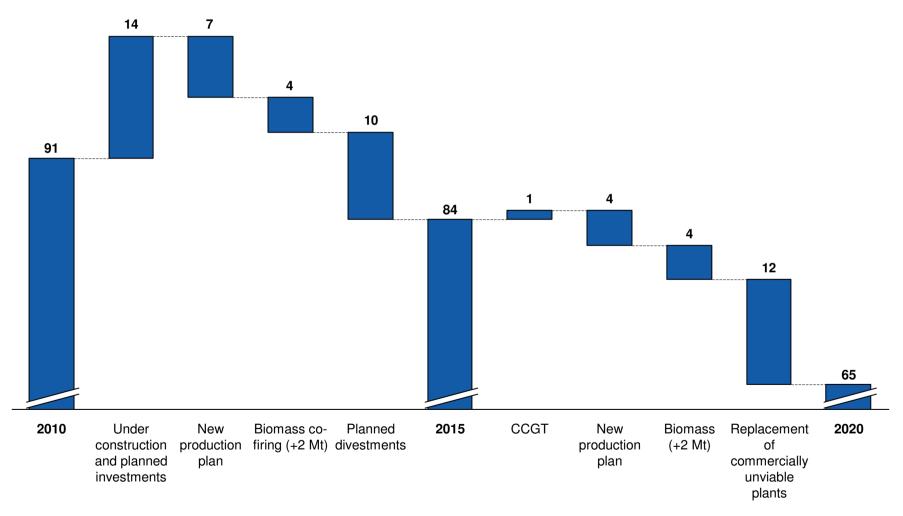
The overall goals are clear, but lack of agreement on how to get there and additional policies will be needed



