

INAUGURATION KEYNOTE

Flexibility and the role of cross-border
infrastructure
Is the policy framework up to speed?

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Agenda

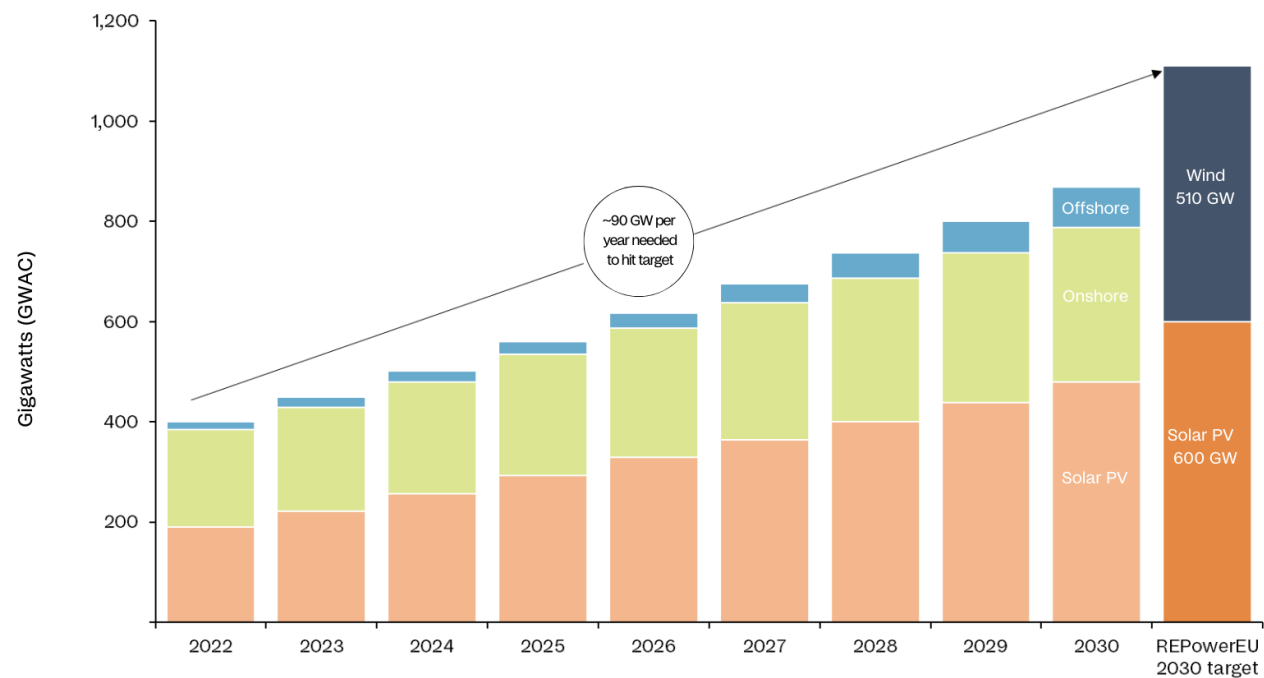
- 1 Flexibility needs**
- 2 Current Policy Framework**
- 3 Observations in View of the Grids Package**

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Increasing production variability

