

An aerial photograph of a power line tower situated in a large, brown, tilled agricultural field. The tower is a lattice structure with several cross-arms. To the right of the tower, there is a strip of green grass and a small path. The background shows more of the brown field and a distant green field.

ACER 

European Union Agency for the Cooperation
of Energy Regulators

ACER's 2020 Market Monitoring Report
Presentation to the European Parliament's ITRE Committee
on 27 October 2020 / ACER Director Christian Zinglensen

Impact of Covid-19

Market functioning

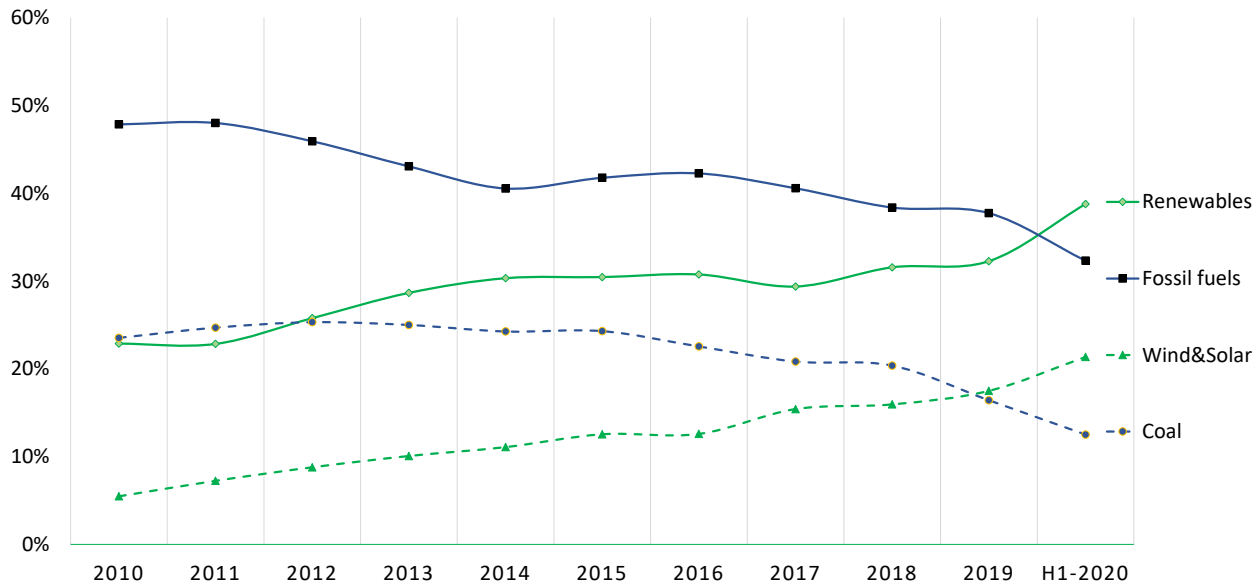
Remaining and new challenges

2021 Market monitoring and beyond

The COVID-19 pandemic may well accelerate the decarbonisation process

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

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



- **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 impacts).
- **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 first six months). This might be linked to already over-supplied markets in 2019.
- **Hub trading** impacted upwards (e.g. more hedging of positions needed)

- **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.

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.

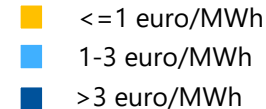
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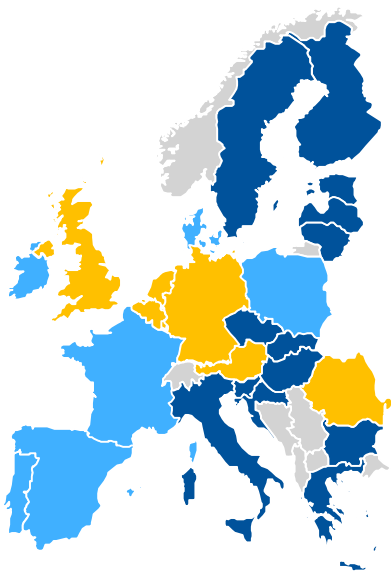
Remaining and new challenges

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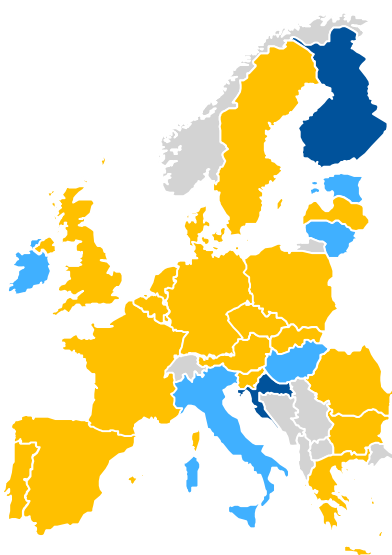
Calculated gas supply sourcing cost* compared to TTF - estimates