## Vattenfall's path to reduced CO<sub>2</sub> emissions

#### Total absolute CO<sub>2</sub> emissions

Mtonnes, pro-rata share

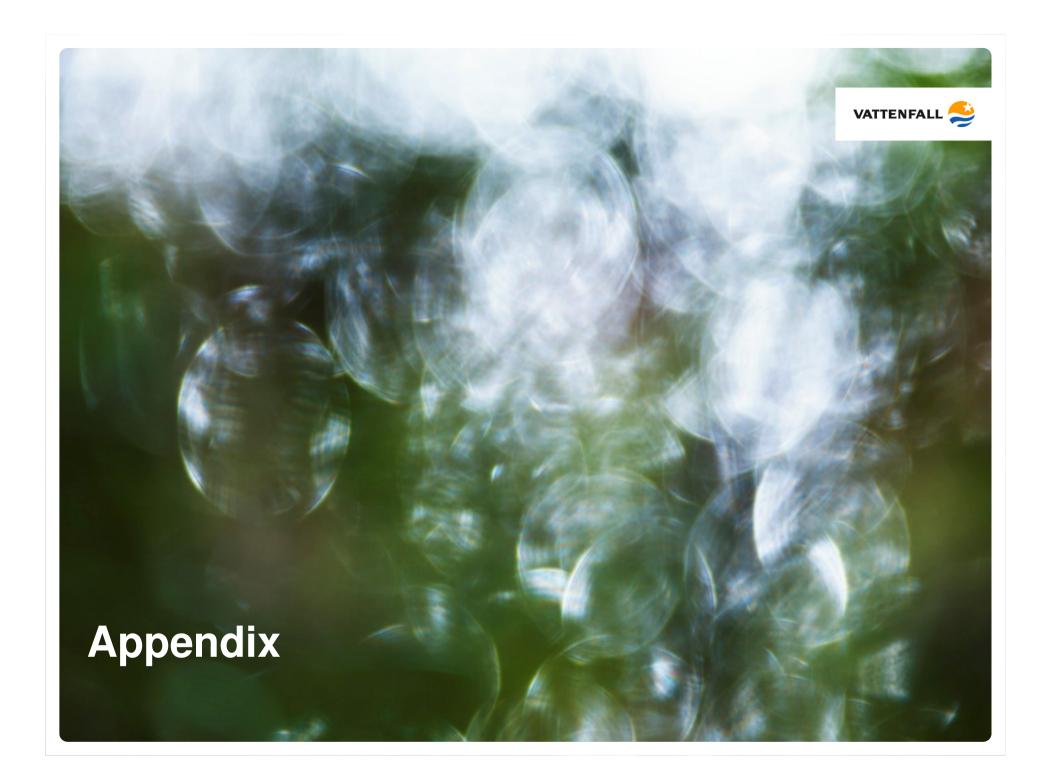




## We are delivering on our consolidation strategy

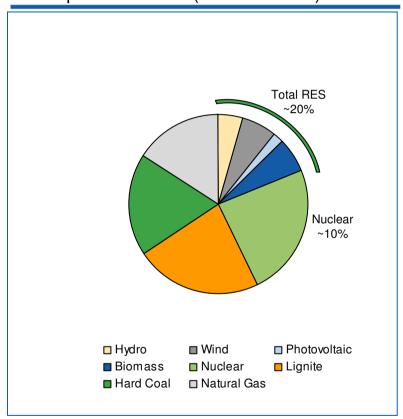
- We are on track:
  - Divestment and cost reduction programmes on track
  - Capex are being reduced
  - Nuon integration completed and synergies captured
  - Significant profitability improvement in electricity sales business
  - New business-led organisation successfully implemented
- Clear goal to improve profitability and strengthening financial position.
- In the midst of challenging environment for utilities Vattenfall maintains a strong position in economically and politically stable markets.
- Profitable growth opportunities within low carbon power generation, and energy trading.



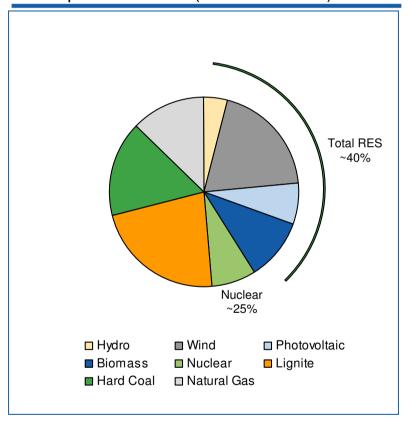


### The German production mix is expected to change substantially until 2020: renewable energy increasing, nuclear decreasing

2010 production mix (total 600 TWh)



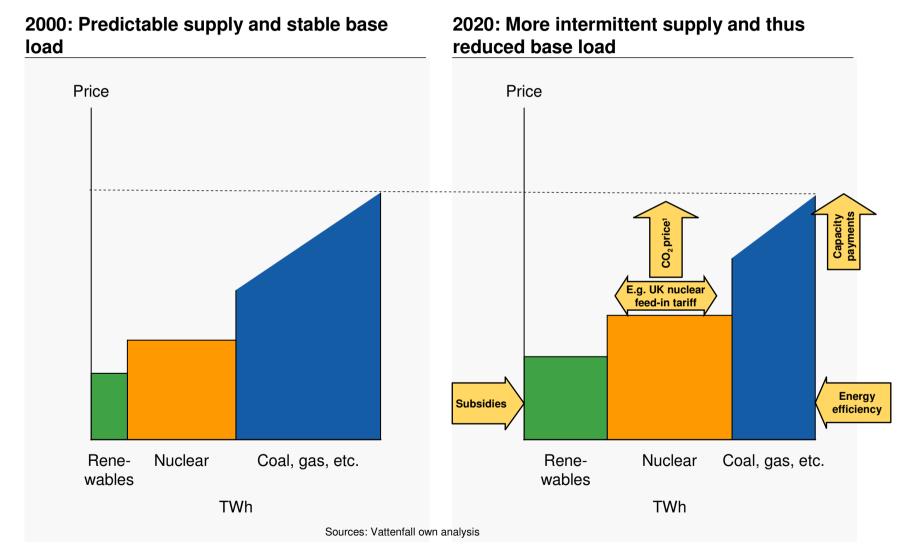
#### 2020 production mix (total ~600 TWh)



The growing amount of renewable production in Germany will partly replace production from the decommissioned nuclear capacity



# The policy maker will "construct" the merit order curve through shifting the attractiveness of technologies and thus increase regulatory exposure





### New business led structure successfully implemented

