


ACER

 Agency for the Cooperation
of Energy Regulators

CEER

Council of European
Energy Regulators



The 2017 Annual Report on Monitoring the Electricity and Natural Gas Markets

Main insights

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Outline

- Introduction
- Gas wholesale markets
- Electricity wholesale markets
- Electricity and gas retail markets
- Consumer protection and empowerment

The MMR provides an in-depth year-on-year analysis of the functioning of the IEM and of the remaining barriers to its completion, providing recommendations on how to overcome them



Background of the MMR 2017

Key milestones

- 3 October: publication of the GW and Retail Volumes
- 9 October: presentation to European Parliament, ITRE Committee
- 22 October:
 - release of the EW and CP volume
 - public presentation of the MMR

Novelties

- In electricity : improved methodology to calculate benchmark cross-border capacity, detailed liquidity analysis (forward and ID markets), analysis on the efficiency of BZs and wider scope of various welfare simulations
- In gas: broader and deeper analysis of market effects of Network Codes implementation
- Retail: mark-up analysis reintroduced. It assesses the responsiveness of household retail prices to changes in the wholesale price

Despite improvements, monitoring is still hampered by the difficulty of the Agency to collect the necessary data. In order to be able to fulfil its monitoring obligations, the Agency should be given stronger data gathering powers

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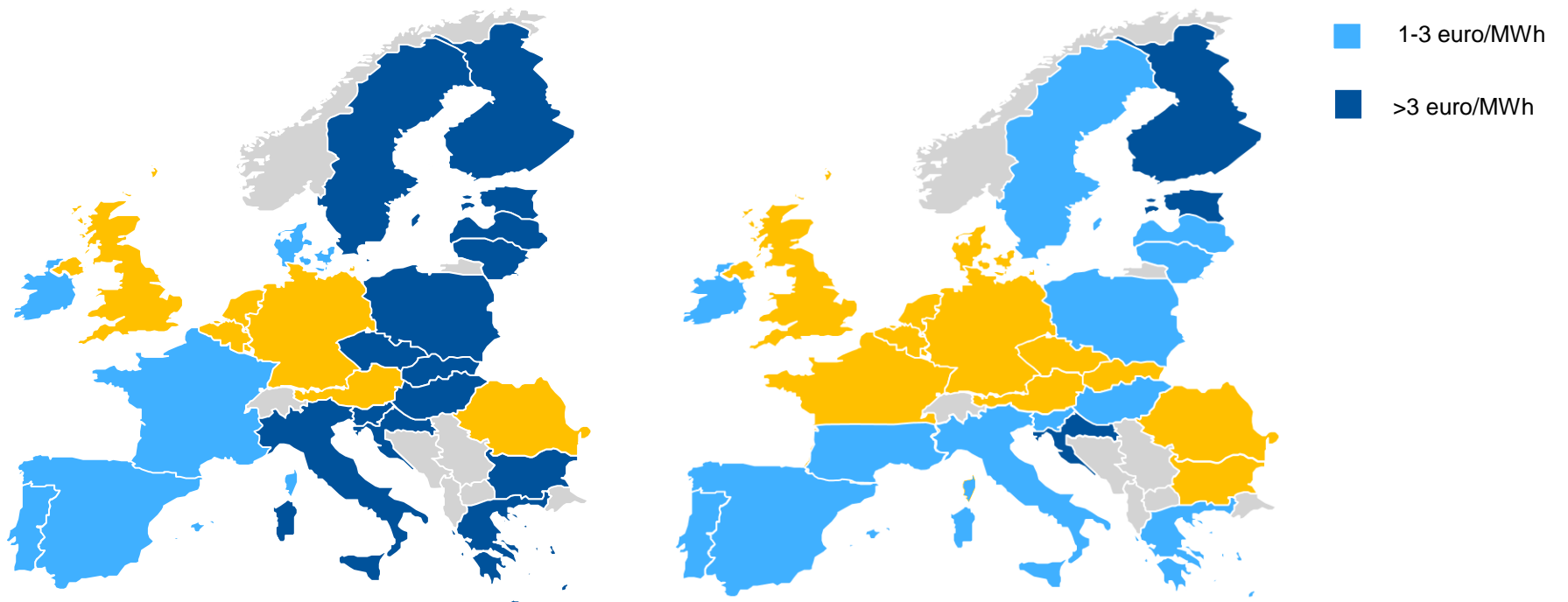
- Gas wholesale markets
 - Level of market integration
 - Market effects of Network Codes

High levels of supply price convergence have been reached across most parts of the EU

Estimated gas supply sourcing cost* compared to the TTF hub

2012: TTF = 25.7 € /MWh

2017: TTF = 17.0 € /MWh



- Converging supply prices are linked with improved gas hubs' price convergence
- Energy Community sourcing costs higher than in EU except for Ukraine which has a mix of domestic production and EU gas hub sourcing
- Wholesale prices are going up in 2018...

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

Key drivers of EU wholesale gas price convergence within the context of Third package



- Most EU regions are benefiting from more upstream supply-side competition (e.g. suppliers intent on keeping market share).



- The development of the hub model favours a more competitive environment. Some hubs act as price reference for other regions.



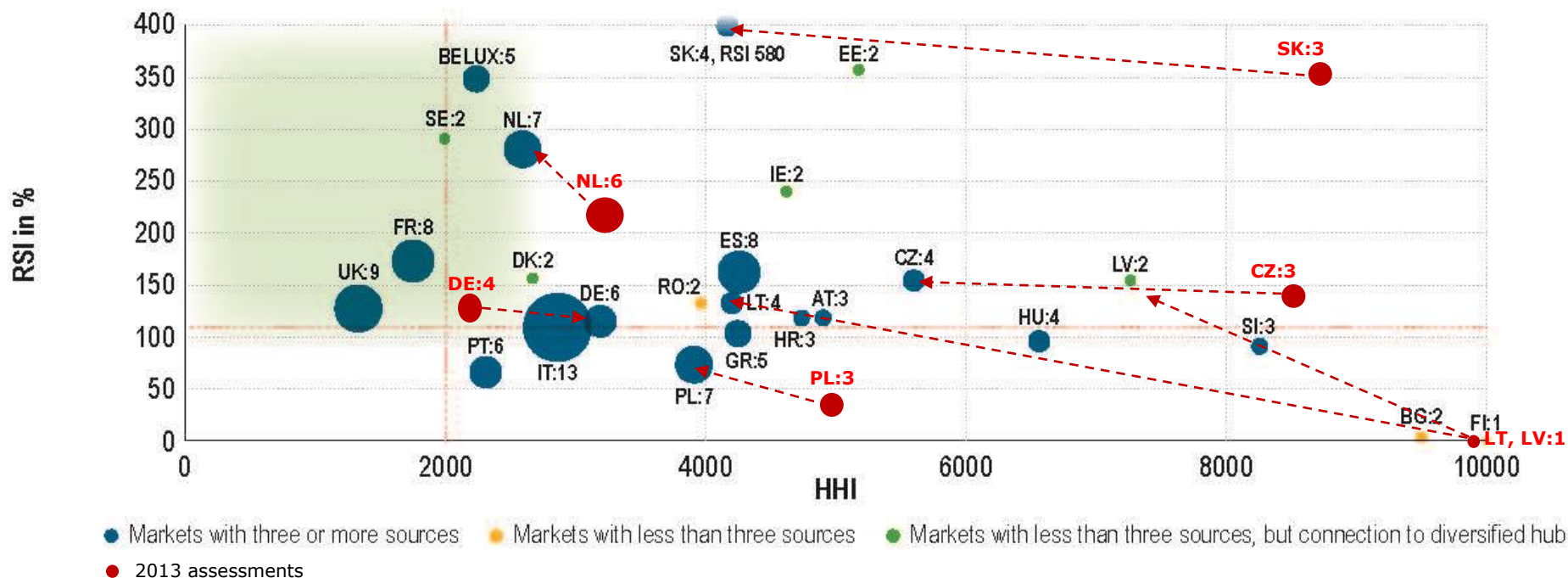
- Greater access to more infrastructure and better rules to access infrastructure (e.g. network codes) fosters diversity of supply (e.g. ease of access to LNG disciplines price formation) and facilitates cross border trade.



- Weak competitive frameworks and incomplete integration in some MSs lead to poor(er) market functioning resulting in higher reliance on incumbents and / or exposure to non-hub indexed LTCs.

Market health metrics are indicative of the way in which gas wholesale markets can function – on average overall improvement

Overview of EU MSs AGTM market health metrics – 2017



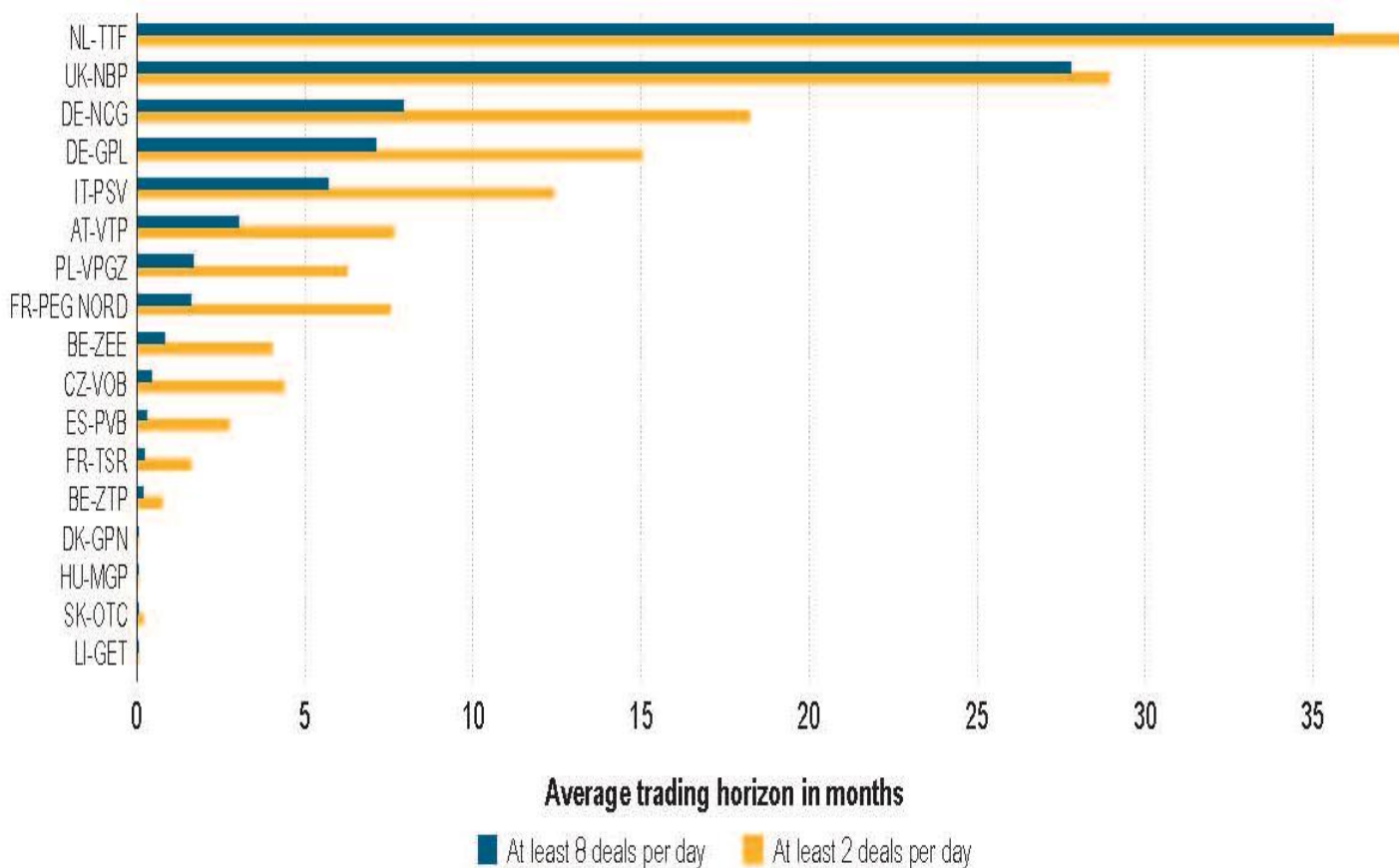
- High upstream market concentration is the most challenging indicator to meet
- EU gas system is characterised by high levels of security of supply thanks to
 - More infrastructure options (e.g. reverse flows, investments) and better access to and usage of network
 - Hub sourcing option allowing shippers to diversify portfolio

