SVENSKA KRAFTNÄT

SVENSKA KRAFTNÄT'S STRATEGY FOR 2030

Together, we accelerate electrification

January 2026

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Our assignment

Svenska kraftnät lays the foundation for a sustainable and secure electricity supply that is economically efficient and internationally competitive.

We are the Swedish electricity transmission system operator and responsible for managing, operating and developing Sweden's electricity transmission network. We also strive to contribute towards a well-functioning and transparent electricity market.

By coordinating long-term planning of the national electricity system, we enable electrification and development throughout the country as well as interconnections to other countries.

Svenska kraftnät works to ensure that electricity is available where it is needed – at the right time and in the right quantity. We maintain a societal development perspective when keeping Sweden's lights on, today and in the future.

For a sustainable and secure Sweden

A secure and well functioning energy and eletricity supply is a prerequisite for the welfare of society and for us as an industrial nation. Citizens, businesses and societal actors must all be able to rely on the electricity supply, both under normal circumstances and in times of crisis.

In recent years, energy issues have come increasingly into focus. Climate change, the electrification of transport operations and industry, and the need for new electricity generation and increased grid capacity, are pressing agenda issues. There is also a deteriorating security situation, with an increased need to protect critical infrastructure and tighten our readiness for emergency repairs, and a need for greater self-sufficiency. Svenska kraftnät plays an important role in Sweden's preparedness by monitoring the interests of total defence in electricity contingency issues.

We are central to this development and adopt a societal development perspective. Svenska kraftnät must ensure an electricity supply that is operationally sound, safe for people, with reliable delivery, while also achieving the required expansion of the transmission grid at a pace that is economically effective and ensures Sweden an electricity supply that strengthens its international competitiveness.

Our mission can be briefly summarised as follows:

The transmission grid must be renewed, adapted and reinforced at a sufficiently rapid pace to handle the change in the generation mix and support extensive electrification. At the same time, security of supply and the robustness of the electricity system must be guaranteed, even in crisis or highly stressed situations.

The security of supply of the electricity system must be kept at an economically efficient level for every hour of the year, even in a system with a sharply increasing proportion of weather-dependent electricity generation and a growing dependence on imports.

The increasingly important mission-critical IT systems and European electricity market solutions resulting from increased regulation must be designed to support the security of the power system. Data management, digitalisation and increased IT dependency must be developed in a secure and resilient manner.

In this strategy, we explain how we are tackling this mission and outline the direction for our operations in the coming years. The strategy is based on the energy and climate policy goals and our mission from the government. It also addresses the impact of external factors on our operations.

There are some areas where we see a need to focus and develop; we refer to these as key transition areas. The key transition areas require extensive collaboration between various divisions and departments within Svenska kraftnät, as well as collaboration with other stakeholders.

The strategy is aimed at all employees of Svenska kraftnät, but also at all stakeholders with an interest in developments in this area that is so critical for Sweden.

The instruction Svenska kraftnät received in 2025 entails a number of changes, but above all it means that we will continue along our chosen path, now with an even clearer mission. We are assuming greater responsibility for leading Sweden in the planning and development of the electricity supply of the future and in the transition to a sustainable electricity system with security of supply. We want to do this in dialogue and collaboration, based on a societal development perspective.

Together, we accelerate electrification.

Svenska kraftnät,
January 2026

An electricity system in transition

Developments in society are more dynamic and complex than ever. Digitalisation, market evolution and technological innovation are driving development. At the same time, the effects of climate change are becoming increasingly dramatic, and phasing out fossil fuels is crucial to reduce carbon dioxide emissions. The energy transition is central to addressing the climate challenge, and Svenska kraftnät, together with other stakeholders in the sector, plays a vital role in achieving climate goals.

A deteriorating security situation presents new demands

The global and regional security situation has deteriorated. This increases the requirements for security and civil preparedness. A reliable electricity supply is essential for society to function, making it a potential target for adversaries. Government agencies and the business community are now working together to strengthen civil defence, and the electricity system also needs to be adapted to withstand severe disruption, potentially including war. The electricity supply must be fortified to handle and recover from attacks on both infrastructure and IT systems.

The energy transition is driving increased demand for electricity

Electrification is the primary measure to phase out fossil fuels, especially in the industrial and transport sectors. This development applies both in Sweden and globally. We are planning to be able to handle a doubling of Swedish electricity consumption by 2045. At the same time, the development is dependent on the pace of the industrial transition and economic development.

The transition creates new opportunities for business and industry, but also poses major challenges, not least for the electricity system.

Supply in the grid is not keeping pace with market demand

Low electricity prices and a secure electricity supply are important components of Sweden's competitiveness and are in high demand from both industry and the general public. The industrial sector's plans for electrification are extensive. The planning and permit processes for new electricity grids and generation assets need to keep pace with this development, also when needs change. Despite greater understanding of the need for reliable and adequate electricity infrastructure, conflicts of objectives arise, for example, between local environmental considerations and global climate goals.

The expansion of wind power has come to a standstill, while the permit processes have started for new nuclear power. The government and the EU are setting clearer requirements for Sweden to simplify and speed up permit processes for renewable electricity and grid expansion.

