



# Perspectives on a widened power market in Northern Europe

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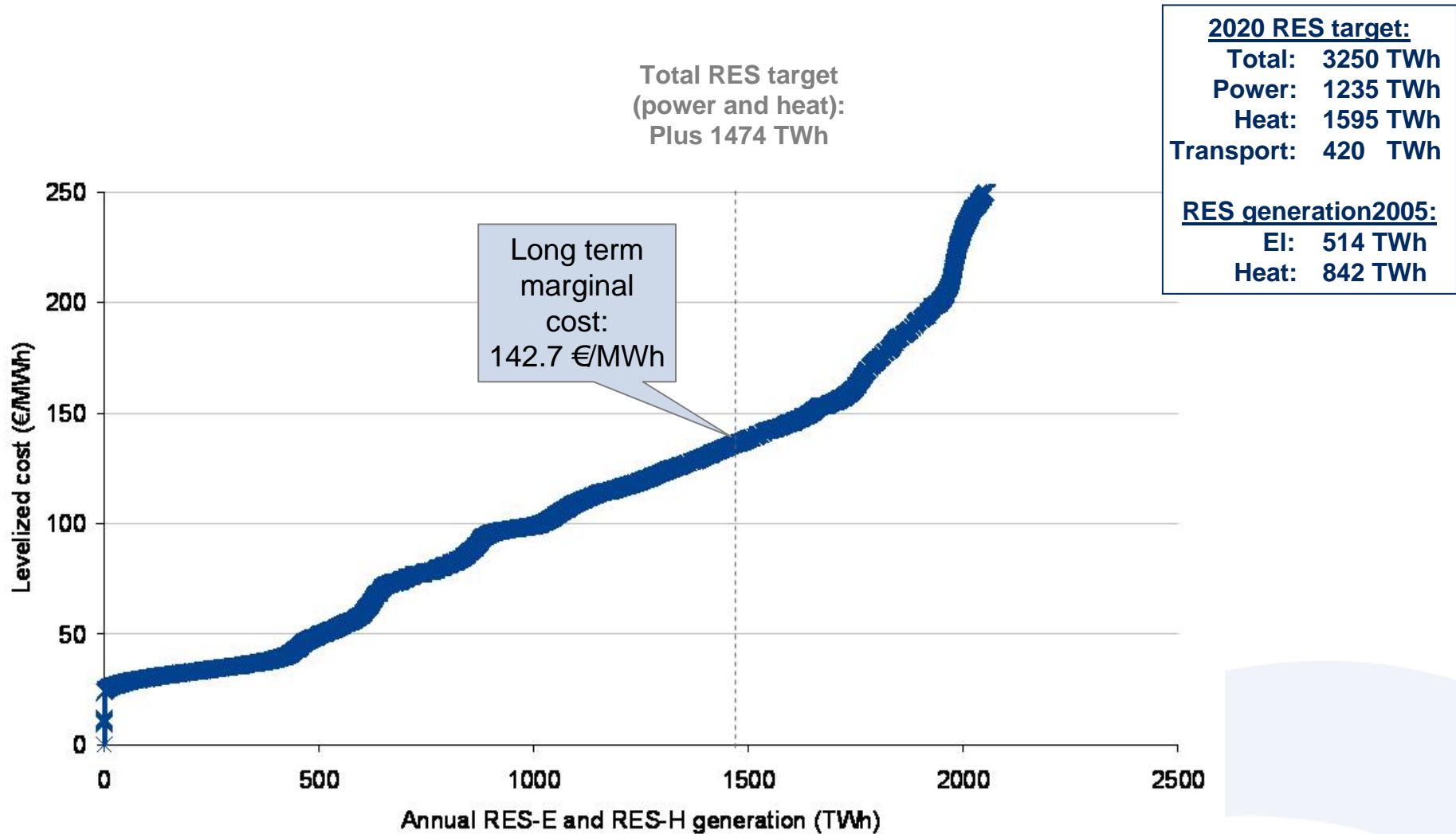
**RES deployment profoundly changes the market balance of the Nordic power markets:**

