

# DSO perspective on grid flexibility

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# Elenia Verkko Oyj (DSO)



## REVENUE 2024

339.7 M€

## EMPLOYEES

80

(white-collar organization operating with partners)

## MARKET SHARE

12 %

(second largest out of 77 DSOs in Finland)

## CUSTOMERS

442,000

(approx. 1M people living in Elenia's area)

Elenia's network ~ 76.900 km  
~ 174 meters per customer  
~ 66 % underground

## SUSTAINABILITY AND QUALITY

- Asset Management Systems ISO 55001
- Occupational Health and Safety Management System ISO 45001
- Environmental Management System ISO 14001
- Information security management: ISO/IEC 27001

## Elenia Oy

- Elenia Oy offers a wide range of energy market-related services as Finland's largest service partner for energy companies
- Including CaaS = Connection as a Service

● Tampere

- Elenia's area of network operations
- Elenia's headquarters

# Green transition in Elenia's network



Wind power connected to Elenia's network

1 632 MW (1 632 MW)

59 pcs (59 pcs)

(In brackets the situation of the 31st of Dec 2025)

Solar power connected to Elenia's network

213 MW (211 MW)

19 839 pcs (19 715 pcs)

(In brackets the situation of the 31st of Dec 2025)

Energy transferred to consumption customers (rolling 12 months)

6 239 GWh (5 972 GWh)

Renewable energy produced to Elenia's network (rolling 12kk)

3 981 GWh (4 074 GWh)

(In brackets the previous rolling 12 months)

Battery storages connected to Elenia's network

Home batteries and small industry

16 MW 1 079 pcs

Industrial size connections

88 MW 68 pcs

New connections for industrial customers 2023-2026

267 MW

316 pcs

New connections for EV charging






197 pcs (190 pcs)

59 MW (52 MW)

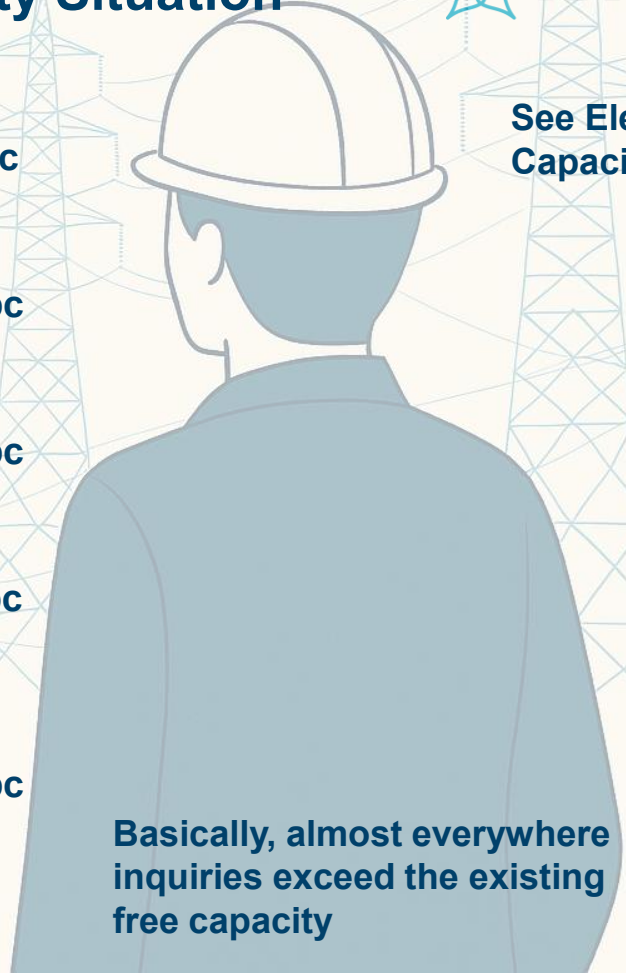
(In brackets the situation of the 31st of Dec 2025)

