Creating a foundation for the future

Øystein Løseth
President and CEO

Solna/Stockholm, 2 December 2013
Today’s focus

• Vattenfall at a glance
• Market trends
• Achievements in recent years
• Strategic focus areas
• Reorganisation
Vattenfall at a glance

Key data LTM Q3 2013

<table>
<thead>
<tr>
<th>Data</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>171,859 MSEK</td>
</tr>
<tr>
<td>EBITDA</td>
<td>43,760 MSEK</td>
</tr>
<tr>
<td>Operating profit (EBIT)</td>
<td>-5,195 MSEK</td>
</tr>
<tr>
<td>Underlying operating profit</td>
<td>27,604 MSEK</td>
</tr>
<tr>
<td>Electricity generation</td>
<td>183.7 TWh</td>
</tr>
<tr>
<td>Sales of electricity</td>
<td>205.4 TWh</td>
</tr>
<tr>
<td>Sales of heat</td>
<td>32.0 TWh</td>
</tr>
<tr>
<td>Sales of gas</td>
<td>56.9 TWh</td>
</tr>
<tr>
<td>Number of employees (FTE)</td>
<td>32,077</td>
</tr>
</tbody>
</table>

Number of customers (2012)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>6.2 million</td>
</tr>
<tr>
<td>Gas</td>
<td>1.9 million</td>
</tr>
<tr>
<td>Electricity network</td>
<td>4.3 million</td>
</tr>
</tbody>
</table>
Market trends and outlook

• Significant decline in profitability of large scale conventional generation

• Strong renewables growth with increasing cost competitiveness (notably onshore wind and solar PV) and subsidies

• New downstream value pools including energy self supply, other new products and services at customer premises and power flow optimization

• Bleak outlook for a near-term recovery of EU-ETS

• Increasingly national and regulated energy markets
  - National energy policy making becoming increasingly important
  - Energy markets becoming more regulated again
Significant decline in profitability of large scale conventional generation …

Electricity forward prices (rolling front year + forward curve)

Front year rolling

Current market

Key drivers
- Loss of electricity demand
- Lower industrial activity leading to oversupply of CO₂ certificates and low price levels
- Severe overcapacity and strong generation growth

EUR/MWh


Nordic

Germany

VATTENFALL
… in particular gas-fired generation

Clean Dark Spread (CDS) and Clean Spark Spread (CSS) based on Cal14 products

*Based on Germany Cal14 base prices (CDS) and peak prices (CSS)
Significant capex reductions and cost reductions have been applied each year since 2009.

**Historical capex reductions (SEK billion)**

- 2010-2014: 201 billion
- 2011-2015: 165 billion
- 2012-2016: 147 billion
- 2013-2017: 123 billion
- 2014-2018: 105 billion

**Cost reductions (SEK billion)**

- 2013: 6.0
- 2014: 3.0
- 2015:
  - 1.5
  - 1.0
  - 2.0

1. Cost saving programme of SEK 6 billion presented in 2010 and achieved one year ahead of time
2. New cost saving target of SEK 3 billion (2013) and SEK 1.5 billion (2014) presented in 2012
3. Cost savings target for 2014 is now SEK 2.5 billion. New target for 2015: SEK 2 billion
Vattenfall’s long term market outlook

Long term market outlook: “Regulatory fragmentation”

- Moderate economic growth and demand development
- National priorities (industry policy, technology preferences, fuel import dependency) shape framework
- Regulatory environment indecisive & incoherent, with continuous adaptations
- Slow development of the Internal Energy Market – 3rd energy package implemented over time, slow market integration continues e.g. by grid expansion & market coupling
Political and regulatory issues (EU, Sweden)

**EU**

- Communication on “The energy and climate policy framework for 2030” expected to be issued beginning of 2014. Possible targets for CO$_2$, RES and energy efficiency.

- ETS, “backloading” in final decision process. Further measures needed.

- State intervention. On 5 November EU proposed guiding measures to strengthen development of a competitive and integrated EU electricity market with a minimum of state intervention.

- Revision draft of BAT reference document to LCP directive. If implemented, significantly tighter emission limits on large combustion plants from 2019.

**Sweden**

- Implementation of EU Water Framework Directive and ongoing alignment of hydro plants with the Environmental Code, might lead to potentially lower hydro power production.

