

Capacity mechanisms in the new market design

EURELECTRIC's views

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How can we better assess the adequacy of the power system?

- The methodology to assess power system adequacy should determine the **adequacy target** level that regulators (or governments) want to achieve in the **near future and on a longer perspective** . It should be:
 - harmonised to the extent possible
 - **homogeneous and transparent** to let the market understand the outcome
 - **assessed at a regional level** and not only national level
- **Regional system adequacy** studies require:
 - **close cooperation** among involved TSOs, NRAs and governments
 - an analysis of the **location of “firm capacity”**, because interconnection capacities across Europe are finite
- System adequacy assessments should also include **economic viability checks**:
 - it should also be verified whether current market/regulatory arrangements lead to a viable economic situation for existing providers or new investments.

What system adequacy standards should apply?

The chosen methodology to determine the needed capacity should:

- rely on a quantitative criterion
- represent a trade-off between an acceptable level of risk and an acceptable cost to guarantee it
- be derived considering the local characteristics of the supply-demand equilibrium

It is not necessary to have completely identical adequacy standards:

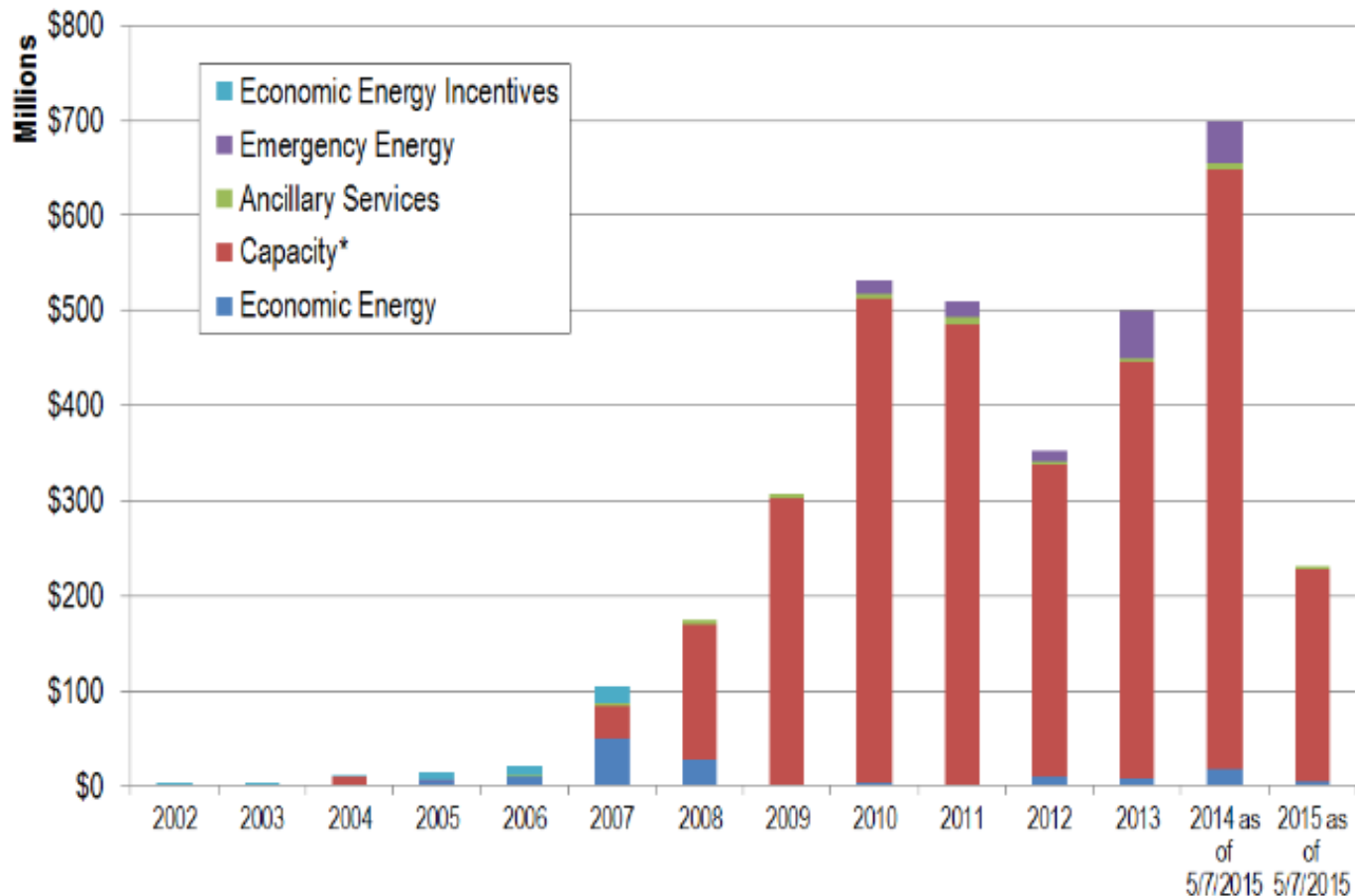
- individual circumstances of member states should be taken into account
- values should not differ greatly on a regional basis
- other issues, such as different RES support schemes and different taxes and levies on generation, have larger effects on the efficient single market.

