

ACER-CEER's 2020 Market Monitoring Report
Presentation – 28 October 2020

Welcome and opening remarks

Christian Zinglensen, ACER Director

Timing	Topic	Speaker
10.30-10.35	Introductory remarks	Christian Zinglensen, ACER Director
10.35-11.05	Key findings of the Market Monitoring Report: <ul style="list-style-type: none"> Gas wholesale volume Electricity wholesale volume Retail markets and Consumer Protection volume 	<ul style="list-style-type: none"> Bart Vereecke, Team Leader Gas Market Monitoring Rafael Muruais Garcia, Team Leader Electricity Market Monitoring Anne Vadasz Nillson, CEER Chair Customers and Retail Markets Working Group
11.05-11.15	What is your view on how these findings relate to future EU policy challenges and priorities	<ul style="list-style-type: none"> Florian Ermacora, Head of Unit Electricity and Gas Wholesale Markets, European Commission Jan Panek, Head of Unit Consumer Policy, European Commission
11.15-11.35	Q&A on the MMR volumes	Audience
11.35-11.45	Conclusions	Annegret Groebel, CEER President

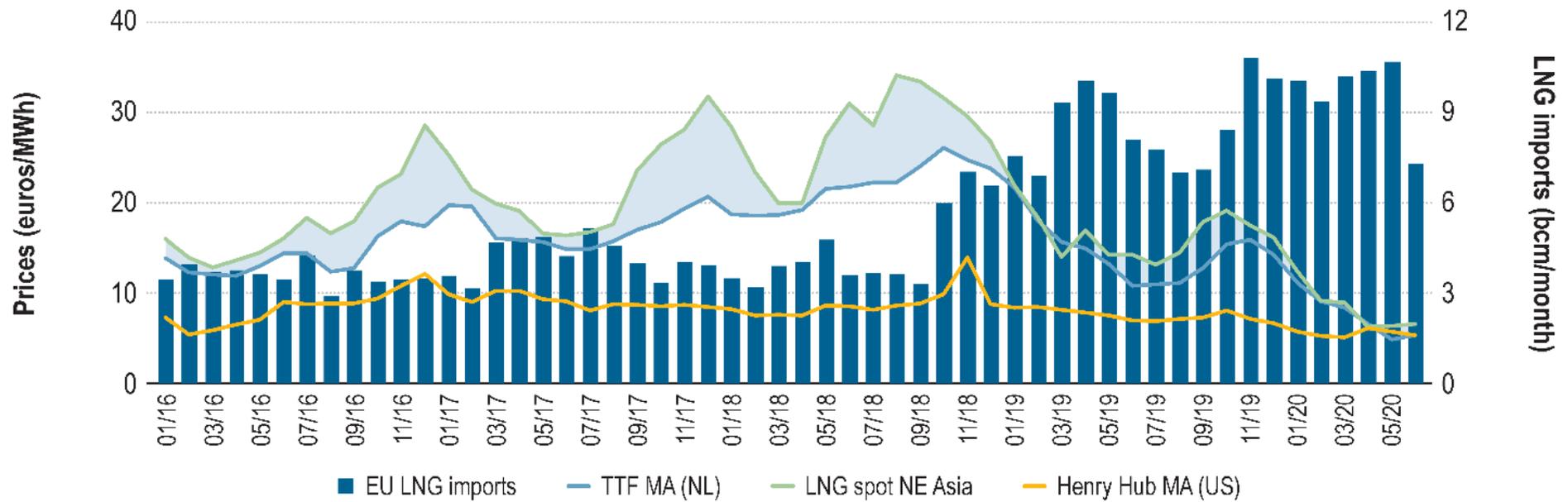
Gas wholesale volume

Bart Vereecke
Team Leader Strategy & Communication and Gas
Market Monitoring, ACER

- **EU gas demand** dropped -7.5% YoY until June (at the peak of the pandemic demand decreases of 20% were registered in some weeks). Demand started to recover in the end of the summer to pre-covid 19 levels (excludes current 2nd wave).
- **EU Prices plummeted** up to July (i.e. 4 euros/MWh at TTF hub) but have since recovered to ~ 12 euros/MWh. If demand is maintained this winter, gas prices expected to stabilise as forward prices point in that direction (also less volatility).
- **Price convergence levels across the EU do not seem to be impacted negatively**, in some markets sees further improvement actually (based on preliminary analysis of 1st six months). This might be linked to already over-supplied markets in 2019.
- **Hub trading** impacted upwards (e.g. more hedging of positions needed)

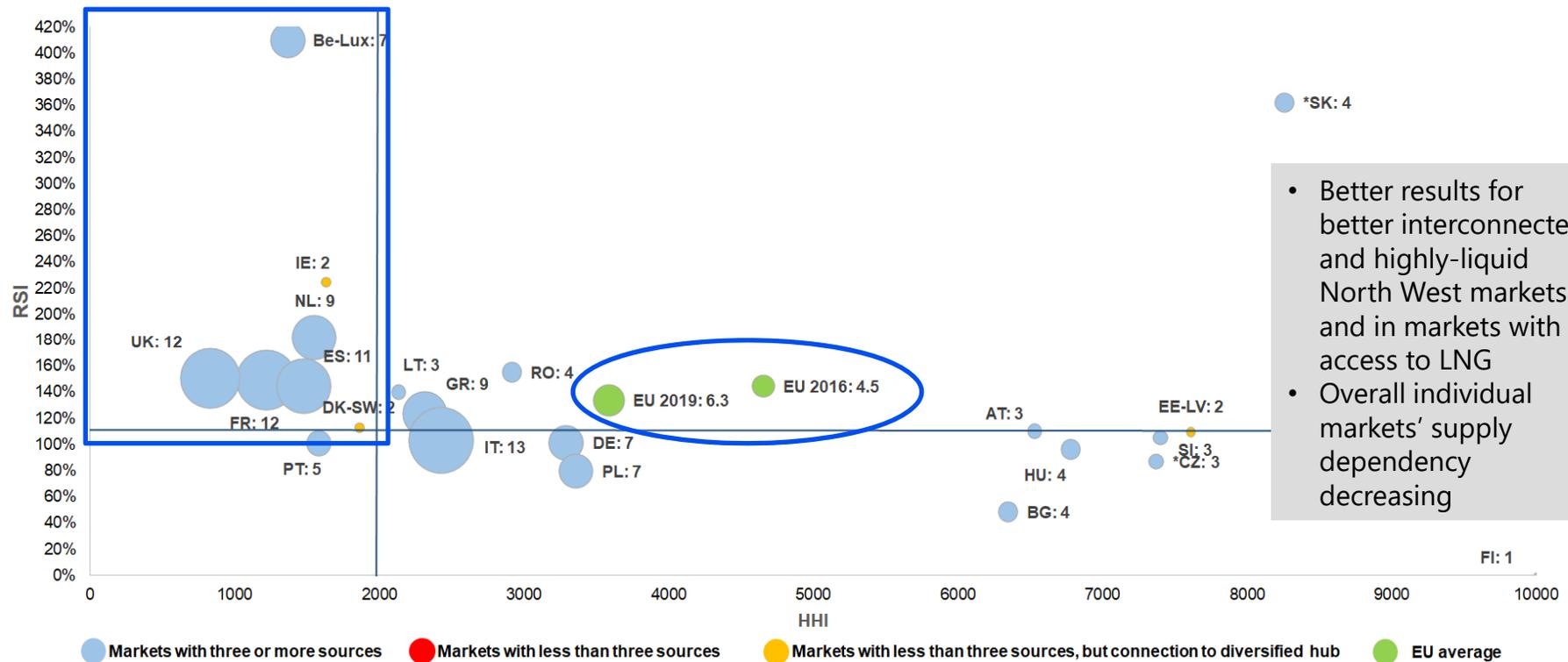
2019 (and 1H2020) saw record LNG imports

Evolution of selected (hub) prices vs LNG imports - 2016 – July 2020 - euros/MWh



- Hub prices dropped to ten year lows
- Record volumes were injected in underground gas storages while Winter/Summer spreads rose to a 5 year high

Conditions for upstream supply competition keep improving

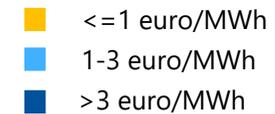


- Better results for better interconnected and highly-liquid North West markets and in markets with access to LNG
- Overall individual markets' supply dependency decreasing

Note: Market health metrics assessment

Gas supply sourcing costs have converged to a significant extent

Calculated gas supply sourcing cost* compared to TTF - estimates



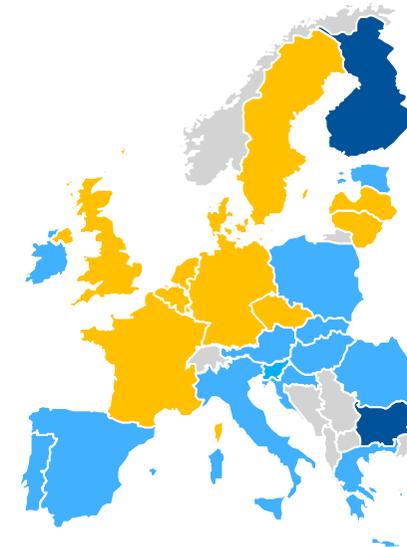
2013: TTF = 27.2 € /MWh



2018: TTF = 20.8 € /MWh



2019: TTF = 17.5 € /MWh



- What matters more is competition, less proximity to gas sources.
- The sharp price falls observed in 2019 in the liquid EU hubs were not followed as quickly by less liquid hubs

* Note: Suppliers' sourcing cost assessment based on a weighted basket of border import and hub product prices.