- Unchanged political situation regarding Swedish nuclear power.

- Ongoing discussions on funding levels for handling of nuclear waste.

- Ongoing court case regarding distribution tariffs. Court decision expected in mid December 2013.

*BAT = Best Available Technology, LCP = Large Combustion Plant*
## Political and regulatory issues (DE, NL, UK)

<table>
<thead>
<tr>
<th>Germany</th>
<th>Netherlands</th>
<th>UK</th>
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</thead>
</table>
| • Coalition deal CDU/CSU and SPD agreed. From Vattenfall’s perspective the results are acceptable but many crucial details are still open. SPD members’ vote on the deal remains.  
• Vattenfall’s electricity grid concessions expire at the end of 2014. Mixed voting outcome in Hamburg and Berlin referendums on municipal buy back of grids.  
• New law passed regarding site selection for nuclear waste storage. | • The Dutch Energy Agreement was signed in September.  
It outlines i.a. the Dutch national agenda for energy policies for the next decade e.g. aiming at increasing renewable energy and closing down old coal plants. | • The Electricity Market Reform (EMR) is in the final consultation stages. EMR aims to promote infrastructure investments and low carbon production.  
The Energy Bill, which contains the legislative implementation of the policy proposals, is currently working its way through the UK’s legislative process. |
A new value chain is emerging

New value chain (New Energy Landscape)

**Natural resources**
- Wind resources
- Hydro resources
- Coal mining rights
- Gas fields
- Biomass feedstock

**“Production”**
- Demand side management
- Storage
- PV
- Heat pumps
- Micro/small-scale CHPs
- Small-scale Onshore wind
- Large-scale Heat
- Centralized renewables (e.g. Wind power)
- Large-scale low-emitting (Hydro & Nuclear)
- Large-scale fossil

**Optimization**
- "large-scale asset optimization"
- AO(T)
- Optimization services
- Aggregation services

**Distribution**
- Smart, two-way delivery

**Sales**
- Commodity sales
- Solutions of products & services

**Prosumer**
- Demand side management

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Vattenfall’s Strategic Direction

1. **Selected growth in renewables**
   - Reach target for renewables growth
   - Strong wind development in the UK
   - Considering alternative business models, e.g., equity partners and capital recycling

2. **Strong Nordic Position**
   - Encourage the development of interconnectors
   - Manage implications of the EU Water Framework Directive
   - Renewables growth
   - Manage the lifetime of existing nuclear reactors
   - Operational Excellence

3. **Define options to meet 65 Mtonnes CO₂ target by 2020**
   - Decrease CO₂ exposure through:
     - Partnering/risk sharing
     - Co-firing of biomass with coal
     - Fuel switching
     - Less running in fossil plants due to more renewables

4. **Smart Energy Enabler**
   - Vattenfall aspires to be perceived as a Smart Energy Enabler - meeting changing customer demands by developing current downstream business and prudently developing new profitable business models

5. **Strengthen focus on Operational Excellence and reduce cost**
   - Reduce cost level with an additional SEK 4.5 billion
   - Continue developing Operational Excellence transformation
   - Develop levers to reduce long-term capex need
   - Divest or decommission non-core/non-performing assets

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**Sustainable Heat and Electricity Production**

**Sustainable Consumption**

**Sustainable Financial Performance**
Vattenfall has invested ~SEK 38.5 billion in wind power 2006-2012 and plans to invest additional ~SEK 11.7 billion until 2015 (decided projects)

- 691 MW renewables projects post FID out of which 406 MW in actual construction
  - Onshore: Pen y Cymoedd (228 MW), Nordic projects (58 MW), Clashindaroch (37 MW)
  - Offshore: DanTysk* (288 MW) and Kentish Flats Extension (50 MW)
  - Thermal: Co-firing and BioCHP (30 MW)

- Given decreased funds for investments within the investment plan 2014-2018 Vattenfall will need to consider additional measures such as capital recycling options in order to achieve the target.

*Vattenfall ownership 51% in DanTysk
2. Ensure continued strong and profitable Nordic position

Required net exports in the Nordic market is expected to reach ~40 TWh in a 2020 perspective, which needs to be managed.

