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Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2019

Energy Retail and Consumer Protection
Volume

October 2020

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ACER/CEER

Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2019

Gas and Electricity Retail Markets Volume

October 2020



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Foreword



Christian Zinglensen
ACER Director



Annegret Groebel
CEER President

2020 has been a challenging year with the current global health pandemic. Besides our usual comprehensive assessment of developments in the electricity and gas sectors and progress towards the completion of Europe's internal energy market (IEM), this year in our Market Monitoring Report (MMR) we therefore also provide insights on the impact of the COVID-19 on Europe's energy markets.

This MMR (based on 2019 data) comprises three volumes: electricity wholesale markets, gas wholesale markets, and retail markets and consumer rights. The latter now contains the various ACER and CEER reports in one volume. Each volume contains insights on how the pandemic has impacted Europe's energy systems. For example, the retail volume provides an overview of the responses of the National Regulatory Authorities (NRAs) to protect consumers' energy supply and measures to support suppliers. The wholesale gas and electricity volumes report on the unprecedented decline in demand.

Energy regulators keep the lights on and Europe's energy markets working

Keeping the lights on and energy markets functioning is the normal job of the energy regulator. At no time is this role more important than during a global health crisis. Keeping the lights on and hospitals equipment running saves lives. Guaranteeing essential services such as gas, heat and power for household appliances and devices such as laptops enables people to work from home.

Despite the crisis, the electricity and gas market integration process did not stall. This is good news. It also speaks of the value of having integrated well-functioning energy markets.

Building Europe's green recovery and the role of market monitoring

In a post-COVID-19 era, achieving a sustainable and resilient recovery will be a priority. In this context, cost-efficient integration of the internal energy market supported by extensive market monitoring becomes more relevant than ever. Market monitoring captures the status of energy markets and identifies remaining barriers to EU market integration. In particular, the integration of power markets and the decarbonisation of gas are critical to meet the ambitious energy and climate policy targets set for Europe. In our view, the Green Deal is an opportunity to integrate sustainability objectives into Europe's plans to economic recovery.

Key Findings and Recommendations

Europe's clean energy transition must be built on an efficient and well-integrated IEM. Overall, keeping the focus in market integration is key to ensuring the EU energy union targets are met in a cost-efficient manner.

Electricity and gas market integration continued to progress in 2019

Progress in the functioning of Europe's electricity wholesale markets is noticeable, though more advances are needed (in particular, finalising day-ahead market coupling). Available instruments must be utilised to increase the efficient use of interconnectors as required by the 70% cross-zonal capacity target and we are pleased to report that we will soon publish a dedicated report on this. Looking ahead, sizable security of supply benefits are expected as Europe shifts towards a better approach to assess resource adequacy.

Build upon the current gas market framework to decarbonise gas

Gas wholesale markets continue to function well based on the implementation of the current market rules. However, with the European Commission's proposal to reduce emissions further for Europe to be on a responsible path to becoming climate neutral by 2050, as well as the resources earmarked for the EU recovery plan, the currently low uptake of carbon neutral gases will need increased attention. We recommend that any upgrade of the internal gas market rules, targeting an increasingly decarbonised sector, be built on the foundations of the current market framework. This to avoid the transition leading to new national market fragmentations, whilst at the same time retaining the significant benefits for consumers already in place.

Without efficient energy infrastructure investment Europe will not be able to deliver on the ambitious decarbonisation outlook set for Europe's energy sector. ACER and CEER have recently set out a suite of recommendations to improve infrastructure planning and regulatory oversight in our joint [ACER/CEER position paper on the review of the TEN-E Regulation](#). In the joint [ACER/CEER Gas Bridge beyond 2025 Conclusions paper](#) we also address important regulatory issues such as power to gas networks or repurposing existing gas networks for hydrogen.

Electricity prices for household and industrial consumers throughout Europe electricity increased in 2019

Retail gas prices also increased for households but they fell for industrial gas consumers. Our monitoring shows that the state of retail markets is more disparate across the Union than for wholesale markets.

Tackling climate change will involve a profound transformation of our economy and will significantly influence the way we use and interact with energy in our everyday life. For the energy transition to be successful, consumers will need to be informed, supported and nudged throughout this transformation. Our market monitoring underlines the importance of ensuring that consumers have ample choice and that their rights are adequately protected, not least the more vulnerable consumer segments. This requires well-functioning retail markets. We are committed to continue monitoring progress towards the completion of a well-functioning internal energy market and to maintain the stability of the energy system as a whole during and after this time of crisis.

We wish to express our sincere thanks to colleagues in the ACER Market Monitoring team and from the NRAs for the expertise and data provided as well as for the contributions of the Energy Community in producing this report.

Enjoy the read. We welcome your feedback.



Christian Zinglarsen
ACER Director



Annegret Groebel
CEER President

Executive Summary

- 1 The 2019 Retail and Consumer Protection Market Monitoring Report (MMR) is a combination of previous energy consumer reports.¹ This report provides information on the current status of retail energy markets across the EU and the protection measures available to energy consumers.
- 2 While this Volume focuses on 2019, it is important to note the impact that COVID-19 is currently having on the energy sector. This impact has prompted a variety of responses from National Regulatory Authorities (NRA) across the European Union (EU). The primary aim of such measures is to protect energy supply for consumers. Detail on the NRA response to the impact of COVID-19 can be found in Section 1.
- 3 The key findings of this MMR 2019 are outlined below, with further information provided within this Volume.

Energy Prices

- 4 **Electricity prices for EU consumers increased slightly in 2019** for both household and industrial consumers.
 - a) Average household electricity prices increased in 2019 by 3.7% to 21.6 euro cents/kWh in comparison to 2018.
 - b) Average industrial consumers' electricity prices increased in 2019 by 7.8% to 11.0 euro cents/kWh in 2019 compared to 2018.
 - c) In the Energy Community Contracting Parties (EnC CPs), average household prices decreased by 1.6% to 7.55 euro cents/kWh in 2019 when compared to 2018. However, average industry electricity prices increased by 11% to 7.27 euro cents/kWh in 2019 when compared to 2018.
- 5 **Electricity price changes varied across the EU with some Member States observing price increases while others observing price decreases** signalling that retail markets are not yet aligned across the EU.
 - a) Household consumers observed price decreases in Denmark (-5.5%) and Greece (-5.2%), while in the Netherlands and Lithuania² electricity prices increased by 20.8% and 14.4%, respectively.
 - b) In the industrial market, electricity prices increased by 7.8 % in 2019 compared to 2018. While prices increased in most countries, decreases were reported in Denmark (-7.5%) and Norway³ (-6.2%).
- 6 **Large differences in electricity prices continue** across the EU, Norway and the EnC CPs.
 - a) German household consumers paid 29.8 euro cents/kWh (the highest in the EU). This is more than three times the price paid by Bulgarian household consumers (9.8 euro cents/kWh).
 - b) 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).

1 ACER-CEER Retail MMR, ACER-CEER Consumer Protection MMR, and the CEER Monitoring Report on the Performance of European Retail Markets.

2 According to the Lithuania NRA, electricity prices for household consumers increased due to rise in electricity market prices in 2018 and foreseen compensations for land easements.

3 The price in the wholesale market was 10 % lower on average in 2019 compared to 2018. Norwegian power production consists of 92 % hydropower, so prices fluctuate with changes in temperature and the hydrological conditions. As many customers have dynamic price contracts, this reduction in wholesale price affects prices in the retail market.

- c) 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.
- d) In the EnC CPs, variations in the electricity price were observed in 2019. With the exception of Kosovo and Moldova, where household prices decreased by around 5% in comparison to 2018, and North Macedonia, where these prices remained comparable to 2018, household electricity prices increased in all other EnC CPs.

7 Looking back to the period from 2009 to 2019, electricity prices for consumers increased in most EU countries and EnC CPs.

- a) Fourteen Member States recorded electricity price increases over 30% from 2009 to 2019. Only three countries recorded electricity price decreases in the same period: Luxembourg (-4.4%), Malta (-19.4%) and Hungary (-29.5%).⁴
- b) In the industrial segment, industrial electricity prices increased significantly in some Member States, for example Estonia (+64.7%), United Kingdom (+50.8%) and Portugal (+50.4%).
- c) In the EnC CPs, electricity prices for households excluding Ukraine increased, on average, by 15.8% between 2013 and 2019. Industrial prices increased on average by 12.8% in the same period. Over the same period, electricity prices for households increased by 50% and industry prices decreased by 25% in Ukraine. The unwinding of cross-subsidisation partially explains the different price dynamics in the two segments.

8 In gas, prices also increased in 2019 in comparison to 2018 for household consumers but decreased for industrial consumers.

- a) In 2019, average gas prices across the EU increased by 3.1% for household consumers to 6.5 euro cents/kWh with notable price increases in Spain (+14.1%) and the Netherlands (+12.5%).
- b) However, industrial consumers⁵ observed a gas price decrease of 8.5% and paid on average 2.6 euro cents/kWh in 2019. The highest decreases recorded in Ireland (-23.3%) and Sweden (-21.7%). Bulgaria recorded a large increase in the industrial price year on year (19.1%).
- c) In the EnC CPs, household gas prices remained broadly in line with 2018 prices at a cost of 2.15 euro cents/kWh in 2019. Industrial gas prices increased by 43% in 2019 when compared to 2018 prices and averaged 3.08 euro cents/kWh across the EnC CPs (excluding Ukraine). Ukraine recorded an increase of household gas prices of 225%.⁶
- d) In the EnC, contrary to the trends observed in the EU, industrial gas prices were, on average, higher than household gas prices in 2019.

⁴ Electricity price decreases in Hungary are a result of a Hungarian governmental programme of energy cost decreases for household consumers, pushing them below market prices (OECD Hungary country brief, June 2020).

⁵ ACER calculations based on Eurostat, Band D2: 20–200 GJ (household gas consumption) and Band I5: 1,000,000–4,000,000 GJ (industrial gas consumption) - (June 2020).

⁶ Gas household prices in Ukraine changed from 2014 onwards following the Cabinet of Minister's resolution to increase gas household prices in line with an agreement made with the International Monetary Fund.

- 9 As with the electricity market, there were **variations in the gas markets across the EU in 2019**.
- a) 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).
 - b) 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).
- 10 **The difference between wholesale energy prices and retail energy prices (mark-up) widened in 2019.** A strong correlation between retail and wholesale energy prices is observed when wholesale energy prices increase. However, a weaker correlation is observed with regard to the rate of reduction of retail prices following a fall in wholesale energy prices (a phenomenon known as downward sticky prices). Such “sticky prices” can result in energy consumers paying higher than needed prices for their energy consumption. While it is not expected that retail costs will fall immediately in line with wholesale price reductions, enhanced participation on the part of the energy consumers could exert pressure on suppliers to decrease retail prices more rapidly. To achieve this, energy consumers need to be informed of wholesale price reductions, have access to a variety of suppliers, and be easily capable of switching supplier.
- a) Over the period from 2013 to 2018, the largest mark-ups in the household electricity retail markets were observed in Great Britain, Germany, Ireland and Belgium. When focusing only on 2019, the highest electricity household mark-ups were observed in Ireland, Belgium and Great Britain. In 2019, gas markets mark-ups were highest in Czech Republic and Sweden. Greece, Great Britain and Germany had the highest average mark-up values over the 2013-2018 period. In contrast, the lowest positive⁷ mark-ups in 2019 were observed in the household market of the electricity markets of Poland and Romania and in the gas markets in Croatia, Romania and Bulgaria.
 - b) In electricity, a relatively strong correlation between the wholesale and retail prices was observed from 2008 to 2013 and from 2017 to 2019. However, a divergence from this trend was observed between 2013 and 2016. During this time the decrease in wholesale prices was not followed by a similar decrease in the energy component of the retail energy prices.
 - c) In the household gas market the average retail energy component and the average wholesale price decreased by 23.3% and 37.7%, respectively between 2012 and 2019,⁸ while the average mark-up increased by 39.7%. The downward slope of the average wholesale price and of the average energy components of retail price diverged in 2015, 2016 and noticeably in 2019, when the average retail energy component price did not follow the average decrease in wholesale gas prices. In 2017 retail prices decreased, on average, despite higher wholesale prices. Further information regarding energy prices is available in Section 2.

Billing and energy price breakdown

- 11 **There is already much information to be found on European energy bills and the latest European legislation will add to that in some significant ways, e.g. by adding information about switching-related issues.** While it is important to inform consumers, it is even more important to ensure that such information is understood, processed and put to good use by energy consumers navigating the energy markets across Europe.
- 12 **The composition of the final energy bills for household consumers continued to vary greatly** across Member States. As the energy system evolves in the coming years, it is expected that the breakdown of consumers’ electricity bills will change. Network expenditure is likely to increase in the coming years to enable additional renewable penetration, enable energy communities, cater for increased electricity demand and provide consumers with smart meters to enable active participation on the part of energy consumers. Future iterations of this volume will aim to focus more specifically on the network element of consumers’ energy bills. Such focus could examine the costs to energy consumers of its components, such as the capital costs of both the transmission and distribution networks and the operational costs associated with both networks.

⁷ Some MS recorded negative mark ups, i.e. retail prices were recorded below wholesale costs.

⁸ Difference in assessment period is due to the availability of data.

- a) On average, 37% of the final price consisted of the energy component (contestable charges), while the remaining 63% of the electricity bill consisted of non-contestable charges, i.e. the sum of network costs, taxes, levies and other charges.
- b) The highest share of network charges in the final price was in Luxemburg, where they accounted for 42% consumers' bills, and the lowest share was in Greece, Italy and Portugal accounting for 13% and 15% of the final price respectively. Charges for renewable energy resources (RES) accounted for more than 20% of consumers bills in Germany and Great Britain, while retail electricity markets in Hungary, Sweden and Denmark had the highest share of VAT in the final electricity price.
- c) From 2012 to 2019 the share of RES charges across Member States has more than doubled from 6% to 14%. RES charges in the EnC CPs remained low amounting to 1% of the final household electricity price in Bosnia and Herzegovina and Serbia, and 7% in North Macedonia.
- d) In the EnC CPs the breakdown also varied across members. The share of the energy component in the final bill was the highest in Albania (63%) and the lowest in Serbia (34%) while the share of network costs in the total household electricity price ranged between 20% in Albania and 49% in Kosovo.
- e) In gas, on average, less than half of the final price paid in 2019 by end consumers covered the energy component of their annual gas bill, while the rest covered the sum of the network costs, taxes, levies and other charges.
- f) The energy component of gas decreased in 2019 in response to a reduction in gas wholesale prices. Therefore, the percentage of the non-contestable components to increase, exceeding the figures recorded in previous years.
- g) In the capitals of the EnC CPs, the energy component of gas made up the majority of gas consumers bills in 2019 at 74% of gas bills. Network costs accounted for approximately 10% of gas consumers' bills.
- h) Further information regarding billing and the price breakdown of energy bills is available in Section 3.

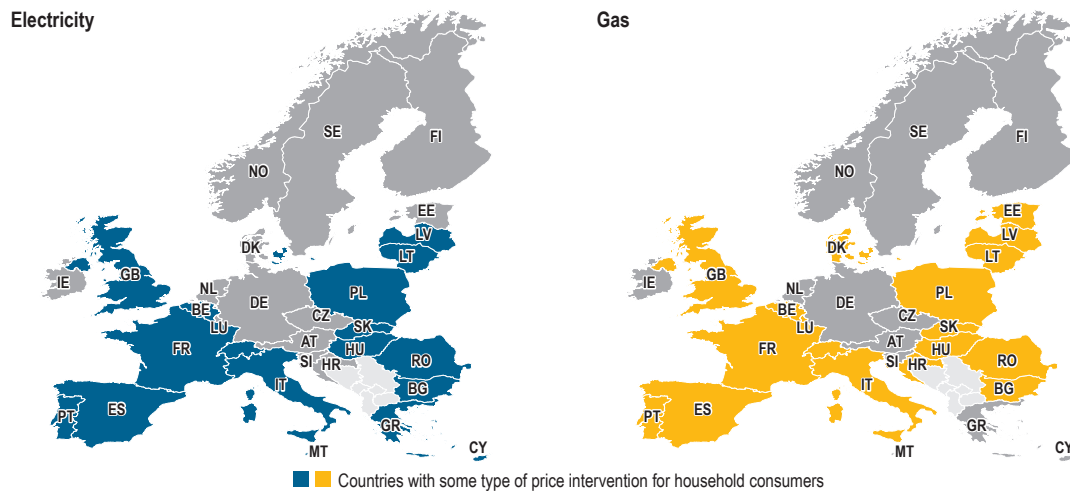
Suppliers and retail markets

13 Retail energy market developments are continuing across the EU.

- a) The EU average number of nationwide suppliers increased in 2019, however there are still major differences among Member States. While in some Member States there are very few suppliers at all, in others the suppliers mainly operate on a regional level.
- b) Market concentration and Herfindahl-Hirschman Index (HHI)⁹ levels are still improving too slowly in Europe. While electricity markets are performing better than gas markets in this respect, the non-household/industrial segment is less concentrated than the household segment. A less concentrated market may impact the level of competition in a particular market.
- c) Member States continue to choose different paths towards the liberalisation of retail markets. Price intervention in both gas and electricity continues to exist in some Member States. 80% of the Member States reported that the reason for public price intervention in the price setting is the protection of consumers against price increases. Figure i outlines the current status of price intervention in the EU. Further information regarding suppliers and retail markets can be found in Section 4.

