



European Union Agency for the Cooperation
of Energy Regulators

Current EU energy market situation & insights from the ACER- CEER Market Monitoring Report

The European Parliament's ITRE Committee
28 November 2022 - Brussels

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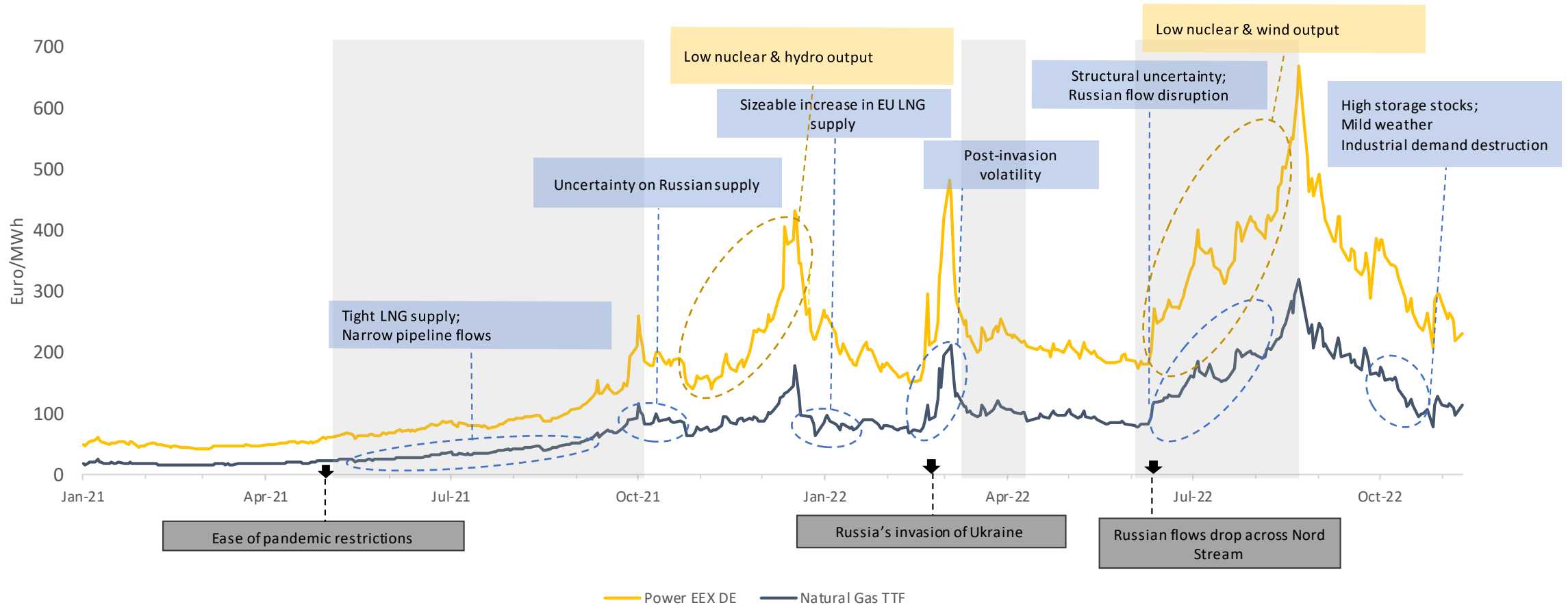


- **The current EU energy market situation**
 - Brief overview of recent market developments
 - The next year(s) will likely prove challenging
 - Current gas flows reveal congestion. What to target?
 - Near-term vigilance remains relevant
- **A few words on reform of the EU's wholesale electricity market**
- **ACER's draft Programming Document 2023-2025**

Brief overview of recent market developments

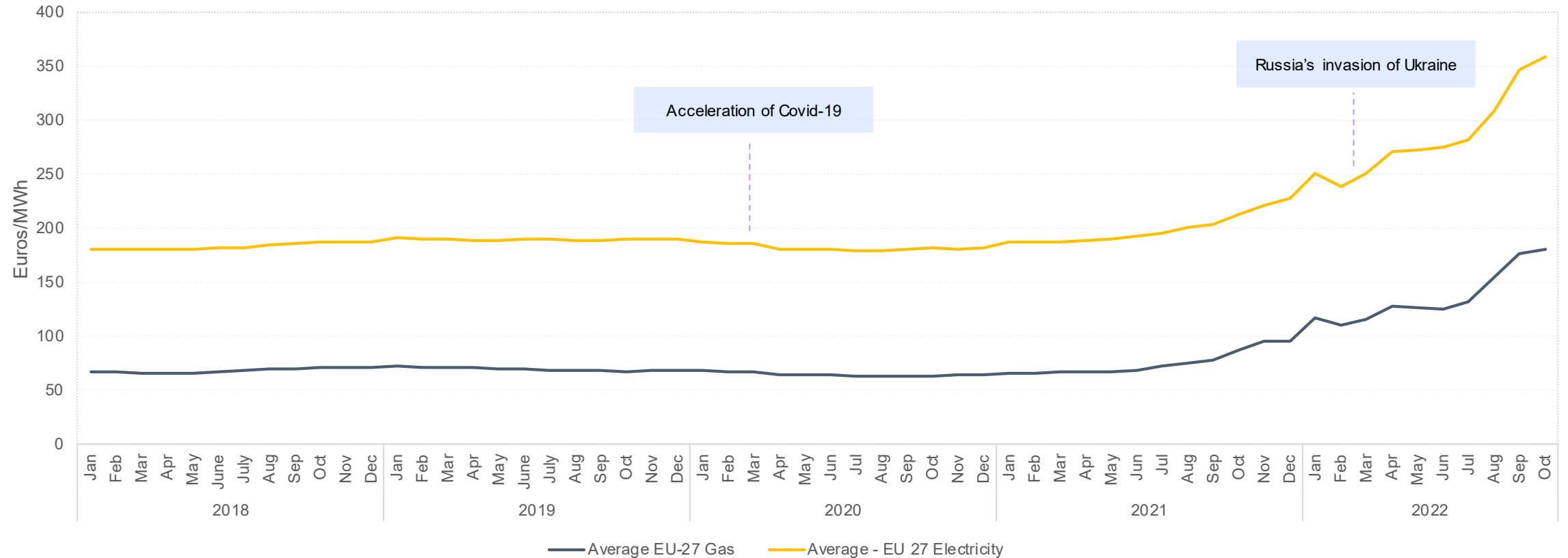
Gas and electricity supply challenges drive prices up

Electricity & natural gas price evolution, 2021-2022 (Month Ahead)



In turn, impacting record high retail prices

Average EU electricity and gas prices for median* EU household consumer

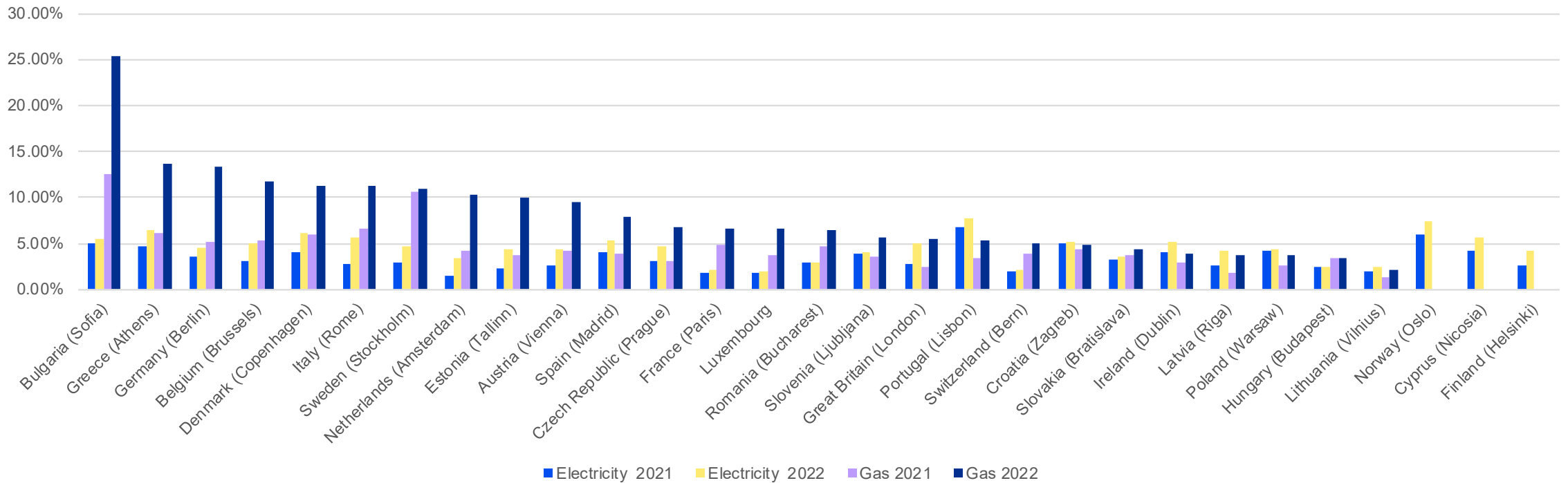


Notwithstanding various government interventions, final retail prices saw steep increase.

*Median is the value separating the higher half from the lower half of a data sample, a population, or a probability distribution.