Key observations

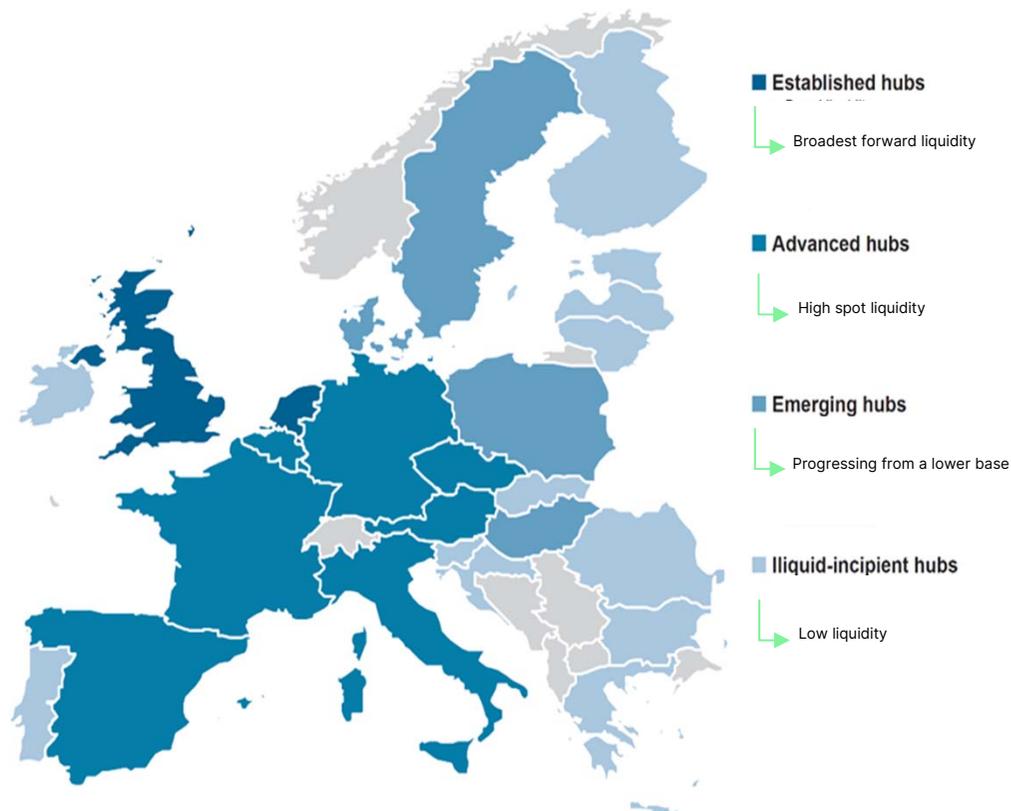
- NWE hubs show the highest levels of price convergence
- CEE hubs continued to incrementally converge
- Mediterranean hubs show lower convergence due to for example tariff-distance aspects
- SSE and Baltics hub still more decoupled often due to lack of physical links

Key observations

- Similar market fundamentals
- Network codes facilitating cross border trade
- Sufficient cross border capacity between markets*
- Surpluses of long-term capacity and commodity assets. Distance can influence hub price differences via among others pancaking of tariffs

* Note: No new market interest in incremental capacity expansion (see recent ACER PCI report). And, not all gas infra is highly utilised.

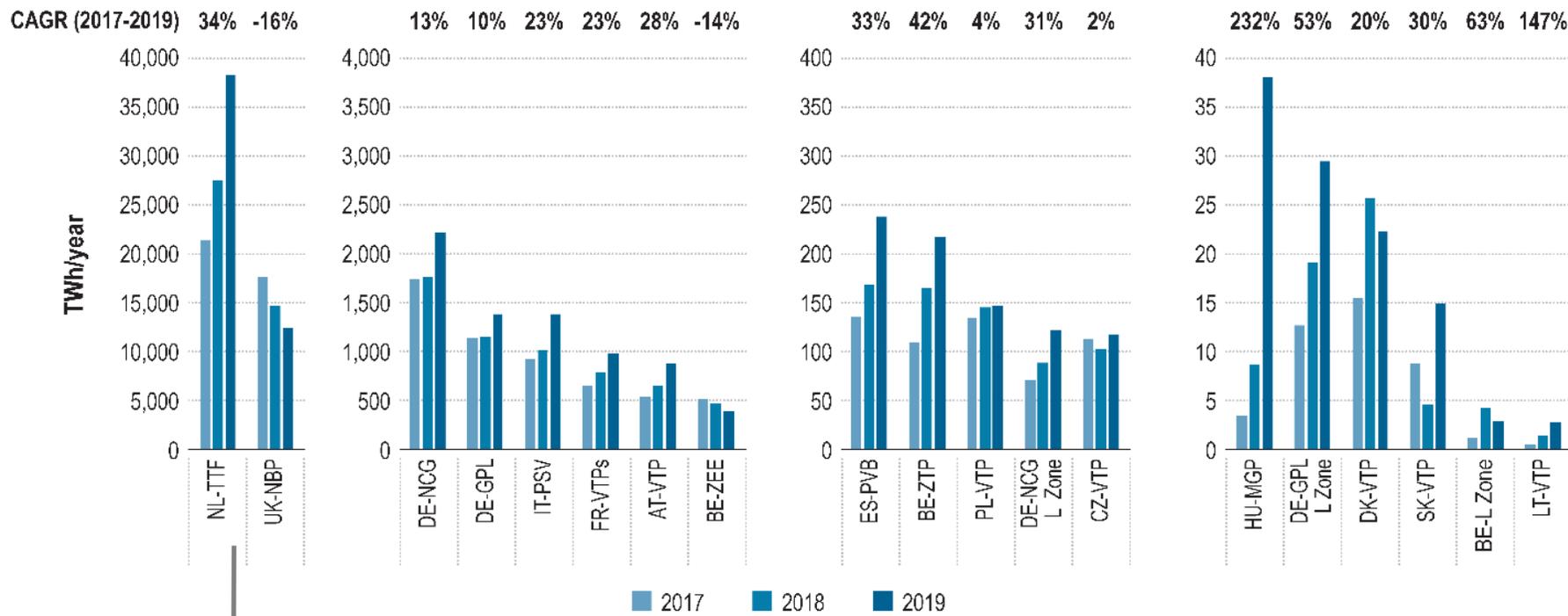
Ranking of EU gas hubs – 2019



- Market integration is effective in areas covering three-quarters of EU gas consumption and advancing in the others.
- A more complete realisation of the Internal Gas Market can still bring tangible benefits in the order of 3 billion euro just looking at price differences in those MSs where the hub model is functioning less well
- Targeted regulation could help the more illiquid hubs

TTF, Europe's leading hub accounts for ¾ of total EU hub trading

Traded volumes at EU hubs (TWh/year) – 2017–2019 (four scales)



- TTF has also become the global reference hub for hedging worldwide LNG supply
- At EU level, attracting more and more forward liquidity, also from other EU hubs

Observed benefits

Capacity

- Gas entry/exit systems & standardised allocation procedures has attracted new market entrants
- Variety of products has allowed users to respond to new market developments and to tailor their portfolios (see next exhibit)

Balancing

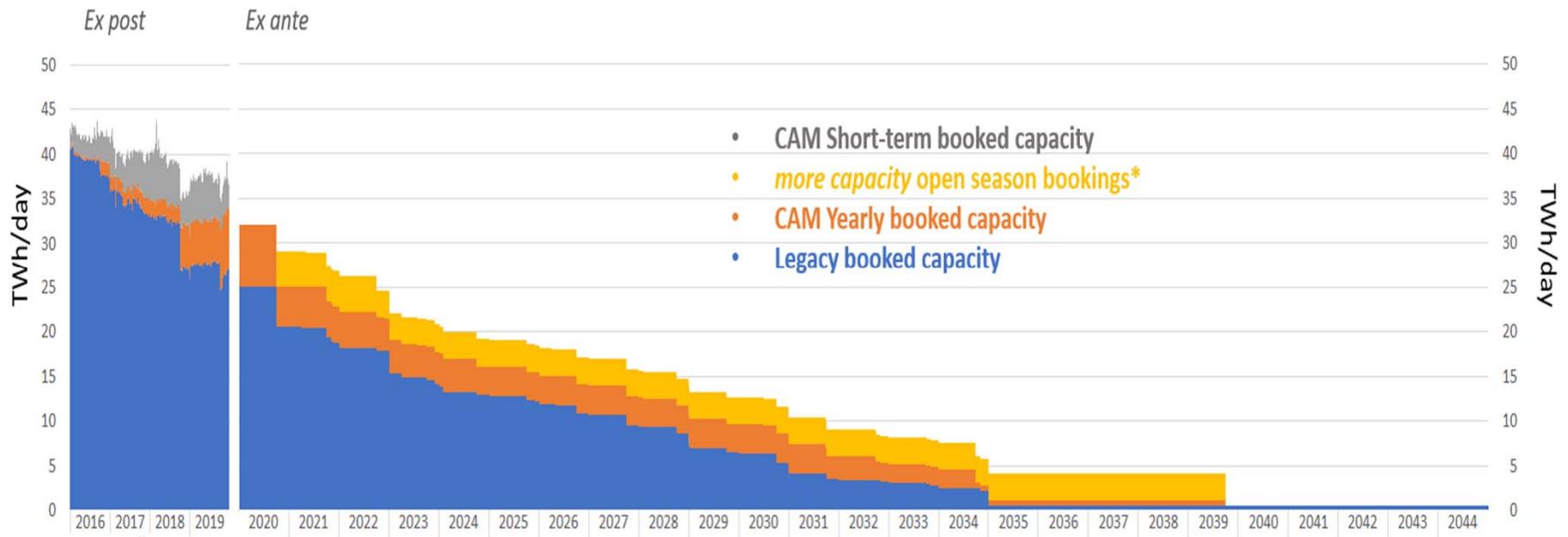
- Market based balancing systems have increased liquidity over the entire curve as it allows to adjust positions close to real-time and it gives certainty on balancing regimes and system's information
- By now TSO role in advanced markets is marginal, practice also more and more rolled-out in other markets

Tarification

- Transparency requirements on cross-border tariffs formation is increasing market participants' confidence to enter and operate in the market
- Increased harmonisation in EU tariffs methodologies

- Continue to implement codes where needed with a regional focus
- Be vigilant in identifying need for possible tweaks to codes

