ACER
Agency for the Cooperation of Energy Regulators

Capacity calculation methodology

Suggestions for improvements: for discussion

Overview

- **Basic idea: Capacity calculation benchmarked against the perfect zonal market model**

- **Perfect zonal market model:**
  a) Capacity between zones not limited internal congestions
  b) No loop flows

  Therefore: Capacity between zones determined by the (full) capacity of cross-zonal network elements

- **Any deviation from the benchmark should be justified from the perspective of market efficiency**

Problems with existing CC methodolgies

- Network must be able to accommodate all flows resulting from internal exchanges
- Cross-zonal exchanges are using only the left-overs
- In Continental Europe cross-zonal capacity represents only about 25% of the full capacity of the interconnectors
- In two extreme cases the capacity reached 0 level:
  a) DK1-DE border: internal exchanges in DE/AT/LU zone creates congestion inside DE zone which is shifted to the DK1-DE border
  b) DE-PL border: internal exchanges in DE/AT/LU zone creates loop flows over DE-PL interconnectors utilizing their full capacity

Problems with existing CC methodolgies

- Discrimination: between network users in different parts of the network
- Distorted competition: cross-zonal and internal exchanges are not put on equal footing
- Does not provide the correct incentives to TSOs: to implement more efficient measures compared to reduction of cross-zonal capacities
- Distorts incentives to invest in interconnectors
- Gives TSOs a natural inclination to reduce ex ante the level of cross-zonal capacities
- Does not properly take into account the impact of reducing cross-zonal capacities on the IEM
- Allows free-riding: the use of neighbouring networks

Principle 1: TSOs of a CCR shall not be allowed to consider internal critical network elements in their cross-zonal capacity calculation methods.

A derogation to this rule may be applied for a limited period of time (e.g. 2 years), if TSOs of a CCR can prove that:

(a) this the only available remedy to ensure operational security; or

(b) this minimises the negative impacts on the internal market in electricity; and

(c) this is economically more efficient than other available remedies.

Principle 2

Principle 2: The capacity of the cross-zonal critical network elements considered in the capacity calculation methodologies shall not be reduced in order to accommodate loop flows.

A derogation to this rule may be applied for a limited period of time (e.g. 2 years), if TSOs of a CCR can prove that:

(a) this the only available remedy to ensure operational security; or

(b) this minimises the negative impacts on the internal market in electricity; and

(c) this is economically more efficient than other available remedies.

Principles 1&2

Deviations from Rules 1 & 2:

- In case a deviation is applied, TSOs of a CCR could fix a minimal limit on the amount of capacity of those congested internal/cross-zonal network elements that must be made available for cross-zonal exchanges in order to limit the discrimination between internal and cross-zonal exchanges.
- During the derogation period, TSOs of a CCR should develop a long-term solution, including the projects and the methodology to implement it.
- If TSOs are able to prove that continuing the derogation is more efficient than any other available long-term solution, they can propose to NRAs to extend the deviation

Principle 3

Principle 3: The costs of remedial actions should be shared according to the polluter pays principle, where the polluters are defined as flows resulting from internal exchanges:

a) **Loop flows**

b) **Internal flows.**

Governance of these rules

- **Coordinated capacity calculation methodologies developed pursuant to Article 21(1) of the CACM GL, should be compliant with rules 1 and 2.**
- **Any deviation should be:**

  a) Included in the proposal for coordinated CC methodology

  b) justified (evidence that conditions are met)

  c) Accompanied with the action plan to implement a long-lasting solution and,

  d) properly consulted before submission to NRAs' approval.