

# Region Continental/UK

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# Continental / UK in a nutshell

## Key facts Continental/UK (2012\*)

Generated electricity (GWh)	83,800 GWh
# of electricity and gas customers	6.9 million
Heat sales	20,400 GWh
Distribution networks	136,000 km
# of distribution customers	3.4 million
# of FTE	23,000

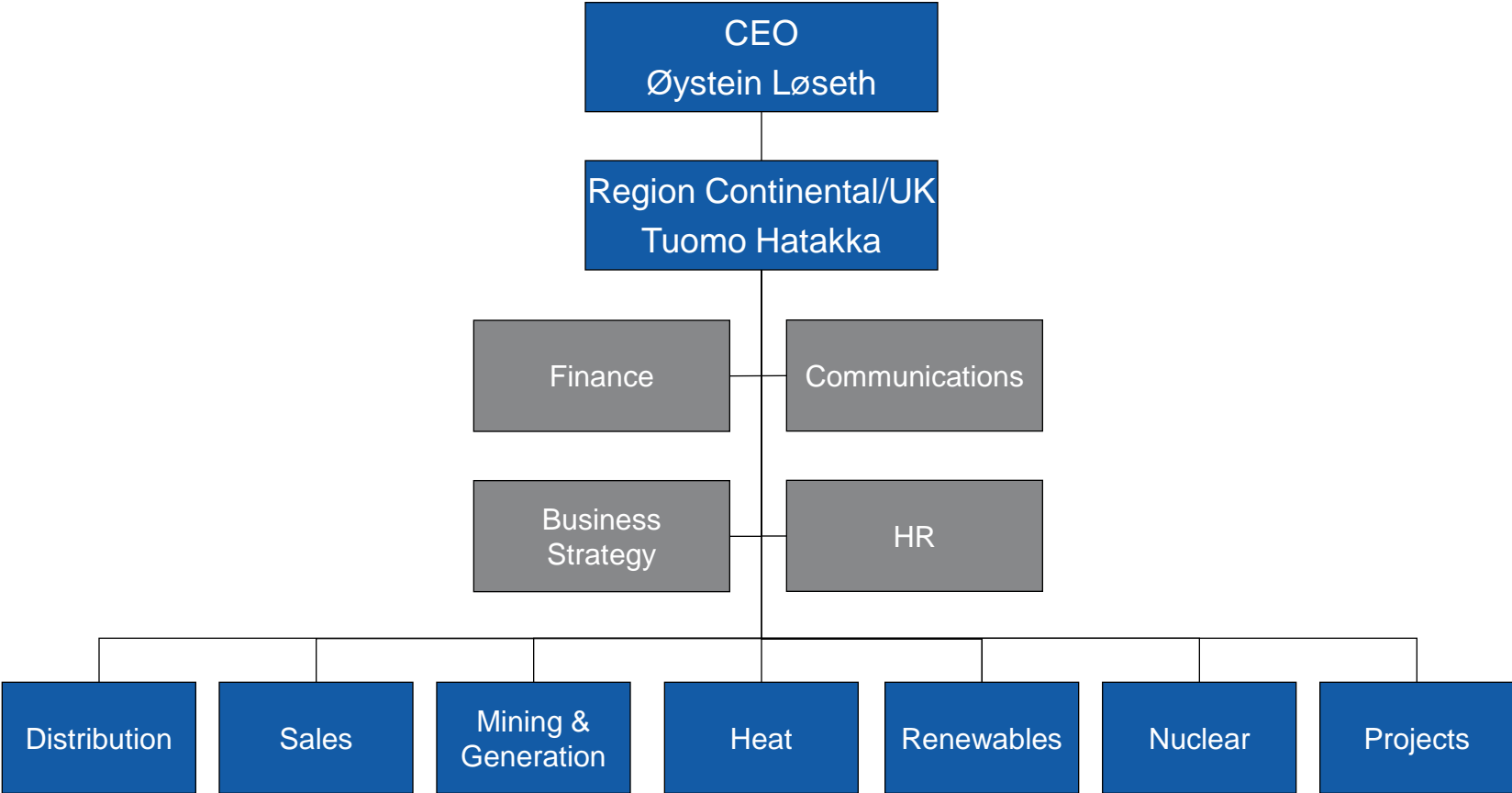
## Overview of Assets \*\*

Lignite		<ul style="list-style-type: none"> <li>• 5 opencast mines, 13 units</li> <li>• 7,883 MW (el.)</li> <li>• 1,634 MW (th)</li> </ul>
Pumped storage		<ul style="list-style-type: none"> <li>• 7 units</li> <li>• 2,824 MW</li> </ul>
Thermal + Heat		<ul style="list-style-type: none"> <li>• 27 units</li> <li>• 7,491 MW (th)</li> <li>• 9,781 MW (el.)</li> </ul>
Wind		<ul style="list-style-type: none"> <li>• 37 units</li> <li>• 1,024 MW</li> </ul>

\* Consolidated figures, Annual report 2012, Germany, Netherlands, UK

\*\* As of Sept 2013

# The Continental / UK organisation



# Future challenges and opportunities

## Market

- Low prices and overcapacities (exception: UK)
- Lower operating hours for gas and hard coal fired plants
- Need for more flexible assets, but low / no market incentive
- Profitable opportunities to grow selectively in renewables and downstream

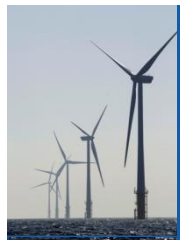
## Regulation

- Implementation of the Internal Energy Market progressing very slowly
- Increasing number of uncoordinated political and regulatory interventions by national governments e.g. regulator redefines merit order by setting subsidy schemes
- Energy only Market marginalized by the growth of subsidized renewables