Energy expenditure impacting households

Household expenditure in gas and electricity as a total of household budget

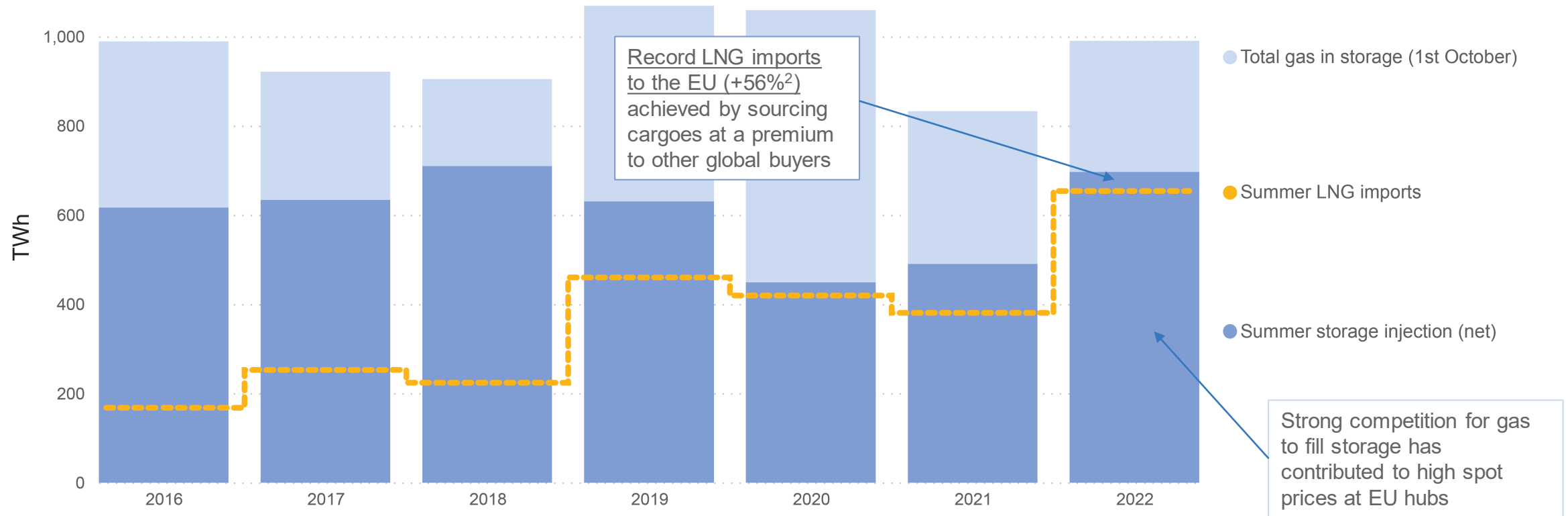


**By way of example, gas expenditure of households significantly increased (more than 10% in 9 countries).
Electricity expenditure accounts for more than 5% of household income in 9 countries.**

**The next year(s) will likely prove
challenging**

Current gas storage ‘success’ has come with a price

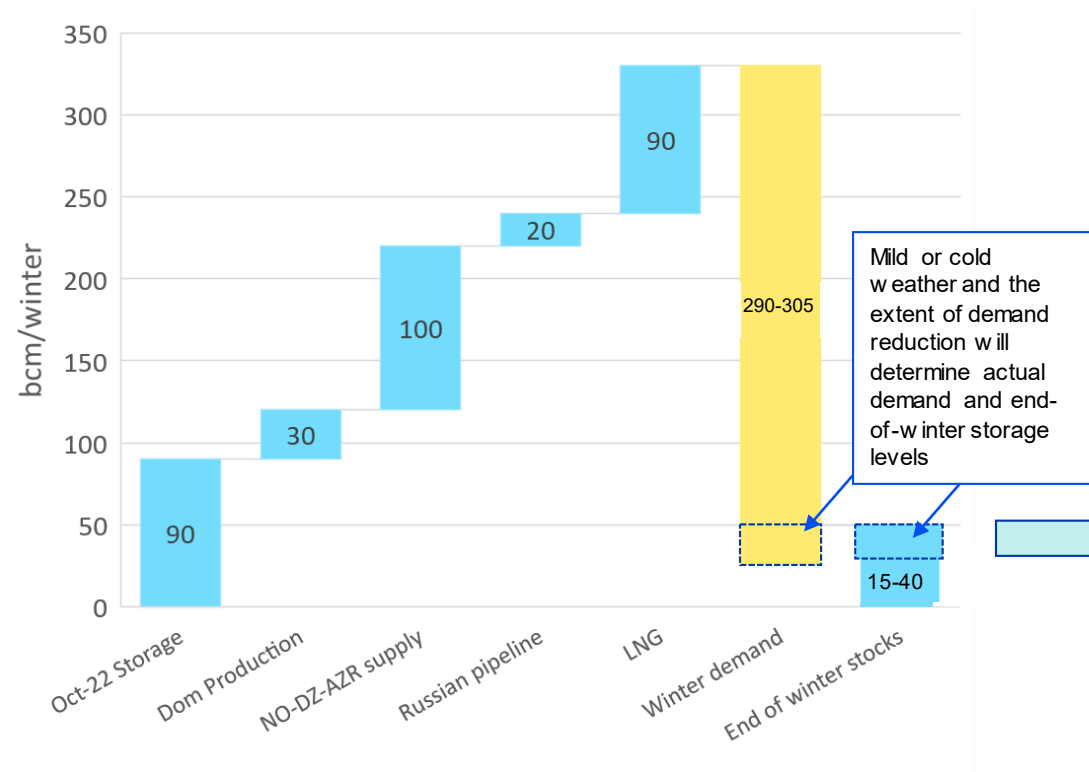
EU¹ gas storage build and LNG imports – April to October (2016 - 2022)



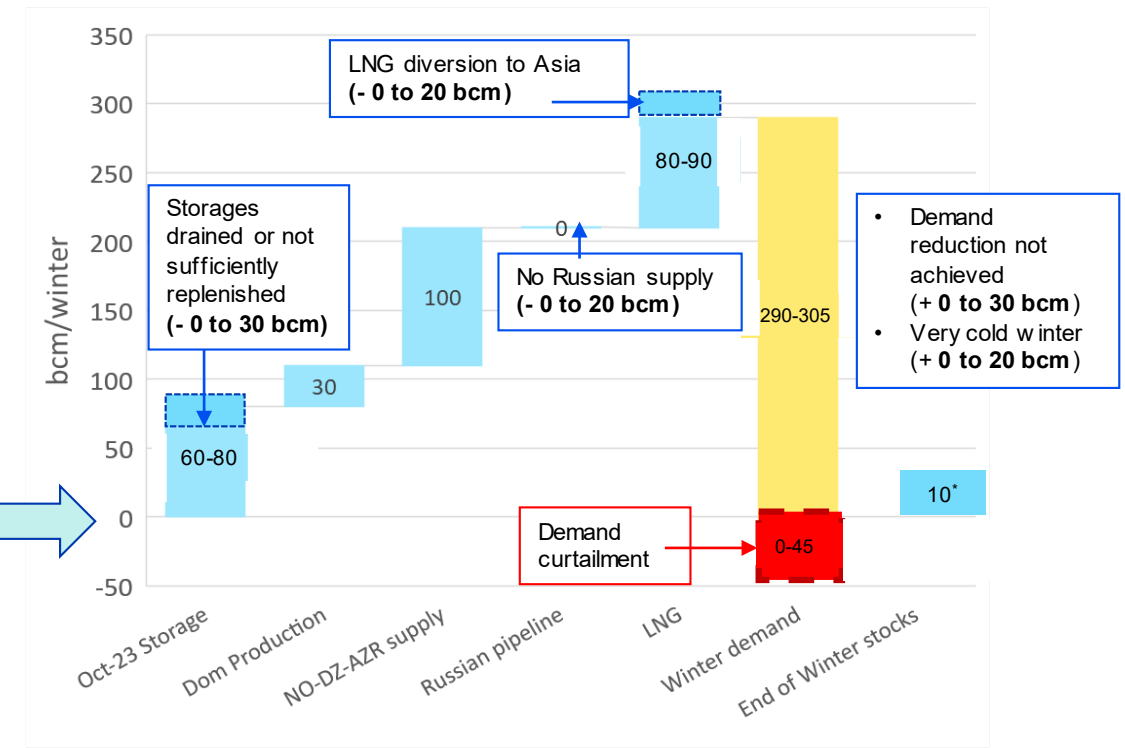
After significantly higher injections than in 2021, EU gas storages are currently 95% full but reportedly at eight times historical costs (est. 50 billion euros).

A season of 'ifs': security of supply for next winter

Scenario for winter 2022-2023 - EU + UK - bcm/winter



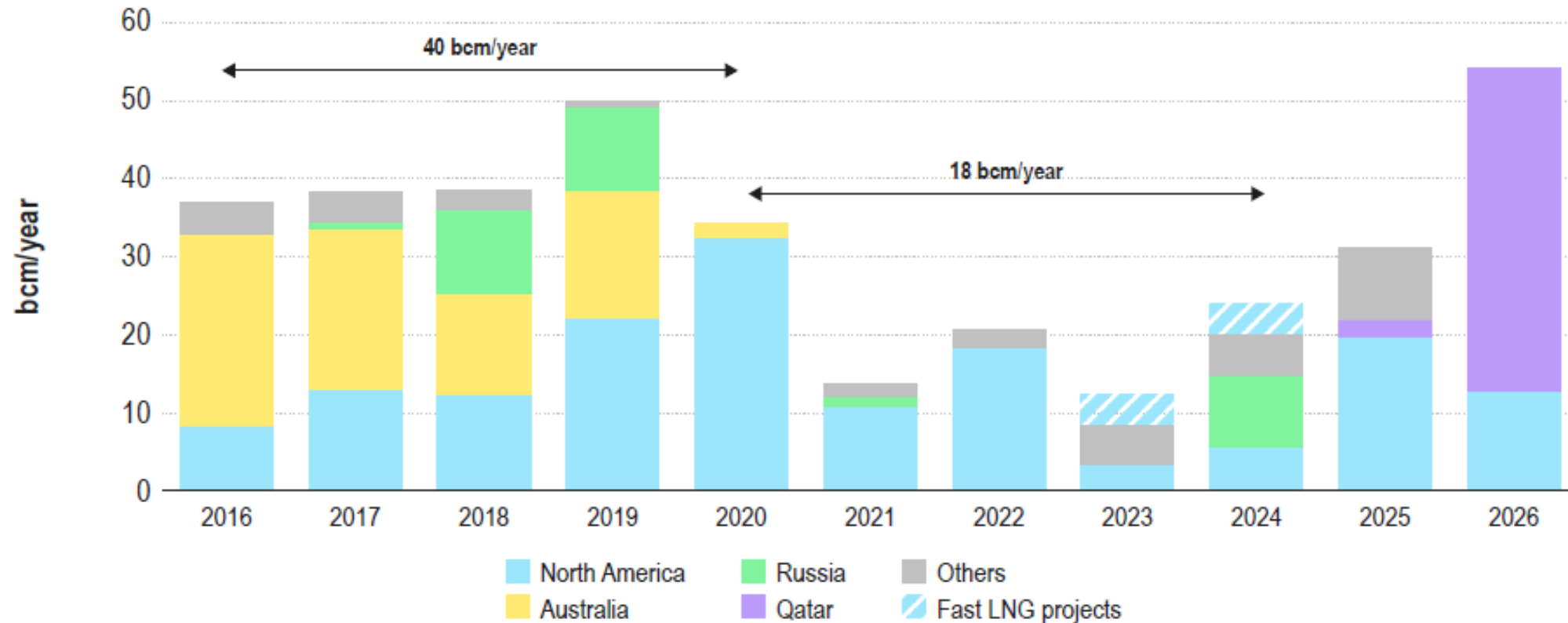
Scenario for winter 2023-2024 - EU + UK - bcm/winter



If gas storages are fully depleted during winter 2022/2023 and/or not sufficiently replenished in summer 2023 Europe might face demand curtailments in winter 2023/2024. Factors like rising gas demand (due to cold weather, unmet demand reduction targets), fully halted Russian supplies, and larger volumes of LNG diverted to Asia are of concern.

