



European Union Agency for the Cooperation
of Energy Regulators

Financing and de- risking of cross-border energy infrastructure investments

Informal Ministerial Meeting – Council Presidency of Belgium
Brussels on 15 – 16 April 2024

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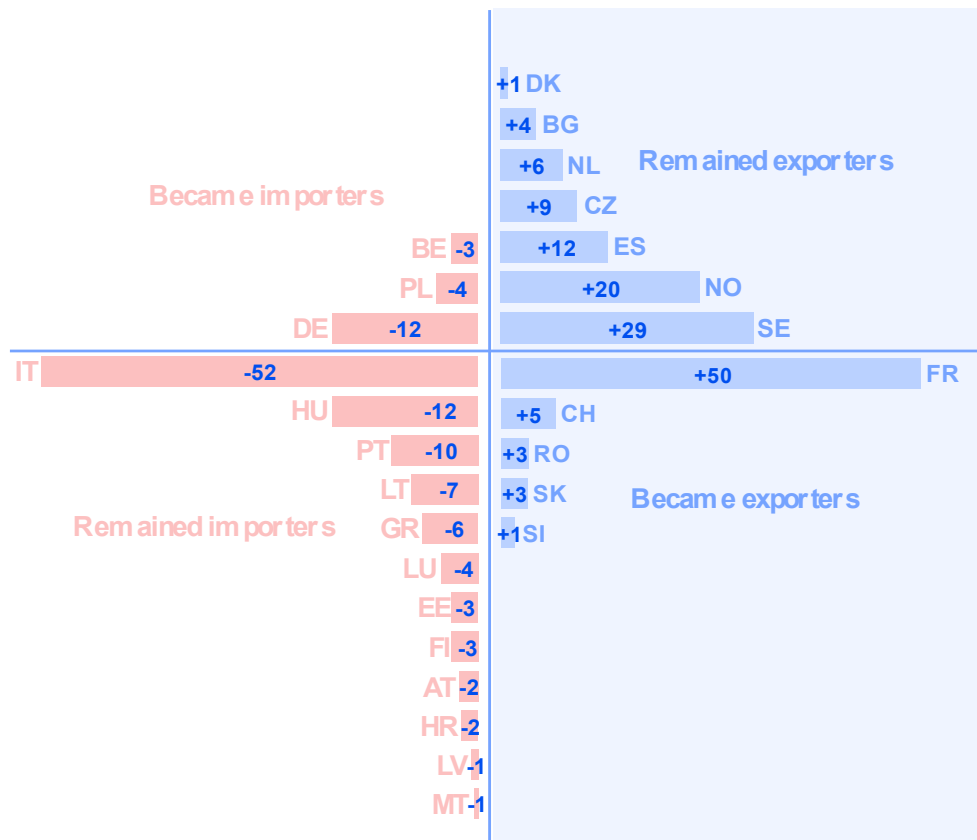


- ‘*We are where we are*’ ... yet how to get from here to scale?
- Further regionalisation of select processes and measures
- Allocating risk is (of course) key; but which risks to tackle & by whom when so multi-faceted?
- Offshore’s future is linked to onshore
- ‘*Trust but verify*’: Got it; but verifying what exactly & how?

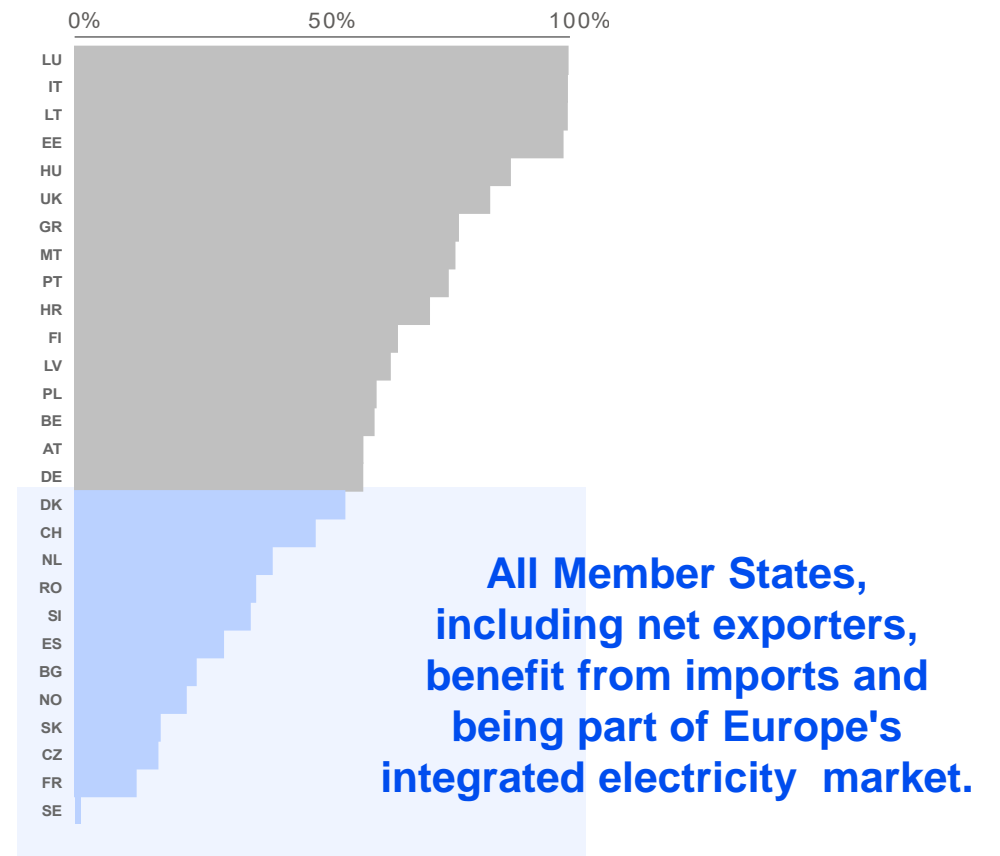
Import and export patterns vary, yet confirm interdependence

