



European Union Agency for the Cooperation  
of Energy Regulators

# Final Assessment of the EU Wholesale Electricity Market Design

01/06/2022

Rafael Muruais, ACER

- 1. ACER's Final Assessment: Context & approach taken**
- 2. ACER's Final Assessment: Main elements**
- 3. Conclusion: 13 measures for the consideration of policy makers**

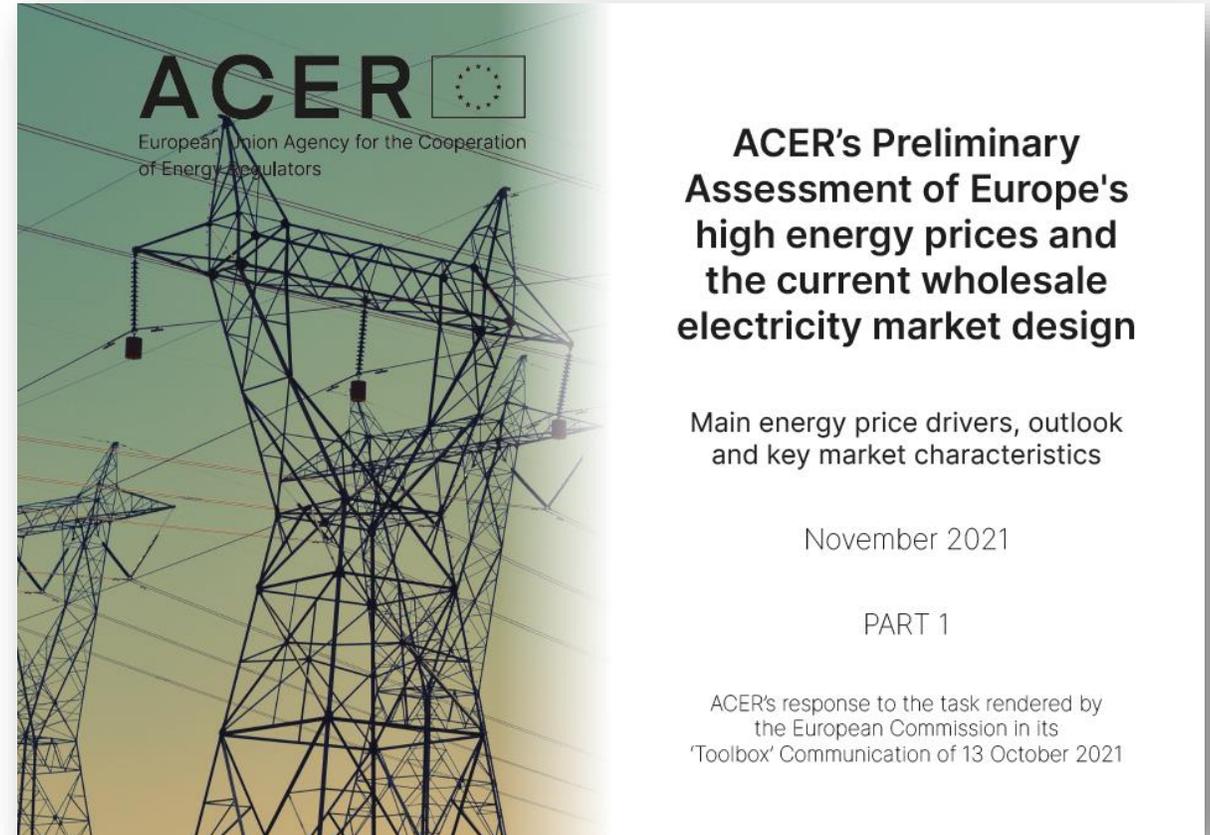
# 1. Context & approach taken

---

## European Commission's 'Toolbox' Communication of 13 October tasks

### ACER with:

- studying the benefits and drawbacks of the existing electricity market design & proposing recommendations for assessment by the European Commission **by April 2022**;
- undertaking a preliminary assessment of the situation in the electricity market & reporting by **mid-November**.



