



Operational efficiency in focus

Capital Markets Day

5 November 2014

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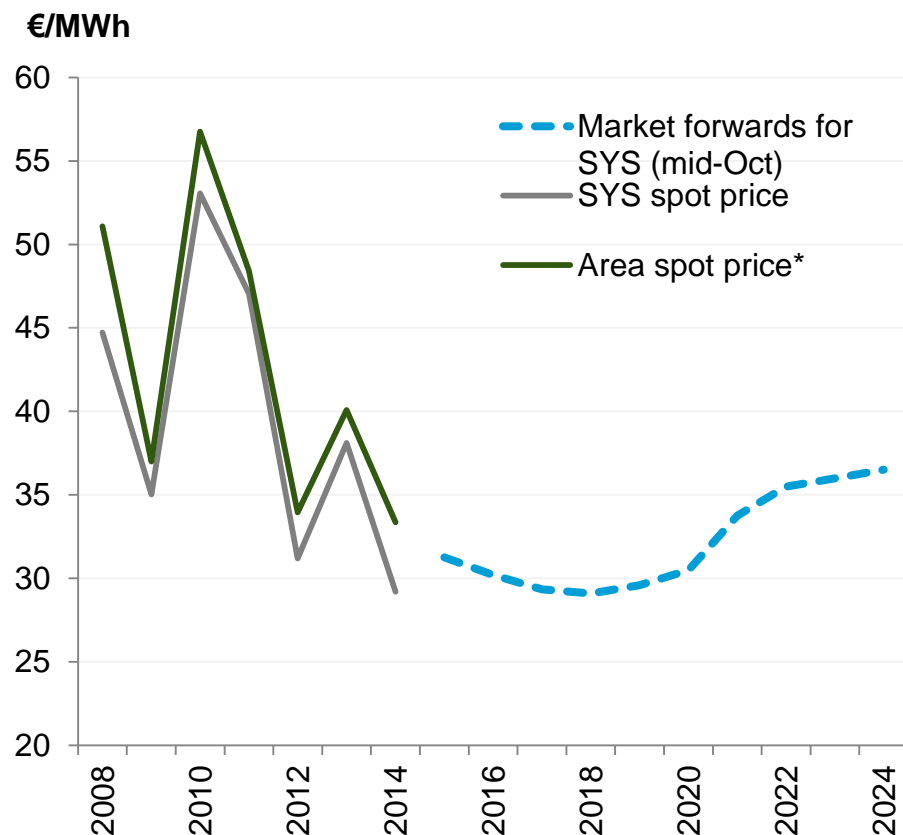
Agenda

- Some market aspects
- Fortum is prepared also for demanding markets
- Industrial excellence
 - Example hydro
- Fleet value enhancement
- Summary