In most hubs trading operations cover mostly spot products while TTF and NBP also show significant forward activity

Average daily number of executed DA trades – 2017

Average trading horizon* – 2017

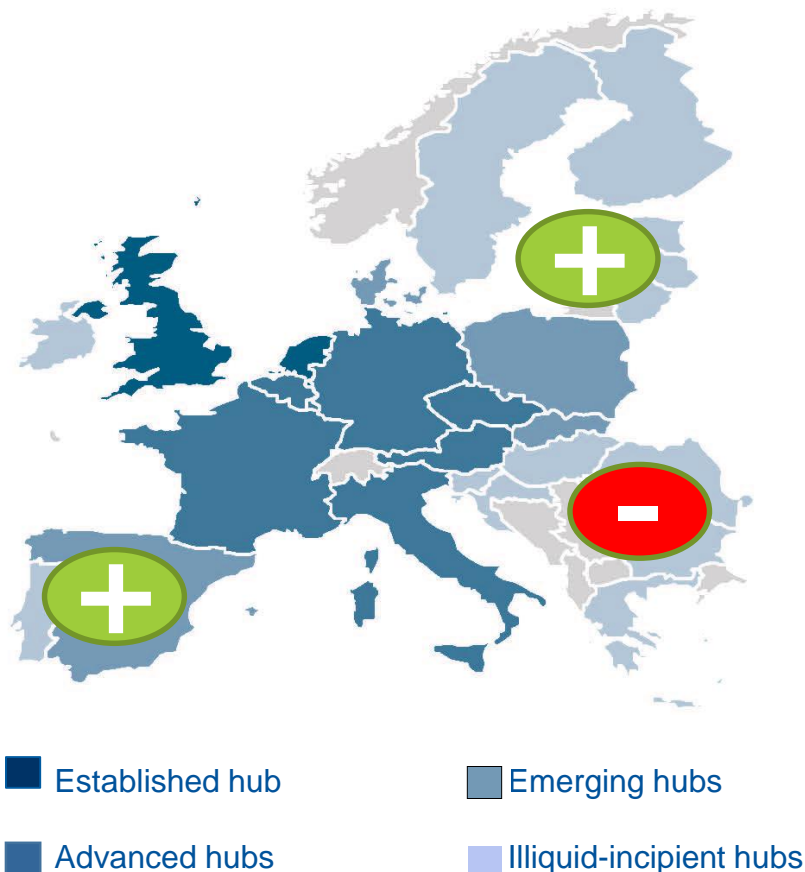
- 600-650
- 300-350
- 350-400
- 200-250
- 250-300
- 150-200
- 50-100
- 150-200
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- 0-50



* Trading horizon measures, in months, the length of gas delivery for all hub products traded 2 and 8 times per day

Development of EU gas hubs is progressing but still shows a heterogeneous state

2017 EU gas hubs categorisation on the basis of AGTM metrics



- In some MSs, especially in SSE, hubs do not materialise or take off: tailored solutions needed?
 - Most hubs remain at some distance from many Acer Gas Target Model targets: hub specialisation is taking place driven by market forces
 - Hub mergers and integration efforts are occurring
 - Formally (e.g. FR, DE, Baltics, ...)
 - De facto (e.g. SI leveraging AT hub)
- ➔ Policy makers and regulators to facilitate this market trend

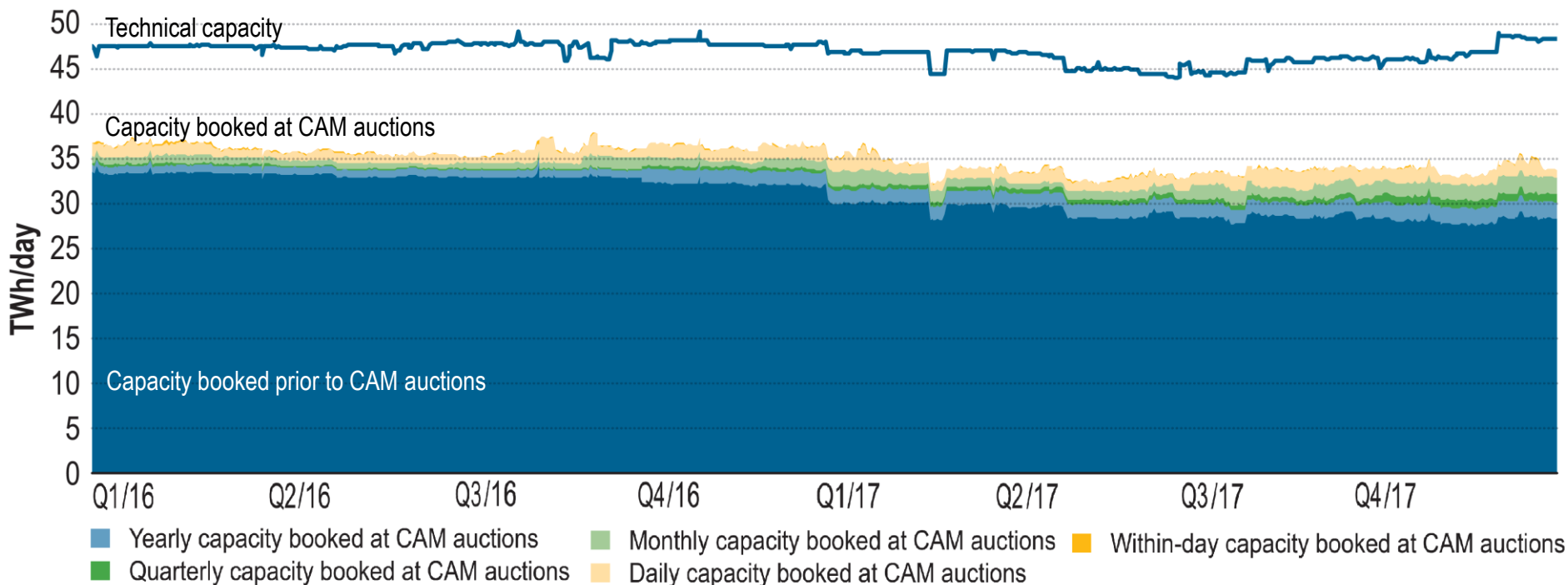
Note: Assessment made based on AGTM and other metrics

Outline

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Capacity made available through CAM enables shippers to respond to changes in short-term fundamentals

Overview of intra-EU IP bookings – 2016 – 2017 - TWh/day

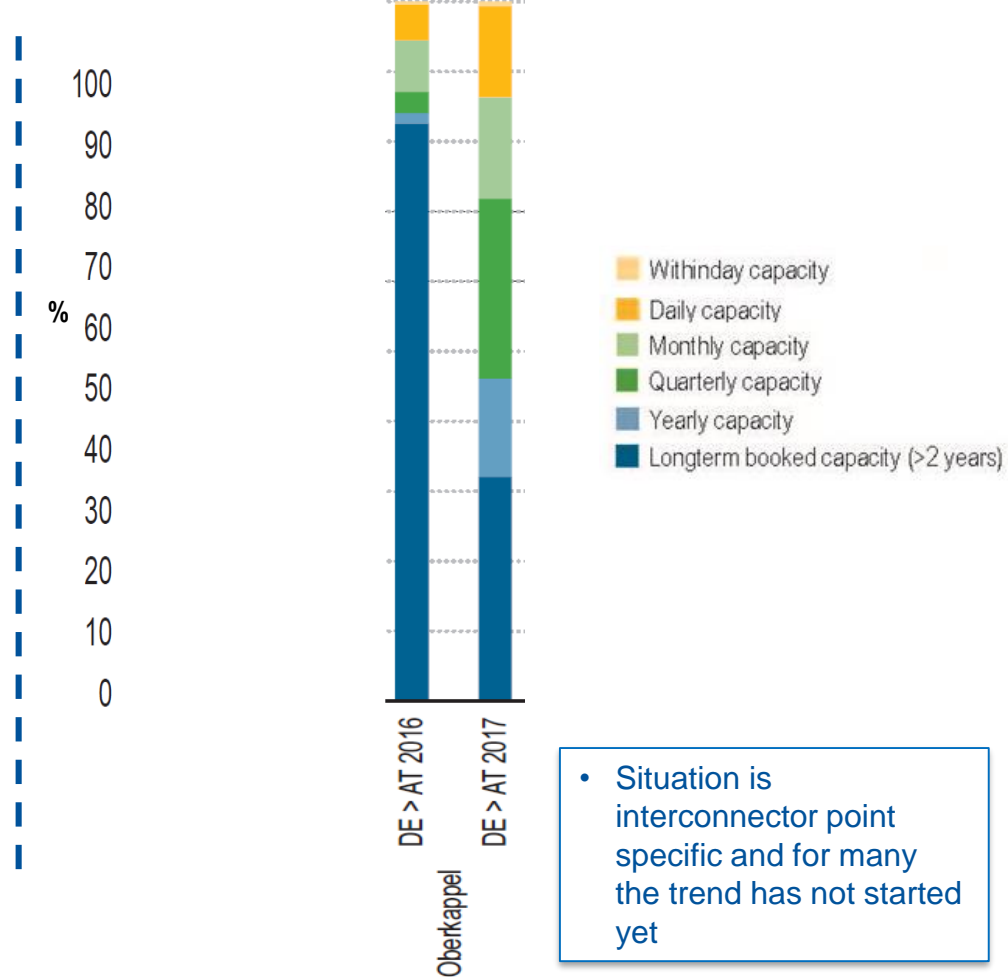
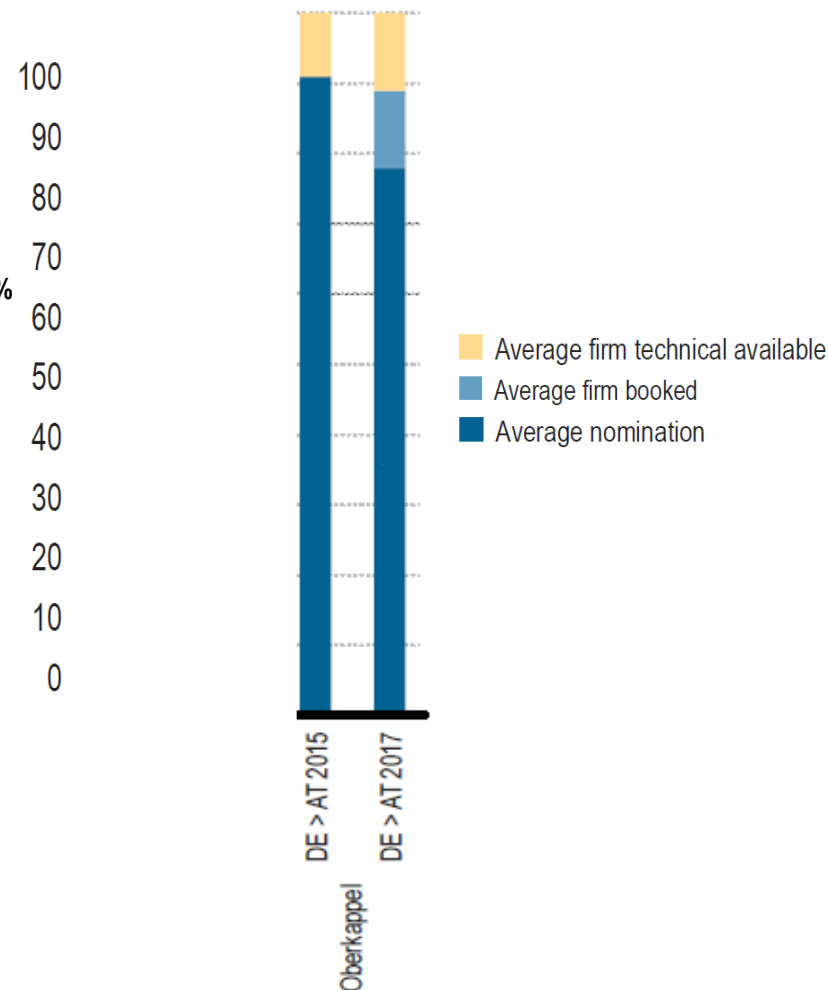


- Legacy contracts are still dominant, but shippers are taking advantage of short-term market opportunities, facilitated by CAM NC and CMP GL.
- Important differences persist between Member States' gas wholesale markets: those lacking basic market building blocks are yet to reap meaningful benefits from NCs implementation