# 2.1 Main elements: Current market design

---

## Overview of events and market fundamentals driving EU gas prices, TTF month-ahead contract (EUR/MWh), (May 2021 - April 2022)



**The current price surge can be split into three distinct phases. In the latest phase, price developments seem less driven by physical shortages and more by the extreme near-term uncertainty.**

# Price volatility: A problem or a call to take action?

## Diverging views on how to tackle price volatility

‘Electricity markets do not work’

vs

‘Prices behave as expected given the current context’

‘Volatility needs to be avoided’ (new market design, new pricing rules)

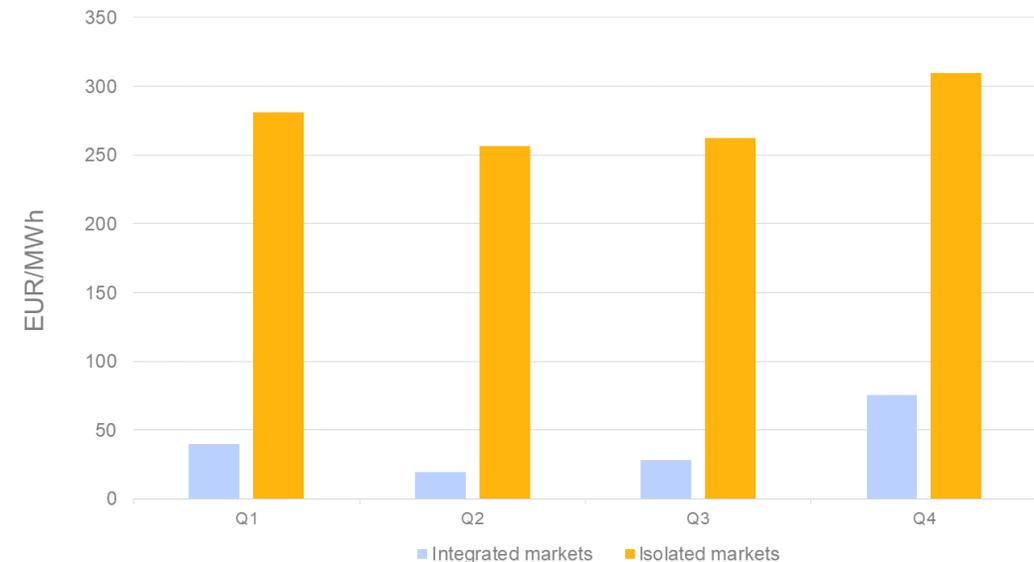
vs

‘Volatility needs to be managed’