⁹ The Herfindahl-Hirschman Index is a commonly used indicator to measure the degree of market concentration. Based on the guidance from the European Commission, a HHI above 2.000 signifies a highly concentrated market. In general, a high number of suppliers and low market concentration are viewed as indicators of a competitive market structure.

Figure i: Current Status of price intervention in the EU



Source: CEER database 2019

Consumer Engagement

14 **Some Member States recorded very high switching rates over the past years.** The switching rate of consumers is one of the key indicators of well-functioning energy retail markets. Many consumers still do not switch their energy supplier citing a variety of reasons, ranging from regulatory barriers to behavioural aspects. Regulatory barriers can refer to regulated prices in the first place. This is especially the case if regulated prices are set below cost levels such that the development of competitive retail markets is hampered and no economic incentive for switching exists. Enhancing switching rates among energy consumers increases competition amongst suppliers and can deliver lower energy costs for consumers. When energy consumers fail to switch supplier (and switch regularly)¹⁰ they pay more for their energy than they need to. In many Member States, comparison tools are available to assist the consumer in switching their energy provider.

- a) The highest switching rates (of 20%) were recorded in Great Britain, Norway and Belgium. Switching rates of circa 10% were recorded in Finland, Ireland, the Netherlands and Portugal in 2019. However, less positive (less than 1%) switching results were recorded in Poland, Luxembourg, and Croatia.
- b) One of the main drivers of this performance is the existence of well-engaged consumers. In addition, consumers seem to react quickly to significant changes in regulations (as such market openings), which is an indicator of their readiness to participate in the retail markets. In some Member States, internal switching rates (where a consumer switches plan but remains with the existing supplier) are higher than the external switching rates. This might be related to the market structure and consumer aspects as lack of trust in new entrants.

15 **Comparison tools (CTs) have been implemented in 20 and 15 Member States for electricity and gas respectively.** Many of the criteria now listed in the latest European legislation have already been. A shared challenge for many Member States will be the inclusion of dynamic electricity price contracts into these tools. In 2019 only four Member States had CTs that fulfilled this criterion. Further information regarding consumer engagement can be found in Section 5.

10 On an annual basis.

The Active Consumer

- 16 **The smart meter roll out is continuing across the EU but varies across Member States.** Smart meters are essential to enable the active participation on the part of energy consumers. Directive 2019/944 recognises that the energy consumer in the future will need to be both more active and flexible in the consumption of energy. However, the current lack of information available to energy consumers represents a significant barrier to their participation. A smart meter will provide the energy consumer with real time information and will enable them to become a more active participant in the energy market. Such participation could lead to increased switching rates, driving increased competition between suppliers, and thus placing downward pressure on the price that the energy consumer pays.
- a) The electricity smart-meter roll out is under way in Europe, with nine Member States, including Italy, Spain and the Nordics, having completed their roll out. However, roll-out plans and actual roll-out statistics diverge widely, suggesting that a delay in smart-meter roll out is likely.
 - b) The roll-out of gas smart meters is still very limited, with only Germany, Estonia, France, Great Britain, Ireland¹¹, Italy, Luxembourg, Poland and the Netherlands having started.
 - c) As for forms of active participation in energy markets, it appears too early to comment on widespread activity from a regulatory perspective. While efforts are made to forge the rights and obligations of new market actors and active consumers, current findings show that there is a need to track the development in pick-up rates of new engagement, especially with a view to the progress made on the decarbonisation of the energy sector and the Green Deal.
- 17 **Statistical coverage of citizen energy communities is still very limited.** Only four Member States report data about the number of energy communities: Ireland with 345 energy communities, Great Britain with 299 energy communities, France with 28 and Slovenia with one energy community. However, the energy generation associated with energy communities is not reported in this Volume.
- a) Demand Side Response (DSR) will become more important in the coming years. DSR refers to the ability of energy consumers to change their consumption from their normal or current consumption patterns in reaction to price signals. DSR can provide significant benefits for consumers in terms of reduced bills, while helping TSOs to stabilise the grid. Information regarding DSR was received from Germany, Great Britain and Sweden but is limited within this Volume. It is expected that the development of demand side response participation will be captured in future volumes of this MMR.
 - b) Section 6 provides further information regarding the current status of active consumer participation levels across the EU.

Consumer protection

- 18 **Energy poverty still only is defined officially in eight MSs across the EU,** according to NRAs. However, efforts are under way to provide comparative measures of energy poverty across Europe, enabling first insights about the key features and the common elements of energy poverty across Europe. Section 7 contains further information on the status on consumer protection across the EU.

11 Smart ready gas meters are being provided by default as part of a meter replacement programme, with smart gas meter functionality due to go live at the end of 2024

Complaints

19 **European energy consumers file millions of complaints to their suppliers and distribution system operators (DSOs) across Europe**, with a significant national variation in the number of complaints.

- a) However, only a small fraction of these complaints are also registered with national regulatory authorities, alternative dispute resolution bodies or third-party bodies, such as an energy Ombudsman.
- b) The best use of complaints statistics can be made if such complaints are recorded separately for electricity and gas markets and for different market actors (suppliers and DSOs). Where done in such a way, complaints registered by NRAs, alternative dispute resolution (ADR) or Ombudsman show consumers complain most often about invoicing issues to their suppliers and about metering-related issues to their DSOs, something one could expect considering the different responsibilities of the market actors in consumer-centric energy markets across Europe. Section 8 contains further information on complaints and dispute resolution.

1 Introduction

- 20 This report is focused on the place of consumers in the energy markets. It deals with consumer energy expenditures and also the engagement options available to energy consumers within the EU and the Energy Community Contracting Parties (EnC CPs).
- 21 This monitoring report covering 2019 is, like other Market Monitoring Volumes published against the backdrop of an unprecedented and developing health crisis in 2020 caused by COVID-19 which is having a significant impact on the energy sector. Given its unprecedented character, an additional section covering these recent developments is added to the 2019 monitoring report.
- 22 The impacts of COVID-19 are being felt by stakeholders across the energy sector, prompting a variety of responses from national regulatory authorities (NRAs). The primary aim of new measures is to protect energy supply for consumers. Details on the NRA response to the impact of COVID-19 are provided below.

1.1 Overview of NRAs' response to COVID-19's impact in the energy sector

- 23 This section provides an overview of the range of measures that have been deployed to protect supply for consumers facing income losses, based on available data from 22 EU NRAs, and NRAs from Great Britain and Norway as well as some information from international fora¹².
- 24 The information on measures implemented by the EnC CPs is available in documents published by the Energy Community Secretariat: Actions and measures taken by the EnC CP energy regulators to address the COVID-19 crisis¹³ and financial liquidity in the electricity sector impacted by COVID-19.¹⁴

1.1.1 Measures aimed at protecting consumers

- 25 Responses to protect the energy supply to consumers facing income losses broadly fall into three groups: those where precise measures are being mandated by regulators or through legislation, those where non-mandatory recommendations or principles are being issued by regulators or governments and those where efforts are almost fully industry-led.
- 26 Figure 1 below provides an overview of the range of measures member states have implemented to protect domestic consumers, and in some cases microbusinesses. Several member states adopted more than one measure¹⁵ while some member states have not adopted any new measures.¹⁶ The most popular intervention is suspending disconnections by suppliers or network operators. This is often accompanied by payment deferral.

12 BEUC: <http://www.beuc.eu/press-media/news-events/coronavirus-covid-19-outbreak-advice-consumer-groups>; CEER: <https://www.ceer.eu/documents/104400/-/-/9ab3bcce-b191-4414-4e1b-97e6545c24fd>; Eurelectric: <https://www.eurelectric.org/covid-19/>; EUROGAS: https://eurogas.org/knowledge_centre/helping-consumers-in-covid-19-crisis-gas-industry-measures/.

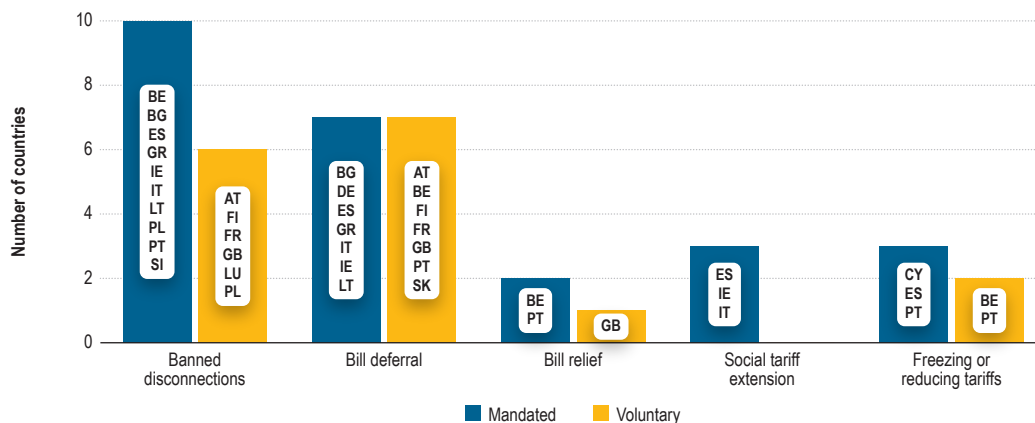
13 See: https://www.energy-community.org/dam/jcr:7d0f7b70-9358-4ece-96c3-a9612361c74e/ECS_COVID-19_REG_280420.pdf.

14 See: https://www.energy-community.org/dam/jcr:04128c99-0fb2-4d0b-ae42-ecafb6163960/COVID-19_Financial%20liquidity%20in%20the%20electricity%20sector.pdf.

15 Austria, Belgium, Germany, Finland, Great Britain, Greece, Ireland, Italy, Latvia and Spain.

16 Czech Republic, Denmark, Hungary, Netherlands and Sweden.

Figure 1: Measures to protect energy consumers due to COVID-19



Source: CEER's survey of NRAs

- 27 In some cases, more extensive relief is targeted at consumers in vulnerable situations. For example, in Greece, the National Regulatory Authority (NRA) recommended measures to government ensuring that vulnerable consumers are not disconnected for the entirety of the lockdown, while impacted non-vulnerable consumers would only be allowed an extended payment deadline.
- 28 In some cases, deferrals are supported by allowing suppliers not to pay certain network charges or taxes. In almost all cases where consumer bills can be deferred, regulators mandate that no interest or penalties be charged.
- 29 A number of governments have allowed for actual bill relief for certain consumers as opposed to payment deferral which requires that the consumed energy is paid at a later date. This is supported by direct government funding as in Cyprus and in the Flanders region in Belgium. Relief is sometimes also provided directly to consumers via government social benefits either for general expenses, or in some cases specifically for energy costs.
- 30 Due to safety measures, consumers are often asked to use online portals for payment and communication, and where meters readings are not submitted, bills are calculated based on estimates that must be rebalanced against actual readings once the crisis is over.
- 31 In Italy, a country that was severely hit by COVID-19, in reference to the regulatory framework, the Italian NRA ARERA adopted specific measures aimed at supporting consumers with difficulties paying their energy bills. In addition, the continuation of energy supply to all consumers is guaranteed. They included (i) suspension of the disconnections of electricity and gas supply due to arrears of payments for households and small businesses; (ii) establishment of a fund with the goal to rapidly provide financial resources for the regulatory interventions in favour of final consumers or other stakeholders if needed; (iii) the extension of a 60-day deadline for requesting of the annual social bonuses for low income families and consumers and (iv) the postponement to 1 July of payments of bills for the electricity and gas supplied to all the consumers living in the 11 municipalities of the first "red zone" in Lombardy and Veneto.
- 32 In Spain, the Spanish Government approved a new set of measures including¹⁷: (i) the prohibition of disconnection of electricity, gas and water supply is extended to all households (not applicable for second /summer homes); (ii) The social electricity tariff is extended to professionals (freelancers) whose economic activity has decreased by 75% by the COVID situation but covers only the main household; (iii) professionals, small business and industries (small and big industries) can ask for a temporary cease from their supply contract of gas and electricity, at no cost or alternatively, they can ask for a change in the access tariff: reduction of contracted power (in electricity) or reduction in capacity booked (in gas), at no cost and (iv) payment deferrals for professionals and small business /industries (not applicable for big industries).

17 According to Royal Decree 11/2020 of 31 March. For energy, the main measures are (see articles 28, 29, 42, 43 and 44).

- 33 There were also measures aimed specifically at consumers with prepayment meters. In Great Britain, for example, with regard to consumers with prepayment meters that are advised not to leave their homes, measures were introduced to enable funds to be added automatically to some meters. In addition, companies have pledged to send staff out to top up prepayment meters for some vulnerable consumers.
- 34 In Ireland, in addition to the moratorium on disconnections, emergency credit levels for all gas prepayment consumers were increased from €10 to €100¹⁸. As gas credit cannot be purchased online, this measure has been applied to allow consumers to remain connected for a period even if they cannot continue to purchase credit regularly as usual in a retail outlet.
- 35 Microbusinesses are often also subject to protection measures, especially from supply disconnection. Other measures to support non-domestic consumers include allowing delayed repayments, and reducing charges that are passed onto business consumers – such as capacity charges and taxes (see more in the supplier section below).

1.1.2 Measures aimed at providing support to suppliers

- 36 Member states that have taken more detailed approaches to providing consumer relief tend to also have sector-specific support available to the suppliers providing the relief. Examples of specific support include deferring or suspending certain charges, such as for network access or support of renewables, or allowing access to government funds to provide speedy financial support where necessary. In some cases, regulatory obligations, enforcement and penalties have also been relaxed.
- 37 As elaborated above, a special fund was established in Italy from which suppliers can request ad-hoc financing to cover interventions to help consumers, such as the suspension of bill payments in the 11 worst-hit municipalities. Funds must eventually be repaid. The suppliers affected by the emergency measures (disconnection ban and bills deferral) can apply for advanced payments from this fund to cover unbalances in their accounts that exceed 3% of their historical billing for the same period of the year.
- 38 In several member states¹⁹ charges paid by suppliers but passed on through consumer bills have been temporarily reduced or suspended.
- 39 The French NRA has highlighted that suppliers exposed to losses could bankrupt some smaller suppliers due to falling revenues and non-payment by certain consumers. As a result, the NRA has asked network operators to defer gas and electricity transmission bills for suppliers and shippers that are allowing consumers to defer bill payments. Payment deferrals for suppliers will also apply to the ARENH mechanism, under which suppliers procure volumes of EDF's nuclear power production at an access regulated price.
- 40 In Great Britain, the NRA's focus was on mitigation of short-term cash flow challenges and ensuring that energy consumers continue to be offered the support and service they need. The NRA asked energy network operators to develop a targeted and proportionate support scheme in which network companies will consider requests from energy suppliers and shippers that may require more flexibility on their network charges.
- 41 In Portugal, the NRA directed that suppliers facing a drop in payments equal to or above 40% be relieved of network charges for as long as nine months. Other suppliers are only expected to pay network charges to the extent they are covered by consumer payments. Network operators are expected to create payment plans for suppliers to pay outstanding charges over as long as nine months, on which no interest accrues for 30 days.
- 42 To the extent the support to consumers is provided, energy suppliers in Spain can delay their payment of certain taxes and network costs. Amounts due will be added to the invoices of deferring consumers for six months following the crisis – as a result, those who take advantage of the deferral are not allowed to change suppliers until repayment is complete. Interest will not be charged to benefitting consumers or suppliers. Distribution companies that experience temporarily reduced incomes are able to access government guarantee schemes.

18 Emergency credit is a facility available to energy customers where they may “over consume”.

19 France, Great Britain, Ireland, Italy, Portugal, Slovenia, and Spain.

- 43 To assist businesses that have had to close premises due to COVID-19, the Irish NRA has put in place a temporary “supply suspension scheme,” which spares these businesses from bills, including from network charges – such as capacity charges.
- 44 In Slovenia, the government adopted a decree that suspends for suppliers certain charges in relation to vulnerable consumers. This includes capacity charges and charges for the support of high-efficiency cogeneration and renewable energy. The measure to directly benefit vulnerable consumers and aims to reduce energy bills by 27%.
- 45 Other MSs, such as Germany, Luxembourg and the Netherlands do not offer specific support, but acknowledge suppliers are able to avail themselves of non-sector specific funding and support measures, like suspension of VAT payments. A number of MSs have not clearly specified their position on support for suppliers, or have suggested they prefer to take a wait-and-see approach before extending any support measures.