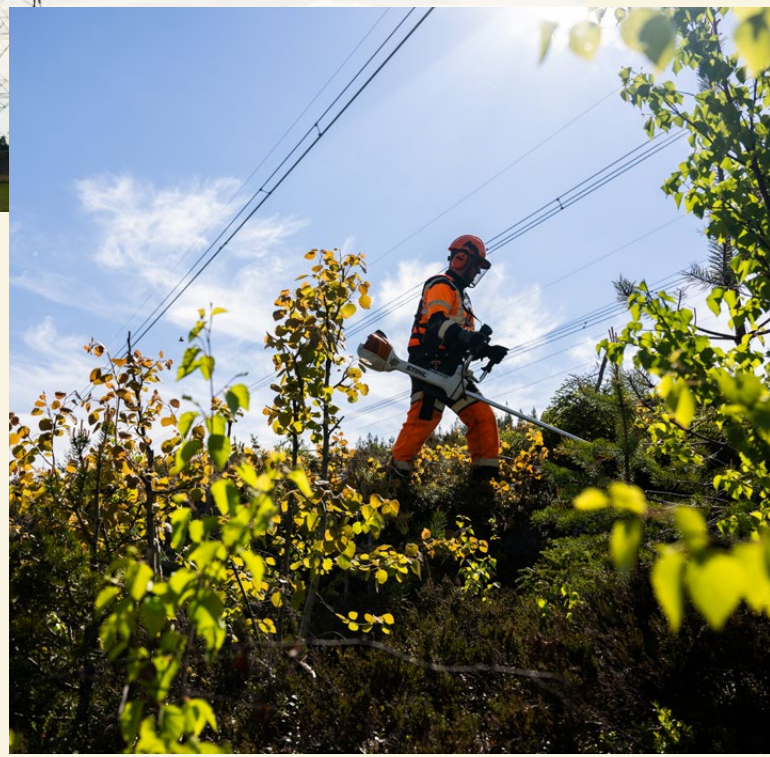
Meeting the needs of the future requires an increase in the pace of expansion, shorter lead times and more efficient management of conflicts of objectives.

New generation required to meet demand
Increased electricity consumption requires more electricity generation. In the right place. Despite the addition of large volumes of solar and wind generation to the European electricity market in recent years, the ability to satisfy the demand for power at any given time when consumption increases is challenged. Several countries, including Sweden, are becoming increasingly dependent on imports during periods of low generation. A change in the energy mix challenges the reliability of the electrical system and increases the need for additional market-based and technical solutions. This can take the form of rotational energy and reactive power, for example.

Flexibility and sector integration are important tools
Flexibility, storage and sector integration are playing an increasing role in the energy system. Different types of storage solutions and control of demand are necessary to ensure the supply of electricity as the proportion of weather-dependent generation increases. Fossil-free hydrogen may well play an important role in the European energy system of the future. The speed of development is still uncertain, but regardless of the pace, increased joint planning between electricity and hydrogen systems is required in order to make optimal use of resources and flexibility.

EU governance and regulation of the energy sector is intensifying
For several years now, the EU's governance and regulation of the energy sector has been increasing. Regulatory intensity and the rate of change are accelerating as the EU's level of ambition increases in the energy field. Member states have successively strengthened the European energy market through common regulations and objectives. As the transmission system operator (TSO) for the transmission grid, we are significantly affected by directives and regulations that apply to all European TSOs. Other regulations, for example in the environmental field, also have a major impact on the electricity system and our mission.

Digitalisation and data exchange create both opportunities and risks
The digitalisation of society and specifically the energy sector continues. As more tasks and operations are automated, the demand for accurate and quality-assured input data is increasing. In a rapidly changing world, increased digitalisation creates

