


**ACER**

 Agency for the Cooperation  
of Energy Regulators

## **Opinion on Capacity Markets: Main Messages**

**24<sup>th</sup> meeting of the European Electricity Regulatory Forum  
Ljubljana, 15 – 16 May 2013**

## ITRE Committee's Request

- On 14 November 2012, the ITRE Committee requested an Opinion from the Agency on Capacity Markets
  - » Future energy market design: which are the **new capacities, transmission and distribution needs** resulting from a high share of RES?
  - » What is the **future of energy-only markets** in a high RES system?
  - » Does one need **capacity markets**? If yes, at what geographical level (national, macro-regional e.g. Central West, European level)?
  - » How to best **reward flexibility** in the respective power markets (energy only market, ancillary service market)?

# The Agency's Opinion

- The Opinion was adopted and submitted to the ITRE Committee on 15 February 2013
- The Opinion's main findings were presented to the ITRE Committee on 20 February 2013

# Security of Supply, Resource Adequacy and Operational Reliability

## Security of Supply

the ability of the electricity system to provide electricity to end-users with a specified level of continuity and quality in a sustainable manner

## Resource Adequacy

- Long-term Concept
- Availability of sufficient capacity in the electricity systems to meet demand at all times, including at peak load periods

## Operational Reliability

- Short-term Concept
- Maintaining sufficient system flexibility to balance the electricity system, notably in response to (sudden) demand variations or unexpected outages

## **The Future of Energy-only Markets**

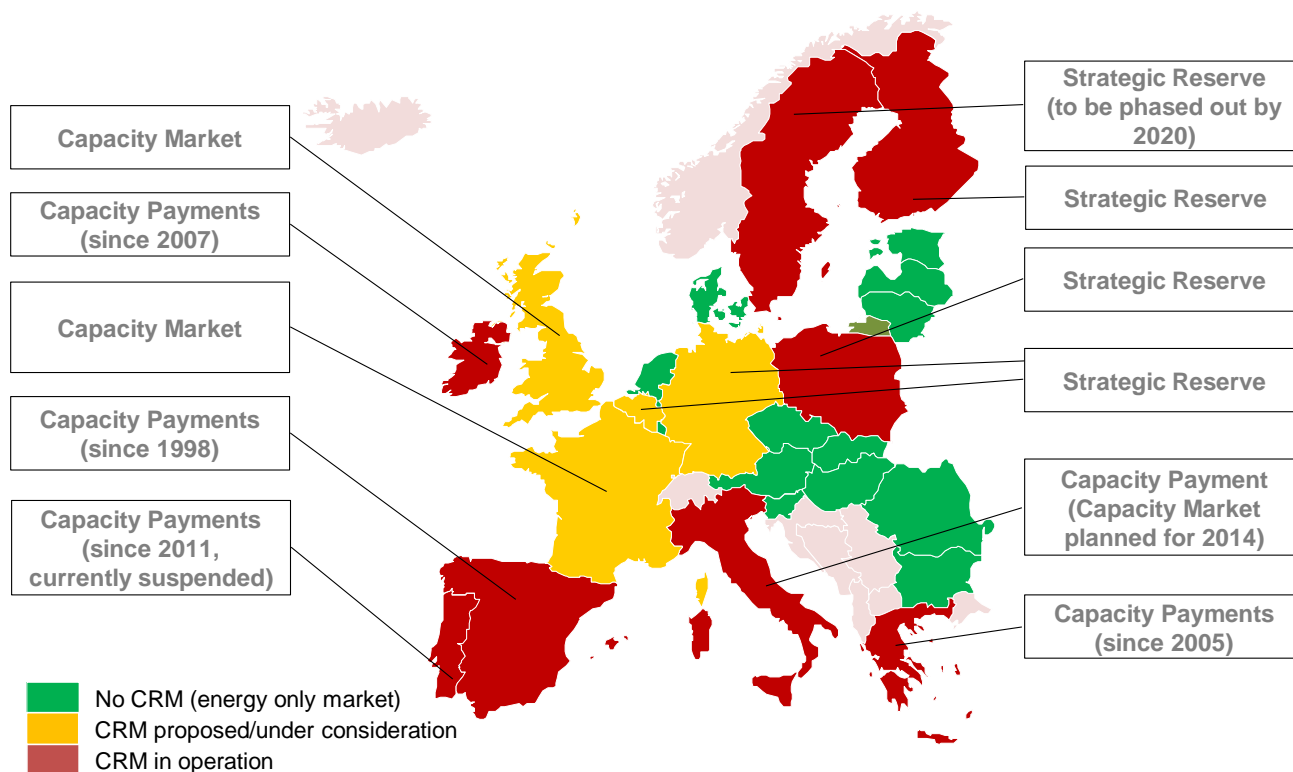
- A well-functioning energy market should provide price signals which promote Security of Supply
- Existing barriers to the proper functioning of energy markets should be removed:
  - » rules that interfere with price formation (e.g. explicit or implicit price caps)
  - » distortive and non-harmonised technology-specific support instruments and market rules
  - » very limited participation of market-based demand response in energy markets
  - » complexity and inertia of current connection procedures