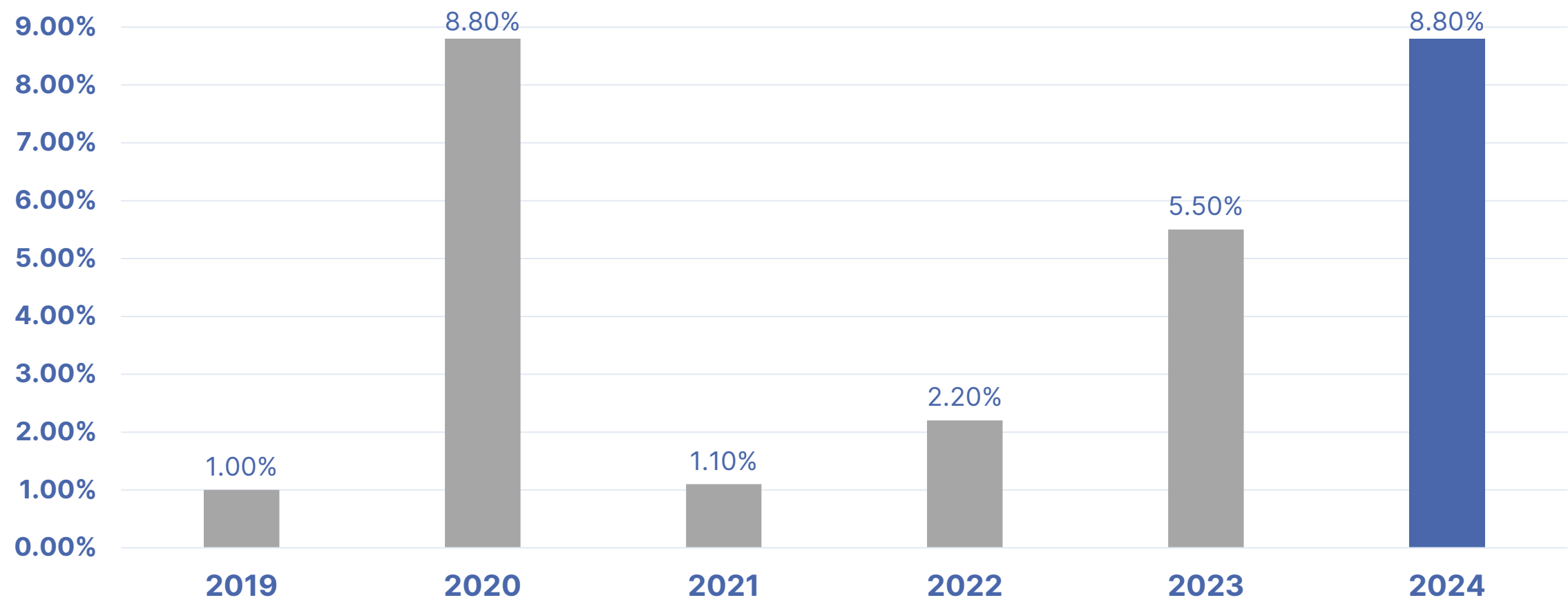
Cumulative renewable energy growth in the EU compared to REPowerEU target



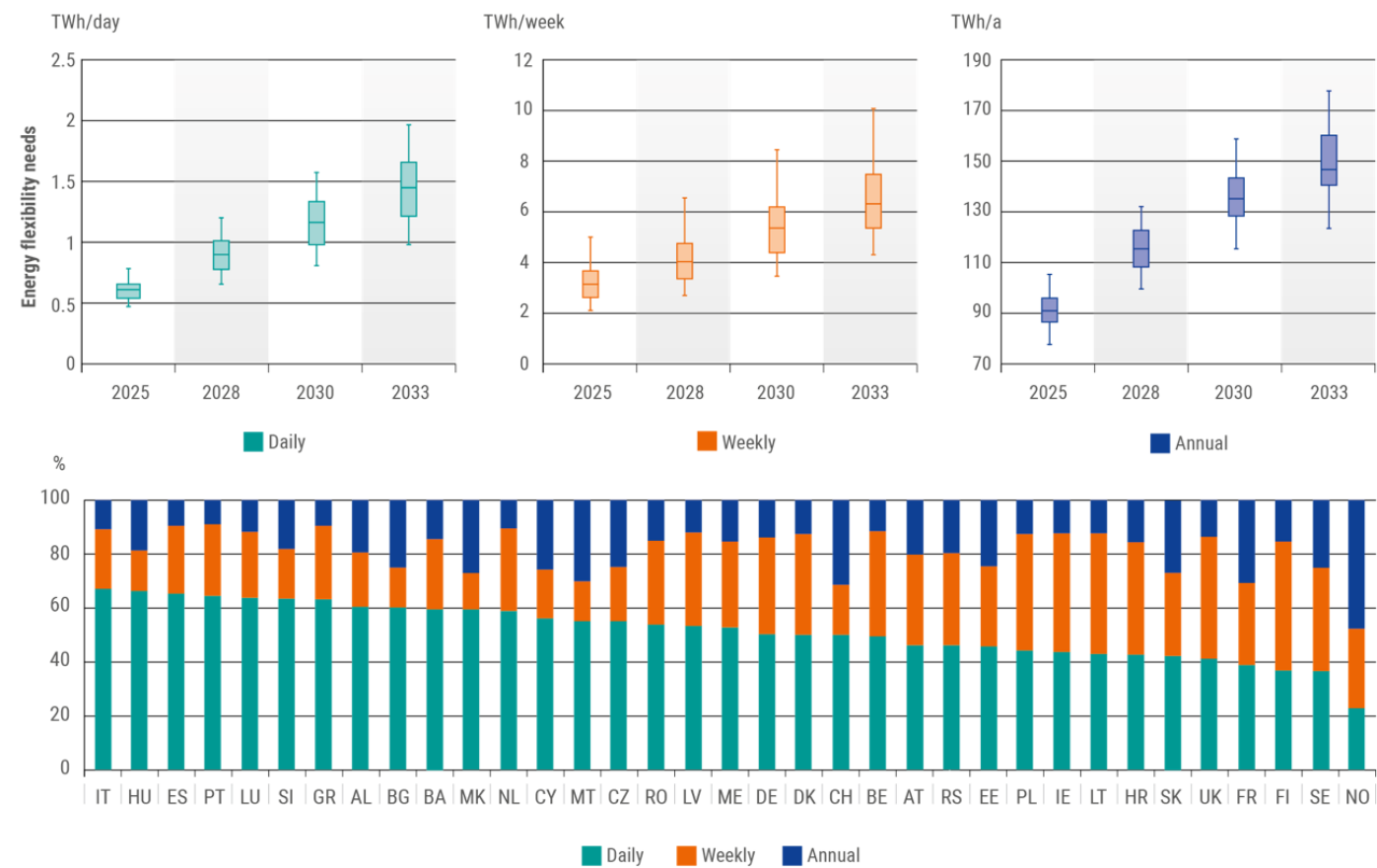
Note: Growth base case forecast. EU Commission targets