More dynamic contracting patterns are emerging

Capacity booking and utilisation ratios – 2015 - 2017

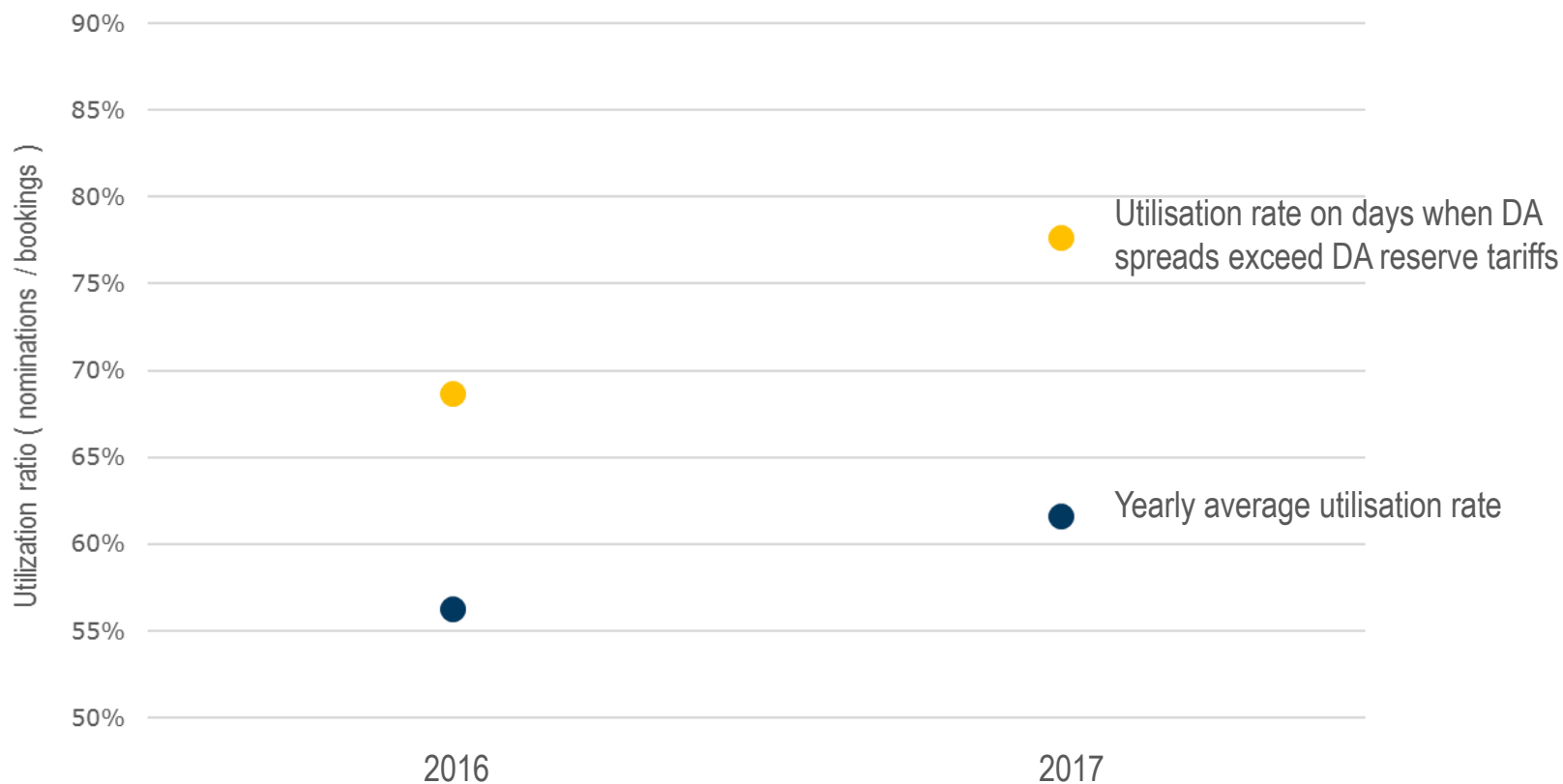
Breakdown of booked capacity – 2016 - 2017



• Situation is interconnector point specific and for many the trend has not started yet

Commercial flows are showing increasing sensitivity to price signals

Assessment of the rate of IP utilisation: EU average – 2016 – 2017 (%)

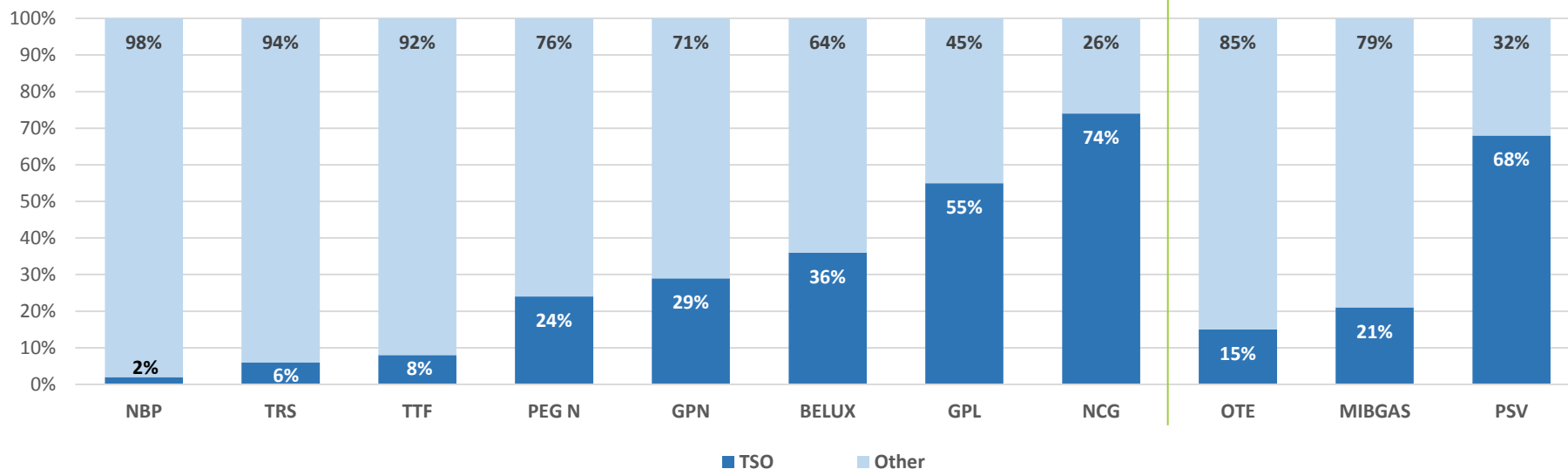


Role of TSO for balancing at most hubs is residual, fostering market functioning

Breakdown of total within-day products volumes traded in gas year 2016/17 for TSO and market players

BAL NC implemented by Oct 15

BAL NC implemented by Oct 16



- The framework on imbalance (actor roles, timeframes, products and fees) creates transparency for market players to be confident in taking short-term positions
- Large variation among MSs BAL systems

Notes: Only within-day is shown. In some cases there is also TSO activity on other types of spot markets. Many MSs are still implementing a market based balancing system

Focus of a future Gas Package

- Current design works hence should be kept. Tailor made solutions for selected markets
- Ways to foster renewable gasses, e.g. PCI selection more focussed on environmental benefits than on security of supply
- Specific measures needed further to enhance IGM, e.g. NCs amendments process to be a regular, technical exercise
- Sector coupling: more focus on integrated infrastructure investment decisions and gas-electricity market integration to lower costs of energy transition
- Governance: ACER needs sufficient powers to be effective in settling cross-border issues
- Aligning with electricity for oversight of the ENTSOs and regional entities, retail and consumer protection

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Context

Integrating the IEM



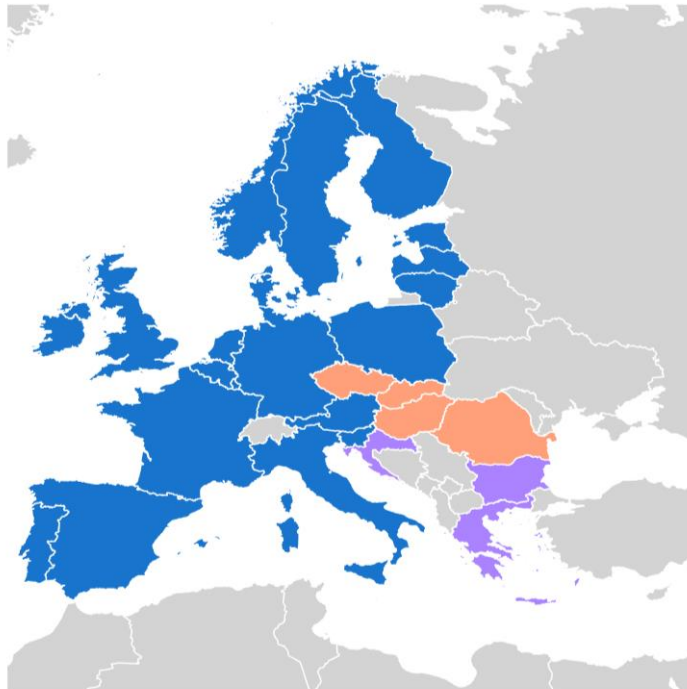
Electricity wholesale markets volume



The completion of DA and ID markets integration through market coupling is getting closer...

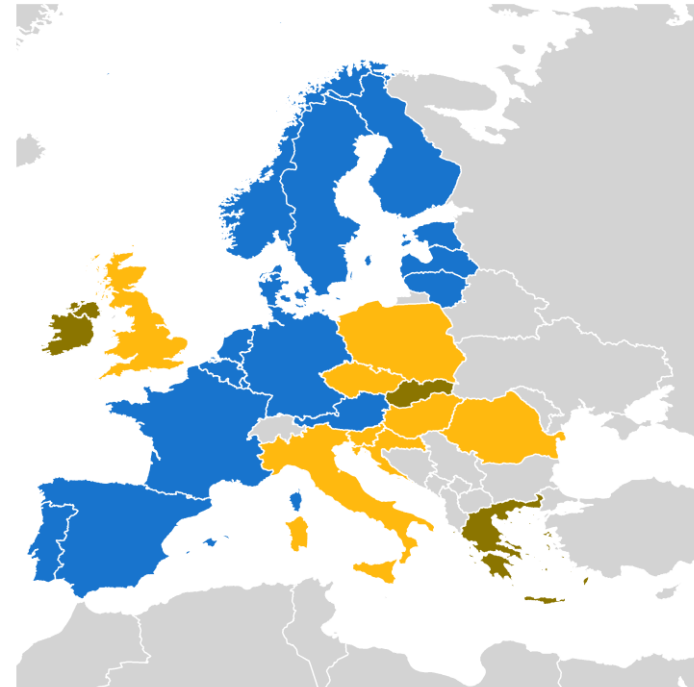
Implementation status of single DA and ID market coupling (Oct. 2018)

Day-ahead



4MMC MRC Not Coupled Yet

Intraday

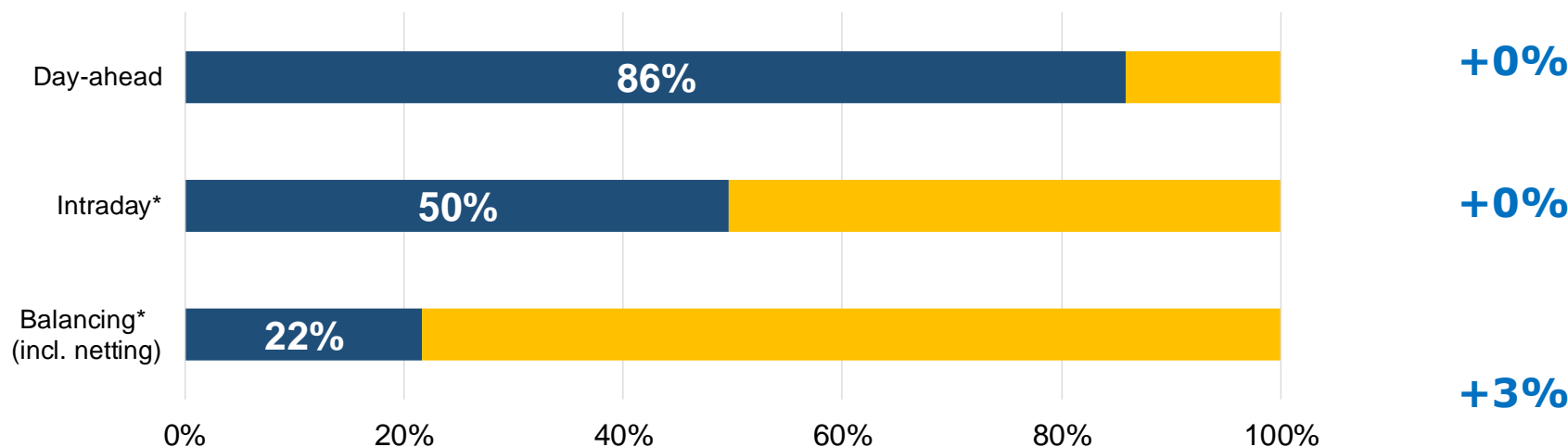


First Wave Second Wave Third Wave

As a result, the (limited) cross-border capacity made available to the market is used very efficiently in the DA timeframe. In the ID and balancing timeframes there is significant room for improvement.

