Fulvio Fontini

ACER/CEER ESS TF and
University of Padua, Italy

Treatment of Cross-Border Capacity in Europeans CRMs

Structure of the presentation:

1. The European framework
2. The status quo in Europe and the trends about CRMs
3. The different dimensions of participation
4. Three models for cross border participation
5. Open issues

The European framework:

- European Approach to SoS, as stated in COM (2014) 330 and in EU legislation (e.g., Directive 2005/89/EC, Regulation 994/2010, etc.)
- Acquis communitaire and EEAG

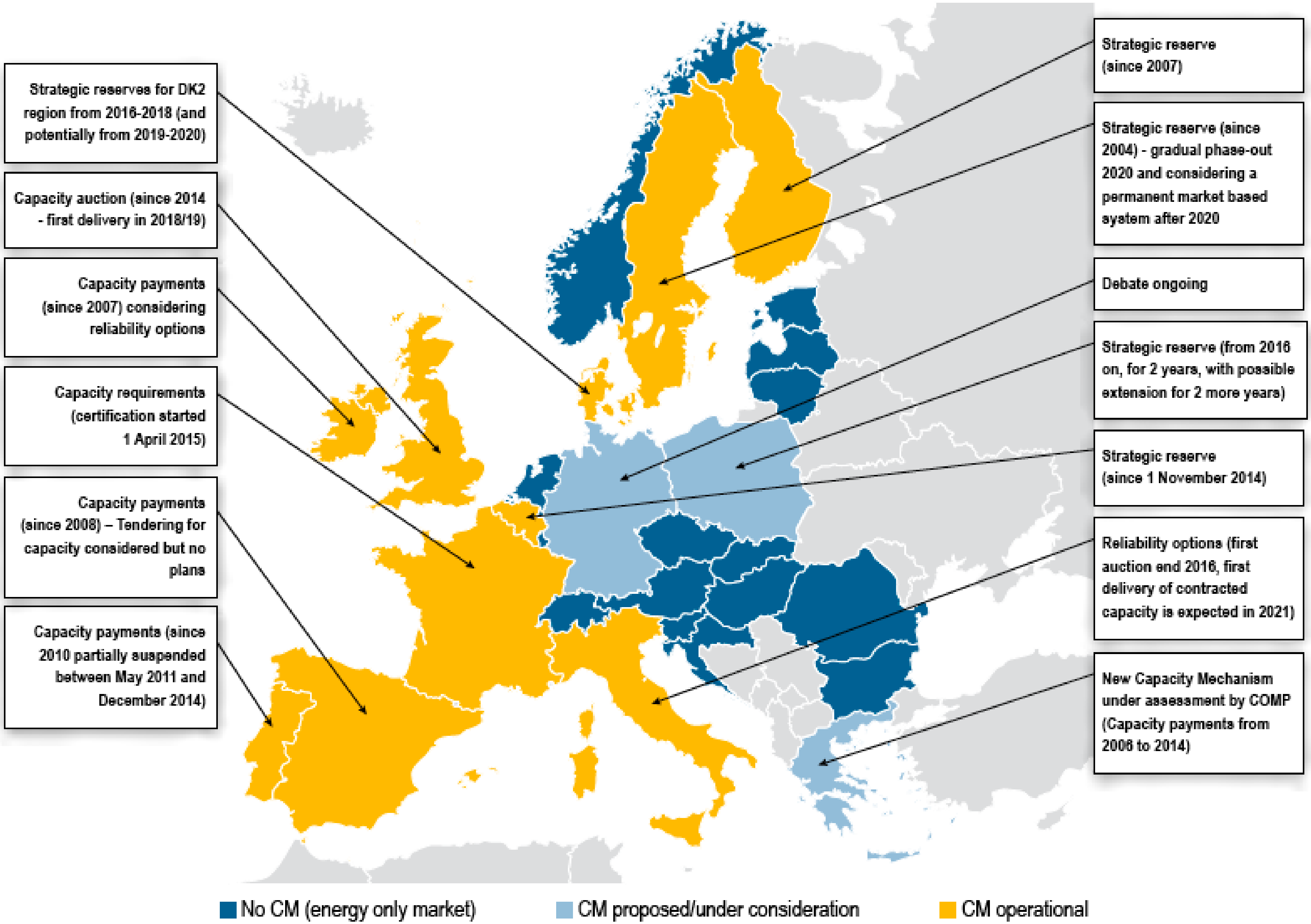
The European framework:

- S.o.S. is a MS obbligation, but this should not interfere with the process of completion of the IEM

- Environmental and Energy State Aid Guidelines (sec. 3.9)

The status quo in Europe (and trends):

In EU a patchwork of different tools to support LR investments (and cope with RES-E integration). Two main reasons: « precautionary principle » and « subsidiary principle »


Strategic reserves for DK2 region from 2016-2018 (and potentially from 2019-2020)
Capacity auction (since 2014 - first delivery in 2018/19)
Capacity payments (since 2007) considering reliability options
Capacity requirements (certification started 1 April 2015)
Capacity payments (since 2008) – Tendering for capacity considered but no plans
Capacity payments (since 2010 partially suspended between May 2011 and December 2014)
Strategic reserve (since 2007)
Strategic reserve (since 2004) - gradual phase-out 2020 and considering a permanent market based system after 2020
Debate ongoing
Strategic reserve (from 2016 on, for 2 years, with possible extension for 2 more years)
Strategic reserve (since 1 November 2014)
Reliability options (first auction end 2016, first delivery of contracted capacity is expected in 2021)
New Capacity Mechanism under assessment by COMP (Capacity payments from 2006 to 2014)
No CM (energy only market)
CM proposed/under consideration
CM operational

No CRMs allow explicit Cross border participation. Exceptions:

- GB (interconnector model, first delivery in 2019);
- France (discussion on-going on how to introduce it);
- Italy (foreign capacity providers to contribute to the system adequacy on an equal basis with the int. Resources)

The several dimensions of cross border capacity in CRMs

a) Type of product: availability or delivery
b) Type of remuneration (participation): implicit or explicit

c) Three models: interconnector model, direct participation or « revenue sharing » model.