In 2023, every Member State benefitted from imports at times, showing the importance of cross-border capacity being available for trading with neighbours

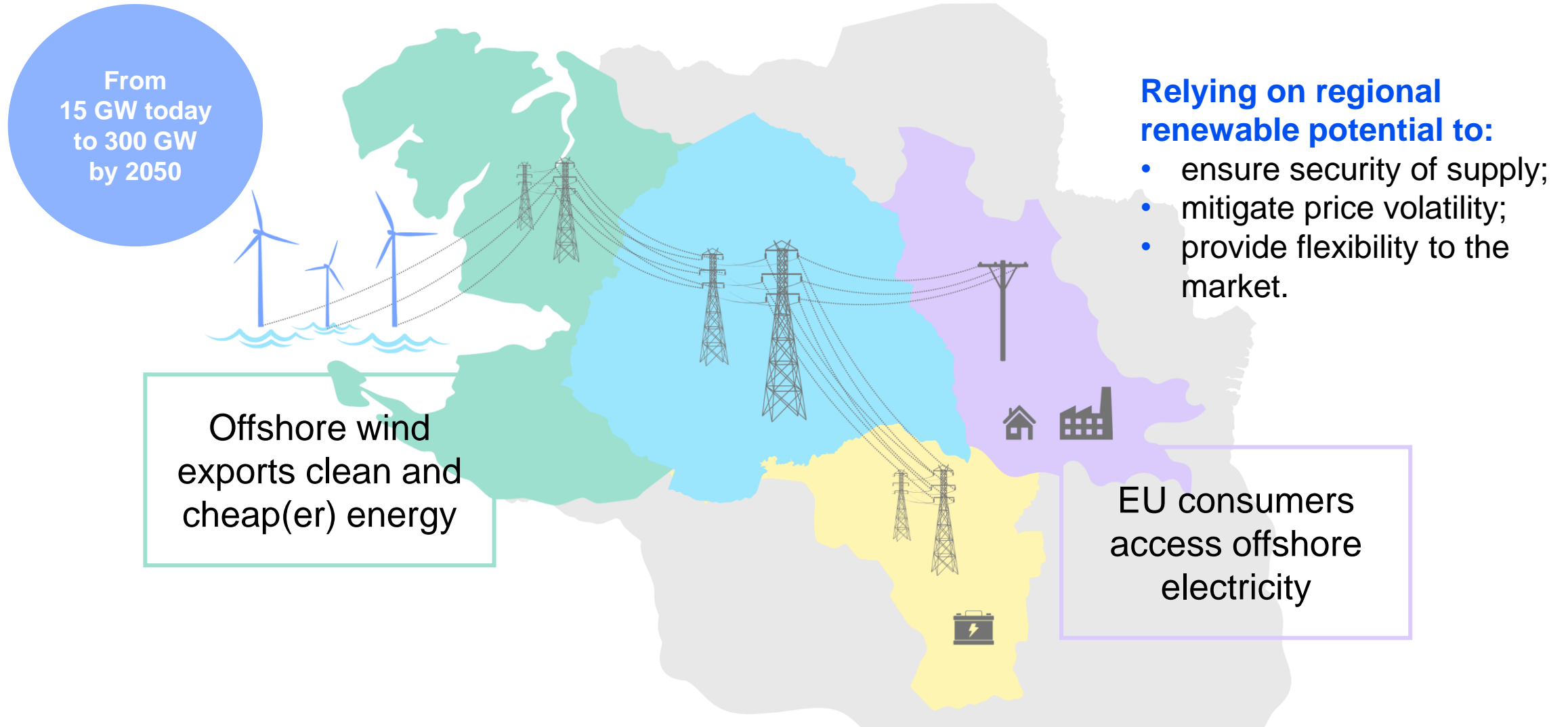
Import-export swings and net positions from 2022 to 2023, EU-27 (TWh)



Percentage of electricity net import hours in the EU-27 /EEA(Norway), Switzerland, 2023



Offshore could be leveraged for massive regional benefits



**A regional perspective requires further
‘regionalisation’ of processes &
measures for financing**

Networks are funded through various scattered financial streams involving many stakeholders:

- Cross-border cost allocation (CBCA) focuses on bilateral cost-sharing
- Inter-TSO compensation (ITC) as a scheme covers close-to-negligible amounts
- Congestion income ('rents') is primarily used to reduce national network tariffs

Infrastructure cost-sharing is currently mainly bilateral, thus not reflecting the wider (regional) distribution of benefits from infrastructure build-out.

EU funding can help cover some of these wider benefits but is unlikely to be a 'silver bullet' to fund all/most offshore-related infrastructure.





Financial institutions will fund infrastructure costs provided they trust the related benefits/revenue flows (alternatively, if someone else covers the risks).

The same holds for Member State Treasuries.