LNG capacity remains tight in the coming years

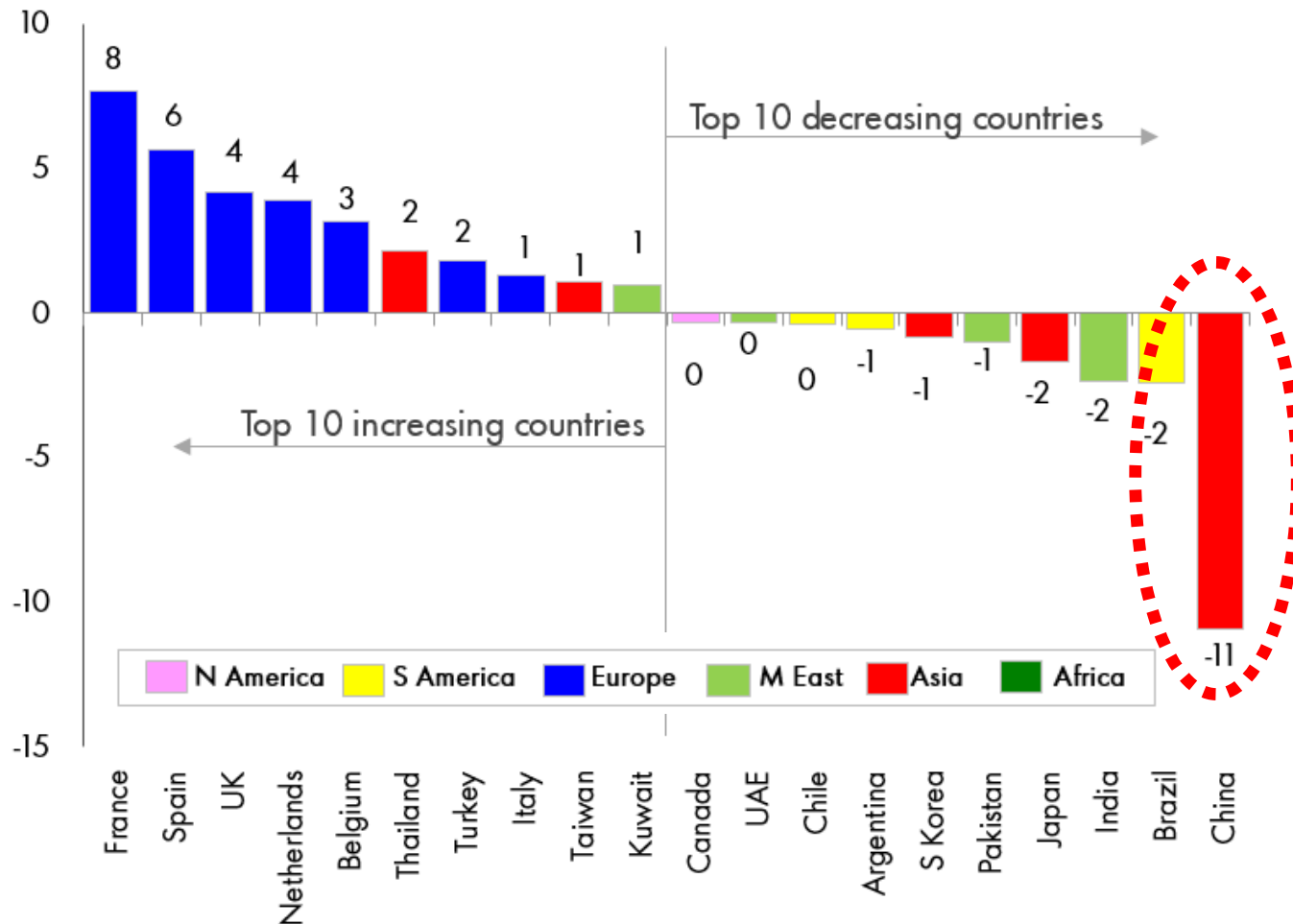
Global LNG liquefaction capacity additions by regions by start-up year – 2016-2026



The EU will compete for extra volumes with Asia which will see growing demand, partly for overall economic growth, partly for lowering coal usage.

With one particular ‘demand variable’ standing out

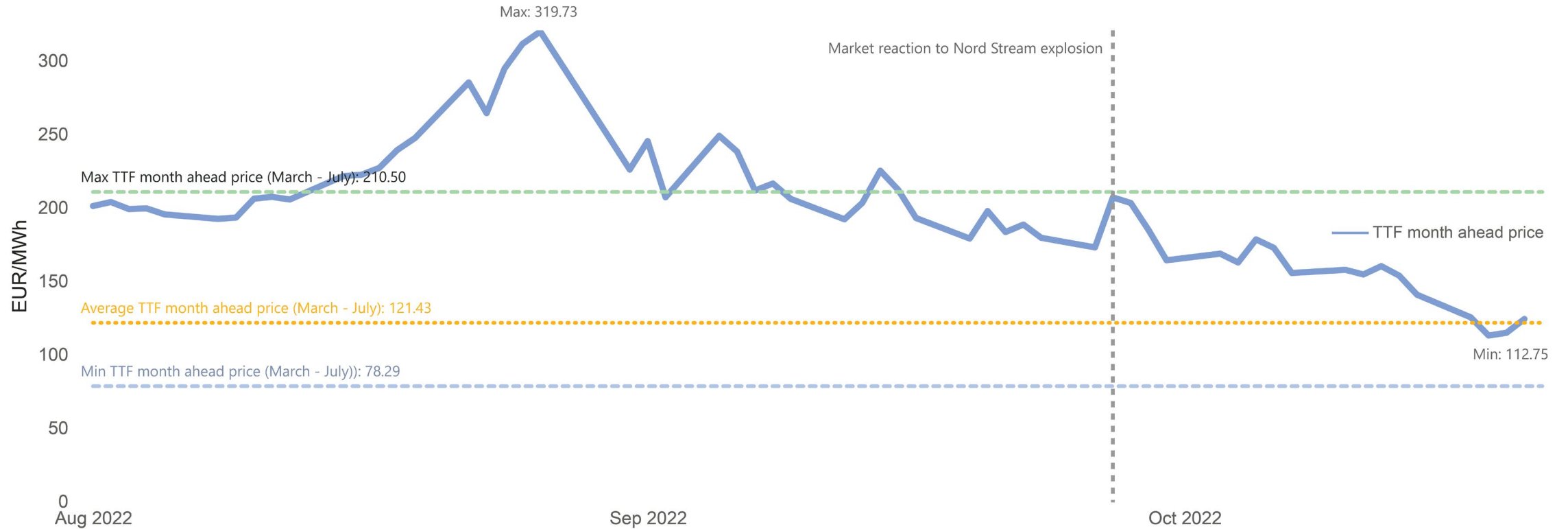
Year-over-year change in LNG imports (Jan-Aug), million tonnes



- China’s COVID-driven demand decline in LNG volumes is currently being absorbed by Europe while US LNG supply continues to grow.
- This raises questions as to when China’s LNG demand may turn back towards normal growth rates.

Near-term gas price relief since late August spike ...

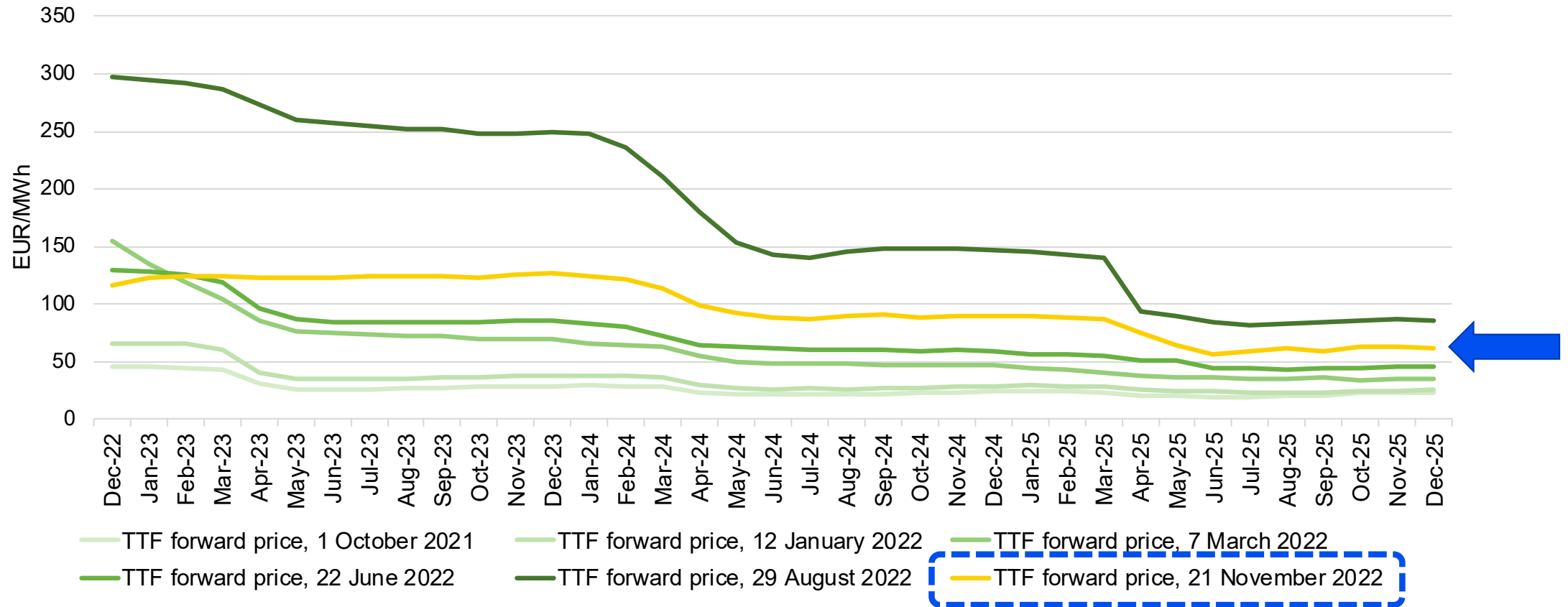
TTF month ahead price – 1st August 2022 to 20th October 2022



Gas prices have decreased to the post-invasion price average in the second half of October due to healthy LNG supply, mild autumn weather, high renewable electricity generation and gas storage fullness.

