



School of
Management and Law

CREST-Workshop on Capacity Mechanisms

Wednesday, 21/01/2015; 13:00 – 17:00

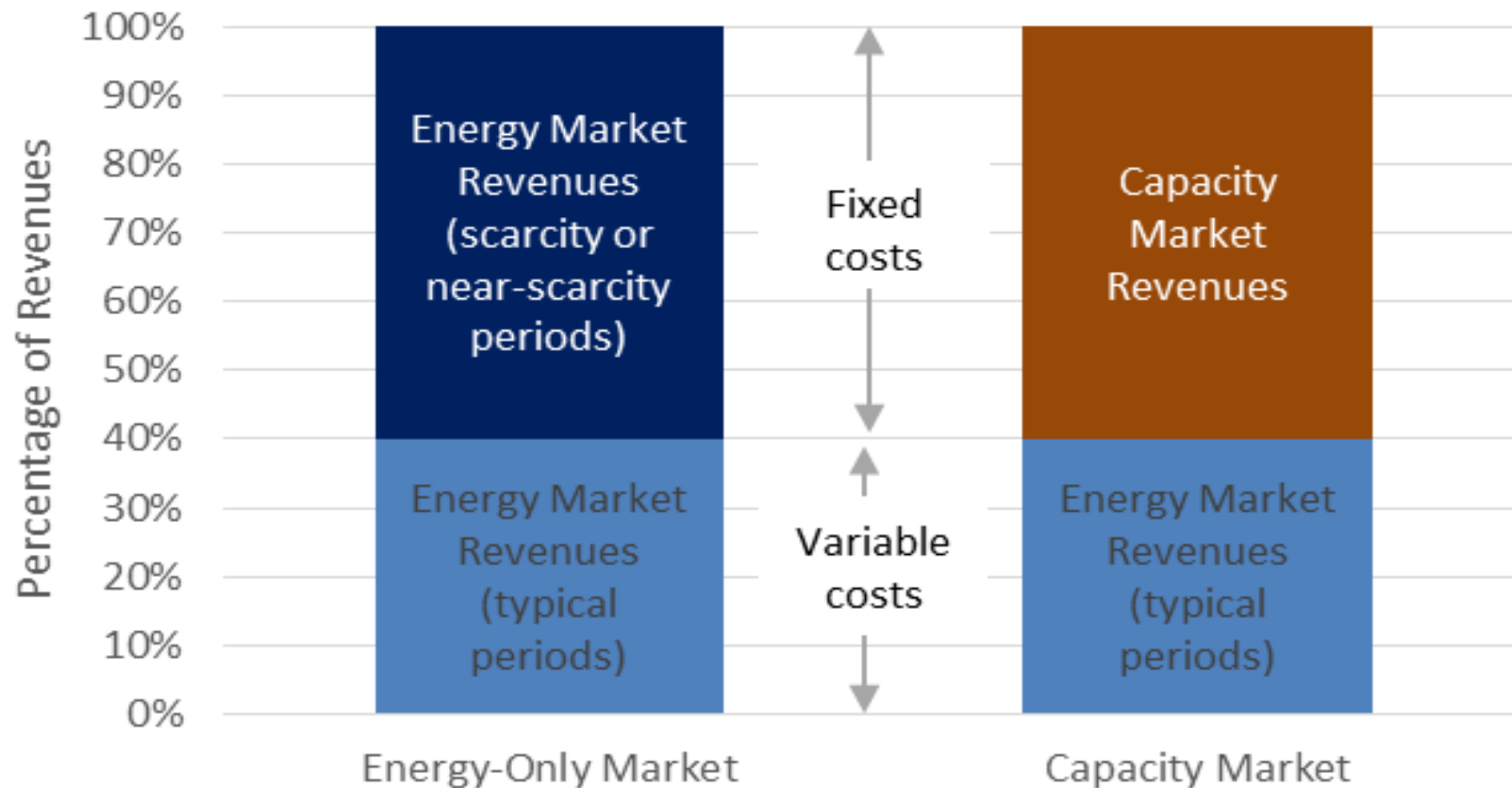


Building Competence. Crossing Borders.