More price variability and negative prices

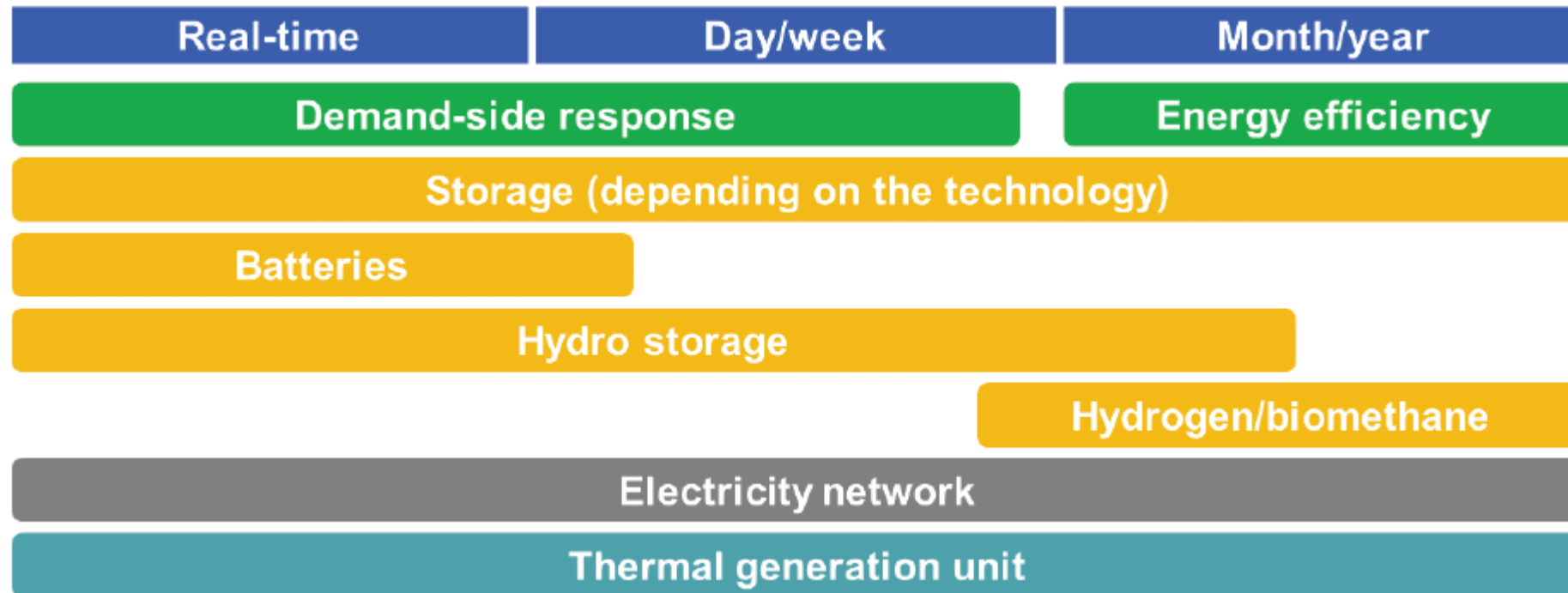
Annual percentage of the time when prices were <5EUR/MWh, EU-27+Norway, 2019-2024 (%)



Flexibility needs



Many technological solutions



More renewables in the system will...