Efficient use of interconnectors in the different timeframes in 2016 (%)

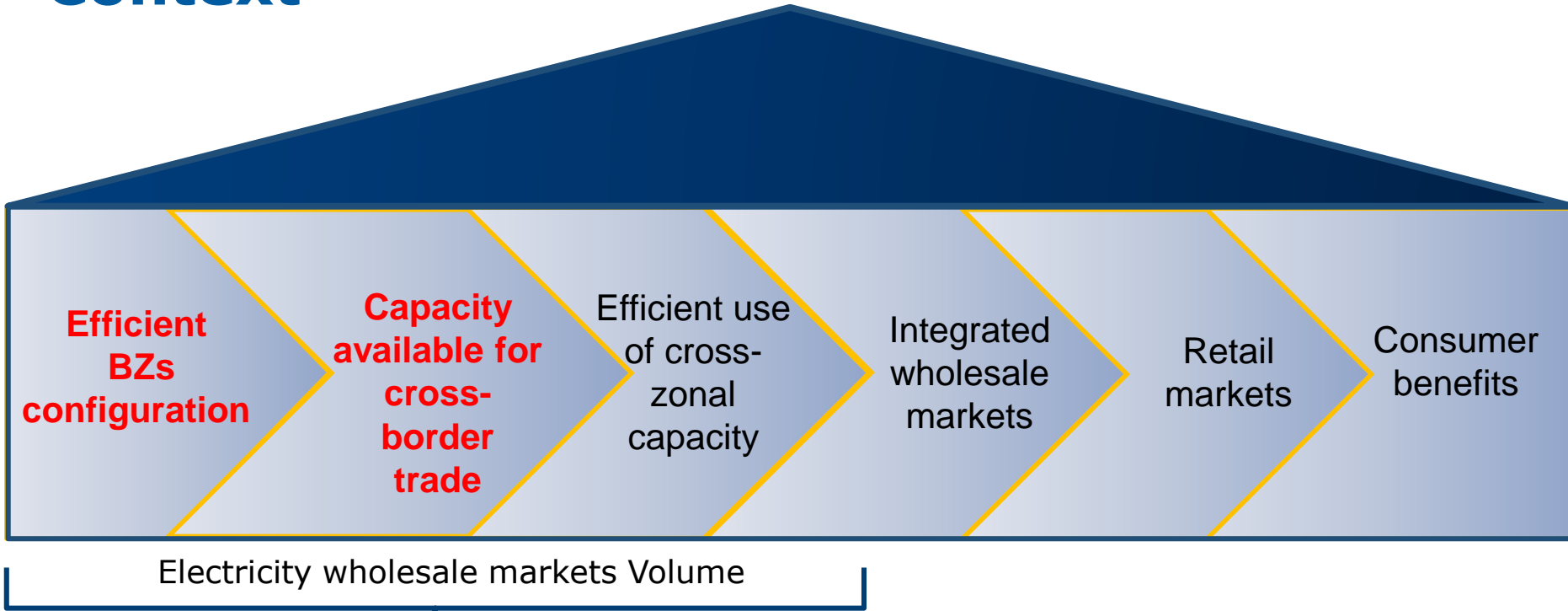
Yearly change
(2017/2016)



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

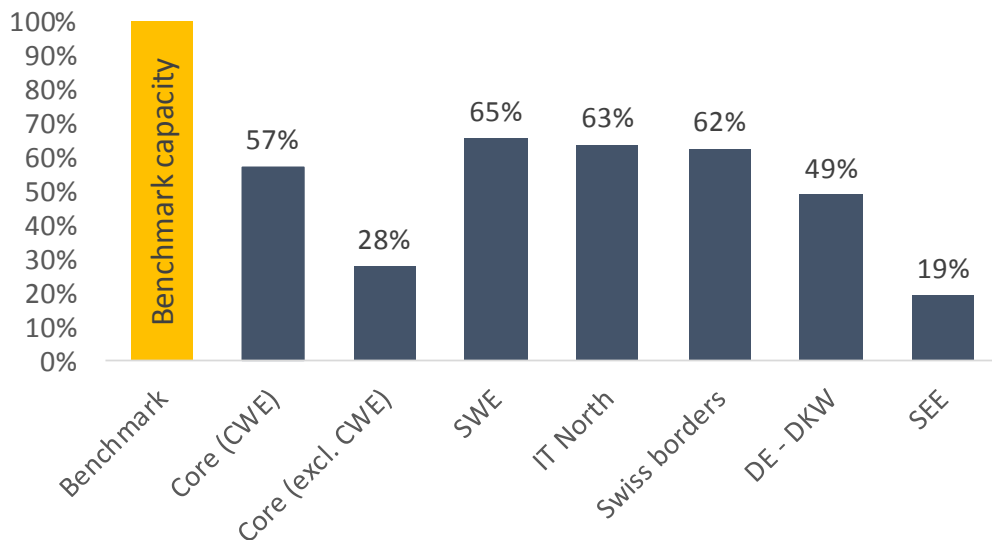
Source: ACER calculations based on ENTSO-E, NRAs and Vulcanus (2017).

Context

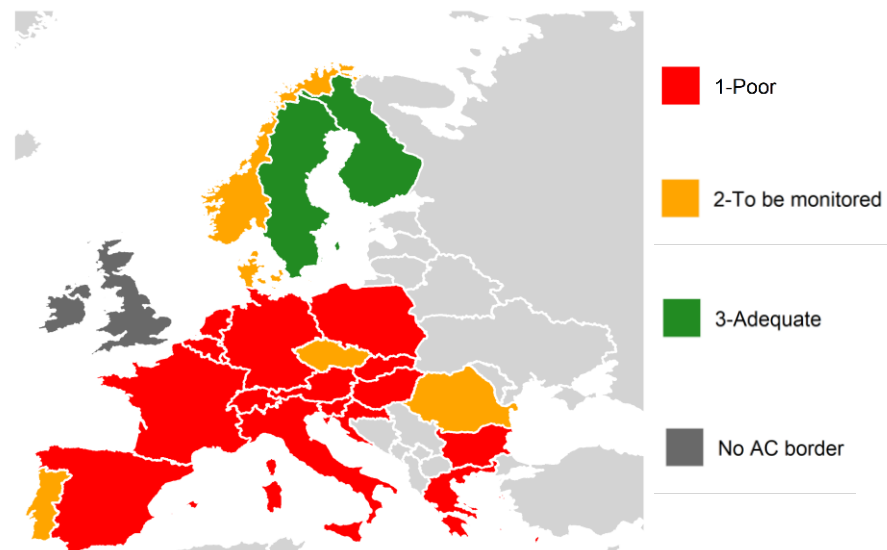


...BUT the low level of cross-zonal capacity made available for trading remained the main barrier to market integration

Ratio of available tradable capacity to benchmark capacity on HVAC borders per CCR – 2017 (%)



National performance regarding capacity made available for trading on AC borders in Europe – 2015-2017



"Caveat: The cause of poor performance for a given country may either come from this country or (often) from neighbouring ones"

Performance was assessed by comparing cross-zonal capacity made available for trading to benchmark capacity on HVAC borders in 2016, and by price convergence in the period 2015-2017. For more details on the scoring methodology, please consult the MMR.

Note: *The benchmark capacity is calculated by ACER as the capacity which could be made available while preserving operational security. The Agency extensively consulted with stakeholders, including TSOs and ENTSO-E, in order to elaborate the methodology underlying the calculation of benchmark capacities. The full methodology is available at <https://www.acer.europa.eu/en/Electricity/Market%20monitoring/Documents/ACER%20Methodological%20paper%20-%20Benchmark%20cross-zonal%20capacity%20calculation.pdf>

Underlying causes for low cross-border capacity

Illustrative facts

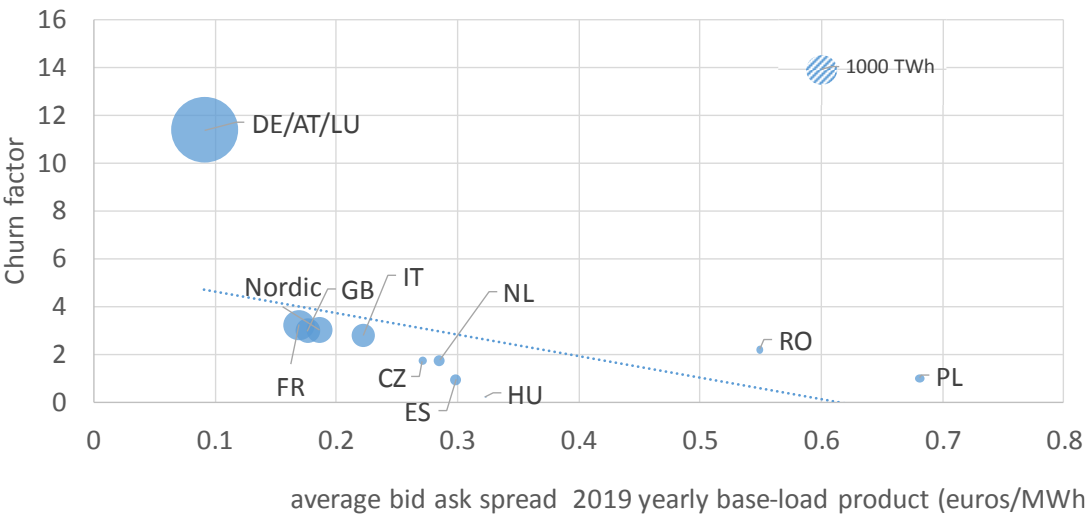
How much?	What?	Why?
✗ 86%	Share of relevant congestions located inside BZs (CWE, 2017)	Internal congestions addressed by limiting cross-border exchanges
✗ 87%	Share of network capacities in relevant network elements consumed by internal exchanges (CWE, 2017)	Lack of rules to avoid discrimination, leading to free-riding on neighbours (LFs)
✗ >2 bn €	Spent per year to handle internal constraints (50% of these costs in Germany)	The problem is so serious that TSOs still need to apply RAs to preserve internal exchanges

Main recommendations:

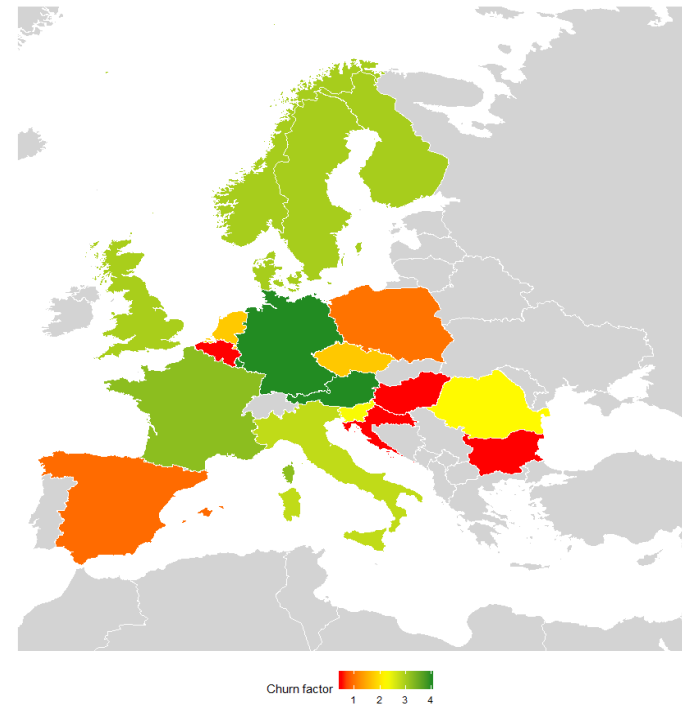
- BZ configuration:** Improvements should be investigated with priority where the problem is more severe, i.e. the German BZ (involving the Core and Hansa regions) and to a lesser extent in the SWE region. However launching a BZ review process is not advisable at the moment.
- Capacity calculation methodologies** need to be significantly improved to address the **discrimination** issue.
- Increase **the level of coordination** in capacity calculation (including the implementation of FB where relevant)