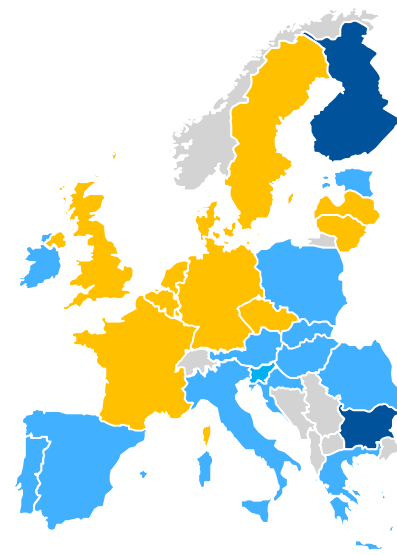
2013: TTF = 27.2 € /MWh



2018: TTF = 20.8 € /MWh



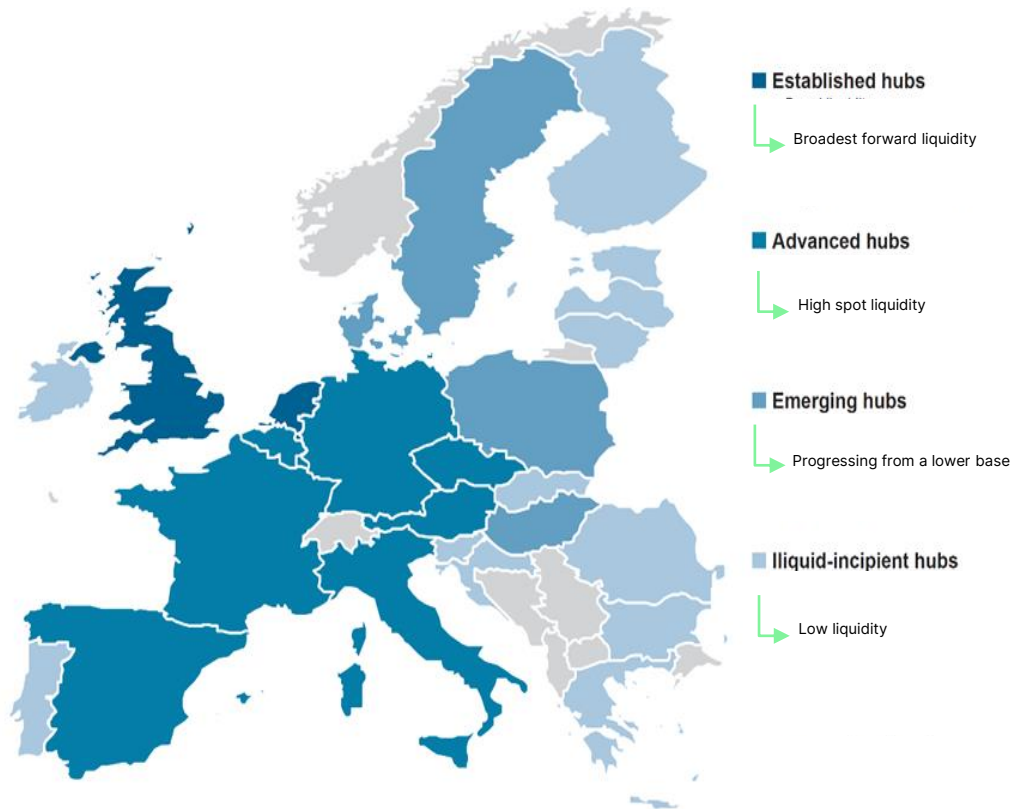
2019: TTF = 17.5 € /MWh



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

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

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 Member States where the hub model is less-functioning.
- Targeted regulation could help the more illiquid hubs.

Observed benefits

Capacity

- Gas entry/exit systems & standardised allocation procedures attracting new market entrants
- Variety of products has allowed users to respond to new market developments and to tailor their portfolios

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, more and more rolled-out into other markets