**Increased surplus generation capacity**

**Increased profitability of interconnectors**

**Targets demanding for EU countries:  
Opportunity for certificate exports?**

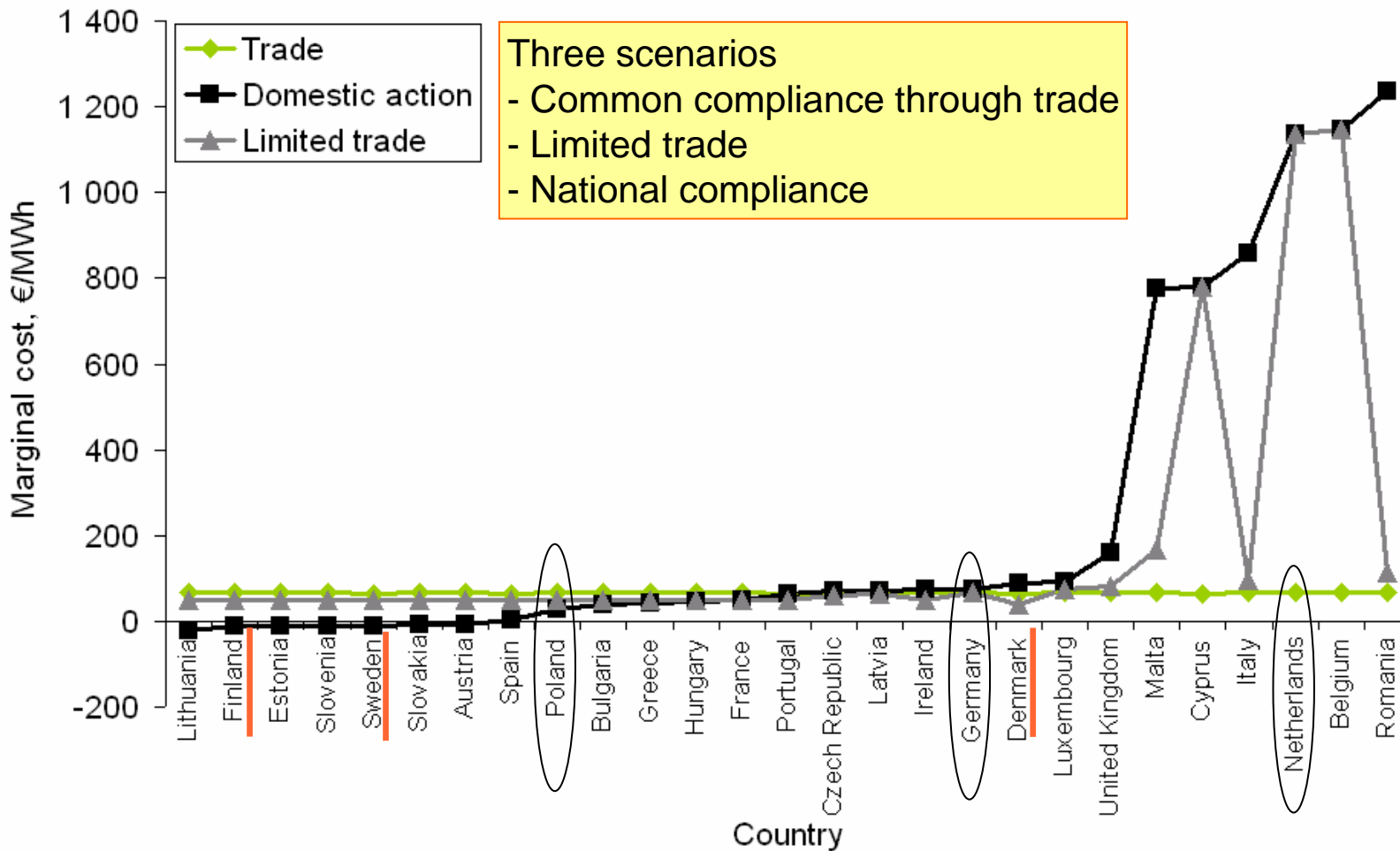
# EU must exploit much of its potential to reach the RES target