No direct correlation between the size of bidding zones and forward markets liquidity

Churn factors, volumes (2017) and bid-ask spreads (yearly product, 2019) in forward markets – (TWh and euros/MWh)

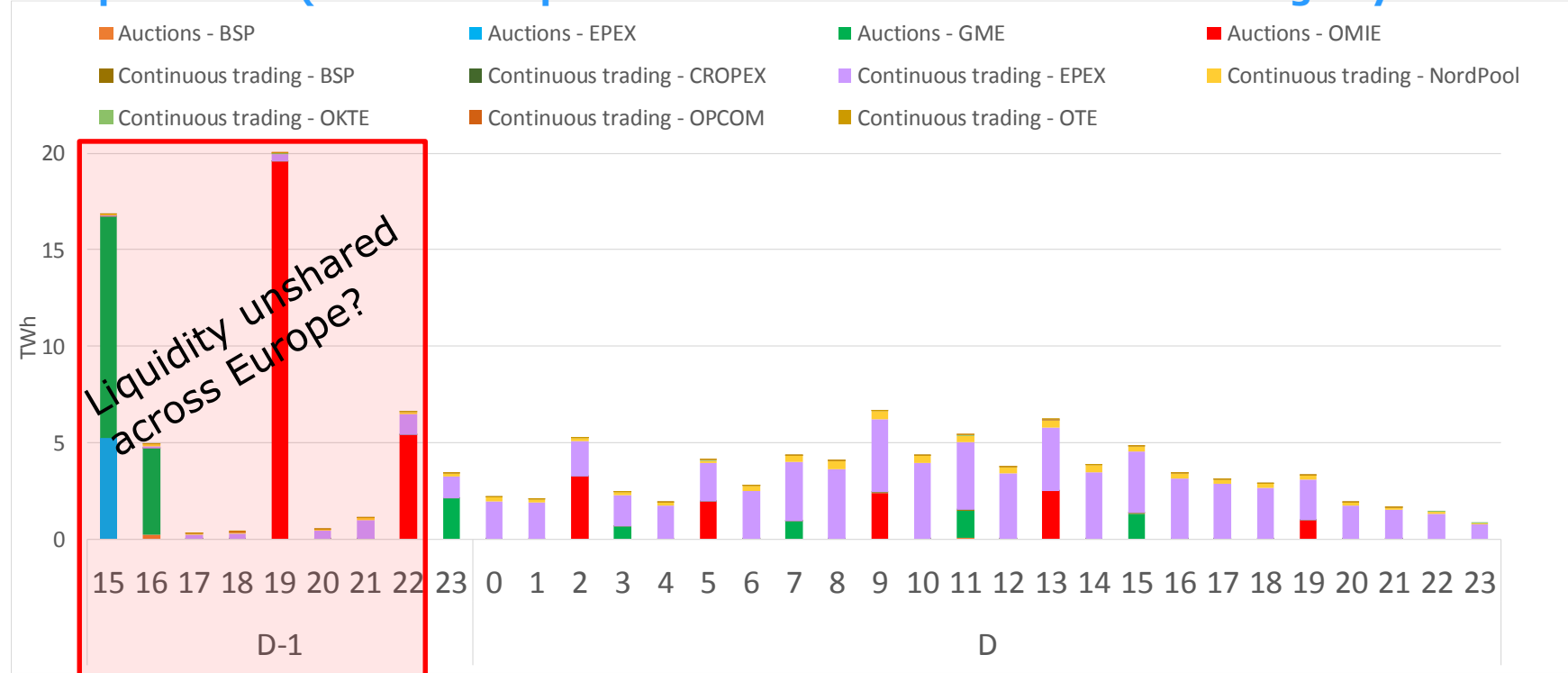


Churn factors in forward markets – 2017



The distribution of ID liquidity supports the case for a harmonised IDCZGOT as early as possible in order to limit the isolation of national markets at times of high liquidity.

Distribution of total ID volumes per trading hour, per trading system and NEMO in Europe – 2017 (% volumes per hour when trade occurred on trading day D-1 and D)



A relatively late opening of cross-zonal ID trade, would leave more than 1/3 of ID liquidity unshared across borders. In some markets (e.g. Italy or Spain), this share would be well above 50% of ID trades.

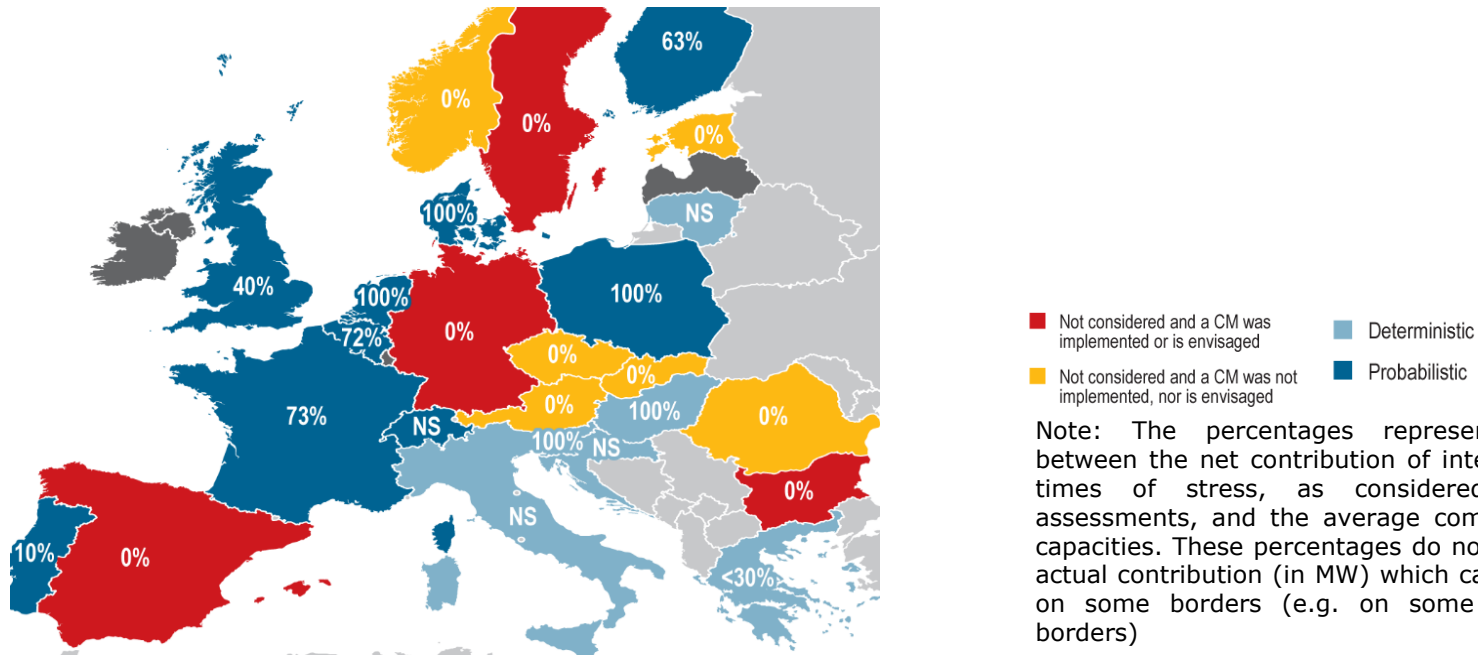
Background: Heterogonous CMs continued to emerge in Europe in 2017 (six mechanisms approved by the EC in February 2018)

Facts:

- More than **2 billion euros** to be spent in CMs in Europe in 2018
- The charges to finance CMs are becoming a noticeable share of the wholesale prices (more than **30% of DA prices in IE**, around **5% in GR or FR**).

National adequacy assessments continued to underestimate the contribution of interconnectors to SoS. By contrast, pan-European assessments can assess this contribution more realistically, but their role is still residual.

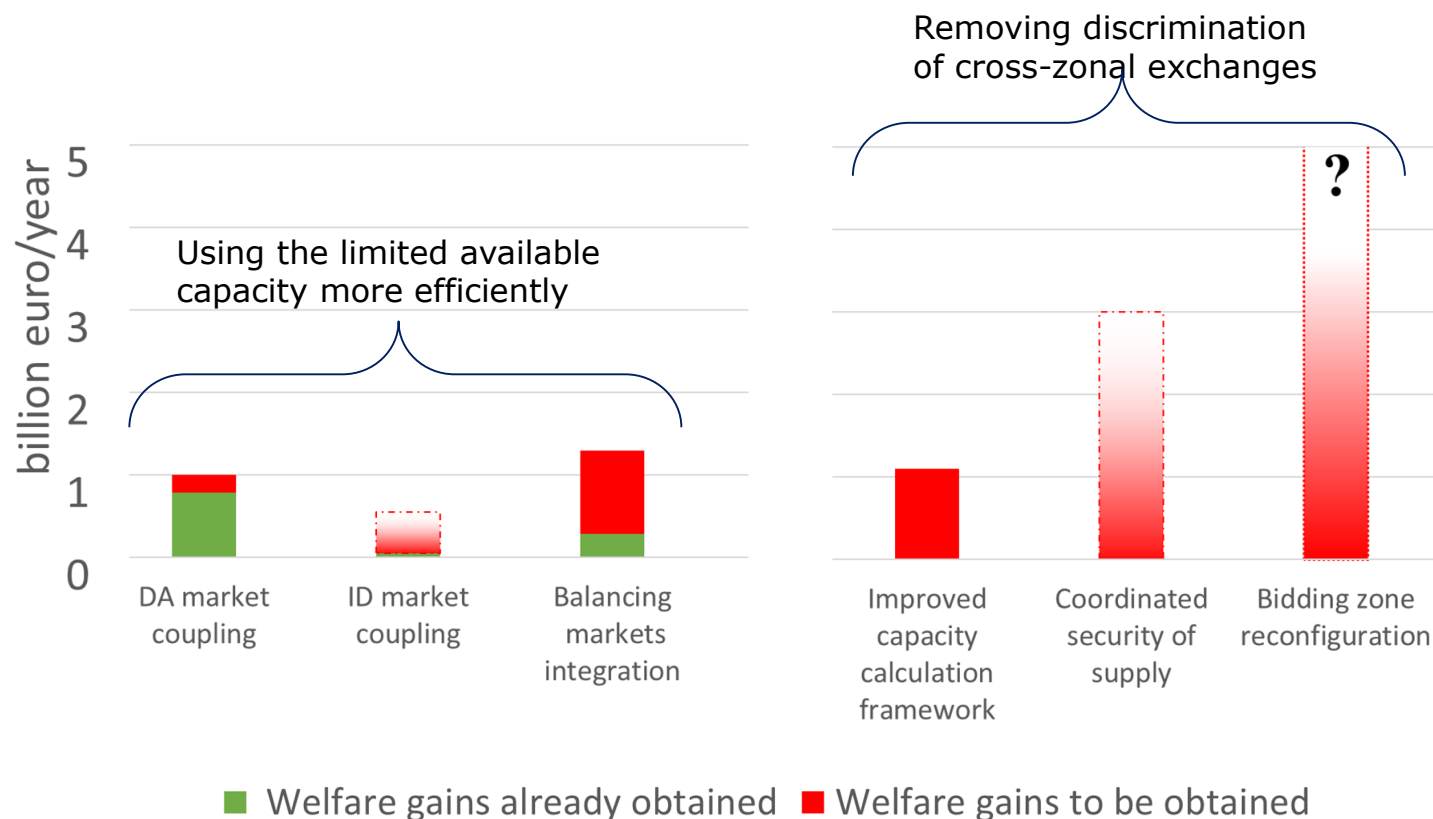
Treatment of interconnectors in generation adequacy assessments in Europe – 2016



Note: The percentages represent the ratios between the net contribution of interconnectors at times of stress, as considered in national assessments, and the average commercial import capacities. These percentages do not represent the actual contribution (in MW) which can be negligible on some borders (e.g. on some of the Polish borders)

Any step to remove the discrimination of cross-zonal exchanges will bring significant benefits to end-consumers

Social welfare* benefits already obtained and to be obtained from various actions intended to increase EU markets integration



Note: *Gross benefits. The fading color for some categories reflect that the welfare gains are based on third party estimations and/or subject to considerable uncertainty.

