

# European energy markets in crisis

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# FTI Consulting overview

## Overview

- Global business advisory firm
- Dedicated to helping organisations protect and enhance enterprise value

## History & scale

- Established in 1982
- >US\$ 1.5 billion revenues, NYSE listed
- >4,000 staff across 24 countries on six continents

## Global reach



## Services

- Five divisions:
  1. Economic Consulting
  2. Corporate Finance / Restructuring
  3. Forensic & Litigation Consulting
  4. Technology
  5. Strategic Communications



# Content

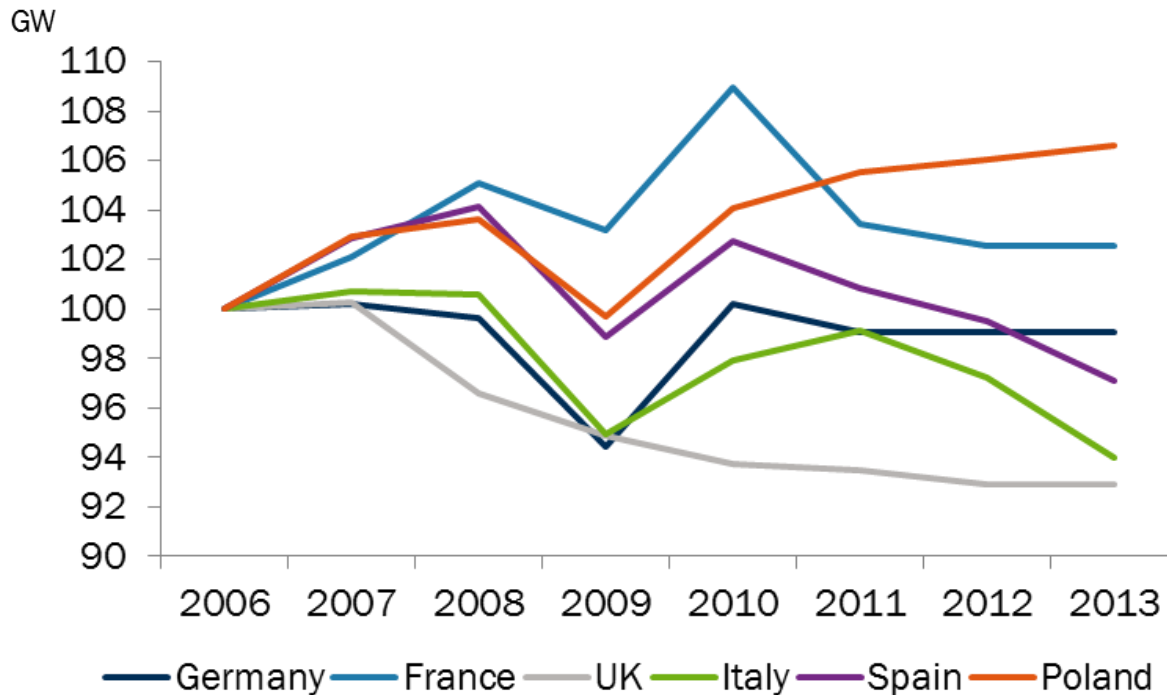
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- Context for the current crisis of the European energy industry
- Policy issues: the lack of consistency of Europe's energy policy framework
- Market issues: electricity markets do not send appropriate price signals
- Conclusion and way forward: the need for a new model