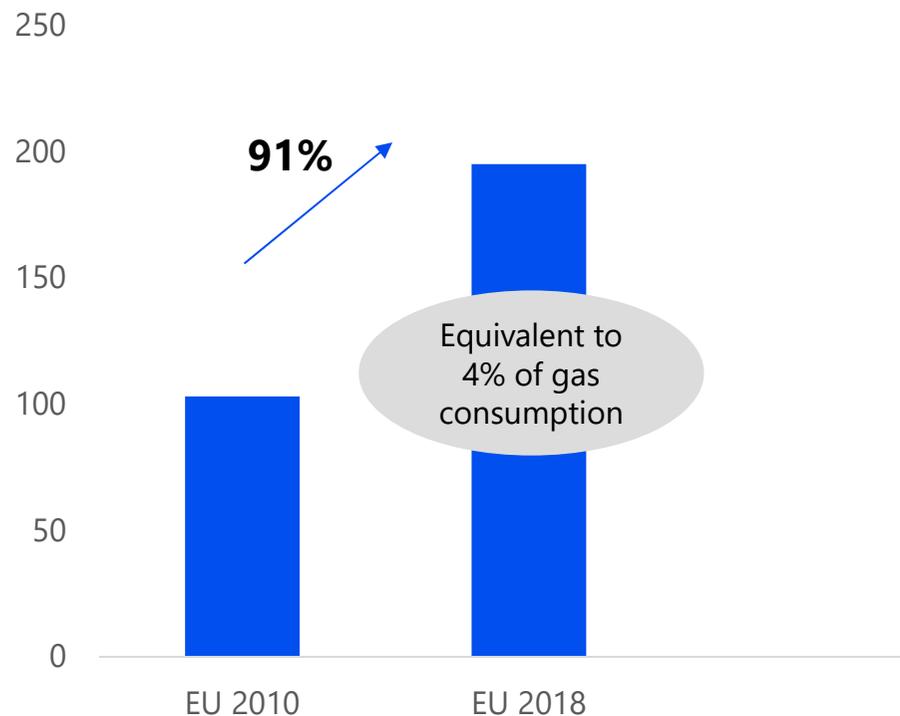
Evolution of capacity booked by capacity type - 2016–2045 – TWh/day



- 60% of 2019' long-term contracts won't be in place in 2028
- EU shippers' preference for shorter-term capacity products
- Rising role of upstream producers in longer-term bookings

To become a carbon-neutral economy by 2050, the use of low-carbon gas needs to increase drastically

EU green gas* production, TWh



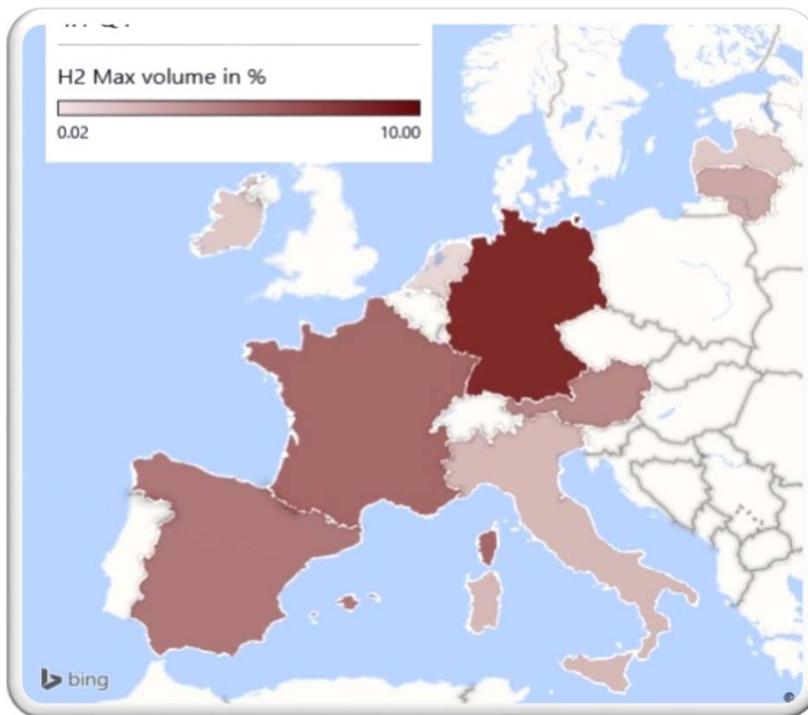
- Role for **hydrogen**
- **Low carbon gas not competitive** yet compared to natural gas
- **Rules aimed at decarbonising the gas sector to be built on the current successful market design (cf. Bridge beyond 2025 paper**):**
 - Be technology-neutral to ensure a level playing field,
 - Use market mechanisms to incorporate new technologies/developments to protect consumers from excessive cost burden
 - Carefully assess financial support (e.g. R&D, sandboxes) with any trade-off with competition
 - Monitor and address any market fragmentations

*Biogas and bio-methane

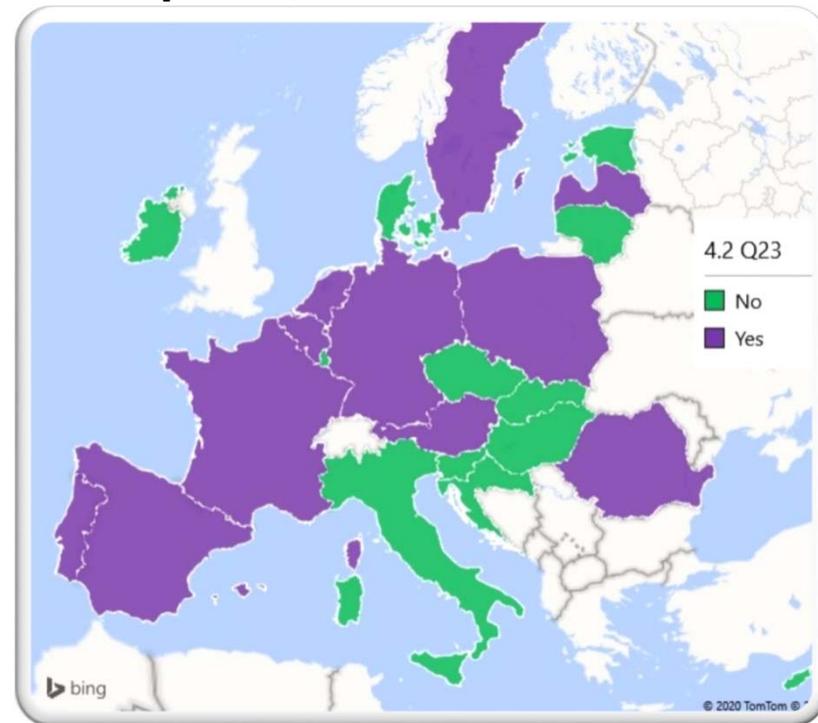
**https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/SD_The%20Bridge%20beyond%202025/The%20Bridge%20Beyond%202025_Conclusion%20Paper.pdf

Still a lot of work to be done to make EU gas grid hydrogen ready

35% of MSs allow/accept H2 blending



H2 strategies (published or under development)



ACER study:

https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Report%20on%20NRAs%20Survey.%20Hydrogen,%20Biomethane,%20and%20Related%20Network%20Adaptations.docx.pdf

Electricity wholesale volume

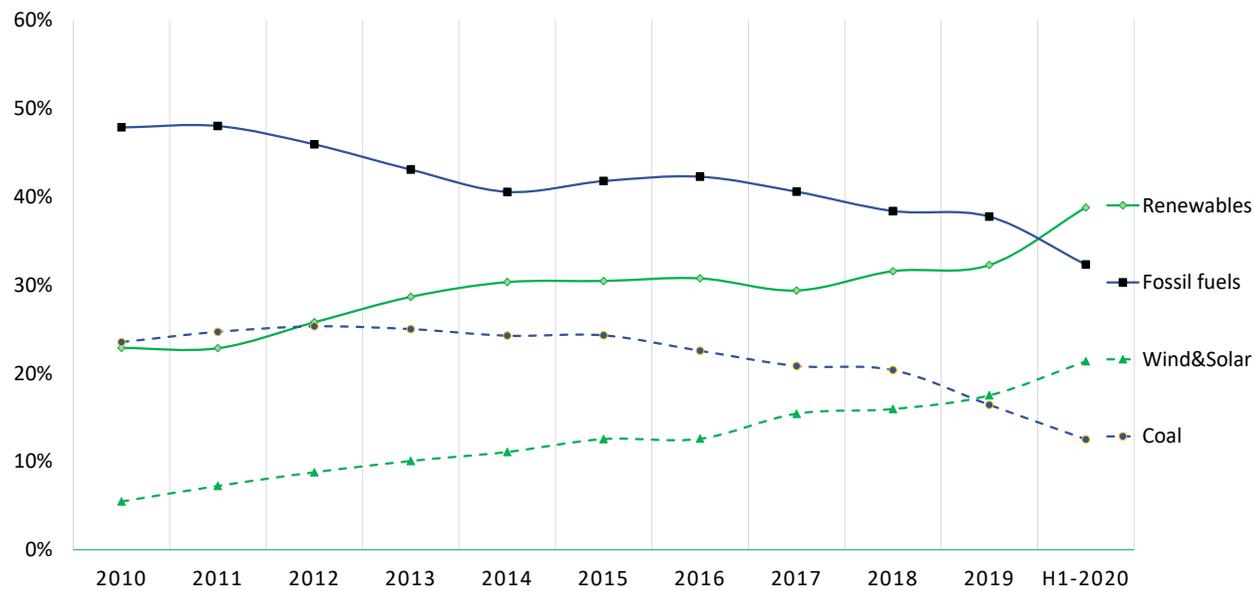
Rafael Muruais Garcia
Team Leader Electricity Market Monitoring, ACER

- **EU electricity demand** dropped by 7% YoY until June 2020. The drop was considerably more pronounced in the second quarter (-11%) and exacerbated during the weeks with more severe lockdown measures.
- **EU generation mix changed remarkably** (e.g. the highest share of renewable generation ever, around 40% until June).
- **EU electricity prices** plunged, by more than 30% YoY, across the EU, until June. The decline was extreme in some regions (-80% in some bidding zones of the Nordic region)
- The occurrence of **negative prices in the EU**, doubled until June.
- **EU system operators successfully coped with the challenging situation**, in particular at times of high intermittent renewable energy, coupled with low demand and few thermal generation units online.