## Operations

- Strong pressure on cost side to remain competitive; delivering on cost reductions results in competitive advantage
- Shape “future portfolio”: selectively grow in renewables & downstream; divest non-core and non-performing assets
- Integrate new assets (Moorburg, Dan Tysk) and use cash stream for sustainable growth

# Focus areas in Vattenfall's strategy – Continental/UK perspective



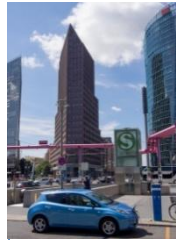
## Selected growth in renewables

- Grow in off-/onshore wind
- Biomass co-firing



## Define options to meet 65 Mtonnes CO<sub>2</sub> target by 2020

- Prepare for partnership



## Smart Energy Enabler

- Secure profitable downstream growth with a strong market and customer orientation
- Use profitable growth opportunities in sales (electricity, gas, Heat)
- Identify/prioritize and grow in profitable new, decentralized energy solutions



## Strengthen focus on Operational Excellence and reduce cost

- Further improve industrial safety
- Reduce OPEX – target SEK 2.7 billion in 2014 & 2015. Examples
  - WOW (Sales): - SEK 180 million
  - Thermal Challenge: - SEK 146 million
  - NEO: - SEK 175 million
- Regular benchmarking to identify further improvement potential
- Minimize CAPEX by developing less costly maintenance and replacement solutions
- Optimize portfolio and shape cash flow profile: develop exit and/or turn around scenario for non core/non profitable assets
- Raise flexibility of asset portfolio
- Maintain high level of commercial availability of power plants and high level of service quality in down stream businesses