1.1.3 Other measures

- 46 There were few identified regulatory measures aimed specifically at supporting the finances of network companies, though in some countries they can access non-sector specific government support.
- 47 Measures impacting network company finances specifically centred on prioritisation of investment and works. In some countries, network maintenance has been postponed. In others, clarifications were made to designate network works as essential, carving them out of any bans on non-essential construction.
- 48 Some countries reported more regular contact between network companies and regulators and government to monitor security of supply in the country, as well as in some cases with companies in neighbouring countries to exchange information on the forecasted supply situations there.
- 49 Network companies are also directed in some cases to prioritise ensuring security of supply for critical sites, like hospitals. Across countries, network companies for transmission and distribution have put into practice existing business continuity plans and prescribed regulatory measures to ensure security of supply while protecting workers. No country reported security of supply concerns, especially due to the current drop in consumption²⁰.

20 In a meeting of energy ministers held by the European Commission at the end of April 2020, ministers said shocks on demand and supply had impacted balance sheets across the sector, but that energy companies and network operators took sufficient steps and confirmed there is no current risk of supply disruption.

2 Prices: how much do consumers pay?

50 This section provides information on the prices energy consumers pay for their energy within the EU and in the Energy Community (EnC) Contracting Parties (CP). Previously this section was contained in the annual ACER-CEER Retail Market Monitoring Report.

51 Retail energy prices are an important part of household and industrial consumers' expenditure. This section examines the retail energy prices in 2019 and their trends over the 2009-2019 period at the European Union (EU) and EnC CP level. This section also examines the retail energy prices in individual countries. For clarity, in this volume, retail energy prices are the final prices paid by consumers and consist of the energy commodity price, regulated transmission and distribution charges, levies and taxes (local, national, environmental, as applicable) and the value-added tax (VAT). Therefore, the terms 'retail prices' and 'final prices' are used interchangeably throughout this volume.²¹

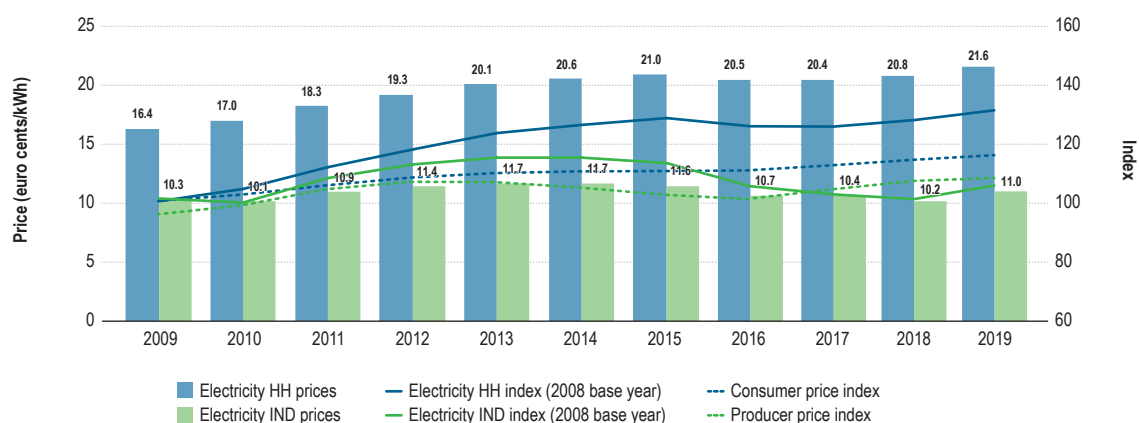
2.1 Electricity prices for household and industrial consumers

2.1.1 European Union (EU)

52 As shown in Figure 2, electricity prices for EU households increased slightly in 2019. In 2019, average²² household electricity prices increased by 3.7% to 21.6 euro cents/kWh in comparison to 2018. For industrial consumers electricity prices increased in 2019 following five consecutive years of decreasing electricity prices. Average, industrial electricity prices increased in 2019 by 7.8% to 11.0 euro cents/kWh in 2019 compared to 2018.²³

53 Looking back over a longer period of time, compared to 2009²⁴, average electricity prices for household consumers across the EU increased significantly, by 33% in nominal terms, while industrial prices increased by 9.3% over the same period. It is noteworthy that household prices have increased faster than inflation. The price increase for electricity consumers mainly reflects increases in non-contestable charges of the electricity consumers' bill. As shown in Figure 15, the average share of RES charges in final electricity prices for households has more than doubled over the 2012-2019 period.

Figure 2: Trends in final electricity prices for household and industrial consumers in the EU – 2008–2019 (euro cents/kWh and index change, 2008 = 100)



Source: ACER calculations based on Eurostat, Band DC: 2,500–5,000 kWh (household electricity consumption) and Band IE: 20,000–70,000 MWh (industrial electricity consumption) (May 2020).

Note: Prices in nominal terms. The consumer price index is the Harmonised Index of Consumer Prices and the producer price index covers the producer prices in industry. Both indexes are weighted in accordance to the size of the individual MSs.

21 Information relating to prices has been obtained from Eurostat which in turn obtain information from the national statistical institutes (NSIs) and other national authorities responsible in each Member State.

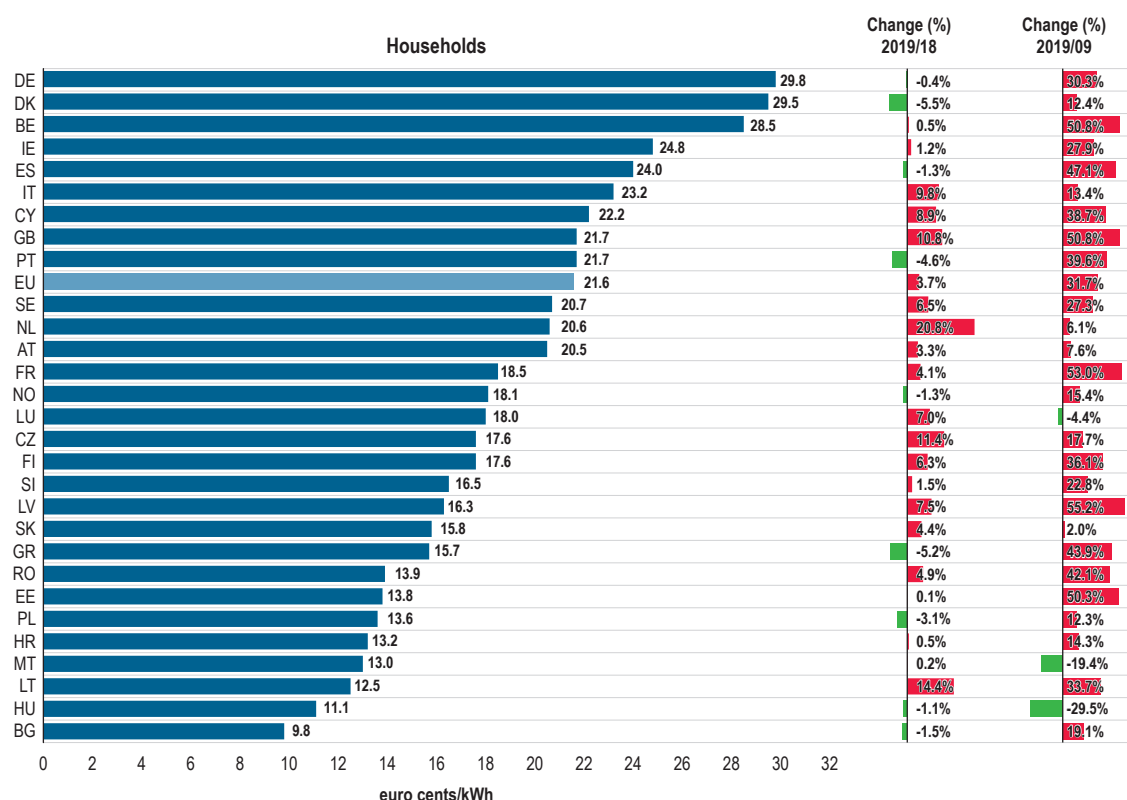
22 This analysis includes Eurostat prices weighted according to consumption by the household sector in each MS.

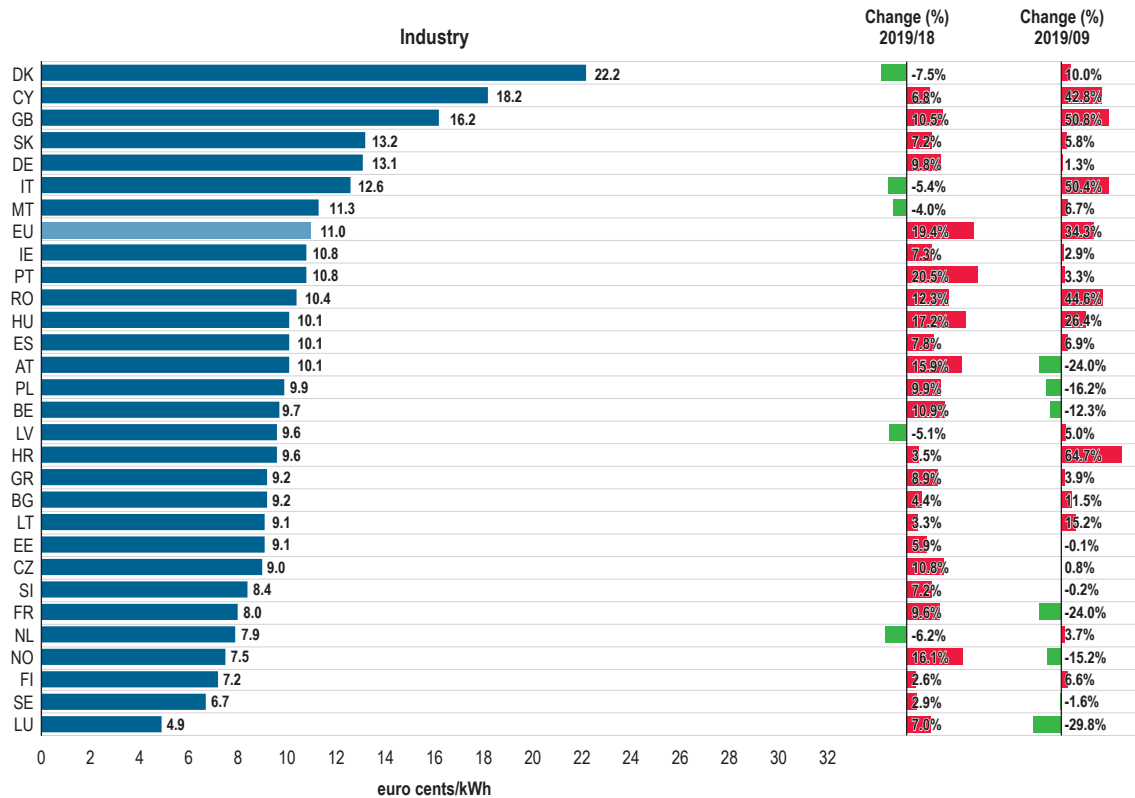
23 It is important to note that in general, the industrial consumer will pay a smaller unit price in comparison to household consumers. This is due to the substantially larger volumes of electricity consumed by the industrial consumer.

24 Liberalised retail markets in the EU occurred in 2008.

54 Large differences in electricity prices continue across the EU and Norway, as shown in Figure 3. In Germany (the MS with the highest household prices of 29.8 euro cents/kWh), household consumers pay more than three times as much as Bulgarian household consumers (9.8 euro cents/kWh). These differences are even higher in the industrial market, as industrial electricity prices in Denmark, the most expensive MS (22.2 euro cents/kWh) are more than four times higher than industrial electricity prices in Luxembourg, the cheapest (4.9 euro cents/kWh).

Figure 3: Final electricity prices for households and industrial consumers in the EU MSs and Norway in 2019 (euro cents/kWh) and changes compared to 2018 and 2009 (%)





Source: ACER calculations based on Eurostat, Band DC: 2,500–5,000 kWh (household electricity consumption) and Band IE: 20,000–70,000 MWh (industrial electricity consumption) (June 2020).

Note: Prices in nominal terms. For GB, Eurostat data only available for the GB as a whole.

55 When compared to 2018, the largest price decreases for household consumers were recorded in Denmark (-5.5%) and Greece (-5.2%)²⁵, while in the Netherlands and Lithuania²⁶ electricity prices increased by 20.8% and 14.4%, respectively. In the industrial market, electricity prices increased in most countries but decreased in Denmark (-7.5%) and Norway (-6.2%)²⁷. In the EU as a whole, electricity prices for industry have shown a slender decrease year on year until 2018. However, as outlined earlier, 2019 has seen a considerable electricity price increase of 7.8 % compared to 2018.

56 From 2009 to 2019, electricity prices for household consumers increased in most EU countries, with 14 MSs recording 30% plus electricity price increases from 2009 to 2019. Three countries recorded electricity price decreases from 2009 to 2019: Luxembourg (-4.4%), Malta (-19.4%) and Hungary (-29.5%)²⁸. Over the same period, industrial prices increased for example Estonia (64.7%), United Kingdom (50.8%) and Portugal (50.4%).

2.1.2 Energy Community (EnC)

57 In the EnC, final average household prices decreased in 2019 by 1.6% when compared to 2018. In contrast, final industry prices increased by 11% to 7.27 euro cents/kWh in 2019 when compared to 2018.

25 Price change due to 1) a VAT reduction from 13% to 6% on all regulated and competitive bill charges and 2) a reduction of -25% approx. on the RES levy (ETMEAR).

26 In Lithuania household electricity prices increased due to a rise in electricity market prices in 2018 and foreseen compensations for land easements.

27 The price in the wholesale market was 10 % lower on average in 2019 compared to 2018. Hydropower accounts for 92% of Norwegian power production, so prices fluctuate with changes in temperature and the hydrological conditions. As many customers have dynamic price contracts, this reduction in wholesale price affects prices in the retail market.

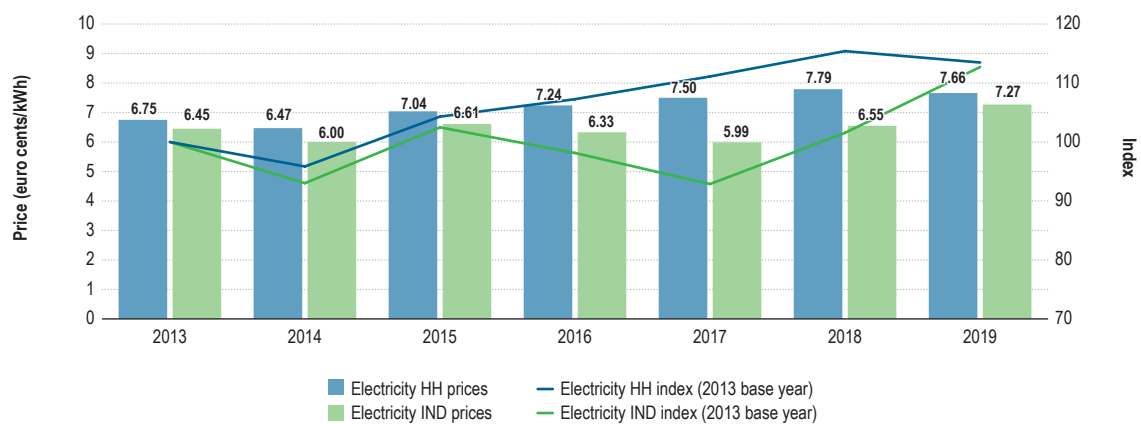
28 Electricity price decreases in Hungary are the result of a Hungarian governmental programme of energy cost decreases for household consumers.

58 From 2013 to 2019, electricity prices for households in the EnC CPs excluding Ukraine increased, on average, by 15.8%, while industrial prices increased on average by 12.8%, as shown in Figure 4. This trend, has not been observed in Ukraine where, over the same period, electricity prices for households increased by 50% and industry prices decreased by 25%. The unwinding of cross-subsidisation partially explains the price dynamics in the two segments.

59 In 2019, the average electricity price for household consumers in EnC CPs excluding Ukraine was 7.66 euro cents/kWh. This is 2.8 times less than the average EU electricity price for households in 2019. Household consumers in Ukraine paid in 2019, on average, around 1.7 times less than in the other EnC CPs - only 4.4 euro cents/kWh.

