



*RES integration: implication for the power market design*

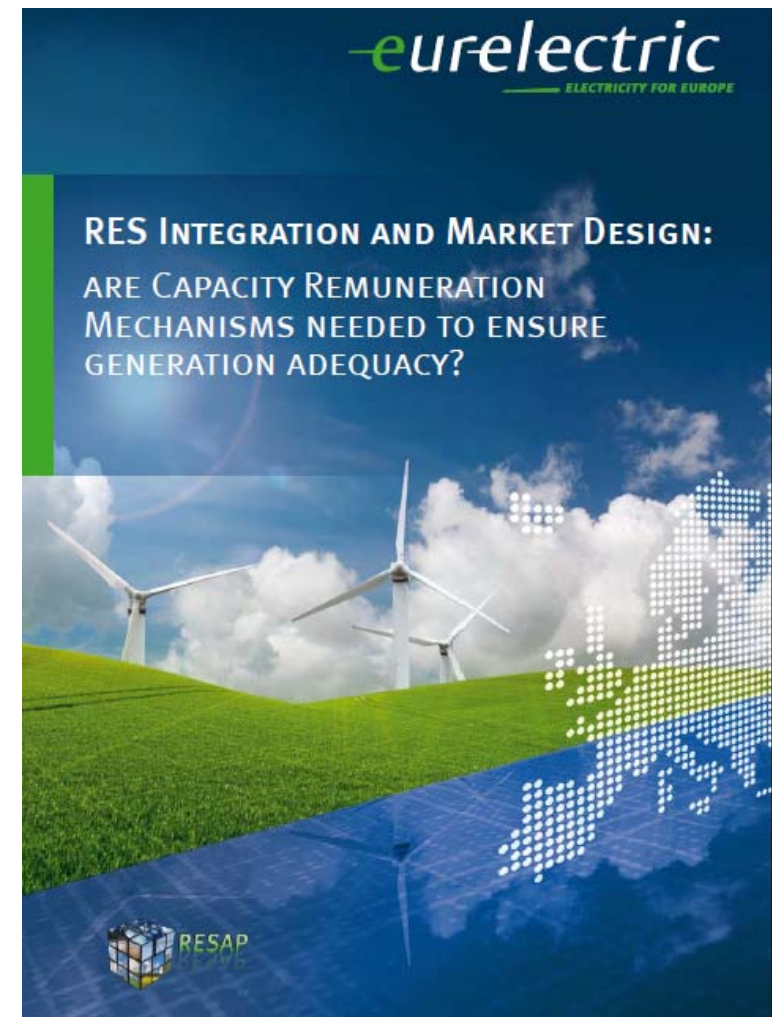
**Are Capacity Remuneration Mechanisms  
Needed to Ensure Generation Adequacy?  
Presentation of EURELECTRIC Report**

Florence, 24 May 2011



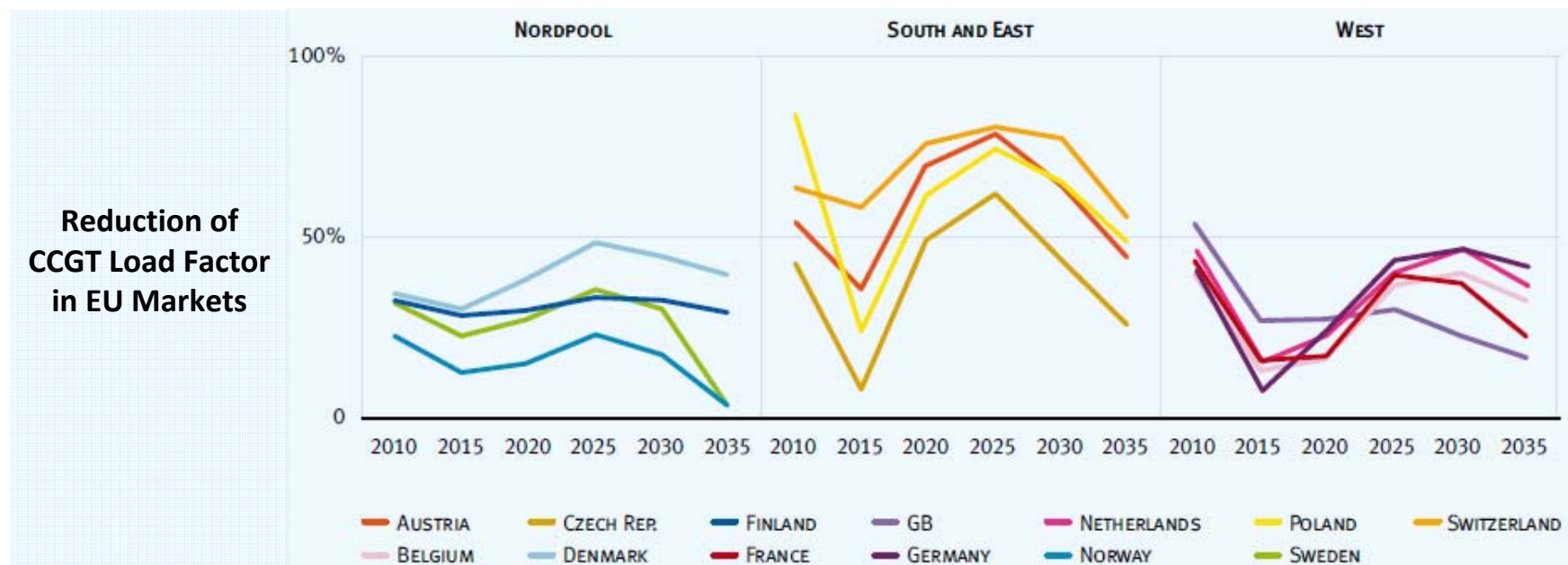
## Scope of our work: RES Integration and Market Design