## What are the **tools to tackle price volatility** in ACER’s view?

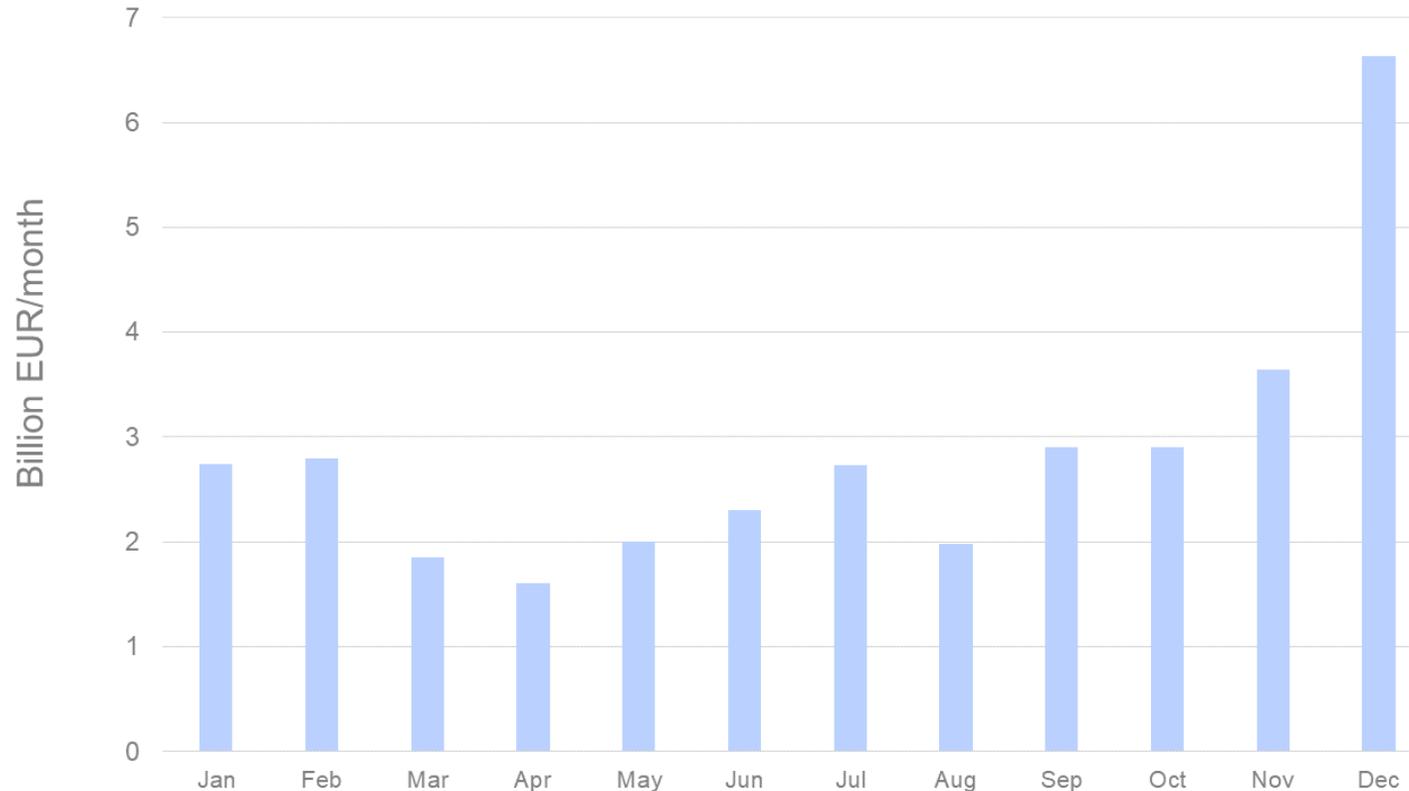
- Preserve price signals: today’s volatility triggers tomorrow’s flexibility (technologies)
- Strengthened market integration (see figure)
- Improved forward markets (see next slides)
- Consumer protection remains key (see session 2)

Price volatility (EUR/MWh) in integrated and isolated electricity markets in the EU in 2021



# Benefits of electricity market integration: 34 billion EUR in 2021

Estimated monthly welfare benefits (Billion EUR) from cross-border electricity trade in 2021