**Sustainable Heat and Electricity Production**

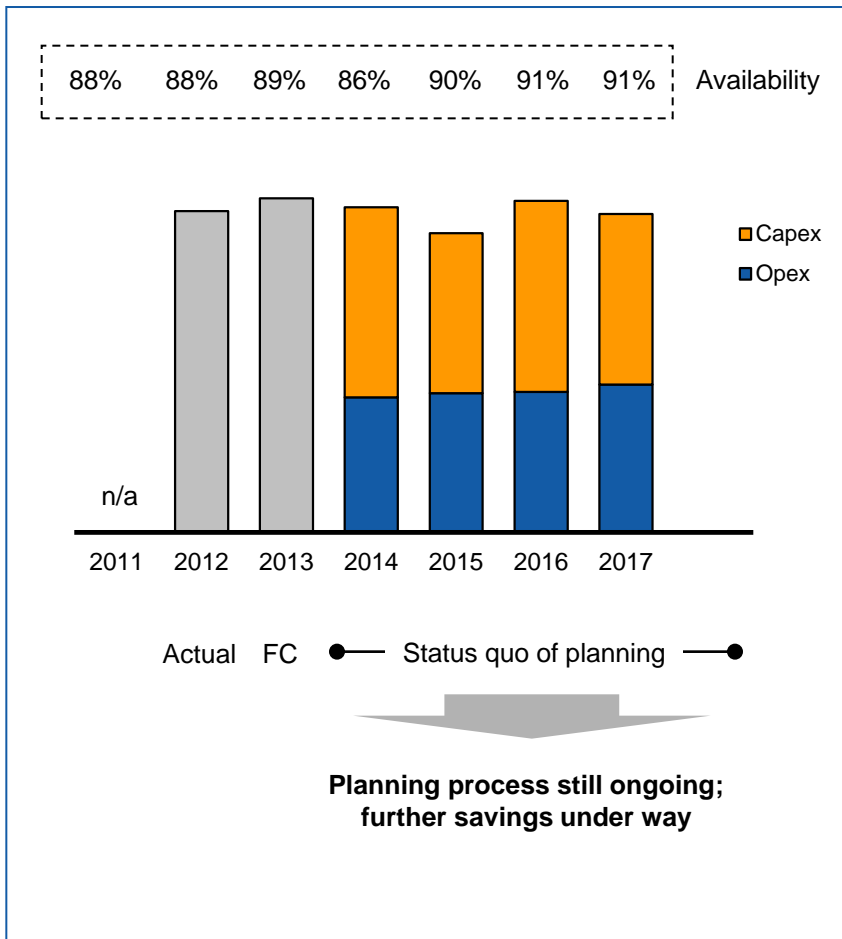
**Sustainable Consumption**

**Sustainable Financial Performance**



# Active maintenance management part of Investment and Business Planning

## Maintenance spend

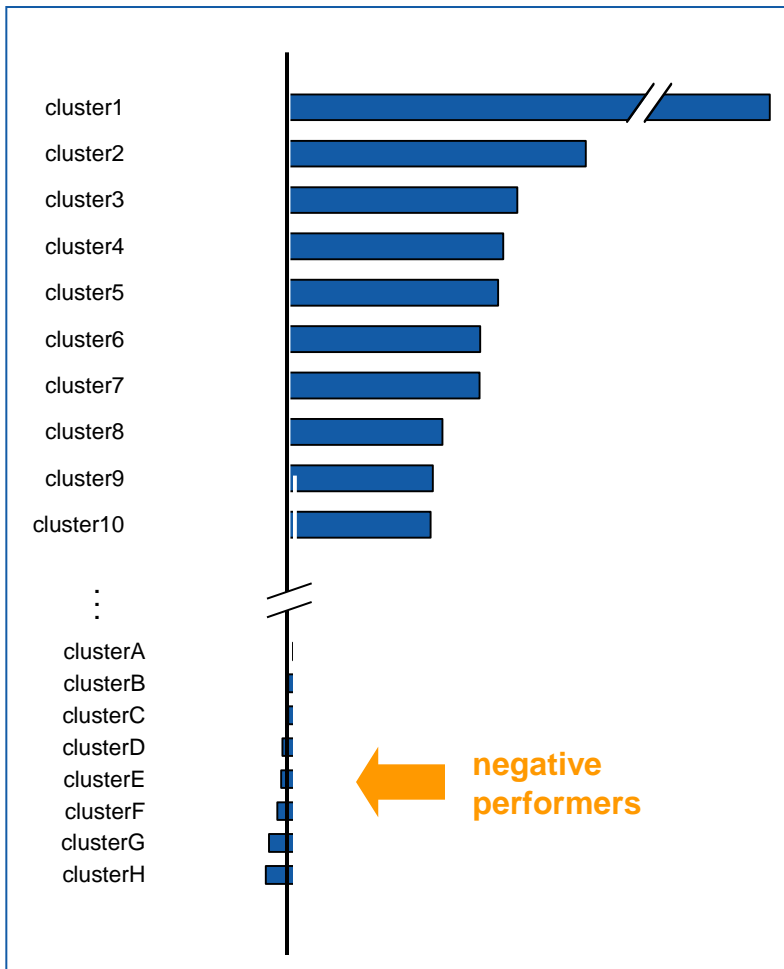


## Comments

- **Maintenance spend within business planning horizon more than EUR 5 billion**  
(capex: ~EUR 2 billion;  
opex: ~EUR 3 billion)
- **We strive to keep future maintenance spend below 2013 level, despite inflation**
- **Especially in the coming two stressed years, we reduce maintenance spend by ~EUR 130 million**
- **Despite of maintenance reductions, availability improves**  
(from 88% in previous years to 90% in 2015)