# Context for the current crisis of the European energy industry

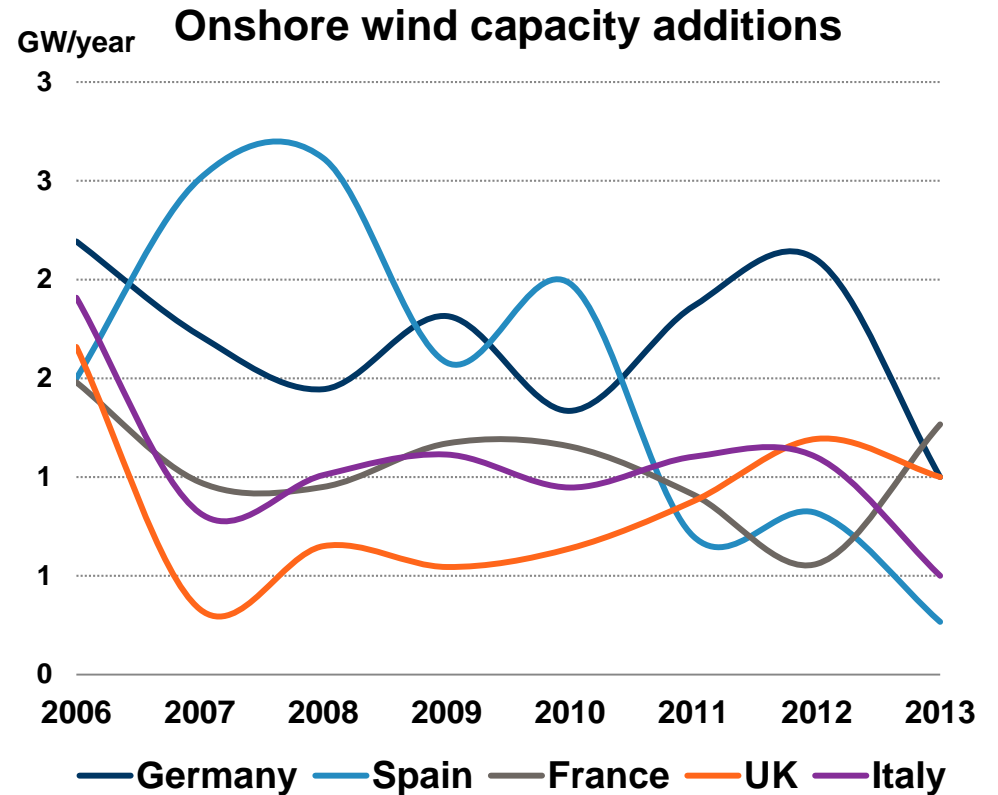
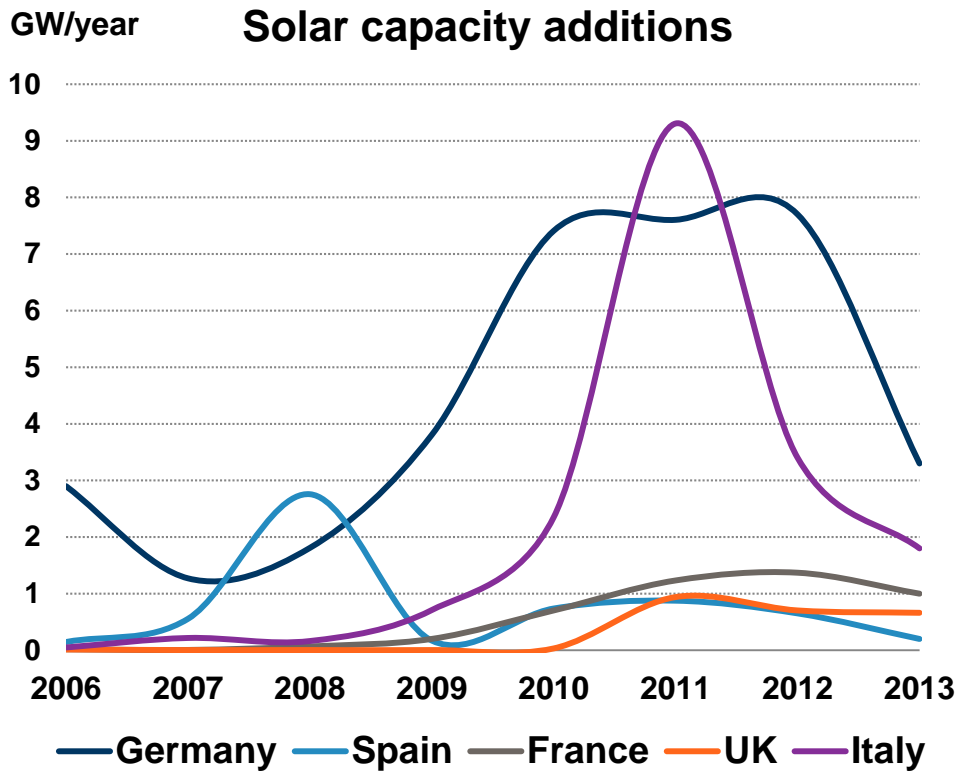
# Electricity demand: a lost decade

Index of historical consumption (base 100 in 2006)



- Several countries have not recovered yet the pre-crisis consumption level:
- Double dip recessions in Italy and Spain
- Stabilisation in France and Germany
- Eastern Europe continues to grow

# Solar and wind capacity additions reduced “residual demand” for thermal plants



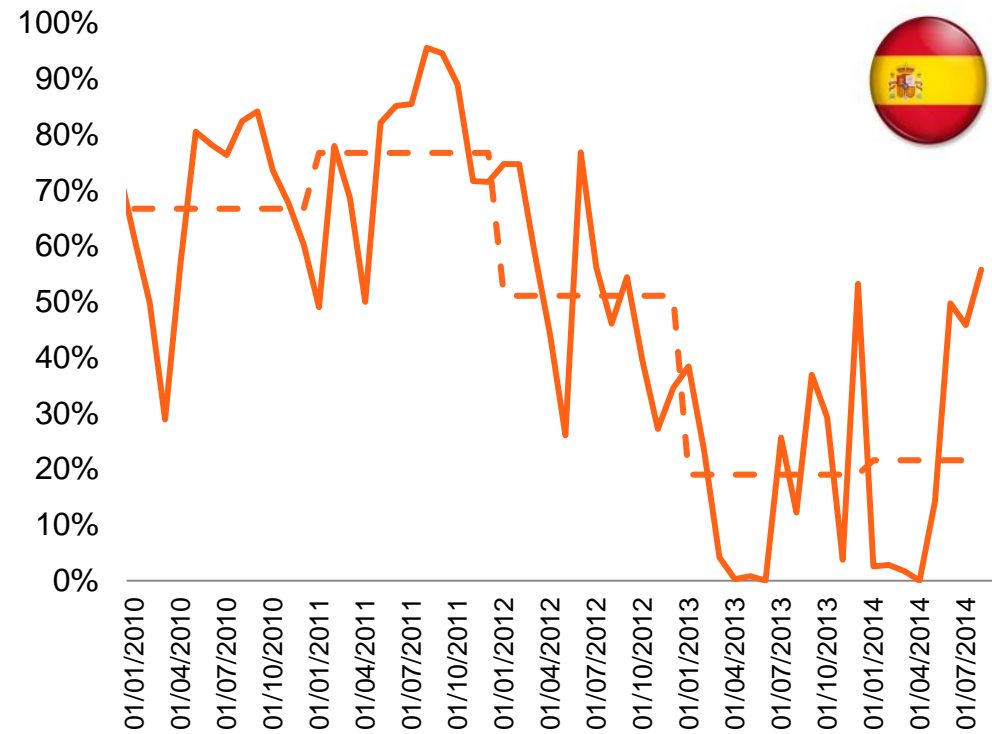
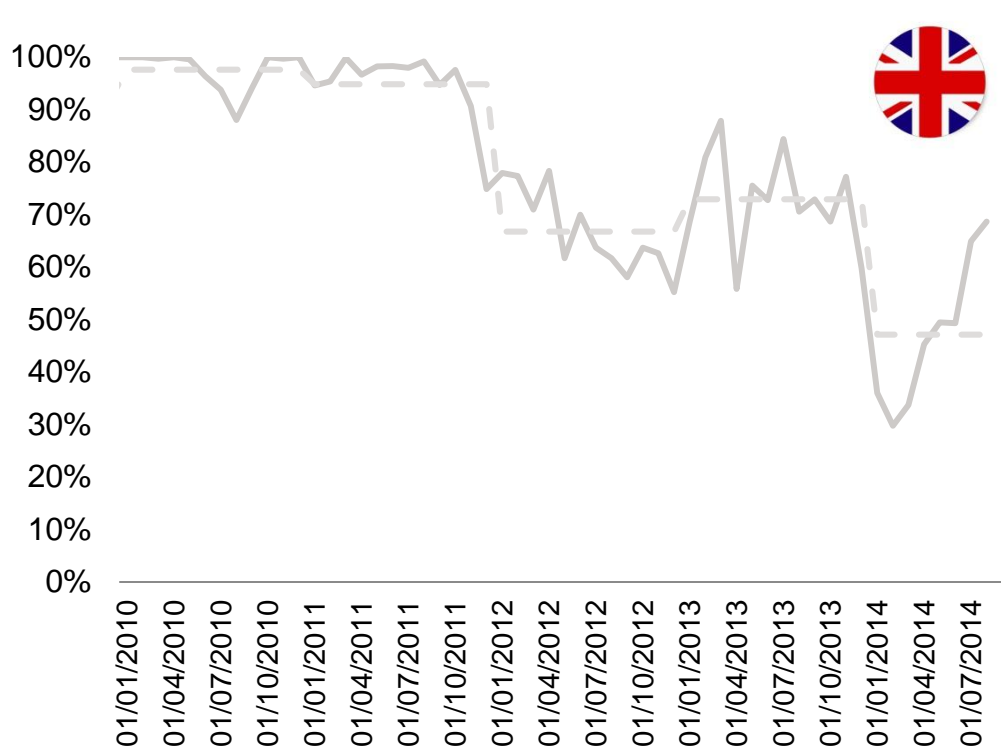
Source : Eurobserv'er