Tarification

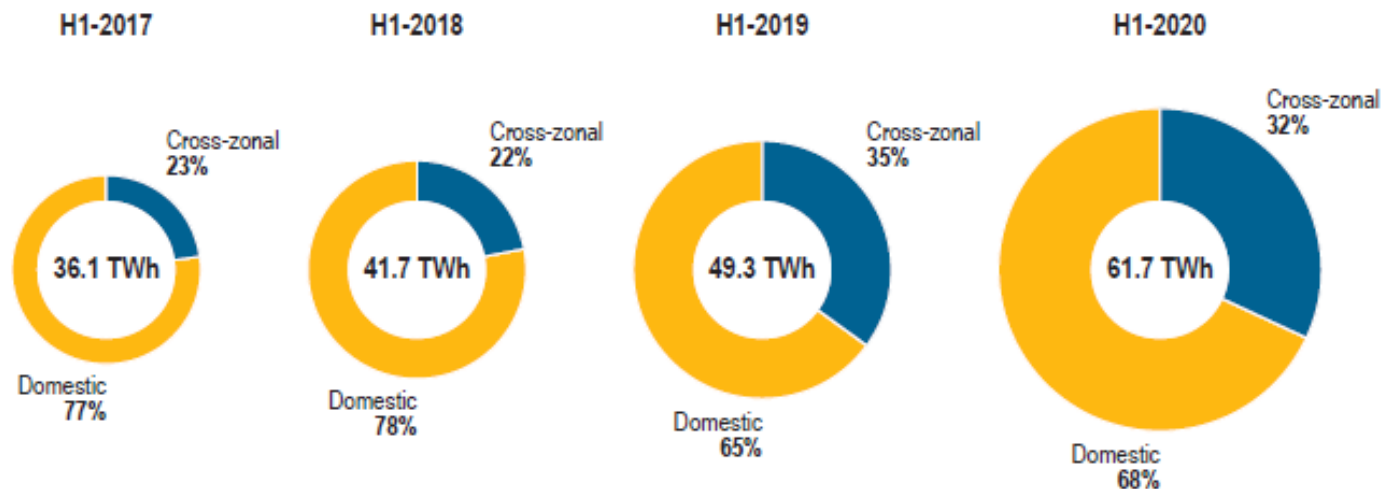
- Transparency requirements on cross-border tariffs formation is increasing market participants' confidence to enter and operate in the market
- Increased harmonisation in EU tariffs methodologies (postage-stamp and capacity weighted the most common)

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

Despite the pandemic, the power market integration continued at pace

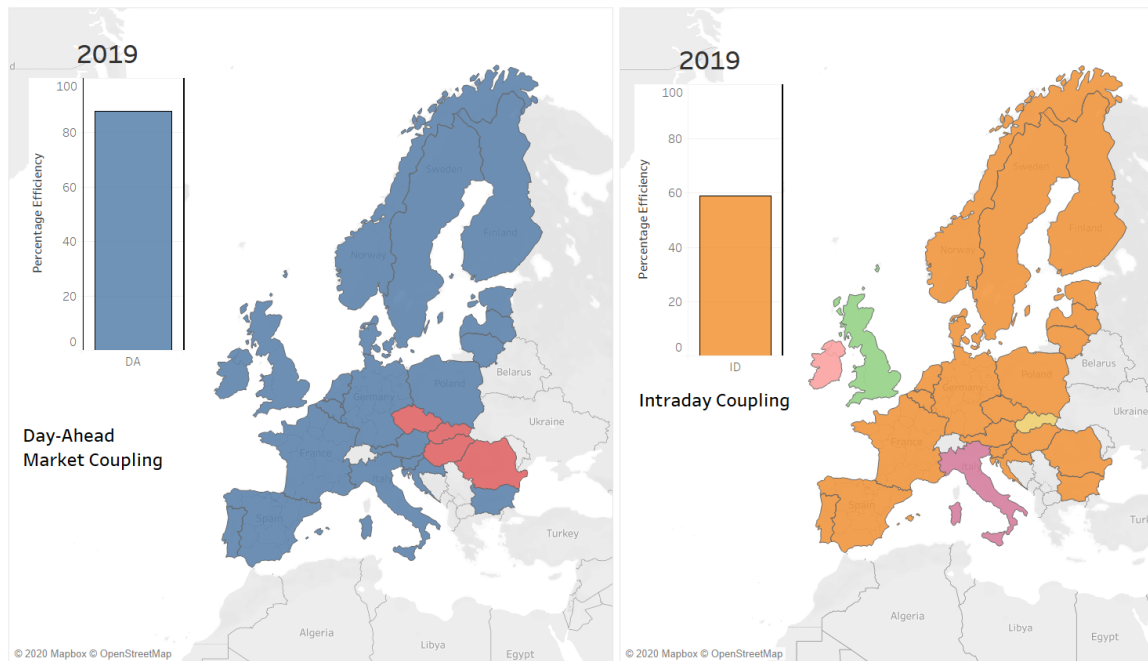
- For example, thanks to EU markets integration, the amount of energy exchanged across borders in intraday markets remained at higher levels than pre-COVID
- The integration of EU intraday markets is key to facilitate the integration of renewables