The COVID-19 pandemic may well accelerate the decarbonisation process

- 2019: Overall “switch” in the power mix, coal-to-gas and coal-to-wind/solar
- 2020 first semester: First ever fossil fuels to renewables “switch”

Evolution of generation mix in the EU (% share of generation)

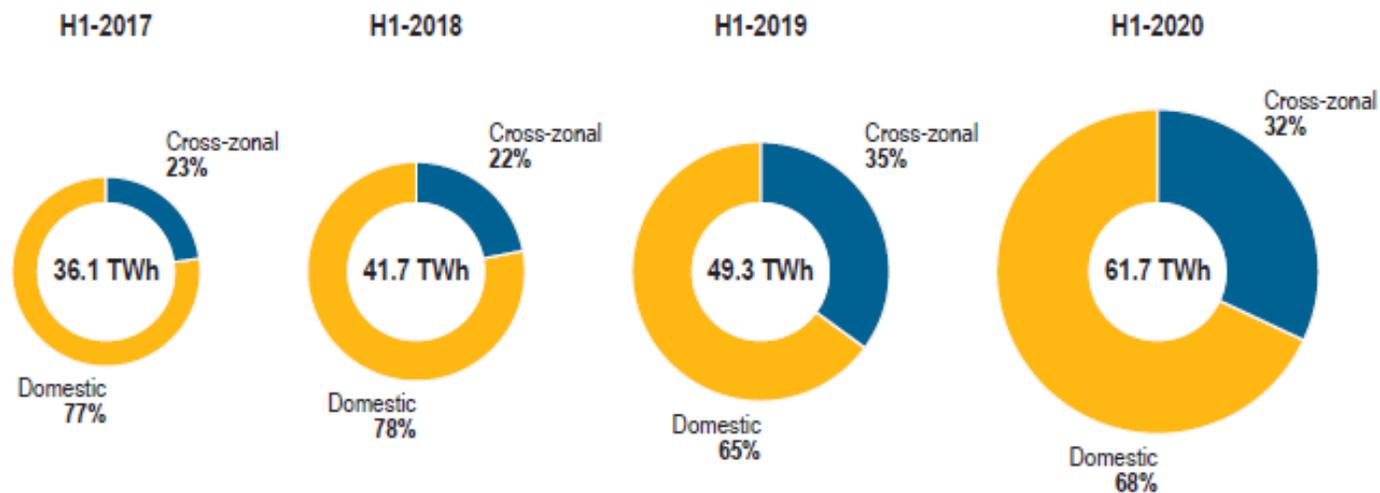


Source: Eurostat and ENTSO-E Transparency Platform

Despite the pandemic, the power market integration continued at pace

- For example, thanks to EU markets integration, the amount of energy exchanged across borders in intraday markets remained at higher levels than pre-COVID
- The integration of EU intraday markets is key to facilitate the integration of renewables

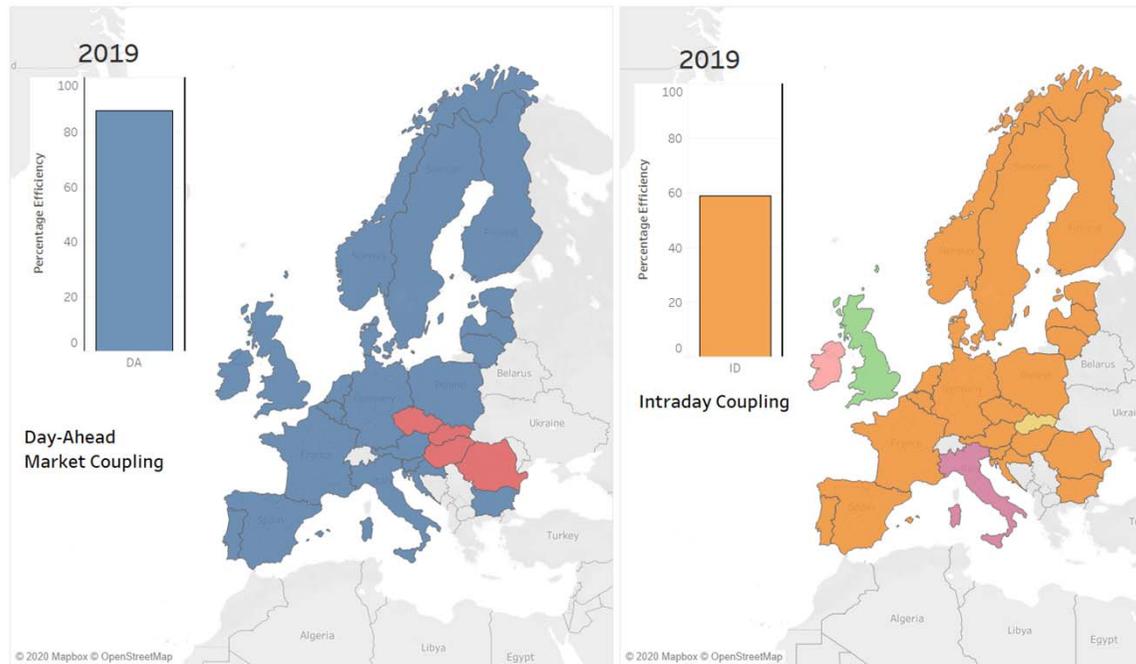
ID-traded volumes through single intraday coupling H1 2017-H1 2020



Source: NEMOs and ACER calculations

Market coupling has been a successful story in Europe until now ...

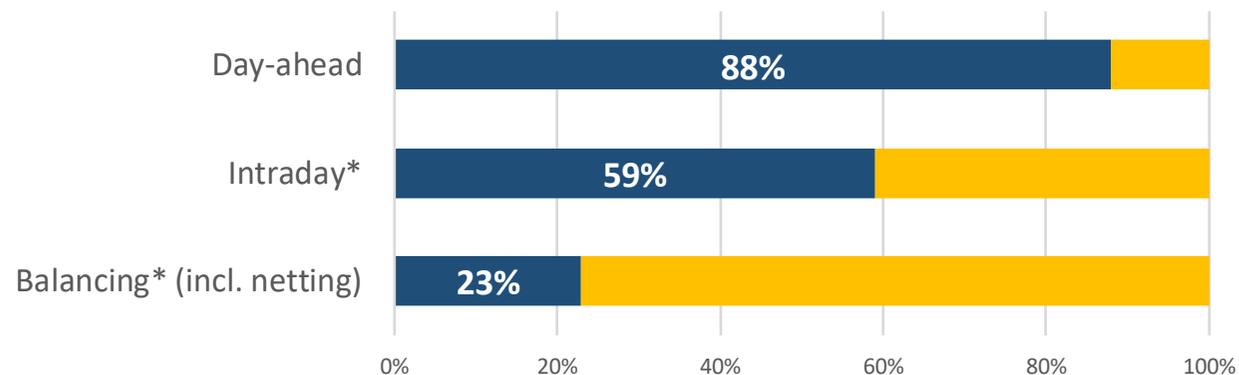
Implementation of day-ahead and intraday market coupling 2019 and the level of efficient use of capacity over time



... however some key projects to complete market coupling are facing considerable delays (e.g. flow-based market coupling in Central Europe or the integration of the various market coupling projects into a single EU one).

... as a result, the (limited) cross-border capacity made available to the market is used very efficiently in the day-ahead market segment. In the intraday and balancing markets there is significant room for improvement.

Efficient use of interconnectors in the different timeframes in 2019 (%)



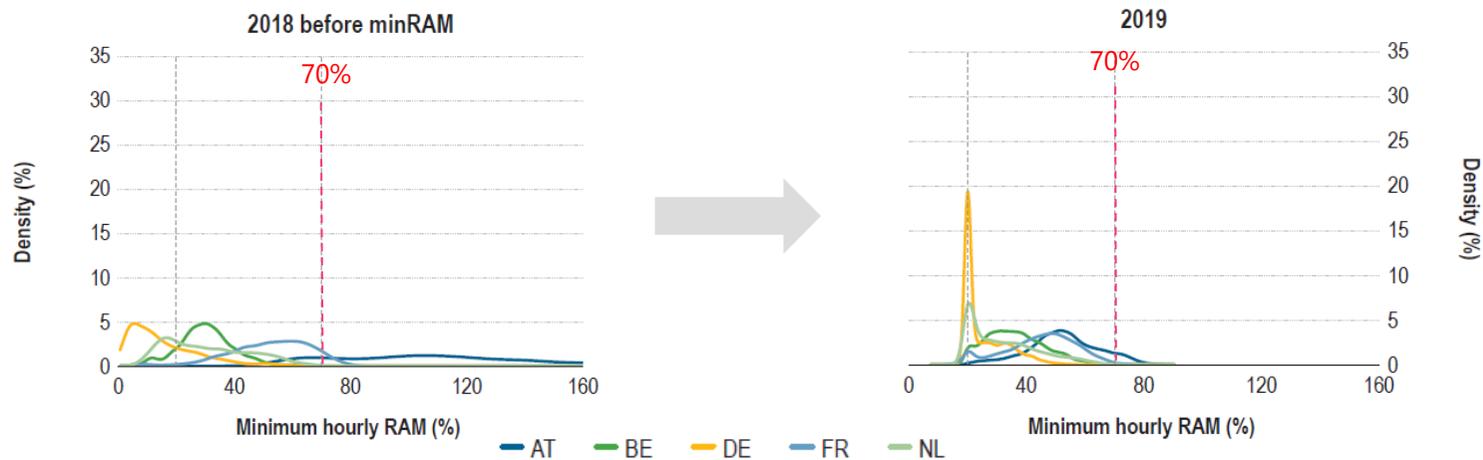
Note: * ID and balancing values are based on a selection of EU borders.

Source: ENTSO-E transparency platform and ACER calculations

Low cross-zonal capacity for trade was identified as one barrier to the IEM, which led to setting a minimum of 70% of the cross-border capacity available for trade, in the Clean Energy Package.

Despite few steps towards increasing capacity, significant room for improvement remains.