# Utilization rates of gas plants have fallen dramatically

## Theoretical utilization rate of a 56% efficiency CCGT

UK

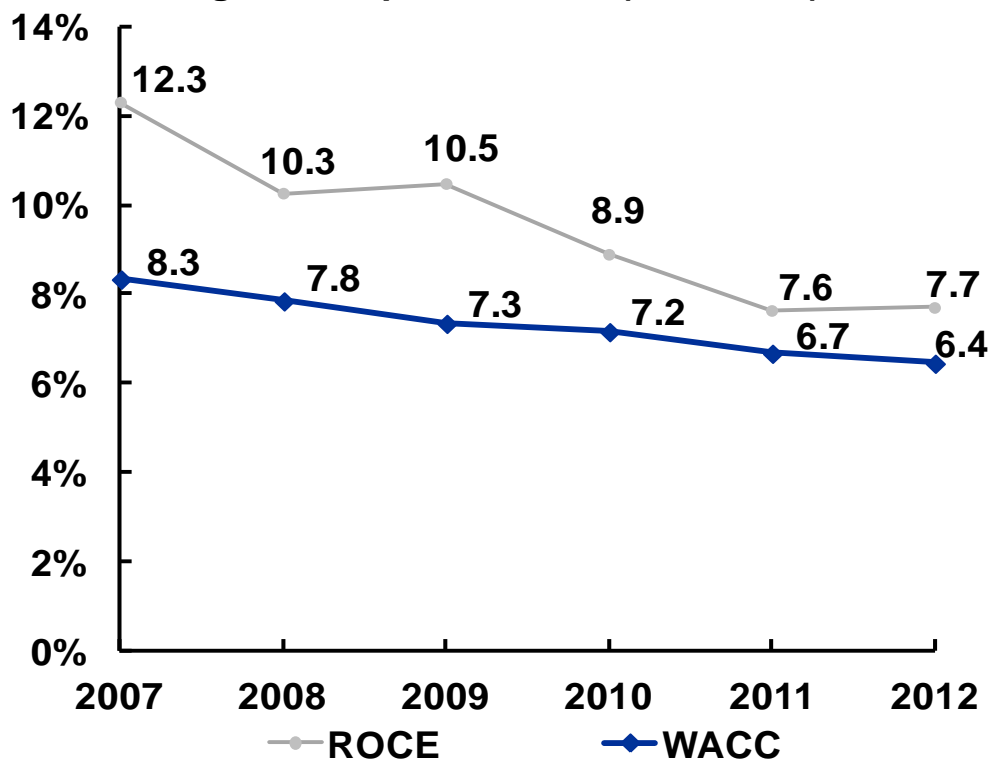
Spain



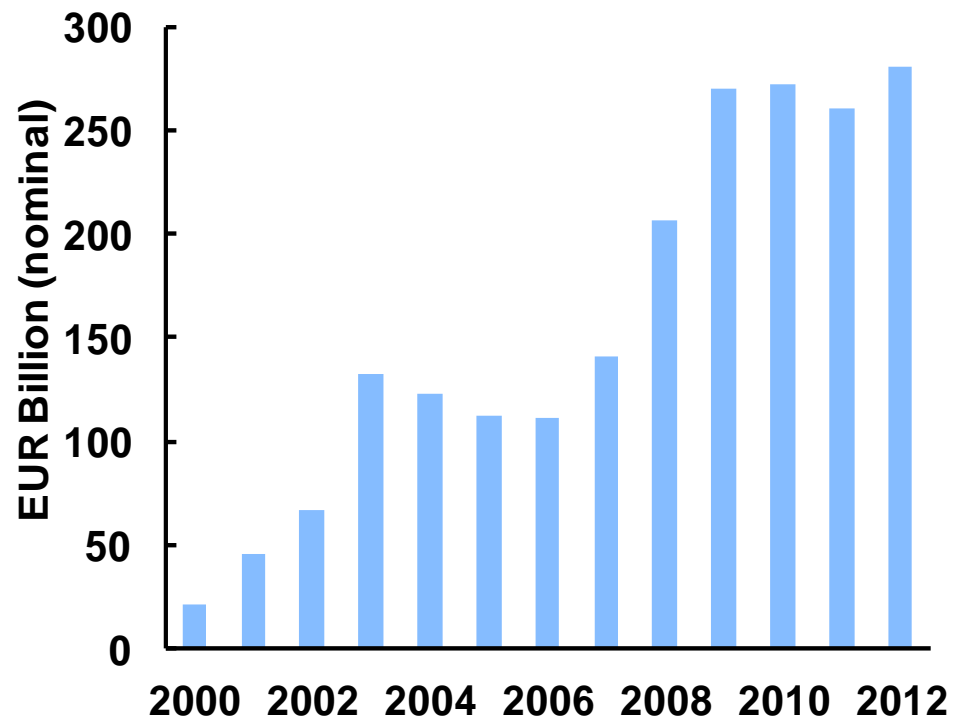
Monthly percentage of hours for which the spot price is superior to the CCGT SRMC  
 Yearly percentage of hours for which the spot price is superior to the CCGT SRMC

# European utilities fight for survival as their profitability has fallen and debt has increased

Return on capital employed (ROCE) and weighted average cost of capital (WACC) for 10 largest European utilities (2007-2012)



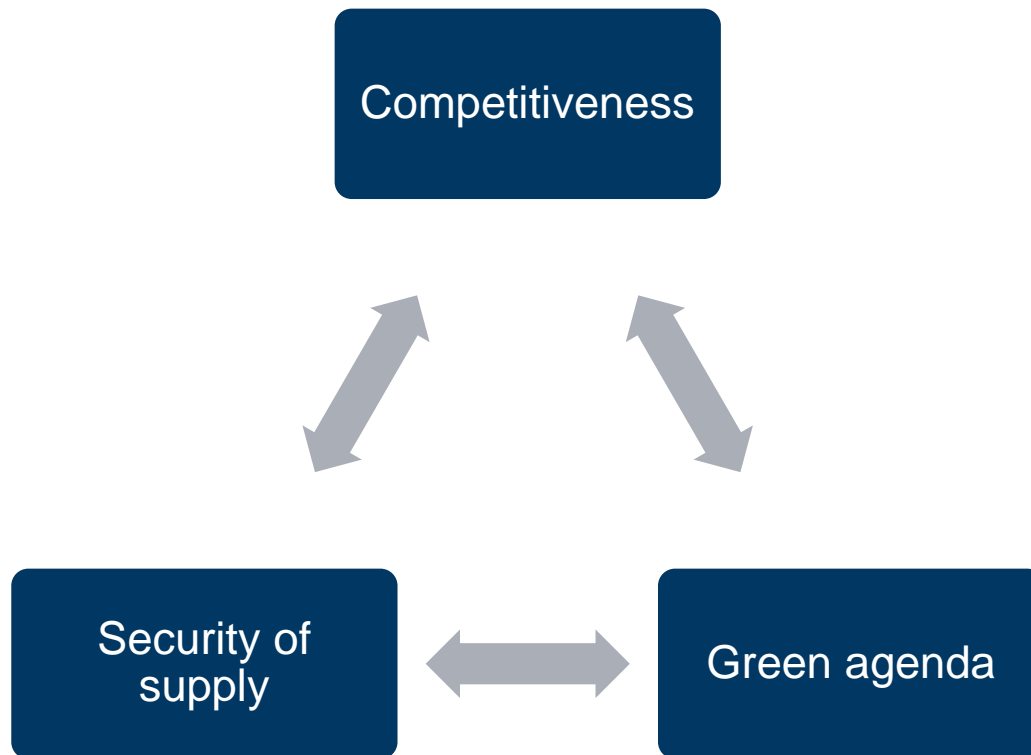
Net debt evolution of 10 largest European utilities (billion Euros)



■ European utilities are in a weak financial situation as they enter into a massive investment cycle