Market outlook remains flat

The power market opportunity shifts from volume to price volatility

Nord Pool electricity price

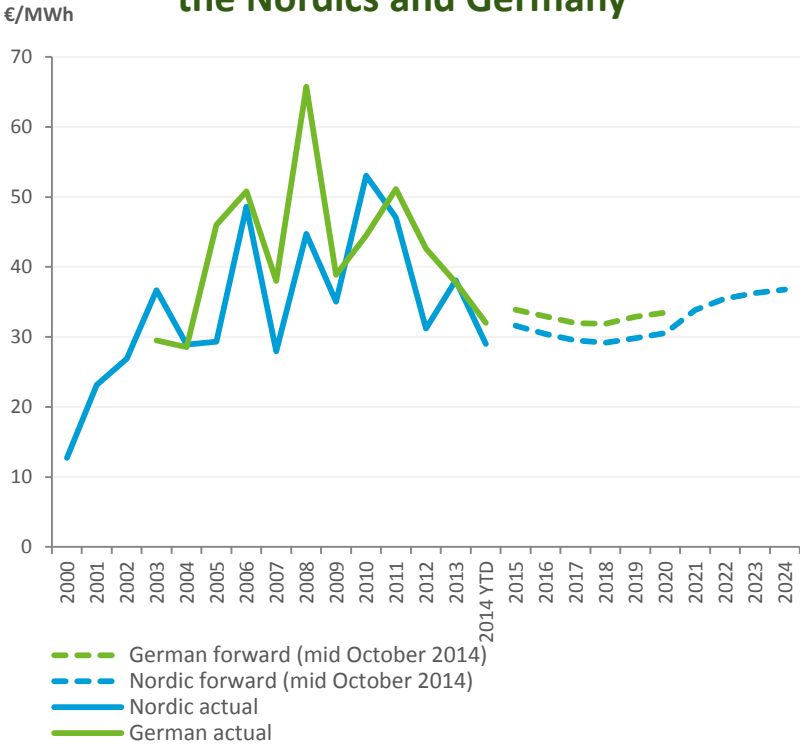


- Electricity price scenario in the Nordics is flattish
 - Moderate *demand growth on average*
 - Renewable supply continues to grow
 - Slow appreciation of the carbon and fuel prices
- ...but intraday price volatility expected to increase driven by RES

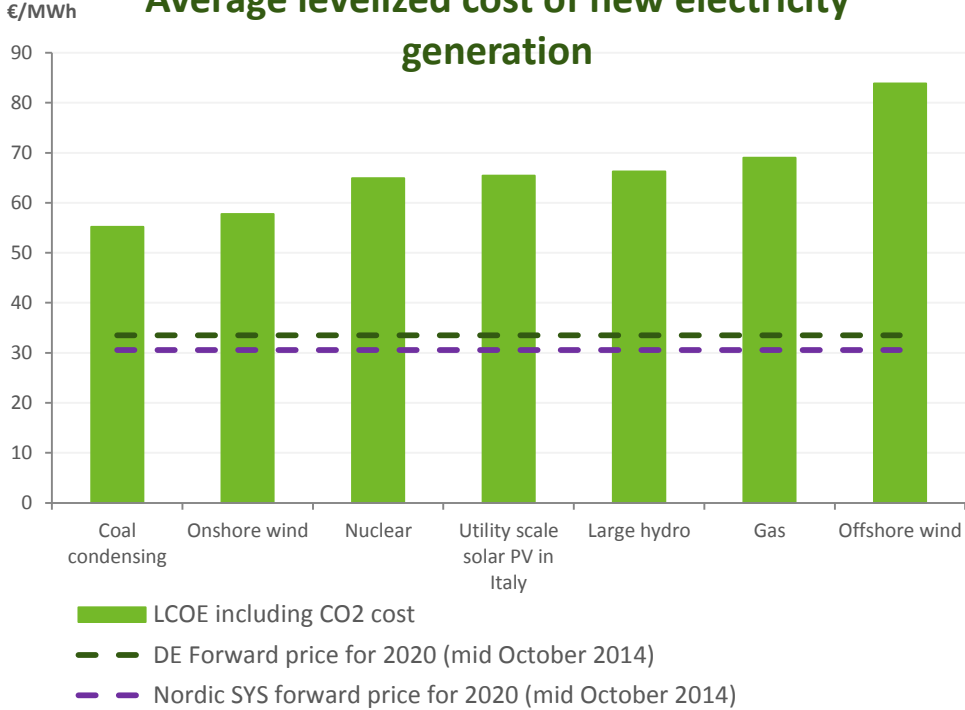
* Average spot price = Average price of area spot prices SE2 20%, SE3 40% and HEL 40% (Fortum's production fleet in average year)

Wholesale electricity prices are too low to attract investments: Nearly all new investments in Europe are based on subsidies

Annual wholesale electricity prices in the Nordics and Germany



Average levelized cost of new electricity generation



Levelized cost of electricity (LCOE) = average lifetime (OPEX and CAPEX) costs per MWh produced