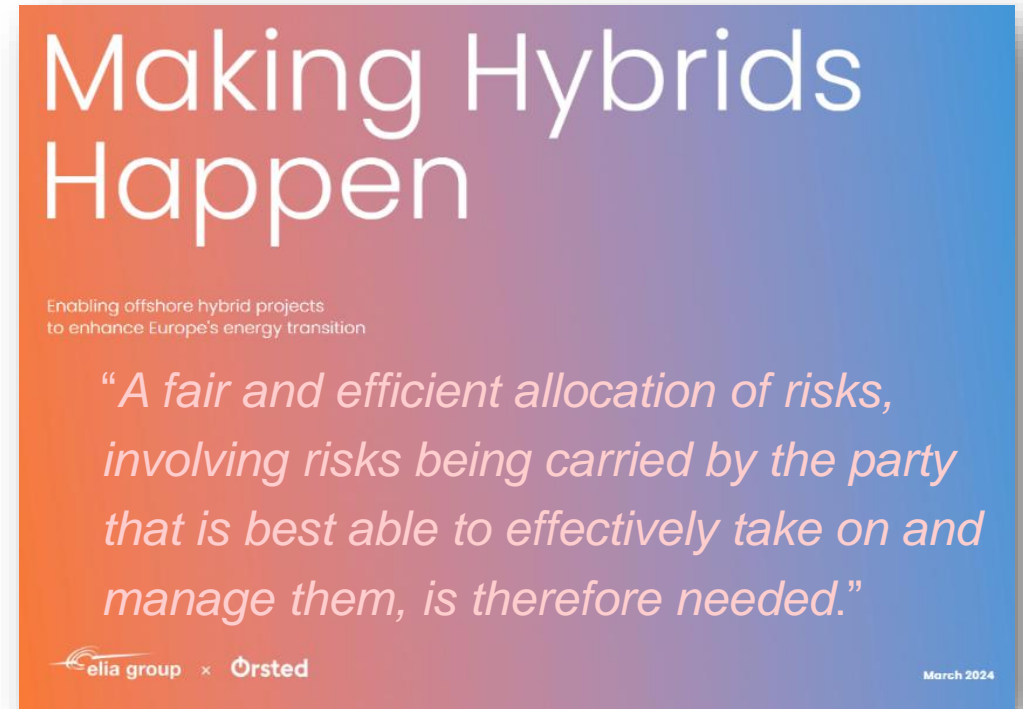
Hence, fully trustworthy/trackable/transparent/replicable cost-benefit analyses (CBAs) of infrastructure investment – meaning, performed or at least validated by public authorities – can enhance this trust.

**Allocating ‘risk’ is key; yet remains a
multifaceted concept with do’s & don’ts**



The level of demand (un)certainty deemed appropriate determines the investment risk borne by consumers.

Regulators will need to endorse somewhat riskier ‘anticipatory investments’ than in the past because of an accelerated energy transition and because network deployment is often slower than generation deployment.



On the other hand, full ‘de-risking’ may prove ‘risky’

In the past, full de-risking for renewables led to adverse consequences for the electricity system (as well as additional funds needed for support schemes):

- “*Build and forget*”: no incentive to react to (negative) short-term prices
- No incentive for system-friendly design nor system-friendly siting choices

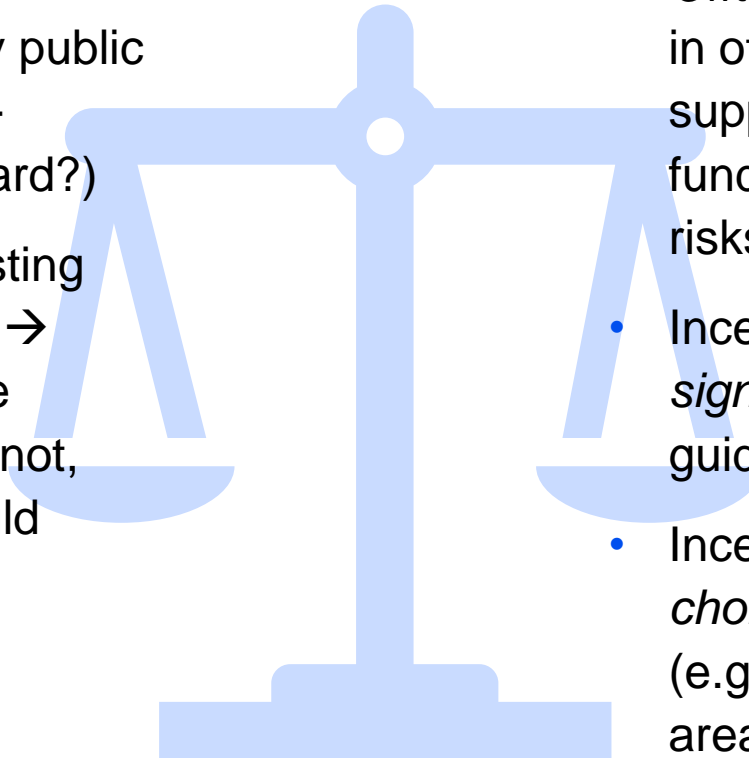
Hence, now is the time to learn lessons from the more recent past.



Hence, balancing risks and incentives ...

Regulated networks:

- *Investment risk* → subject to regulatory oversight, taken by public authority. Low-to-no risk. (Co-funding regionally going forward?)
- *Availability risk*, i.e. using existing infrastructure to its full extent → TSOs/DSOs should maximise available network capacity. If not, accountability/ penalties should ensue.