**In 2021, electricity cross-border trade delivered an estimated EUR 34 billion of benefits (source: NEMOs and TSOs).**

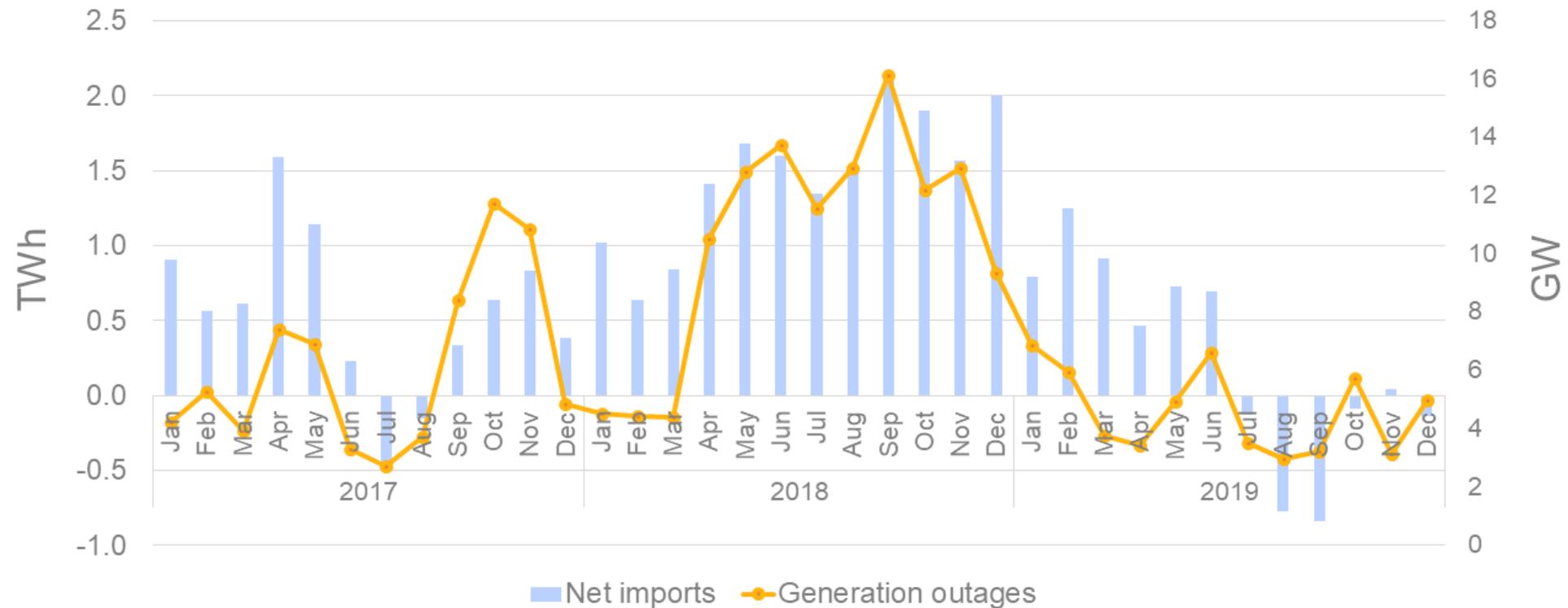
**ACER finds that the current electricity market design is not to blame for the current crisis.**

**On the contrary, the market rules in place have to some extent helped mitigate the current crisis.**

*Source: ACER based on NEMOs and TSOs simulations*

*Note: The benefits displayed represent the overall value of cross-border trade compared to isolated national markets, rather than the benefits from the implementation of market coupling. Market coupling enables the efficient use of interconnectors and renders more than one billion Euros of benefits per year.*

**Belgium imports electricity to meet the shortfall in own generation (2018-2019)**



**The EU electricity market design enhances security of supply and resilience to price shocks. For example, it enabled Belgium (and France) to mitigate widespread nuclear outages via increased electricity imports. This is ‘resource sharing’ via market integration.**