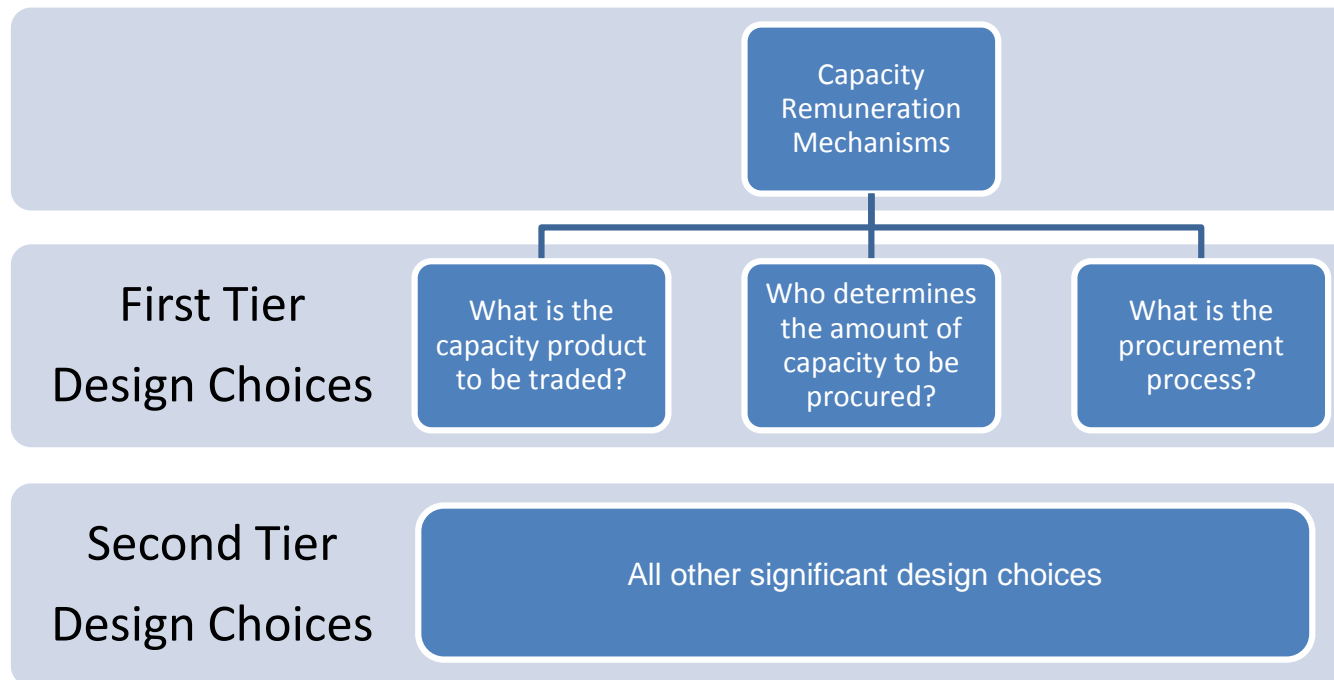
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Cost recovery: EOM vs. capacity mechanisms



Capacity mechanisms: Design choices



Important Second Tier Design Choices:

