

# How much Europe does the German energy transition need?

Views from the European electricity industry

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#### Example renewables



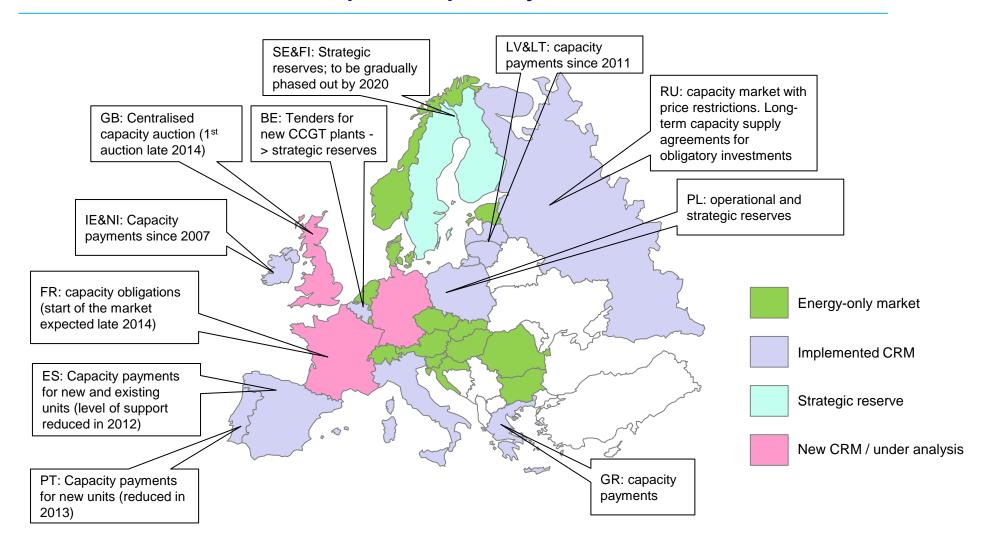
- Feed-in tariff (FIT)
- Feed-in premium (FIP)
- Quota
- Tenders

Note: This map does not include secondary support instruments like tax incentives, investment grants, etc.





#### Example capacity markets



Source: EURELECTRIC, October 2014



## The transition towards the low carbon economy is more costly than necessary

Figure 3. Electricity and gas expenditure 2010-2030 (bn€ in 2005 monetary value) projection – optimisation scenario.