... but price expectations for coming years remain high

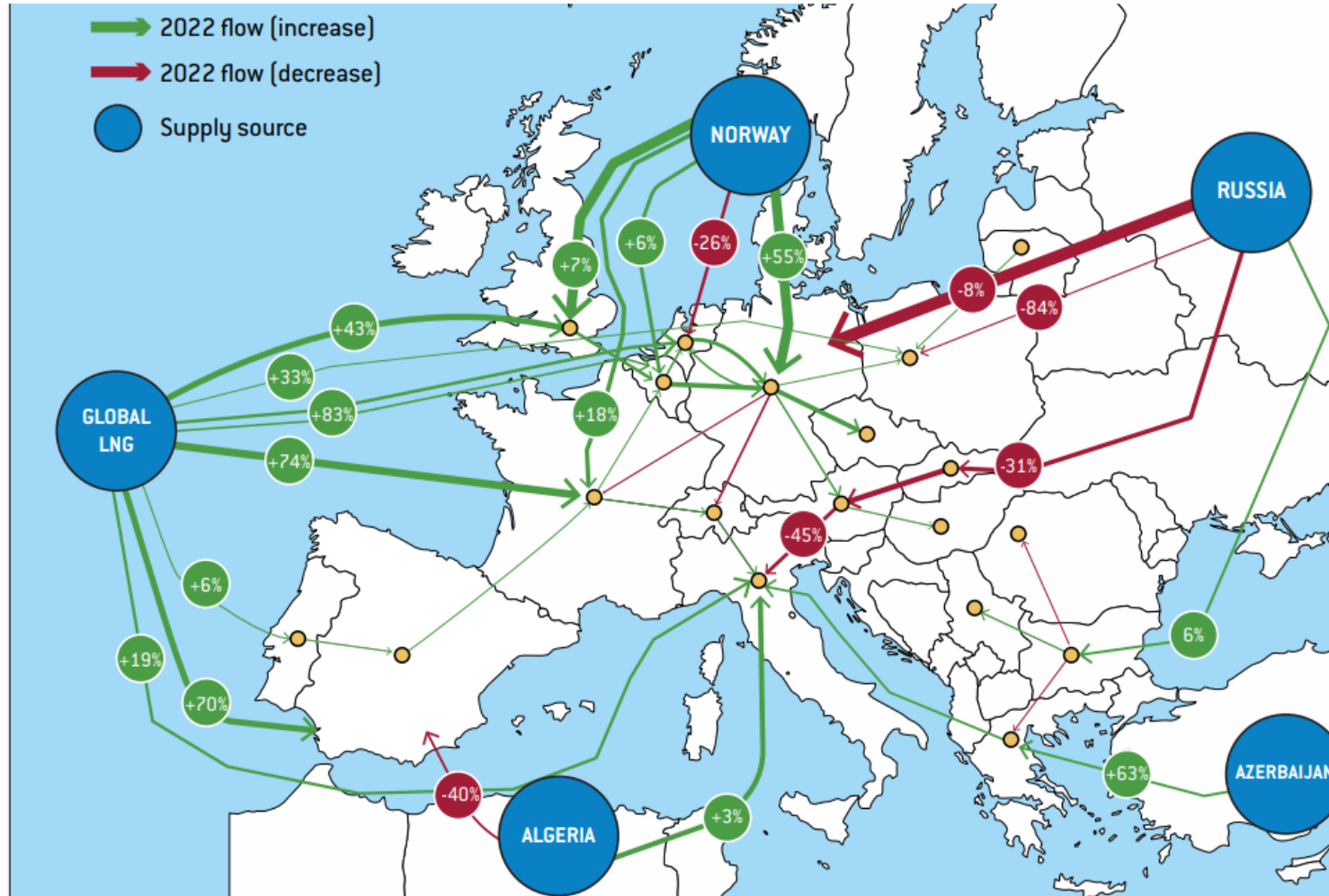
Evolution of gas (TTF) forward prices comparing the contractual outlook (October 2021 - November 2022)



Current gas flows reveal congestion. What to target?

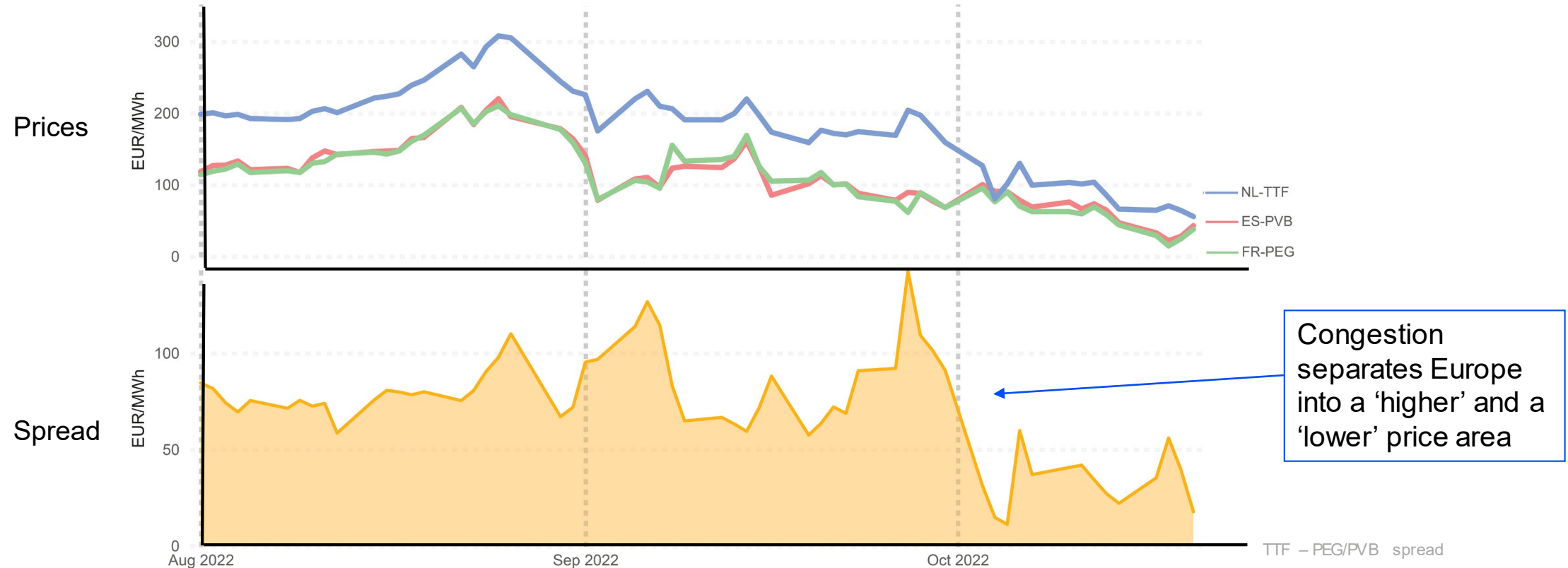
Changes in gas flows impacting vulnerabilities

Natural gas flow changes – first half of 2021 vs first half of 2022



Price differences between hubs remain elevated

Evolution of day-ahead prices and spreads at selected European gas hubs (1 August – 20 October 2022)



**Price differences reflect that relevant volumes do not reach higher-priced regions where gas is most in demand.
Prices could converge if relevant bottlenecks are addressed.**

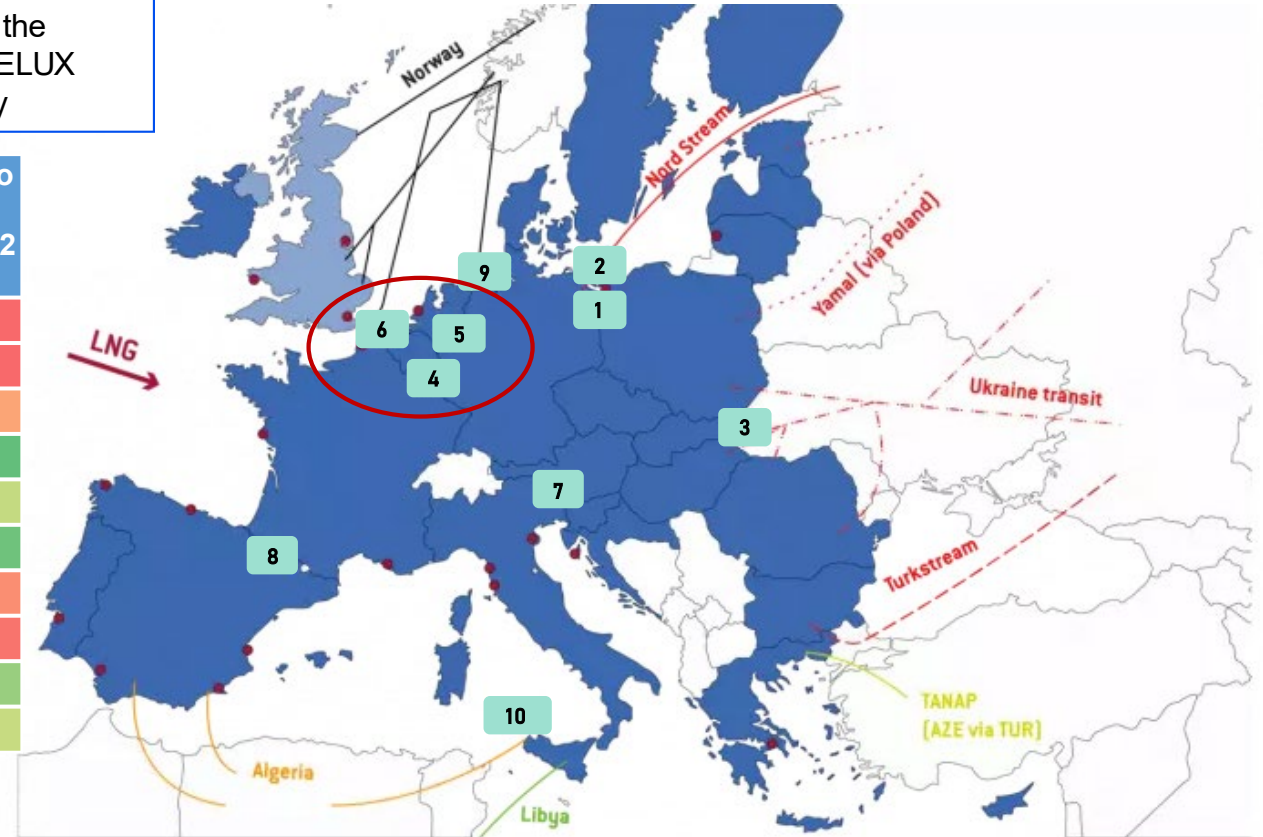
Revealing supply bottlenecks in the EU gas system



