Prospect of Coordinated Capacity Calculation in the Energy Community: Secretariat’s perspective

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In focus

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2. Regulatory framework and requirements
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   - Capacity calculation
   - Coordinated capacity calculation
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   - Early implementation in the Energy Community
Energy Community Secretariat

Capacity calculation! Why?

- Ensuring third party access – a guiding principle & regulatory requirement
- Capacity calculation is very much linked with capacity allocation
- Allocation is market activity with objective to ensure efficient and optimal use of resources
- The more integrated markets are, the higher is the need for TSOs’ coordination for capacity allocation
- The available capacity should be set at the maximum levels consistent with the safety standards of secure network operation
**European electricity target model**

**Forward cross-border capacity products**
- Monthly (M+1)
- Yearly (Y+n)
- Forward Market (Long term Physical/Financial rights)

**Spot cross-border capacity+energy products**
- Daily rights implicitly allocated (daily rights + FTR or unused PTRs)
- LT PTRs used
- Day Ahead Market
- Intraday market

**Cross-border Balancing (TSO-TSO)**
- Intrady implicit
- Delivery of Long term and Day ahead allocated rights
- Balancing
- Delivery of intraday

Allocation of forward rights on long-term basis through auctions as PTRs or FTR (tradable rights with UIOSI). Single allocation office for capacity allocation.

Price coupling - auction mechanism managed by PXs with capacity module. Flow-based or NTC-based.

Countinous mechanisms with complementary auctions (PXs+capacity) Flow-based or NTC-based.

Exchnage of balancing products offered by MPs

Real-time reserve activation, re-dispatch, countertrading...
Framework around congestion management

Reg 714/Annex 1 (third energy package) – applicable for the CPs (for EU complemented with CACM regulation)

- TSOs shall endeavor to accept all commercial transactions, including those involving cross-border-trade
- No congestion = no restriction (the default rule)
- In case of structural congestion = cross-border(zonal) capacity should be allocated (an exemption which applies more than the default rule)
  - Congestion should be managed
  - Non-discriminatory and market based method that gives efficient economic signals to market participants
Framework around capacity calculation

Reg 714/Annex 1 (third energy package) – applicable for the CPs (for EU complemented with CACM regulation)

• The level of capacity to be made available for the market should be calculated by TSOs

• Coordination of TSOs in capacity calculation is required – requirement for meshed network – beyond bilateral arrangements for each interconnection
  • Regional concept for coordinated capacity calculation
  • Regional concept is further detailed under CACM implementation as a regulatory decision – Capacity Calculation Regions
    • CCRs under CACM cover only EU MSs (process for defining CCRs which include CPs is in the ‘shadow’
Coordinated Capacity Calculation

Reg 714/Annex 1 (third energy package) – applicable for the CPs (for EU complemented with CACM regulation)

• Coordination between TSOs within certain region is required in all the steps from capacity calculation and optimization of allocation to secure operation of the network, with clear assignments of responsibility

• Coordination requires (but not limited):
  • Increased transparency in the process
  • Exchange of information between TSOs
  • Use of common transmission model dealing with interdependent loop flows
  • … level of coordination is detailed in the CACM
Regulatory requirements

Reg 714/Annex 1 (third energy package) – applicable for the CPs (for EU complemented with CACM regulation)

• Congestion management and capacity calculation is a regulatory linked with market development - the role of NRAs is crucial (this is further confirmed in the CACM)

• NRAs and TSOs shall ensure that no congestion-management procedure with significant effects on physical electric power flows in other networks is devised unilaterally.

• The safety, operational and planning standards used by transmission system operators shall be made public.

• A general scheme for the calculation of the capacity and the transmission reliability margin should be subject to NRA approval and published
What is the level of coordination required?

- Third package clearly requires coordination of TSOs and NRAs in implementing congestion management procedures (incl. capacity calculation)
  - What remains open or ‘to be defined’ are the details, process and governance
- In the EU, the details, process, etc. are defined in the CACM and further in the methodologies being developed
- Since CACM is still not applicable in the CPs, while the requirement for coordination is there, the NRAs and TSOs from CPs and surrounding MSs need to work together in defining the details …
  - What process should be followed?
  - Views?
CACM defines the details, process, …

- Under CACM NRAs (ACER as last instance) are empowered to defined approve the details on how coordinated capacity calculation should work.
- First, and crucial decision, is definition of capacity calculation regions (CCRs) – regions where capacity calculation methodology and process will be unified.
  - Requirement for all TSOs to propose CCRs – EU TSOs proposal in Oct 2015 – CCRs including CPs from SEE are in the annex of explanatory document.
  - Following no agreement by NRAs, ACER decided on CCRs in the EU – 10 CCRs.
- CACM foresees evolution of SEE region towards SEE CPs.
- TSOs sets the timeline based on which TSOs from each CCR should propose coordinated capacity calculation methodology to be implemented on regional basis.
more details on CCR process in the EU …

- EU Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management

- All TSOs’ proposal for Capacity Calculation Regions (CCRs) in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management, 29 October 2015

- Explanatory document to all TSOs’ proposal for Capacity Calculation Regions (CCRs) in accordance with Article 15(1) of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management, 29 October 2015

Energy Community process

- Discussions on how to incorporate network codes and guidelines in the Energy Community legal framework
- This is the target and currently there are few high-level issues that are being addressed (mainly, reciprocity and ACER’s power)
- Before formal implementation, CPs need to ensure implementation of the third package requirements, i.e. requirement for coordination between NRAs and TSOs in capacity calculation process
  - ‘Spirit’ of the CACM is key defining the level of coordination required
- Early implementation of CACM is needed and should not be seen as a voluntary process, but rather to ensure implementation of Reg 714
How it could early implementation work …

- ECRB recommendation defining regions which include CPs and their borders with MSs, including also the evolution of SEE shadow region

- Recommendation will invite relevant NRAs to adopt an act/decision
  - Each NRA requires national TSO to work together with the TSOs of regions as outlined in the ECRB recommendation in developing the methodology and process
    - TSOs will jointly propose the methodology/process
    - NRAs coordinate the approval - approve the methodology/process on national bases
  - What if TSOs do not agree and/or NRAs do not approve?
Thank You!

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