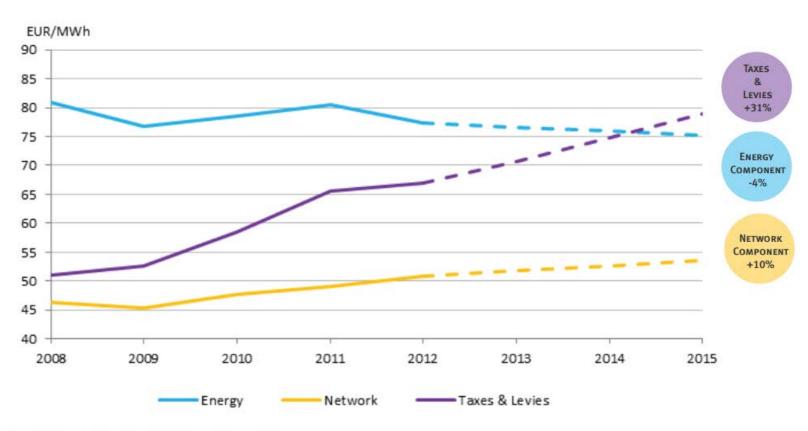


Source: EURELECTRIC/Accenture, 2014

#### eurelectric



### What's driving price increases?

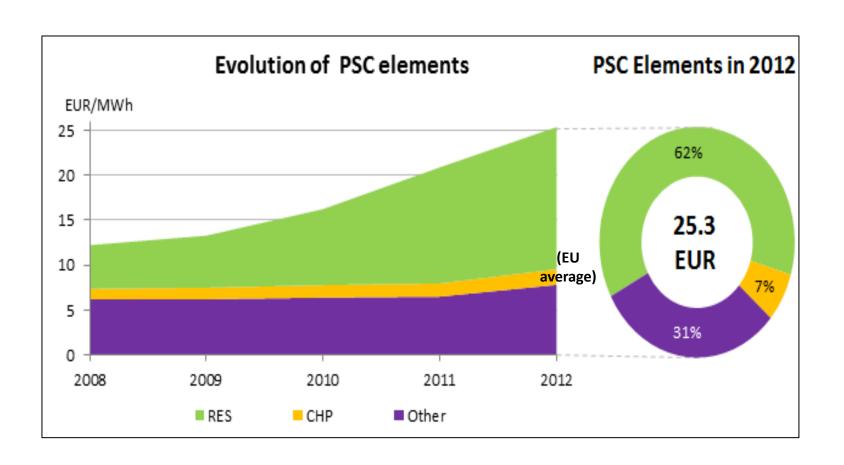


Evolution of Household Components

source: EURELECTRIC



#### Policy support costs are dominated by RES support



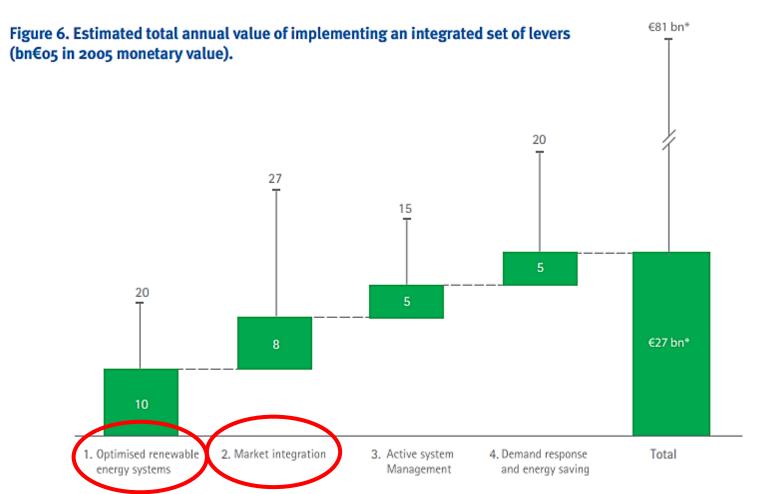


### The lack of a European approach is hampering investment

#### **Nordic** UK Taxation policies (e.g. nuclear fuel tax) Low carbon support (CFDs or feed-in tariff) · Capacity mechanism Carbon price support Emissions Performance Standard Germany — Belaium Nuclear phase-out decisions/laws Regulated consumer prices: > 50% of market politically determined by 2020 6 months freeze on retail · Only shielded national instruments to achieve these prices targets estme Eastern Europe Regulated consumer prices Regulated power prices (e.g. ARENH) Capacity mechanism (planned) Italy Spain · Capacity mechanism · Obligation to use domestic coal Capacity mechanism Volatile RES promotion Regulated power prices (tariff deficit) schemes Volatile RES promotion schemes



#### Building blocks for a more cost-efficient system



<sup>\*</sup> The green bars are the bottom of the range, and therefore represent a conservative estimate. In total, the set of value levers could generate a value of €27 to €81 billion relative to the PowerChoices Reloaded scenario. All blocks refer to electricity only.

Source: EURELECTRIC/Accenture, 2014

#### A European approach to RES growth

1: EU RES target delivered through national targets and support schemes

Market fragmented and distorted



2: EU RES target with EU harmonisation of support schemes (not yet clear how this would work)

Market distorted but not fragmented



3: EU RES target delivered through ETS (mature RES) and innovation support (immature RES)