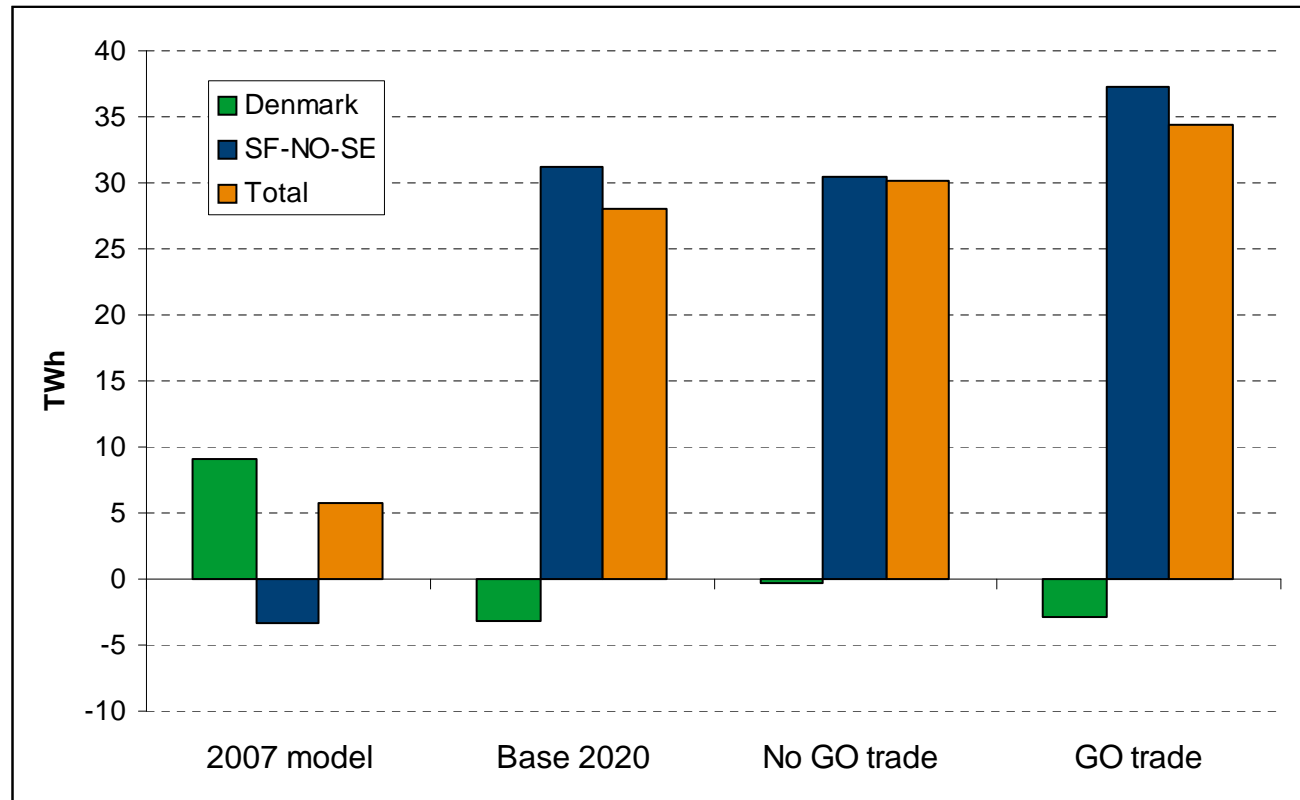
Source: Green-X, Pöyry

# Flexible mechanisms reduce costs significantly

Marginal costs per country



# Changes in trade flows: Surplus capacity in SF-SE-NO



Trade scenario:  
Certificate price  
6,6 Eurocent/kWh

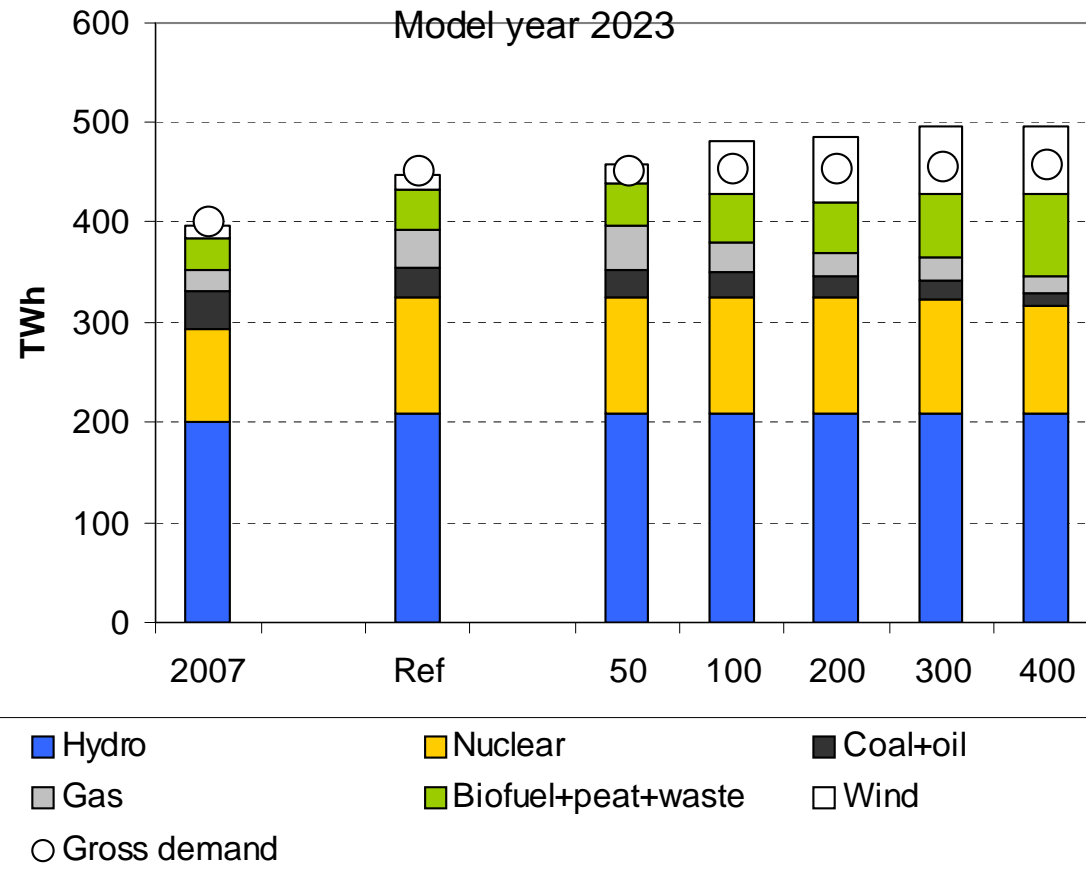
Exports from the Nordics to NL, DE, POL increases significantly in all scenarios