60 Figure 4 shows the trend of final household electricity prices in the EnC CP between 2013 and 2019.

Figure 4: Trends in final electricity prices for household and industrial consumers in the EnC CPs excluding Ukraine – 2013–2019 (euro cents/kWh and index change, 2013 = 100)

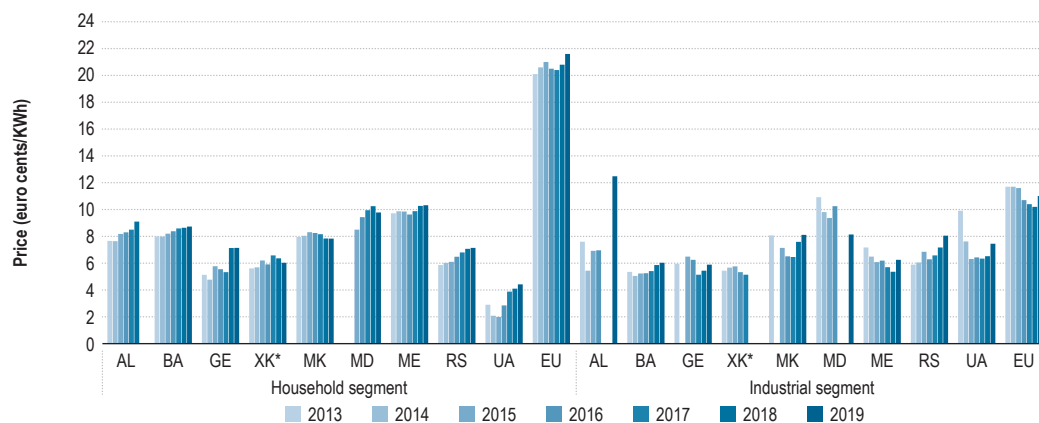


Source: ACER calculations based on Eurostat, NRAs, EnC Secretariat.

Note: This Figure is based on bi-annual data provided by Eurostat for consumption band DC: 2,500-5,000 kWh (household electricity consumption) for Albania (AL), Bosnia and Herzegovina (BA), North Macedonia (MK), Kosovo* (XK*), Montenegro (ME) and Serbia (RS) and consumption band IE: 20,000-70,000 MWh (industrial electricity consumption) for Bosnia and Herzegovina, North Macedonia, Kosovo*, Montenegro and Serbia. Information on prices in Georgia and Moldova is partially based on Eurostat, the remaining data have been provided by the NRAs. Prices in nominal terms.

61 Figure 5 shows the final electricity prices in nominal terms for household and industrial consumers in EnC CPs from 2013 to 2019 (euro cents/kWh) changes of household electricity prices for each EnC CP country from 2013 to 2018.

Figure 5: Final electricity prices in nominal terms for household (left) and industrial consumers (right) in EnC CPs – 2013–2018 (euro cents/kWh)



Source: EnC Secretariat calculations based on Eurostat and NRAs.

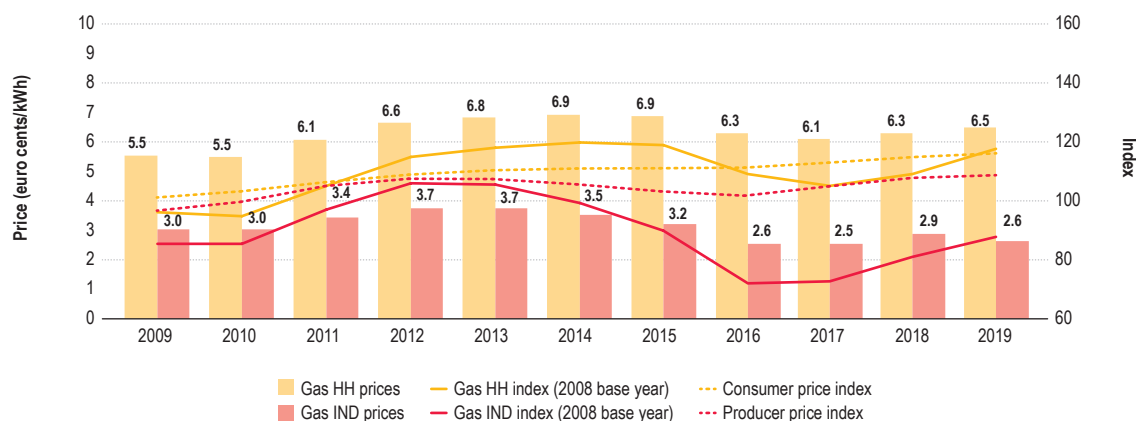
Note: This figure is based on the data listed in the note under Figure 4. Prices in nominal terms.

- 62 As in previous years, variations in the electricity price were observed across the EnC CPs. In 2019, household electricity prices were the highest in Montenegro (10.32 euro cents/kWh), which is more than twice the price paid by household electricity consumers in Ukraine. With the exception of Kosovo and Moldova, where household prices decreased by around 5% in 2019 when compared to 2018. In North Macedonia, prices remained comparable to 2018, in all other EnC CPs, household electricity prices increased in 2019. Over the 2013-2019 period, household electricity prices increased in all EnC CPs, except North Macedonia, where the upward trend was registered until 2015, but household prices have been decreasing since 2016. End consumer prices for households were still regulated in all EnC CPs, except Montenegro, sometimes resulting in prices being set below actual costs.
- 63 From 2013 to 2017, in the majority of the EnC CPs, industrial electricity consumers observed decreasing electricity prices. However, this trend was reversed in 2018 and 2019 prices increases recorded²⁹. The highest year-to-year increase (16.6%) was observed in Montenegro, where prices increased from 5.36 euro cents/kWh in 2018 to 6.25 euro cents/kWh in 2019. The lowest electricity prices for industrial electricity consumers was in Georgia with 5.89 euro cents/kWh, whereas the highest industrial price was reported in Albania (12.48 euro cents/kWh)³⁰. In 2019, average electricity prices for industrial electricity consumers in the EU EnC CPs were around 65% of the average electricity prices for industrial electricity consumers in the EU MSs.

2.2 Gas prices for households (and industry)

- 64 As shown in Figure 6, average gas prices across the EU increased by 3.1% for household consumers and decreased for industrial consumers³¹ by -8.5% in 2019 when compared to 2018 gas prices, settling at 6.5 euro cents/kWh and at 2.6 euro cents/kWh respectively. Since 2009, the average final gas price for household consumers increased by 17.24%, but decreased by -12.31% for industrial consumers.
- 65 Figure 6 shows that in 2019 household gas prices increased for a second time since 2015 with prices in 2019 being slightly higher than the price paid in 2016. In contrast, the industrial gas market observed a decrease in prices, reversing the price increase that occurred in 2018.

Figure 6: Trends in final gas prices for household and industrial consumers in EU MSs – 2008 – 2019 (euro cents/kWh and index change, 2008 = 100)



Source: ACER calculations based on Eurostat, Band D2: 20–200 GJ (household gas consumption) and Band I5: 1,000,000–4,000,000 GJ (industrial gas consumption) - (June 2020).

Note: Prices in nominal terms. The consumer price index is the Harmonised Index of Consumer Prices and the producer price index covers the producer prices in industry. Both indexes are weighted in accordance to the size of the individual MSs.

29 In cases of Albania, Kosovo* and Moldova, the information on electricity prices for industry was not always available for 2017, 2018 and 2019.

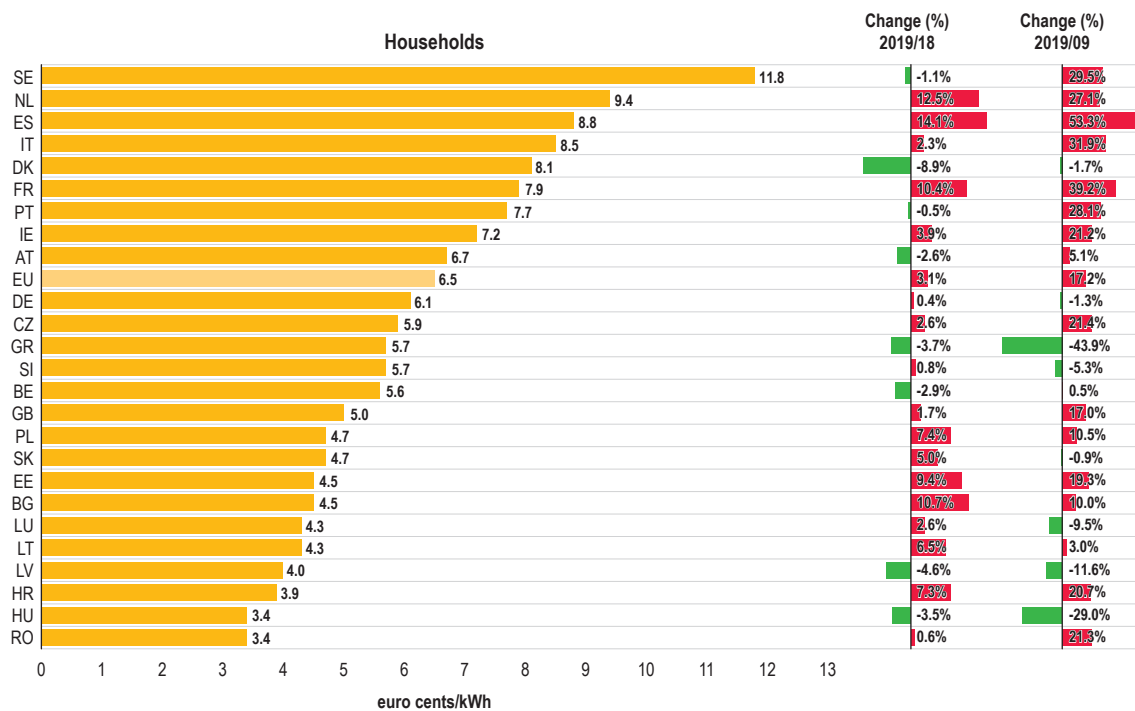
30 Note that the industry price for Albania, available on Eurostat, is an estimated.

31 ACER calculations based on Eurostat, Band D2: 20–200 GJ (household gas consumption) and Band I5: 1,000,000–4,000,000 GJ (industrial gas consumption) - June 2020.

66 As with the electricity retail market, large variations are observed across the EU in the gas household market in 2019. Figure 7 shows that the final price paid by household gas consumers in Sweden (11.8 euro cents/kWh) was almost three times higher than the 3.4 euro cents/kWh paid by Romanian household gas consumers. 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). Figure 7 also shows that compared to 2018, gas prices for households increased by 3.1% on average, with increases recorded in the majority of the countries, with notable price increases in Spain (14.1%) and the Netherlands (12.5%). In 2019, industrial gas prices decreased by -8.5% on average, with the highest decreases recorded in Ireland (-23.3%) and Sweden (-21.7%). Bulgaria recorded a large increase in the industrial price year on year (19.1%).

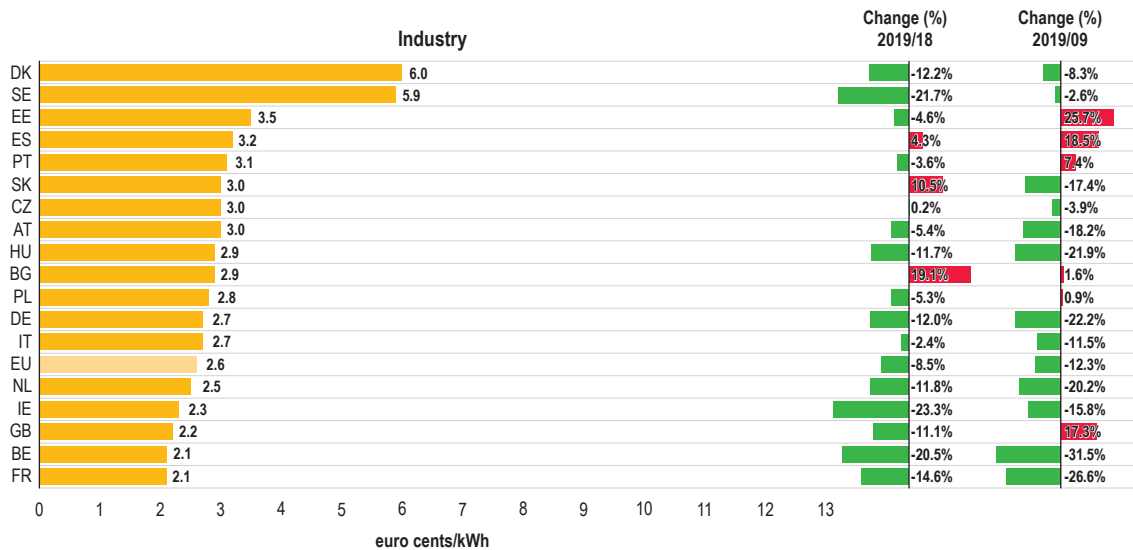
67 From 2009 to 2019, household gas prices increased on average by 17.2% (which in reality is lower than the inflation growth over the same period) with price increases in all but countries.³² On the other hand, prices in the industrial market decreased over the same period (-12.3% on average) in all but six MSs.³³

Figure 7: Final gas prices for households and industrial consumers in EU MSs in 2019 (euro cents/kWh) and changes compared to 2018 and 2009 (%)



32 France, Greece, Slovenia, Luxembourg, Slovakia, Latvia, Hungary.

33 A decrease of 43.9% is shown in the case of household gas in Greece. This is due to data only being available from 2012.



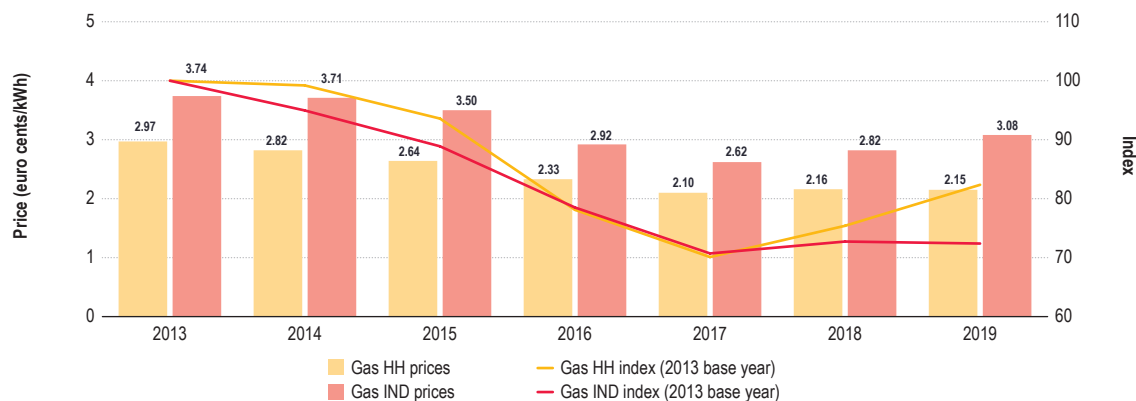
Source: ACER calculations based on Eurostat, Band D2: 20–200 GJ (household gas consumption) and Band I5: 1,000,000–4,000,000 GJ (industrial gas consumption) – (June 2020).

Note: Prices in nominal terms. For Greece (households) and Ireland (industry), the 'change 2019/08' is with respect to 2012. Data on industrial prices in Croatia, Lithuania, Luxembourg and Slovenia are not available. Prices in nominal terms. For GB, Eurostat data available only for the GB as a whole. Prices for Finland are not available. For Greece (households) and Ireland (industry), the 'change 2019/09' is with respect to 2012

2.2.1 Energy Community

- 68 In the EnC, contrary to the trends observed in the EU, the industrial gas prices were, on average, higher than household prices in 2019.
- 69 Figure 8 shows the trend in final gas prices for industrial and household consumers in the EnC CPs, excluding Ukraine between 2013 and 2019. Between 2013 and 2019, average gas household prices in these CPs decreased by 27%. In comparison, in the same period, households in Ukraine, as shown in Figure 9, recorded an increase of gas prices of circa 225%. Household gas prices in Ukraine increased from 2014 onwards following the Cabinet of Minister's resolution to stepwise increase gas household prices in line with an agreement made with the International Monetary Fund.
- 70 Between 2013 and 2019, average industrial gas prices decreased in the EnC CPs excluding Ukraine, by 17.6% on average. In Ukraine, industrial prices decreased by 38% over the same period.

Figure 8: Trends in final gas prices for industrial and household consumers in EnC CPs excluding Ukraine – 2013–2018 (euro cents/kWh and index change, 2013 = 100)



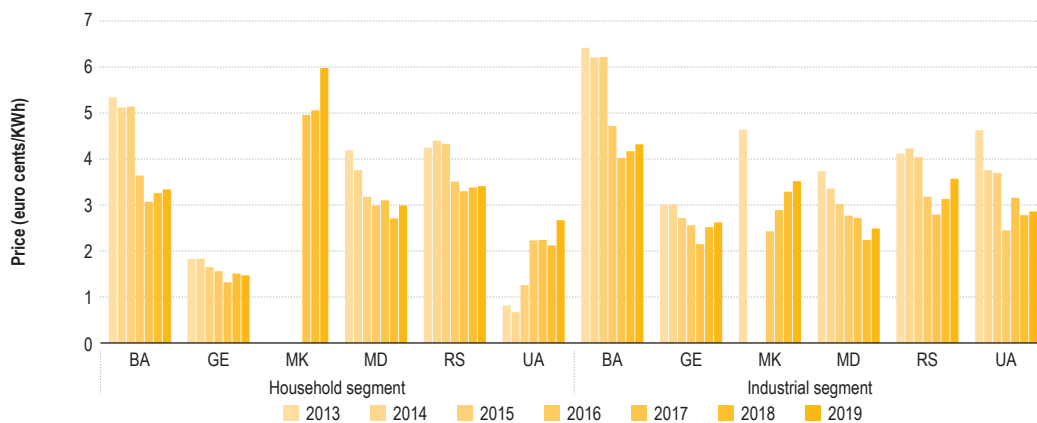
Source: ACER calculations based on Eurostat, NRAs, EnC Secretariat.

