Time has come to face the fundamental challenges of system reliability

UCTE is the Association of Transmission System Operators in the European mainland comprising 23 countries, both EU and non EU. Its main mission is the coordination of TSO operational issues in the largest synchronously interconnected system in Europe with a view to pursuing the objectives of system reliability and thus security of supply for the benefit of 500 million people.

UCTE is therefore at the source of the sine qua non condition for developing electricity markets in Europe: a reliable physical interconnection. But UCTE is also concerned about the present lack of an adequate political response to the changes undergone in the transmission sector that should soon result in feasible measures enabling TSO responsibilities and TSO means of action to be reconciled.
An apparent contradiction? On the one hand, electricity supply products did not change much over the past decades. What did change is that markets are requesting more trading and transmission capacity and an ever increasing possibility to modify programs, and shorter gate-closure times. On the other hand, while no serious system-wide incidents happened over the last 50 years in Europe, the continent is facing more severe regional supply disturbances with a looming risk of global blackout in Europe with TSOs regularly warning about operating their systems at their respective limits.

Nowadays, various types of market participants (generators, distributors, traders) use the system primarily for trading purposes claiming "thinner" security margins which already led to a substantial increase of cross border transits with changes in operational patterns, intermittent flows, long-distance exchanges and several congested areas/borders. The role of TSOs and their respective means of actions – as defined in the still primarily binding national legislations – differ widely even among EU member states as well as the requirements set to grid users in the countries participating in a given system: In recent years, this started to cause severe system disturbances and induced severe limits of enforceability of reliability standards. And, last but not least, all these changes in the environment of TSOs occur in the light of growing difficulties for building new lines and substations, including interconnection facilities. A new approach to technological improvements is thus required especially for protecting the grids against disturbances due to decentralized generation injected into the system and cross-border flows.

It is imperative to develop first and as soon as possible political awareness of the fact that the modalities of grid use provide benefits to markets, but that also risks are a key issue, while successful management of these operational risks remains also today an essential role of TSOs. Now this role definitely calls for improved TSO services but most urgently for adapted mechanisms and ultimately, new structures based on a new politically endorsed legitimacy for actions on reliability. This also includes a clear delimitation between the individual and the collective TSO responsibilities and competences for running their respective synchronously interconnected system. Finally, efficient and effective mechanisms of legal enforcement towards both TSOs and grid users on essential reliability targets must be put in place.

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