## Policy issues: the lack of consistency of Europe's energy policy framework

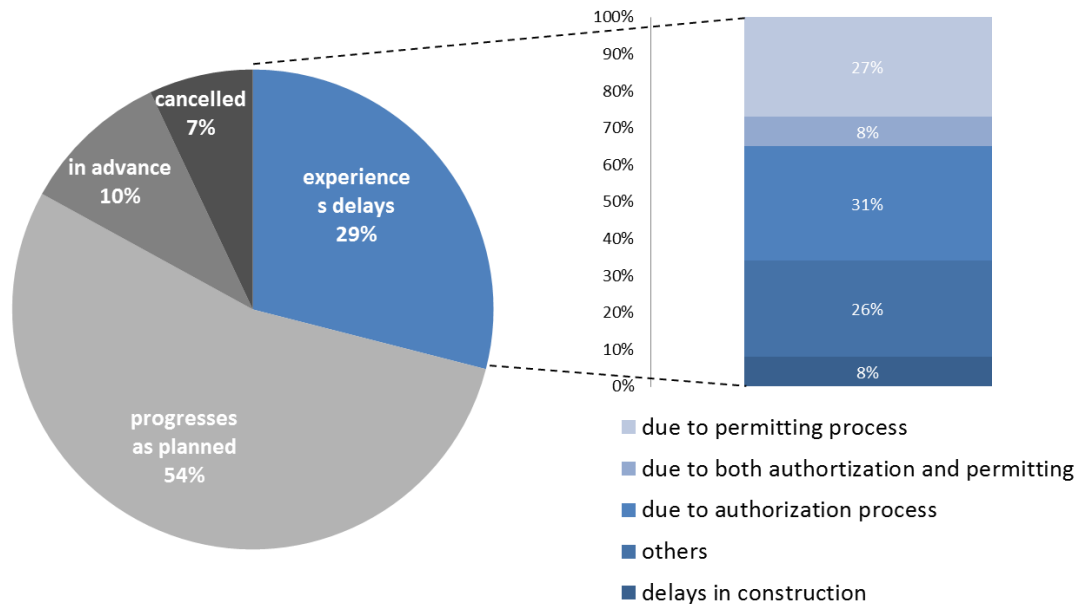
# European energy policy: the need for a consistent framework that addresses trade offs



- **1996 & 2003:** 1st and 2<sup>nd</sup> Directives concentrate on creating integrated competitive power & gas markets
- **2008:** Green legislative package sets 2020 targets
- **2012-2013:** Debate on 2030 targets highlights change in priorities:
  - European Commission Green Paper (COM(2013) 169 final) - “A 2030 framework for climate and energy policies”
  - “One of the fundamental objectives of EU energy policy is to ensure .... competitive domestic and international energy markets and prices which are internationally competitive and represent affordable energy for final consumers“

# Infrastructure development is lagging behind

## Evolution in the timing of interconnection completions, and causes of delay or cancellations (ENTSO-E TYNDP of 2010 vs. 2012)



Source: ENTSO-E ten year network development plans, 2012 and 2010.

## ■ ENSTO-E 10 2012 Investment Plan calls for two- to threefold increase in the rate of infrastructure investment:

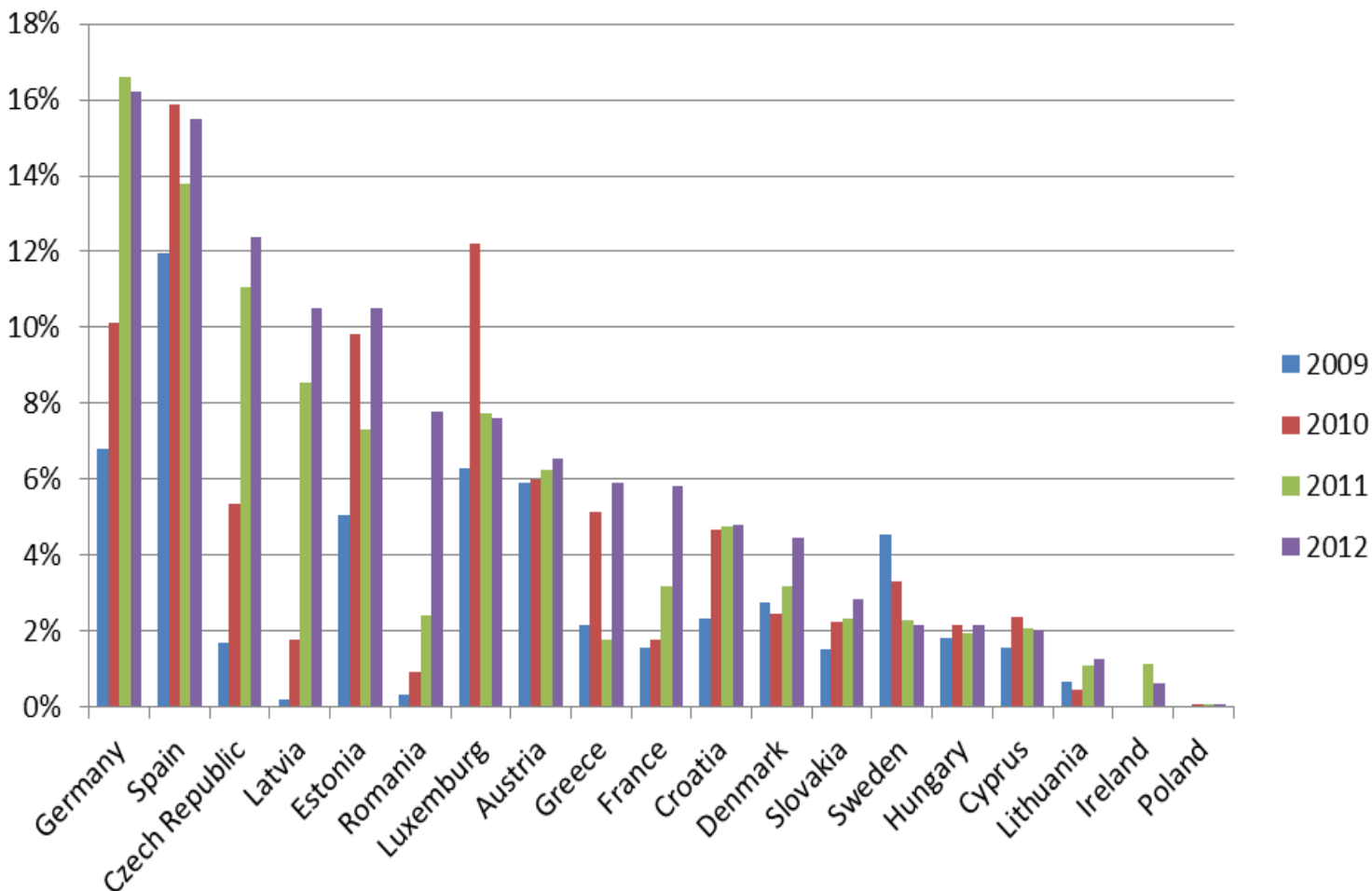
- 58 GW of new interconnection in Europe by 2022.
- 104bn of investments over 2012-22.