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



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

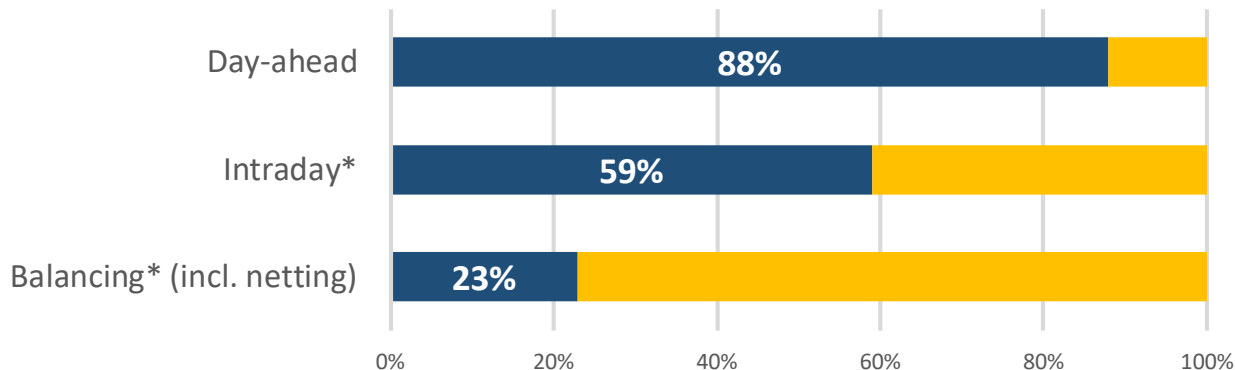
Implementation of day-ahead and intraday market coupling 2019 and the level of efficient use of capacity over time



... 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.

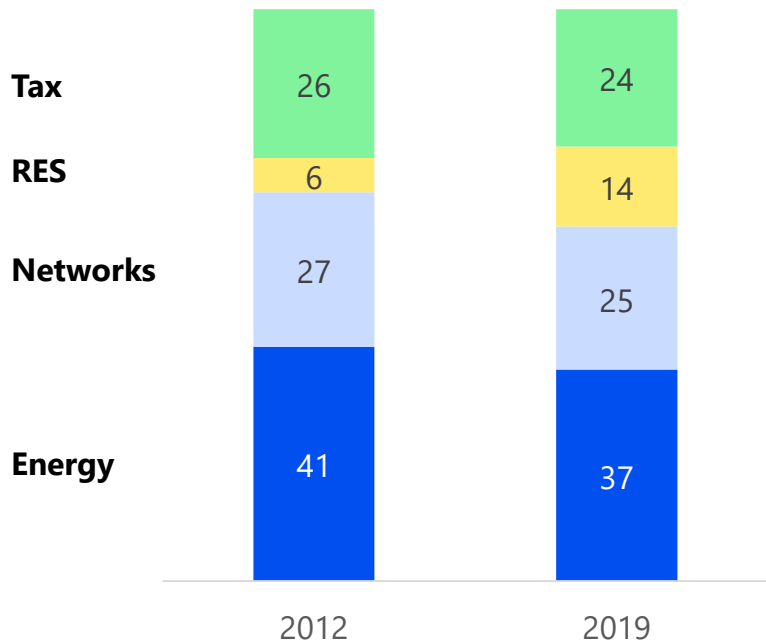
Efficient use of interconnectors in the different timeframes in 2019 (%)



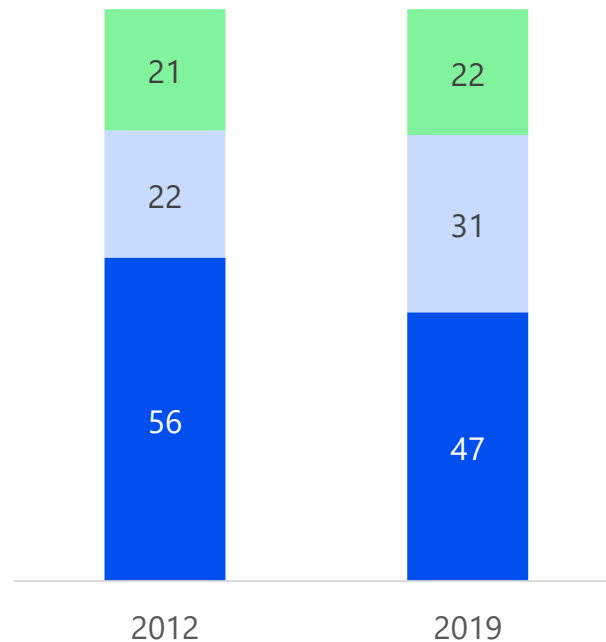
Note: * ID and balancing values are based on a selection of EU borders.