- Domestic production, less dependency
- Better energy security
- Lower prices

- More variability
- More congestion
- More curtailment
- Higher cost

- **Before getting better, challenges may occur on the way**

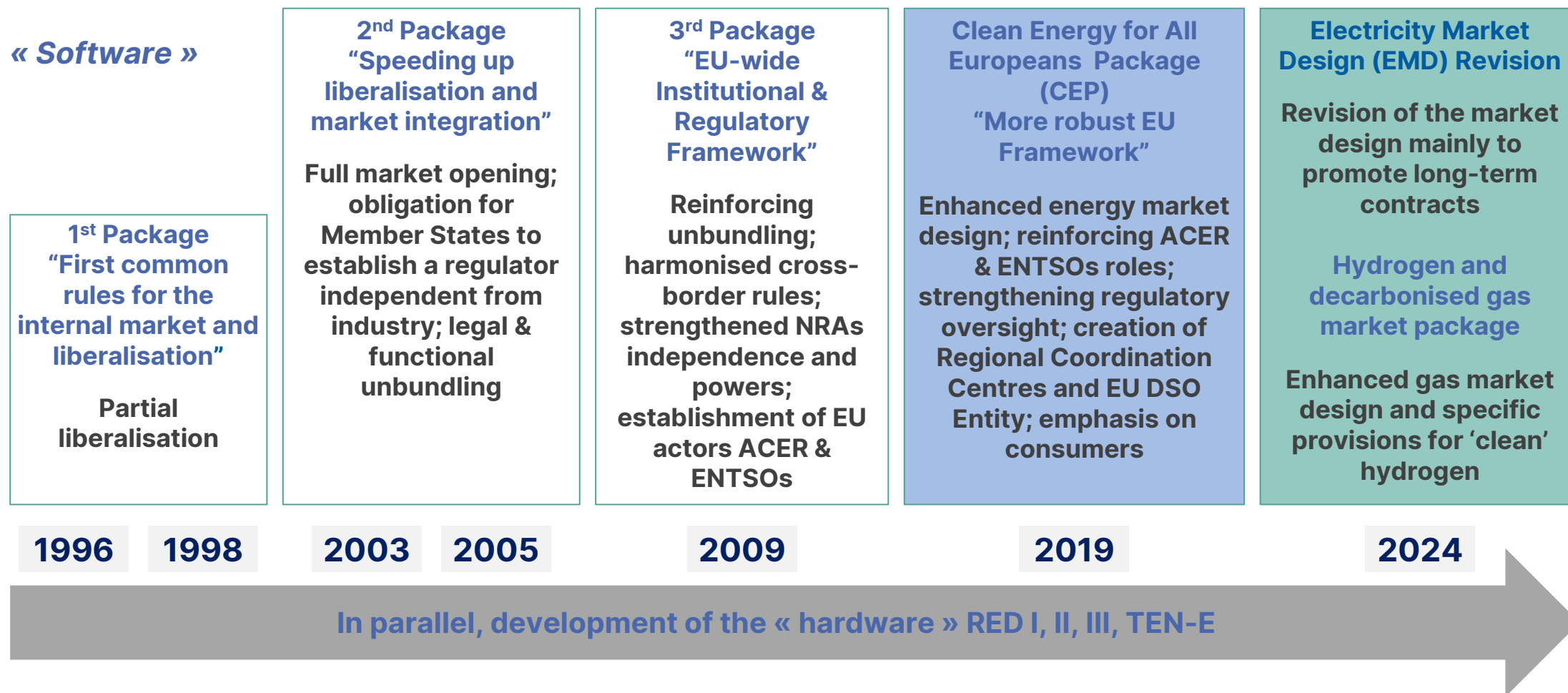
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Broad set of policies already in place

1. Electricity target model
2. Electricity market design (EMD)
 - Flexibility needs assesment
 - Renewable support scheme design
3. Adequate grid infrastructure (TEN-E)

