

SVENSKA KRAFTNÄT



Powering a Fully Electrified Economy: Grid Expansion and System Security in Sweden

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7 May 2026, NATIONAL PARLIAMETARY WORKSHOP

About us

Svenska kraftnät is the Swedish TSO and **national authority responsible for ensuring a reliable, efficient, and sustainable electricity supply in Sweden.**

Our mission is to create the conditions for a **socially, economically efficient, internationally competitive, and secure power system**, viewed from a broad societal perspective.



1865

Employees Dec 2025
No of employees 2019: 670

42 %

Female employees,
50 % female managers

45

Average age 2024



We are here



**16 000+ km
power lines**

175+

stations

16

international connections





Secure electricity supply today and in the future

- Secure supply even with greatly increased electricity use
- Supply capacity even in the event of crisis and heightened civil preparedness



Socioeconomic efficiency and competitiveness

- Investment decisions based on socioeconomic analysis
- An open electricity market that contributes to competitiveness in both Sweden and Europe
- Market-based prices for the benefit of electricity customers



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

- Contributing to a climate-neutral and ecologically sustainable society
- Operating in a sustainable manner for health and the environment

The objectives may contain conflicting goals. Our mission is to always strive for the greatest possible benefit for society as a whole.

An energy system in transition





A power system in transition

- **The worsening security situation increases the need for civil preparedness**

- Attacks against both infrastructure and IT systems

- **The energy transition will increase electricity consumption**

- The transition poses challenges for the power system

- **New electric generation is needed in the right location**

- A greater proportion of renewable energy is a challenge to operational reliability

- **The lead times for the grid are not keeping pace with industrial transition**

- Clashing objectives lead to delays

- **Flexibility** and sector integration are important tools

- Increased coordinated planning of the energy system

- **The European energy market** and common regulations and goals

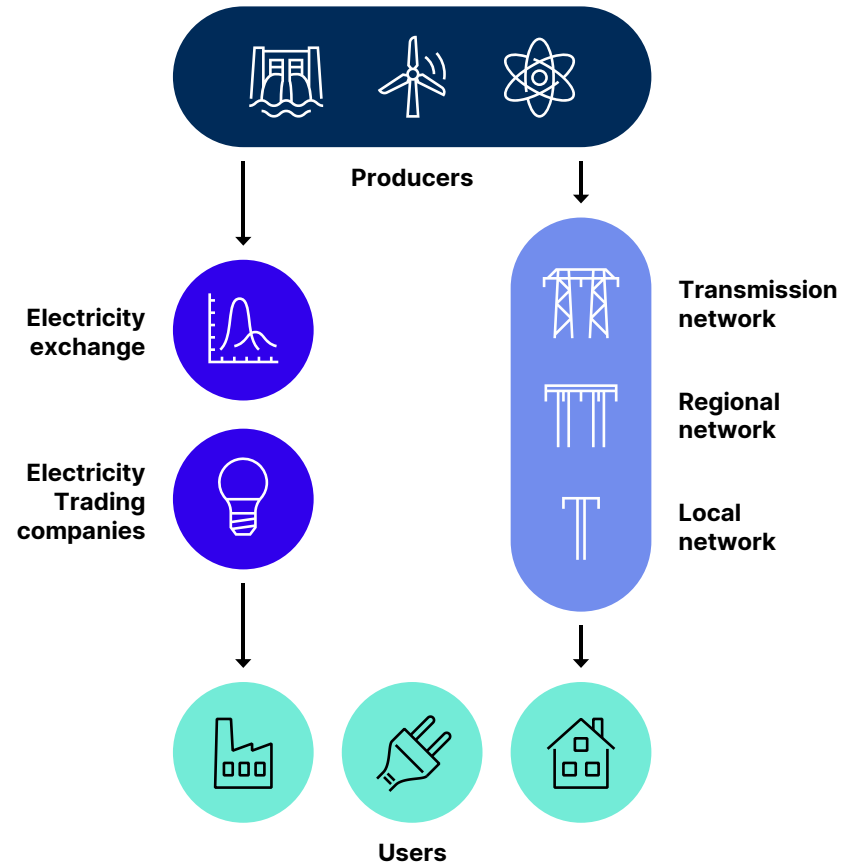
- This also affects IT, AI and sustainability