# Active asset management assure maximum portfolio value

## Asset value ranking (DCF ranking)

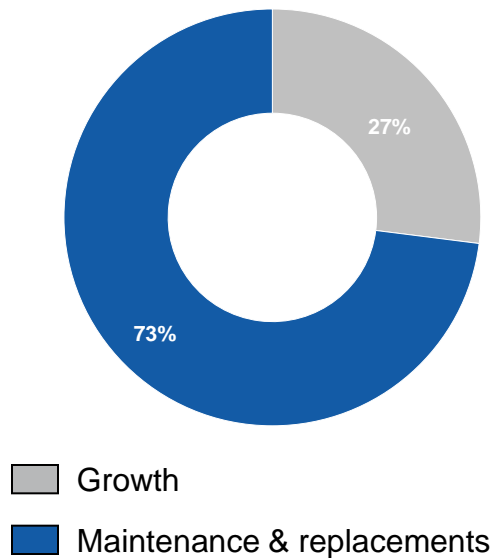


## Comments

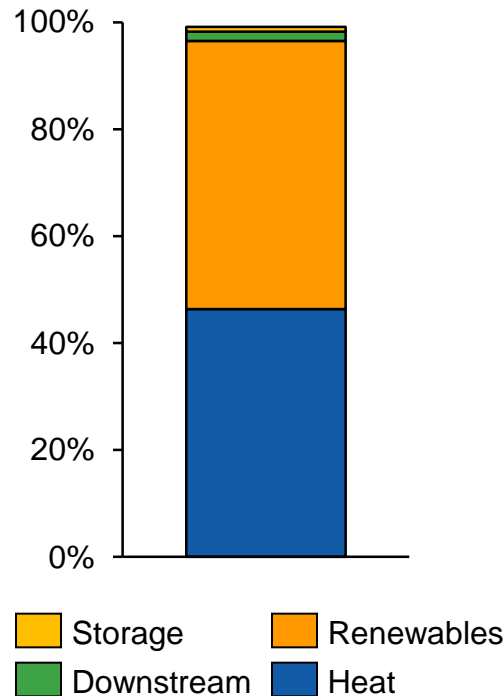
- Part of our active asset management are thorough analysis about asset performances, requirement and their future/strategic outlook.
- Especially, since the portfolio is a heterogeneous mix of generation assets with a highly variable performance
- As a consequence, we could avoid EUR 200 million spend on maintenance in the last three years
- Examples:
  - Decommissioning of Buggenum
  - No maintenance for German gas turbines (EUR 25 million savings)
  - Decrease actions in pump storages (EUR 137 million savings)
  - No LTE in Klingenberg lignite plant (EUR 50 million savings)

