

DSOs as intermediaries

C6

PS2, Q2.3

*Are there any actual challenges or issues in the operation of the power system between the TSO and DSO due to the mass deployment of RES/DER?
What were the causes or background consideration in dealing with such issues?
What were or are the proposed solutions to such challenges?*

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Motivation

- TSO has system responsibility which is enforced through system services
 - Congestion management
 - Reserve capacities
 - Further ancillary services
 - Safety
- An high amount of provision units for system services will be located at DSO level
 - Small and decentral units
 - E.g. Photovoltaik, E-Mobility, Heat Pumps, Batteries, ...
- New concepts of communication will be required
 - How to facilitate information exchange between TSO and units?
 - How to handle uncertainty about service availability?

Group Discussion Meeting

Proposed solution

- DSOs are required as intermediaries
 - Service availability must be known and aggregated
 - Local grid restrictions must be adhered
- Avoid excessive data exchange for security reasons
- Information transmitted is sufficient to depict system state
- TSO receives only feasible offers for ancillary services
- DSO's aggregated result is more robust than individual service offers
 - Statistical self-balancing effects