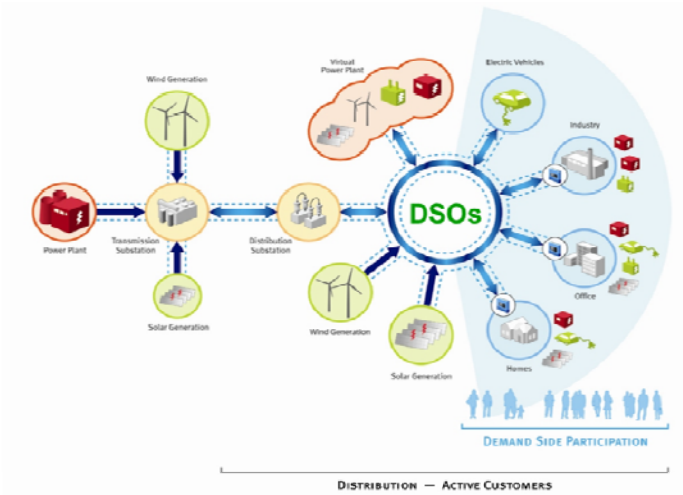
DSO Technical Expert Group
Preliminary views on
Operational Planning and Scheduling Code

Pavla Mandatova

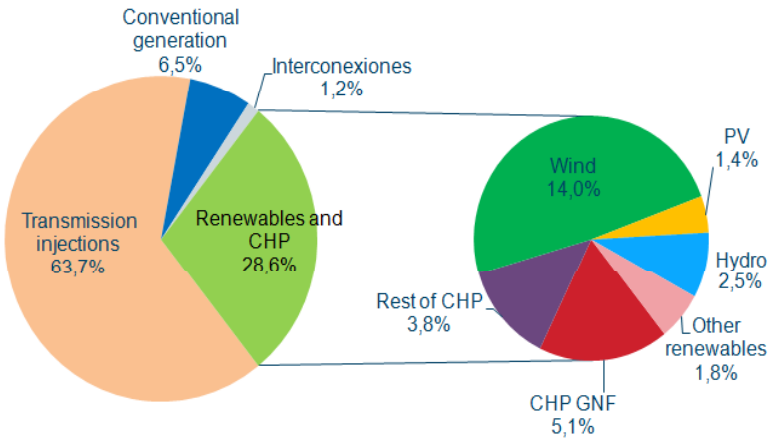
Advisor for Networks, EURELECTRIC

25 July 2012, Brussels

DSOs as neutral Market Facilitators and System Operators



Source: EURELECTRIC 10 Steps to Smart Grids

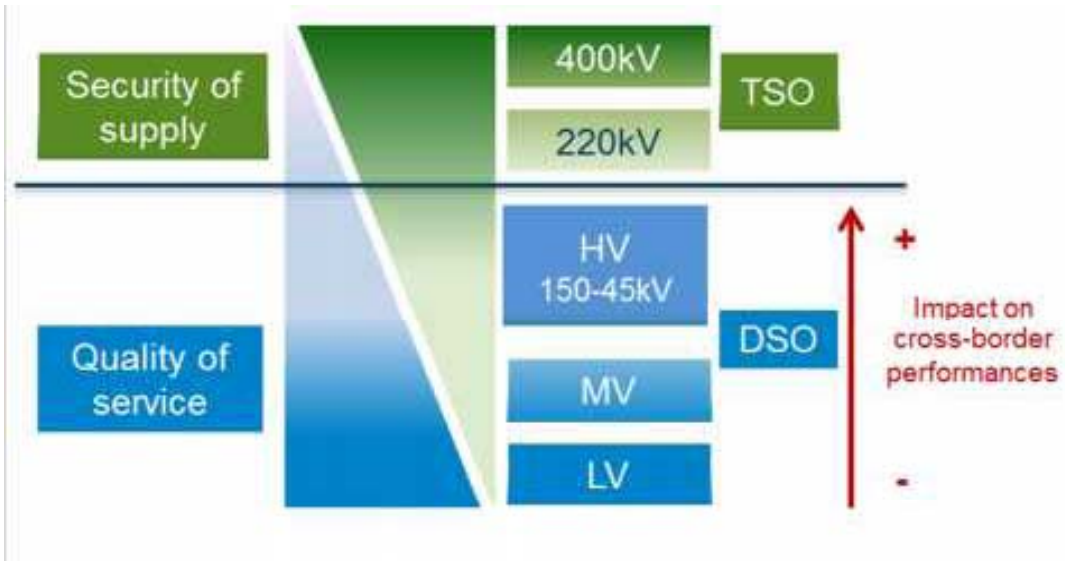


Most of new generation to be connected to distribution networks
Most of the demand side flexibility has been/will be developed on distribution networks

- **Provide information to market actors in a transparent, non-discriminatory and efficient way.**
- **Ensure security of supply and quality of service in their networks**
- **Perform DER management actions for OS and OP&S**

DSOs role to be clarified in the Code

- Relevant DSOs, like TSOs, are also in charge of OS and OP&S in their networks. DSOs have impact on cross border performances, either with big facilities connected in HV or with the simultaneous operation of DER in MV and LV.
- High level approach for OP&S should be reflected in the network code.



- Any requirement from TSO to a facility in HV distribution networks has to be agreed with and executed by DSO

- Any information of DER connected in MV and LV distribution networks will be facilitated by DSO considering the simultaneous effect at the connection point (not individually)

Data for Security Analysis and Outage Planning

- **Relevant DSOs, like TSOs, need also information for Security Analysis and Outage Planning (outage planning is already considered in article 34.5).**
- **Coordination in outage management is a key issue to maintain the overall security of supply. Relevant DSOs need TSO, relevant neighboring DSO and significant users outage planning information.**
- **All the DER (embedded in distribution) information required by TSOs will be gathered by DSOs who provide it to TSOs.**
- **At short timescales relevant DSOs will need DER and TSO information for OP&S purposes**

Definitions in the code

The **codes have different definitions**. **Coherence** is needed. Some examples…