## ■ However, slow progress to date as critical infrastructures face repeated delays:

- Progress slowed down by a range of factors: local opposition, political and regulatory barriers.
- One third of the ENTSO-E “Projects of Pan-European Significance” have experienced delays.

# Renewables represent a rising share of consumers' electricity bills

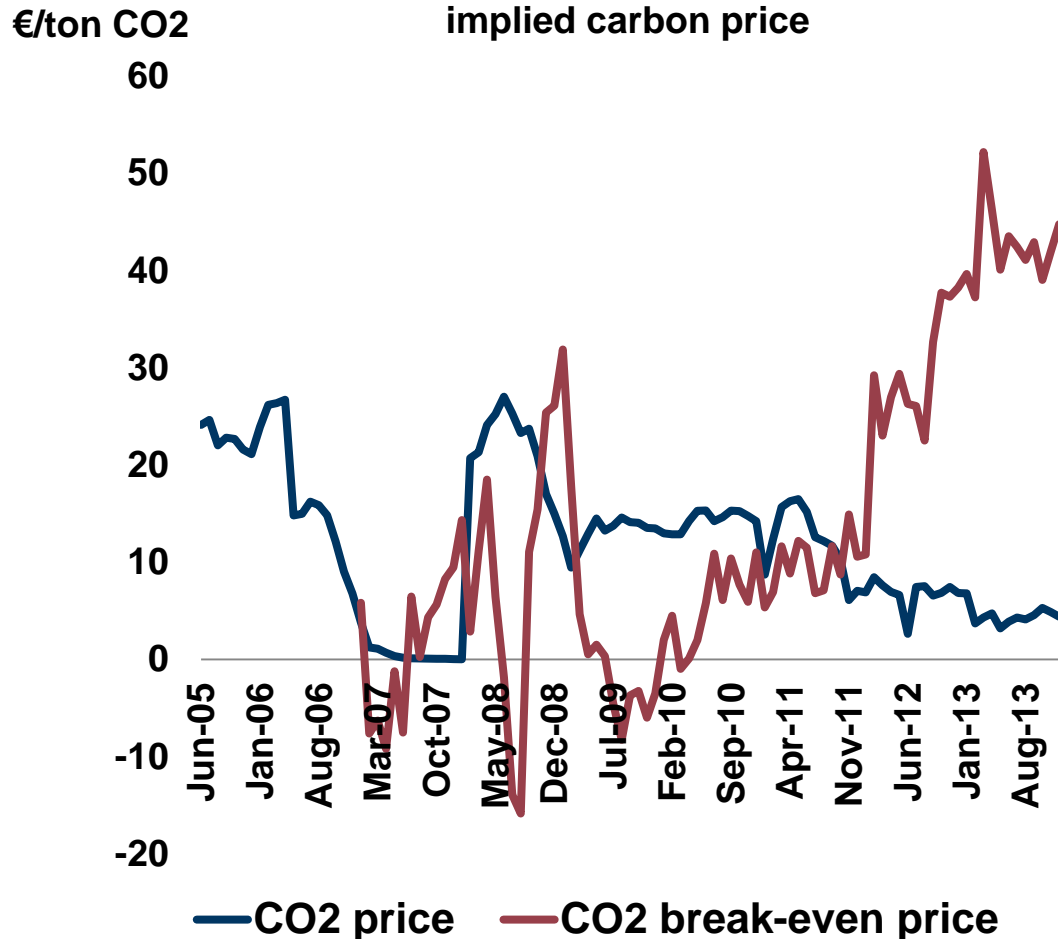
**Evolution of the share of renewables support schemes share in domestic consumer retail prices (2009-2012)**



Source: European Commission "Energy prices and costs report", *Accompanying the Communication from the EC Energy prices and costs in Europe*