1 – Development of the internal energy market



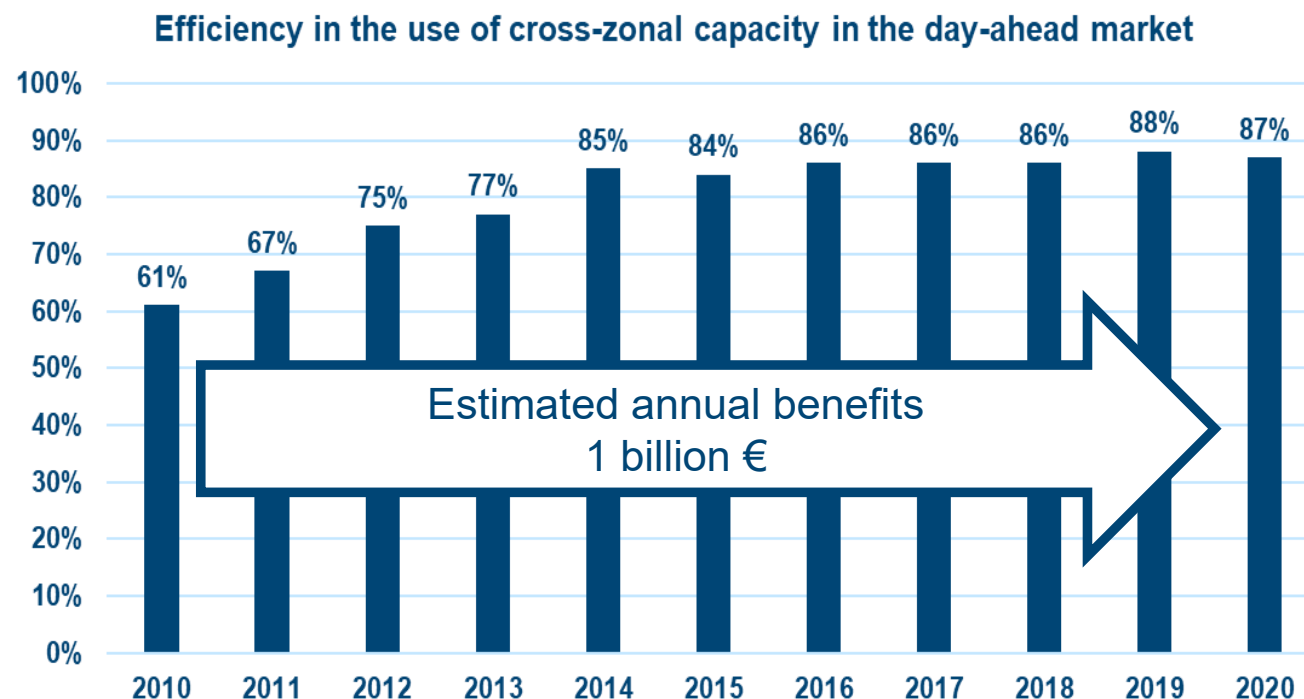
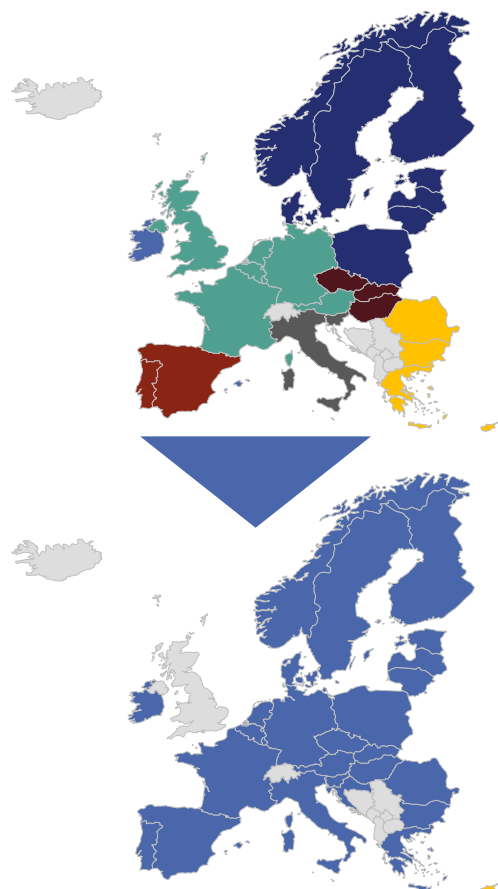
1 – The Electricity Target Model