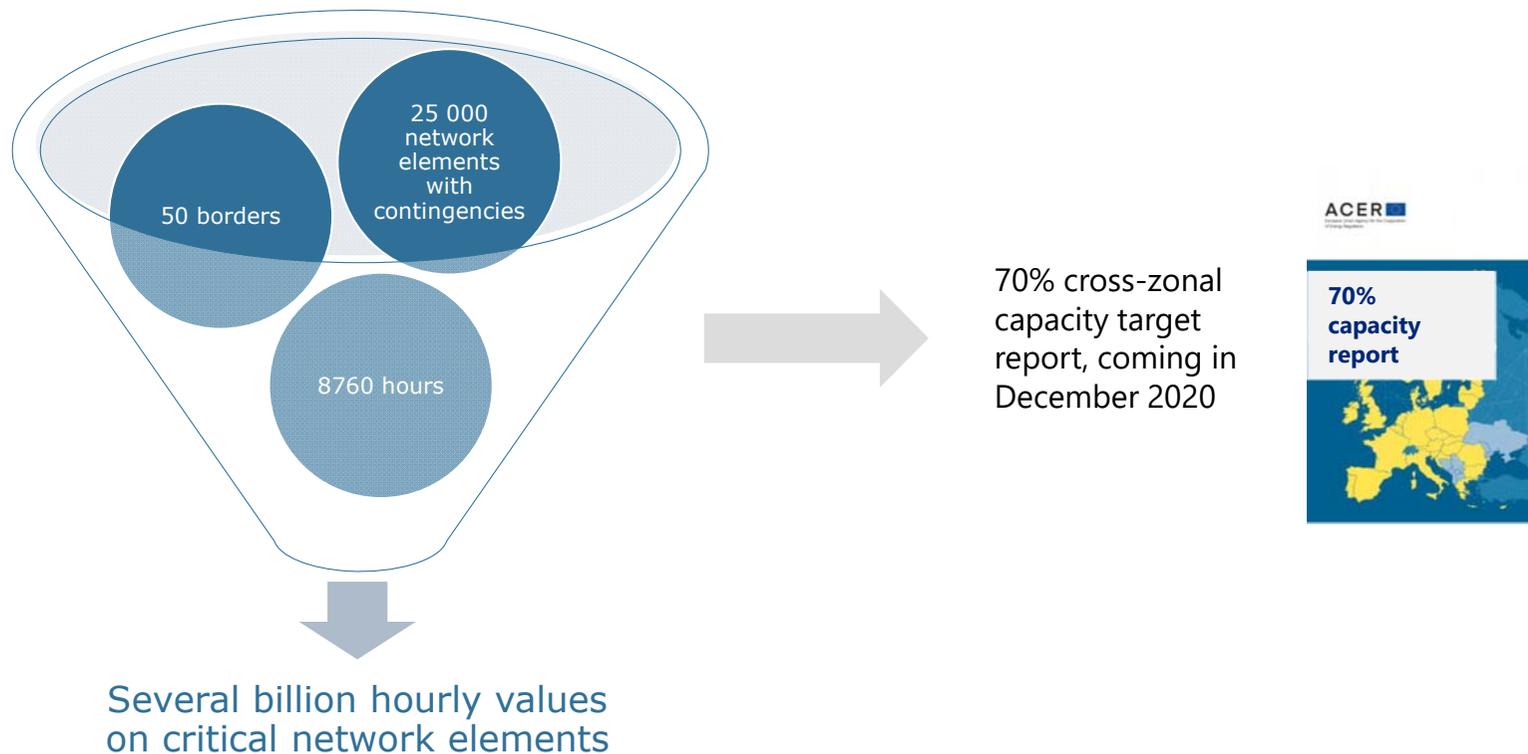
Example: Indicative evolution of the share of capacity available for trade (RAM*) within the Central West Europe Region 2018-2019 (%)



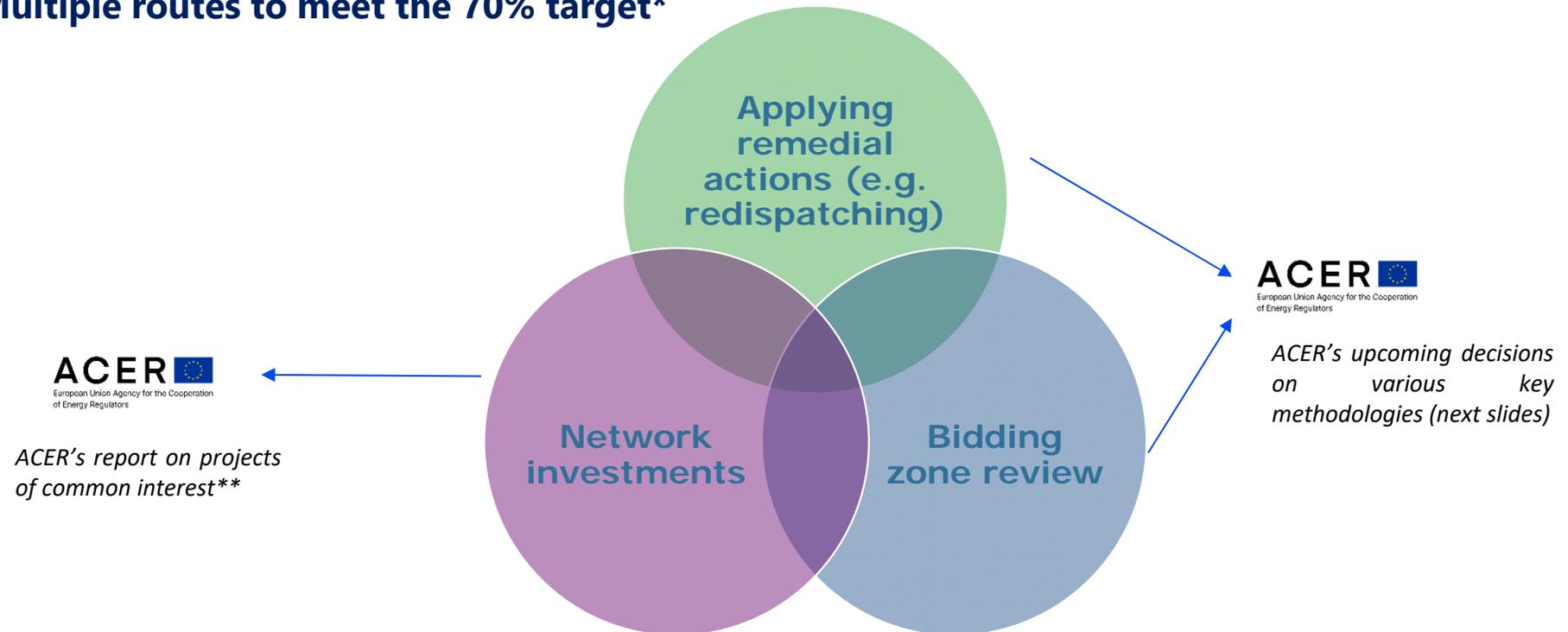
Source: TSOs and ACER calculations

*RAM refers exclusively to the capacity made available for trade within the CWE region. Exchanges beyond the CWE Region need to be added. A more complete analysis will be part of the dedicated 70% report to be published soon

ACER is working intensively to publish a dedicated report on the 70% target covering the first semester of 2020, by the end of this year



Multiple routes to meet the 70% target*



**In the short-medium term, MSs may also apply transitory measures (derogations or action plans)*

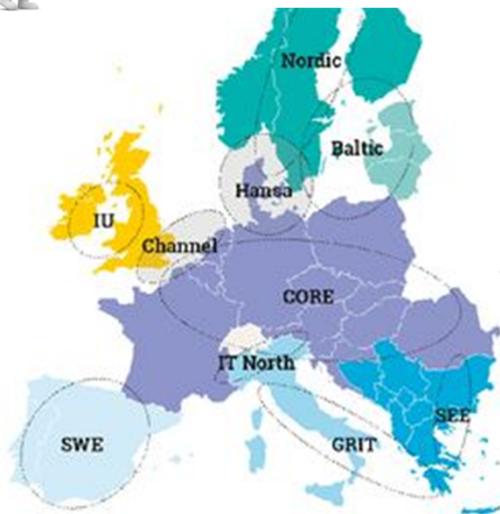
*** latest report available at*

[https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Consolidated%20Report%20on%20the%20progress%20of%20electricity%20and%20gas%20Projects%20of%20Common%20Interest%20\(2020\).pdf](https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Consolidated%20Report%20on%20the%20progress%20of%20electricity%20and%20gas%20Projects%20of%20Common%20Interest%20(2020).pdf)

Effective implementation of sound, coordinated redispatching is key to meet the 70% target



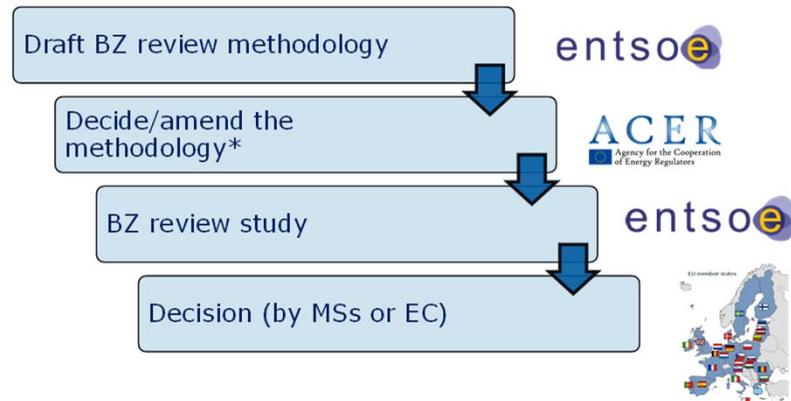
*How to solve congestions
and who bears the costs?*



**70% capacity
target at risk !**



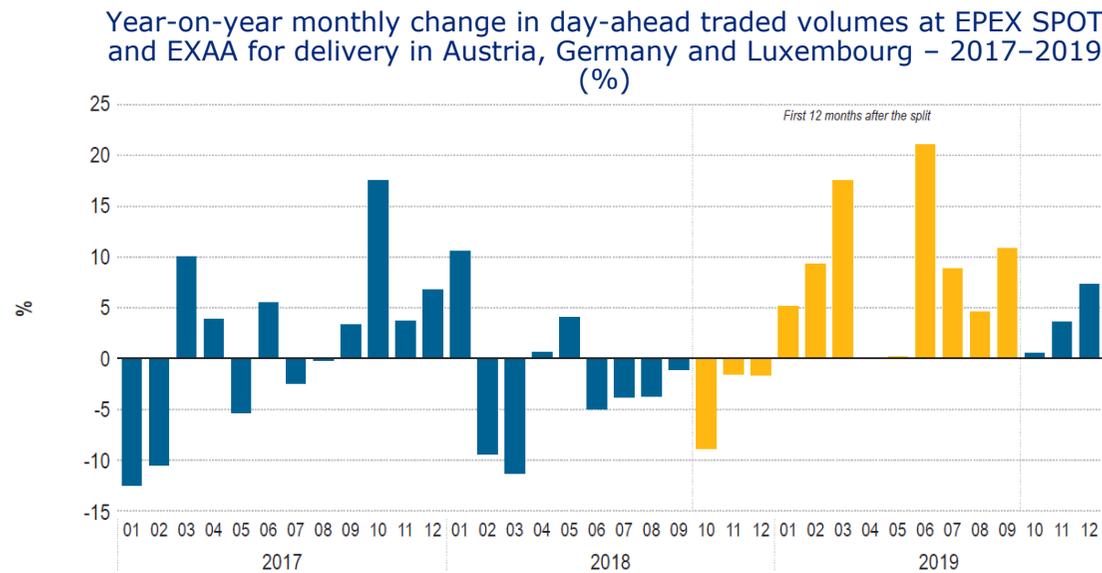
The bidding zone review process



Some effects of the split of the German (and Lux.) /Austrian bidding zone (1)

Some positive effects:

- Increased capacity on some Austrian borders following a decrease in uncertainty in capacity calculation and lower amounts of loop flows.
- Overall day-ahead markets liquidity in DE/LU + AT increased by more than 5%* following the split.