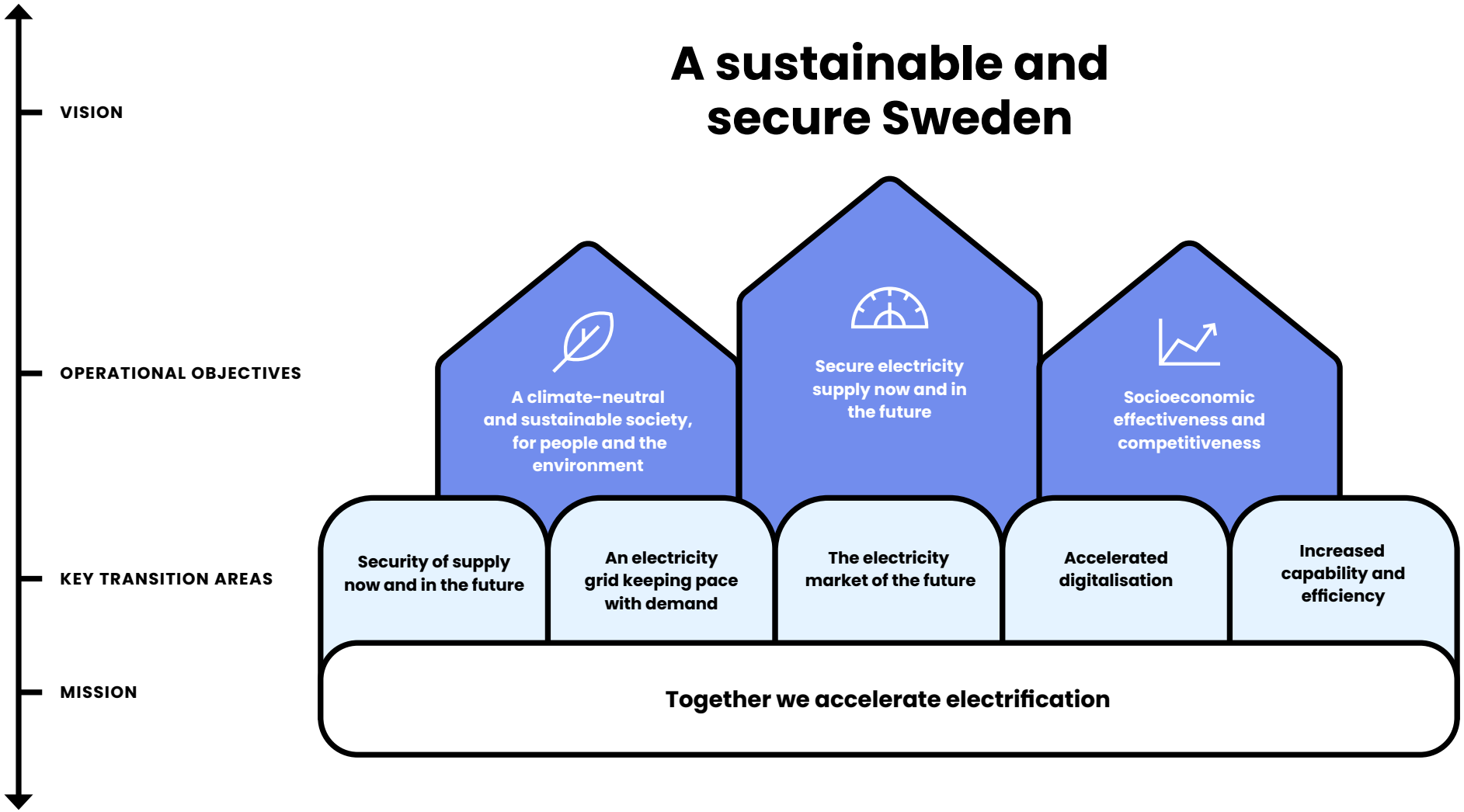


new opportunities. IT solutions are often complex. Developing systems that are robust, secure and scalable requires a high level of competence and the use of well-proven technologies. In addition, there are ever-increasing requirements for transparency and the sharing of data between system operators, other stakeholders and the general public. While vulnerability increases. In recent years, cyber threats to the energy sector have intensified.

Strategy

Svenska kraftnät's strategic direction towards 2030 is summarised in this model, which is based on our vision. The operational objectives are based on the energy and climate policy goals that govern our mission, and the key transition areas govern our priorities and clarify what is required to meet the challenges that lie ahead of us.

Strategy


VISION
A sustainable and secure Sweden
OPERATIONAL OBJECTIVES
A climate-neutral and sustainable society, for people and the environment
Secure electricity supply now and in the future
Socioeconomic effectiveness and competitiveness
KEY TRANSITION AREAS
Security of supply now and in the future
An electricity grid keeping pace with demand
The electricity market of the future
Accelerated digitalisation
Increased capability and efficiency
MISSION
Together we accelerate electrification

A sustainable and secure Sweden

Operational objectives

The social benefit that we at Svenska kraftnät contribute through our mission is based on the overarching goals of energy policy. The overarching goal is to create conditions for efficient and sustainable energy use and a cost-efficient Swedish energy supply. Both energy collaboration within the EU and Swedish energy policy are based on the same three cornerstones: to reconcile security of supply, competitiveness and ecological sustainability. Svenska kraftnät shall contribute to achieving the energy and climate policy goals, with a focus on the planning target and the goal of security of supply.

A climate-neutral and sustainable society, for people and the environment

Secure electricity supply now and in the future

Socioeconomic effectiveness and competitiveness

Secure electricity supply now and in the future

secure electricity supply means that the general public, industry and other sectors have access to the electricity they need, without disrupting people's everyday lives or threatening critically important functions. This must be achieved both with current consumption and in a future scenario with significantly increased electricity consumption. A secure electricity supply also means that Svenska kraftnät, together with the electricity supply operators, can supply electricity in the face of a crisis or heightened civil preparedness, so that society continues to function and total defence can be maintained. Svenska kraftnät shall strive to achieve the goal for security of supply and planning for the national electricity system that was adopted by the Swedish Parliament.

Socioeconomic effectiveness and competitiveness

The Swedish electricity system must be able to supply electricity where demand exists, at the right time and in sufficient volumes, to the extent that this is economically effective. All our investments and measures must be based on economic analysis. A competitive electricity supply means that the electricity supply must contribute to the welfare, employment and growth of society. Unjustified barriers in the electricity system must be removed in order to create the conditions for an efficient market that promotes competitive prices. An open and transparent electricity market contributes to increased competitiveness, both in Sweden and in the rest of Europe.