... for the forward, day-ahead, intraday and balancing timeframes



1 – Internal Electricity Market - Day-ahead Market Coupling

EU Regulation on Capacity Allocation and Congestion Management



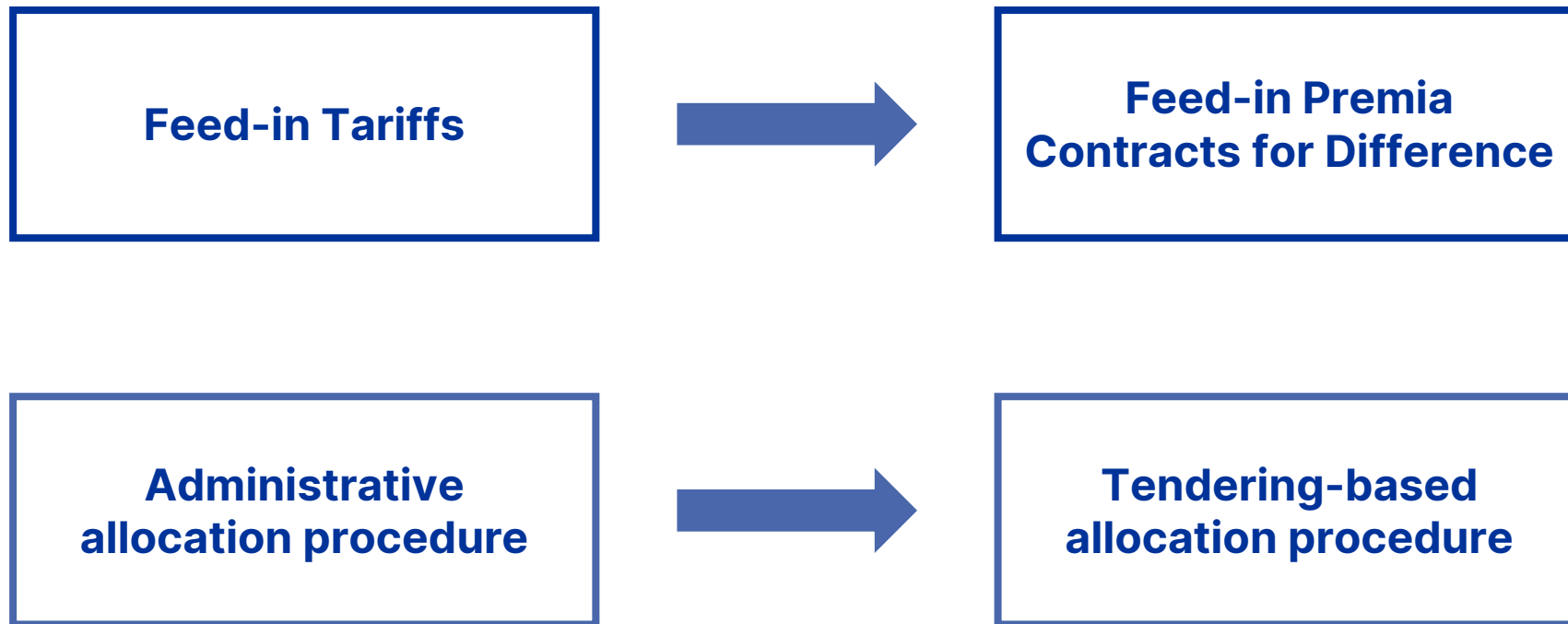
2 – Electricity market design (EMD)

Flexibility needs assessment

- Member States to assess flexibility needs from very short to long term
- ENTSO-E to develop a methodology, ACER to approve
- Member States to set objectives for non-fossil flexibility
- Member States may design a support scheme or amend capacity mechanism

2 – Electricity market design (EMD)