What key aspects should be considered to ~~avoid the need for capacity mechanisms?~~ implement a proper market design?

- In many markets, **politicians or regulators set up system adequacy targets that the energy-only market cannot deliver**. There is therefore a need for an instrument to ensure security of supply.
- **Uncertainty in terms of frequency and sustainability of price peaks**, as well as **regulatory risk derived from government intervention** hinder the ability of scarcity prices in energy-only markets to provide investment signals by themselves.
- RES support schemes that distort the energy price signal and dispatching decisions also deteriorate the ability of the energy market to deliver investment signals.
- These market failures lead European utilities to renounce to invest in merchant power plants and to close plants that could be necessary to back up intermittent RES generation. As a consequence adequacy levels are falling.
- If this happens, the future market design needs to provide a reliable investment signal that properly values capacity availability (e.g. via a capacity market where the energy only market is seen not to provide such signal)
- Mechanisms that swap volatile and uncertain scarcity payments for steady capacity remuneration are a reasonable policy option.
- **Capacity markets are not an alternative to a proper design** of the energy market: they can coexist
- They are **not an excuse for accepting a distorted or inefficient energy market**.

The introduction of CRM in PJM led to a strong development of demand response

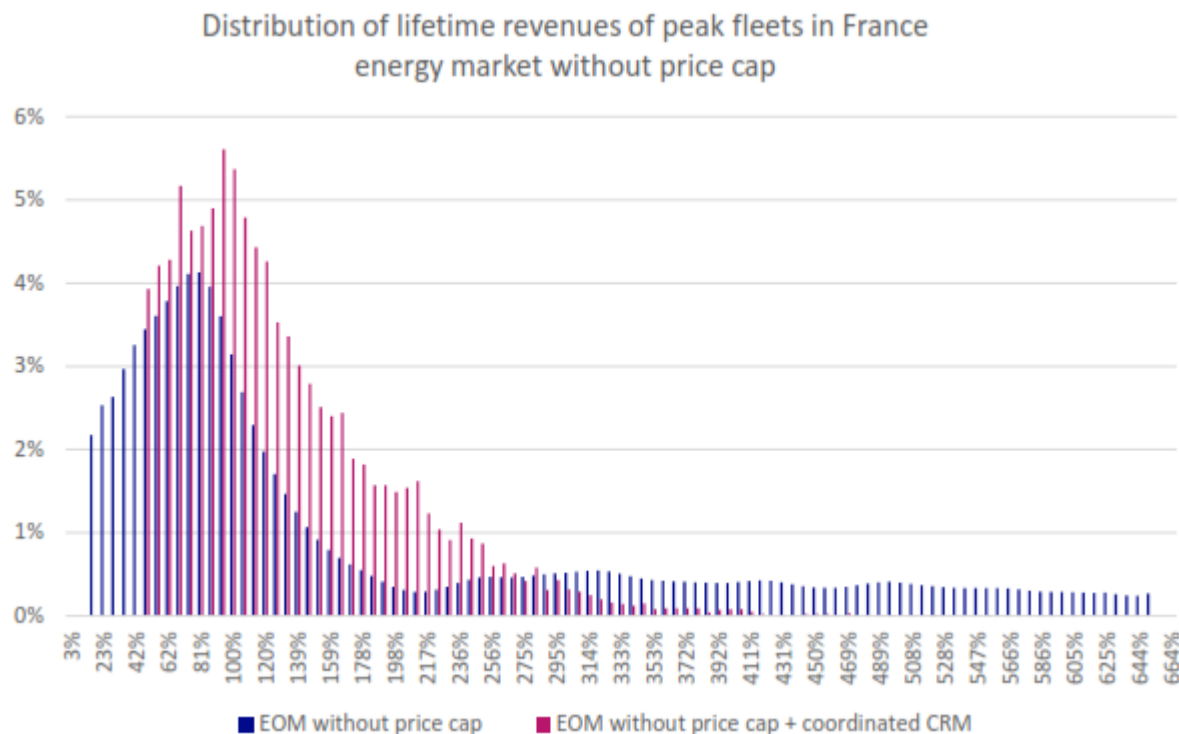
Figure 23: PJM Estimated Revenue for Economic and Load Management DR Markets