Source: EnC Secretariat calculations based on Eurostat and NRAs.

Note: This Figure is based on bi-annual data provided by Eurostat for consumption bands D2: 20–200 GJ (household gas consumption) and consumption band I5: 1,000,000–4,000,000 GJ (industrial gas consumption). Consumption band I4 (100,000–1,000,000 GJ) was used for North Macedonia and Moldova. Household prices for North Macedonia are available only as of 2017. Prices in nominal terms.

- 71 As observed in the EU gas prices, Figure 9 shows that national discrepancies are observed in the level of household and industrial gas prices across the EnC CPs. The final price paid by household gas consumers in 2019 in North Macedonia (5.98 euro cents/kWh) was four times higher than the 1.47 euro cents/kWh paid by Georgian households. In the industrial segment, the price paid in 2019 by consumers in Moldova (2.49 euro cents/kWh) was only 58% of the price paid by consumers in Bosnia and Herzegovina (4.32 euro cents/kWh).
- 72 The discrepancies originate partly from the different regulatory approach and levels of cross-subsidisation in consumer gas prices between the industrial and household segments. For example, in 2019, regulated household gas prices existed in majority of EnC CPs except North Macedonia and partially Georgia³⁴. In the industrial sector, gas prices were regulated in Moldova and partially regulated in Bosnia and Herzegovina³⁵ and Serbia³⁶. In Ukraine, the final industry prices were regulated only for district heating companies and religious organizations. The degree of cross-subsidisation decreased over the observed period in all CPs.

Figure 9: Final gas prices in nominal terms for household and industrial consumers in EnC CPs – 2013–2019 (euro cents/kWh)



Source: ACER calculations, based on Eurostat, NRAs, EnC Secretariat.

Note: This figure is based on the data listed in the note under Figure 8. Prices in nominal terms.

2.3 Relationship between the wholesale price and the energy component of the retail price for households (mark ups)

- 73 This section assesses the evolution of the mark-ups from 2013 to 2019 and outlines the responsiveness of the energy component of retail energy prices to changes in the wholesale energy price. The information contained within this section dates from 2008 to 2019 for electricity and from 2012 to 2019 for gas³⁷. The analysis focuses on the household markets only. The degree of alignment between the evolution of the energy component of retail prices and wholesale prices over time may be used as an indicator of the effectiveness of competition in retail energy markets. Stronger alignment may be viewed as a strong indication of effective competition in an energy market. Conversely, a weaker correlation may indicate opportunities for improvement of competition within an energy market.
- 74 The mark-up is an indicator of the theoretical gross 'profitability' of suppliers, as well as an indicator of the level of responsiveness of retail energy prices to changes in prices on wholesale markets. The gross 'profitability' level is the difference between prices charged to consumers and the estimated costs to supply them with energy. This analysis assumes that suppliers are rational and employ a 'close-to-optimal' procurement strategy, as

34 Customers connected to the distribution network after 2008 do not have regulated prices.

35 If metering point has less than 95 KW.

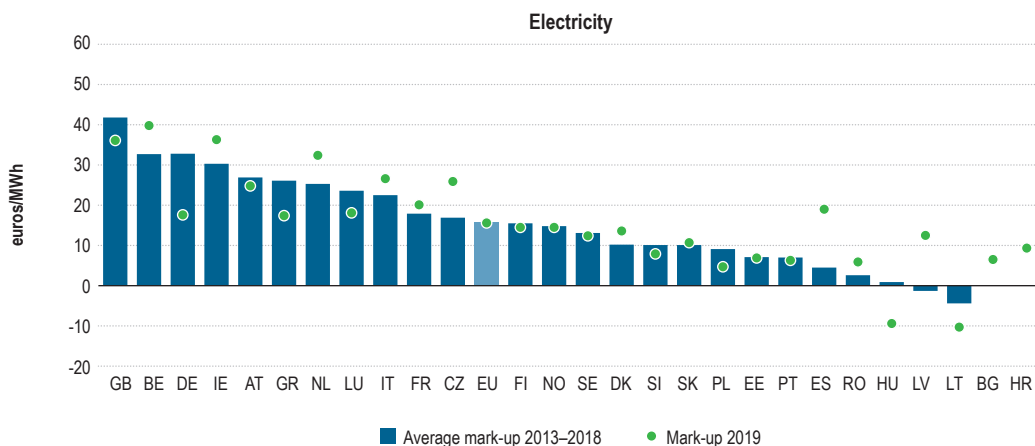
36 In 2019, industrial gas prices were regulated in Serbia for small non-household customers connected to the distribution network and consuming less than 100,000m³ per year.

37 The differing time periods is due to the availability of data in both electricity and gas.

detailed in the methodology and data underlying mark-ups in retail markets³⁸. As such, the mark-ups below aim to make MSs comparable. When looking at individual MSs only, it is best to complement the results with extra data. To be clear, mark-ups are not the same as profits, this is because suppliers have additional operating costs (e.g. marketing, sales, consumer services, overhead, etc.) in bringing a product to the market.

- 75 Figure 10 shows that the estimated average mark-ups in the retail electricity and gas markets for the household market vary widely across countries in the EU. In the case of gas, the average retail mark-up in the household market increased significantly across the EU in 2019 compared to the average observed between 2013 and 2018. In electricity mark ups maintained at a consistent, and higher, level throughout same period.
- 76 From 2013 to 2018 the largest mark-ups in the household electricity retail markets were observed in Great Britain, Germany, Ireland and Belgium. In 2019, the electricity household mark-ups in Ireland, Belgium and Great Britain were the highest. In 2019, gas markets mark-ups were highest in Czech Republic, Germany and Sweden. Greece, Great Britain and Germany had the highest average values over the 2013-2018 period. In contrast, the lowest positive³⁹ mark-ups in 2019 were observed in the household market of the electricity markets of Poland and Romania and in the gas markets in Croatia, Romania and Bulgaria.
- 77 Figure 10 also shows that, on average in the EU, the electricity mark-up is about twice the gas mark-up, when expressed in euros/MWh. However, as a principal factor driving the level of mark-ups are, inter alia, differences in average consumption levels (i.e. 3.500 kWh for electricity and 11.000 kWh for gas) the average mark-up per consumer would actually be higher in gas than in electricity. Similarly, the average national consumption levels are also a relevant factor. For example, in electricity the mark-up over the 2013-2019 period in Sweden measured in euros/MWh is lower than in Great Britain, but measured in euros/consumer the former is higher as the average annual electricity consumption per household consumer in Sweden of approximately 9,000 kWh is much higher than in Great Britain (i.e. 3,100 kWh).

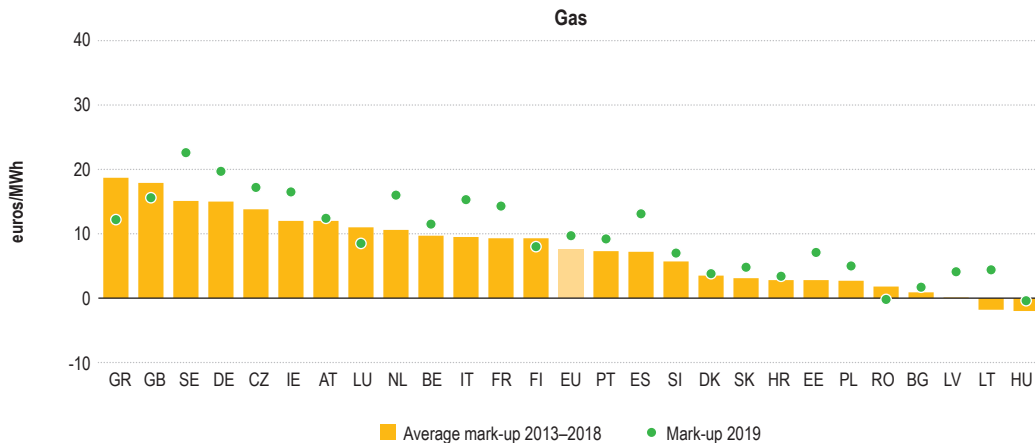
Figure 10: Average annual mark-up in retail electricity and gas markets for household consumers in MSs and Norway from 2013–2018 and annual mark-up in 2019 (euros/MWh)⁴⁰



38 See: https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER_Market_Monitoring_Report_2015.pdf - Annex 6

39 Some MS recorded negative mark ups i.e. retail prices were recorded below wholesale costs.

40 The Lithuanian NRA has stated that "In Lithuania negative mark ups occur due to the settings of the regulated price methodology, where the price for year t is set in year $t-1$ based on market price forecast for year t . The difference between forecasted and actual market price in year t is compensated in year $t+1$ ".



Source: ACER calculations based on ACER Retail Database (2019), Eurostat (July 2020), NRAs, European power exchanges data, Eurostat Comext and ICIS Heren.

Note: This Figure includes the average annual mark-ups in retail electricity and gas markets for household consumers for the 2013–2019 period. Bulgaria and Croatia were included in 2019 for the first time in the analysis of electricity. Cyprus and Malta are not included, because they have neither wholesale electricity markets nor significant retail gas markets. Norway has no significant gas market, so is not included in the chart.

78 In some countries⁴¹ with regulated prices⁴², average mark-ups for the monitored period were negative because the energy component of retail prices was set at a level below wholesale energy costs.

79 The setting of end-user prices below energy sourcing costs may seem attractive to consumers in the short term. However, such a policy is an absolute barrier to market entry for new suppliers, and hence, to competition. In markets with persistent negative mark-ups, market participants do not receive the appropriate signals, this can lead to continued inefficiencies eventually to the detriment of energy consumers. Consumers do not pay the actual cost for the energy they consume, and therefore, do not receive the “correct” price signals⁴³ regarding their consumption. This may lead to wasteful consumption and increased emissions. In addition, negative mark-ups hinder product and service innovation, deter new suppliers from entering the market and lead to losses for existing suppliers.

2.3.1 Responsiveness of the energy component of the retail price to wholesale energy price

80 Figure 11 shows the responsiveness of the energy component of retail prices to changes in the wholesale energy price and the evolution of the mark-up over the 2008–2019 period for electricity and the 2012–2019 period for gas at EU level⁴⁴.

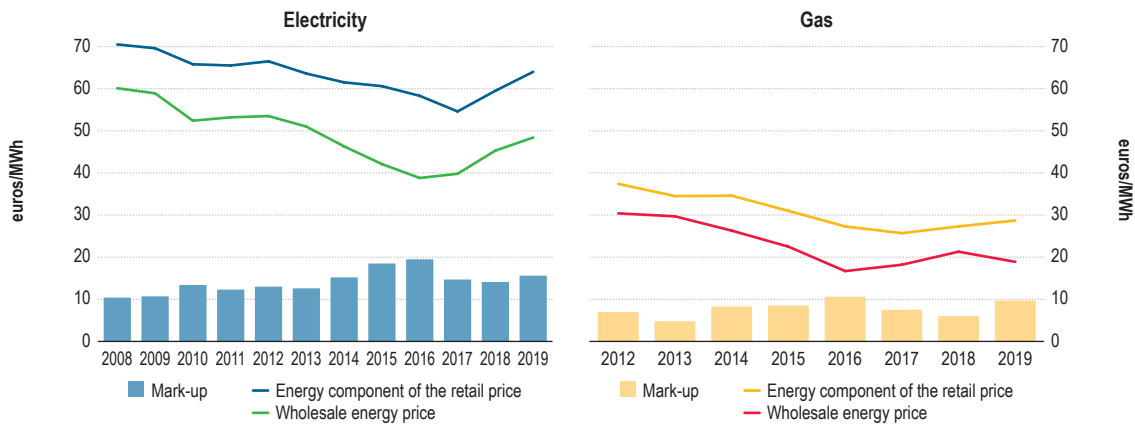
41 In electricity Latvia and Lithuania and Hungary and Lithuania in gas.

42 The distinction between Member States with regulated and non-regulated prices is based on ‘CEER Retail Markets Monitoring Report’, December 2018 (Chapter 3): <https://www.ceer.eu/documents/104400/-/-/31863077-08ab-d166-b611-2d862b039d79>.

43 Correct prices relates to input cost of energy.

44 Based on 24 countries in electricity and 25 in gas for which data was available. In the case of electricity, Norwegian prices are also considered.

Figure 11: Responsiveness of the energy component of the retail prices to changes in wholesale prices and evaluation of mark-ups in the household markets from 2008 to 2019 for electricity and from 2012 to 2019 in gas (euros/MWh)



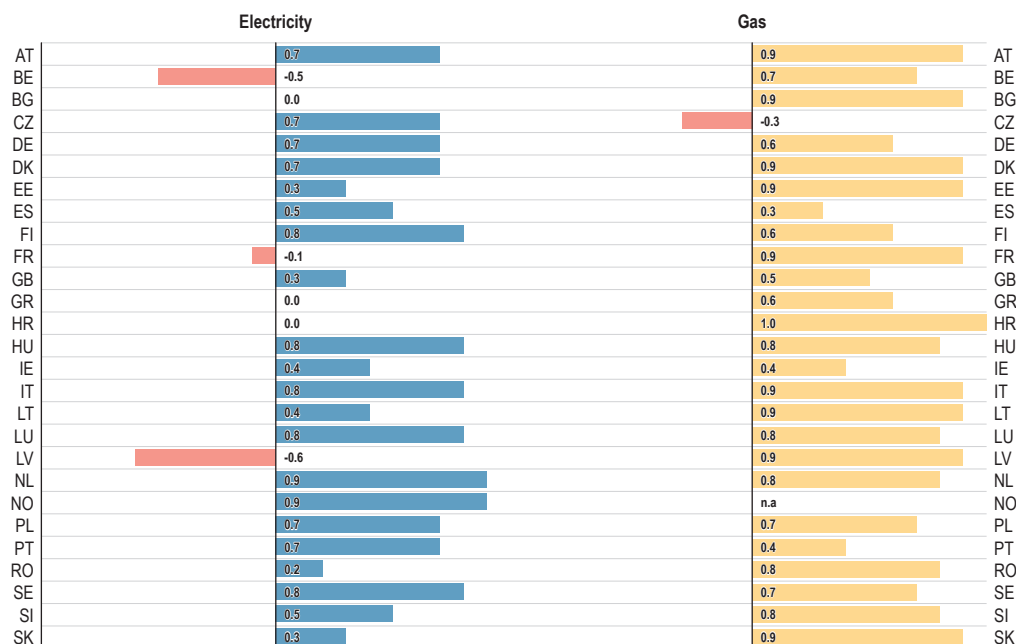
Source: ACER Retail Database, Eurostat, NRAs, European power exchanges data, Eurostat Comext, ICIS Heren and ACER calculations.

Note: The EU average mark-up is assessed as the arithmetic average of MSs mark-ups. Gas data available only from 2012 onwards. Data about the energy component of gas retail prices are obtained from the ACER Retail Database up to the year 2016 and from Eurostat for 2017, 2018 and 2019 except for Finland, Germany and Spain due to unavailability in Eurostat. Prices in nominal terms.

- 81 In electricity, a relatively strong correlation between the wholesale and energy costs was observed from 2008 to 2013 and from 2017 to 2019. However, a divergence from this trend was observed between 2013 and 2016. During this time the decrease in wholesale prices was not followed by a similar decrease in the energy component of retail energy prices. Overall, the energy component of electricity prices decreased, on average, by -9.4% over the 2008-2019 period, while at the same time wholesale prices decreased by -19.5%. This led to a 49.1% increase in mark-ups over this period.
- 82 From 2012 to 2019, in the household gas market, the average retail energy component and the average wholesale price decreased by -23.3% and -37.7% respectively, while the average mark-up increased by 39.7%. The downward slope of the average wholesale price and of the average energy components of retail price diverged in 2015, 2016 and noticeably in 2019, when the average retail energy component price did not follow the average decreases in wholesale gas prices. In 2017, retail prices decreased, on average, despite higher wholesale prices.
- 83 When comparing the evolution of gas and electricity retail and wholesale prices over time, the responsiveness of the energy component of retail prices to wholesale energy prices for gas is higher than for electricity. This is also clearly visible in the evolution of the mark-ups for electricity.
- 84 Figure 12 illustrates the relationship between the change in the energy component of retail prices and the change in wholesale prices in electricity and gas markets for household consumers in MSs and Norway, expressed by the correlation coefficient of these two variables⁴⁵. If two variables in a country correlate well, this should reflect in a positive high value of the correlation coefficient, while the negative and low value imply a weak correlation.
- 85 Figure 12 is based on the data behind the charts for individual countries presented in Annex 1, which show the degree of correlation between the energy component of retail prices and wholesale prices for households at national level.
- 86 It shows that, on average, there was a better correlation between sourcing costs and the energy component of retail prices in gas markets than in electricity markets (i.e. more countries with a higher correlation coefficient).