Flow congestion is the highest between BELUX and West-Germany

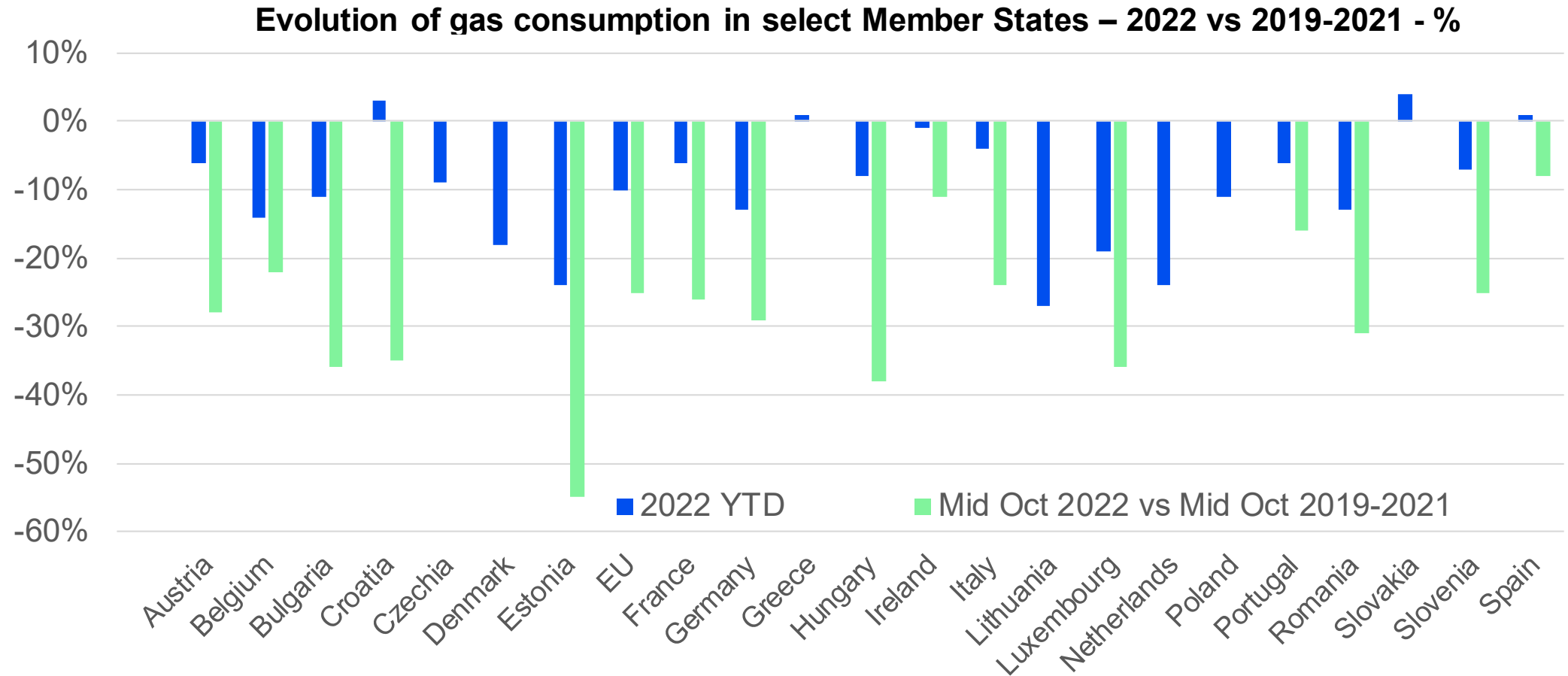
	Flow Direction	Interconnection Point	Utilisation ratio 2016-2021 (%)	Utilisation ratio Jan-Aug 2022 (%)	Utilisation ratio Sep 2022 (%)
1	PL to DE	Yamal	71%	7%	0%
2	RU to DE	North Stream 1	90%	45%	0%
3	UA to SK	Velke Kapusany	63%	27%	21%
4	BE to DE	VIP Belgium	12%	82%	100%
5	NL to DE	VIP-TTF		43%*	66%
6	UK to BE	IUK-Zeebrugge IZT	27%	69%	96%
7	AT to IT	Arnoldstein / Tarvisio	67%	36%	13%
8	ES to FR	VIP PIRINEOS	2%	34%	4%
9	NO to DE	Europipe(s)	68%	80%	81%
10	DZ to IT	Mazara del Vallo	37%	57%	65%

*Note: Utilisation ratio computed for April-August 2022 due to data unavailability



Investments are focusing on expanding LNG import capacities and on removing interconnectors' congestion.

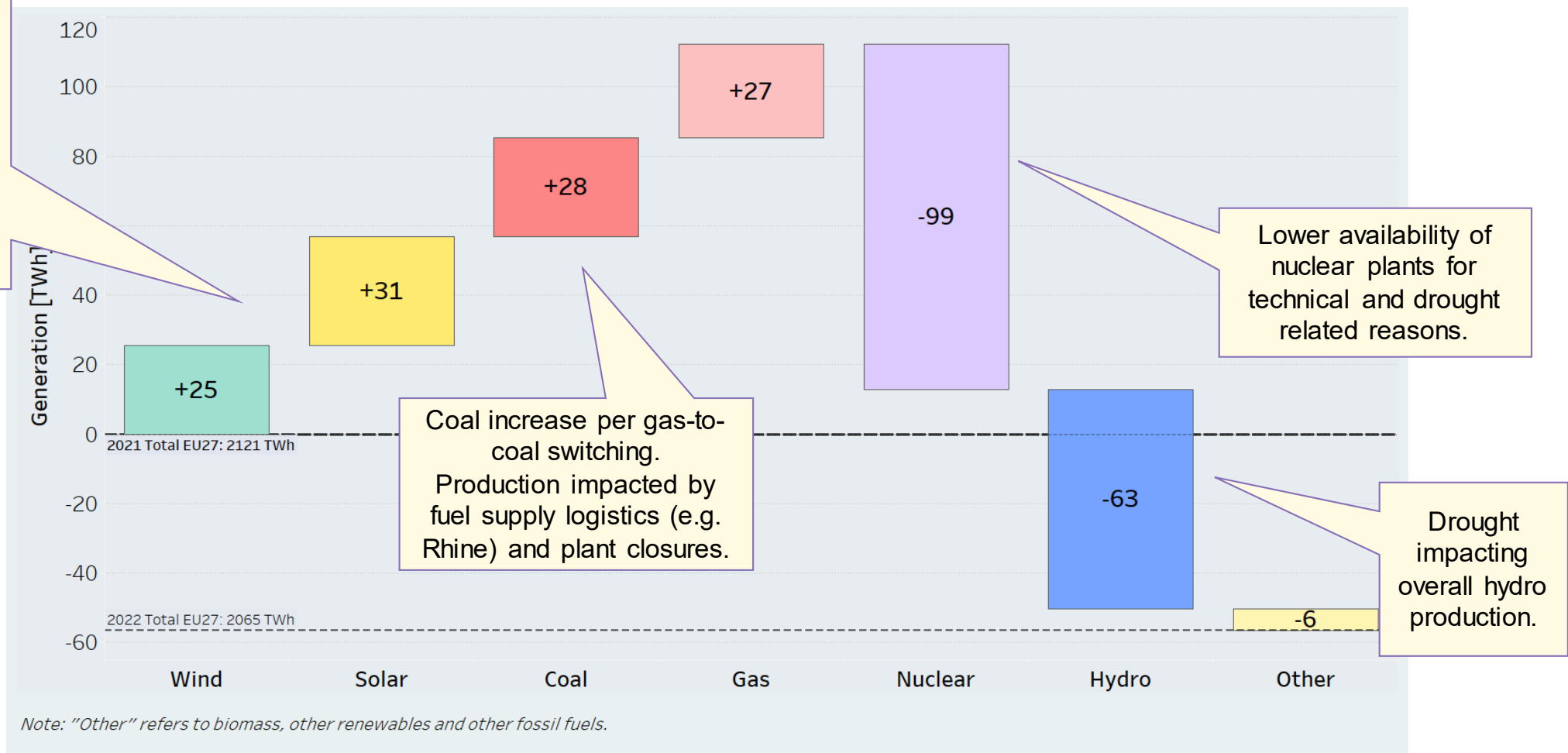
What to target (per current demand destruction)?



By mid-October demand has fallen by an estimated 10% year-to-date, with dissimilar contributions per sector.

What to target (per electricity supply & demand mismatch)?