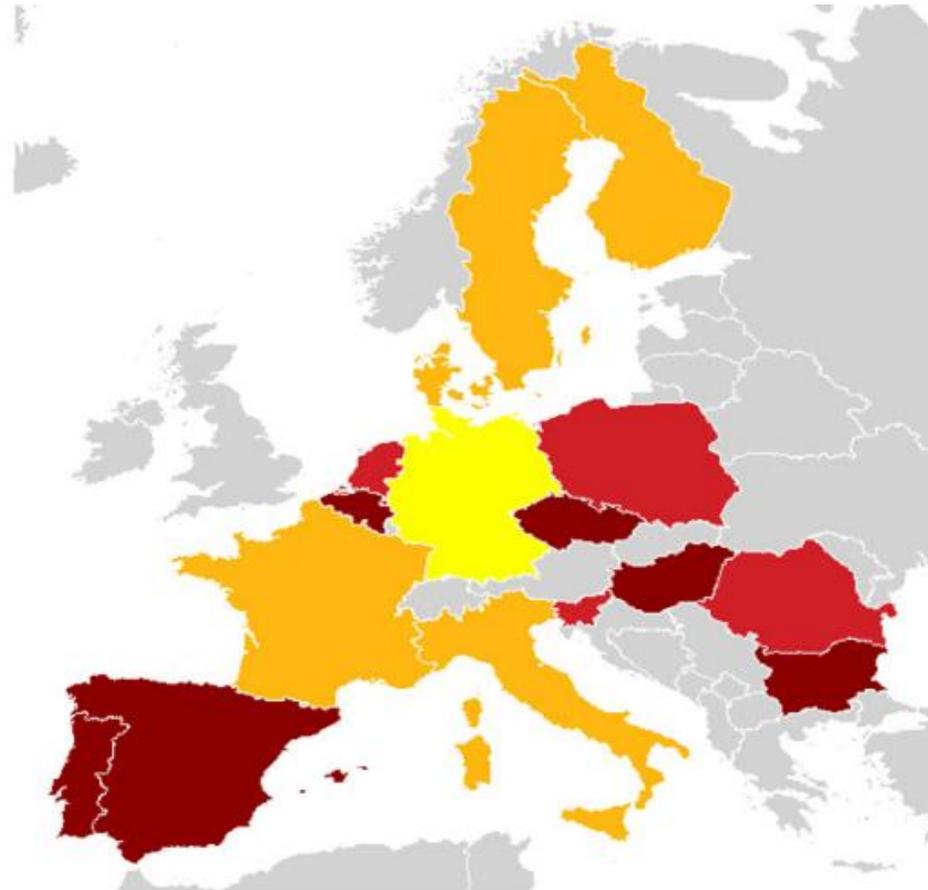
## 2.2 Main elements: future-proofing the market design