- **Digitalisation and automation** create new opportunities

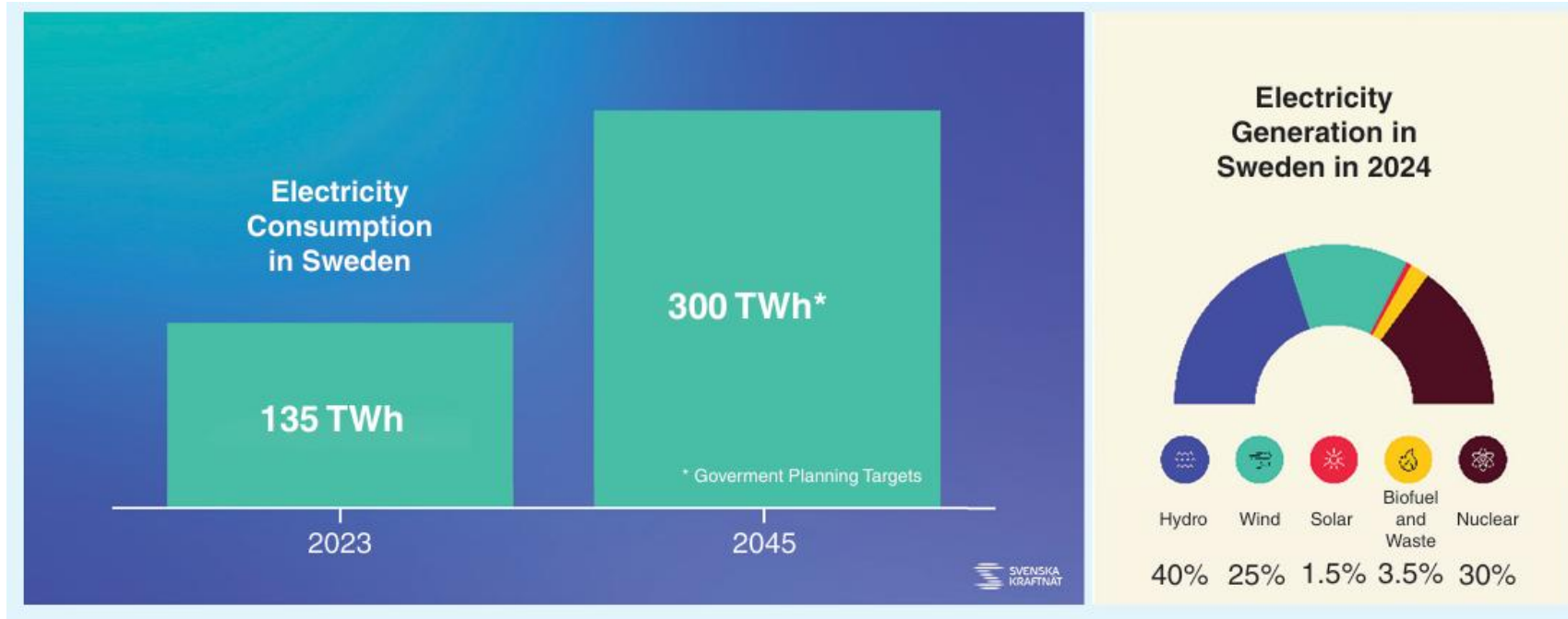
- Transparency and the exchange of data

The entire system is under development

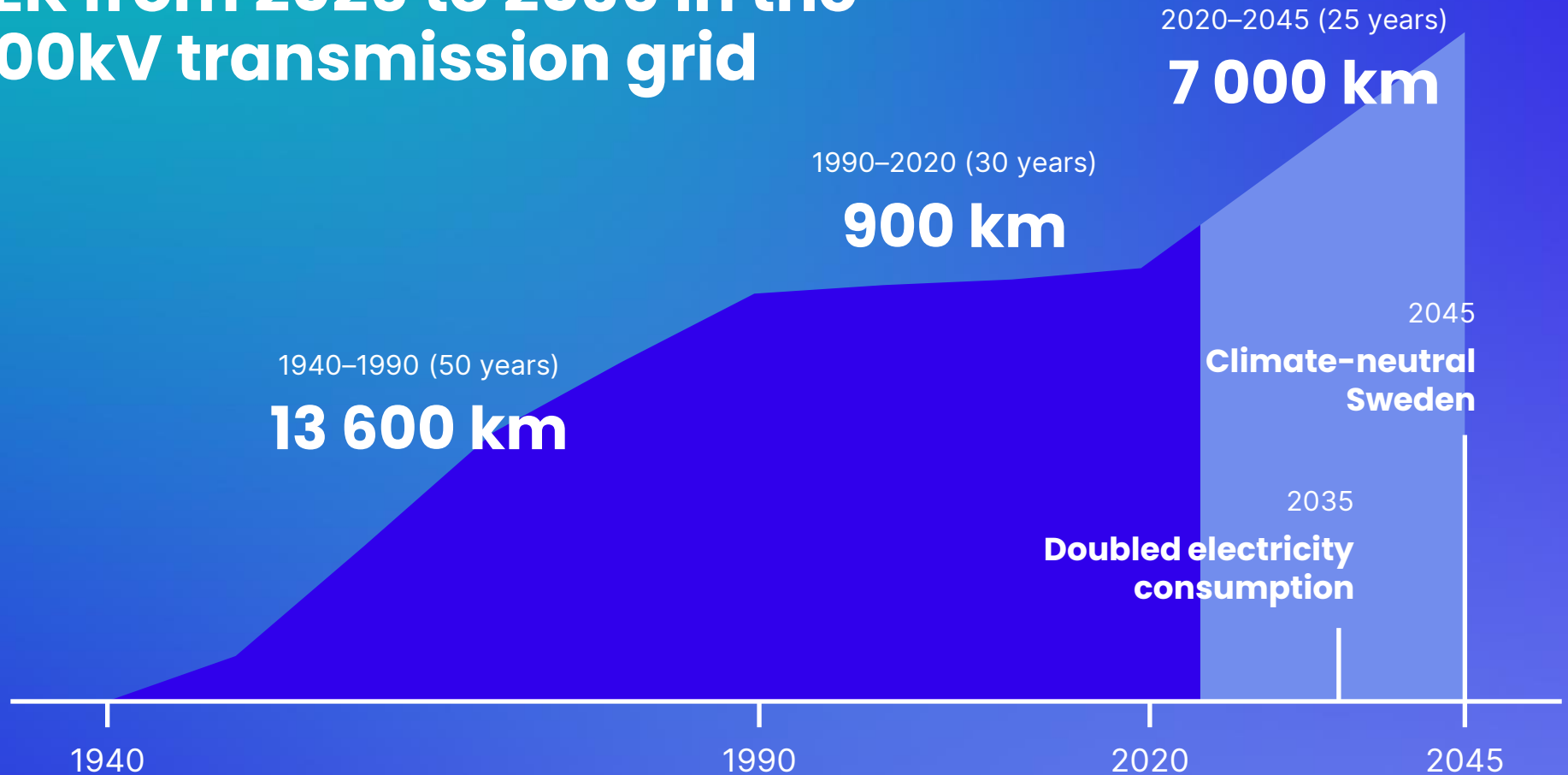
- **Electricity production**
New mix of power sources changes the system capabilities and characteristics
- **Transmission network**
Extended and reinforced. Flows are changing.
- **Electricity trading**
Evolving and expanding marketplaces. New roles.
- **Electricity Users**
Increasing dependence on electricity. New patterns in consumption.