45 Figure 12 is based on the individual charts presented in Figure A1-1 and Figure A1-2 in the Annex 1.

Figure 12: Correlation between the retail energy component price for household consumers and wholesale price in electricity (2008 – 2019) and gas markets (2012-2019) in EU MSs and Norway – (correlation coefficient)



Source: ACER Retail Database, Eurostat, NRAs, European power exchanges data, Eurostat Comext, ICIS Heren and ACER calculations.

- 87 However, the correlation between wholesale and retail energy markets is weak in several countries as retail prices have not responded well to changes in the wholesale price.
- 88 As indicated in previous volumes, the energy component of retail prices and wholesale prices seem to correlate better in two groups of countries, but for different reasons. Prices correlate well in those markets characterised by lively competition, where final retail prices closely follow the wholesale market price, i.e. the offers available to consumers contain a direct reference to wholesale costs and a mark-up, e.g. electricity markets in Norway, Sweden, and Finland. In addition, a good correlation is observed in certain countries with regulated retail electricity prices, e.g. in Hungary and Poland. In these countries, retail household prices are set closely to follow changes in wholesale prices.⁴⁶

⁴⁶ In France, there is a specificity with the ARENH mechanism, which leads that a small portion of the final price is directly link to the wholesale price.

3 Billing: What goes into the consumer's bill?

89 This section contains information regarding consumer billing and provides information with regard to the price breakdown of consumers' energy bills. This section was previously included in the ACER-CEER Consumer Protection MMR. The content of bills and billing information has been the target of much policy attention in recent years. This is because they have not only widely remained the only regular means of communication between energy service companies and consumers but they have also been identified as crucial in raising awareness of consumer's own energy consumption patterns. In essence, the bill is a tool that can be used by the energy consumer to inform themselves and enable them to make decisions with regard to their energy consumption.

90 Recognising their importance, bills and billing information should be accurate, easy to understand, clear, concise, and user friendly for the final user. Bills should be issued no longer than one year apart with regular billing recommended. No fees should be charged for bills and billing information and consumers shall have the option of electronic bills. Importantly, bills and billing information shall fulfil several minimum requirements, rendering the bill and billing information very informative.

91 Section 3.1 contains information on consumer billing regarding the information that is currently required to be provided to the energy consumer via their energy bills. In addition, information is provided as to requirements that will be required as part of Directive 2019/944 and of the current status of billing information available to energy consumers across EU and the EnC CP energy consumers.

92 Section 3.2 details the breakdown of energy prices across the EU and the EnC CPs outlining the cost of the different components of the consumers' energy bill. Electricity and gas prices depend on their constituent components, these components include energy costs, network charges, charges for renewable energy (RES charges), other taxes and charges and value added tax (VAT).

3.1 The bill

93 Directive 2018/2002 amends Directive 2012/27, which states that energy bills shall contain information about actual energy consumption. Annex VII requires bills to include at least information on current prices and actual consumption of energy, historical consumption comparisons and contact information for consumer organisations, energy agencies or similar bodies. Directive 2019/944⁴⁷ has added several detailed requirements regarding the price to be paid, the breakdown of this price, payment due date, consumption, product details, supplier information, complaint services, switching information and comparisons with past consumption levels and with average users, amongst other things.

94 Electricity bills and billing information shall show the contribution of each energy source to the overall energy mix of the supplier. Consumers should receive information on the environmental impact, in at least terms of CO₂ emissions and the radioactive waste resulting from the electricity produced by the overall energy mix of the supplier over the preceding year. The disclosure of electricity produced from renewable sources shall be done by using guarantees of origin (GOs). According to Annex I of Directive 2019/944, electricity bills shall further disclose the sources of energy for the product.

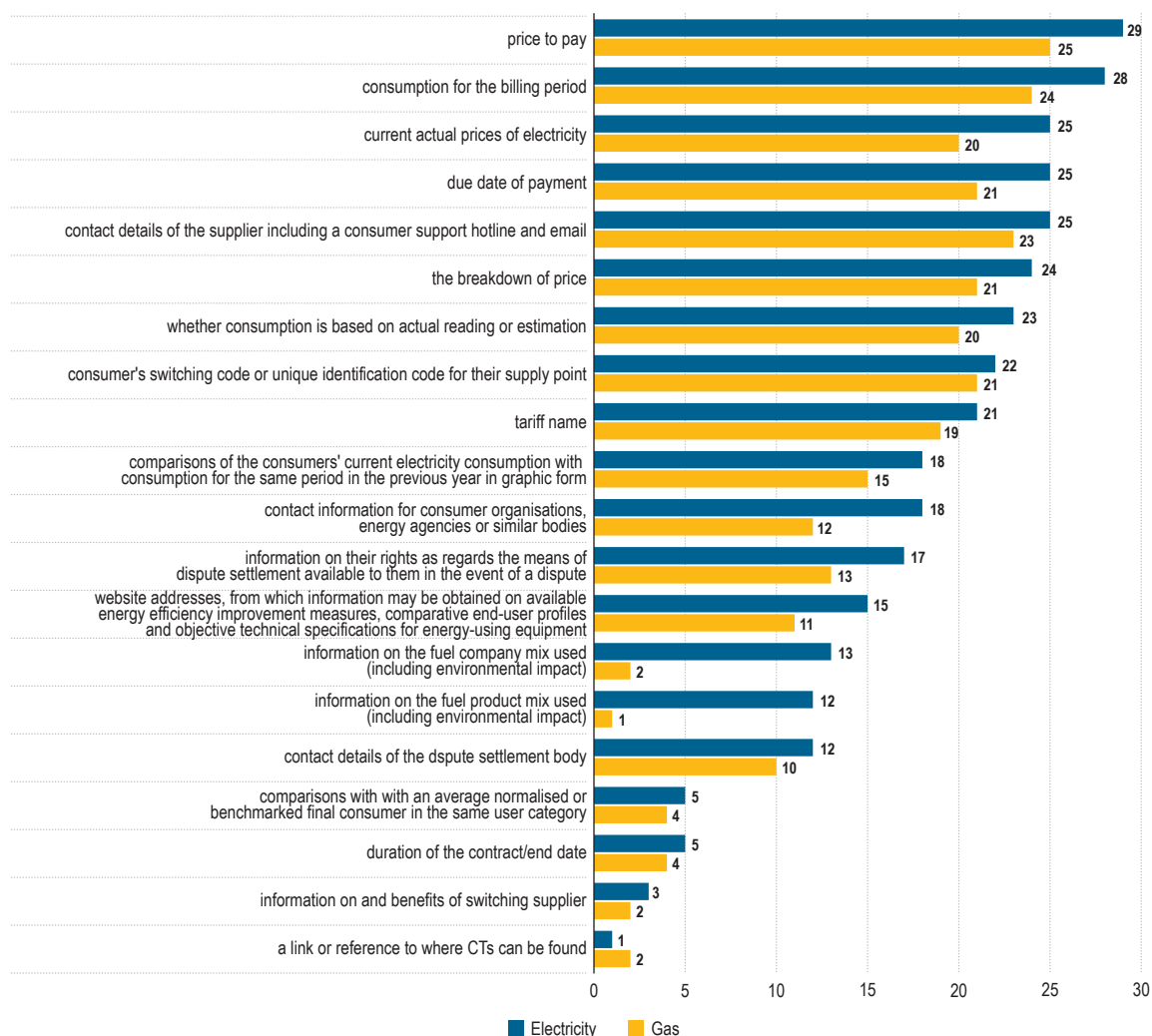
95 In recent years the level of information on bills has increased as noted in previous editions of this volume, leading to considerations on the right balance between transparency and information overload. With new European legislation, it is clear that bills will contain significantly more information in the future.

47 Art 18 and Annex I provide a detailed breakdown of the minimum requirements for billing and billing information.

- 96 Figure 13 illustrates the types of information provided to household consumers and the number of MSs providing such information. Consumers in most MSs receive information on: billed amount, actual consumption, breakdown of the price – arguably, these are necessary billing elements to determine volume and costs of energy for a given period. These findings are largely in line with previous MMR editions indicating that national billing requirements have not been amended to a great extent.⁴⁸
- 97 With the new legal requirements, it can be expected that some pieces of information will gain prominence over the next years. Importantly, bills will increasingly contain information on switching as this is not yet the case in most MSs. Likewise, bills will contain more comparative information about one's own past and present consumption levels, or in contrast to peer groups of energy consumers. Since the additional requirements stipulated in Directive 2019/944 only apply to electricity, it remains to be seen to what extent the content of gas bills will mirror those of electricity bills.
- 98 While Annex I of Directive 2019/944 broadly requires billing based on actual consumption to take place at least once a year, electricity consumers typically receive their bills monthly in nine MSs, bimonthly and annually in five MSs. In the remaining MSs, single billing frequency is less common since the billing frequency often not only depends on a single deterministic national framework but also on supplier and consumer preferences for either very frequent (monthly) billing or longer intervals between bills.
- 99 In gas, annual bills are most common across Europe (eight MSs), followed by monthly gas bills in six MSs and bimonthly bills in four MSs. As is the case in electricity, in some MSs a clear preference is not self-evident since suppliers and consumers are given some legal leeway in setting up their billing frequency of choice as long as it is guaranteed that a bill is received at least once a year.
- 100 In all the EnC CPs, both electricity and gas bills are based on actual consumption and issued monthly. Information on actual consumption, accounting period and supplier's details are included in all electricity and gas bills. Information regarding the energy/fuel mix is available in electricity bills only in North Macedonia, Serbia and Ukraine. Finally, an improvement is needed in terms of providing information on breakdown of prices and switching, as this is not the case in all EnC CPs.

48 Considering that Cyprus, Malta and Norway do not have sizeable retail markets for gas consumers and hence are not covered in this report, it can be argued that electricity and gas consumers are largely provided the same information across the EU with regard to their energy bills.

Figure 13: Information elements provided on household consumer bills in EU MSs and Norway – 2019 (number of MSs)



Source: CEER 2020

3.2 Breakdown of electricity and gas prices

- 101 In order to understand the main reasons for the changes in the final prices, this section presents the results of an analysis of the structure of the final energy prices and the relative changes of each component over time. This section was previously included in the ACER-CEER retail MMR. The analysis is based on the data on the breakdown of the standard incumbent electricity and gas offers available in the capital city of each country to household consumers with an annual consumption of 3,500 kWh for electricity and 11,000 kWh for gas. ACER collects the data directly from publicly available price comparison websites validated by the National Regulatory Authorities (NRAs)⁴⁹.
- 102 Electricity and gas prices depend on their constituent components, which include energy costs, network charges, charges for renewable energy (RES charges), other taxes and charges and value added tax (VAT). Based on the incumbent offer, the split will be calculated between contestable and non-contestable (Transmission and Distribution costs, RES, taxes) price components.

Main components of the electricity and gas prices paid by household consumers

- **Energy costs** - reflect mainly the cost of purchasing electricity and gas on the wholesale market, but also suppliers' operating costs to run the business, including sales and billing, and profit margin.
- **Network costs** – the rates charged for transmitting and distributing energy to end users, including transmission and distribution losses, system operation costs and metering and meter rental.
- **RES charges** – levies paid for government policies to support renewable energy sources.
- **Other taxes and charges** – including: (i) taxes and charges for promoting and improving energy efficiency and combined heat and power generation, (ii) taxes and charges related to air quality and environmental proposes, (iii) taxes and charges related to CO₂ and other greenhouse gas emissions, (iv) taxes and charges related to the nuclear sector, capacity payments, energy security and generation adequacy, (v) energy consumption tax, and (vi) other taxes and charges not covered by any of these items and/or not linked to the energy sector.
- **VAT** – value added tax.

- 103 In the analysis of EU electricity and gas offers, the standard incumbent offer is one of usually dozens of offers that an energy consumer can select from when consulting, for example, a price comparison tool. A general observation is that there are large discrepancies between the lower priced and higher priced offers available to an energy consumer in their respective country and across all MSs. In the offers used for this Market Monitoring Report covering November-December 2019, the difference between the highest and the lowest price was on average for both electricity and gas approximately 300 euro on a yearly basis⁵⁰. In addition, the standard incumbent offer was almost always in the highest price quartile. Even when compared with the average prices published by Eurostat, the price of the standard offer would be invariably somewhat higher on average.

49 Where a price comparison tool is not available data are directly supplied by the NRA.

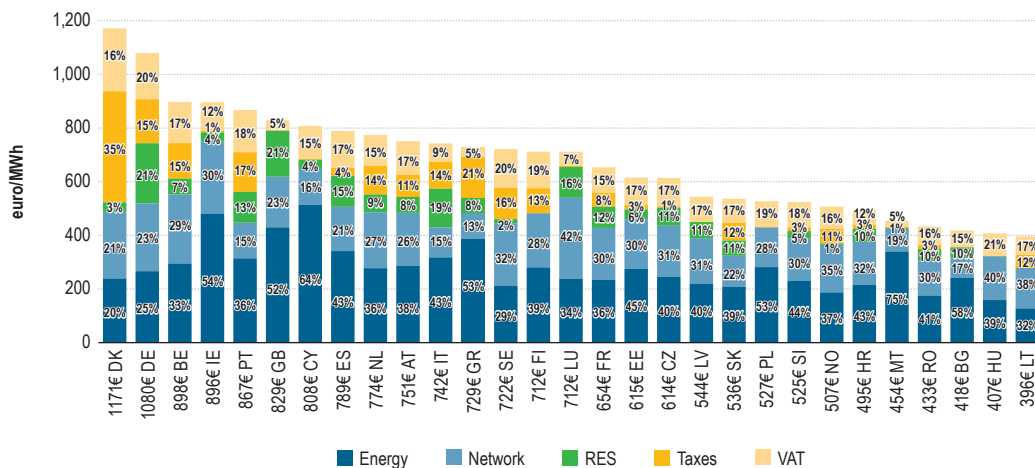
50 Average across all the EU MSs of highest priced offers and lowest priced offers.

3.2.1 Electricity price breakdown

3.2.1.1 European Union

- 104 Figure 14 illustrates the breakdown of the final electricity price, based on the standard incumbent offer available in each EU capital city and Oslo at the end of 2019. It shows that the composition of the final electricity bill for household consumers continued to vary greatly across countries and ranks the cost of electricity in each MS. For example, the energy component accounted for 75% of the final bill in Malta, but only for 20% in Denmark.
- 105 The share of network charges in the final price was the highest in Luxembourg, where it accounted for 42% of the standard incumbent offer, and the lowest in Greece at 13%. In Italy and Portugal, network charges accounted 15% of the final electricity price. RES charges accounted for more than 20% in the total incumbent offer in Germany and Great Britain, while retail electricity markets in Hungary, Sweden and Denmark had the highest share of VAT in the final electricity price. In addition, other taxes range from less than 1% of the final price in Luxembourg to 38% in Denmark⁵¹.

Figure 14: Breakdown of incumbents' standard electricity offers for households in capital cities – November/December 2019 (%)



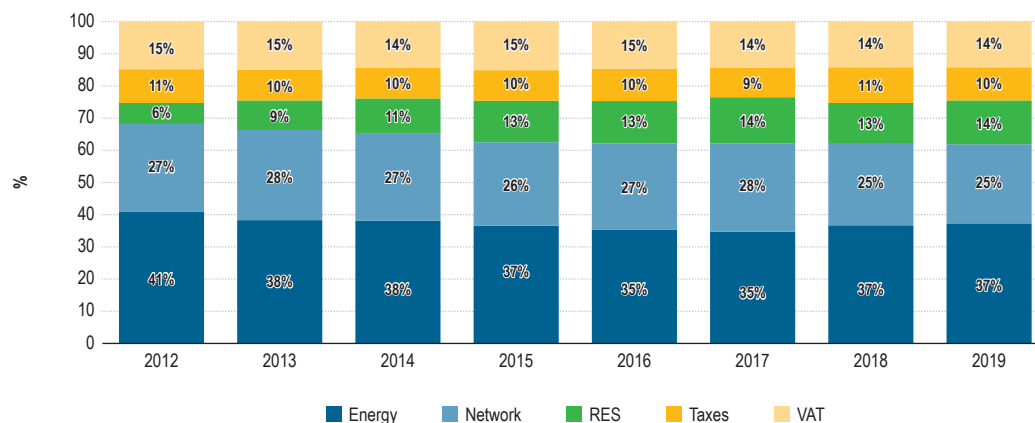
Source: ACER calculations based on data collected via ACER Retail Database (2019).

Note: Where the breakdown of grid costs in transmission and distribution is not available, all costs are included in distribution. The breakdown for Germany refers to the national average, instead of the standard incumbent offer, which is collected by the German NRA.