A climate-neutral and sustainable society, for people and the environment

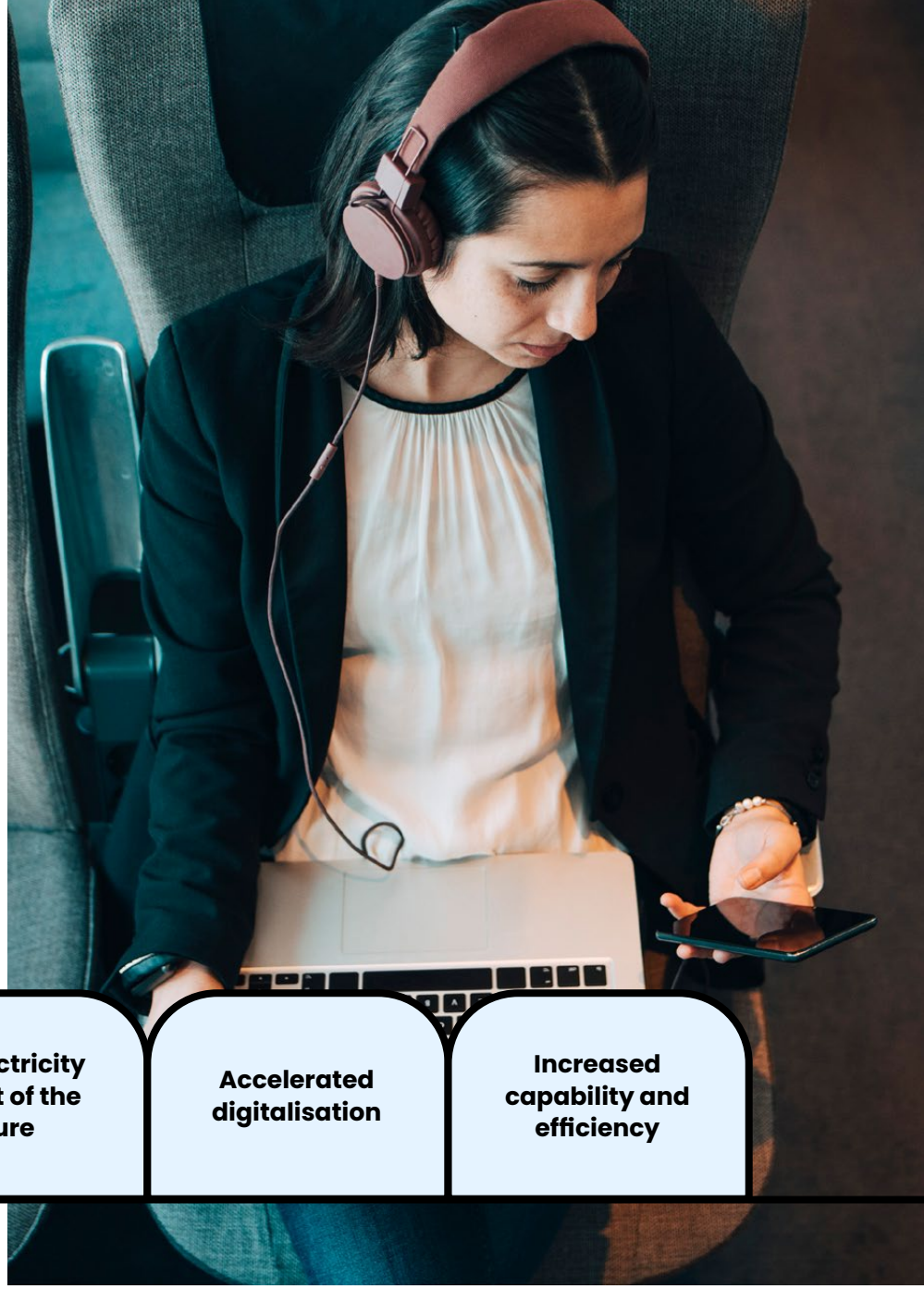
Efficient and sustainable use of energy means using resources in a way that also enables the needs of future generations to be met. Electrification is an important part of the solution to the climate issue, and through its mission, Svenska kraftnät contributes to the transition of the energy system.

The goal is to contribute to a sustainable society for people and the environment, indirectly through our mission and directly by conducting our operations and investments in a sustainable way and by considering the impacts on health, the environment and the climate.

The development of electricity grids and other infrastructure can entail conflicting objectives. Our mission is to create the right economic development conditions for an economically efficient, internationally competitive, sustainable and secure electricity supply in Sweden, by responsibly balancing the different perspectives.

Key transition areas

To succeed in our mission and achieve our long-term goals, we need to focus on a number of key areas where major development steps are required. We call these key transition areas. These are areas where we need to reinforce and develop our capabilities and delivery even more. These transitions are the foundation of our strategy and strategic direction towards 2030 and will help all our employees, project promoters and stakeholders understand our priorities and what is required to meet the challenges that lie ahead.



Security of supply now and in the future

An electricity grid keeping pace with demand

The electricity market of the future

Accelerated digitalisation

Increased capability and efficiency

Security of supply, now and in the future

The Swedish Parliament has adopted two new goals for Sweden's electricity system, one for planning and one for security of supply. The planning target states that the electricity system shall provide the conditions required to deliver the electricity needed for increased electrification and to make the green transition possible. The goal aims to facilitate planning to meet an electricity demand of at least 300 TWh by 2045. The security of supply goal entails that the Swedish electricity system must be able to supply electricity to meet the existing demand, at the right time and in sufficient volumes , to the extent that is economically effective. The planning goal and the security of supply goal have a direct impact on Svenska kraftnät's work to ensure security of supply.

To enable the transition to a fossil-free energy system, it is expected that electricity consumption will need to increase radically. Electricity generation and consumption are being established in more and new geographical areas, resulting in changing power flows in the grid. At the same time, there has been an increase in the proportion of weather-dependent electricity generation capacity in the Swedish electricity system.

Together with a vulnerable security situation with stronger requirements for civil preparedness and security, the changes present new challenges for the electricity system.

To be able to maintain good security of supply, both now and in the future, Svenska kraftnät will:

Develop our supply capability in all operational states - from normal operation to restoration
We must increase our ability to return to normal operation as quickly as possible in situations where we been unable to maintain the required frequency, voltage and power flows. Our short-term and long-term analytical skills must be developed. We need long-term, forward-looking action, more tools for monitoring and control, better support for follow-up and forecasting, increased data collection and clear requirements for affiliating parties. Economic effectiveness constitutes a framework for this.

Take the lead in the overall planning of the electricity system of the future
We are assuming greater responsibility for the national planning of the electricity system. We will

System states

- **Normal state**
- **Alert state**
- **Emergency state**
- **Network collapse**
- **Restoration**

The system states define the status of the system by indicating where the system is in relation to set operational safety limits. They simplify communication and provide clarity on the actions needed to return the system to the normal state.

lead and coordinate the long-term development of electricity systems throughout the country and contribute to an efficient and robust energy system. We will clarify where generation, flexibility resources, storage and consumption can best be connected. Together with others, we are developing joint system plans and supporting data to provide guidance for investments and decisions. We will also conduct joint planning of electricity and hydrogen infrastructure and play an active role in European collaboration on regulations and goals.

