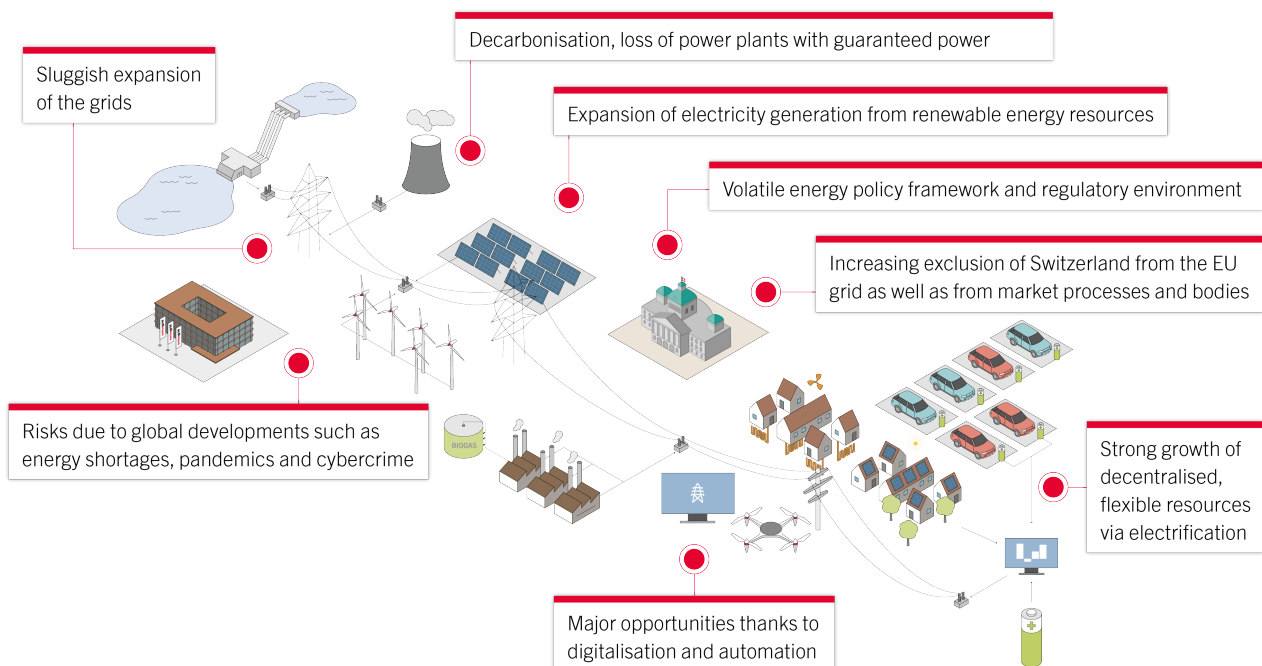


Annual Report 2027 Strategy

We are helping to shape the energy future – safely, innovatively and sustainably

The year 2023 is the starting point for a new, five-year strategy period for Swissgrid. The last ten years have been marked by finalising the transfer of the grids from the previous owners and completing the subsequent development and consolidation phase. This has enabled the company to establish a solid basis from which to start tackling the challenges it faces in a rapidly changing energy system.

The energy system in transition – an analysis of the need for strategic action



Following a long period of stability, there has been considerable movement in the electricity industry in the past 20 years. The EU's decision to integrate the European power markets and to decarbonise the energy industry triggered fundamental change. Pressure to accelerate the transformation of the energy system and decarbonisation has increased more and more due to the newly formulated climate targets within the framework of the «European Green Deal».

The energy policies of the EU and Switzerland are once again under scrutiny: geopolitical developments, the shortage of gas supply, limited power plant capacities in winter and exceptional developments in wholesale prices for gas and electricity have reinforced the aspiration for national energy autonomy. It is to be expected that the power plant park, and hence the entire energy system, will continue to undergo change in the coming years.

These developments affect grid operators in several ways: the more rapid expansion of renewable energy production leads to significant changes in production patterns and volatile electricity flows. This poses great challenges for power system control, which means that sufficient reserve power and higher automation are needed to ensure grid stability. The political and regulatory environment requires grid operators to assume new tasks at very short notice. At the same time, the statutory framework conditions prevent any important changes from being made. The approval and authorisation procedures for grid projects, which remain lengthy, are just one example. This is slowing down the urgently needed adaptation of the grid infrastructure to the new framework conditions.