We are already investing significantly in green transition

# Primary Transformers' (110/20kv) Capacity Situation

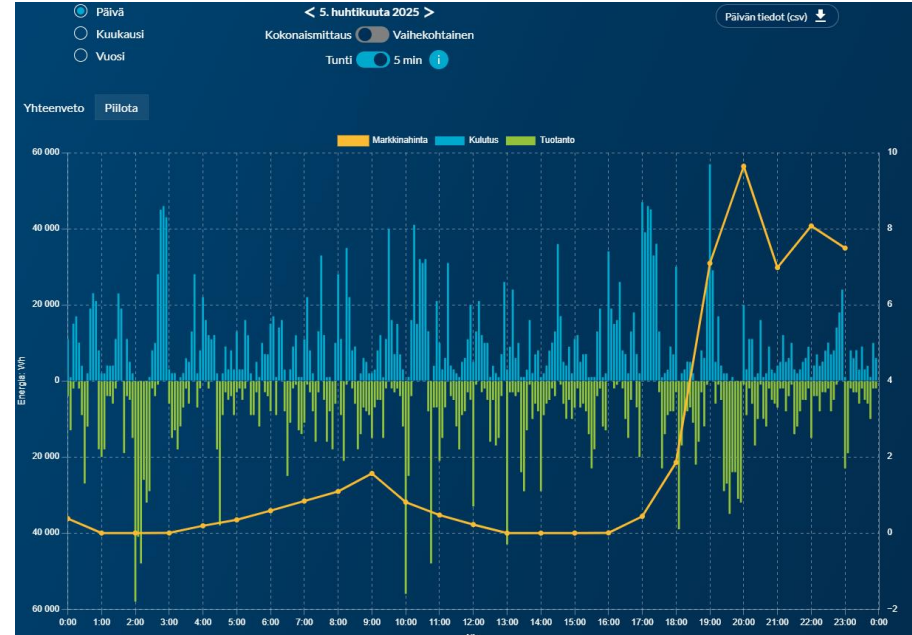
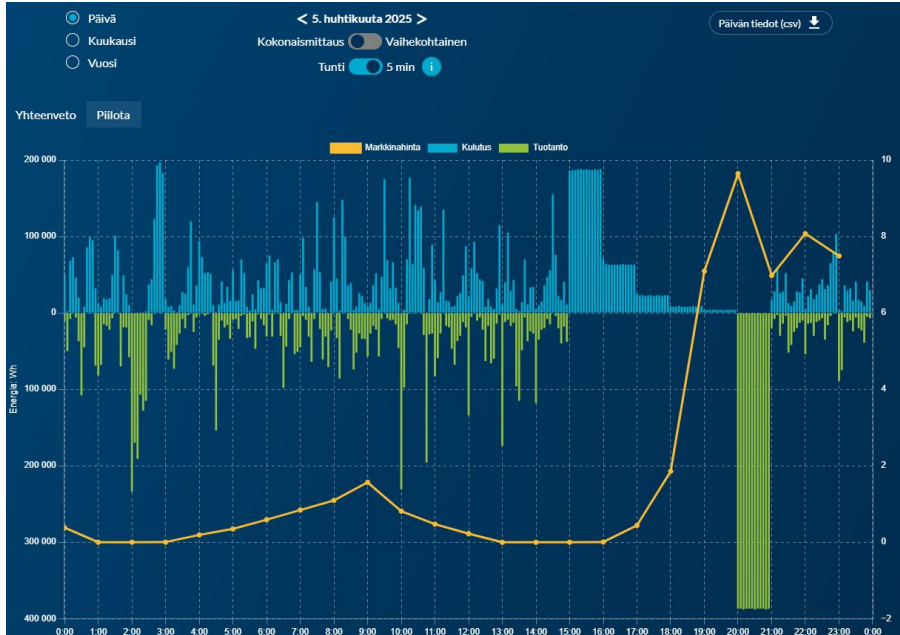
- Total number of primary transformers  169 pc
- More than 50 % free capacity  48 pc
- 50 - 30 % free capacity  61 pc
- Less than 30 % free capacity (limited capacity sold)  45 pc
- Less than 10 % free capacity (out of capacity)  15 pc

See Elenia's  
Capacity Map



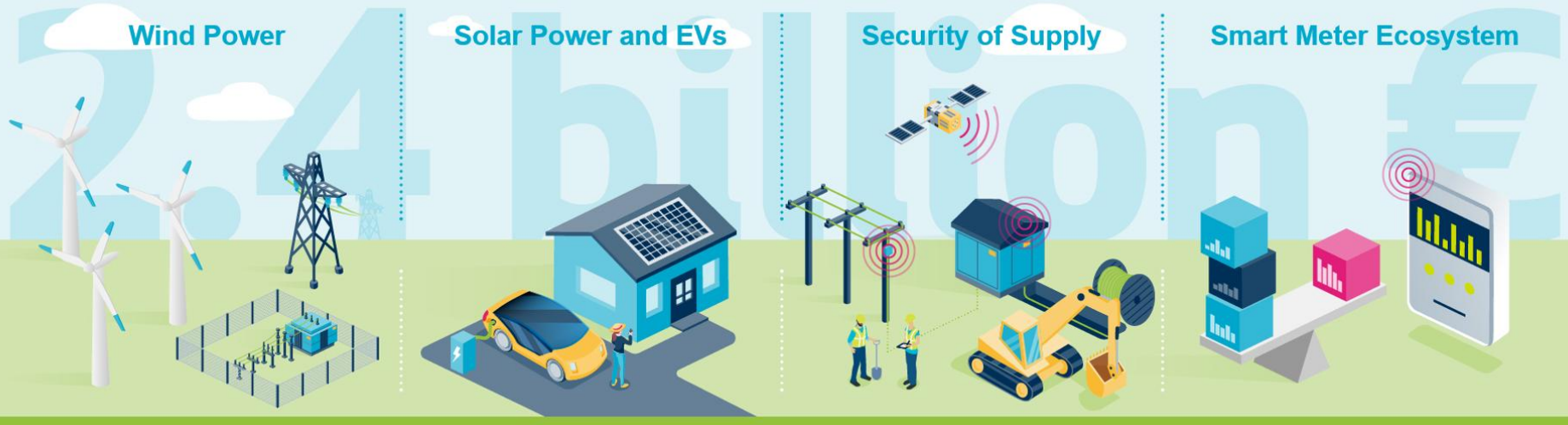
Basically, almost everywhere  
inquiries exceed the existing  
free capacity

# Two Different 20kV BESS Operators



# Investments in Security of Supply and Energy Transition

## Elenia's Network Development Plan 2024-2036



- Free capacity is draining out at unforeseen speed
- Well functioning flexibility market/services would enable to get most of the existing grid
- Still, massive investments are needed

# Challenges to Overcome

- No existing market
  - DSOs' needs are local
- Real-time network calculation and forecast capabilities
- Automated communication and control commands
- Incentives, win-win-win
  - e.g. Spot vs. grid



*“decisions made in the next few years  
will determine whether the grid  
becomes a bottleneck or a catalyst for  
sustainable growth”*

Thank you!

