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# Electricity markets balance production and consumption

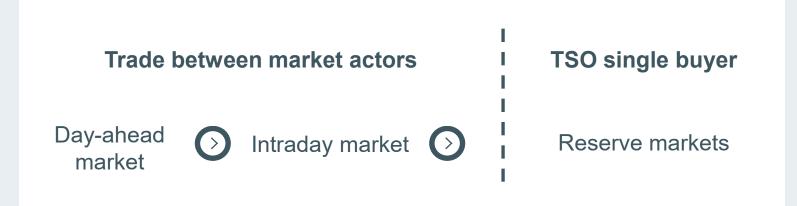
Fingrid Current 3 November 2020

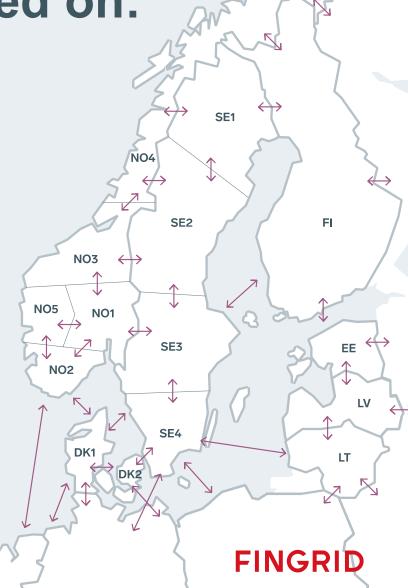
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Price signal steers electricity generation, consumption, storage and flows

Electricity markets are today based on:

- Bidding zones
- Transmission capacity calculation between bidding zones
- One-hour market time unit
- National reserve markets





2014 European day-ahead market



- In common auction-based coupling, a single clearing price for each bidding zone and hour
- Covers 95% of the European consumption

2018 European intraday market



- Continuous cross-zonal trading
- Daily trades amount to more than 200 million euros

2021->
Towards European and regional reserve markets

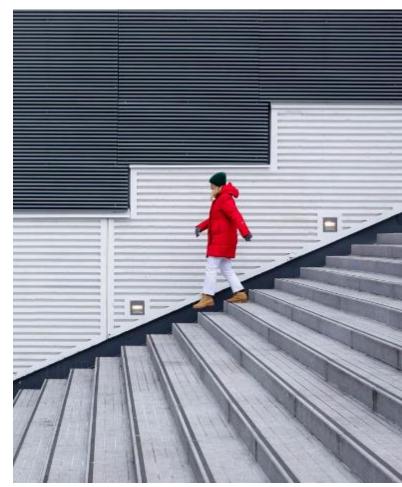


- Reserve markets now mainly national
- Regional and European market platforms under construction

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Energy disruption and legislation require changes to our market design

- Transmission capacity calculation
  - Calculation method will change
  - The Nordic Regional Coordination Centre (RCC) will perform the coordinated calculation
- Markets and electricity trade
  - The markets will move into 15 minutes
  - New markets and market platforms for reserves, the markets will become regional/European



# Market actors will participate in the changes during the coming years

- Single balance/ single price model
- Demand for automatic reserve will grow, markets from national to a Nordic market
- Small portion of crosszonal transmission capacity allocated to the reserve market, if needed

2021

- Datahub goes live
- Possible to bid manual reserves in 15-minute resolution
- New method for capacity calculation
- Nordic Regional
   Coordination Centre
   will calculate transmission
   capacities in a coordinated
   action

2022

- 15-minute intraday and reserve markets
- 15-minute imbalance settlement period
- Participation of automatic and manual frequency restoration reserve (energy) bids into the European balancing platforms (MARI and PICASSO)

2023

2024

### Reserves will guarantee balance in the system

# Market actors to strive themselves to balance

- Single balance/ single price model
- 15-minute markets and imbalance settlement
- Trading possibilities close to operation time

# As little as possible but enough reserves

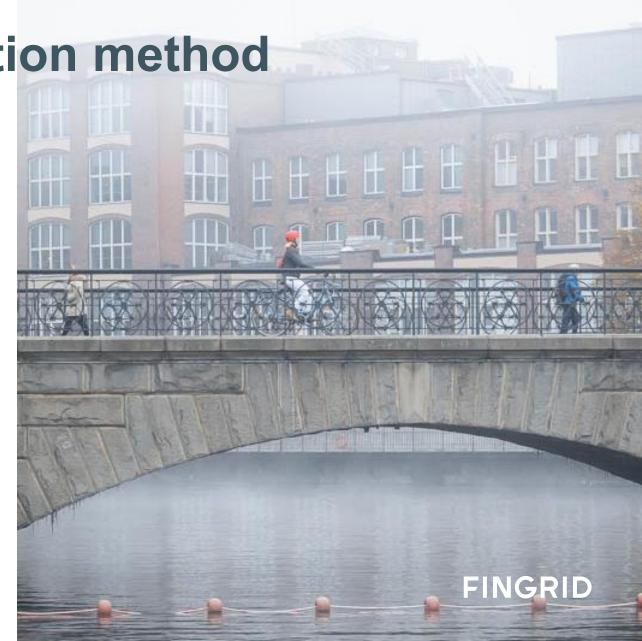
- Capacity energy
- Cost-efficient procurement

### Simple and wellfunctioning markets

- Technology-neutral products
- Towards international markets
- Vision "one stop shop"

A new capacity calculation method

- Flow-based method will make the capacity calculation and allocation more efficient when there are interactions among the interconnectors and other critical network elements
- The Nordic Regional Coordination Centre will calculate the transmission capacities in a coordinated manner for the whole Nordic region instead of calculation per bidding zone border
- Market actors have criticised the method itself and its lack of transparency







# Thank you!

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