Electricity generation in Sweden

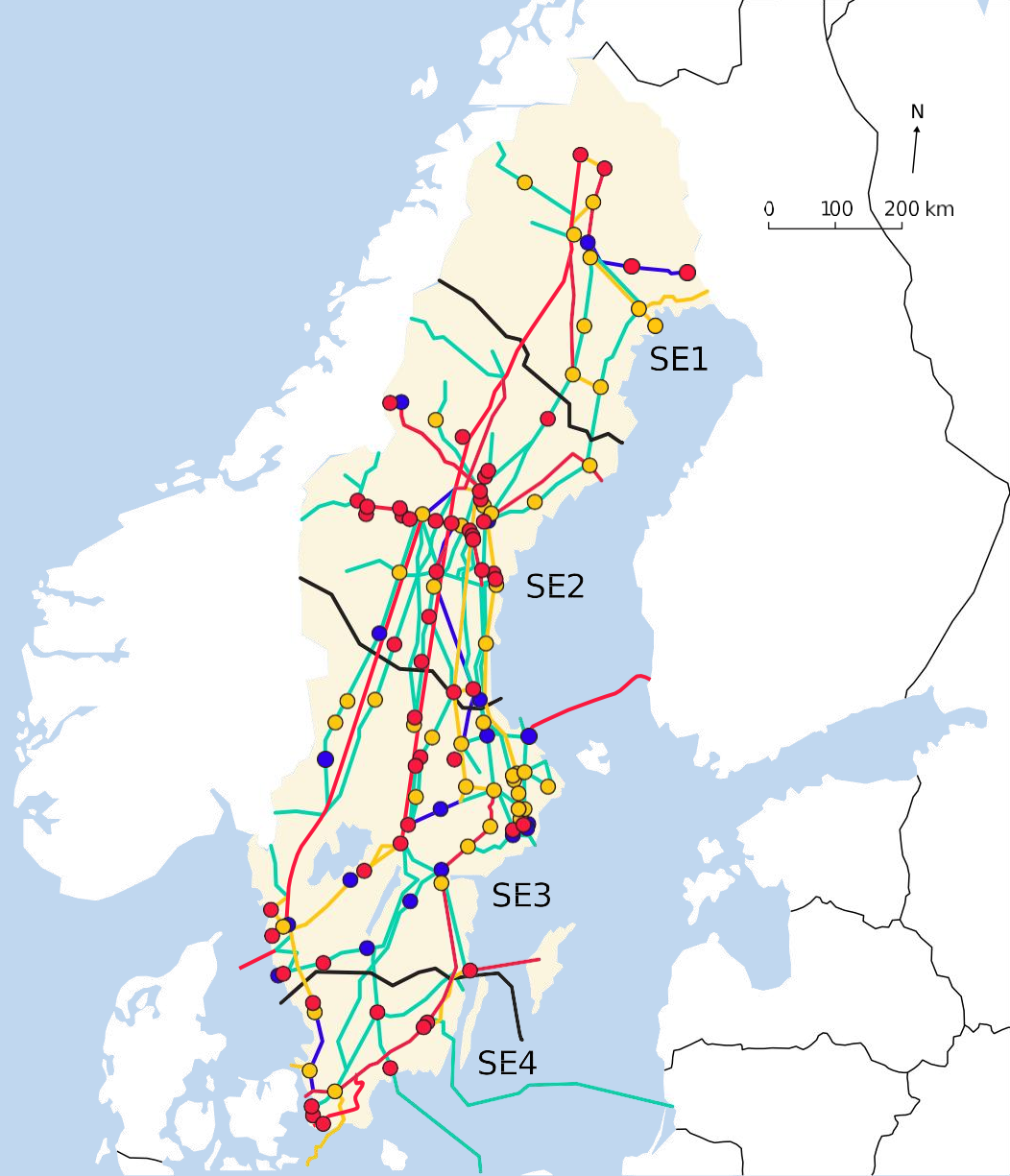


We plan to invest 215 billion SEK from 2026 to 2036 in the 400kV transmission grid

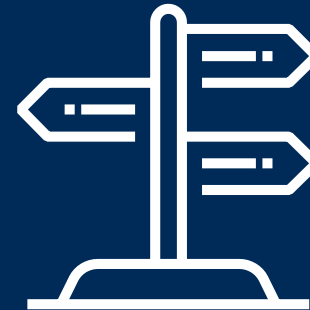


Larger investment projects starting before 2034

- Construction phase substation
- Construction phase power line
- Under consideration substation
- Under consideration power line
- Preparing phase substation
- Preparing phase power line
- Other transmission grid
- Bidding zone border



Challenges and opportunities Grid expansion



An electricity grid keeping pace with demand

OUR KEY AREAS OF CHANGE

- Lead time reduction 50%
- Utilise standardisation
- Develop business models
- Dialog stake holders



Cutting the lead times to half

How do we make it happen?