- 106 Figure 15 shows that in 2019, on average, 37% of the final price consisted of the energy component (contestable charges), while the remaining 63% of the electricity bill consisted of non-contestable charges, i.e. the sum of network costs, taxes, levies and other charges.
- 107 Figure 15 also shows that the relative share of the energy component in the final price has stabilised over the last couple of years, albeit at a lower level than in 2012-2014, between 35% and 37%. On the other hand, the share of RES charges increased almost every year over this period and has more than doubled since 2012, from 6% to 14% in 2019.

51 Including support for electricity production from local CHP, compensation for CO2 tax and subsidies for energy research.

Figure 15: Weighted average breakdown of incumbents' standard electricity offers for households in capital cities – 2012–2019 (%)



Source: ACER calculations based on data from price comparison tools, incumbent suppliers' websites, NRAs, collected via ACER Retail Database (2019). Bulgaria is not included in the average calculations due to unreported data by the NRA.

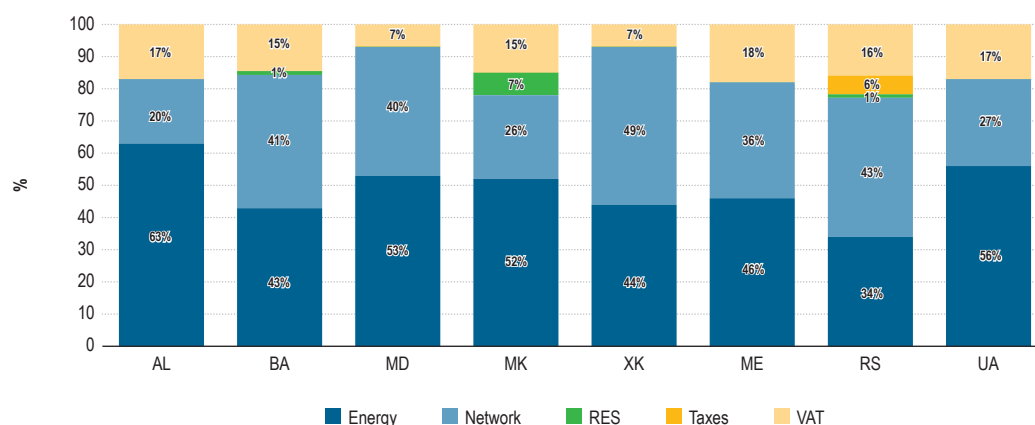
Note: For the purpose of this analysis, the average electricity price for household consumers in the EU is based on the standard incumbent offers for an annual pan-European average consumption of 3,500 kWh/year, weighted by total household consumption in each MSs, which is provided by CEER.

3.2.2 Energy Community

Figure 16 shows the breakdown of final electricity price for households in capital cities of the EnC CPs in 2019⁵². The composition of final household electricity price varies widely across EnC CPs. The share of the energy component in the final bill was the highest in Albania (63%) and the lowest in Serbia (34%). In the EnC CPs, the share of network costs in the total household electricity price ranged between 20% in Albania and 49% in Kosovo.

The share of RES charges in the final price gives an indication of the support for renewable electricity production in the EnC CPs. In Albania, Kosovo, and Moldova no RES support mechanism was reported by the NRAs for 2019. In Montenegro, a RES support scheme was part of the final electricity price until mid-2019, when the support scheme changed. A RES fee is now paid by end-users for every kWh above 300kWh consumed monthly⁵³. In Ukraine, the RES support is part of the transmission charge and could not be presented separately. In other EnC CPs, the RES support amounts to 1% of the final household electricity price in Bosnia and Herzegovina and Serbia, and 7% in North Macedonia.

Figure 16: Breakdown of incumbents' standard electricity offers for households in EnC capital cities – November–December 2019 (%)



Source: EnC Secretariat calculations, based on ACER's methodology and data provided by NRAs.

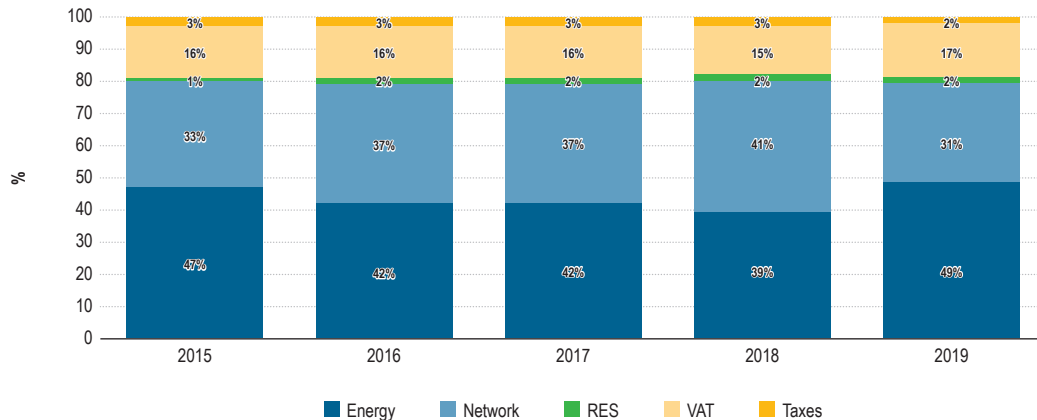
Note: The NRA of Georgia does not have relevant information for calculating the electricity price breakdown.

⁵² Information based on a consumption profile of 3,500 kWh per annum with data relating to November and December 2019.

⁵³ Not shown in Figure 16.

110 Figure 17 shows the weighted average final price breakdown of the incumbents' standard offers for electricity household consumers in EnC capitals in the period 2015-2019. The average breakdown changed in 2019 mostly due to inclusion of incumbents' standard offer of Ukraine in the EnC CPs average, which was not available in the previous years.

Figure 17: Weighted average breakdown of incumbents' standard electricity offers for households in EnC capitals – 2015–2019 (%)



Source: EnC Secretariat calculations, based on ACER's methodology and data provided by NRAs.

Note: This Figure is based on data provided by the respective NRAs for the electricity breakdown for Albania, Bosnia and Herzegovina, North Macedonia, Kosovo*, Moldova, Montenegro, Serbia and Ukraine, weighted by the total household electricity consumption in each country.

3.2.3 Gas price breakdown

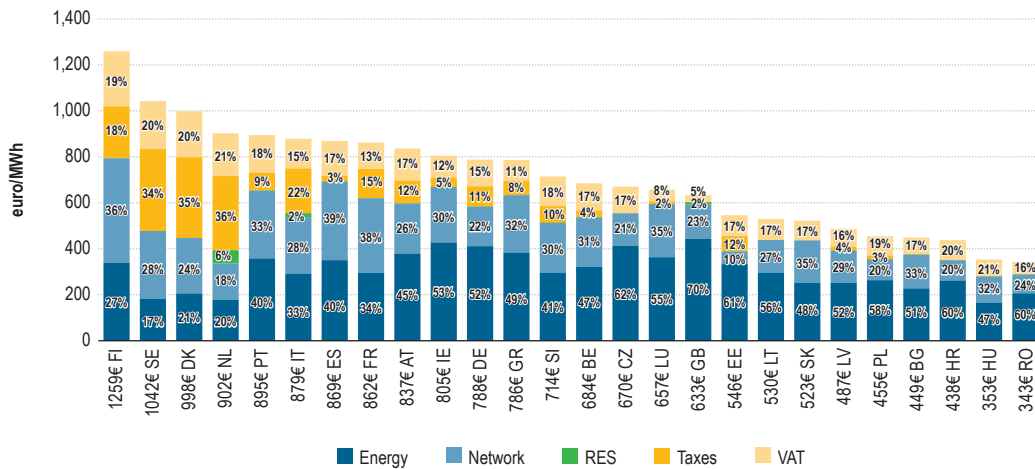
3.2.3.1 European Union

111 Figure 18 shows the breakdown⁵⁴ of final gas prices based on the standard incumbent gas offer available to households in each capital city at the end of 2019, where data was available and where a gas retail market exists. It illustrates that the composition of the final gas bill for household consumers continues to vary greatly across MSs and ranks each MS by the total cost of gas. For example, the energy component accounted for 70% of the final bill in Great Britain, while it represented only 17% of the final bill in Sweden.

112 Network costs, including both distribution and transmission network costs, accounted for the largest share in the final price in Spain (39%) and France (38%). Hungary, Croatia, Sweden and Denmark have the highest share of VAT in the final gas price (between 2% and 21 %), while the Netherlands, Denmark and Sweden are the countries with the highest proportion of taxes and charges.

54 The analysis for is based on an annual pan-European consumption profile of 11,000 kWh.

Figure 18: Breakdown of incumbents' standard gas offers for households in EU capitals – November/December 2019 (%)

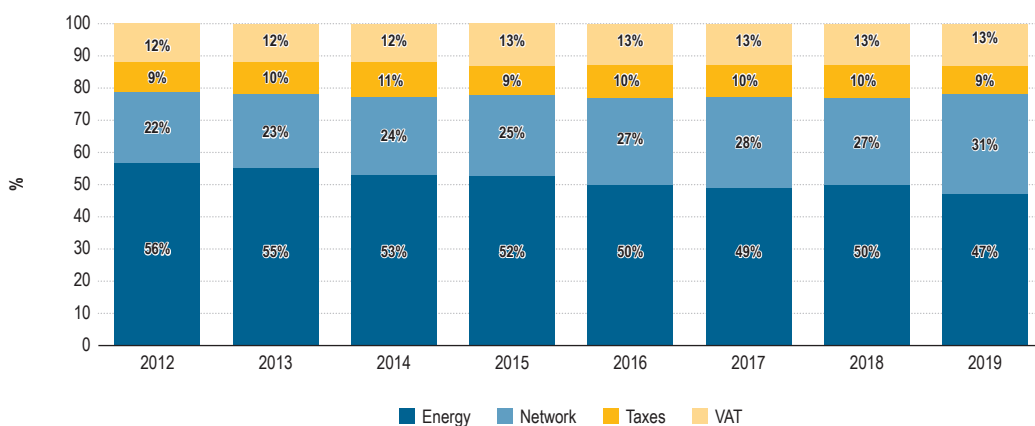


Source: ACER calculations based on data from price comparison tools, incumbent suppliers' websites and NRAs, collected via ACER Retail Database (2019).

Note: Where the breakdown of grid costs in transmission and distribution is not available, all costs are included in distribution. Cyprus, Malta and Norway are not included in this Figure, due to small or non-existent gas markets for household consumers. Natural gas prices for Sweden refer to Gothenburg. The breakdown for Germany refers to the national average, instead of the standard incumbent offer, which is collected by the German NRA.

- 113 As shown in Figure 19, on average, less than half of the final price paid in 2019 by end consumers covered the energy component of their annual gas bill, while the rest covered the sum of the network costs, taxes, levies and other charges.
- 114 The energy component decreased in 2019s in response to depressed gas wholesale prices. In turn, this made the percentage of the non-contestable component to increase, exceeding the percentages recorded in previous years.

Figure 19: Weighted average breakdown of incumbents' standard gas offers for households in capital cities of the EU – 2012–2019 (%)



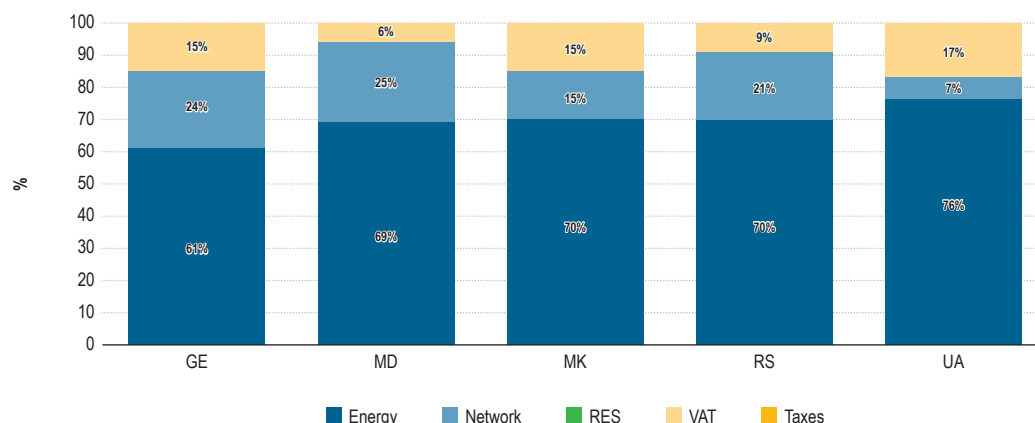
Source: ACER calculations based on data from price comparison tools, incumbent suppliers' websites, NRAs, collected via ACER Retail Database (2019). Bulgaria is not included due to lack of data and input from the NRA.

Note: For the purpose of this analysis, the average gas price for household consumers in the EU is based on the standard incumbent offers for an average consumption of 11,000 kWh/year, weighted by total household consumption in each MSs, which is provided by CEER.

3.2.4 Energy Community

115 Figure 20 illustrates the breakdown of gas incumbents' standard offers to households in capital cities of the EnC CPs, for which the information was available and where a gas market exists, for an annual consumption profile of 11,000 kWh/year. The share of the energy component in the final gas price in 2019 ranged from 61% in Georgia to 76% in Ukraine. The share of network charges, both transmission and distribution, ranged from 7% of the final gas price for consumers in Kyiv to 25% for households in Chisinau.

Figure 20: Breakdown of incumbents' standard gas offers for households in EnC capitals – November–December 2019 (%)

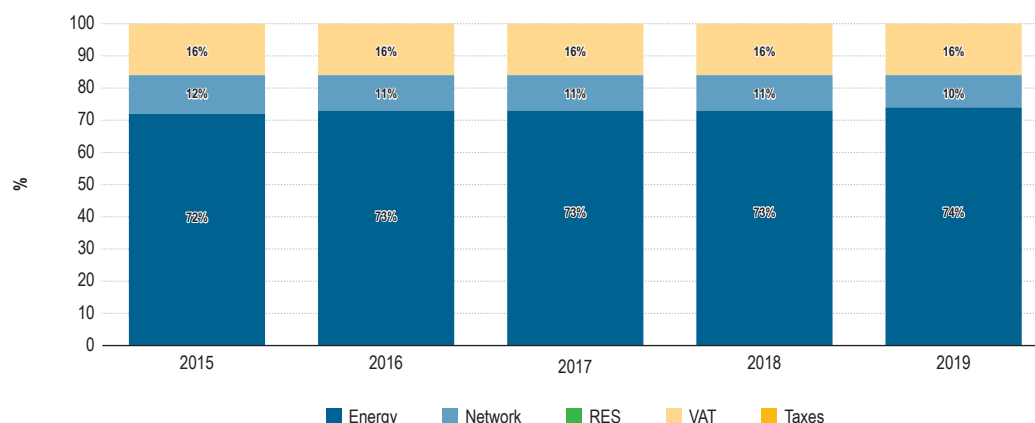


Source: EnC Secretariat calculations, based on ACER's methodology and data provided by NRAs.

Note: Bosnia and Herzegovina is not included in this figure due to insufficient data. Other EnC CPs have no gas market.

116 The weighted average breakdown of gas prices in the EnC CPs' capitals remained largely stable throughout the period 2015–2019. Compared to 2015, the relative share of the energy component increased by 2% in 2019, while the share of network charges decreased.

Figure 21: Weighted average breakdown of incumbents' standard gas offers for households in EnC capitals – 2015–2019 (%)



Source: EnC Secretariat calculations, based on ACER's methodology and data provided by NRAs.

Note: This Figure is based on data provided by the respective NRAs for the gas breakdown for Georgia, Moldova, North Macedonia, Serbia and Ukraine, weighted by the total household gas consumption in each country. For North Macedonia the information on final gas price breakdown is available only as of 2017 and for Georgia as of 2019.

4 Retail market: How is the market structured? What are its dynamics?

- 117 This section examines the main developments with regard to market structure and public price interventions in the electricity and gas sectors. This is one of the main elements in understanding the level of competition and the overall functioning of retail energy markets. Previously, the information contained within this section was included in the CEER Retail MMR. Although the European electricity and gas retail markets still contain many national differences, a high-level analysis is aimed at identifying the overall impact of European legislation on selected aspects of European retail markets.
- 118 The Third Energy Package⁵⁵ entered into force in September 2009. One of the key aims is to deliver a single and well-functioning energy market for energy consumers. The Third Energy Package sought to deliver inter alia enhanced energy consumer benefits through the delivery of enhanced consumer choice via competition and transparency of retail markets and protection for energy consumers. In 2019, the EU agreed on the Clean Energy for all Europeans package (CEP). The CEP aims to facilitate the transition towards cleaner energy and deliver on the EU's Paris Agreement commitments for reducing greenhouse gas emissions. Some of its provisions are expected to have a direct impact over market performance in the upcoming years.
- 119 This section is largely broken into three separate sections. Section 4.1 provides information on the number of suppliers active within each MS and the EnC CP. Section 4.2 outlines the finding observed regarding market concentration across MS and the EnC CPs. Concentration levels are important to understand competition dynamics within a market. A high number of nation-wide suppliers may signal that low entry barriers exist and may lead to lower market concentration levels. The Herfindahl-Hirschman Index (HHI) is a commonly used indicator to measure the degree of market concentration. Based on the guidance from the European Commission⁵⁶, a HHI above 2,000 signifies a highly concentrated market. Finally, Section 4.3 provides information on the status across MS and the EnC CPs with regard to price intervention.