Renewable support schemes

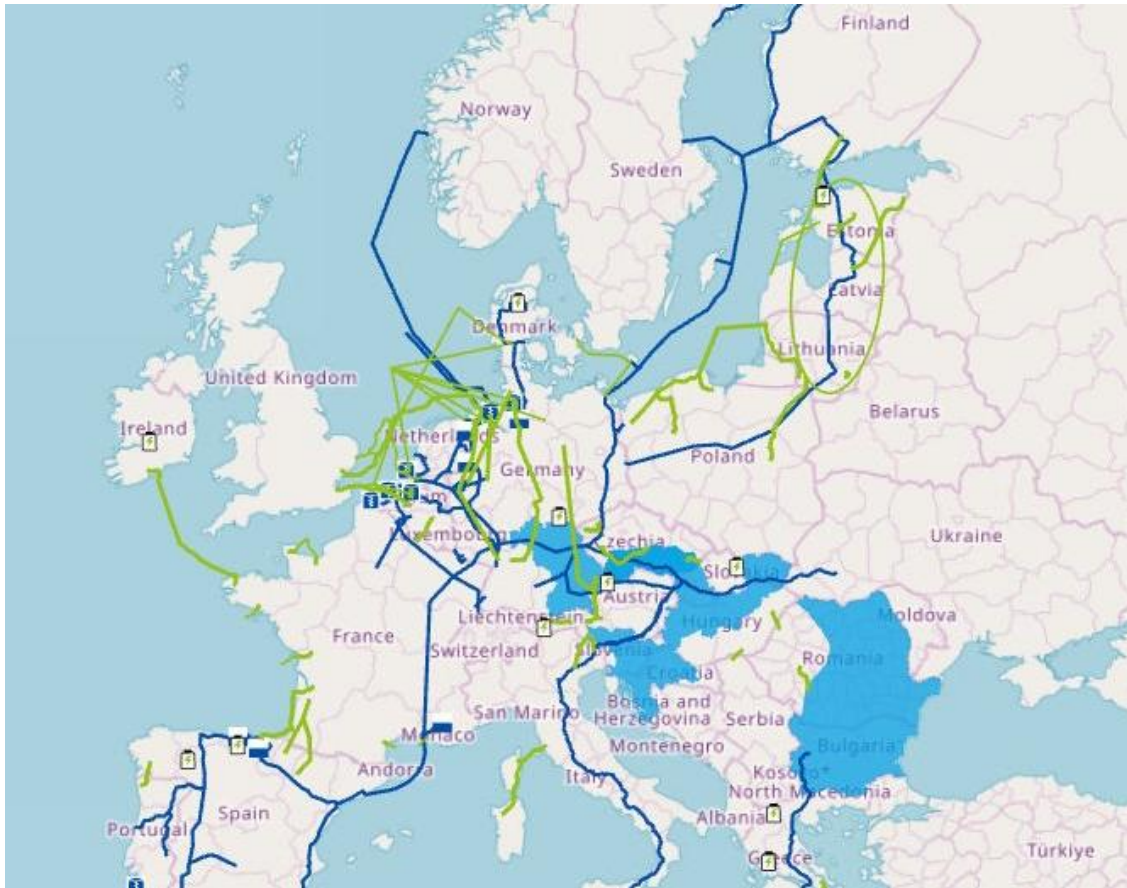


2 – Priority dispatch coming to an end

- In the “old days”, with “average cost-based” systems, typical of vertically-integrated monopolies, priority dispatch implied a “slight” increase in total costs (especially because the share of renewable-based generation was limited)
 - With “marginal cost-based” systems, and regional market integration based on equilibrium price differentials, priority dispatch may “distort” the equilibrium prices and result in distortions of energy flows
- **From support to a technology to a “function” or to “system service”**

3 – Adequate infrastructure

Trans-European networks for energy



Projects of Common Interest and Projects of Mutual Interest

- ENTSOs to develop a Europe-wide 10-year network development plan
- Scenarios developed jointly
- Regional cooperation to select the most urgent and important projects with significant cross-border impact (PCI - Projects of Common Interest)
- Toolbox to speed up implementation (permitting, regulation, financing)

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Trends affecting energy infrastructure development