# The European carbon market: need for a structural reform to address overlap with RES policies

ETS carbon price and coal-gas switching implied carbon price



Source: FTI analysis

## ■ The ETS has become a “residual market”

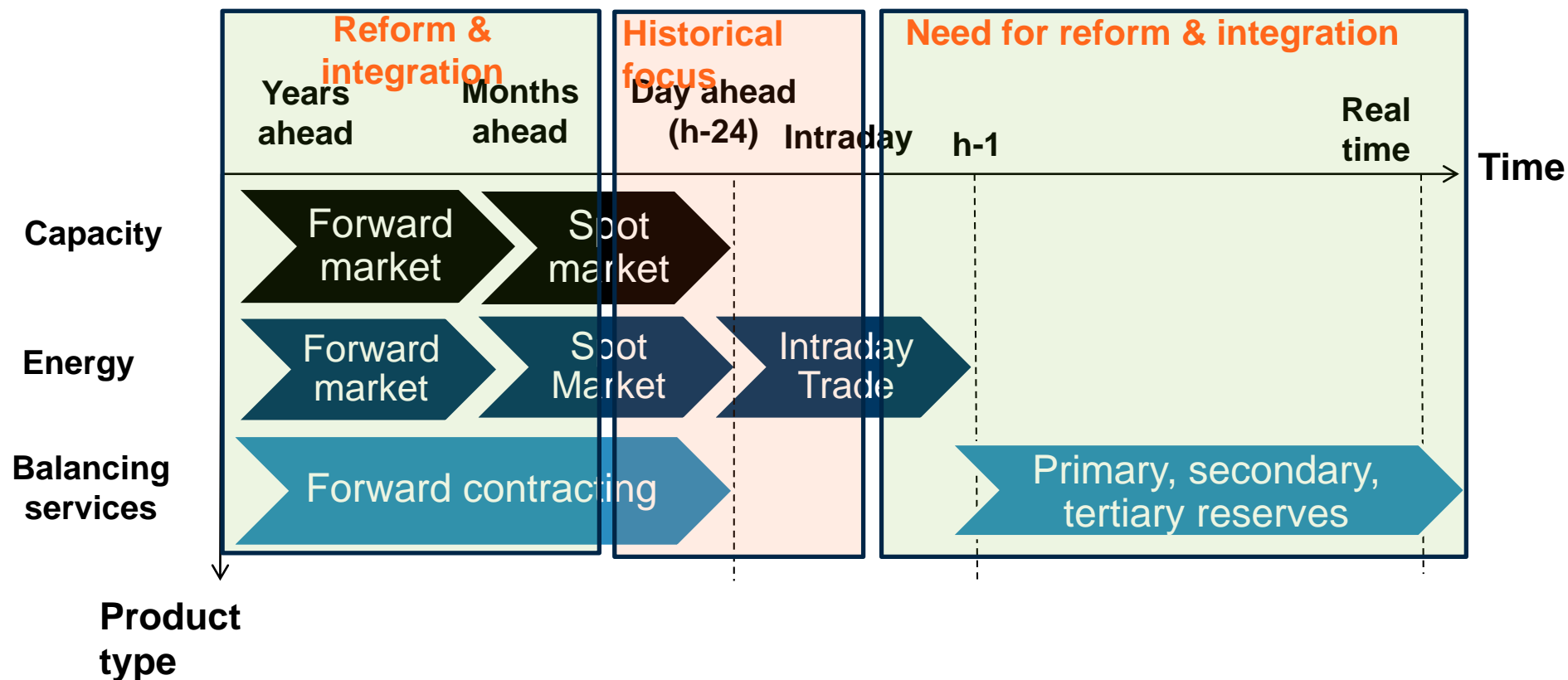
- RES and energy efficiency policies are the prime drivers of investments.
- ETS prices well below the implied switching price btw. coal & gas generation (about 40€/tCO<sub>2</sub>).

## ■ The decisive step for the future credibility of the ETS is the structural reform that the EC has started discussing:

- Need for a supply adjustment mechanism that is transparent and based on predetermined simple rules

Market issues: electricity markets do not send appropriate price signals

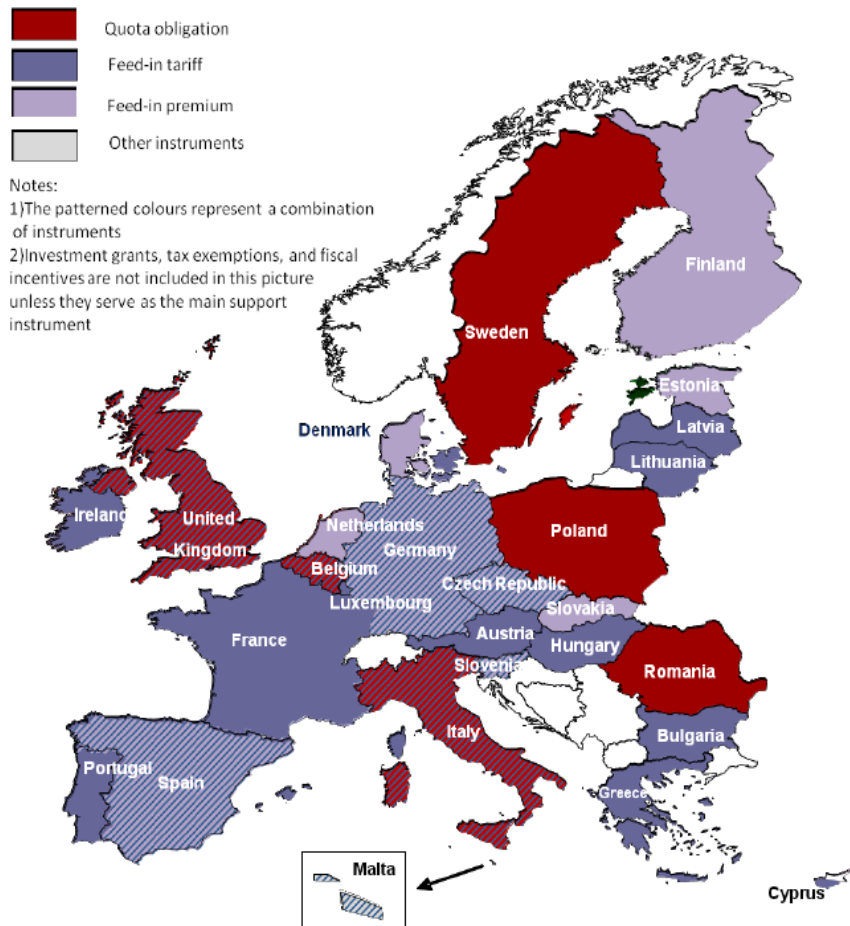
# Current European electricity markets remain incomplete



- Adequate price signals are lacking to provide the right operational and investment incentives to market participants:
  - both on a very short time frame – within day or within the last hour
  - and on a long time frame to trigger investments