Source: ENTSO-E transparency platform and ACER calculations

Electricity price breakdown, %

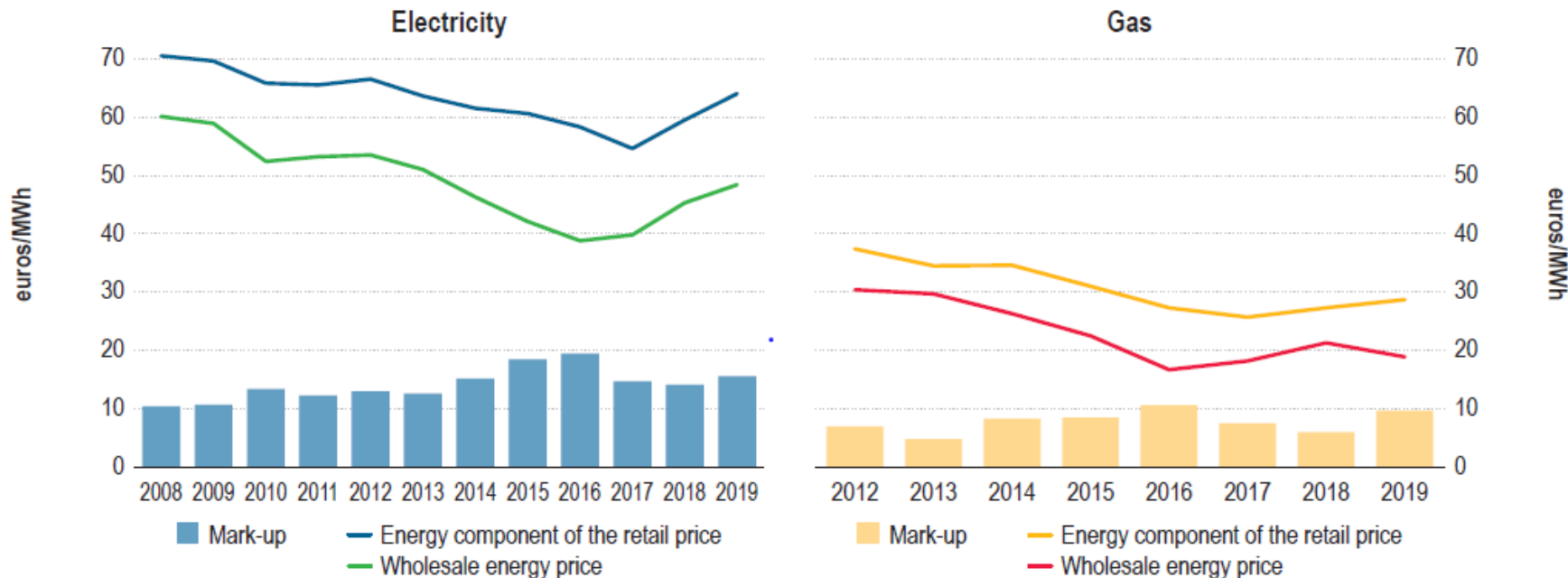


Gas price breakdown, %



- 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

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.

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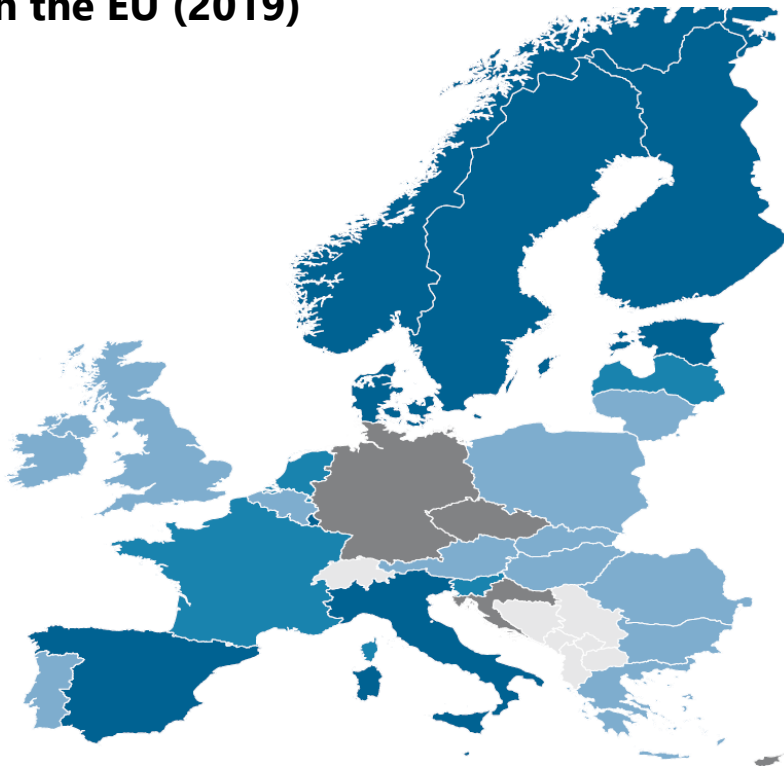
Remaining and new challenges