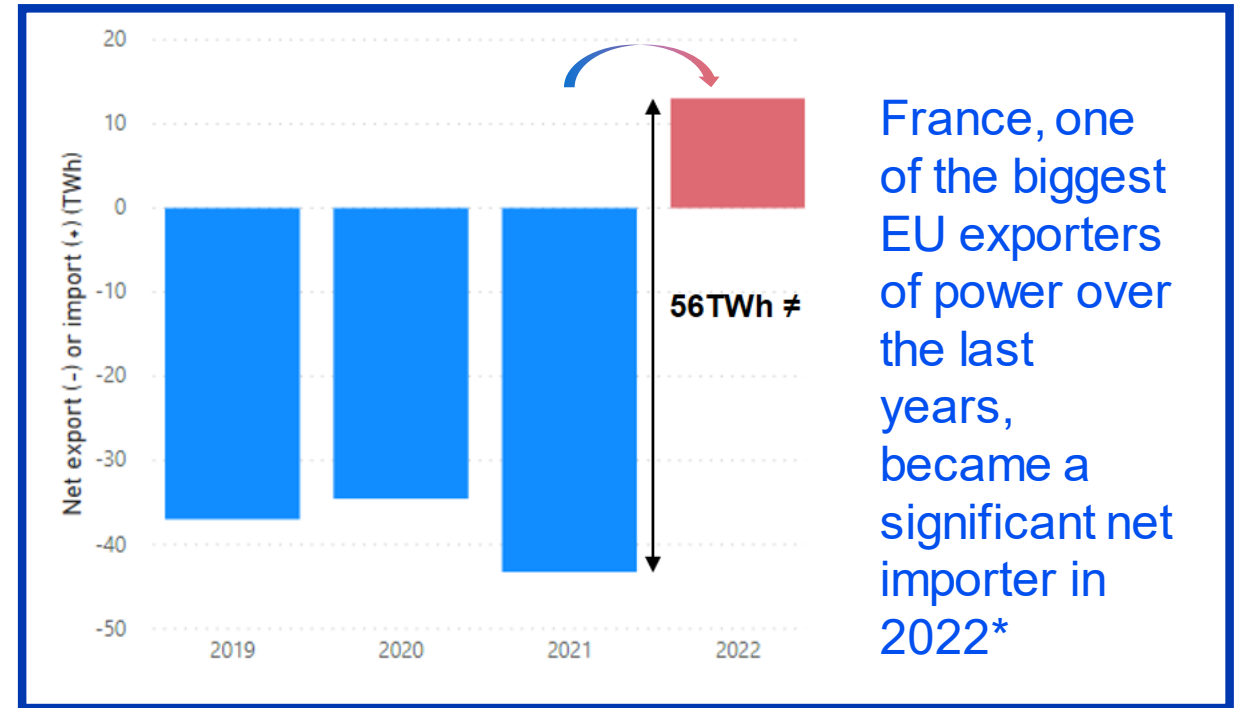
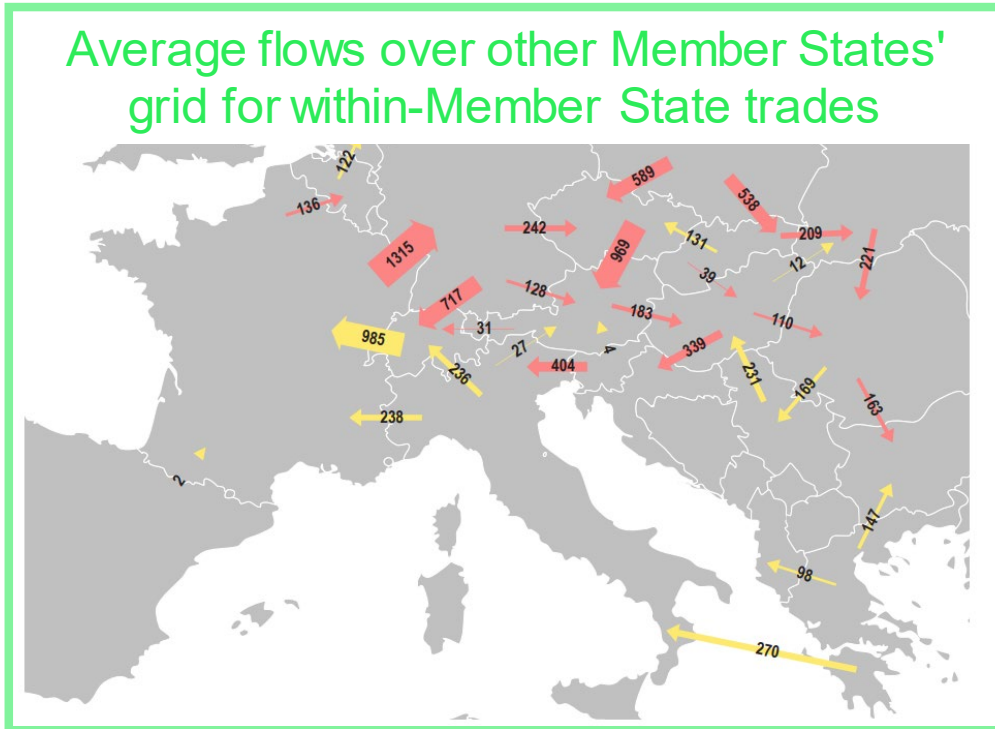
Year on year change in EU-27 electricity generation by fuel type – January to October 2022 - TWh



Near-term vigilance remains relevant

Member States rely heavily on each other for energy flows

To optimise electricity usage and production, Member States rely on neighbouring countries to alleviate **network congestion** & **generation scarcity**



Restrictions to exports ('do not count on me') may lead to a contagious effect. Cross-border capacity for electricity trade should be increased rather than reduced during an energy crisis.

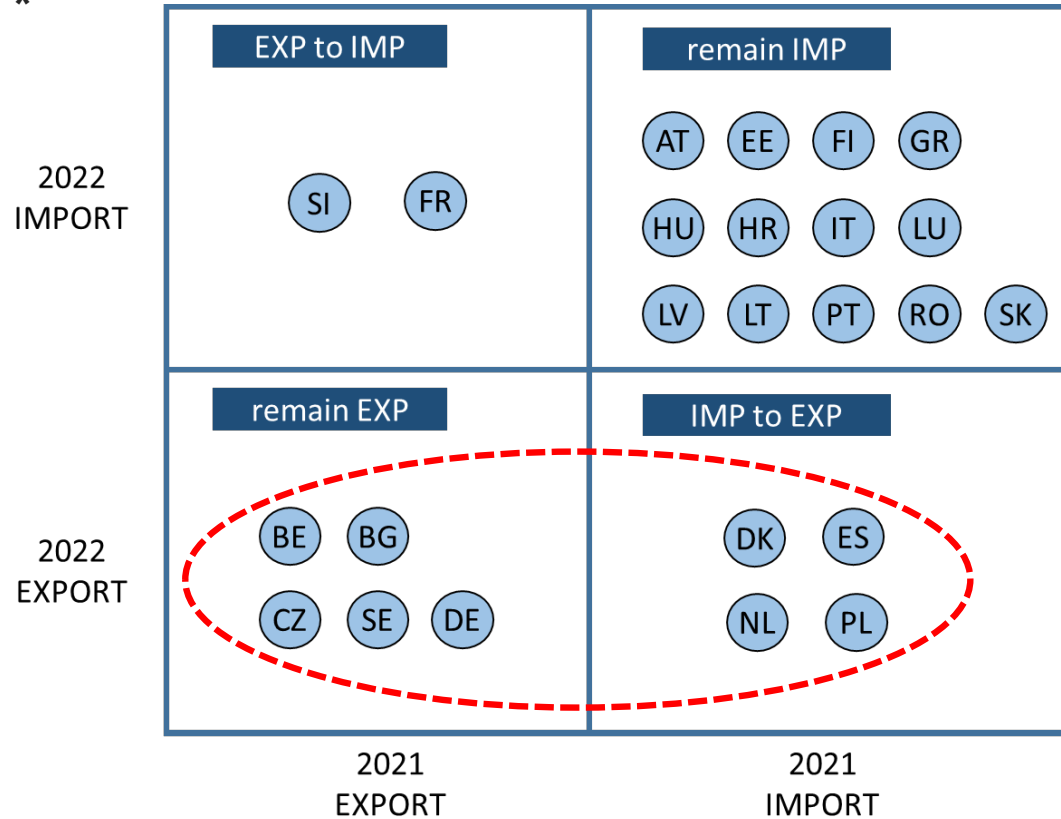
If all Member States 'play it safe', no Member State is likely to be 'safe'.

* By way of perspective, the 'export-to-import' swing of France of 56TWh is similar to the total demand of Belgium during the considered period.