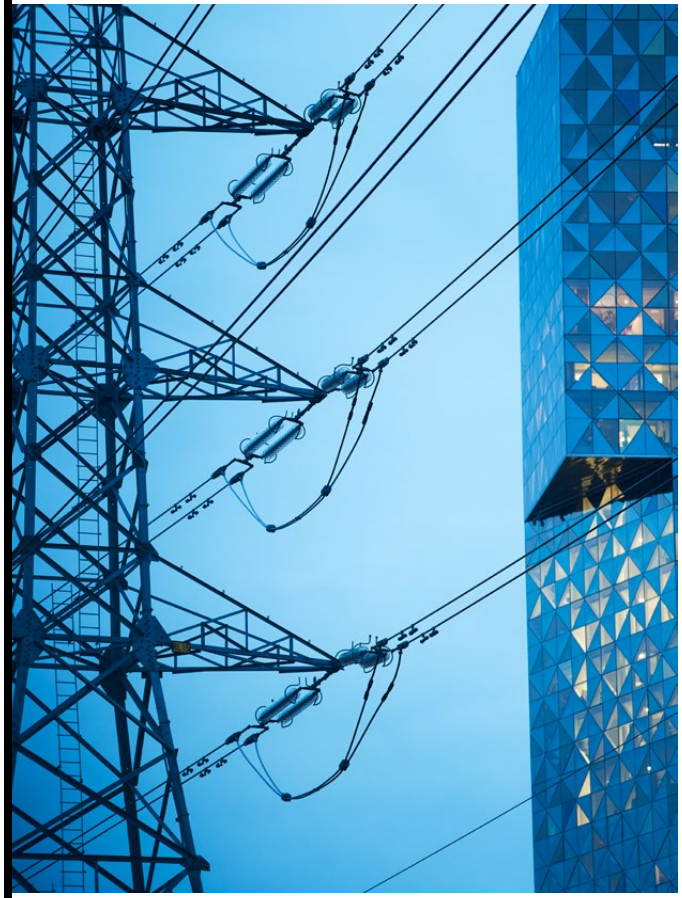
Ensure the security and civil preparedness of our organisation and that of the electricity supply

The increased threat to Sweden and the energy supply means that protection, robustness, redundancy and restoration capability are becoming increasingly important. We will safeguard the capacity of the electricity system in all conditions of society through the correct design and dimensioning of the electricity system, operations, markets and supply chains, as well as through proactive regulation in the areas of security and civil preparedness. Cybersecurity measureswill continue to be developed and strengthened to address the emerging risks and vulnerabilities inherent in digitalisation.

Ensure that assets with high availability through efficient management

We will adopt a life cycle perspective in the management of our electricity grid to ensure that it is continuously maintained, renewed, revised and reinforced. We will work to ensure that grid outages are as short as possible. We will achieve this using new working methods and technological advances that will minimise the impacts on electricity customers and producers. We will reduce the number of unplanned outages by working systematically with deviation management, risk-based maintenance and innovative monitoring solutions.

An electricity grid keeping pace with demand



Electrification needs to move faster to strengthen Swedish competitiveness. Demand to connect to the national grid remains high. This will require significant investments in new electricity grids, while large parts of the existing grid need to be renewed and reinforced. Svenska kraftnät is planning to build 4,000 kilometres of high-voltage lines over the next ten years.

In order to meet demand, we need to increase the flexibility of the electricity system and expand at a faster pace. But the lead times for an investment are long. In addition to extensive, time-consuming permit processes, there is a major risk of resource shortages, in terms of access to both personnel and materials. This is because regional and local grid owners also have extensive expansion plans. A corresponding development of electricity grids is also taking place throughout Europe. Efficient supply chains and partnerships are therefore becoming increasingly important.

Additional challenges include permit legislation, many conflicts of interest and the changing, at times uncertain, needs of industry and society. This affects the rate of expansion in different ways.

Our goal is to halve the lead time for expansion projects, and we are planning for a historically high level of investment.

Lead and coordinate to meet demand through the rapid and efficient expansion of the transmission grid

Svenska kraftnät will assume a leading role in coordinating societal actors and stakeholders to shorten lead times. Through proactive communication with regions, municipalities, producers and major consumers, we will develop partnerships, increase our local knowledge and create the right conditions to meet demand at the speed required. Proactive grid planning, exploiting synergies between different energy carriers such as electricity and hydrogen, and confidence-building collaboration and dialogue with other stakeholders and citizens are some of the tools we will use.

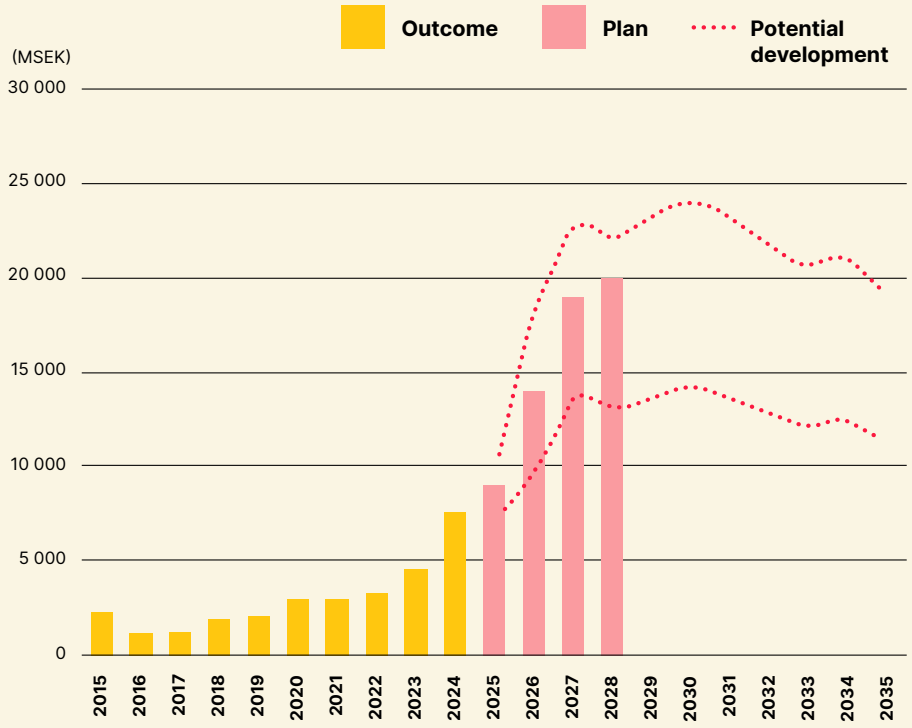
Utilise standardisation, technological development and proactive environmental work to achieve efficient, sustainable expansion and better utilisation of the electricity grid