2021 Market monitoring and beyond

- Overall, retail energy markets **have not developed** to a sufficient level. A few markets have well functioning retail markets; those tend to 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.**
- **Price intervention in both gas and electricity continues** in Member States and is hampering the participation of consumers.
- **Comparison tools**, essential for consumer participation, have been implemented in 20 and 15 Member States for electricity and gas, respectively. This together with a competitive market could further unlock consumer participation.
- Some Member States recorded **high switching rates** while in others there is barely any switching.

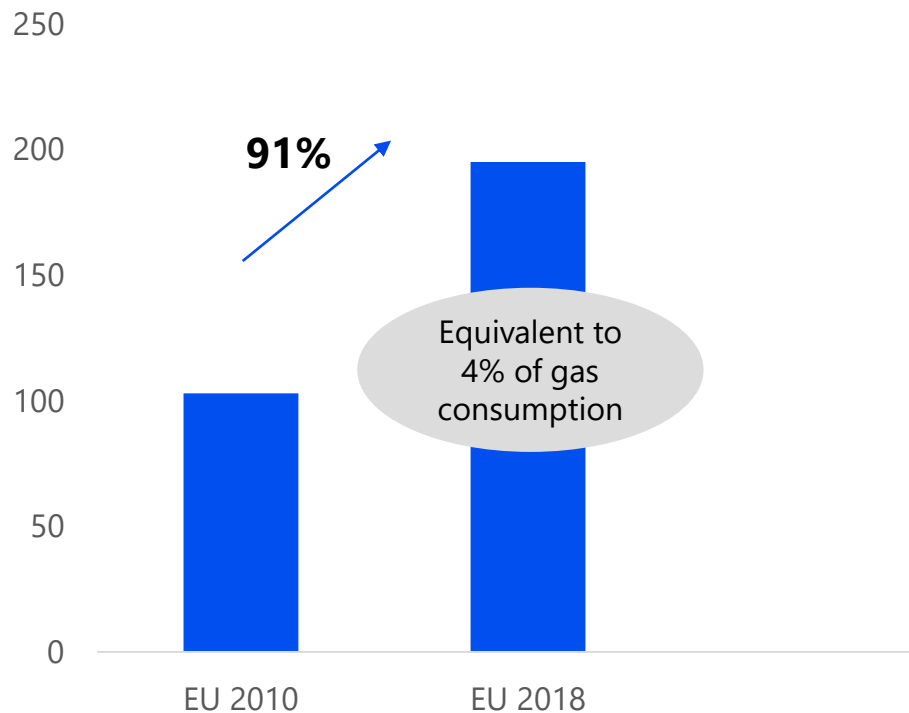
*Note: the highest switching rates (20%) recorded in Great Britain, Norway and Belgium. Switching rates of circa 10% were recorded in Finland, Ireland, the Netherlands and Portugal in 2019. However, poor switching rates (less than 1%) were recorded in Poland, Luxembourg, and Croatia

State of electricity smart meter roll-out in the EU (2019)