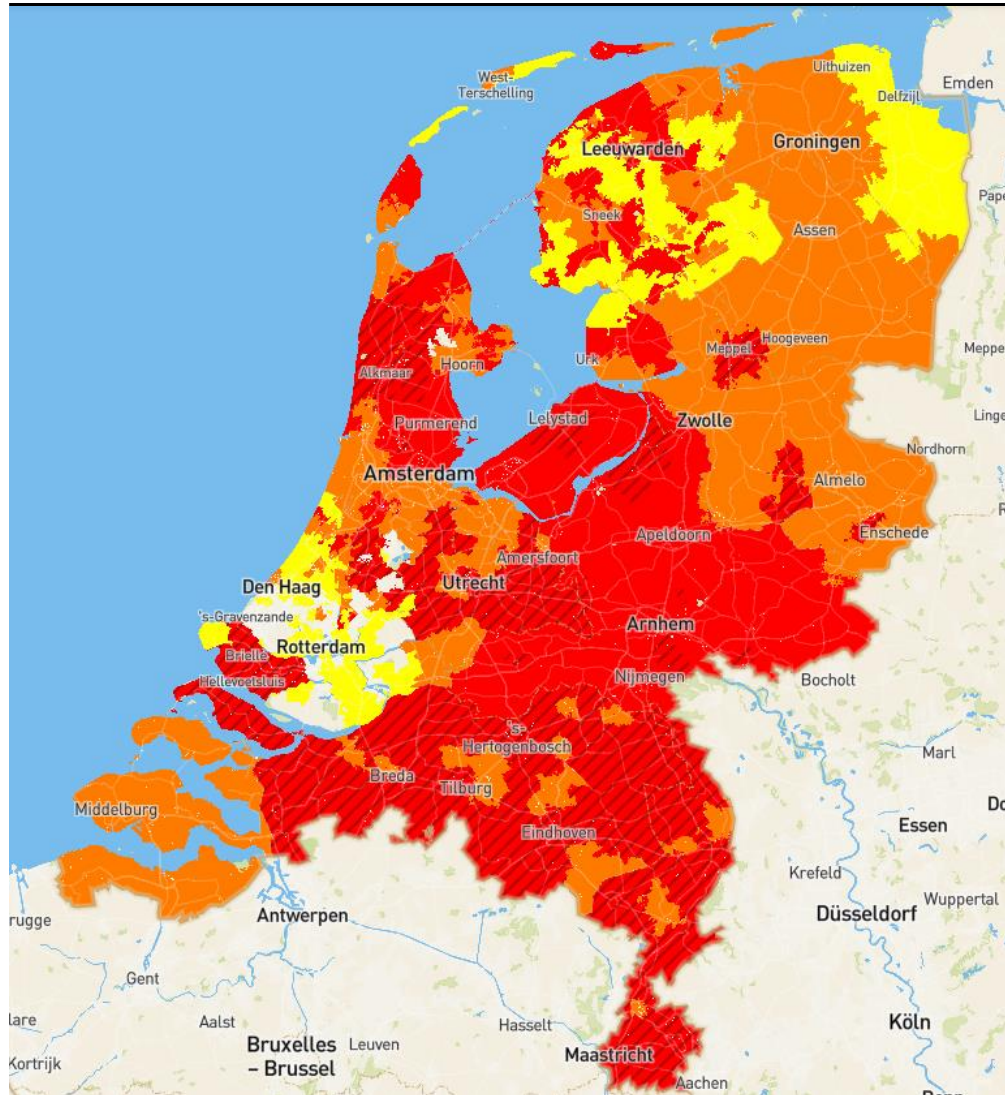


Renewable generation:

- *Offtake risk* may be impacted by actions in other Member States → regional support schemes or Member State co-funding renewable tenders (i.e. sharing risks and rewards).
- Incentives to react to *short-term price signals* → ‘smart CfDs’ (role for EU-level guidance?).
- Incentives for *better design and siting choices* → ‘upstream’ choices play a role (e.g. designating renewable acceleration areas), thereby inviting more regional coordination on siting.