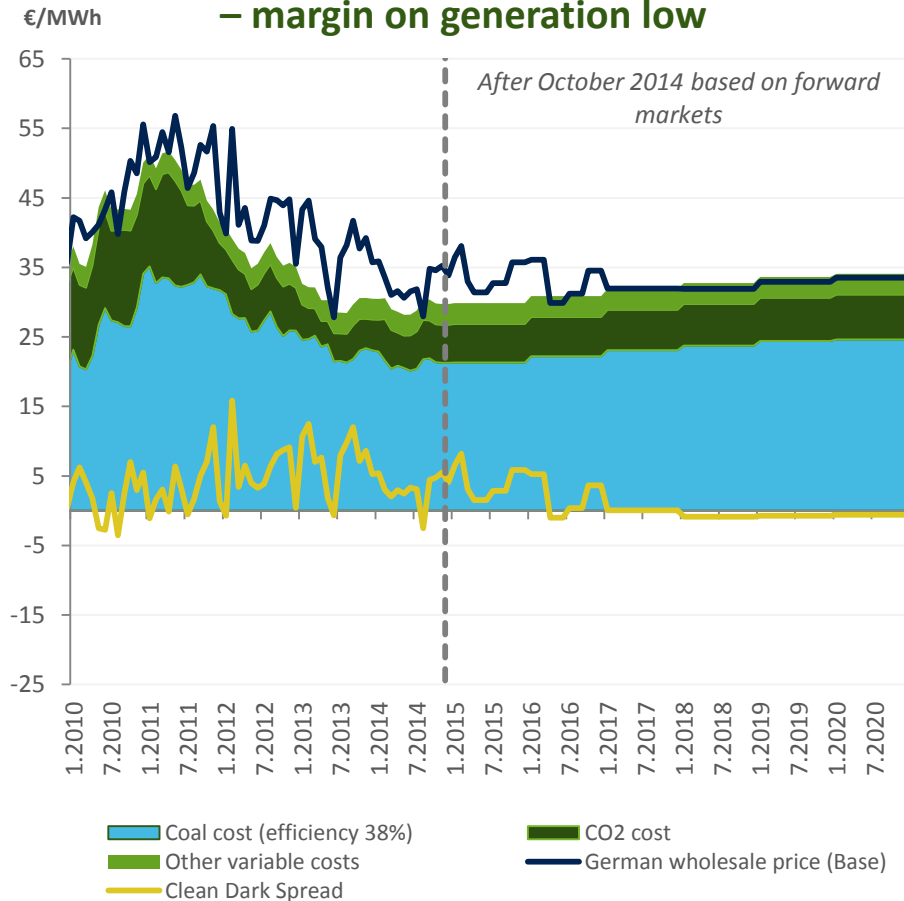
Disclaimer: Figures above are calculated based on data from recent public reports and do not represent Fortum's view on levelized costs of new capacity.

Profitability of market-based generation deteriorated by weak demand, generous subsidies and low CO₂ price