- Cross-border participation
- Penalties for non-availability

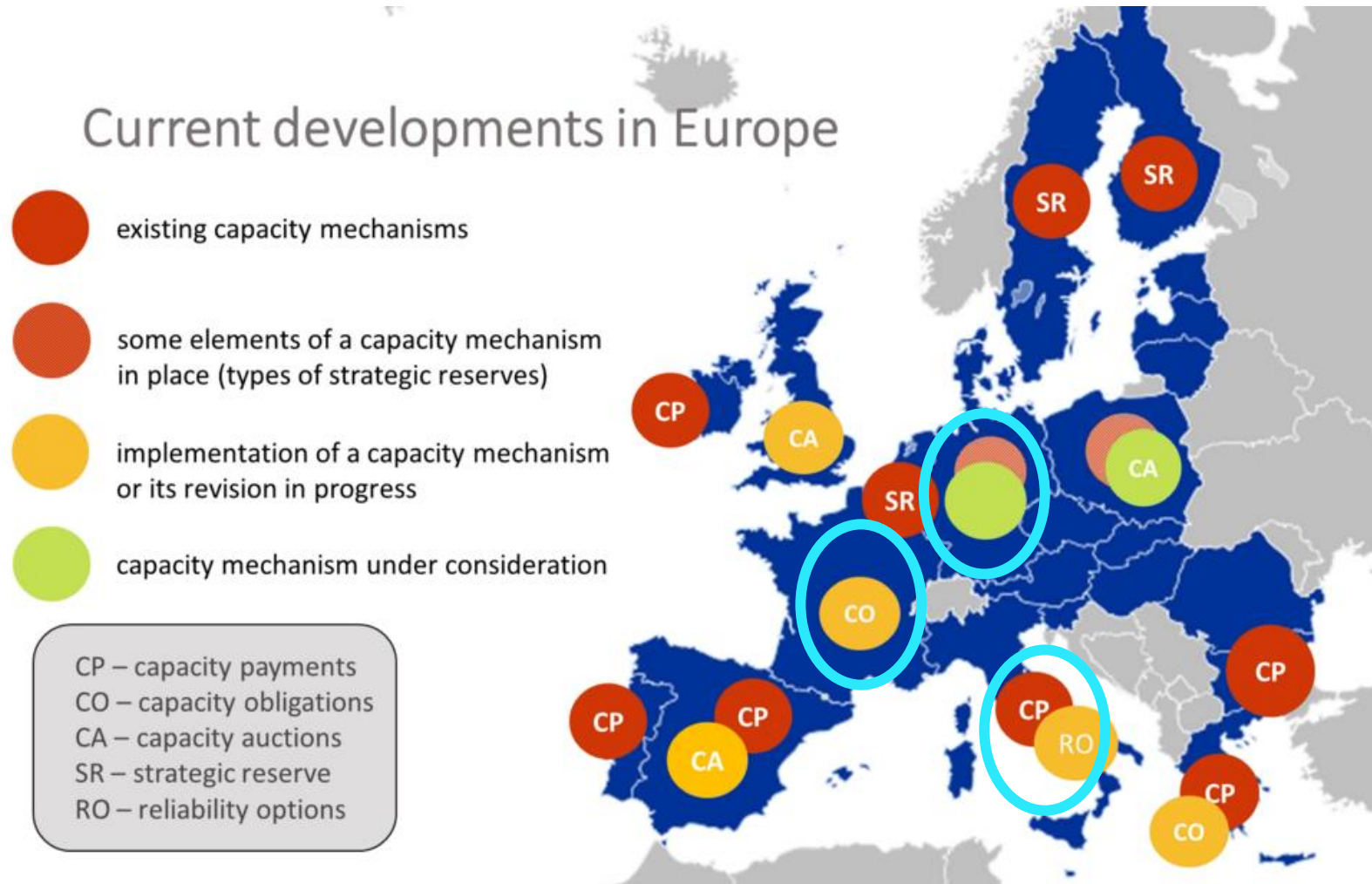
Capacity mechanisms: Common terminology

	Product Description	Who determines how much is procured?	Procurement process	Examples
Centralised capacity market	Physical Capacity	Central Authority	Central Procurement	Germany Option I
Capacity Obligation	Physical Capacity	Central Authority	Bilateral	France
Decentralised capacity market	Physical Capacity	LSEs	Bilateral	Germany Option II
Capacity Subscription	Physical Capacity	Customers	Bilateral	
Reliability Options	Financial Instrument	Central Authority (usually)	Central Procurement (usually)	Italy

Reliability options

- Can be designed to be a variant of centralised capacity markets
- Can be added to centralised capacity market (e.g. Germany Option I)
- Who can trade them? Is there a secondary market? Etc.

Overview of developments in Europe



Source: EUI webinar “Capacity mechanisms: legal issues” by Malgorzata Sadowska (<http://fsr.eui.eu/Publications/WEBINAR/2014/141217-WR-Sadowska.aspx>)

The French capacity mechanism: Type, Status, Aim

Type:

- Capacity Obligation
- Physical Capacity is set by central authority and traded bilateral