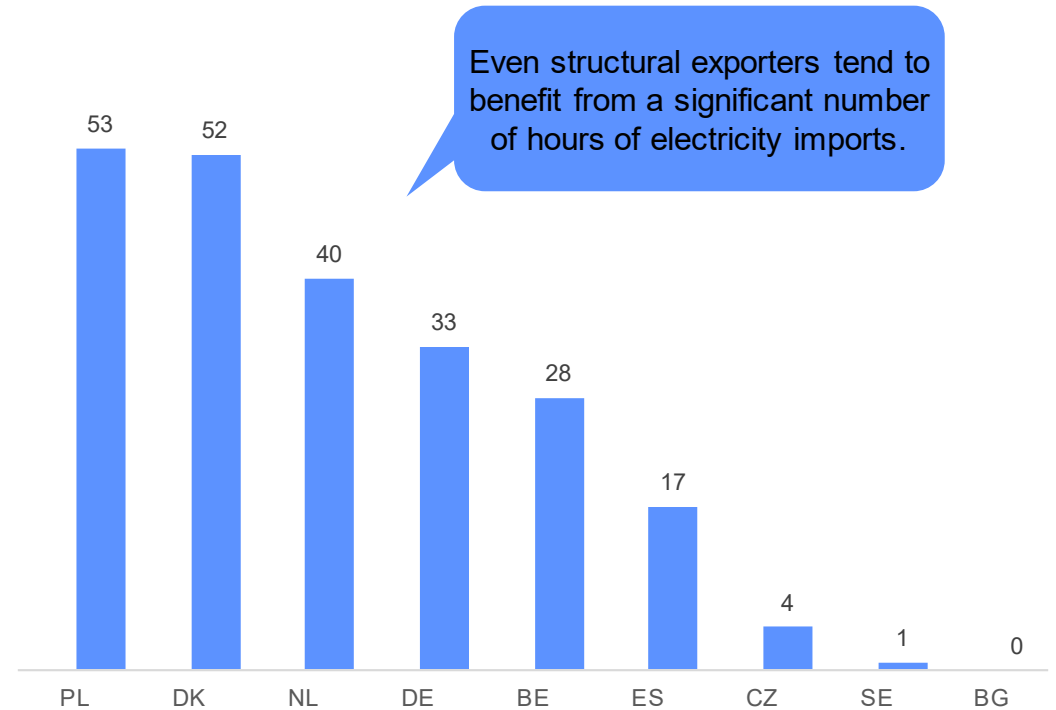
Interdependence often cuts both ways

Import ~ export swings from 2021 to 2022

*



% of net import hours in 2022

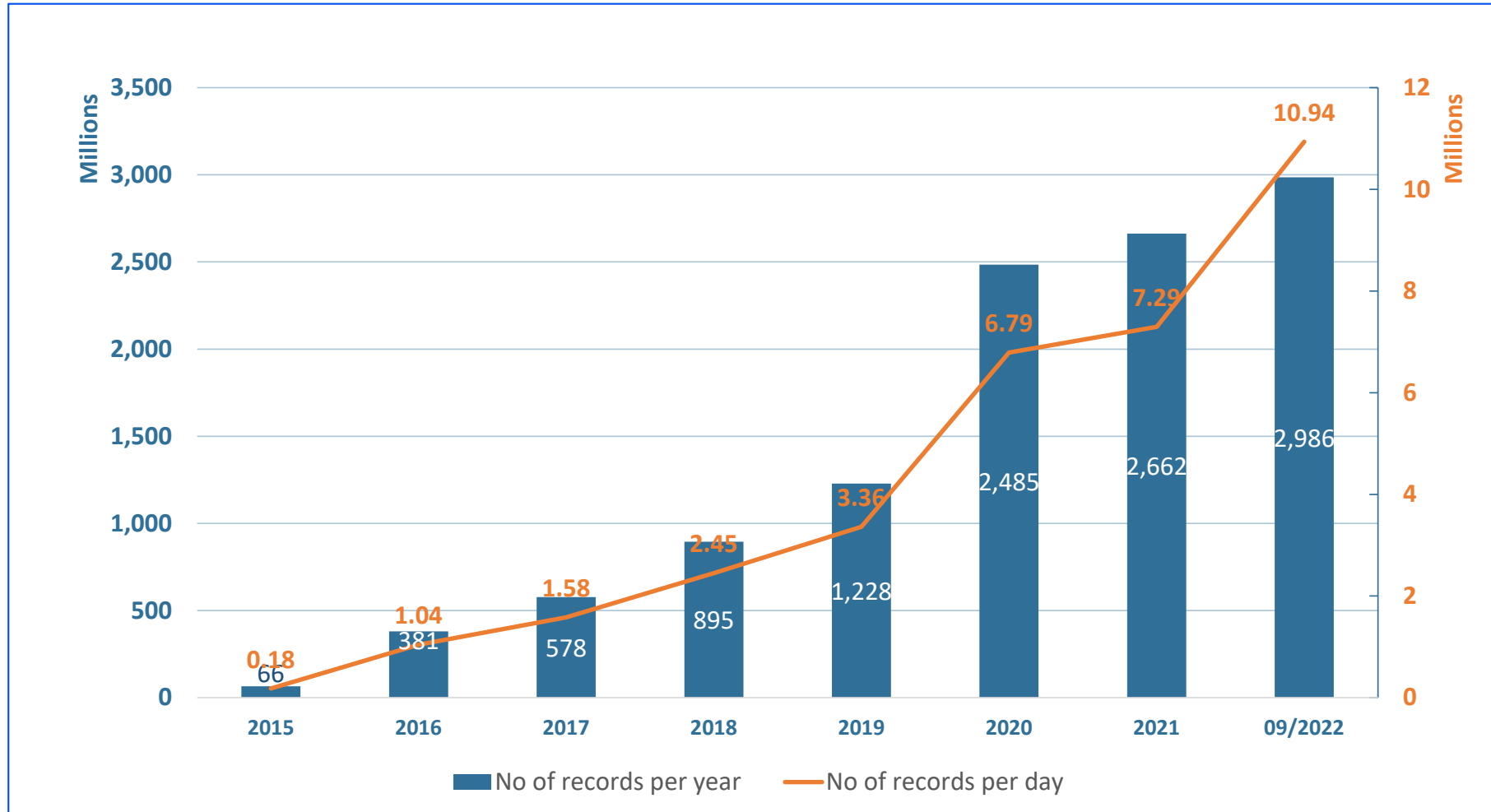


Making cross-border electricity capacity available for trade (per also the so-called ‘70% target’) will be vitally important for many Member States. This also includes Member States that are predominant electricity exporters over the year.

* Covers all months for 2021 and January – September for 2022

Note: Without MT, CY, IE

REMIT: Countering market manipulation risk

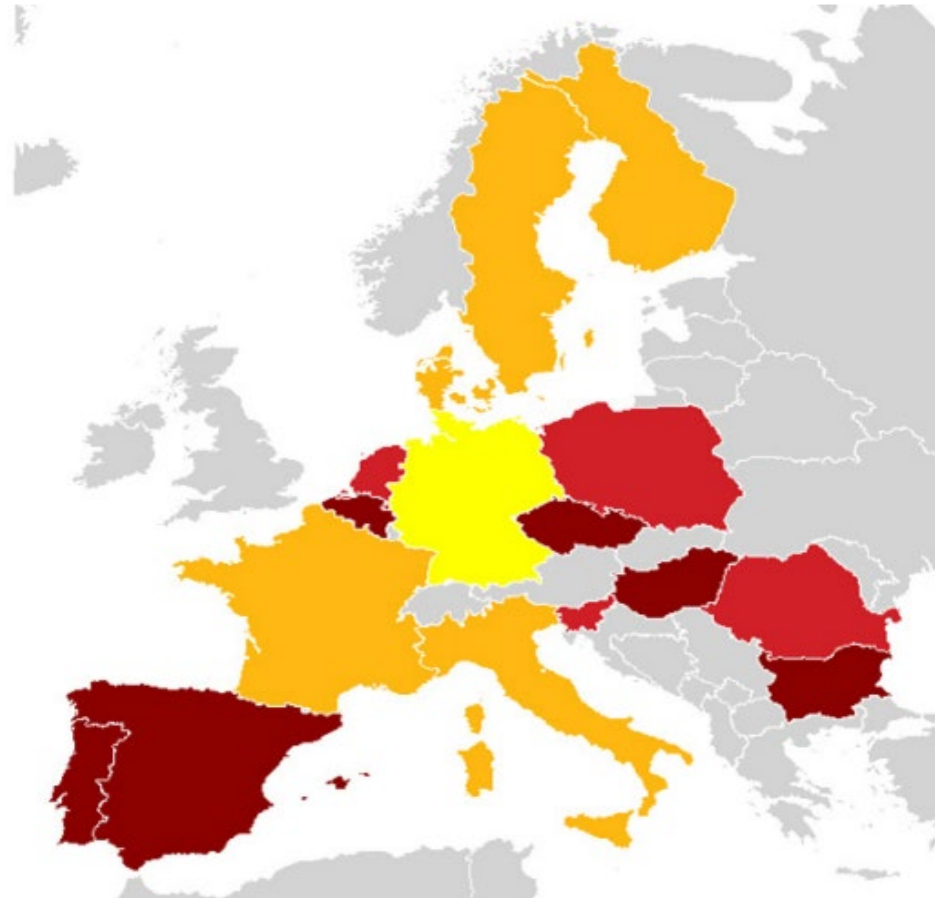


A few words on reform of the EU's wholesale electricity market

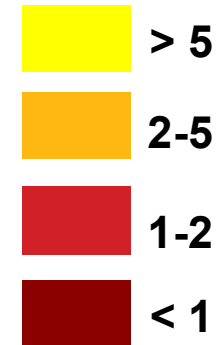
Long-term markets & investment signals prove key

“Competitive long-term electricity markets play a key role in managing risk ...”

“Many wholesale market participants [...] hedge against risks as a fully integrated part of their business activities.”



**Liquidity
(churn factor)**



Today’s forward electricity markets exhibit limited liquidity (especially beyond 3 years ahead), hampering the hedging of, and thus the development of, (CAPEX-heavy) low-carbon technologies.

How a contract for difference (CfD) works



LesEchos

Idées Économie Politique Entreprises Finance - Marchés Bourse Monde Tech-Médias Start-up Régions Patrimoine L

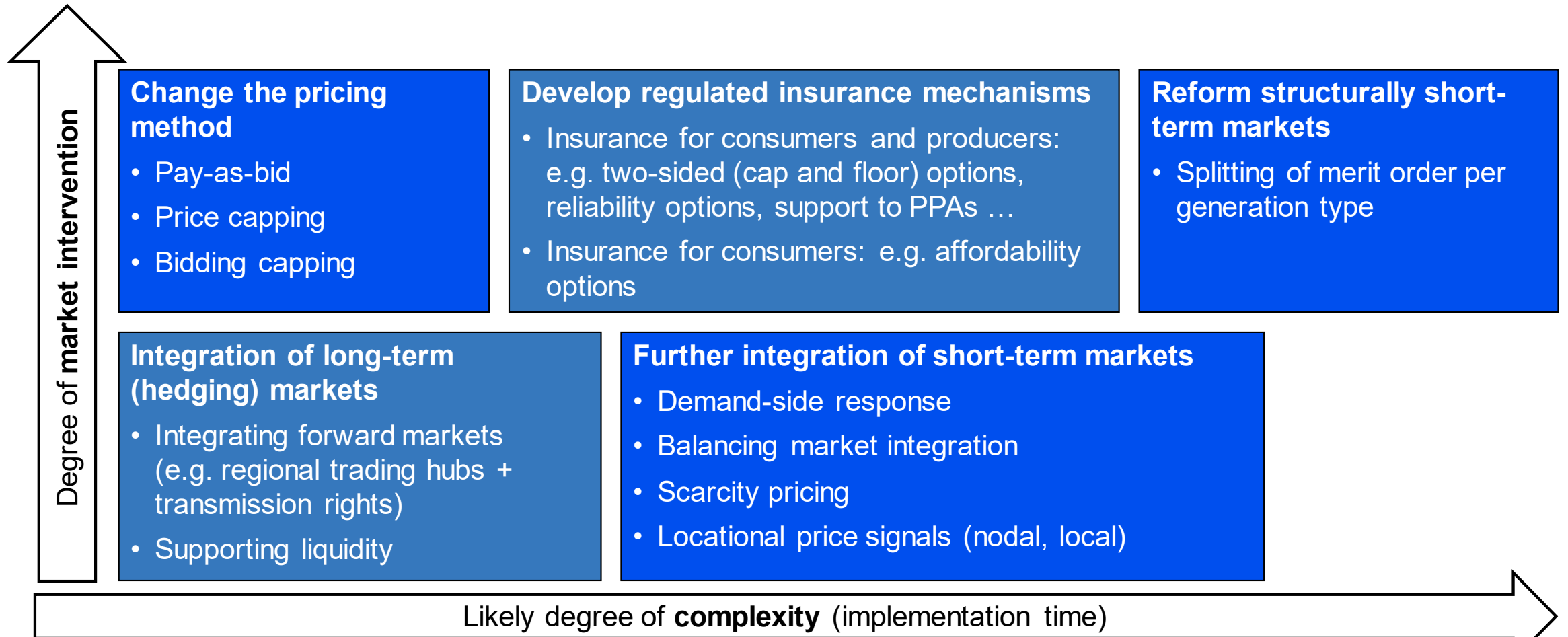
Eolien, solaire : vers un jackpot d'au moins 8,6 milliards d'euros pour l'Etat 🇪🇺

Les énergies renouvelables et surtout les parcs éoliens implantés en France pourraient rapporter selon les estimations de la CRE 8,6 milliards d'euros au budget de l'Etat en 2022 et en 2023.

[Lire plus tard](#) [Commenter](#) [Partager](#) [Budget de l'Etat et impôts](#) [Consommation](#)


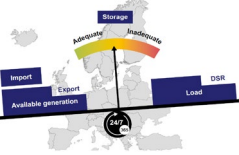

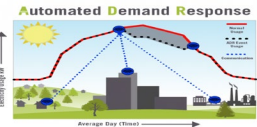

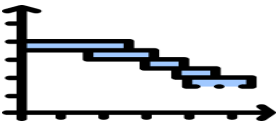
“... In some Member States, the revenues obtained by some generators are already capped by way of State measures such as ... two-way contracts for difference. These generators do not benefit from increased revenues resulting from the recent spike of electricity prices. Therefore, existing producers subject to that type of State measure ... should be excluded from the application of the cap ...”