Denmark net importer of electricity

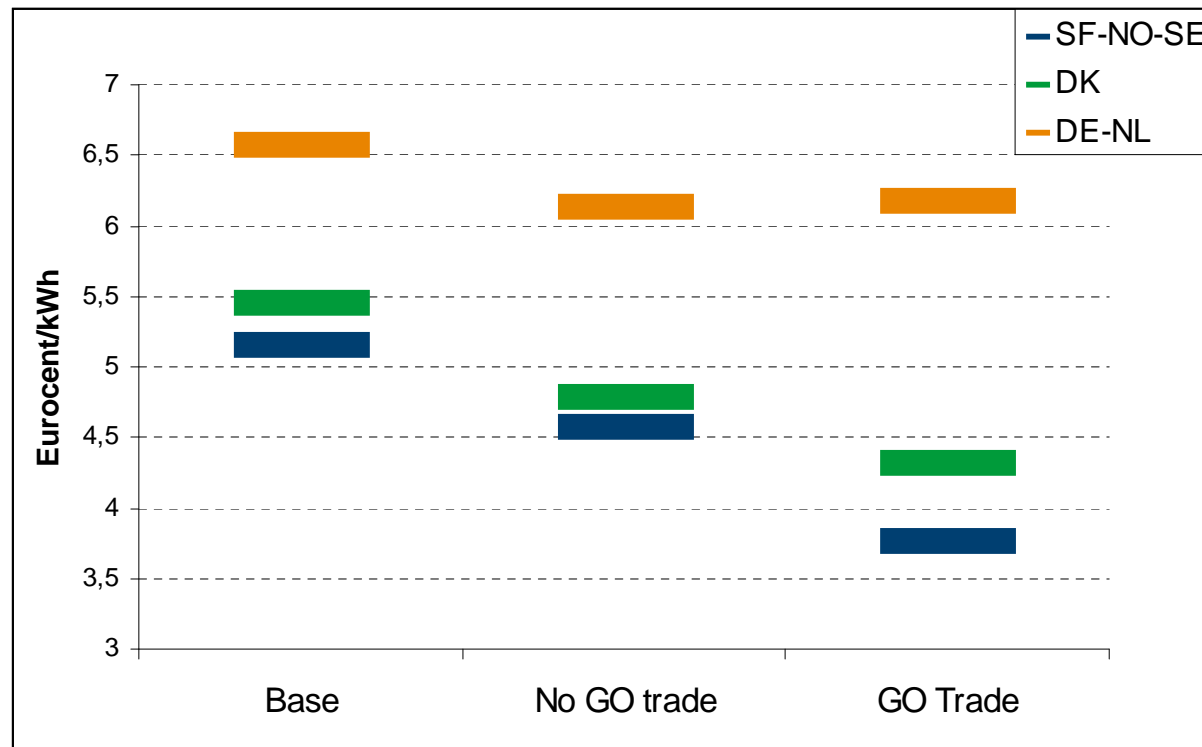
Nordic exports of electricity *and* certificates in Trade scenario

Denmark significant transit area (17 TWh)

# Markal: Increased TGC price increases Nordic net exports



## RES-E expansion increases price differences and congestion rents



### Market effects of RES policies:

- Electricity prices in the Nordics well below Continental prices
- Crowding out of thermal production – lower load factors and less investments
- Higher demand as prices decline: Good news for Nordic industry?

### Grid impacts:

- Interconnector investments more profitable
- Challenging situation for grid and system: Increased transit, increased intermittency, reduced flexibility



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