Internal streamlining

- Large **structural and cultural adjustments** to
 - processes, chain-of-command, procurement, risk trad-offs, internal capacity,etc

External streamlining

- Increased **collaborations** with
 - other government agencies, DSOs, Ei
 - alligning goals
 - collaborate earlier in the process

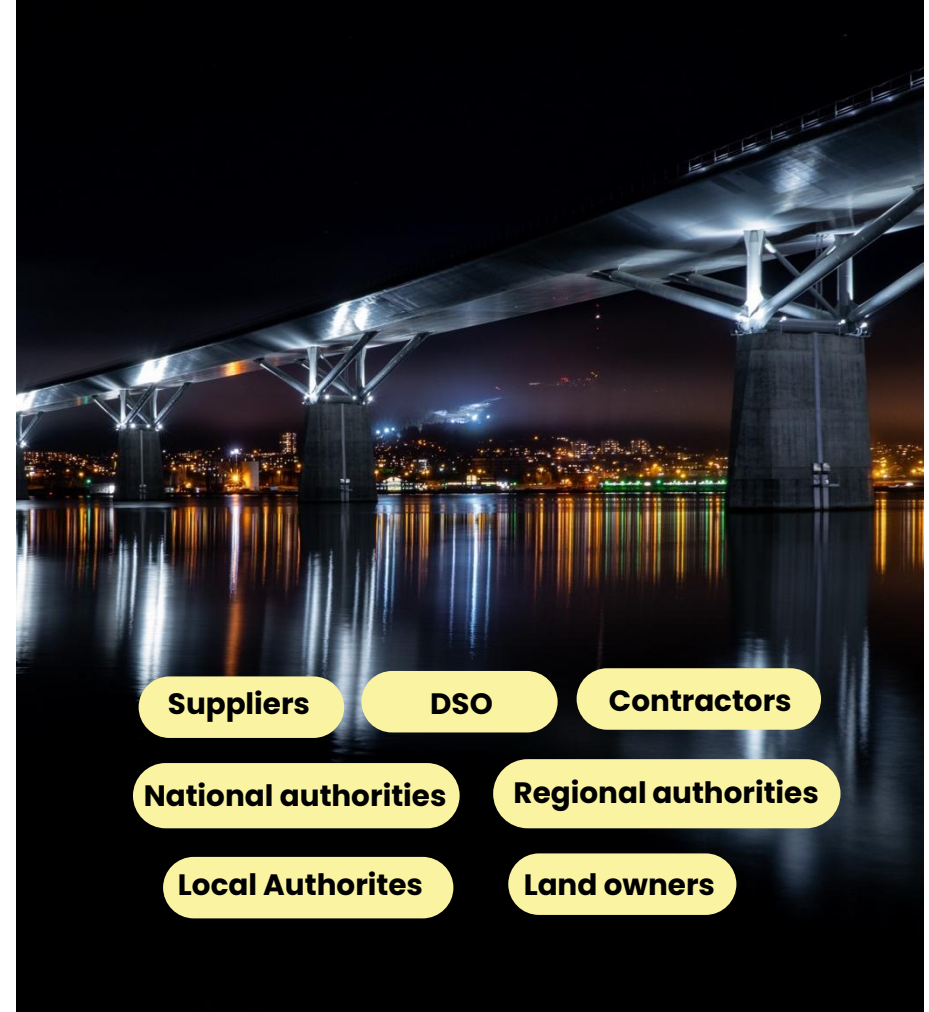
The important dialouge

Grid expansion requires coordination

- Grid expansion affects many stakeholders, from industry and society to suppliers, contractors and to landowners.
- It requires planning and coordination, while ensuring operational reliability and security of supply.

Stakeholder coordination forums enable:

- A shared vision
- Key stakeholders brought together
- Efficient communication channels
- Aligned timelines



New Business model - Strategic partnering

- Packaging of several projects for a longer time period (8-10 years)
- Geographic proximity
- Even and increasing workload
- 400-800 km power line
- 5-10 Mdkr each
- 4-10 projects in each contract
- More packages are on its way





**Together,
we will accelerate
electrification**