Case Germany: Current market conditions favor coal above gas

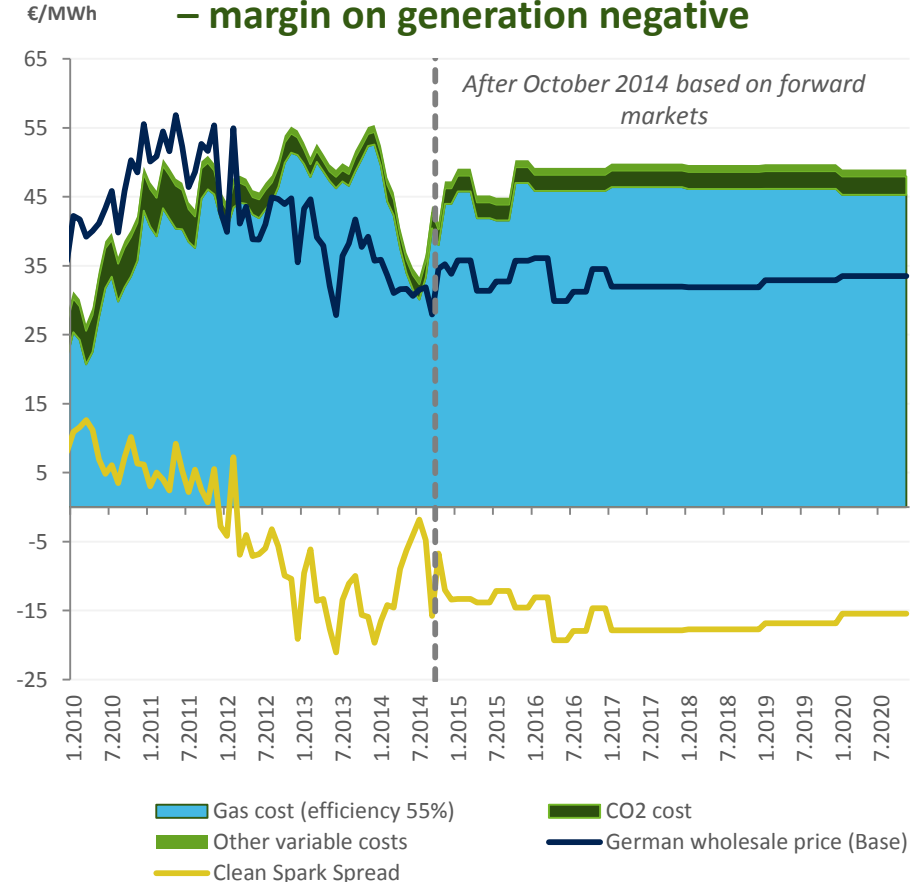
Breakdown of German clean dark spread

– margin on generation low



Breakdown of German clean spark spread

– margin on generation negative