We will develop and use technology, market solutions and innovative contractual forms to achieve a more efficient utilisation of existing and future grid expansion. This gives us a broader toolbox to resolve capacity-related problems and offers alternatives to line reinforcement.

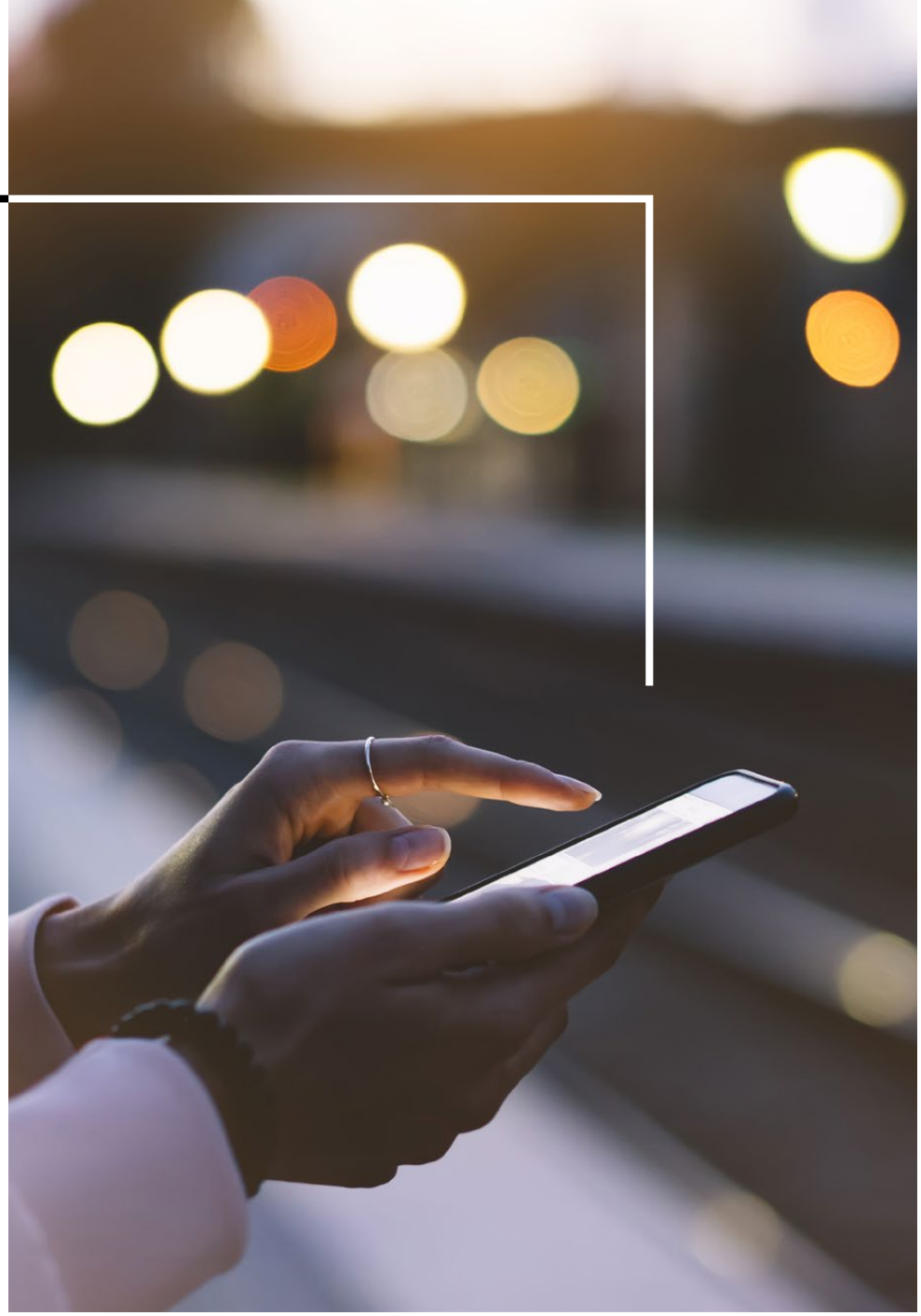
We will use established standards and supplier technology, as well as innovative technology, to build our electricity grids as efficiently as possible. We will work to reduce the negative climate and environmental impacts of our expansion projects, to increase biodiversity and to use environmental-friendly, safe and sustainable raw materials and resources.

Develop business models and partnerships to increase capability in the supply chain
We will develop new working methods for structuring, procuring and implementing our construction projects. We will promote healthy competition, work with legitimate and responsible suppliers, and promote good supplier collaboration. We will develop our attractiveness as a customer through strategic partnerships and innovative business models.

