Electricity Market Integration 2.0 in Central and South East Europe

Section 2: Resource adequacy and cross-border capacity remuneration schemes: options and alternatives

Laurent Schmitt
Secretary General, ENTSO-E

2nd Central and South East Europe Energy Policy Forum
30 May 2017, Budapest
Some background: “once upon a time... in 2014”

Recommendations of Electricity Coordination Group - Adequacy

- Adequacy reports should capture Security of Supply risks to the pan-European power system
- Assessment of the need for flexibility - as it moves towards increased levels of RES-E
- The treatment of electricity interconnection capacities at times of scarcity
- **5 – 10 years** appropriate time horizon for adequacy

ENTSO-Es views

- Fully supports the recommendations of ECG
- Renewables will be key drivers of power system dynamics to be captured by probabilistic methods
- Use of extensive climate data needed
- Modelling of management of transmission in times of scarcity to be improved
Resource Adequacy Methodology

- Market modeling based on probabilistic method
  - Hourly resolution
- Cross-border contributions to a country’s system adequacy
  - Assessment about 'need for flexibility'
- Demand, renewable production variation
  - LOLE/ ENS/ RES curtailments, capacity factors

- Common basis for discussions on market design and security of supply at a regional and European level.
- To be used by MS, on the basis of their national sensitivities and specificities, to guide their decisions on capacity mechanisms, support schemes, and security of supply.
# ENTSO-E Mid-term Adequacy Forecast

- **assessment security of supply** (=potential load shedding) risks over the next decade

- **first pan-European market-based probabilistic modelling techniques**

- **results benchmarked using 4 software tools**

- **provides boundary regarding data, assumptions & tool’s calibration** for further studies at regional level and national level
Consistently assess how markets can deliver security of supply. Coordinate in crisis situations.

- **Common adequacy methodology to be used for pan-European, regional and national assessments.**
- **Common adequacy indicators on which regionally coordinated national security of supply standards can be based.**
- **Member States to agree on coordinated management of simultaneous scarcity situations in all timeframes.**
- **Regional TSO cooperation through RSCs and stronger NRAs’ and Member States’ cooperation.**
CMs need will depend on how successfully market signals and innovation will deliver the needed flexibility and system adequacy to meet the political targets for SoS.
## Clean Energy Package: Capacity Mechanisms and Cross-border participation

### Positive Elements
- Recognition of the potential need for Capacity Mechanisms
- CMs introduction to complement market design improvements: removing regulatory distortions, enabling scarcity pricing, developing interconnection, energy storage, demand side measures.
- New regulatory framework for cross-border participation to CMs
- Decision to introduce CMs left to MS subsidiarity but based on harmonised resource adequacy methodologies

### To be improved
- Need case for CM should not solely rely on the EU adequacy assessment (MAF): national & regional studies have better granularity and are complementary
- Interconnectors should be allowed to participate in some cases
- TSOs, not ROCs should calculate maximum entry capacity for cross-border participation
- Technology limitations on capacity providers might increase costs to ensure SoS.
Thank you for your attention