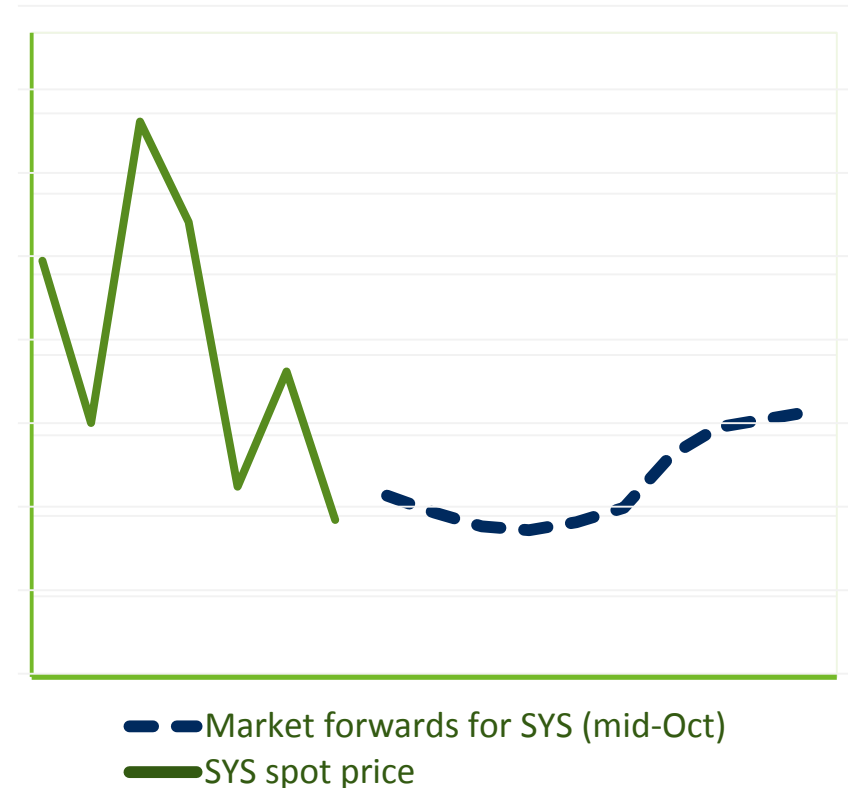


Source: EPEX, EEX, ICE, Fortum II

Fortum is well prepared for a demanding operational environment

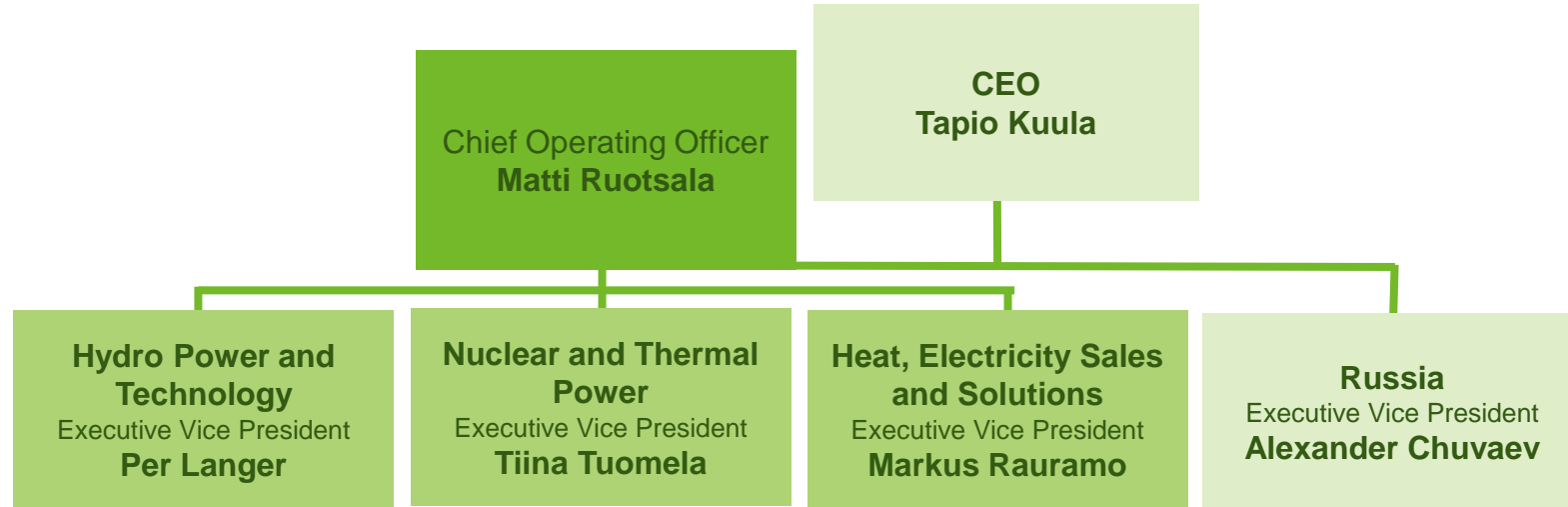
1. Capture value of price movements
2. Operational excellence
3. Investment portfolio management

