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Reliable Sustainable Connected

TSOs view on Smart Grids

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ENTSO-E R&D Plan

- Reflects the vision of the TSOs to meet the challenges imposed on the electricity community by EU energy policy targets for 2020 and beyond.
- Smart grids have an impact on TSO operation, e.g. ancillary services, and consequently TSOs and DSOs need close cooperation on their interface.
- Serves TSOs needs and contributes to the process launched by the European Commission for a Strategic Energy Technology (SET);
- Underlines the need to define the interaction between TSOs and DSOs when smart grids solutions will grow from microgrids to large supergrids solutions or intelligent grids.



Smart grids

“Smart Grid” is the process “to transform the functionality of the present electricity transmission and distribution grids so that they are able to provide a user-oriented service, **enabling the achievement of the 20/20/20 targets** and guaranteeing, in an electricity market environment, high security, quality and economic efficiency of electricity supply”.

‘Smartness’ is not an objective itself, it is a set of tools for supporting the achievement of the 20/20/20 targets.



TSOs and Smart Grids

- the System Security issue is the core around which the other three main elements: the integration of RES, European market development and energy efficiency;
- Smart Grids applications offer the transmission grid access to extra ancillary services from the sub grid that is needed to balance and regulate the transmission grid.
- to support a timely deployment of Smart Grids technology a new regulatory frameworks, supporting incentives and controlling deployment schemes should be developed by the European Regulators.