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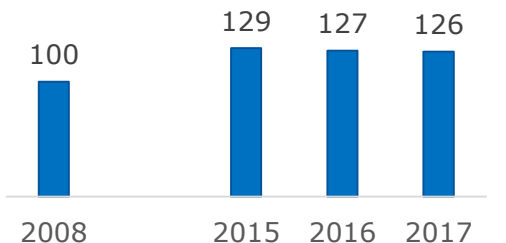
Household prices decreased for a second year in a row

Prices for households are decreasing but are still higher than in 2008

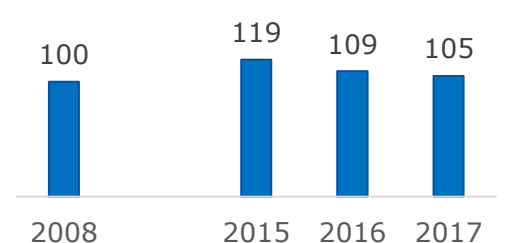
Aggregated EU wholesale prices decreased significantly

The non-contestable part in the total price continues to go up, especially the renewables support component

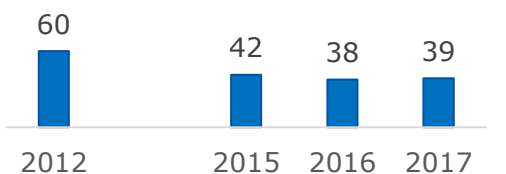
EU household final electricity prices, index



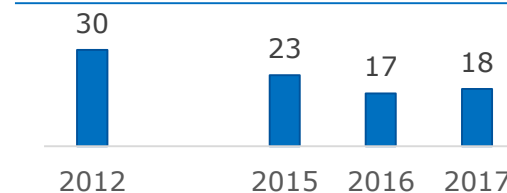
EU household final gas prices, index



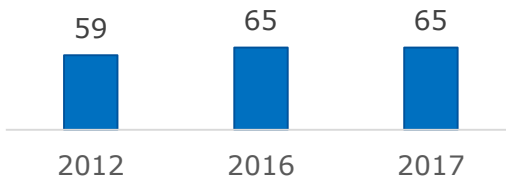
Electricity wholesale price, euros/MWh



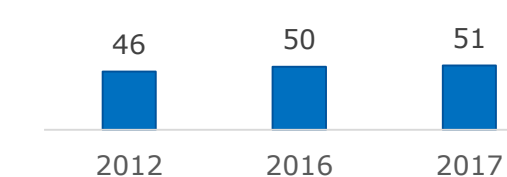
Gas wholesale price, euros/MWh



Share of the non-contestable part in final electricity prices, %



Share of the non-contestable part in final gas prices, %



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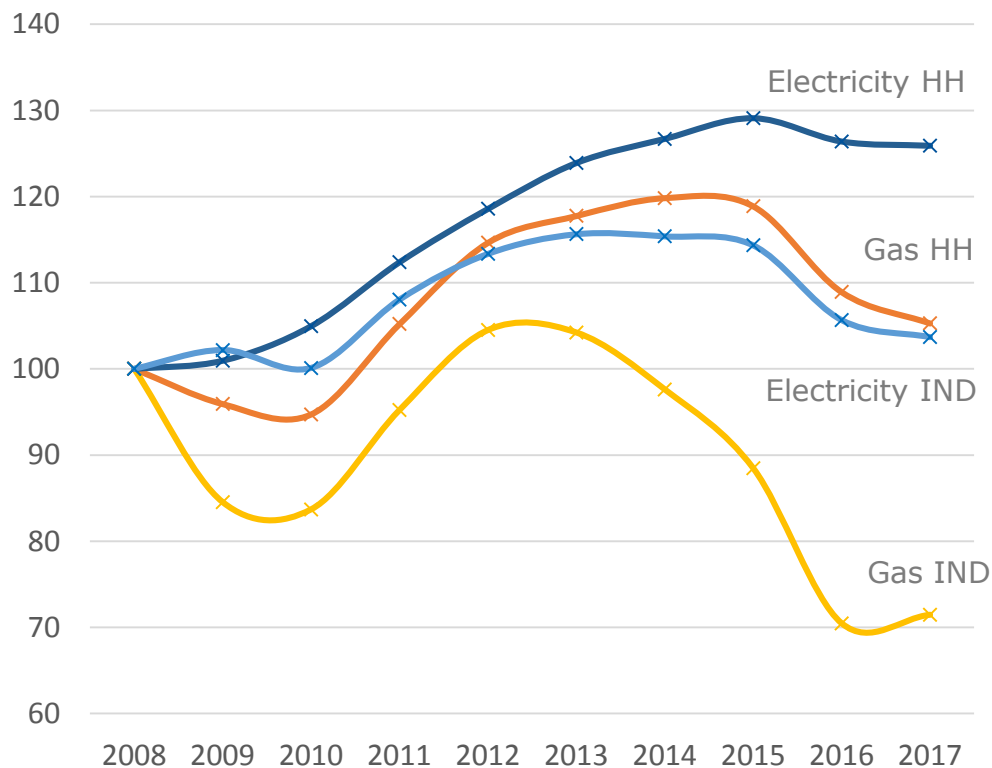
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On average, industrial consumers benefitted more from energy market opening

Trends in electricity and gas retail prices for households and industrial consumers - 2008-2017



Aggregated EU price - 2017

204 EUR/MWh

61 EUR/MWh

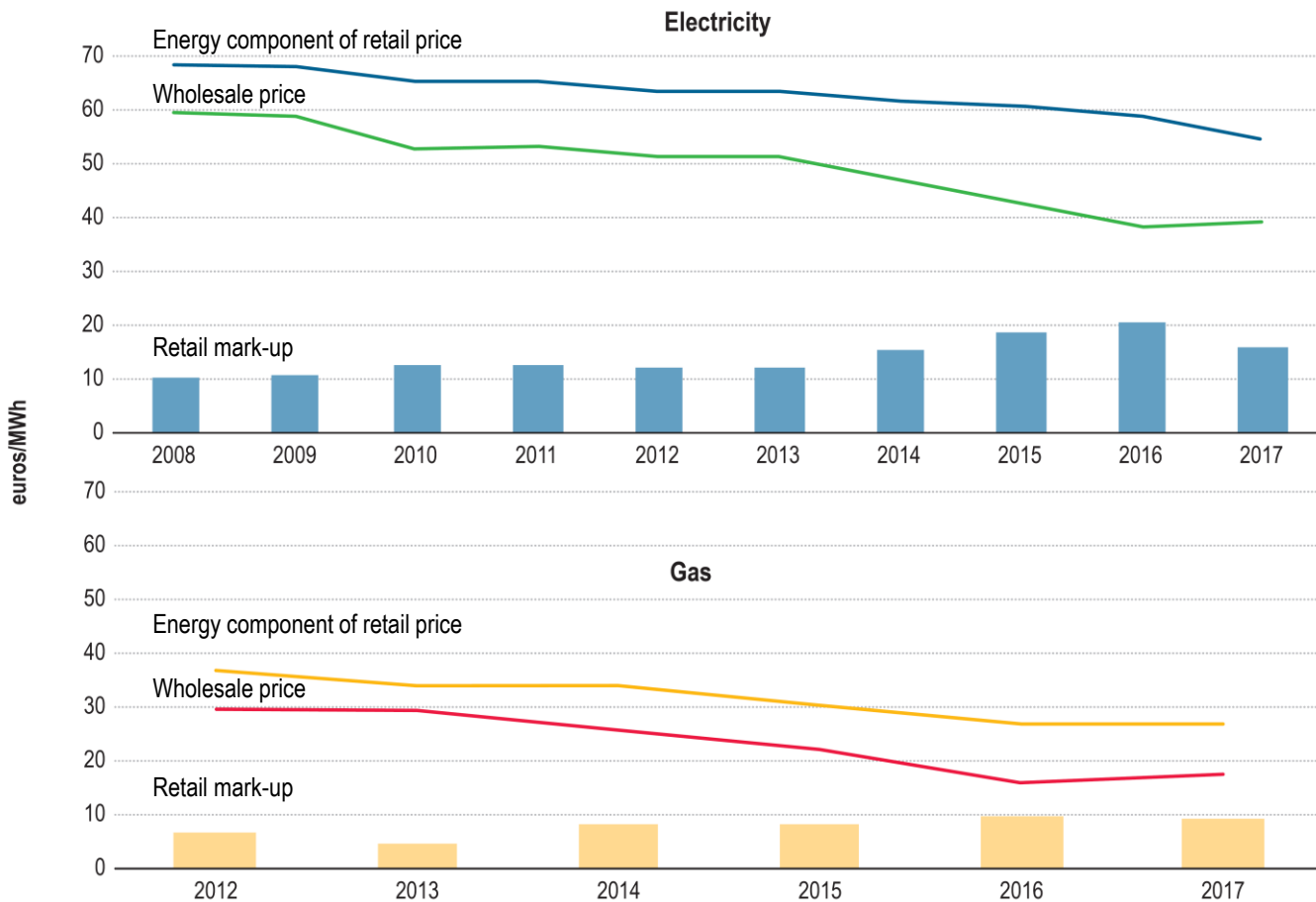
104 EUR/MWh

25 EUR/MWh

In 2018 retail prices may increase given higher wholesale prices

Both gas and electricity retail mark-ups for households decreased in 2017

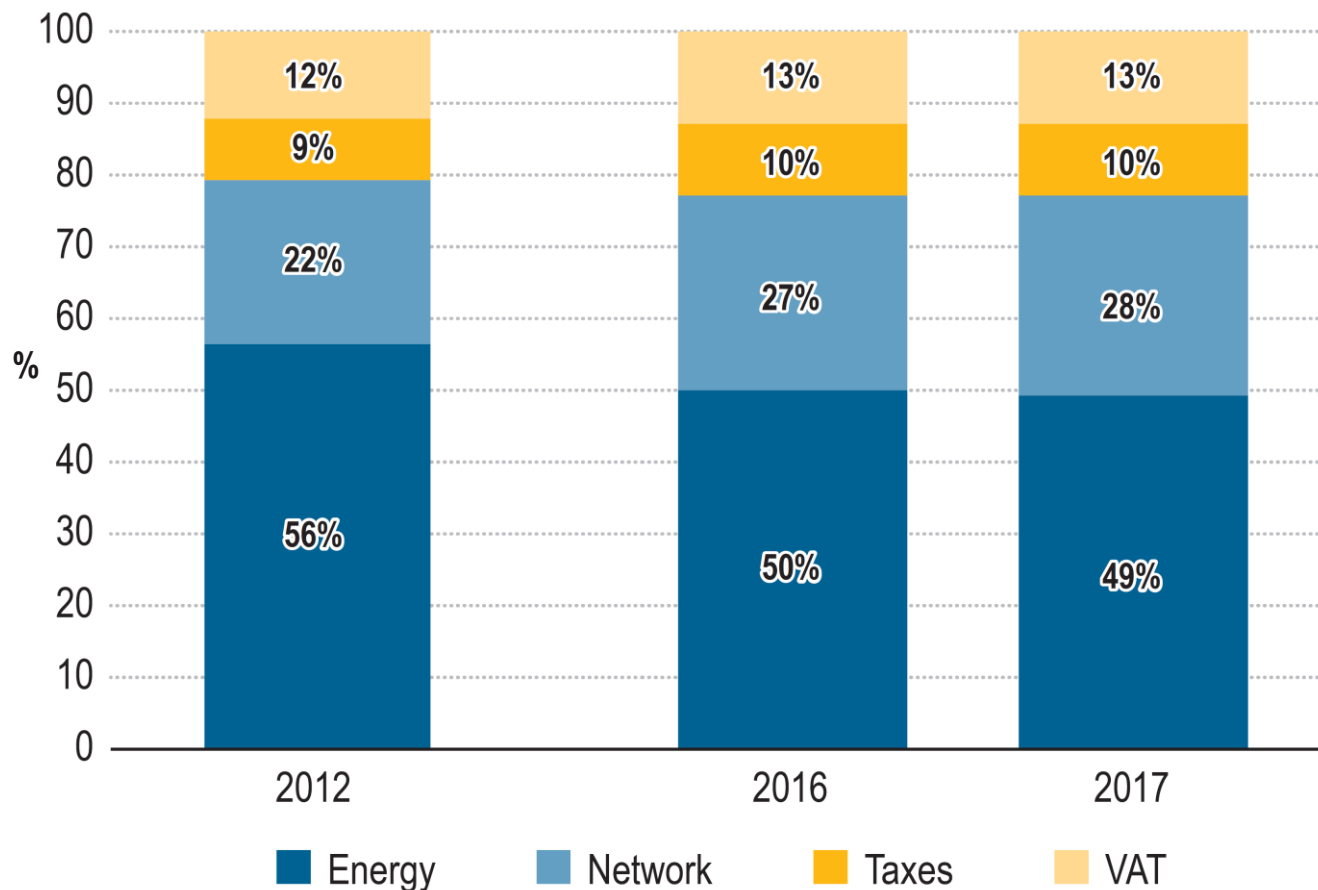
Evolution of mark-ups in electricity and gas retail markets