- EURELECTRIC has analysed **if current electricity markets are equipped to provide correct price signals** for the necessary investments in (existing & future) generation capacity.
- EU electricity markets are experiencing fundamental changes to meet the 2020 RES targets. **Larger shares of RES electricity reduce operating hours and profitability of flexible and back-up plants.**



## EU Electricity Markets are experiencing fundamental changes

- These conventional plants are necessary to cope with RES intermittency and unpredictability. In some EU markets, **lower levels of expected profitability are significant, raising concerns about future investment decisions and thus generation adequacy.**





# Electricity Markets: Theory and Practice

- Academic theory argues that “energy-only” markets would function perfectly if prices were free to rise well above marginal costs during scarcity hours, up to a level determined only by consumers’ willingness to pay that price.
- However, in current electricity markets “scarcity prices” are reached only at some limited moments: revenues generated by price spikes are generally not enough to cover fixed costs of “peaking” plants.
- If this situation persists, the necessary flexible and back-up generation capacity could eventually be closed and not replaced by new investments. To avoid this, the design and functioning of today’s electricity markets must be improved.





## CRMs in a EU Integrated Market (2014): policy recommendations - 1:

- As a first step, **energy-only markets must be allowed to function** properly by removing regulatory distortions which hinder the balance of demand and supply. These distortions include:
  - Wholesale price caps
  - Regulated tariffs
  - Restrictions on plant operations or plant closures
- At the same time, **integration of wholesale markets must remain a top priority** for all policymakers. Efforts are needed to:
  - implement the Target Models of DA, ID and forward markets to fulfil the objective of an EU integrated market by 2014. → **SOFTWARE**
  - Strengthening of transmission capacity (both domestic and cross-border) and the establishment of regional balancing markets. → **HARDWARE**



## CRMs in a EU Integrated Market (2014): policy recommendations - 2:

- To enhance and speed up the integration of RES, **RES generators should progressively enter into the market** on a level playing field with other generators. In particular they should be incentivised to:
  - Sell their own production into the market
  - Meet scheduling, nomination and balancing requirements
  - Last but not least, a **progressive harmonisation towards EU-wide market-based support mechanisms** would expose RES generators to market prices that reflect demand & supply variations, allowing substantial cost reductions
- **Enabling demand to participate in spot price formation** (→ **SMARTWARE**) would considerably decrease peak capacity demand, and also help demand to “follow” the intermittent production, thus reducing the need for “back-up” plants



## CRMs in a EU Integrated Market (2014): policy recommendations - 3:

- Where all the previous issues have been taken into account but **generation adequacy is nevertheless endangered** policymakers should **consider introducing a CRM**, ideally at regional level or at least in coordination with neighbouring markets. **Consistency with the process of EU market integration should be ensured.**
- If introduced, **CRMs should be able to be phased out once the market itself delivers** the appropriate investment incentives to ensure the adequacy of the system
- **ACER and the EC should start working on the development of a set of minimum EU harmonisation requirements.** This should ensure the well-functioning of regional markets and compatibility with the aim of reaching an Internal Electricity Market by 2014.



**Thank you for your attention!**

The Report can be found at  
[www.eurelectric.org](http://www.eurelectric.org)