These challenges for Swissgrid are accentuated by the lack of an electricity agreement between Switzerland and the EU. Switzerland is increasingly excluded from important EU market mechanisms. This results in a greater risk of more unplanned electricity flows, a lack of consideration in security-relevant system processes and a reduction in import capacities.

Grid operators face challenges not only due to the changes in the energy system, but also on account of global developments. Threats such as the consequences of climate change for the grid infrastructure, pandemics or cybercrime make it clear that operators of critical infrastructures must have an exceptionally high level of protection and readiness. The demands placed on the resilience of these companies and on their security arrangements, emergency response measures, business continuity management and crisis management remain high.

Digitalisation offers a response to the increasing complexity of the grid operators' environment. For example, the desired digital transformation will make it possible to connect many of the new, flexible resources and to integrate them profitably into system operation. End-to-end digital processing of the value chain opens up opportunities within the company: digital solutions can be used to achieve efficiency gains in the expansion and maintenance of the grid, for instance. The potential of digitalisation is particularly great for grid operators due to their central role in the energy system. This opportunity must be seized.

Five priorities

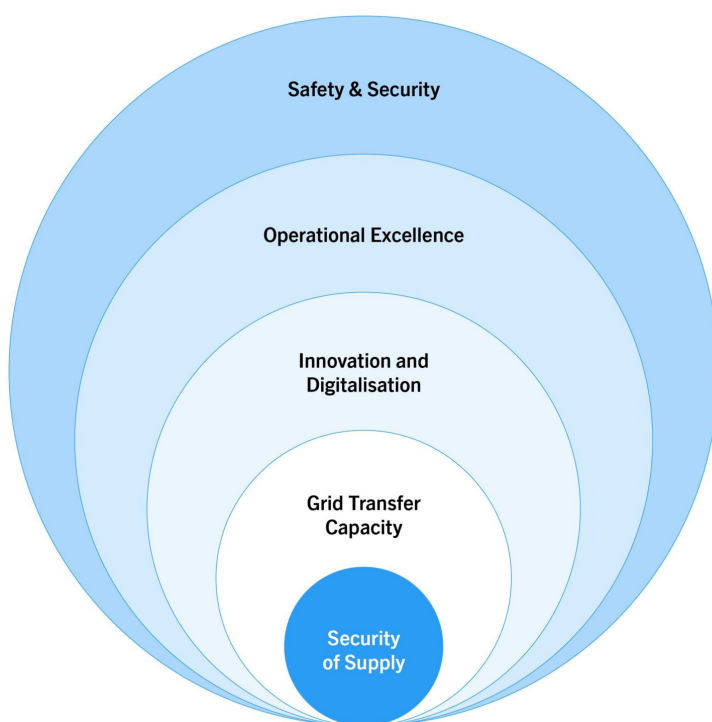
Swissgrid has defined five closely interrelated priorities for its Strategy 2027. Four of these were taken over from the previous strategy period and have been adapted to the current and future framework conditions. A new focus on «Innovation and Digitalisation» has also been added.

The new strategy focuses on «Security of Supply» with measures to ensure grid-related security of supply in the long term, regardless of the degree of integration into the European processes of the EU,

while at the same time supporting the Confederation's energy strategy. «Grid Transfer Capacity» is equally important. Its aim is to increase the capacity of the grid in line with demand and to construct and operate the grid even more efficiently in the future. A comprehensive package of measures with a focus on innovation and digitalisation lays the necessary foundations for implementing the desired digital transformation.

In order to successfully implement Strategy 2027, the culture and skills within the company must keep pace with future requirements and continue to be developed. These areas of action are addressed by «Operational Excellence» in parallel with the sustainable development of the company.

Safety is a top priority for Swissgrid, given its responsibility for one of Switzerland's critical infrastructures. Its further development can only succeed if risks and dangers relevant to the company are recognised and reduced at an early stage. The «Safety & Security» priority strives to ensure a high level of resilience and comprehensive protection of all Swissgrid resources.



The priorities in detail

«Security of Supply»

«Swissgrid guarantees a high level of grid-related security of supply regardless of its integration into European processes. Swissgrid supports the Confederation's energy strategy.»

Networking and cooperation with Europe are crucial for a high level of security of supply. As Swissgrid is increasingly marginalised in EU processes due to the lack of an electricity agreement, the company is committed to achieving the highest possible level of integration at a technical level. Bilateral agreements with neighbouring transmission system operators ensure that Switzerland is taken into account in European grid security processes and mechanisms, among other things. An electricity agreement with the EU nonetheless remains the ultimate goal for Swissgrid.