- Retail prices have been lagging behind falling wholesale prices, resulting in growing mark-ups up to 2016
- In 2017, both gas and electricity mark-ups decreased

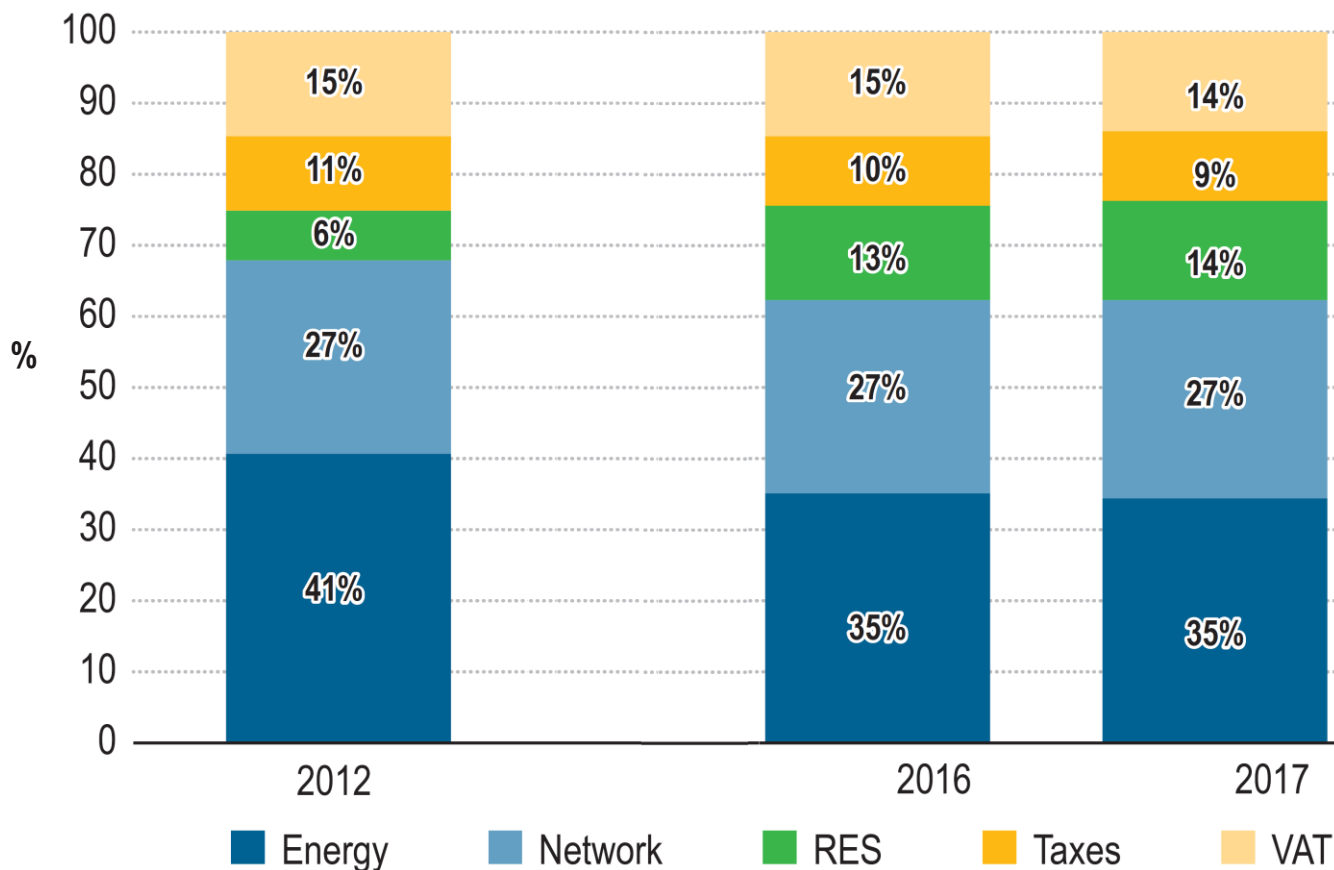
The share of the energy component of the gas retail price dipped below 50% of the total price in 2017

Gas retail price breakdown (2012 - 2017)



The non-contestable part in the total electricity retail price continues to increase

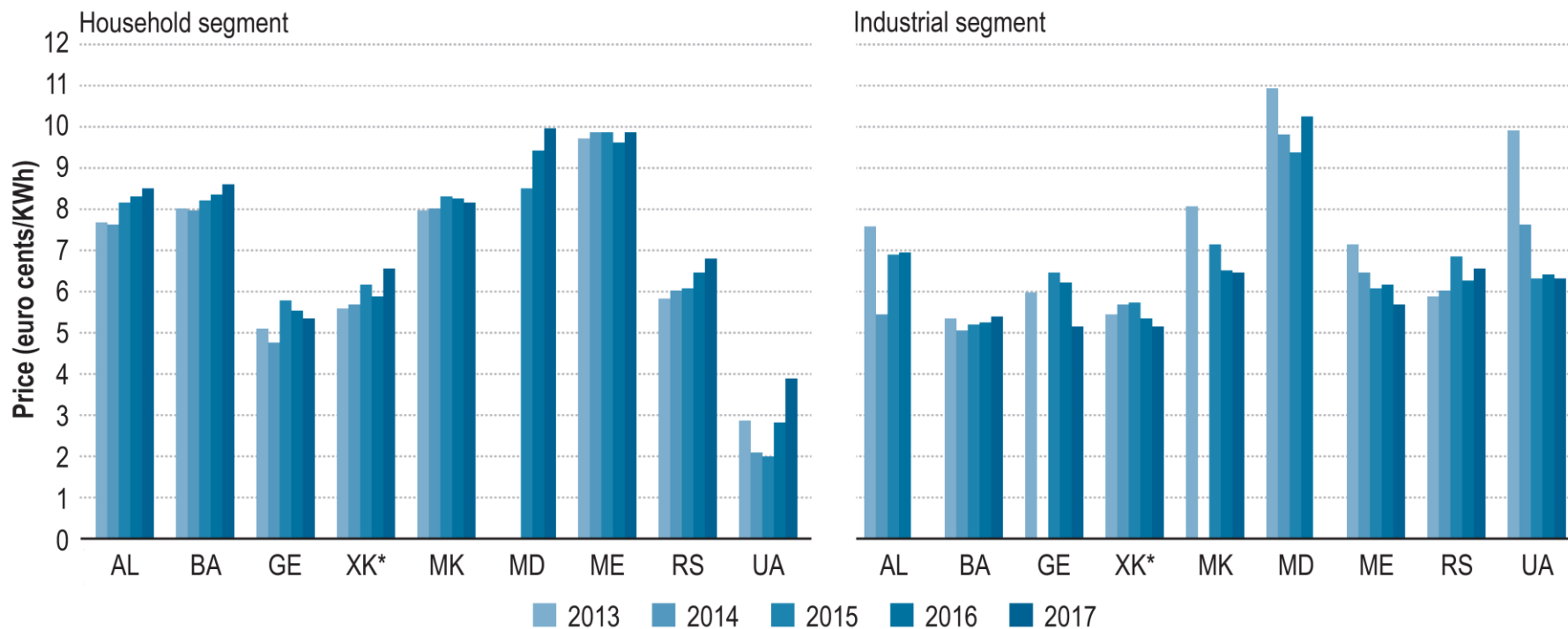
Electricity retail price breakdown (2012 - 2017)



Note: percentages may not add up to 100 due to rounding

Electricity retail prices in the Energy Community Contracting parties are increasing for households but decreasing for industrial consumers

Retail electricity prices for households and industrial consumers in EnC (2013 - 2017)

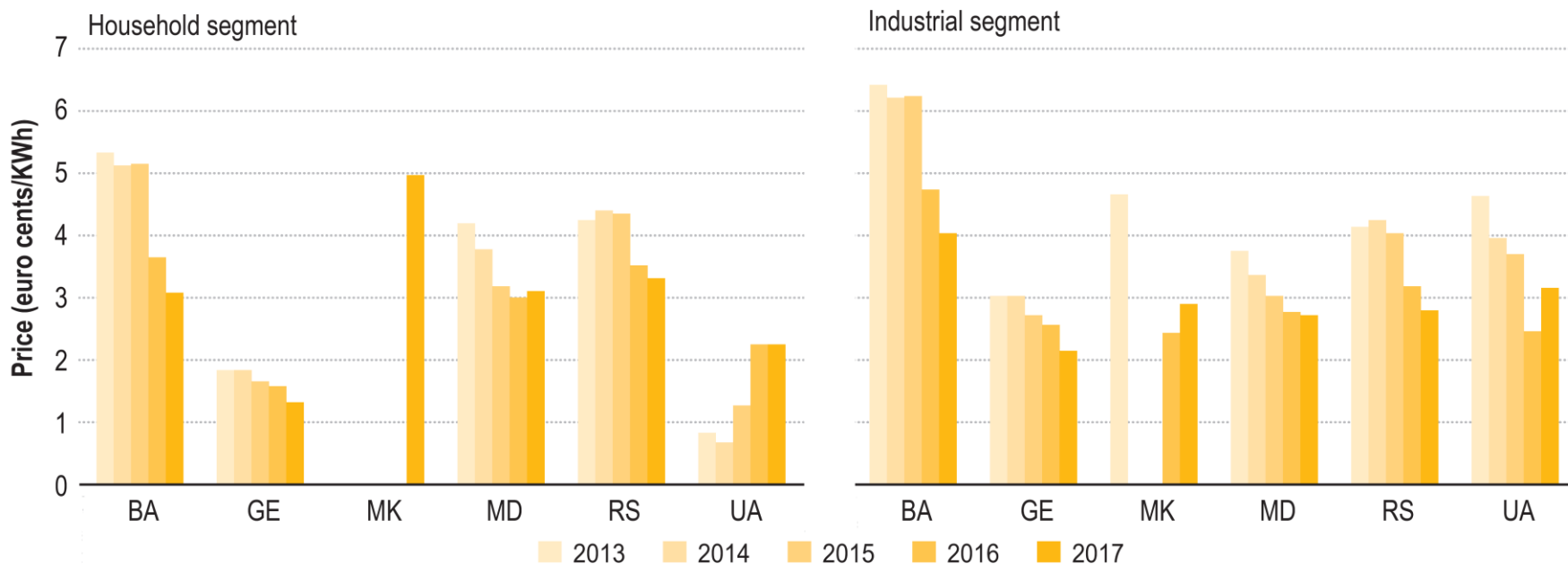


- Household electricity prices have been increasing in EnC CPs, especially in Ukraine, where they have risen by 34% between 2013 and 2017

- In most EnC CPs, industrial electricity prices are higher than household prices, though the former are decreasing

Gas retail prices have been increasing in Ukraine, but decreasing in other EnC CPs

Retail electricity prices for households and industrial consumers in EnC (2013 - 2017)



- Over the 2013 – 2017 period, household prices in Ukraine increased by more than 170%, but decreased by an average of 30% in other CPs

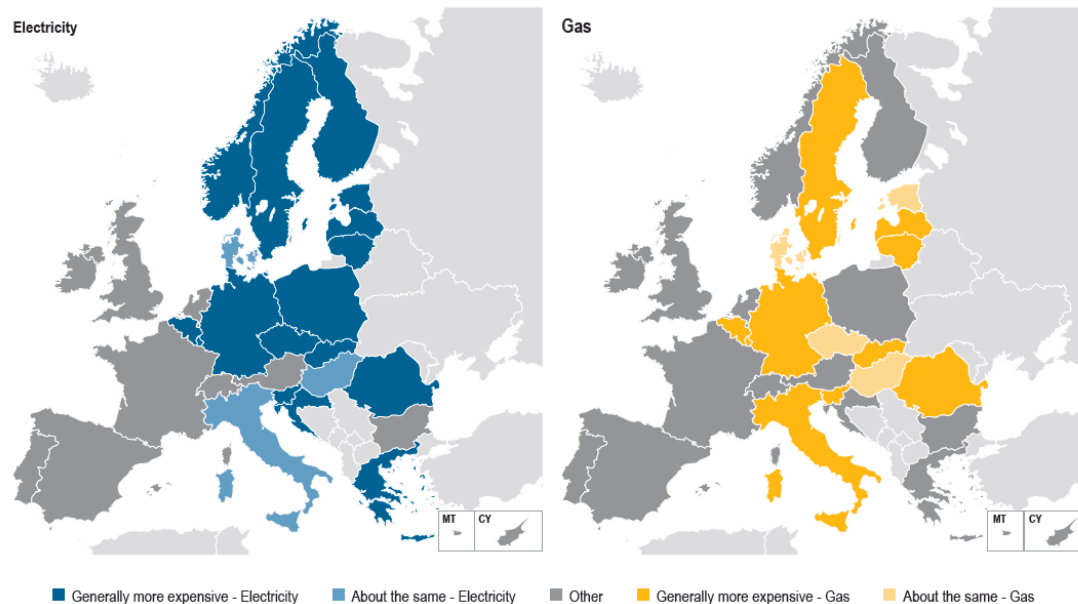
- Industrial prices in Ukraine rose by 29% YoY, but average industrial prices of the CPs decreased by 32% on average in the 2013-2017 period

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 - Public Service Obligations (PSOs)
 - Consumer information rights
 - Consumer choice
 - Consumer complaints and handling
 - Protection of vulnerable consumers
 - Recommendations

Public service obligations

SOLR energy price comparison to conventional energy prices in EU MSs - 2017



- Suppliers of last resort (SOLR) available everywhere in practice, but often more expensive
- Disconnection process gives reasonable time to settle open bills
- Disconnection rates hardly exceed 1%, data for some MSs still missing
- Pre-payment meters only used in a few Member States (MSs) as substitutes for disconnections (or otherwise).