*Assumes the realisation of additional cables of minimum 2-3 GW

Strategic focus areas in the Nordics:

- Encourage the development of interconnectors
- Renewables growth
- Manage the lifetime of existing nuclear reactors
- Manage implications of the EU Water Framework Directive
- Operational Excellence
Vattenfall is working for increased interconnections in order to improve market efficiency

Prioritized cable projects

   - Reduce internal bottle necks in Sweden and enable more transmission from north to south

2. NorthConnect (2020)
   - Transfer power from Nordics to UK

3. DC Corridors (2025)
   - Increase transmission capacity to incorporate RES in Germany and enable transmission from north to south

Source: ENTSO-E and national TSOs
3. Define options to meet 65 Mtonnes CO$_2$ target by 2020

Vattenfall has high CO$_2$ emissions in comparison with competitors, and must reduce its CO$_2$ exposure to keep pace with the industry.

<table>
<thead>
<tr>
<th>Company</th>
<th>EU average 2010</th>
<th>EU average 2020</th>
<th>gCO$_2$/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>RWE</td>
<td>730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dong</td>
<td>520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vattenfall</td>
<td>450 (94 Mtonnes)</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>E.ON</td>
<td>390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enel</td>
<td>390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iberdrola</td>
<td>260</td>
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<td></td>
</tr>
<tr>
<td>EdF</td>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fortum</td>
<td>110</td>
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<td></td>
</tr>
<tr>
<td>Statkraft</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Specific CO$_2$ emissions from European electricity and heat generation gCO$_2$/kWh (2010)

Define options to reduce CO$_2$ exposure until 2020

- Decrease CO$_2$ exposure through:
  - Partnering / risk sharing
  - Co-firing of biomass with coal
  - Fuel switching
  - Less running in fossil plants due to more renewables

Mtonnes

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2012</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>~94</td>
<td>~85</td>
<td>~65</td>
</tr>
</tbody>
</table>

2010, 2012, 2020
4. Build a position in the minds of the customers as Smart Energy Enabler – tailored to the geographical markets

Evolving market conditions and changing customer demands

- Vattenfall aspires to be perceived as a Smart Energy Enabler - meeting changing customer demands

- *Customer insight* – understanding customer preferences and behaviours to tailor the right solutions

- *Customer interaction* – interacting with customers according to their preferences, develop new channels and ways of interacting

- *Smart offerings* - tailor service and product offerings to different consumer and business customers’ needs

- Develop current downstream business, and prudent development of new profitable business models

- Different characteristics in Continental/UK and Nordic regions - Vattenfall’s offerings and interaction will be partly different
5. Strengthen focus on Operational Excellence and reduce cost

Reduce cost level with additional SEK 4.5 billion

Develop levers to reduce capex need

Continue developing Operational Excellence transformation

Divest or decommission non-core assets
Vattenfall reorganizes the Group in two regions - Differences in market trends are becoming significant

**Continental /UK**

- Increasingly national approach to energy market regulation → regulator provides the investment incentives
  - Energiewende
  - New Energy Deal
  - Energy Market Reform

- Decreased profitability of thermal power under rising CO₂ prices post 2020 – transformation challenge

- Increased cost competitiveness of solar PV and demand side participation in Germany. Change is faster than expected

**Nordics**

- Sticking to harmonized EU approach to energy market regulation → market provides the investment incentives

- Distributed generation and demand side participation less cost competitive in the Nordics

- General oversupply and low prices on the continent increasingly affecting Nordic market

**Two main regions effective 1 January 2014: The Nordic countries and Continental/UK**

- The new structure enables the regions to focus on their respective topics and opens up for opportunities for risk-sharing in the Continental operations over time
Two regions – one company

Integrated governance framework

- Common decision making principles stated by corporate
- Integrated strategic planning owned by corporate
- Top down target setting and follow up
- Common internal control framework, e.g. corporate risk management and internal audit

Regional business structure with regional staff functions in selected areas prepares Vattenfall to take further steps in seeking risk sharing opportunities

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Generation and installed capacities in Nordics and Continental/UK

**Group total generation (2012)**
- **Electricity**: 178.9 TWh
- **Hydro**: 42.2 TWh
- **Nuclear**: 48.9 TWh
- **Fossil**: 81.7 TWh
- **Wind**: 3.6 TWh
- **Biomass, waste**: 2.5 TWh
- **Heat**: 30.3 TWh

*(Gas sales)* 52.4 TWh