Grid investments – outcome and assessment of future development



The electricity market of the future



The electricity sector plays a central role in the transition of society to achieve the climate goals. To protect Sweden's competitiveness and accelerate this transition, the electricity markets need to evolve, and as the electricity system changes, the market structure will need to be adapted. The electricity markets of the future must:

- Provide long-term signals to ensure the necessary investments in carbon-free generation, flexibility resources and grid development.
- Ensure the efficient use of generation and consumption resources and stimulate flexibility across the energy system.
- Support the operation of a stable and reliable electricity system by providing market participants with incentives consistent with the capabilities of the physical grid and the overall system requirements.
- Provide sustainable electricity to customers at competitive prices through well-designed contracts and supply offers.

Svenska kraftnät alone cannot address all the components parts of a well-functioning electricity market, but we do have an important and unique role to play in this work. The electricity system of the future will have major elements of weather-dependent generation, which requires a great deal of flexibility to manage variations in both generation and consumption. The need for flexibility is not new, but

changes in the electricity system will change the requirements regarding what type of flexibility is needed and in what volume.

To create the electricity market of the future, Svenska kraftnät will:

Develop market design for the optimal use of the electricity system's resources

We will boost our ability to anticipate and develop the markets of the future. Sweden's electricity system is interconnected with our neighbouring countries, and the exchange of electricity strengthens resource efficiency and our competitiveness. For efficient management of transmission constraints, we will continue to develop the markets' ability to reflect the technical conditions of the electricity system. We will continuously review the Swedish and Nordic bidding areas and analyse additional measures to increase transmission capacity and achieve increased economic benefit and competitiveness. The tariff structure and connection terms will be reformed in order to ensure efficient use of the electricity grid and to provide proper incentives for generators and consumers.

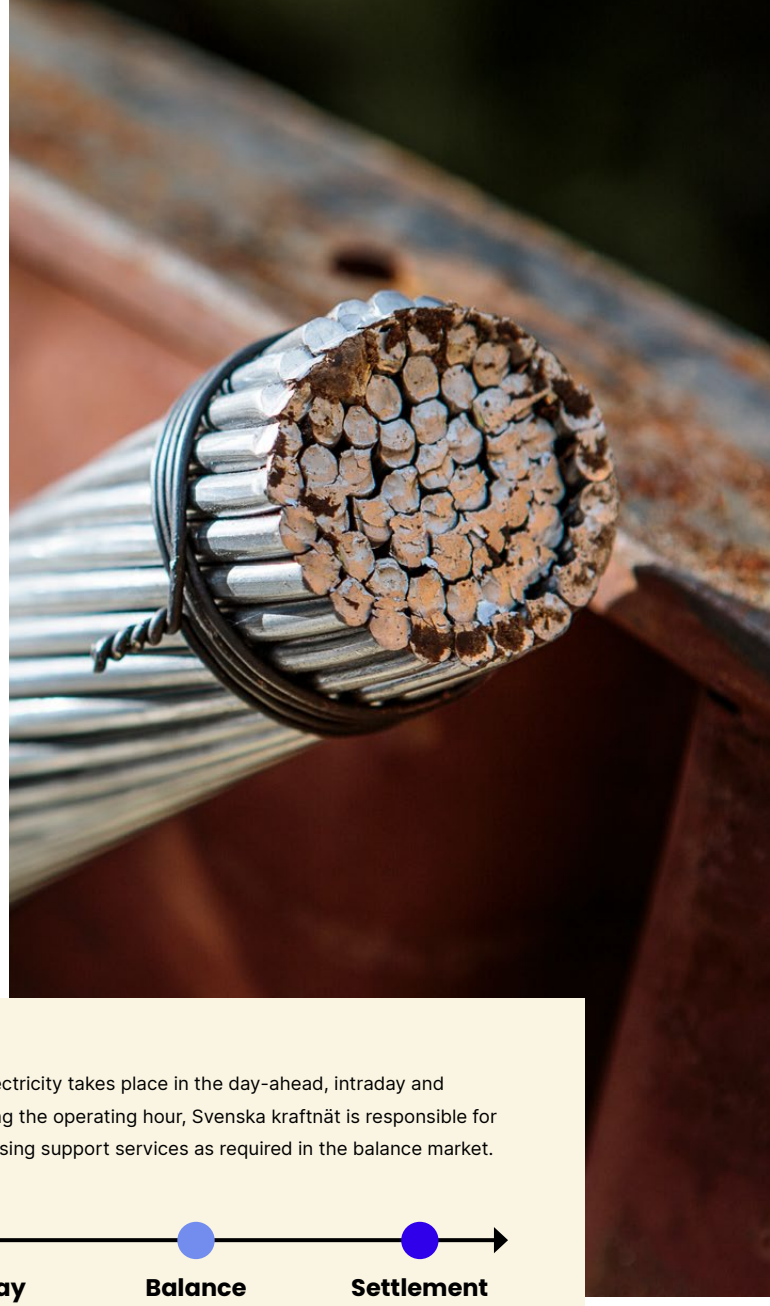
Strengthen long-term investment signals for adequacy and flexibility

We will contribute to creating long-term investment signals and ensuring the efficient use of generation and consumption resources through various forms of incentives such as capacity mechanisms and financial instruments. We see a need for new market solutions, and we actively promote and contribute to the development of market mechanisms required to promote investments in electricity generation, flexible utilisation and energy storage.

Create new incentives for system capabilities required in a more volatile energy system

We will develop both existing and new support services and other remedial measures that the system needs to maintain an electricity system that remains socioeconomically effective, stable and reliable.

Requirements and new incentives for project promoters will ensure the availability of the necessary capabilities in the electricity system. The transition to a 15-minute settlement period and a trading unit creates better opportunities for project promoters to trade in balance and for us to balance the system.



Electricity market

Physical trading in electricity takes place in the day-ahead, intraday and balance market. During the operating hour, Svenska kraftnät is responsible for balancing and purchasing support services as required in the balance market.