---

# 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.”*

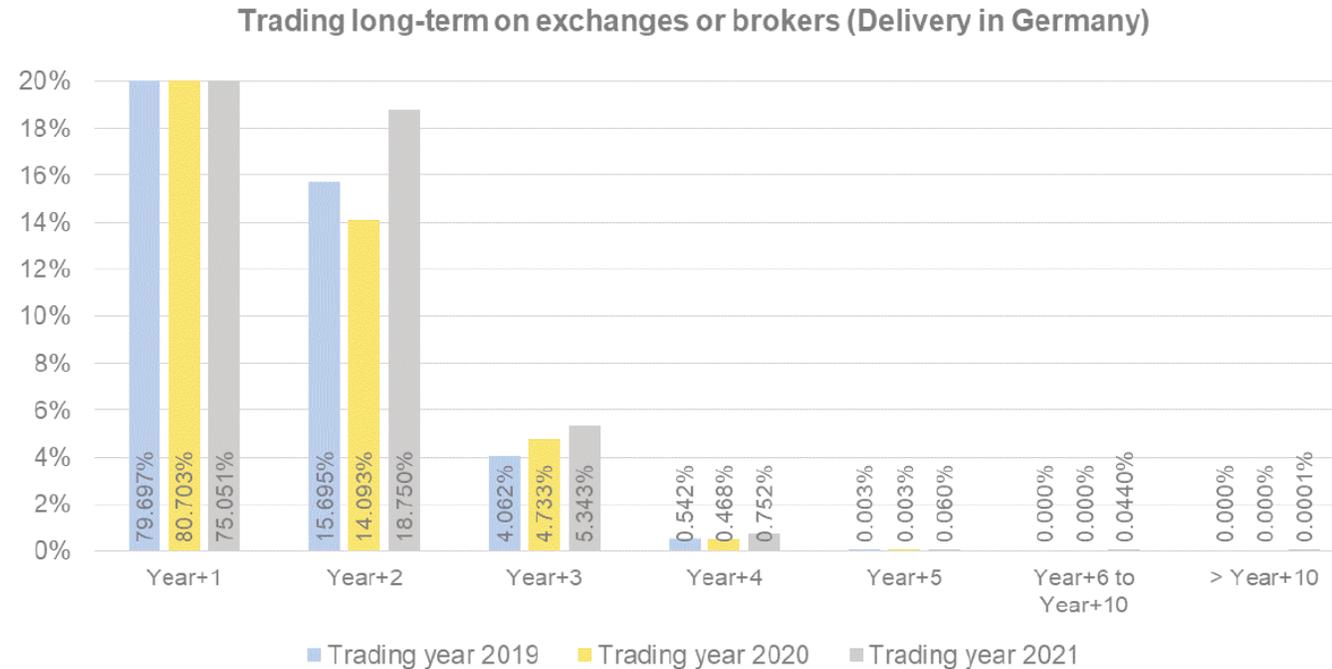


**Liquidity  
(churn factor)**



**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.**

**Figure 25: Relative shares of trading volume per year in the future in Germany (2019 - 2021)**



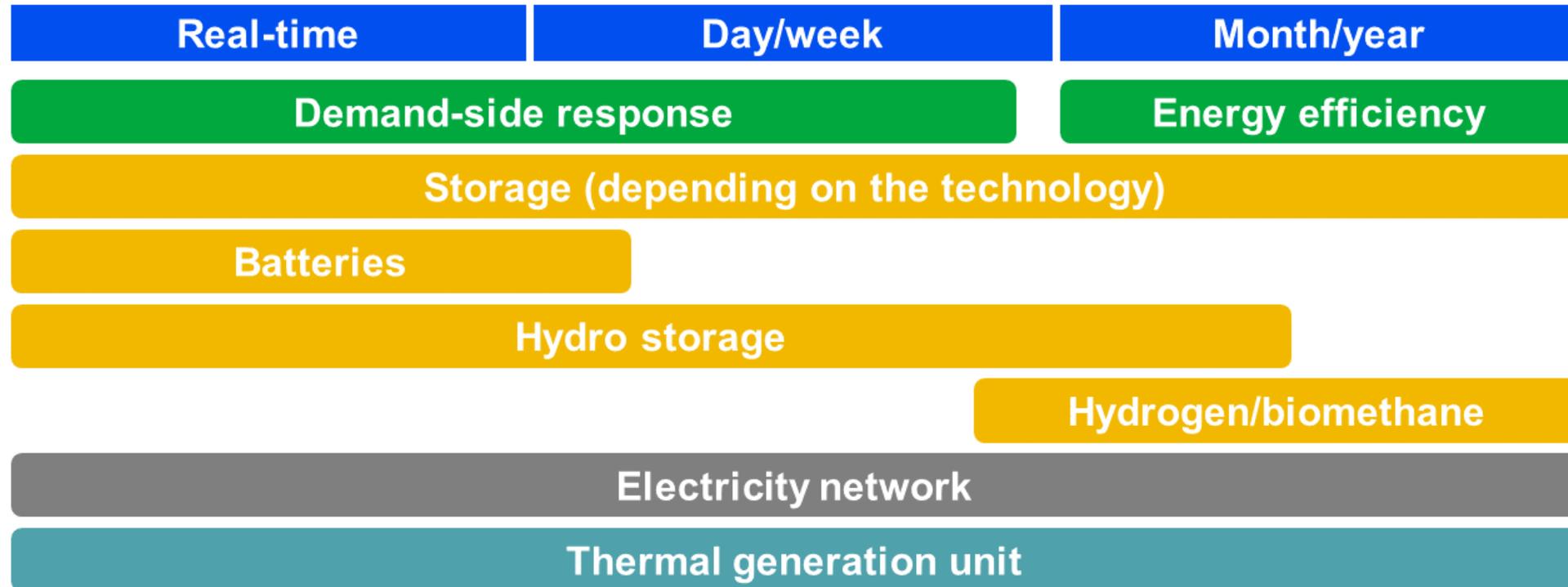
Source: ACER data.