**The rapid implementation of the Electricity Target Model shall remain a top priority**

# Are Capacity Markets needed? (1)

- A simple question, without a simple answer
- Lengthy and controversial discussion in many Member States
- The Electricity Directive 2009/72/EC already envisages Tender Procedures for new generation capacity in the interest of security of supply
- A variety of uncoordinated national capacity remuneration mechanisms already in place or under consideration in a number of Member States

# Capacity Remuneration Mechanisms in the European Union



## Are Capacity Markets needed? (2)

- An energy(-only) market should be able to deliver resource adequacy and system flexibility, if:
  - the market is allowed to function unhindered
    - demand is able to respond and actually responds to (short-term) price signals
    - prices are allowed to vary freely, according to the interplay of demand and supply
    - at times of scarcity, prices could increase up to the level of the so-called “value of loss load”

**With unrestricted price signals and demand responding to price signals, energy markets would always clear!**



## Are Capacity Markets needed? (2)

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    - prices are allowed to vary freely, according to the interplay of demand and supply
    - at times of scarcity, prices could increase up to the level of the so-called “value of loss load”
  - » investors have confidence
    - in a stable policy and regulatory regime
    - that policymakers and regulators will resist the temptation to intervene when prices reach and remain at very high levels
  - » investors are satisfied that the return to their investment comes from infrequent price spikes

## **Are Capacity Markets needed? (3)**

**As long as these conditions are not met,  
there is no guarantee,  
even once the EU electricity market integration  
process is completed,  
that an energy-only market will be able by itself  
to deliver the required level of resource adequacy  
and system flexibility**

## **Are Capacity Markets needed? (4)**

- The energy market may need to be complemented by additional arrangements, aimed specifically at promoting adequacy and flexibility
- A well-functioning energy market provides the best basis for any additional arrangement further to promote resource adequacy and flexibility
- However, these arrangements should:
  - » not unduly interfere or distort the functioning of the energy market
  - » ideally exert their effects only when and to the extent that energy markets cannot provide sufficient stimulus for the required investments

## **Are Capacity Markets needed? (5)**

- The geographical scope of capacity remuneration arrangements depends on the ability of the jurisdictions involved to define common adequacy and security standards
- In the case of national mechanisms, greater efficiency can be achieved and the distortion of the internal energy market minimised by allowing participation of adequacy and system flexibility resource providers located in other Member States

## **Are Capacity Markets needed? (6)**

- The introduction of national mechanisms should be accompanied by a sound and detailed impact assessment, taking into account cross-border effects
- Care should be taken that no expectation is formed among market participants and other stakeholders that these mechanisms will be maintained indefinitely

**The full compatibility of any capacity remuneration arrangement with the internal energy market should be ensured**

# Flexibility in Energy Markets

- Efficient short-term price signals should also guarantee sufficient flexibility in the system
- The Agency has outlined a European regulatory framework for cross-border balancing markets:
  - » clearer signals to reveal scarcity and promote investment in new flexible capacity by balance service providers
  - » enhanced coordination between TSOs for sizing, exchanging and sharing balancing products
  - » facilitating the participation of demand responses and RES in balancing markets

**An enabling investment climate should promote the participation of new technologies and demand response in ancillary services markets**

# Thank you for your attention!

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