Source : PJM – « 2015 Demand Response Operations Markets Activity Report » (May 2015)

Coordinated CRMs would have benefits for the overall electricity system

The France-Germany study recently published analysis the impact of capacity remuneration mechanisms:



Source: France-Germany study, energy transition and capacity remuneration mechanisms, Artélys, 2015

What are possible models for cross-border participation in existing capacity mechanisms?

Which product?

		Availability	Delivery
Who participates?	Capacity provider	A <ul style="list-style-type: none"> Capacity providers sell their capacity cross-border. They would be responsible only for being available in scarcity situations. 	B <ul style="list-style-type: none"> Capacity providers sell their capacity cross-border. They would be responsible for being available in scarcity situations <u>and</u> that electricity flows from its own bidding zone cross-border to the zone where capacity has been sold.
	Interconnector	C <ul style="list-style-type: none"> Interconnector sells capacity cross-border. It would be responsible only for being available in scarcity situations. (In this case, the interconnector on its turn would probably contract “back to back” availability with market actors in the “export” market). 	D <ul style="list-style-type: none"> Interconnector sells capacity cross-border. It would be responsible for being available in scarcity situations <u>and</u> that electricity flows cross-border to the zone where capacity has been sold.

- **EURELECTRIC** prefers capacity provider selling availability where the interconnector gets paid for the “congestion rent” - **A**
- **Delivery as product are not suitable** as they have the potential to distort the energy market by forcing delivery of energy that could otherwise be out of the merit order - **B** & **D**
- **Interconnectors should not participate** in competition with market participants - **C**

A set of key principles for cross-border participation in capacity markets should be verified

- **Common requirements and coherent market rules** for all capacity market participants (e.g. certification, penalty regime, availability requirement, etc.);
- **Participation with the same capacity in more than one capacity market** for obligations in the same contract timeframe **should not be possible** (no double commitment and earnings);
- **TSOs should offer a certain amount of cross-border participation** based on non-discriminatory conditions and only limited by objective physical limitations (to be approved by National Regulatory Authorities and ACER);
- **TSOs should not be allowed to neglect existing cross border capacity** contracts in stress situations, needing amendments to Network Code Emergency and Restoration;
- **No reservation of cross-border capacity** should be introduced in order not to interfere with the functioning of the forward, day-ahead, intra-day and balancing markets, which will determine the actual direction of the energy flow.

What components of prices may need to change to minimise distortions?

- Taxes and charges levied on final customers' bills :
 - distort investment decisions between centralized and distributed generation
 - will be shifted to other consumers when the share of prosumers grows
 - Distort competition between different energy carriers for heating, cooling and transport
- Taxes and levies weaken the price signals sent to customers in case of time-varying prices, thus limiting incentives for demand side response.