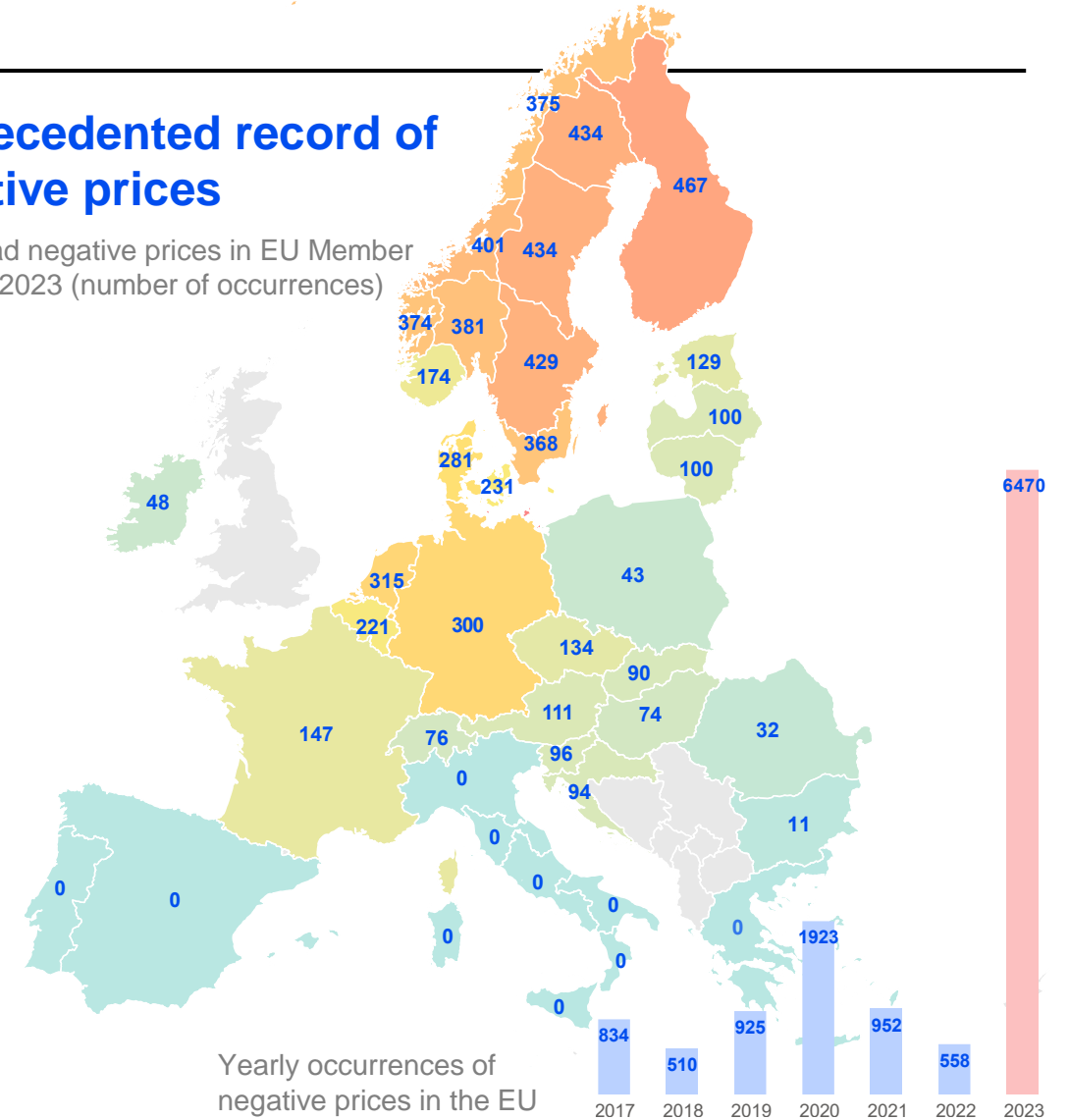
**Offshore is part of a broader story; and
that story continues onshore ...**

Offshore is part of a wider story, continuing onshore (1/3)

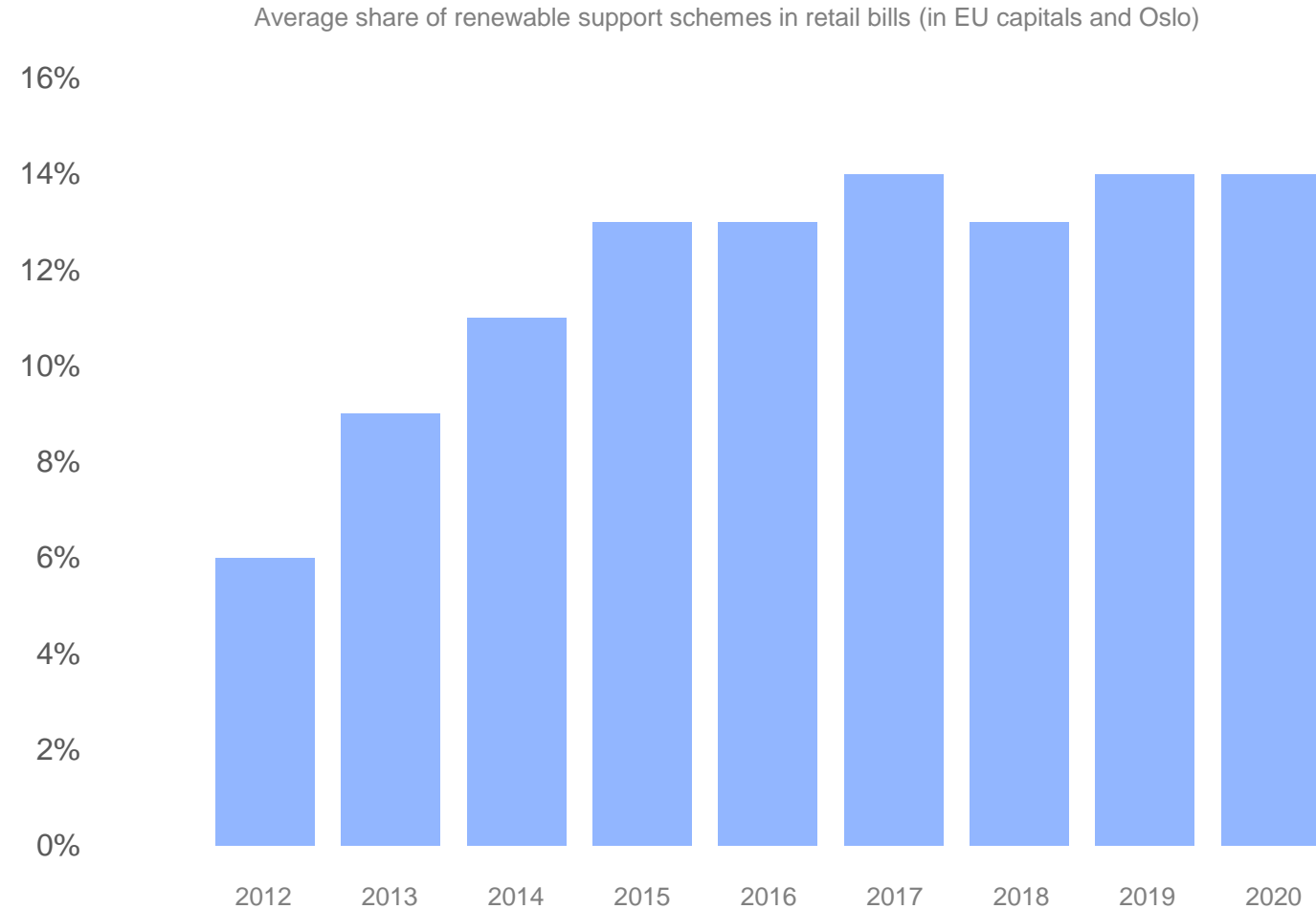


Unprecedented record of negative prices

Day-ahead negative prices in EU Member States in 2023 (number of occurrences)