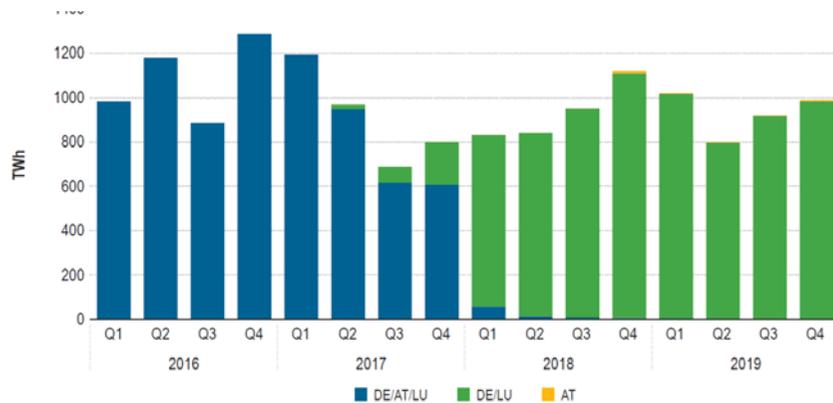


Some effects of the split of the German (and Lux.) /Austrian bidding zone (2)

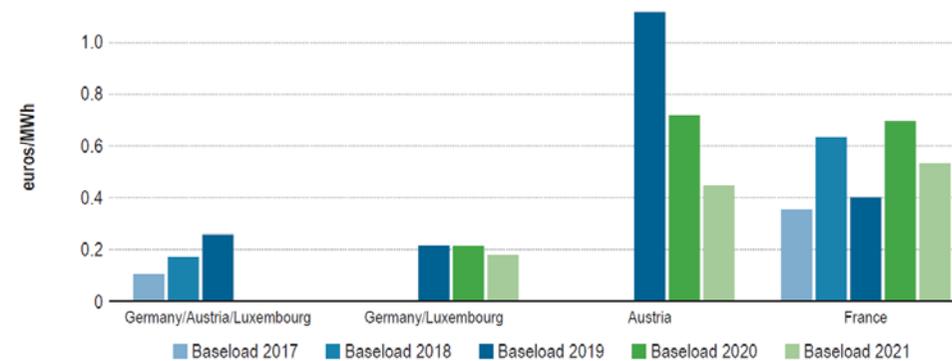
Effects on forward markets liquidity seem twofold:

- The German forward markets liquidity inherited the high liquidity of the former DE/AT/LU bidding zone. .
- The liquidity of the new Austrian market is significantly lower although signs of improvement have been observed.

Quarterly forward traded volumes in Germany/Luxembourg and Austria per bidding zone – 2016–2019 (TWh)



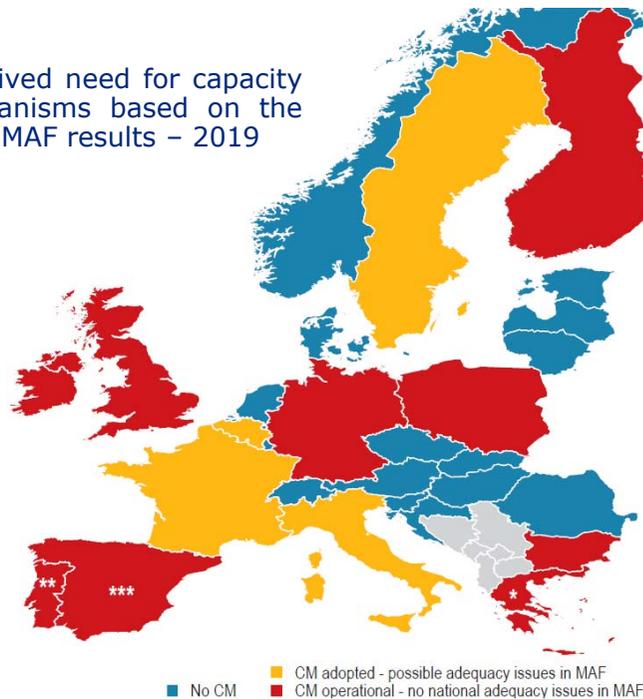
Average bid-ask spreads for yearly forward products traded in EEX with delivery in Germany, Austria, Luxembourg and France 2017-2020 (euros/MWh)



Source: ACER calculations based on ICIS

A more coordinated approach to security of supply should contribute to prevent inconsistencies between EU and national adequacy assessments and to inform the need for capacity mechanisms

Perceived need for capacity mechanisms based on the 2019 MAF results – 2019



Source: ACER based on NRAs and ENTSO-E data

EU objectives in the area of security of supply:

- **Understand the elements** which strongly affect security of supply
- Increase security of supply and/or reduce costs, by **mutualising risks and capacity resources**
- While acknowledging **Member State interests and roles** in safeguarding security of supply
- Expected EU benefits: $\approx 3\text{bn}\text{€}/\text{yr}^*$

* Source:

https://ec.europa.eu/energy/sites/ener/files/documents/20130902_energy_integrating_benefits.pdf p.89, where the benefits are estimated in the range of 1.5 to 3 billion euros in 2015, and of 3 to 7.5 billion euros by 2030.

- **Integrated electricity markets are key for a number of political objectives**, including the internal energy market and decarbonisation at lower cost.
- Significant progress has been made BUT we are **still far from a truly integrated electricity market**.
- To enable cost-efficient decarbonisation, **keep the focus on Network Codes & Clean Energy Package implementation**.
- In particular, there is an **urgent need to finalise the flow-based market coupling project** in the Core region (involving thirteen Central European Member States) and the pending integration of the various market coupling projects that still coexist.
- In the area of security of supply, **perform robust adequacy assessments** and strive to improve market functioning to **ensure improved price signals** before resorting to capacity markets.

December 2020

Stand-alone **report on the share of cross zonal capacity (70% target)**, covering the first semester of 2020

Regular monitoring envisaged



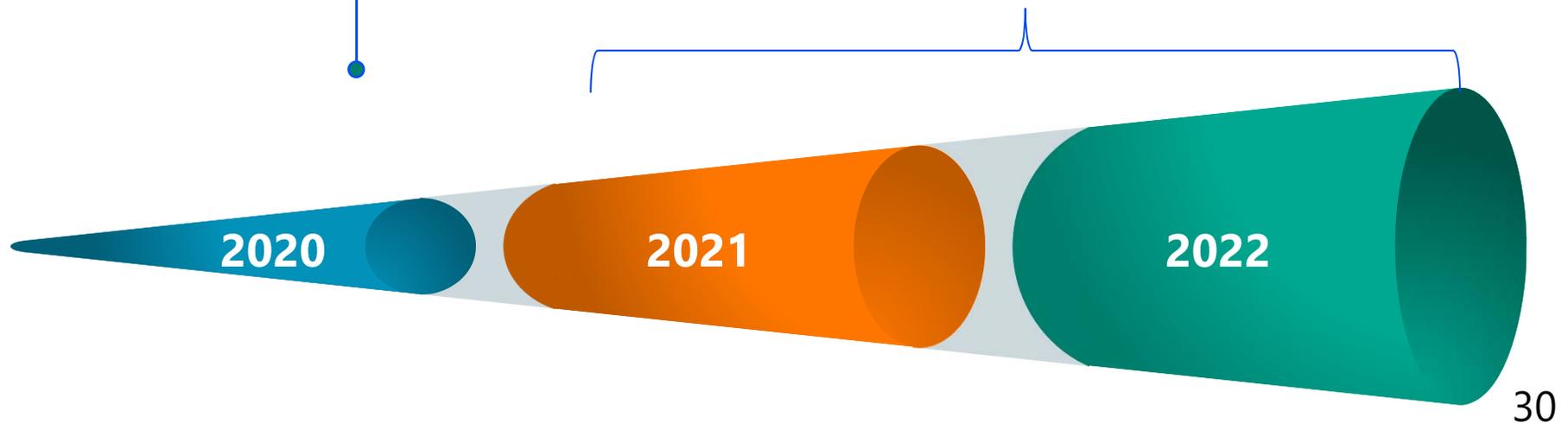
MMR 2020-2022

Progressively widening the scope of the MMR:

- ✓ Barriers to efficient price formation
- ✓ Barriers to market entry enabling market innovation
- ✓ Wider analysis of security of supply issues

Looking into options of joint electricity-gas analysis to track EU energy sector integration ambitions

Enhance retail markets monitoring and expand monitoring of active consumer related metrics



Retail and Consumer Protection Volume

Anne Vadasz Nilsson
**Chair of the Customers and Retail Markets Working
Group, CEER**

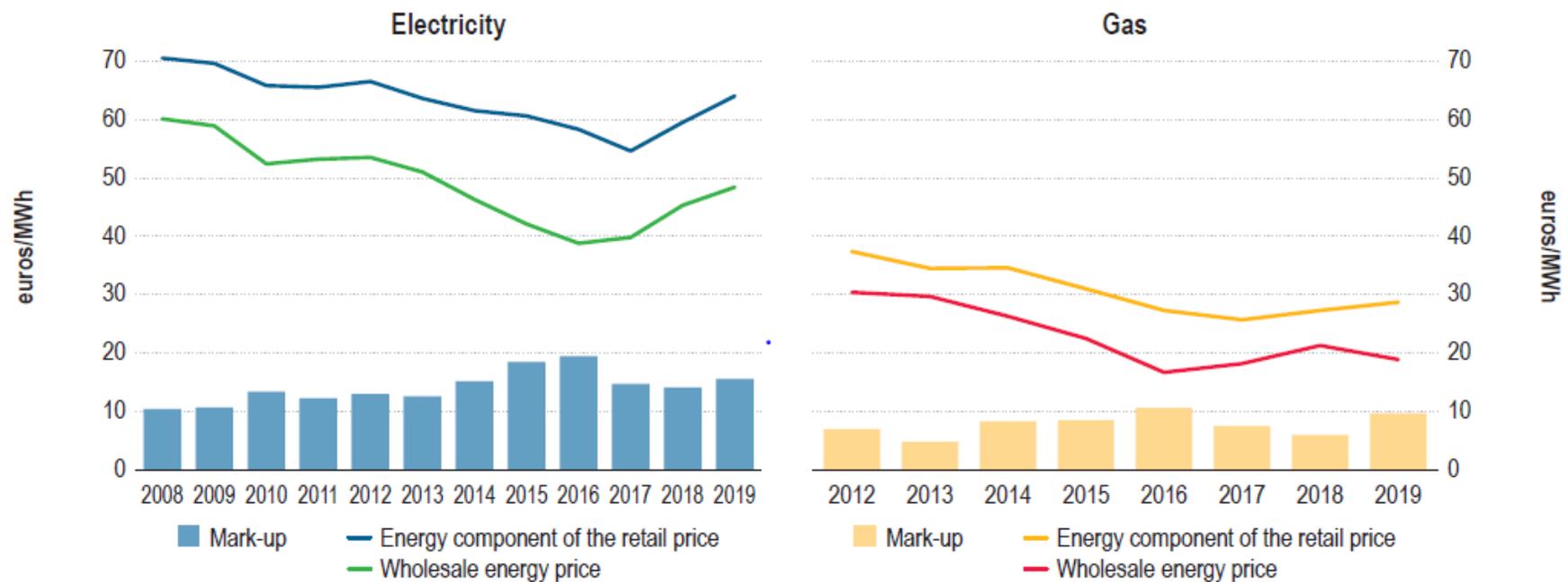
NRAs imposed a range of responsive measures to protect energy consumers and suppliers from the impacts of the sanitary crisis