- **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

EU green gas* production, TWh

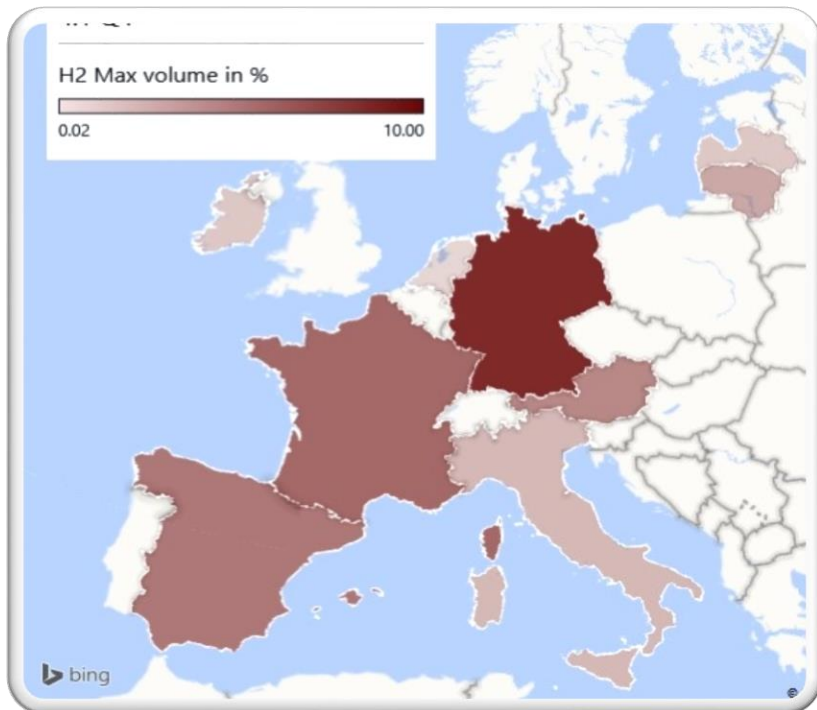


- Role for **hydrogen**
- **Low carbon gas not competitive** yet compared to natural gas
- **Rules aimed at decarbonising the gas sector to be built on the current successful market design (cf. Bridge beyond 2025 paper**):**
 - Be technology-neutral to ensure a level playing field,
 - Use market mechanisms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

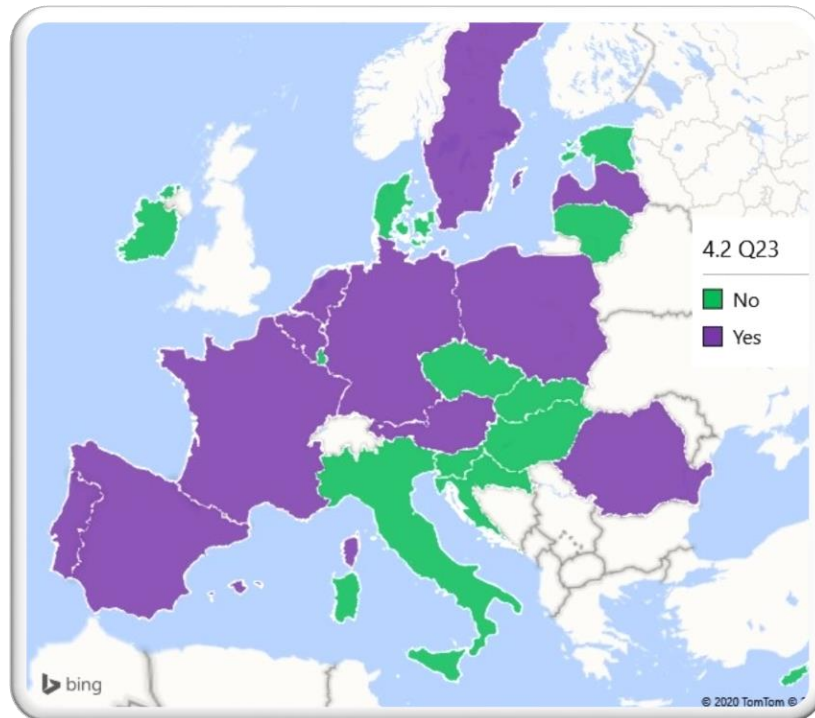
*Biogas and bio-methane

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

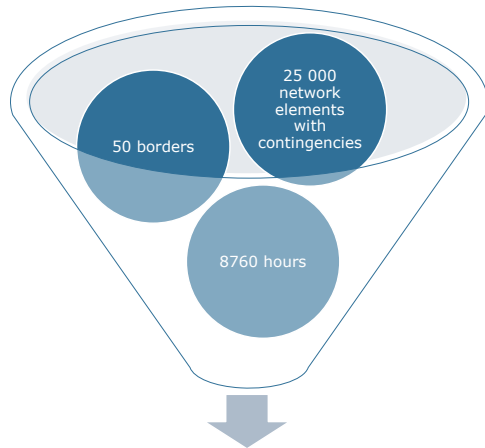
65% of Member States do not allow/ accept blending



H2 strategies (published or under development)



- Low cross-zonal capacity for trade was identified as one barrier to the Internal Energy Market, 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.
- While acknowledging that compliance with the 70% target is a Member State competence, ACER is supporting NRAs and Member States' work by providing a harmonised and consistent framework to monitor the 70% target
- ACER is working intensively to publish soon a report on the 70% target covering the first semester of 2020