Nordic electricity price



Role of Chief Operating Officer - COO

Industrial excellence – ability to add value – competitiveness

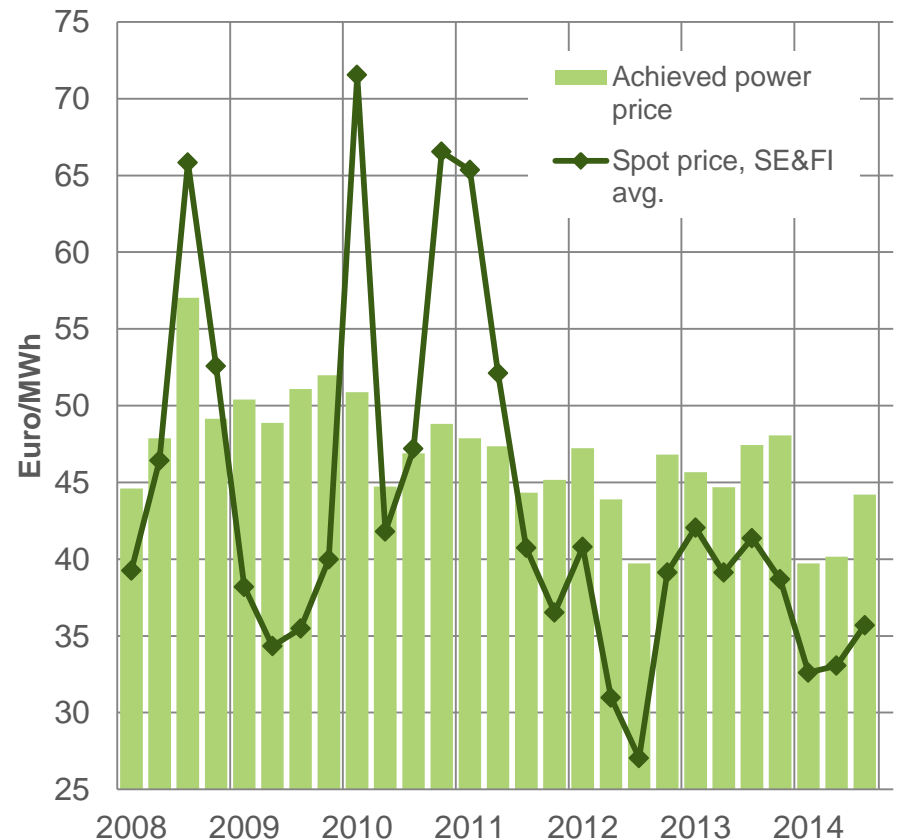


- Enhance agile and flexible operations
- Focus on performance
- Exploit further synergies cross divisions
- Scrutinize cost structure and keep tight cost control
- Fleet value enhancement through emphasizing on fleet flexibility and short payback
- Improve customer orientation
- Successful integration

Value of flexible generation to increase

- Price volatility is increasing - especially in the physical markets
- Intraday markets becoming increasingly important value drivers
- Total portfolio optimization - Production optimization and trading strategies adjusted accordingly
- Flexibility of the generation fleet increased

**Nordic spot price vs.
Fortum's achieved power price**



We are determined to keep the profits

Identified four key areas for where we focus our actions

1. Price volatility (both dips and peaks)

- Physical and financial trading have increasingly become significant capacity optimization elements
- Open district heating and smartly optimized heat systems
- Timing of outages, especially in nuclear - Operating nuclear in different price times

2. Productivity

- Continued focus on costs
- Reduced further complexity and increased flexibility in all divisions
- Further increased availability in nuclear

3. Current investments and growth investment portfolio

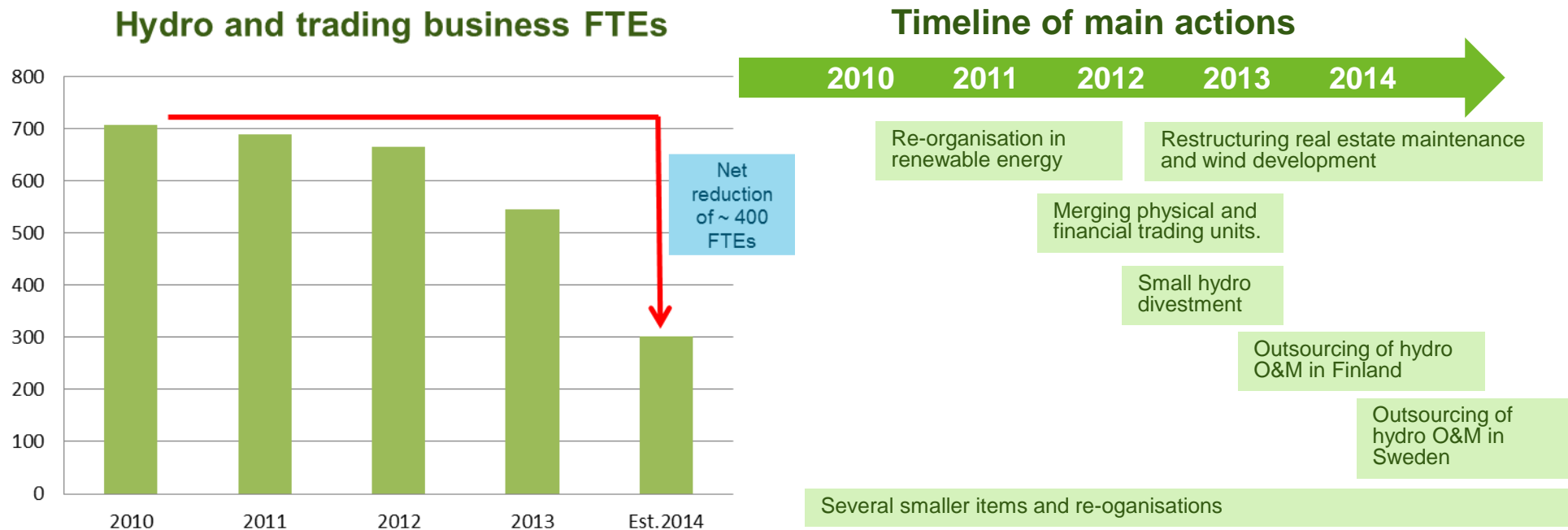
- Fleet value enhancement through emphasizing on fleet flexibility and short payback
- Hydro, Nuclear, CHP, Solar – one portfolio
- Review complicated businesses