Electrification

More grids and capacity

Decentralisation

More local grids

Variability

More efficient grids

Geopolitical risks

Better protected
and resilient grids

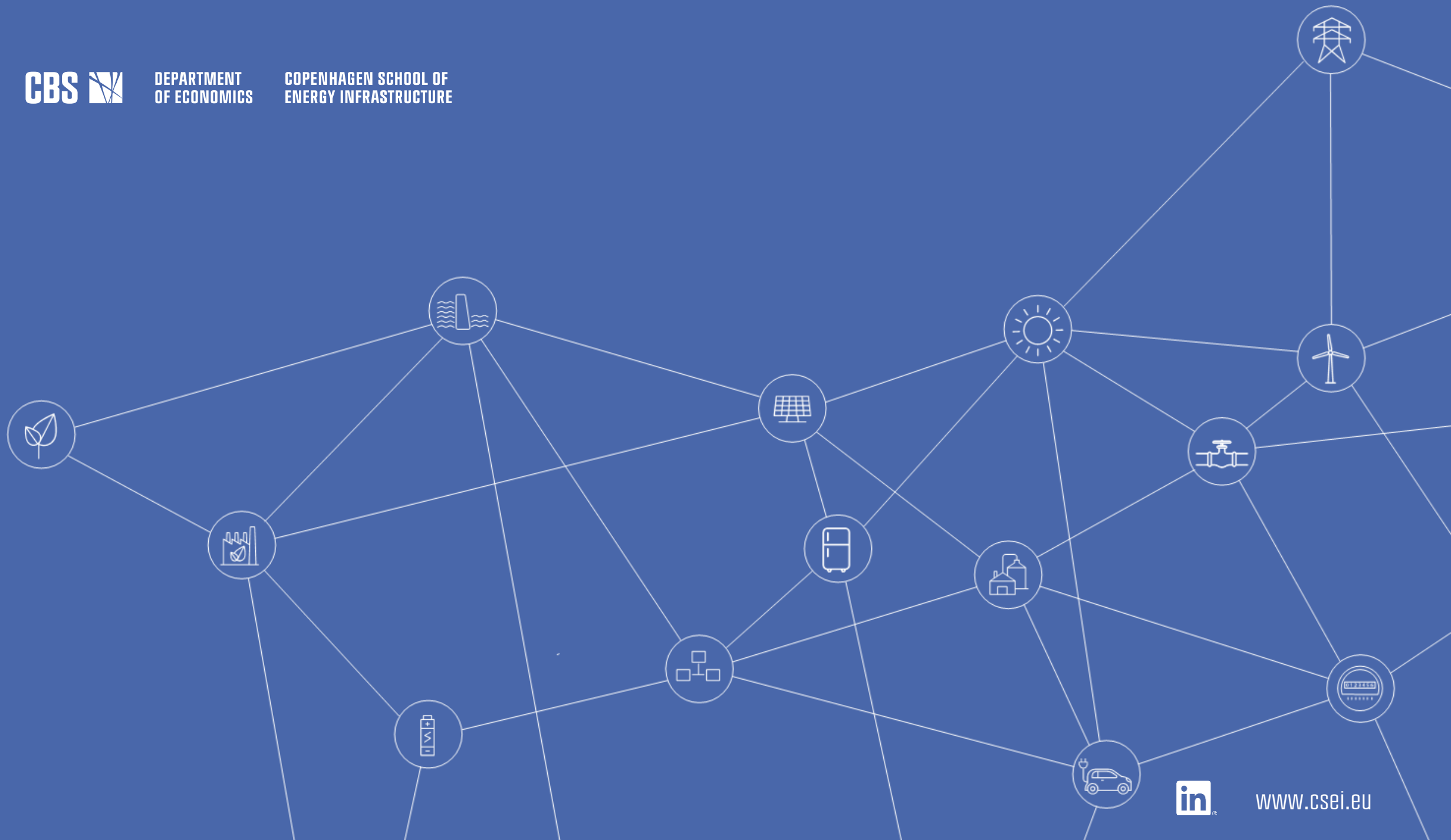
3 areas & 21 measures for improvement

- **Simplify & streamline**
 - Remove bureaucracy from PCI selection process
 - Simplify scenario building
 - Create a 28th best practice regime for permitting
- **Strengthen governance**
 - Regional cooperation as tool
 - Strong effective monitoring
- **Fill gaps**
 - Measures that digitalise, protect and bring resilience
 - High-capacity electricity corridors for 2040/2050
 - Non-regret minimum grid for H2 and CO2 by 2035
 - Think local

Summary

- The new energy world will not be « more of the same » of the past
- It will be a journey, and it will be a learning process
- Policies are largely in place, some adjustment is needed to simplify and to strengthen implementation
- Many questions for research, e.g.
 - Human behaviour and demand response
 - Decision making under uncertainty, investments
 - Technology costs, competitiveness and affordability
 - Harmonisation vs subsidiarity, innovation
 - Implementation

Thank you!



Literature

- ACER (2022): ACER's Final Assessment of the EU Wholesale Electricity Market Design, https://www.acer.europa.eu/sites/default/files/documents/Publications/Final_Assessment_EU_Wholesale_Electricity_Market_Design.pdf
- ACER (2025): ACER report on key developments in European electricity and gas markets, March 2025, https://www.acer.europa.eu/sites/default/files/documents/Publications/2025_ACER_Gas_Electricity_Key_Developments.pdf
- entsoe (2025): System Flexibility Needs for the Energy Transition, <https://www.entsoe.eu/system-flexibility/>
- Rystad Energy RenewableCube (2023): Explainer: examining options for the EU as it competes for clean tech sovereignty, <https://www.rystadenergy.com/news/explainer-examining-options-for-the-eu-as-it-competes-for-clean-tech-sovereignty>