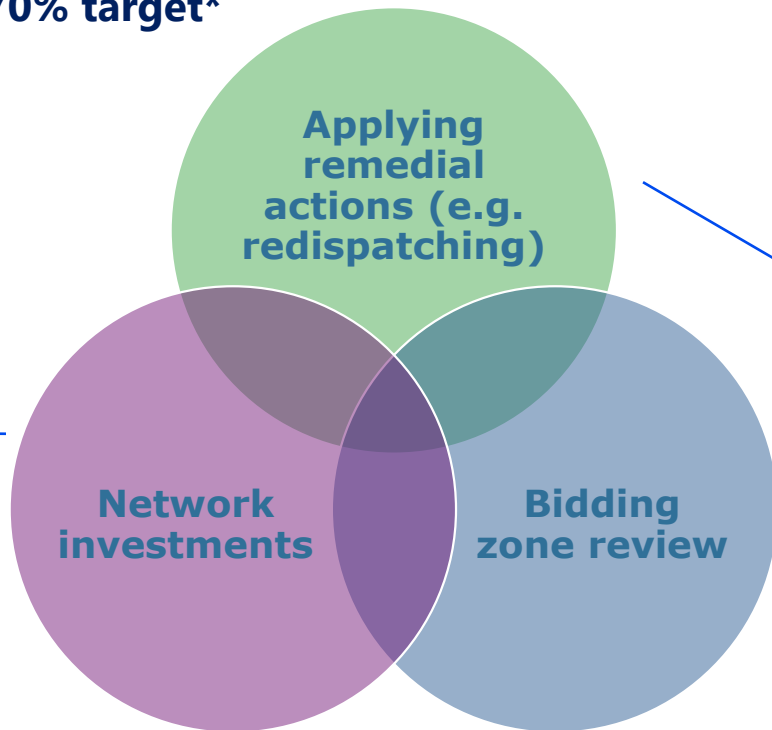
Several billion hourly values
on critical network elements



70% cross-zonal
capacity target
report, coming in
December 2020



Multiple routes to meet the 70% target*



*ACER's report on Projects
of Common Interest (PCI)*



*ACER's upcoming decisions
on various key
methodologies (next slides)*

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

Network investments are indeed necessary, but challenges remain:

- **Network expansion is key** to achieve the EU Green Deal goals (€100bn are already planned in the EU TYNDP, 50GW of additional exchange capacity identified by ENTSO-E, by 2040)
- The necessary network expansion should be accomplished in a cost-efficient manner: ACER and CEER identified **the need for legislative changes** (improvements to the TEN-E Regulation) to enhance the governance and the tools to assess the needs for new infrastructure.
 - ACER-CEER Position paper available at: <https://www.ceer.eu/documents/104400/-/-/c4f763dd-27e7-7113-9809-1ec50f530576>
- **Delays in project implementation:** The projects of common interest (PCI) continue to face delays, as identified by ACER in its latest PCI monitoring report. Promotors seem to prioritise being on a list to be eligible for support at the expense of equality and realistic project planning.
 - PCI Monitoring 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)
- Network investments need to be **combined with other solutions** to address the identified needs.

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



Draft BZ review methodology



Decide/amend the
methodology*



BZ review study

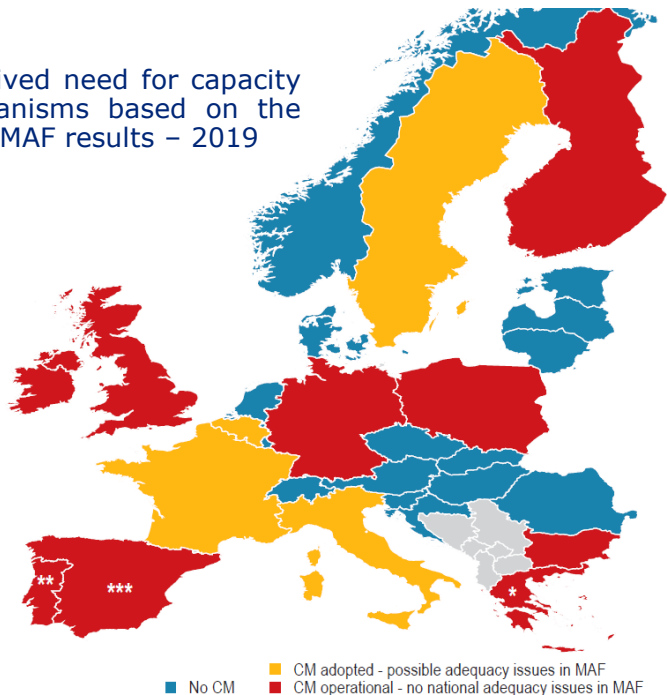


Decision (by MSs or EC)



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



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_integration_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 and gas 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 energy 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.
- **The “delta” is increasing between a growing group of well performing gas markets and a number that are lacking behind**; the same conclusion is valid for retail markets.
- **Decarbonising gas while maintaining the benefits of the internal gas market** will be an important focus area in the years ahead.

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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