- **Consumers:** NRAs mainly focused on ensuring the continuation of energy supply to consumers and implement measures to assist those experiencing financial hardship
- **Suppliers:** NRAs tended to address any mitigation of short-term cash flow challenges. However, while most Member States introduced measures to protect consumers, support for suppliers was less generalised.

- Large variations in the electricity price paid by retail consumers are observed across the European Union in 2019
- German household electricity consumers **paid the highest price in the EU** at 29.8 euro cents/kWh. This is more than three times the price paid by Bulgarian household consumers (9.8 euro cents/kWh)
- **Greater variations were recorded in the industrial market**, with industrial electricity consumers in Denmark paying 22.2 euro cents/kWh in 2019 (the highest in the EU), more than four times higher than the electricity price paid by industrial consumers in Luxembourg in 2019 (the cheapest at a price of 4.9 euro cents/kWh)
- The average electricity price for household consumers in the EnC CPs excluding Ukraine was 7.66 euro cents/kWh in 2019. **This is 2.8 times less than the average EU electricity price for households in 2019.** Household electricity prices were the highest in Montenegro at 10.32 euro cents/kWh (more than twice the price paid by household electricity consumers in Ukraine). Household consumers in Ukraine paid on average paid 1.7 times less than household consumers in the other EnC CPs, only 4.4 euro cents/kWh in 2019.

- Gas prices **increased** in 2019 for household consumers but **decreased** for industrial consumers.
- As with the electricity market, there were **variations in the gas markets across the EU in 2019**. Household gas consumers in Sweden paid 11.8 euro cents/kWh in 2019, which was almost three times the price paid by household gas consumers in Romania in 2019 (3.4 euro cents/kWh). In the industrial market, gas consumers in Denmark paid almost three times (6.0 euro cents/kWh) the price paid by gas consumers in France (2.1 euro cents/kWh).
- Household gas consumers in the Energy Community Contracting Partners paid on average 2.15 euro cents/kWh in 2019 while industrial gas consumers paid on average 3.08 euro cents/kWh.

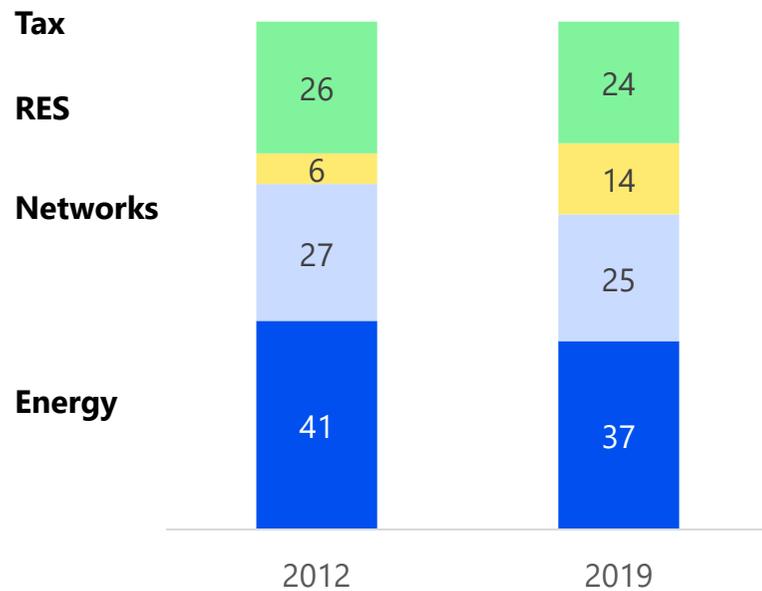
Responsiveness of the energy component of the retail prices to changes in wholesale prices in the household markets (euros/MWh)



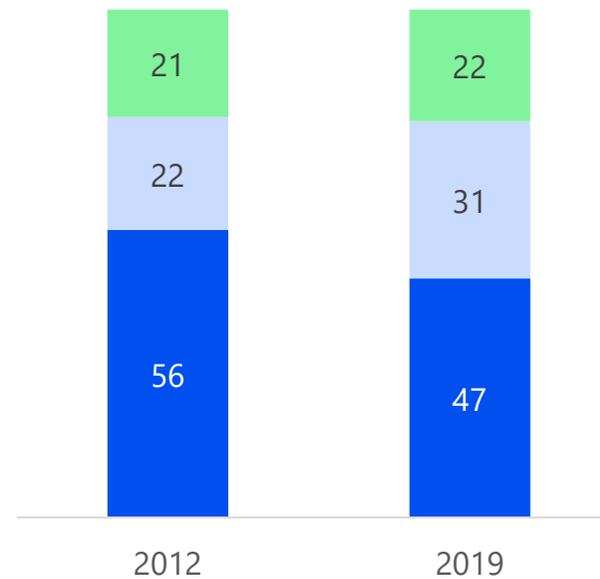
- The difference between wholesale energy prices and retail energy prices (mark-up) widened in 2019.
- Strong correlation between retail and wholesale energy prices is observed when wholesale energy prices increase.
 - Weaker link with regard to the rate of reduction of retail prices following a fall in wholesale energy prices.

Price dynamics for households – EU view, 2019

Electricity price breakdown, %



Gas price breakdown, %

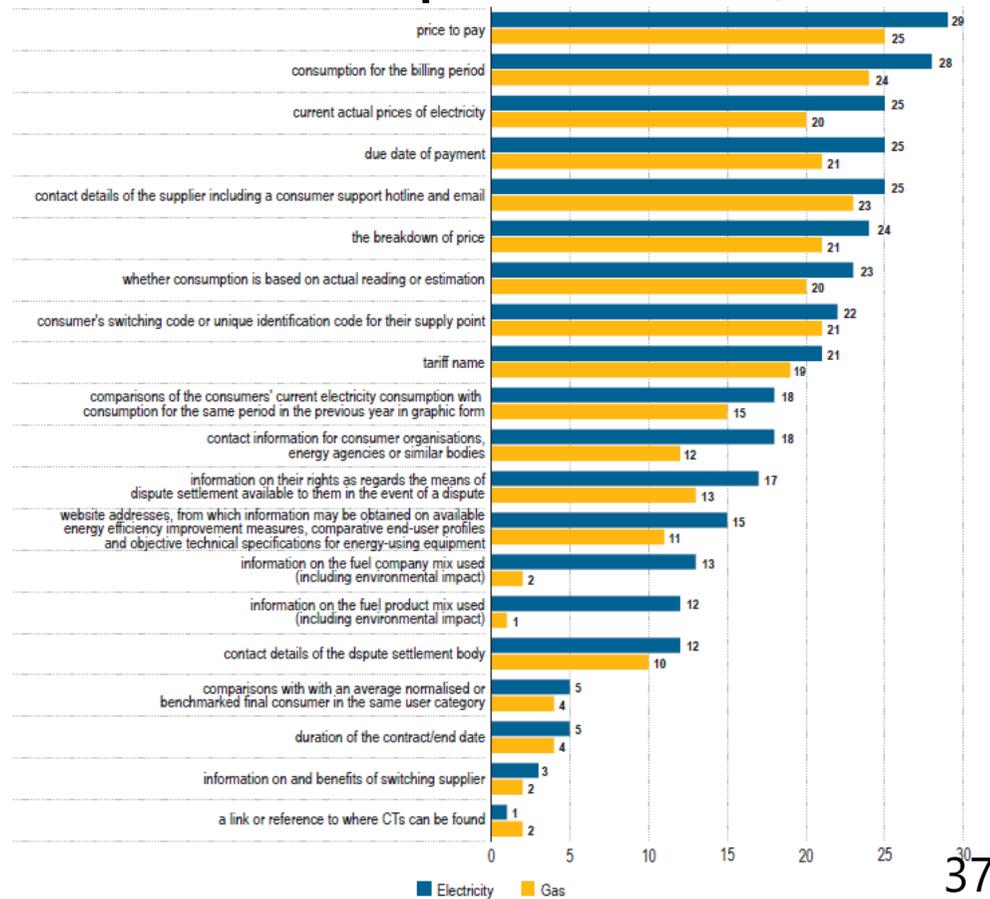


- On average, end-user prices saw a small increase compared to 2018
- Large price variation across the EU. Delta between cheapest and highest for both gas and electricity is a factor 3
- Retail competition only plays on less than half of the end-user price

Billing information

- Large amount of information tends to be found on European energy bills
- While it is important to inform consumers, it is important to ensure that such information is put to good use by consumers

Information elements provided on bills (nr of MSs)