Note: The blue, yellow and grey bars respectively sum up to 100% (over all timeframes). For 2020 (respectively 2021), Year +1 means products for delivery in 2021 (respectively 2022).

**There seems to be a mismatch between the increasing levels of price uncertainty and the investment needs on the one hand, and on the other hand, the liquidity observed in long-term horizons, particularly beyond 3 years ahead of delivery**

# Driving sufficient investment in flexibility & capacity

Flexibility services provided by various technologies

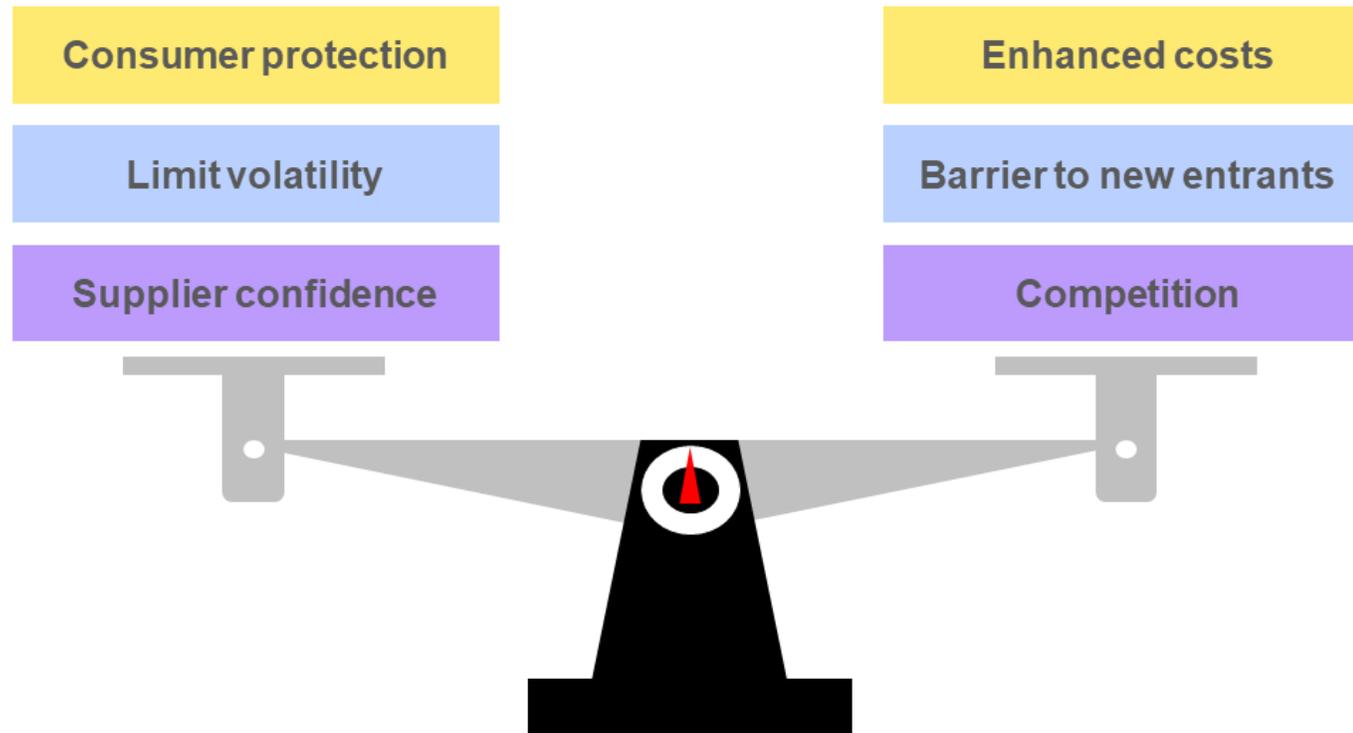


**The power system will need significant and diverse flexible resources across multiple time frames (with seasonal flexibility a key challenge). Price volatility sends a clear signal of the need for flexible resources. In the absence of such signals, innovation in new solutions will be hampered.**