# Renewables need to be integrated into electricity markets

## Type of renewables support policy by country

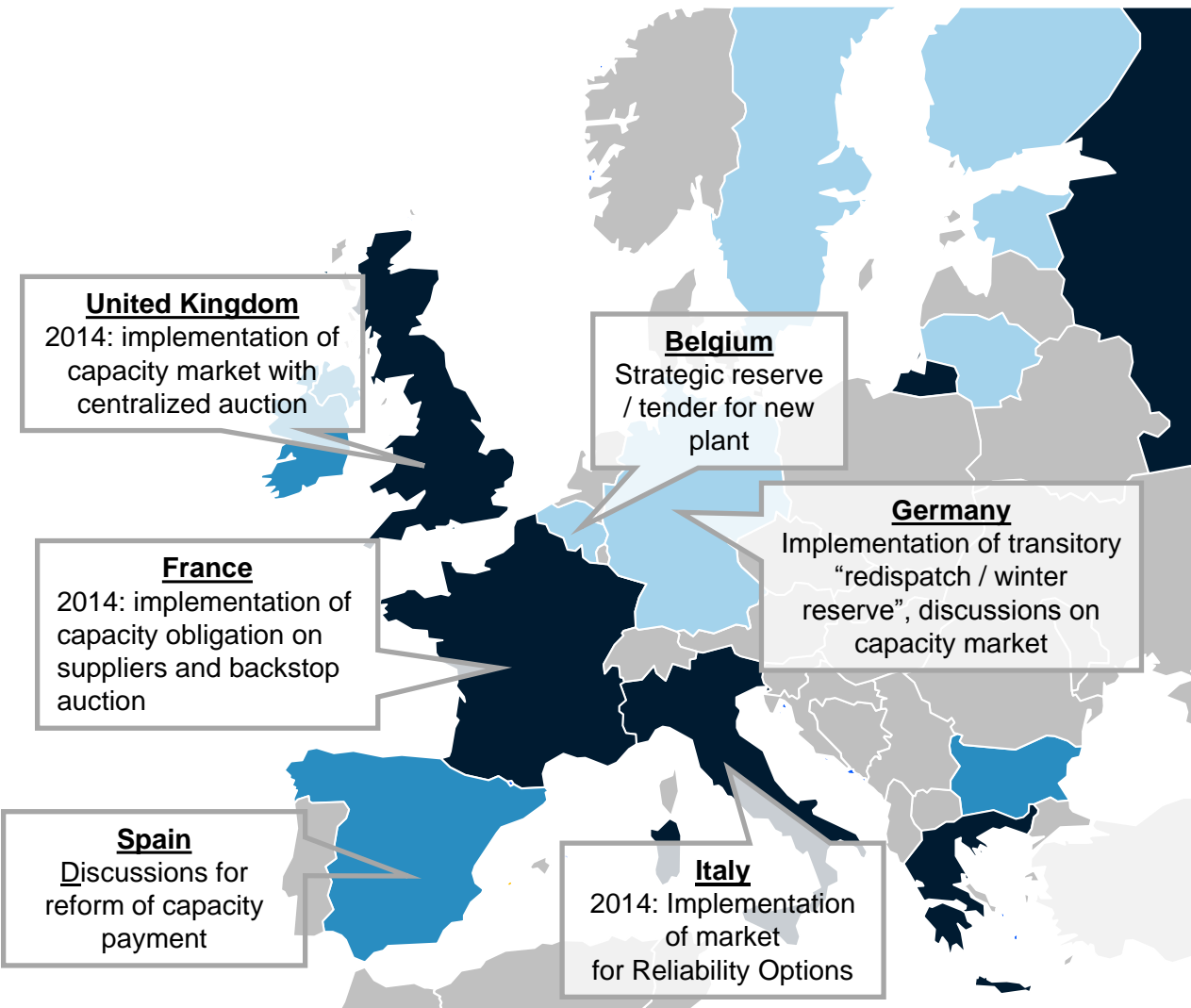


- Lack of coordination between national approaches leads to suboptimal deployment of renewables, increasing costs for consumers.
- Support policies need to evolve to integrate RES into power markets
- In the long term, the depressive effect of RES on power prices represents a structural issue

R. Haas, Ch. Panzer, G. Resch, M. Ragwitz, G. Reece, A. Held. A Historical Review of Promotion Strategies for Electricity from Renewable Energy Sources in EU Countries, Renewable and Sustainable Energy Reviews, volume 15, issue 2, pp. 1003 – 1034 (2011).

# Capacity mechanisms need to be coordinated

Capacity market    Capacity payment    Strategic reserve



- Ongoing reforms / discussions mark a shift toward market based capacity mechanisms
- France, Italian, and United Kingdom reforms share common structural (and permanent) approach
- Significant differences remain in the design of the different capacity markets
- This could introduce further distortions in energy markets
- ...
- And calls for some European guidelines on harmonization and coordination of these mechanisms

## Conclusion and way forward: the need for a new model



# Conclusions

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## ■ **A set of objectives does not make a consistent energy policy**

- The lack of consistency in the different policy objectives is the root cause of many the regulatory and policy uncertainty that hampers investment.
- The debate on the 2030 targets has not addressed the key trade offs between competitiveness an costs, environmental objectives, and security of supply.

## ■ **European power markets need a deep reform to adapt to change in policy priorities and international context**

- It is critical to complete the sequence of electricity markets with the missing elements in both the short term and in the long term
- Experience on other continents (Latin America, Ontario, etc.) demonstrates how the functioning of competitive and well developed electricity markets can be enhanced through the judicious use of long term contracts.

## ■ **Governance issues need to be addressed and regional approaches are a promising way forward**

- National and European levels of governance are obsolete
- Coordination mechanisms need to be strengthened to reduce risk and support investment



# Merci pour votre attention

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