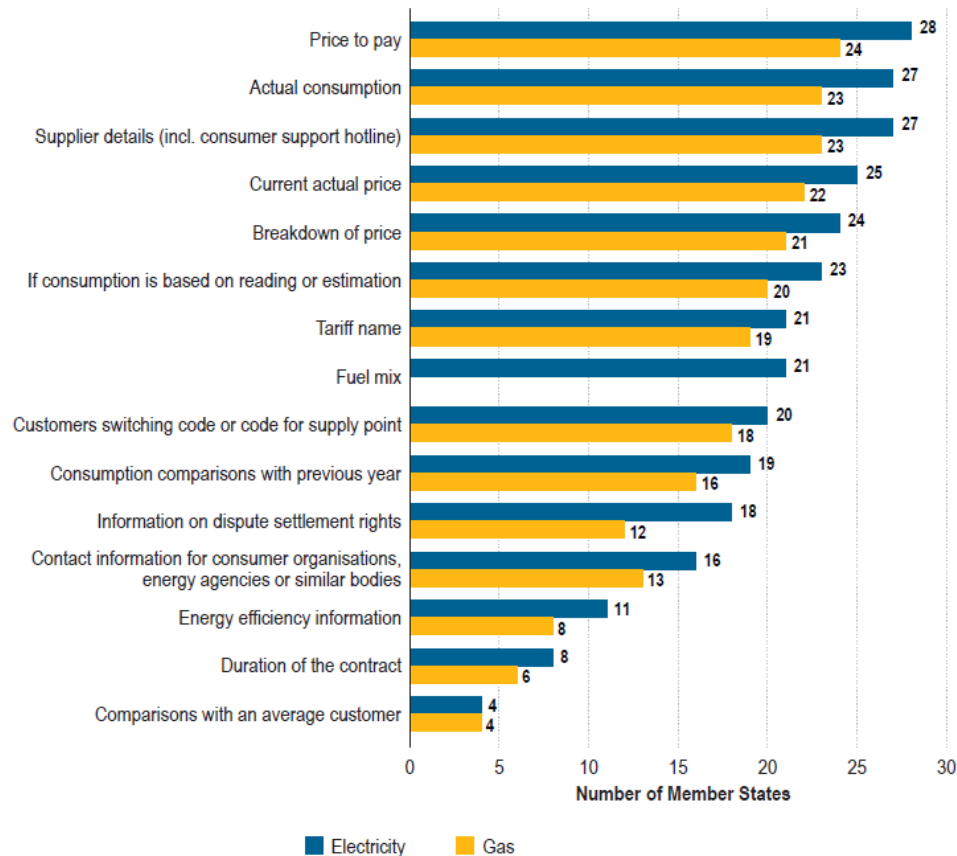
Protection of vulnerable consumers

- MSs have in place a range of safeguards/protections for vulnerable populations (implicitly or explicitly defined)
- Intermingling with social security system causes confusion between energy/social security legislation and incomparability across MSs
- Definitions of energy poverty only available in 5 MSs, with more than 10% of population being energy poor in some MSs

Consumer information rights

Information elements provided on household consumer bills in EU MSs - 2017

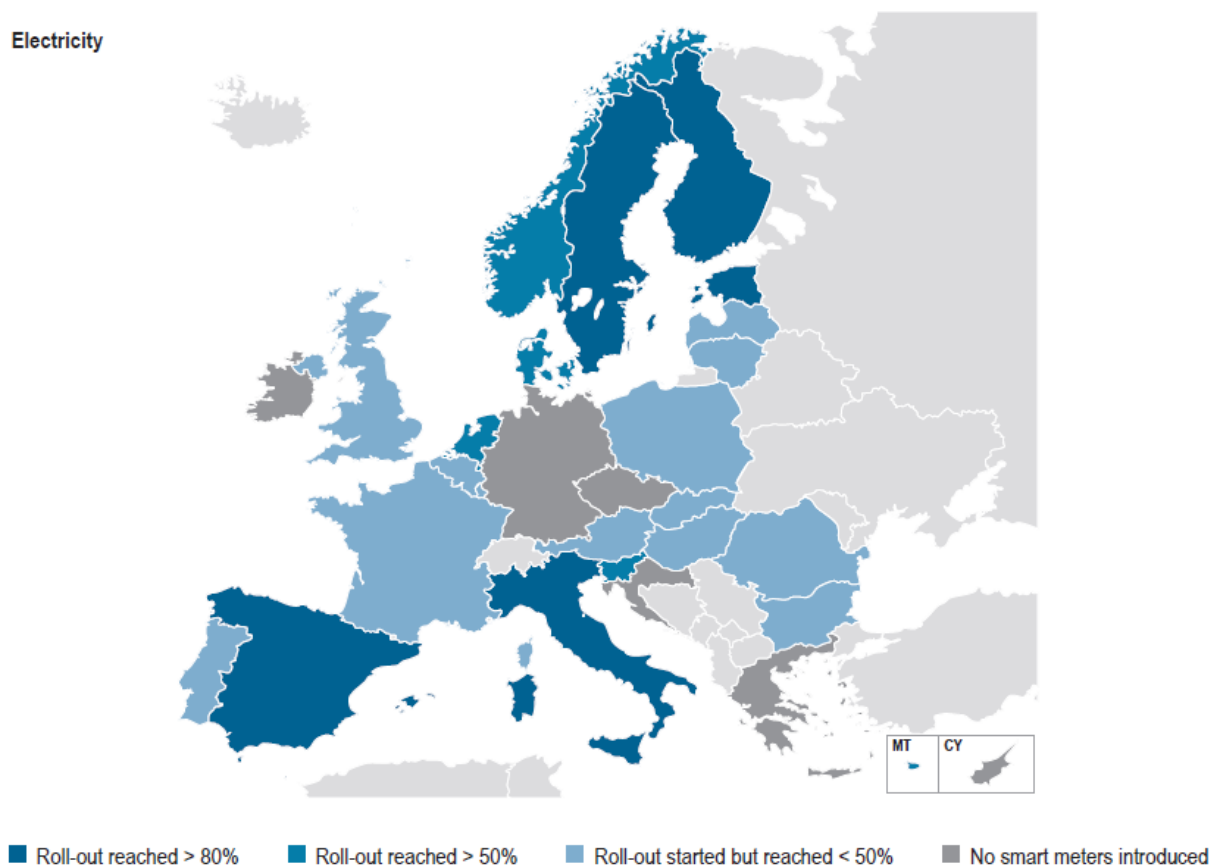
- Third Package requirements (EED) concerning information on bills extended in all MSs
- Already a plethora of information elements on national bills



Smart metering

Electricity smart meter roll out rates in EU MSs - 2017

- Smart meter roll reached more than 50% in 9 MSs
- Maximum time granularity between 15 minutes and 1 hour

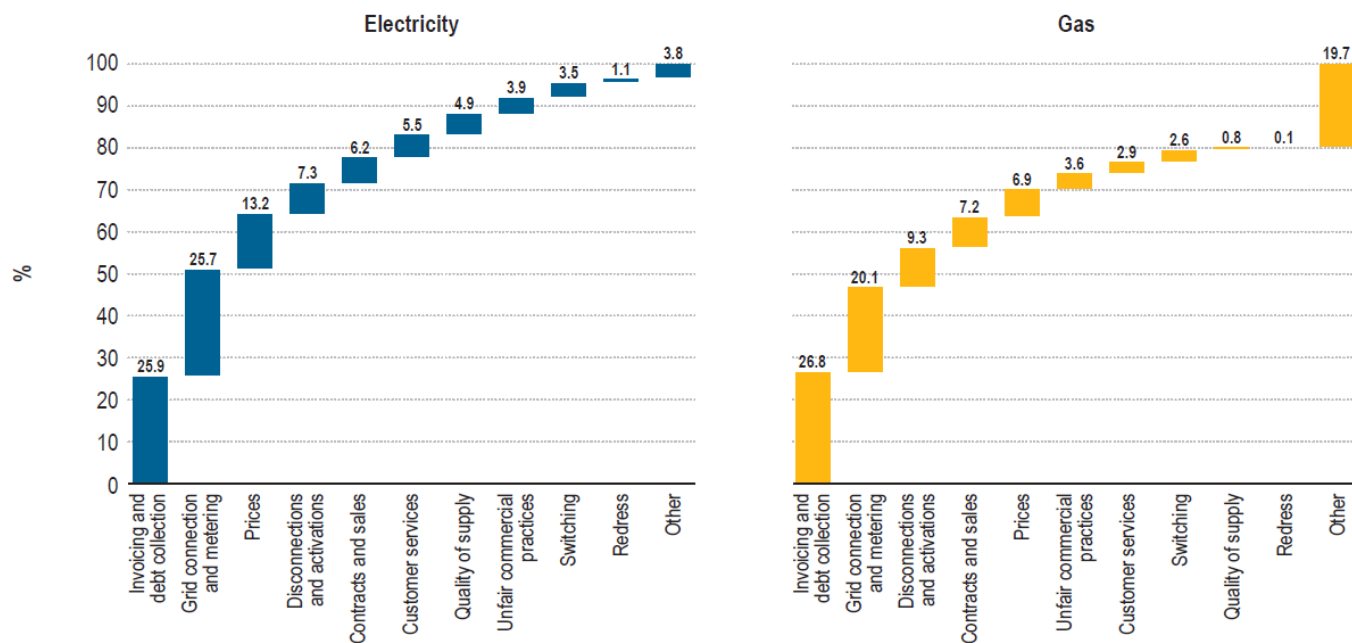


Consumer choice

- Reliable **Comparison Tools** still not available everywhere
- Average **switching** duration remains at approx. 12 days, 3-week limit is generally respected in all MSs although start event varies greatly
- In half of MSs the switching date can be chosen
- Final **bill** comes within 6 weeks in all MSs

Complaints and ADR

Average national shares of types of household consumer complaints directly addressed to NRAs for EU MSs - 2017



- Figures available from NRAs who are either answering to complaints or forwarding them to responsible parties
- Suppliers and Distribution System Operators often requested to respond within 1 month or faster
- Main share of complaints is about **bills**, (dis)connections, prices and contracts

Recommendations

- Supplier of Last Resort (SOLR) or default suppliers should not lead to consumers remaining inactive on a permanent basis. SOLR mechanism should not be used as a means to keep regulated prices in place.
- **Keep bills simple.** Too much information on bills can be confusing. Suppliers should make the most of digitalisation to share information with their clients.
- There should be at least **one reliable comparison tool** per MS. Transparency of price and non-price elements should be guaranteed, by enabling consumers to filter out additional services of offers on comparison tools.
- **Smart meters** should be more quickly rolled out and have functionalities that enable consumers to easily benefit from and participate in energy efficiency and demand response/flexibility schemes, including short reading intervals and optional monthly bills.

Thank you for your attention

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MMR link

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