

AUDIT

Audit of the economic aspects of the security of supply from the grid

Swissgrid AG, Federal Electricity Commission, Swiss Federal Office of Energy

KEY FACTS

Swissgrid is the national grid company which has been operating the 6,700km-long electricity transmission network, and has owned it since 2013. Its main task is to ensure the safe, reliable, efficient and effective operation of the electricity transmission network, as the basis for Switzerland's grid-based electricity supply. It ensures that the supply and demand for electricity is always balanced, in order to keep the frequency stable at 50 Hertz. To achieve this, it uses reserve power supplies and works with European grid operators.

The Swiss Federal Audit Office (SFAO) has carried out an audit into whether Swissgrid's risk and business continuity management is set up in such a way that the security of supply from the grid is economically guaranteed. It also checked whether Swissgrid and the federal government are exercising their responsibility appropriately. Based on the results of the preparatory work, the SFAO decided not to carry out a full audit, and to record its findings in this summary report.

Swissgrid can improve its risk management by identifying the interrelationship between the individual risks and providing the company management and the Board of Directors with the total financial risk. There is urgent need for action amongst the 120 or so active balance groups registered in Switzerland, in order to make the forecasts of the required power supply more precise. Electricity consumption and production must be evenly balanced at all times inside a balance group (a virtual group which includes various electricity market stakeholders), so that the electricity grid remains stable. One of the main challenges is the integration of renewable sources of energy, such as photovoltaic systems. Swissgrid, ElCom and the Swiss Federal Office of Energy (SFOE) are required to tighten and enforce regulations regarding inadequate forecasts.

Solid basis for Swissgrid risk management – targeted development requested

Swissgrid operates an integrated security management system, which incorporates the risk, business continuity and crisis management and is oriented around the relevant ISO standards. The aim is to enable the coordinated, forward-looking and resilient management of risks, in order to effectively maintain operations in exceptional circumstances and prevent or minimise damage. Swissgrid maintains regular discussion with internal and external stakeholders and promotes the continuous improvement process.

However, the interrelationship between the individual risks and the total financial risk should be better presented. This would enable Swissgrid's security management system to be further developed in targeted areas and integrated even further into the corporate management.

Prepare better forecasts for economic grid stability

The accuracy of the balance group forecasts is a key challenge. For example, the increasing share of volatile wind and solar energy requires timely forecast adjustments to reduce unscheduled fluctuations at short notice, since Swissgrid has to counterbalance these in order to keep the electricity grid stable. The costs of this counterbalancing and the power required to balance it, is charged to the balance group that triggered it.

Because of the steadily rising costs that are being passed on to the end users, the Federal Electricity Commission (ElCom) is required to check the appropriateness of passing these costs on as part of the basic services, and to set standards. At individual contract level, Swissgrid is required to tighten and enforce the regulations with the balance group managers regarding inadequate forecasts. At legal level, the responsibilities and obligations of the balance group managers, along with Swissgrid's and ElCom's possible actions are to be defined.