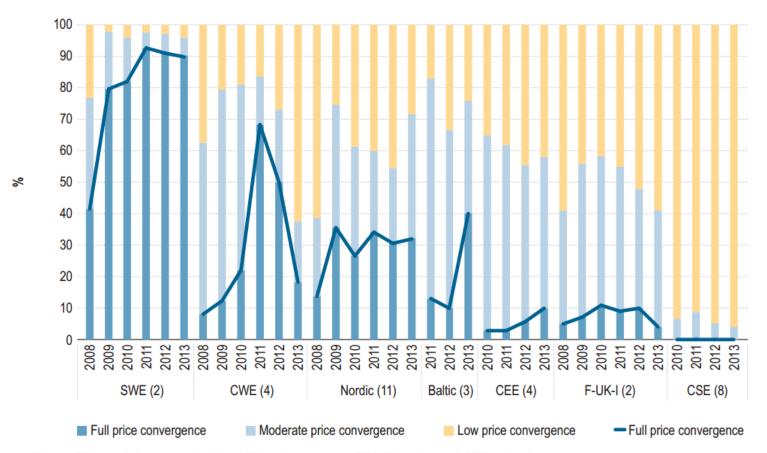
Fully market compatible





#### Market integration needs a serious boost

Figure 37: Price convergence in Europe by region (ranked) – 2008–2013 (% of hours)



Source: Platts, PXs and data provided by NRAs through the ERI (2014) and ACER calculations

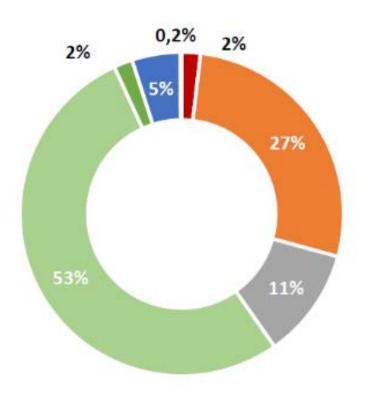
Note: The numbers in brackets refers to the number of bidding zones per region included in the calculations.

Source: ACER Market Monitoring Report 2013



### Adequate network infrastructure: increasing interconnections

TYNDP 2012: more than 100 pan-European projects for € 100 billion in next 10 years



- Cancelled
- Delayed
- Rescheduled
- Investment on time
- Expected earlier than previously planned
- Commissioned
- Commissioned ahead of time



#### Electricity markets need a European mindset

Enhance market functioning as a no regrets option

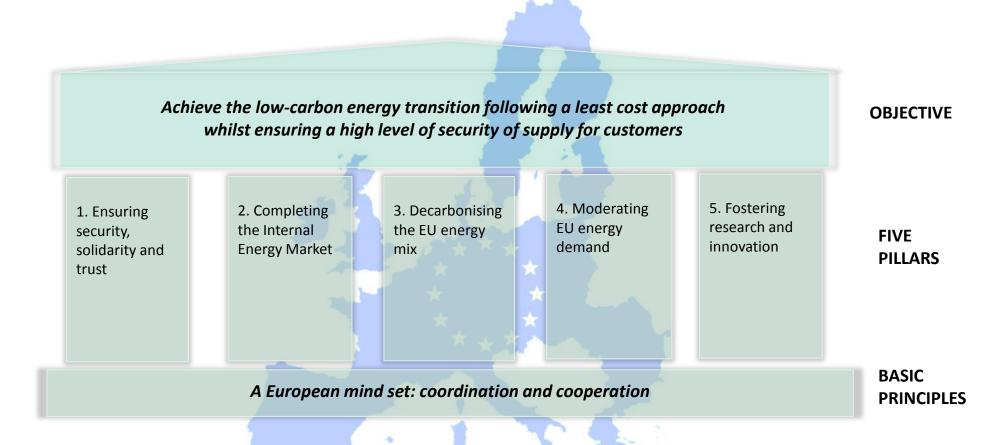
- Full execution of an integrated European energy market –
  intraday, day-ahead, balancing
- More interconnections between national markets
- Removal of wholesale price caps and regulated end-user tariffs and other market distortions

Complement the market design

- Regional instead of national approach to capacity markets
- Where introduced, CRM schemes must be open to crossborder participation



#### Looking ahead: an Energy Union for Europe





### Thank you for your attention!

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