# Funds available for growth allocated to wind and heat network extensions (including completion of Moorburg)

## Total breakdown maintenance & replacements (2014-2018)



## Split of growth investments (2014-2018)



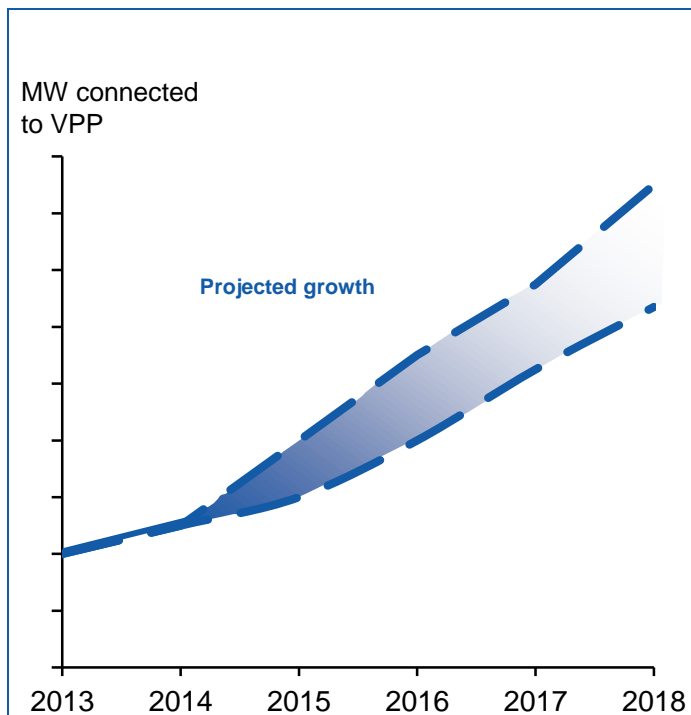
## Comments

- Maintaining the existing asset park at its current level absorbs approx. 73% of available funds 2014-2018
- Vast majority of funds available for growth are allocated to renewables (wind), heat (including completion of Moorburg), downstream and storage assets (other <1%)
- Heat investments mainly within grid extensions



# Smart Energy Enabler: Vattenfall has many good initiatives that have a positive business case

## Example: VPP (virtual power plant)



- *Innovative alliance between producers and consumers with the aim of integrating renewable energies in GER*

## Other initiatives with positive business case



### eMobility Service Portfolio

- *Home & business charging infrastructure*
- *Public charging infrastructure*



### Basement electricity "Haus-Strom"

- *Supply of electricity to tenants of apartment buildings from CHPs in the basement in addition to supply of heat to the B2B customer*



### Pooling @ Hydro Germany

- *German pumped storage power plants to be operated and positioned as one pool*

...

...

**All products subject to a critical revision on a regular basis to ensure profitability**

# Getting fit for the ‘New Normal’

1

## Consolidation: strong focus on EBIT and cash flow

- Operational consolidation – focus on operational excellence
- Strong focus on OPEX and CAPEX
- Sale of non-core activities
- Turn around/sale/closure of non profitable activities

2

## Take advantage of growth opportunities of the “New Normal”

- Profitable growth in downstream businesses – electricity and gas sales, district heating and decentralized generation
- Become a trusted partner of our customers and other stakeholders
- Profitable growth in renewables

3

## Position conventional capacities as partners of the energy transformation

- Raise flexibility of conventional capacities to make them partners of the renewables
- Manage conventional capacities for maximum commercial availability and cash-flow

4

## Reshaping of the regulatory regime

- Increase lobby activities in our core regions and lobby for concrete (commercially driven) changes within the “Energiewende”, the Dutch Energy Deal and the UK Market Reform

5

## Master HR Challenges

- Motivation of our employees
- Rightsizing of the organization
- Increased flexibility requirements on our employees
- Knowledge transfer to a new generation of employees (as the older generation retires)