Observability Area – An area of the relevant parts of the Transmission System, relevant DSOs and Neighbouring TSOs, on which TSO shall implement a real-time monitoring and modelling to ensure reliability of the respective Responsibility Area

Relevant DSO should be considered in the definition. DSOs also need an Observability area to fulfil their functions.

Significant Grid Users – every Grid User that is able to influence transmission flow patterns beyond the defined thresholds, as a consequence of the events or actions in the equipment under its own.....

ACER FG definition is different

Relevant TSO/DSO...

No definition in the code

Relevant Demand Facility / Grid element / Power Generating Module / Third-Party Owned Line – a (...) which participates to the coordinated outage planning process

These definitions are so general: Does it include elements connected to distribution network? This agents are not defined in OS NC or in Acer FG

Legal Aspects

- **DSO shall be considered in the recovery of costs (new art.4)**
  - ***'Costs which have to be borne by regulated network operators'***

- **Reference to article 3.3 should be made with respect to eg:**
  - **30(1) Rules for DSOs' involvement in Scheduling**

- **Coherence of requirements for scheduling with Balancing Network Code**

DSO's Recommendations

- **Relevant DSOs are also in charge of security of supply. All DSOs may have a cross border impact. OP&S for DSOs should be included in the code.**

- **No direct outage planning requirements from TSO to Significant Grid Users connected in HV distribution networks: agreed with DSO. Otherwise operational security could be affected.**

- **DSO needs outage planning information and data for security analysis from TSO, other DSO and users.**

- **To Fix a ratio of active/reactive power at T/D connexion in a massive DER presence scenario is not possible without the participation of that DER. TSO should also support DSO with reactive power in certain situations.**

Thank You For Your Attention!

Contact:

Pavla Mandatova: pmandatova@eurelectric.org

David Trebolle: dtrebolle@gasnatural.com

Florian Chapalain: florian.chapalain@edsoforsmartgrids.eu