The demands on system operation are increasing due to the transformation of the production mix and the decentralisation of the electricity system. To increase the controllability of the grid, Swissgrid is

taking structural measures, changing operational processes and using digital solutions for data-driven decision-making in system operation. This package of measures will also help Swissgrid to cope with rising system security risks if Switzerland were to be further excluded from European processes.

The many decentralised resources in the energy system represent not only a challenge, but also an opportunity for grid operators. Swissgrid wants to harness the potential of these resources more effectively in the future: it plans to create market platforms in association with the industry, to make these platforms easier to access by means of digital solutions, to better coordinate their flexibility and to use them profitably for grid operations.

«Grid Transfer Capacity»

«Swissgrid constructs and manages the grid efficiently and increases its capacity in line with demand.»

The transformation of the energy system can only succeed if the grid infrastructure is adapted to the new framework conditions. To this end, Swissgrid is already planning the Strategic Grid 2040 and will begin its implementation as soon as it has been reviewed by the Federal Electricity Commission. The aim of expanding the grid is to adjust its capacities to meet demand and to reduce congestion. Swissgrid will implement more construction projects and put them into practice more quickly by standardising and optimising processes and by using digital solutions for planning and construction. Collecting and evaluating real-time measurement data will also help make it possible to increase grid capacity.

Maintenance is being automated in many areas – for example by using drones and robots. A completely digitalised grid image – a digital twin of the physical grid – will provide the basis for establishing data-driven plant management in the future. This will allow the status of plants to be monitored more precisely over the entire life cycle and enable the grid to be operated in a more risk-based and efficient manner. It will become possible to shorten line outages and increase the availability of the grid, for example.

«Innovation and Digitalisation»

«Swissgrid is developing into a highly digitalised, innovative company.»

The complexity and volatility of the electricity system are constantly increasing due to ever greater decentralisation. Digitalisation offers the opportunity to manage this high complexity and volatility whilst increasing the efficiency of many processes. With its new «Innovation and Digitalisation» priority, Swissgrid is establishing the conditions for the desired digital transformation throughout the company.

Firstly, this concerns technological and data-related conditions, such as automation tools and the systematisation of data management. And secondly, it refers to an increase in implementation strength, partly thanks to the more widespread use of agile development methods. In addition to digitalisation, the focus is on the development and implementation of innovations. In order to open up the innovation process, an ecosystem is being built as a collaborative network in which innovations are driven, developed and shared with partners. Furthermore, a culture of innovation is being established to promote the skills and potential of employees whilst actively and sustainably pushing ahead with digitalisation ideas and transformation projects within the company.

«Operational Excellence»

«Swissgrid acts sustainably throughout the company and is constantly developing the culture and skills within the company.»

Swissgrid is laying the foundations for achieving the goals of its Strategy 2027 with its «Operational Excellence» priority: this will enable Swissgrid to act even more sustainably throughout the company going forward. Swissgrid now groups together all areas of sustainability management under «Corporate Social & Environmental Responsibility». Among other things, a targeted selection of UN goals – the Sustainable Development Goals – is being addressed, and comprehensive sustainability reporting is being developed according to the standards of the Global Reporting Initiative.

«Operational Excellence» also endeavours to strengthen the corporate culture and ensure that the necessary skills will be available within the company in the future. Identified skills gaps are closed by means of programmes tailored to individual needs. Thanks to these and other measures, Swissgrid is simultaneously increasing its attractiveness as an employer, attracting the talent it needs and strengthening the identification of existing and future employees with the company. The company is also investing in relationships with other relevant external stakeholders such as the industry, politicians and the general public to strengthen their support for the company's concerns.

«Safety & Security»

«Swissgrid is strengthening the resilience of its core processes.»

Security is a top priority for Swissgrid, as the operator of a critical infrastructure. The company is strengthening the resilience of its core processes as part of the «Safety & Security» priority. In order to minimise or eliminate any threats to the safe operation of the transmission system, measures are taken in areas of action resulting from changes in the threat level or from increases in requirements.

This includes raising the level of protection in substations by means of structural and organisational measures and installing safety systems. In the area of Business Continuity Management, Swissgrid is developing additional solutions to safeguard its core mission in the event of an incident. As far as cybersecurity and crisis management are concerned, the focus is on implementing further measures to achieve the desired goals. Safety is deeply anchored in the corporate culture and therefore in the attitudes and actions of Swissgrid employees.