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

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

Christian Zinglersen, ACER Director
• ‘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-facettmed?
• 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.

Source: ACER’s report on key developments in the electricity market, March 2024
Offshore could be leveraged for massive regional benefits

Relying on regional renewable potential to:
- ensure security of supply;
- mitigate price volatility;
- provide flexibility to the market.

Offshore wind exports clean and cheap(er) energy

EU consumers access offshore electricity

From 15 GW today to 300 GW by 2050
A regional perspective requires further ‘regionalisation’ of processes & measures for financing
Current financing framework not fully fit for (future) purpose

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
On the one hand, scale & speed may require more risk-taking.

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.

“A fair and efficient allocation of risks, involving risks being carried by the party that is best able to effectively take on and manage them, is therefore needed.”

Source: ACER-CEER: Position on anticipatory investments, March 2024

Source: Making hybrids happen (Elia, Orsted), March 2024
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.
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)

Yearly occurrences of negative prices in the EU

Source: ACER’s report on key developments in the electricity market, March 2024

Source: https://capaciteitskaart.netbeheernederland.nl/, April 2024
Offshore is part of a wider story, continuing onshore (2/3)

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

Average share of renewable support schemes in retail bills (in EU capitals and Oslo)
“The average network use is low. How to get it (much) higher?”
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)

Source: The Economist: "Can the North Sea become Europe’s new economic powerhouse?", 1 January 2023.
With implications for availability of cross-border flows

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.

Source: ACER Opinion on the minimum cross-zonal capacity requirements, April 2024
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’ ...”

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### Table: Market Fragmentation Risk

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

Source: ACER 2016 report on wholesale electricity markets, 6 October 2017

Source: Presentation of the European Commission to the electricity cross-border committee, 21 March 2024
Thank you for your attention. Looking forward to the discussion.
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, deterring 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.