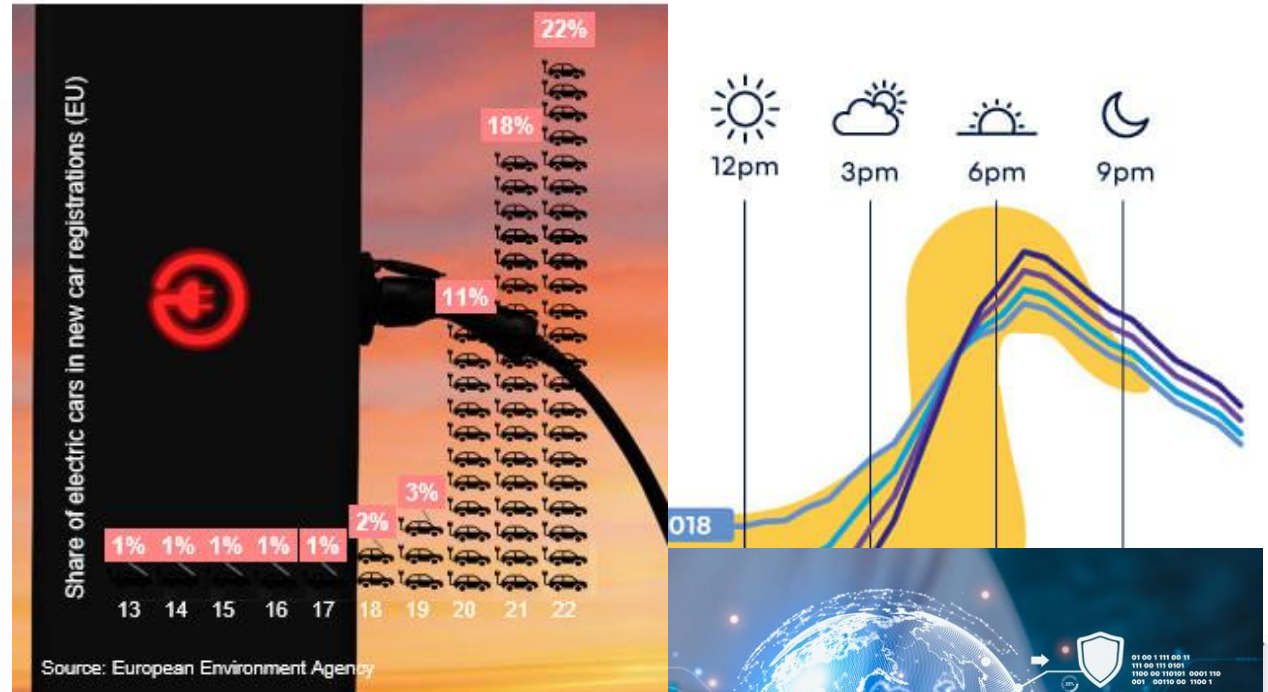
Will network costs sharply increase like renewable support costs in the past?



“The average network use is low. How to get it (much) higher?”