4. Integration capabilities of restructuring as well as acquisitions

- Apply and scale effective operation models in hydro, nuclear and CHP
- Support function integration to Fortum platform

Increased flexibility, enhanced performance and improved safety

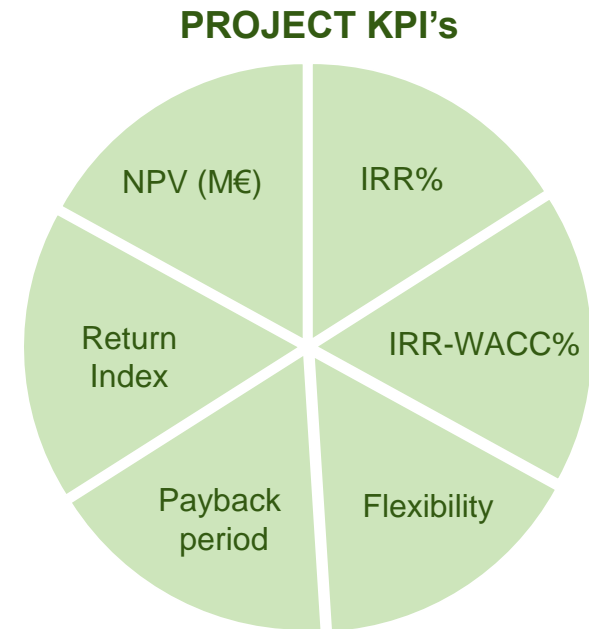
Example - Hydro and trading business transformation



- + **Improved focus on most essential:** Profitable tasks for value creation and safe, effective operation
=> strong focus on hydro optimization and trading
- + **All key KPIs have improved:** Value creation in financial and physical optimization improved, fixed costs have decreased, investment discipline improved, lost production has decreased and safety improved
- + **Total portfolio management:** Joint physical and financial optimization, supported by flexible outage management (improved earnings)

Investment targets - maximize profitability and enhance fleet flexibility

- Investment projects are valuated based on various criteria, key issues for the decision:
 - Strategic fit
 - Country / market growth potential
 - Technology
 - Flexibility
 - Project KPI's



- **Maintenance investments to be kept at or below depreciation**
- Regarding new capacity, **select the most profitable** investment prospects to be developed and scrutinize optionality in an early stage
- Each **investment to be tested against** how it can survive if key assumptions in market environment do not materialize
- **Short pay-back** essential

Summary

- Performance, agile operations and flexible cost structure
- Fast execution
- Synergies throughout the divisions
- Capture value in market volatility
- Investments to support flexibility and optionality
- Attractive and innovative customer solutions

We are determined to keep the profits and to increase our competitiveness



For more information, please visit
www.fortum.com/investors