Availability vs. Delivery.

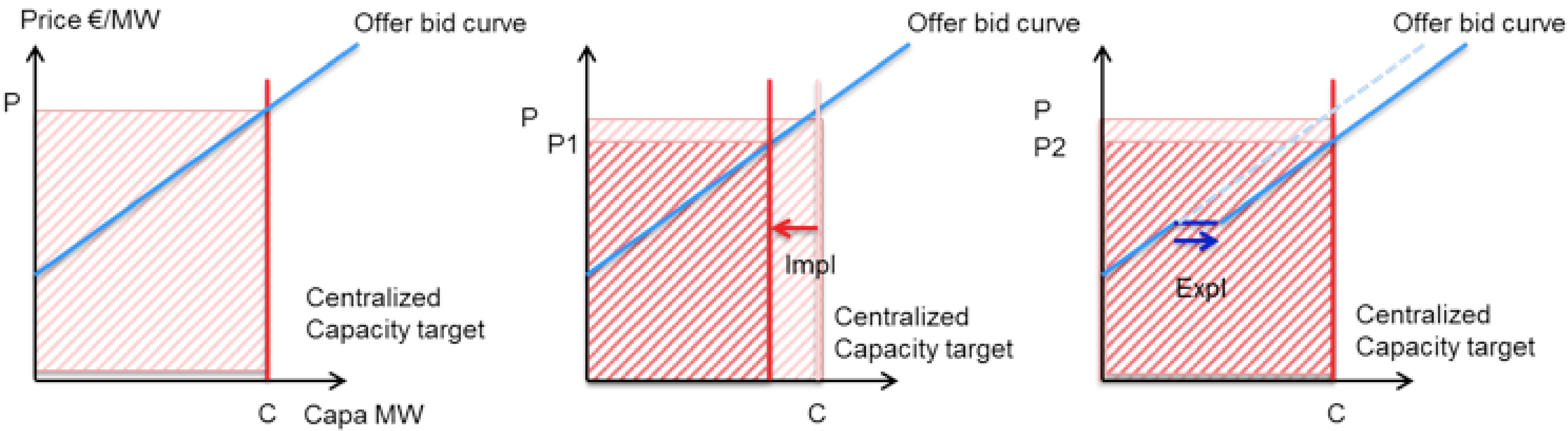
Target model for CBCA and market coupling in energy (wholesale) market ➔ no cross border capacity reservation ➔ MC delivers energy at time of system stress ➔ availability to be preferred to delivery model

Two issues:

- No reservation of trans. capacity is allowed (CACM guidelines)
- Need to update MC to deal with simultaneous system stress

Type of remuneration: implicit or explicit.

- Implicit cross border participation: cross border (transmission) capacity is take into account in SoS assessment
- Explicit: available capacity receive the remuneration for being available.



Without XB participation

With implicit XB participation

With explicit XB participation

Main differences between implicit and explicit:

- Risk (born by consumers in impl., by foreign provides/interconnectors in explicit)
- Long run incentives to provide eff. capacity (no in case of impl.)
- Discrimination/competition (between internal and extr. providers)

Assessing the three models.
The question: how does capacity explicitly participate in cross border CRMs?
The issue is shifting risk (of non compliance and indirectly of SoS) to different operators.

Interconnector model: Interconnectors participate to the CRM, they have to contract (or purchase energy) on their own at the time of delivery.

Direct participation: foreign capcity providers participate to the CRM, it is their obbligation to be available

« revenue sharing » model: an hybrid model = a market for external capacity provider (essentially a quota system). e.g. interconnectors participate to the CRM, then auction to external participants the « tickets » to participate to the CRM. Or « price splitting »

Pro of and cons of the three models:

Interconnector: « easy » to implement (but you need to de-rate capacity). Provides proper inv. incentives when int. cap. is the scarce resource.

Foreign direct participation: Requires agreement (or knowledge/ability to control foreign cap. = same level playing fields). Provides proper inv. incentives when foreign cap. is the scarce resource.

« revenue sharing »:
Able to provide correct signals (between interconn. and foreign cap). However, trade off between complexity and efficiency.

Some open questions:

At least a minimum common implicit participation = towards regional SoS assessment. (the shadow question: are different levels of SoS across (more or less) integrated systems truly sustainable in the LR?)

Cross border transmission capacity (true for implicit and explicit participation).

What amount can be regarded as firm and how to provide it? (de-rating and avoiding non forced capacity cut, but how?)

Multiple participation (same providers for several CRMs –and for what it matters – to CRMs « far away »).
In principle could be allowed, but it is inefficient (unless one could guarantee that joint system stress are not correlated – how?)

How to control (or guarantee) same « level playng fields » for capcities under different control areas? (agreement between TSOs, and/or financial issues).

How about cross border Demand-Side participation?

Are there specificities of different CRMs?

(e.g. how about reserve capacity taken out of the market?)

End of Presentation

Thank you!