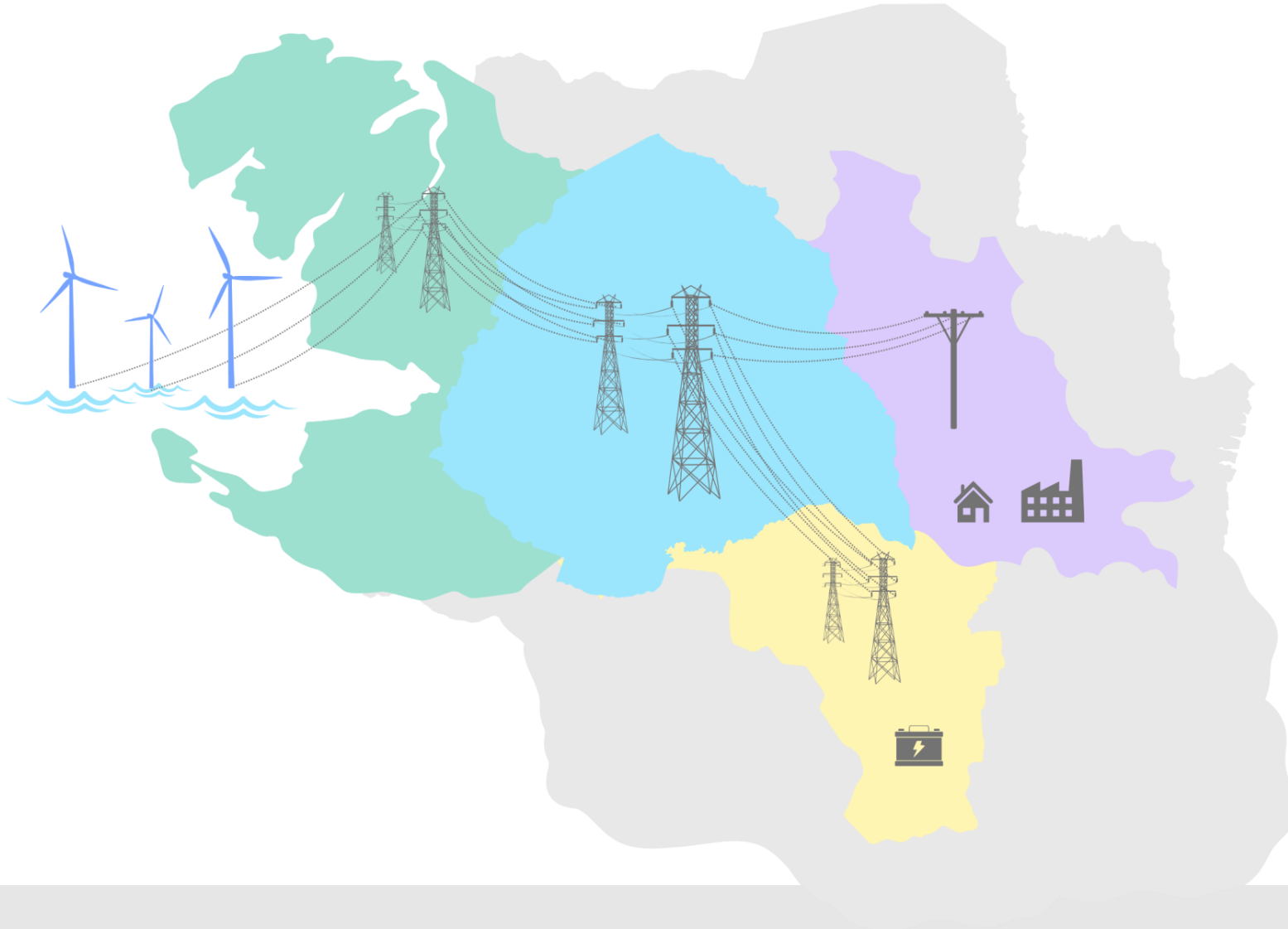


Sharp rise in electric car sales

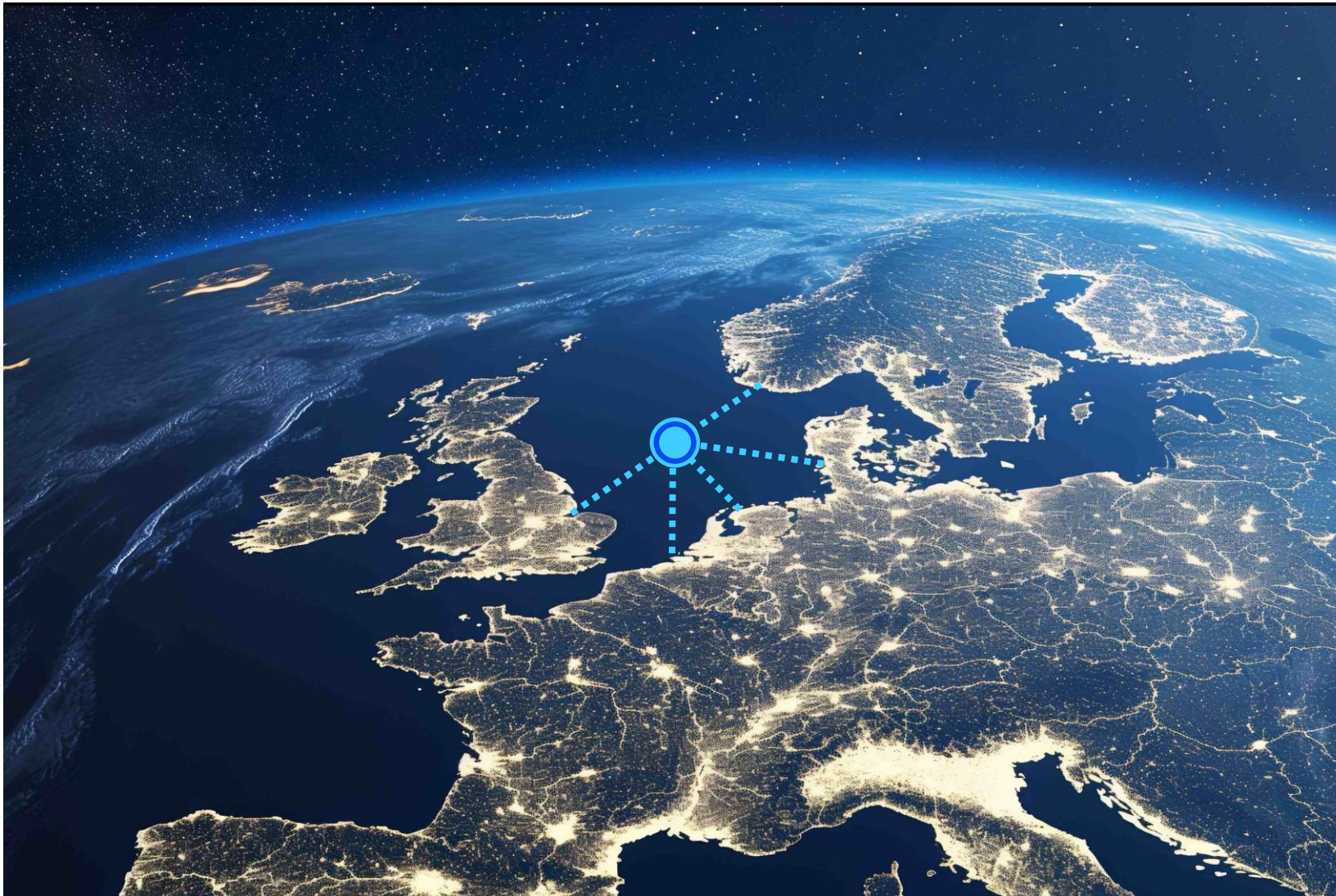


**In the end, presence or absence of trust
will likely prove the ‘make-or-break’**

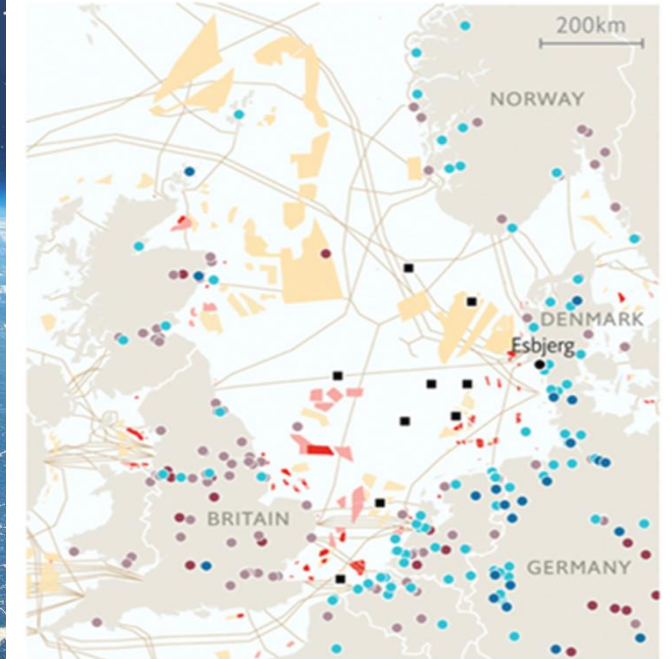
'Trust but verify' also holds true for power flows



With implications for governance (coordination/planning)



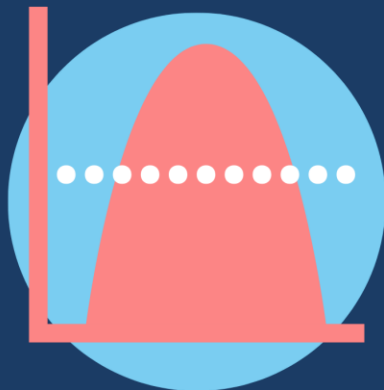
'New' North Sea energy infrastructure



- Offshore wind farms**
 - Operating
 - In progress or application
 - Concept or development/auction areas
- Hydrogen electrolyser projects**
 - Operating
 - In progress or application
- Carbon-capture projects**
 - Operating
 - Under development or planned
- Submarine cables*
- Energy Islands (planned)

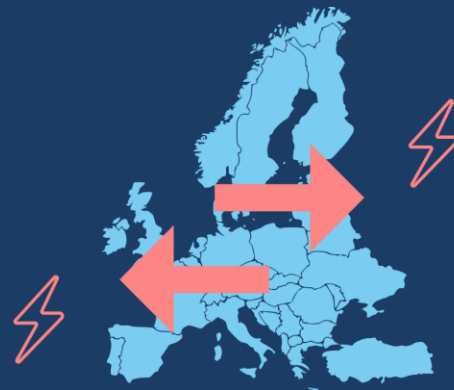
30 – 50%

Currently available
capacity for cross-border
trade in meshed areas



70 %

Minimum 2026 target
for capacity available
for cross-border trade



ACER Opinion on the necessary
developments for the fulfilment of the
minimum cross-zonal capacity requirements ...



... stresses the urgency to have maximal available
grid to trade electricity.

... points to the necessary steps:

- TSOs to make **optimal and coordinated use of remedies to relieve congestions** in the grid;
- TSOs to undertake **targeted grid developments**;
- TSOs to complete the **bidding zone review** process and Member States/
European Commission to decide.

With implications for (much more) rigorous enforcement