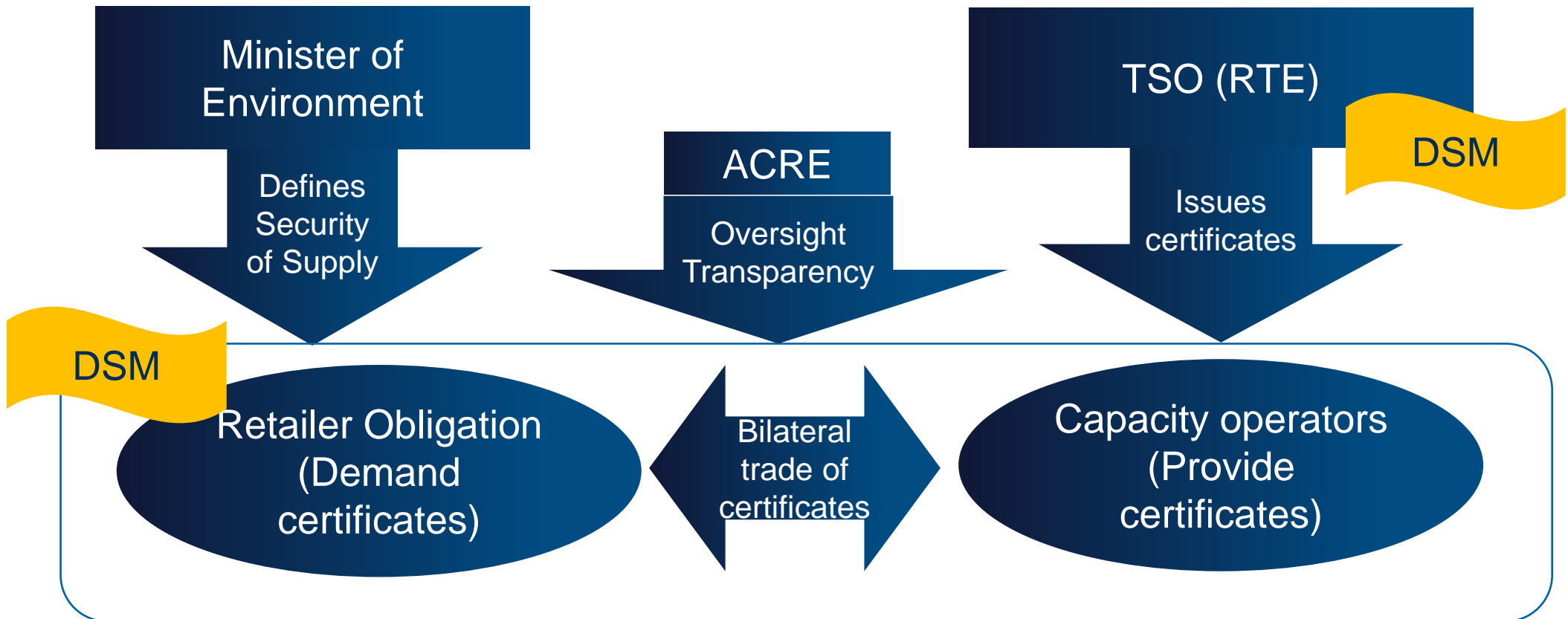
Status:

- Decree in 2012 contained the main principles
- ACER report April 2014 explained market rules
- Start in 2015
- First delivery year: November 2016 to end of December 2017, moving to calendar years

Aim: Security of Supply

- Tackle the peak load issue (especially in Winter)
- Boost Demand Side Management (DSM)

The French capacity mechanism: Design



Price of certificates reveals value of Security of Supply
Price is zero if there is no risk on Security of Supply

The French capacity mechanism: Cross-border participation

Status:

- No explicit participation in first phase, only implicit through obligation setting
- Target: explicit participation in second phase
- Stakeholder consultations on explicit participation (2014)
- Options of hybrid model e.g. participating in French balancing market

Defined principles by RTE:

- Without harmonising security of supply criteria across Member States, but rather upholding the division of competences defined in the Treaty of Lisbon;
- Without reserving interconnector capacity;
- Within volume limits reflecting the physical limitations of import capacity during peak periods;
- Subject to the creation of a mechanism for cross-border certification or control in order to avoid double counting;
- Subject to the signature of agreements to govern operational management in crisis situations.

The Italian capacity mechanism: Type, Status, Aim

Type:

- Reliability Option
- Adequacy target is set by TSO (Terna) and reliability option contract is the product which is bought through a central auction in each region

Status:

- Law has been approved by Ministry of Economic Development in 2014
- First auctions in 2015
- First delivery period: 2018-2019

Aim: System Adequacy

- No capacity problem , aim to ensure that not too much of the overcapacity (mainly gas) is retired
- Long-term price signals to support coordinated development

The Italian capacity mechanism: Design

- Regional auction, on grid area where the resources are located
- Adequacy target is a yearly elastic function of volume, loss of load probability and variable costs of marginal technologies

TERNA

organises

- New and existing programmable generation (e.g. fossil, solar thermal, biomass, pump storage..) not subject to other incentive schemes or dismantling measures
- 4 years planning period
- 3 years

Buyer
TSO (Terna)

Descending
clock auction

Premium payment

If $P(\text{strike}) < P(\text{spot})$, option
executed
(difference paid)

Seller
awarded producers

- Reliability option contract
- Strike price is set at variable costs of an efficient peak plant
- →Penalty if no delivery in peak periods

Considerations in Germany

Status quo

- Network reserve
- Discussion: EOM vs. capacity mechanism (Green Paper)
- Strategic Reserve as interim mechanism

Capacity mechanisms proposed

- Comprehensive capacity market
- Focussed capacity market
- Decentralised capacity market

Legislative process

- Consultations on Green Paper
- White Paper as legislative proposal
- 19/01/2015: Gabriel states no intention to introduce CRM in Germany