A spectrum of reform options to consider



In the current high price setting, many proposals aim at strong investment signals for new-build; more (cost-based) average pricing; less price volatility; thereby also tackling the impact e.g. of gas generation prices on consumers.

Key questions to be posed towards such options

Criteria	Option 1	Option 2	Option 3	Option
 Affordability?	✓	✓	✓	...
 Security of supply & facilitates cross-border flows?	✗	✓	✓	...
 Energy transition compliant?	✗	✓	✓	...
 Signals for needed demand response?	✓	✗	✓	...
 Investment signals (incl. for CAPEX-intensive technologies)?	✓	✗	✓	...
 Implementation time?	✓	✓	✗	...

Closing with ACER's draft Programming Document 2023-2025



BACKGROUND / REQUIREMENTS

Energy systems undergoing massive change

Unprecedented **high energy prices**

Changes in the regulatory landscape

ACER plays an increasing role

Resources to increase but nevertheless remain **limited** per the numerous tasks



CHALLENGES

Implementing Electricity and Gas Network Codes and Guidelines and monitoring their effects

Increasing the **transparency** of wholesale energy markets and promoting their **integrity** under REMIT

Contributing to the EU's **energy infrastructure** challenge under the TENE regulation

Contributing to safeguard the **security of gas supply**

Contributing, from a regulatory perspective, to the EU's **energy crisis response** policy work, **decarbonisation goals** and the **EU Green Deal**

Implementing the **Clean Energy for All Europeans Package**

Engaging on the future **gas market design** and **decarbonisation of Europe**

Engaging stakeholders for greater impact, communicating strategically and via modern tools

(Re)deploying **financial and human resources** to meet future challenges



STRATEGIC GOALS

Contribute to the **completion of the Internal Energy Market** and the **monitoring** of its functioning 

Contribute to the **Infrastructure and Security of Supply** Challenges 

Increased integrity and transparency of wholesale energy markets 

Contribute to address **longer-term regulatory challenges** 

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



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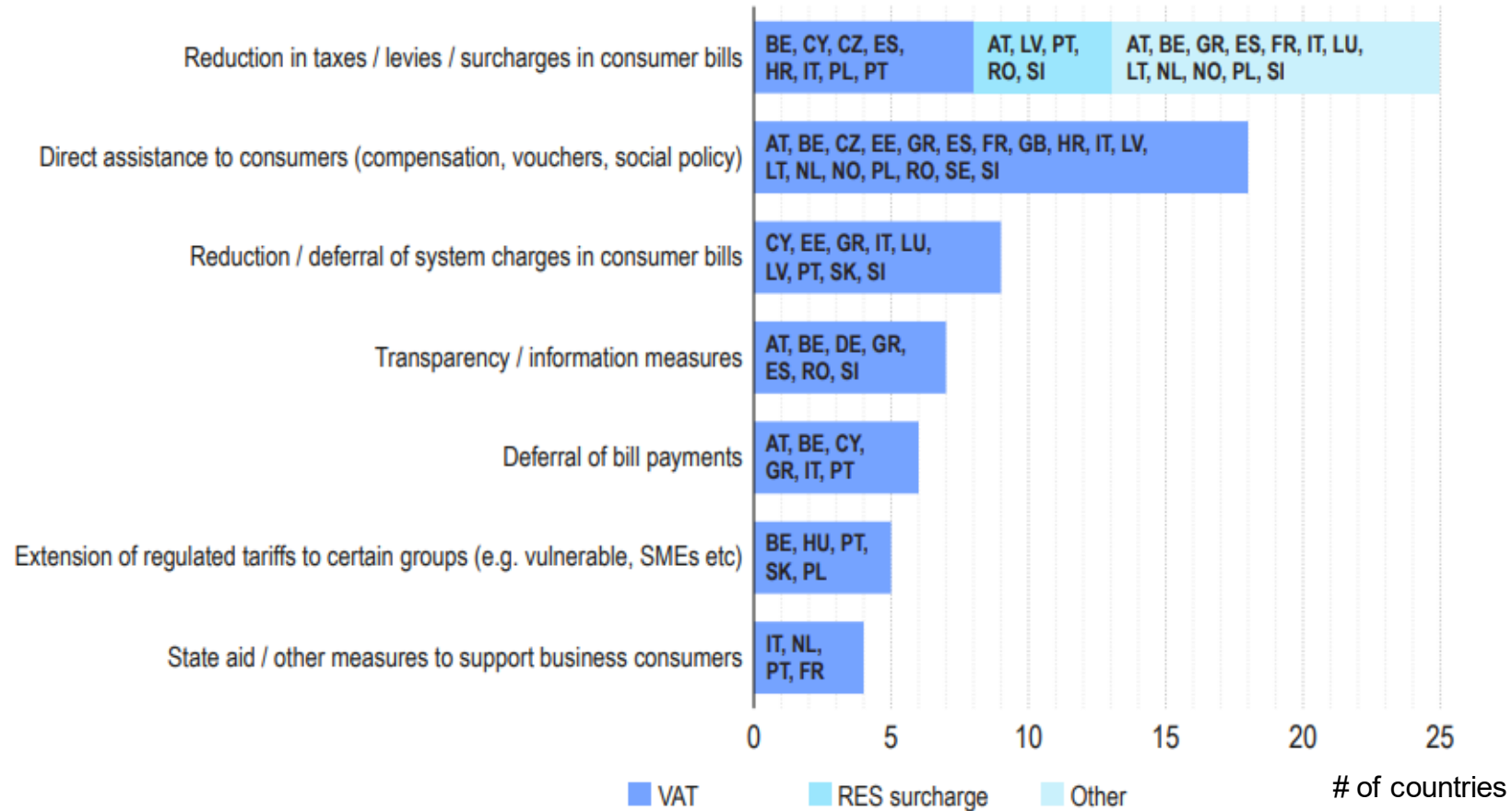
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Annex



- **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.

Support measures provided to consumers – 2022



To date EUR 500 bn+ spent on support measures for consumers.

ENTSO-E interim assessment of adequacy risk over winter

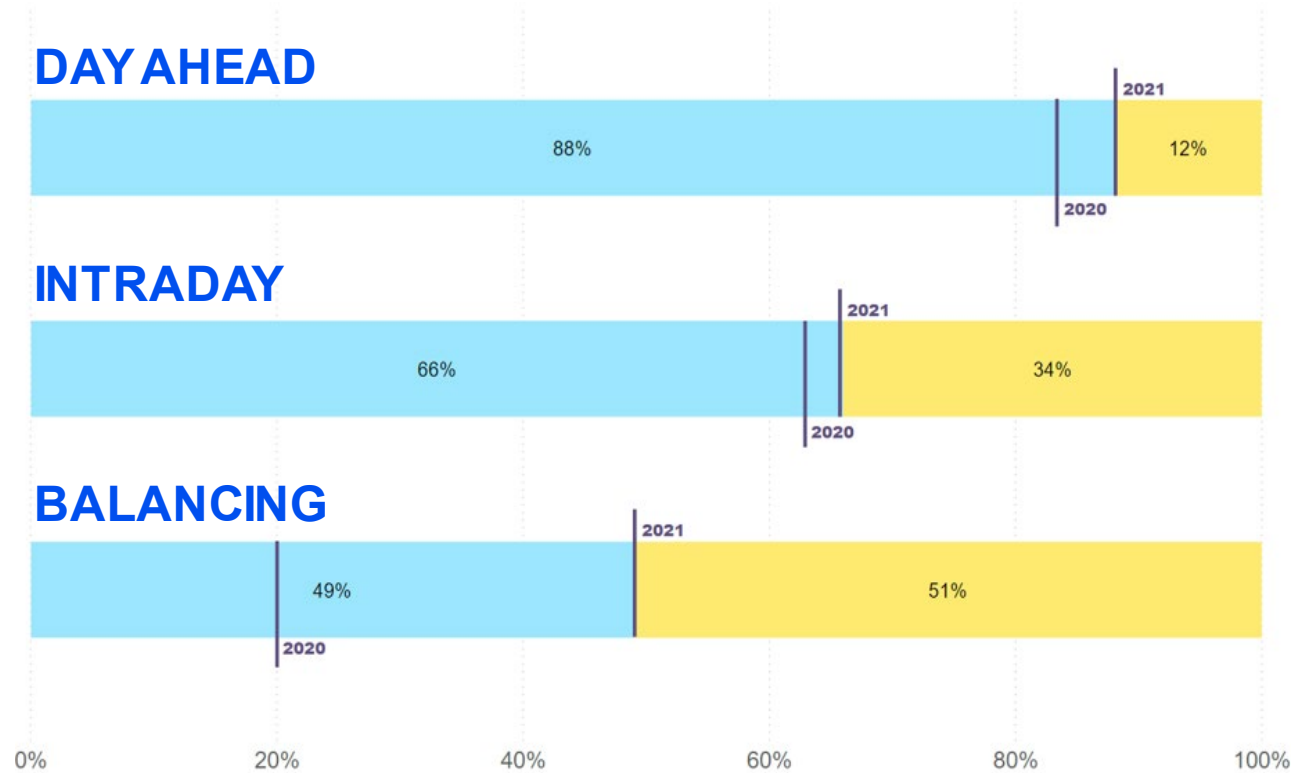


The figure indicates the number of hours with tight supply margins.

- TSOs assessed higher adequacy risk and overall lower margins compared to recent winter periods.
- TSOs can mitigate the identified risks by e.g. increasing cross border transmission capacity.
- Main risk factors:
 - Nordics: hydro levels & nuclear availability.
 - France: nuclear availability.
 - Ireland: availability of aging power plants.
 - Malta & Cyprus: isolated systems.

Whilst available cross-border capacity is used more *efficiently* than in the past ...

% of EFFICIENT USE OF INTERCONNECTORS IN 2021 ...



...% of REMAINING GAINS

€ 1 billion

from finalising the integration of short-term electricity markets.

€ 300 billion

from keeping market integration at pace, **including coordinated security of supply and increased cross-border capacity.**

... there is, however, **NO** clear trend suggesting a relevant overall *increase* in cross-border capacity being made available.

Whether to cap gas prices or not ...

How would the mechanism look like in practice (e.g. what is in scope)?

What about more exact implementation (e.g. TTF traded but delivery outside of EU)?

Could it invite gas suppliers not to supply to the EU? If so, are some more 'at risk' than others?

Could trade move to the Over-the-Counter (OTC) market?

Could a cap impact security of supply (e.g. by exacerbating scarcity)?

Might there be additional litigation risks for existing contracts (whether linked to TTF or not)?

Might a cap affect liquidity (e.g. day ahead trade moving to forward markets)?

Might this impact investments?