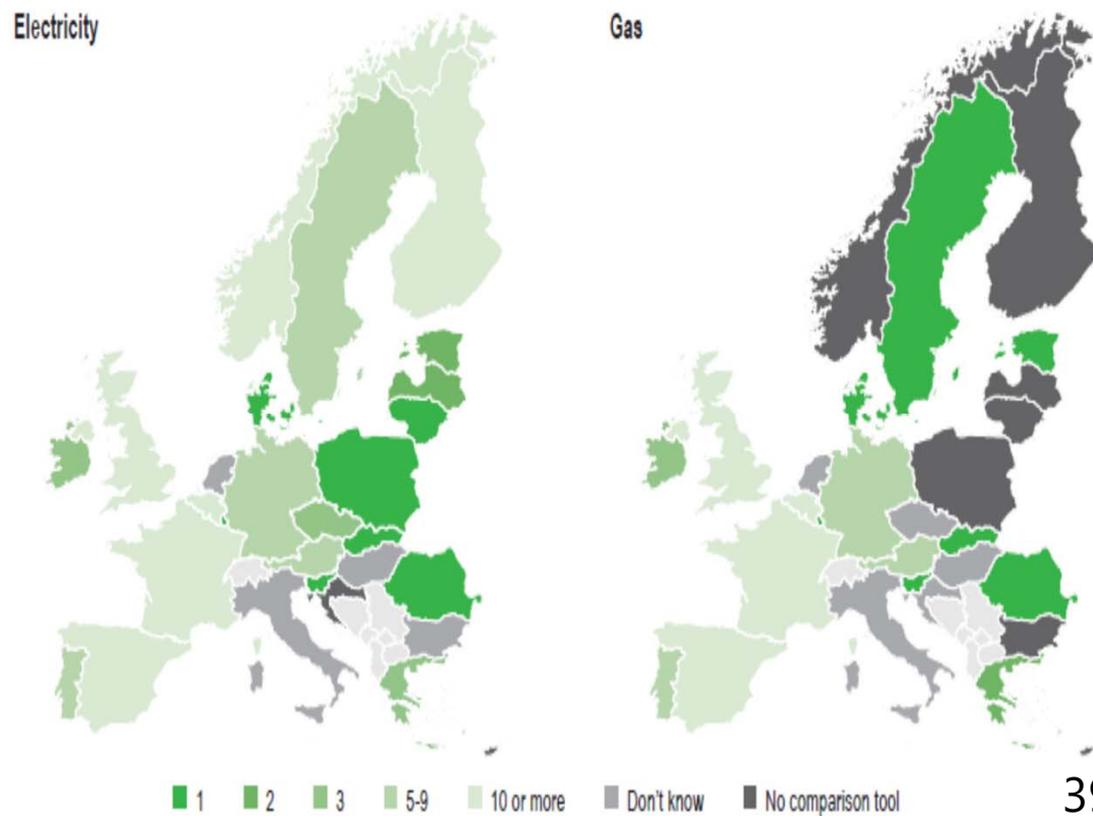
Retail Markets functioning

- Overall, retail energy markets **have not developed** to a sufficient level. Some markets have well functioning retail markets though usually they also have well functioning wholesale markets.
- While the EU average number of nationwide suppliers increased in 2019, **there are still major differences among Member States**. While in some Member States there are very few suppliers, in others the suppliers operate at a regional level only.
- Market concentration levels continue to improve **too slowly** across the EU.
- **Switching rates** vary from 20+% to only 1%
- **Price intervention in both gas and electricity continues** in various Member States. Protecting consumers against price increases is cited as a motive for regulated prices. If the parameter regarding the consumer that must be protected is set too broadly, such intervention can be a barrier to the entry of new energy suppliers and hence the participation of energy consumers. In the EnC CP, regulated prices continue in all members with the exception of Montenegro.

Comparison Tools

- **Comparison tools**, essential for consumer participation, have been implemented in 20 and 15 Member States for electricity and gas respectively.
- Comparison tools have the potential to increase switching rates by providing energy consumers with clear and concise information regarding the energy supplier options available to them.

Number of comparison tools in EU MSs and Norway 2019



Electricity smart meter roll-out in the EU, 2019



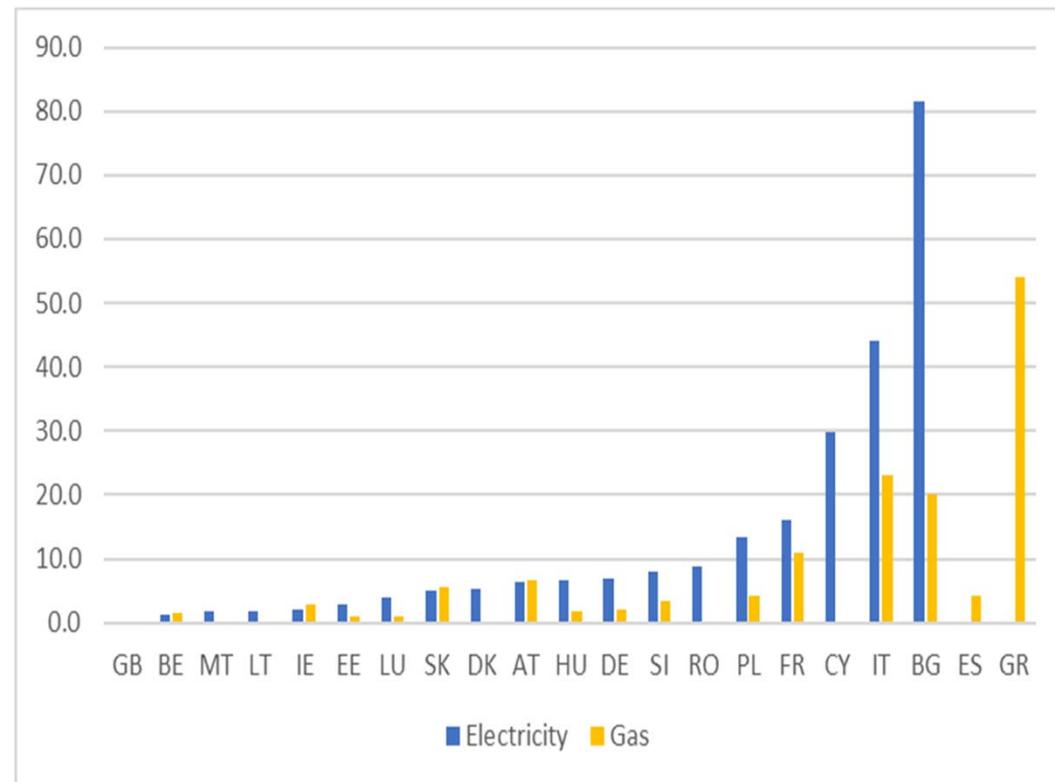
■ Roll-out > 80% ■ Roll-out < 80% ■ Roll-out < 50% ■ N/A

- **Consumer engagement is key for Clean Energy Package goals to succeed**
- The ongoing **smart meter roll out** is crucial to ensuring consumers are provided clear and real time information regarding their energy use
- The consumer is expected to become more active as we move towards 2030 through **demand side response** and the development of **local energy communities**, but both are still under-developed

Consumer Protection and complaint resolution

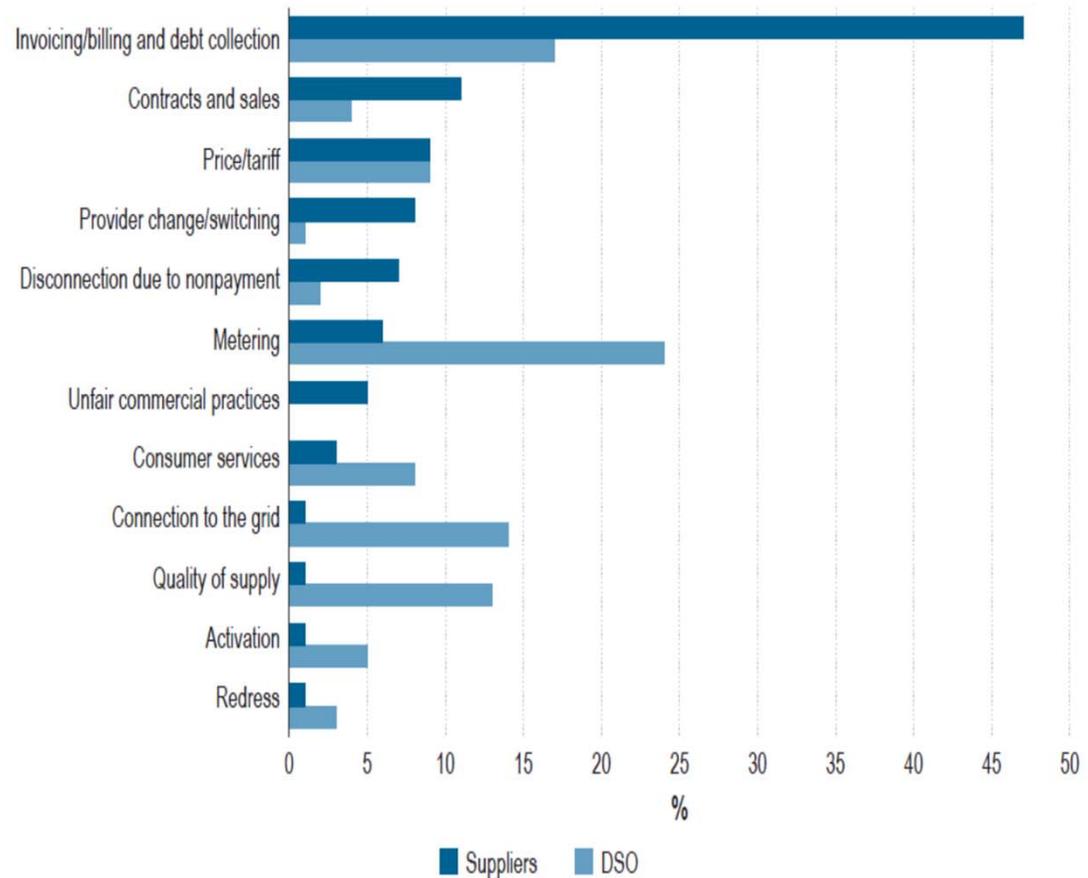
- Disconnection due to non-payment in 2019 aligns with previous
- Energy poverty still only is defined officially in 8 MSs across the EU
- Addressing energy poverty is a key aspect of the Clean Energy Package and will increase in importance in the coming years

% of disconnections due to non payment



Consumer protection – Complaints and ADR

- European consumers file millions of complaints to their suppliers and DSOs across Europe with a huge national variation in the number of complaints
- Complaints registered by NRAs, ADR or Ombudsman show consumers complain the most often about invoicing issues to their suppliers and about metering-related issues to their DSOs



European Commission

**Florian Ermacora. Head of Unit Wholesale markets;
Electricity & Gas, European Commission.**

**Jan Panek. Head of Unit Consumer Policy, European
Commission**



Closing remarks

Annegret Groebel, President of CEER

Thank you for your attention!

All MMR documents can be found via this link

<https://www.acer.europa.eu/en/Electricity/Market%20monitoring/Pages/Current-Edition.aspx>