*“... whilst increased energy independence vis-à-vis (particular) third-countries is a policy objective of growing importance, realising this may well depend on enhanced energy inter-dependence amongst EU Member States.”*



**Irrespective of the market design, tackling non-market barriers will be key, e.g. to reduce delays in infrastructure roll-out. Also, enhanced coordination between Member States can optimise investment decisions and remove hurdles, with the exploitation of vast offshore wind resources as one example.**

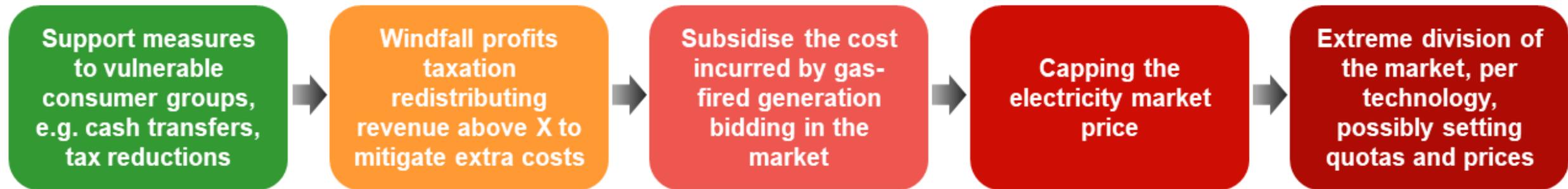


**Household energy prices have reached record levels.  
Member States have several measures available to protect consumers against supplier bankruptcies.  
However, they all involve trade-offs. One size is unlikely to fit all.**

## 2.3 Main elements: Potential extraordinary measures

---

Spectrum of possible structural-interventionist measures relevant for the EU electricity market



**As a rule of thumb, ACER considers that the more structural-interventionist a measure, the higher the potential to distort the market, especially in the medium to long-term.**

**The need for interventions in market functioning should be considered prudently and carefully and if pursued should seek to tackle ‘the root causes’ of the problem (gas prices).**

# 3. Conclusions: 13 measures for the consideration of policy makers

---

# 13 measures for the consideration of policymakers, future-proofing the EU wholesale electricity market design



**1.** Speed up electricity market integration, implementing what is already agreed



**2.** Improve access to renewable Power Purchase Agreements (PPAs)



**3.** Improve the efficiency of renewable investment support schemes



**4.** Stimulate 'market making' to increase liquidity in long-term markets



**5.** Better integrate forward markets



**6.** Review (and potentially reduce, if warranted) collateral requirements



**7.** Preserve the wholesale price signal and remove barriers to demand resources providing flexibility



**8.** Shield those consumers that need protection the most from price volatility



**9.** Tackle avoidable supplier bankruptcies, getting the balance right



**10.** Tackle non-market barriers, ensuring generation and infrastructure is built at pace



**11.** Consider prudently the need for market interventions in situations of extreme duress; if pursued, consider tackling 'the root causes'



**12.** Consider public intervention to establish hedging instruments against future price shocks



**13.** Consider a 'temporary relief valve' for the future when wholesale prices rise unusually rapidly to high levels



**Want to learn more?**

Check out the full report on ACER's Final Assessment of the EU Wholesale Electricity Market Design.



# Thank you for your attention.



European Union Agency for the Cooperation  
of Energy Regulators

✉ [info@acer.europa.eu](mailto:info@acer.europa.eu)  
🖱 [acer.europa.eu](http://acer.europa.eu)

🐦 [@eu\\_acer](https://twitter.com/eu_acer)  
🌐 [linkedin.com/company/EU-ACER/](https://www.linkedin.com/company/EU-ACER/)