Accelerated digitalisation

The digitalisation of society and specifically the energy sector continues. In an increasingly fast-paced and complex world, increasing digitalisation creates new opportunities for informed, data-driven decisions and efficient processes. Increased digitalisation and automation are also crucial to ensuring security of supply in an energy system with smaller margins.

A growing number of tasks and operations are automated, and in line with this the demand for correct, quality-assured data is increasing. By sharing data nationally, within the Nordic region and at European level, we will create new opportunities. But this also entails risks, not least in terms of security. Vulnerability to external threats also increases as more and more IT systems become critical to operations. Automated processes are necessary to manage the needs of a power system in transition, and digital innovation capability is crucial to meet tomorrow's challenges. Our digital support and collaboration tools are increasingly required to enable efficient working methods and both internal and external collaboration.

In order to accelerate our digitalisation, Svenska kraftnät will:

Create resilience and integration to increase the capability of the electrical system through digitalisation and automation

We will promote digitalisation and innovation, and collaborate with others to help create new national, Nordic and European industry solutions. We will increase digitalisation and automation in our control room in order to boost our ability to control and monitor our power system. Our assets will be digitalised so that we can more easily monitor and optimise available capacity. We will modernise and standardise our communication systems. In order to meet the growing threat landscape, we will ensure continuity and the availability of our own critical IT solutions.

Secure reliable and easily accessible data to support decision-making and create new opportunities for ourselves and others

Data is essential to our business. We will manage data as a strategic resource and take advantage of the value that this information creates. We will meet the need for analysis and the requirement to share information transparently with actors, stakeholders and other transmission grid owners. We will create effective support for decision-making by using AI and automation to manage processes that require ever-faster responses. In collaboration with other players in the industry, we will promote increased digitalisation, innovation and data sharing, and contribute to the creation of new services and products in the market.

Develop our potential in the digitalisation and utilisation of modern digital technology to streamline processes and working methods

We will strengthen and develop our digitalisation capabilities and pursue digital innovation in a structured manner. We will do this by enhancing our skills and working in new ways. We will also increase our efficiency and boost our internal and external collaboration by using appropriate digital support and collaborative tools. We will create a flexible and digital work environment, and meet the increased demands and expectations of employees for a modern, digital workplace.

Increased capability and efficiency

To manage the energy transition, we need to increase our ability to innovate and find new solutions, working methods and partnerships. This has to be achieved with a scope and at a speed that is unlike anything we have experienced before. To meet increasing demands, we need to continue doing what we have always done, but more efficiently and using new working methods and tools.

Our competent and committed employees are by far our most important resource. They form the basis of meeting the expectations that society has of us. We are in a period of strong growth, and the skills supply in the energy industry is a challenge, both for us and for the sector as a whole. There is a high level of mobility in the labour market, with intense competition for employees, contractors and consultants. The high recruitment rate creates an organisation in transition, with many new colleagues to be introduced, while at the same time we must deliver on an increasingly complex assignment. And our work must be performed sustainably. As the pace of change and complexity increases, the risk of accidents and other health and safety problems increases, both directly and indirectly among our partners. A good work environment is and must remain our top priority.

To meet our future challenges, Svenska kraftnät will:

Grow our implementation capability and efficiency in order to meet the challenges of the future

To keep pace with increasingly rapid changes in society, we must boost our efficiency and our ability to deliver results. Goals, strategy and focus areas must be clear and understood, so that all employees can contribute to the desired outcomes. We will plan and make decisions more efficiently, and be able to adapt quickly when we encounter new or changed conditions. We will develop our risk management so that we increasingly balance risks against each other when deciding what action to take. We will address complex tasks through good collaboration across organisational boundaries and with a high degree of innovation and continuous development.

Cultivate our skills supply to fulfil the mission
To ensure that we have the right skills and to fulfil our mission, we will continue to cultivate our skills supply. We will develop our brand and our attractiveness as an employer, and encourage more people to pursue training and careers in the energy sector. We want to be a workplace where our employees feel comfortable, experience job satisfaction and can develop through meaningful and developmental tasks. Our culture must be defined by good, trusting leadership and employeeship, based on the national governance values.

Safeguard a sustainable and safe work environment for ourselves and our partners
Our workplace must be sustainable and enable a good work-life balance for all our employees. We remain committed to prioritising our important safety and work environment initiatives, with the aim of creating a workplace that supports the physical, psychosocial and social well-being of every individual. Our vision of zero accidents is and will remain a guiding principle for us.

Summary

Security of supply now and in the future

- Develop our supply capability in all states – from normal to restoration
- Take the lead in the overall planning of the electricity system of the future
- Ensure the security and civil preparedness of our organisation and that of the electricity supply
- Ensure that assets have a high degree of availability through efficient management

An electricity grid keeping pace with demand

- Lead and coordinate in order to meet demand through the rapid and efficient expansion of the transmission grid
- Use standardisation, technological development and proactive environmental work to achieve efficient, sustainable expansion and better utilisation of the electricity grid
- Develop business models and partnerships to increase supply chain capability

The electricity market of the future

- Develop a market design for optimal utilisation of electricity system's resources
- Strengthen long-term investment signals for adequacy and flexibility
- Create new incentives for the system capabilities required in a more volatile energy system

Accelerated digitalisation

- Create robustness and integration to increase the capability of the electrical system through digitalisation and automation
- Secure reliable and easily accessible data to support decision-making and create new opportunities for ourselves and others
- Develop our potential in the digitalisation and utilisation of modern digital technology to streamline processes and working methods

Increased capability and efficiency

- Grow our implementation capability and efficiency in order to meet the challenges of the future
- Cultivate our skills supply to fulfil the mission
- Safeguard a sustainable and safe work environment for ourselves and our partners

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