



EUROPEAN SECURITY OF SUPPLY

André Merlin

President of ETSO

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Security of supply

Goal: to **minimize** the risk of interrupting the consumers' supply of electricity

Security of supply

→ Operational Power System Security:

means to achieve continued operation of Power systems without large disturbances (i.e. to avoid blackouts) : *UCTE presentation*

→ Power System Adequacy:

means to avoid load shedding arising from limitations at any point of the Power Supply chain, including fuel supply to power plants

A key requirement in order to provide a reliable power system is

adequate generation capacity in terms of quantity and quality to meet demand. This encompasses location, energy limitation, characteristics of the generating units, etc.

adequate transmission capacity and its availability and reliability

Without this, no amount of short-term or real-time operator's action would maintain a reliable supply !

Some concrete measures to be included in a third Directive (1/4)

- **Definition** of roles and responsibilities in ensuring SoS among: governments, regulators, TSOs, DSOs, generators and suppliers
- Operational and technical **standards** to be established by TSOs (e.g. UCTE's OH) **including those for generators and distributors** as TSOs have to coordinate the whole Power System Security Measures (not only transmission grids)

Some concrete measures to be included in a third Directive (2/4)

- Role of TSOs to ensure sufficient **short-term** operational reserves and peak power availability through balancing mechanisms
- A **paneuropean balance forecast** to be produced by TSOs, taking into account cross-border exchanges capacities

Some concrete measures to be included in a third Directive (3/4)

- ➔ What price signals in an imperfect market to ensure a proper mid / long term load generation balance?
- ➔ What could be the impact on the market of peak capacity contracts, peak capacity payments or peak capacity options by TSOs in order to provide enough capacity reserves?

Some concrete measures to be included in a Directive (4/4)

- TSOs should be responsible for Interconnectors' development
- Main problems to be solved: to find **faster authorisation** to build new 400 kV overhead lines

Conclusion

- Clear responsibilities among market players
- Efficient TSO monitoring of generation adequacy
- Sound regulatory framework for transmission investment
- Binding reliability standards for all Power System participants (gen/trans/dist)

are prerequisites for a high level of security of supply in Europe