“... curtailments in cross-border electricity flows or explicit export bans were imposed in a few EU Member States during the January cold spell with the aim of ‘protecting domestic consumers’ ...”

Fragmentation risk is real

Obligation	Legal deadline	(expected) completion	Delay	Enforcement
Single EU day-ahead coupling	June 2018	May 2022	47 Months	No
Single EU intraday coupling	June 2018	November 2022	53 Months	No
15' market time unit in day-ahead market	January 2021	January 2025	48 Months	No
Intraday auctions	January 2023	June 2024	17 Months	No
Flow-based in intraday	August 2023	Mid-2026	38 Months	No
Core Flow-based	February 2022	June 2022	4 Months	No
Nordic Flow-based	Not defined	October 2024	/ (but decision dates from Dec 2019)	No

**Thank you for your attention.
Looking forward to the discussion.**



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Annex



- **Supporting the integration of energy markets in the EU** (by common rules at EU level). Primarily directed towards transmission system operators and power exchanges.
- **Contributing to efficient trans-European energy infrastructure**, ensuring alignment with EU priorities.
- Monitoring the well-functioning and transparency of energy markets, **detering market manipulation and abusive behaviour**.
- Where necessary, **coordinating cross-national regulatory action**.
- Governance: **Regulatory oversight is shared** with national regulators. **Decision-making** within ACER is collaborative and joint (formal decisions requiring 2/3 majority of national regulators). **Decentralised enforcement** at national level.