4.1 Suppliers

4.1.1 Number of suppliers and entry-exit activity

- 120 Supplier activity in a market can provide an indication of the level of competition within a specific market. A high number of suppliers within a MS' electricity or gas market may be related to low entry barriers or favourable market expectations. However, it is important to note that a low number of suppliers does not necessarily indicate high entry barriers or unfavourable market conditions in MSs with smaller energy markets⁵⁷. It is common to observe in MSs with smaller markets that the number of active suppliers is usually lower than in MSs which have a larger energy market, which does not necessarily imply that competition in these markets is less developed.
- 121 In order to achieve a well-functioning retail energy market, new suppliers must be able to enter a market and compete with existing suppliers. Therefore, the total number and entry-exit activity of suppliers are indicative of consumers' choice and of the available options in each national market. In addition, the presence/non-presence of incumbent suppliers owned by local distribution system operators (DSOs) provides an indication of the existence/non-existence of entry barriers. The following sections analyse the number of suppliers and the entry-exit activity by country, distinguishing between household and non-household markets.
- 122 Figure 22 and Figure 23 present the number of nationwide suppliers and total number of consumers per MS. Figure 22 shows that in the electricity sector, Spain and Italy recorded the most nationwide suppliers in 2019. Italy had 149 nationwide suppliers, 14 more than in 2018. Spain had 257 active nationwide suppliers, 25 more

55 See: https://ec.europa.eu/energy/topics/markets-and-consumers/market-legislation/third-energy-package_en.

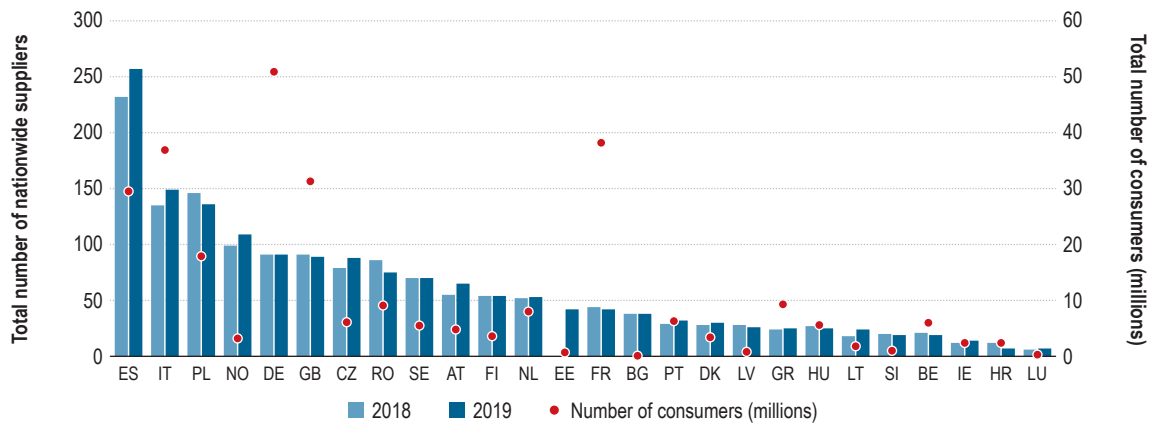
56 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/3).

57 To establish a comparison it is assumed that markets coincide with their border nation-states, which is not always the case. In some MSs, minor markets can be found at, for example, DSO level, which does not imply competition is lower, but a different market distribution.

than in 2018, becoming the country that had experienced the highest increase in the number of nationwide suppliers, this is the case for the second consecutive year.

- 123 Estonia, Norway and Latvia recorded the most nationwide electricity suppliers per consumer, while Germany and France recorded the lowest number of electricity nationwide suppliers per consumer. A significant reduction in the number of nationwide suppliers in Croatia is observed, reducing from 12 in 2018 to seven in 2019⁵⁸. Such significant decrease in energy suppliers cannot be linked with a decreasing market size.

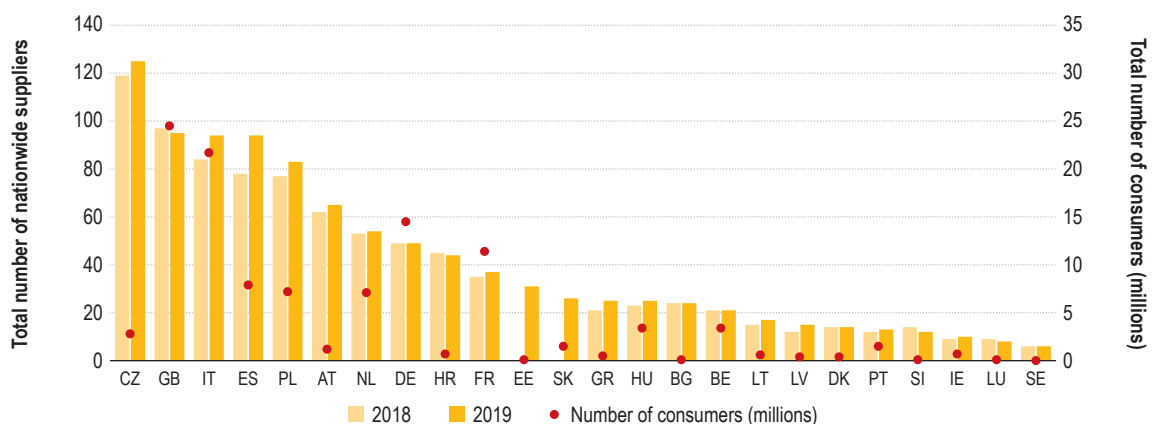
Figure 22: Total number of active electricity nationwide suppliers and total number of metering points in the whole retail market 2018-2019



Note: Finland, Bulgaria and Germany did not submit 2019 data. Source: CEER

- 124 In the gas sector, the Czech Republic had the most nationwide suppliers (125), followed by Great Britain (95) Spain (94) and Italy (94). MSs with the highest increase in the number of active nationwide suppliers since 2018 were Spain (16), Italy (10), Czech Republic and Poland (six each).
- 125 As observed in the electricity market, Estonia is the country with most nationwide suppliers per consumer, with 31 nationwide suppliers for 100,000 consumers in the gas market.

Figure 23: Total number of active natural gas nationwide suppliers and total number of metering points in the whole retail market 2018-2019



Source: CEER

Note: Finland and Romania reported 0, same as in 2018. Germany did not submit 2019 data.

58 Reduction in the number of nationwide suppliers in Croatia happened due to the fact that some suppliers sold their supply portfolio while some suppliers suspended their activities on the electricity market.

- 126 In the EnC CPs, electricity markets have only a very small number of nationwide suppliers (one in Albania, Kosovo, Moldova and Montenegro and two in Georgia). The electricity markets of Bosnia and Herzegovina, North Macedonia and Serbia recorded higher numbers of suppliers (ranging from 10 to 20), with modest entry-exit activity. In Ukraine, a large increase in electricity market suppliers was recorded moving from 119 in 2018 to 237 in 2019 due to substantial market reforms in the last years.
- 127 The retail gas markets of the EnC CPs show similar structure and trends. The number of nationwide gas suppliers range from only one in Moldova to 249 in Ukraine (with 15 new entrants in 2019 compared to 2018).

4.1.2 Household market

- 128 The higher the number of active suppliers nationwide implies that more offers will be available to energy consumers, competition will be enhanced and thus energy consumers will be provided with more options with regard to their energy supplier and the type of contract they enter into. This drives more competition between suppliers to offer lower prices to secure market share. However, to achieve energy savings, the consumer needs to be active. As outlined in Chapter 2, retail and wholesale prices show a less positive correlation following wholesale energy price reductions. A more active consumer could place enhanced pressure on suppliers to strengthen this correlation.
- 129 In the majority of MSs (66% in gas and 62% in electricity) all suppliers are active at a nationwide level. However, there are significant differences in MSs between the total number of suppliers and the number of suppliers that are active nationwide. In some MSs, the majority of suppliers are only active in a specific geographical area⁵⁹. In the electricity household market for example, France had 146 active suppliers in 2019. However, only 30 (21%) were active at a nationwide level. Similarly, in Austria, there were 156 active suppliers in 2019, however, only 58 (37%) were active at a nationwide level.
- 130 Spain, Italy and Norway had the highest number of electricity active nationwide suppliers with 244, 111 and 89 suppliers respectively in 2019. In the gas market, the number of nationwide household suppliers is the highest in the Czech Republic (105), followed by Spain (85) and Italy (76), while the lowest number of suppliers active nationwide is found in Latvia (five), Lithuania (four) and Hungary (15)⁶⁰.
- 131 The EU average number of active electricity nationwide suppliers in the household market was 41 in 2019. Smaller countries with smaller markets fall below this average for example Luxembourg (five).
- 132 In the electricity supply market, Italy experienced the largest activity with 88 new entrants and 48 active suppliers exiting the market. In Spain, there were 36 new entrants and 26 active suppliers exiting the market. Regarding the origin of entrants, France and Italy received four new suppliers coming from a different market while the rest of the countries have one or no entrants coming from a different country.
- 133 In the gas supply market, Italy and Spain experienced the largest increase in the number of new suppliers with 37 and 12 entering the respective markets. In Italy, 10 new entrants came from a different country. In Spain, four new entrants came from a different country. In most of the EU (16 MSs) there are no entrants coming from a different country. In Italy, the increase in the number of operators active in the free market, might be explained due to market expectations linked to the finalisation of the standard offer regime.
- 134 MSs that recorded more companies leaving than entering were: Romania⁶¹ in the case of gas (with eight companies leaving the market and none entering) and Poland⁶² in the case of electricity (with 11 suppliers leaving the market and just one entering the market).

59 This is the case of Austria, Belgium, France and Italy in electricity and Belgium, Finland, France and Italy in gas.

60 It is important to take into account market sizes explaining lower number of suppliers in smaller markets.

61 Five companies were absorbed by other companies.

62 In Poland many retailers in the household electricity market left the market or are not presenting new offers mainly due to the price freeze.

4.1.3 Non-household market

- 135 The total number of electricity suppliers in the non-household market active nationwide varies across MSs⁶³.
- 136 In gas, the number of suppliers in the non-household market ranged from eight in Luxembourg and 111 in the Czech Republic. As has been observed in the household market, there is a significant variation between the total number of suppliers and the number of suppliers that are active nationwide across MSs.
- 137 In 16 MSs⁶⁴ out of the 25 (64%) MSs, all suppliers are active nationwide in the gas sector. In electricity, 14 NRAs⁶⁵ have confirmed that all electricity suppliers are active nationwide in their MS.
- 138 Regarding entry-exit activity in the non-household market, Italy is the country with the biggest net balance in the gas and electricity markets, with net balance of 30 in gas (one entrant from a different country) and 37 in electricity (five entrants from a different country). However, Romania experienced the largest negative balance, with 11 suppliers leaving the market and two entering in electricity and eight leaving the market and two entering in the case of natural gas.
- 139 In the majority of MSs, new suppliers entering non-household markets are not coming from a different country.

4.2 Concentration of retail markets

- 140 The Herfindahl-Hirschman Index (HHI) is a commonly used indicator to measure the degree of market concentration. Based on the guidance from the European Commission⁶⁶, a HHI above 2,000 signifies a highly concentrated market. In general, a high number of suppliers and low market concentration are viewed as indicators of a competitive market structure.
- 141 Concentration levels are important to understand competition dynamics. A high number of nation-wide suppliers may indicate that low entry barriers exist and may lead to lower market concentration levels i.e. a lower HHI score. Conversely, a higher HHI indicates that further competition could be obtained in the market.
- 142 With low market concentration, the ability of any market player to exploit market power to the detriment of energy consumers is reduced and consumers can benefit from competition, innovation and consumer services.
- 143 Figure 24 and Figure 25 show the evolution in the number of countries with different HHI levels for household and non-household markets from 2016 to 2019. In electricity and gas non-household markets a positive evolution is observed, with an increased number of MSs reporting HHI levels below 2,000 and a lower number reporting HHIs over 4,000. In the case of household markets, the trend is not as clear, meaning that household markets continue to be more concentrated than non-household markets over the years⁶⁷. The following subsections look at the market concentration situation in each country distinguishing between household and non-household markets, going through HHI and CR3⁶⁸ indicators.

63 For example, seven in Luxembourg, nine in Croatia, 219 in Spain, and 107 in Norway.

64 Bulgaria, Czech Republic, Denmark, Estonia, Spain, Great Britain, Greece, Hungary, Ireland, Lithuania, Luxembourg, Latvia, The Netherlands, Poland, Portugal and Slovakia.

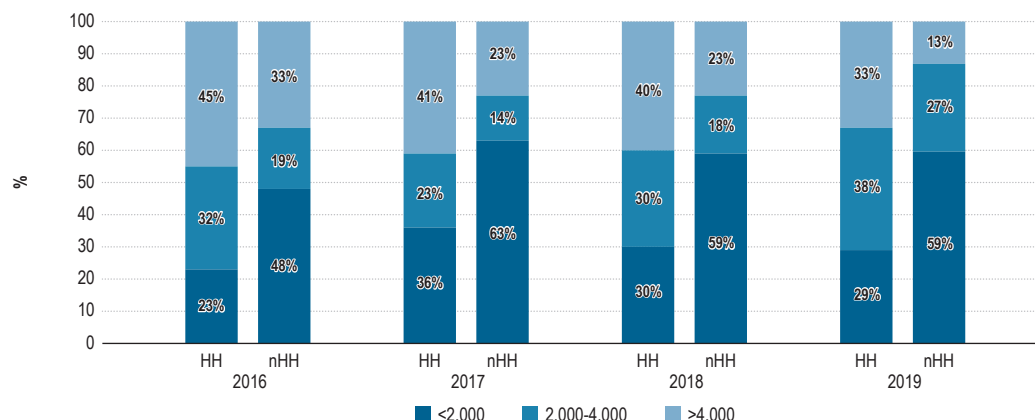
65 Estonia, Great Britain, Greece, Croatia, Hungary, Ireland, Lithuania, Latvia, the Netherlands, Poland, Portugal, Poland, Romania and Slovakia.

66 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/3).

67 When analysing market concentration measures, the definition of the relevant market is important. As in some countries markets are not national, but defined of a smaller (often regional) size, definition and therefore concentration measures can differ significantly.

68 CR3 is a traditional structural measure of market concentration based on market shares. In this report we measure the concentration ratio 3 which measures the total market shares of the 3 largest suppliers in one market.

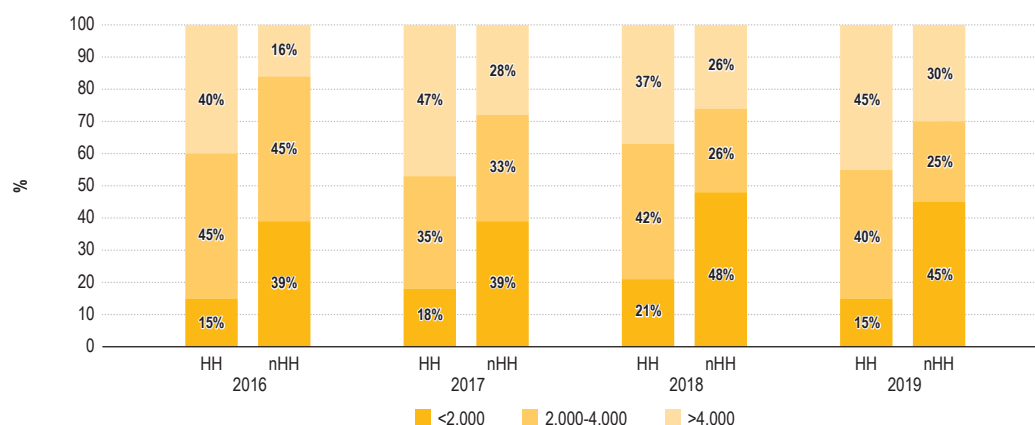
Figure 24: Evolution of the proportion of countries reporting different HHI levels in the electricity sector (Household “HH”, Non-household “nHH” markets) – 2016-2019.



Source: CEER

Note: Average of number of countries reporting different HHI levels per year. A variable number of countries reported HHI data depending on the year, reason why to observe an evolution, absolute numbers have been converted into relative terms (more than 2/3 of MSs have responded each year).

Figure 25: Evolution of the proportion of countries reporting different HHI levels in the natural gas sector (Household “HH”, Non-household “nHH” markets) - 2016-2019.



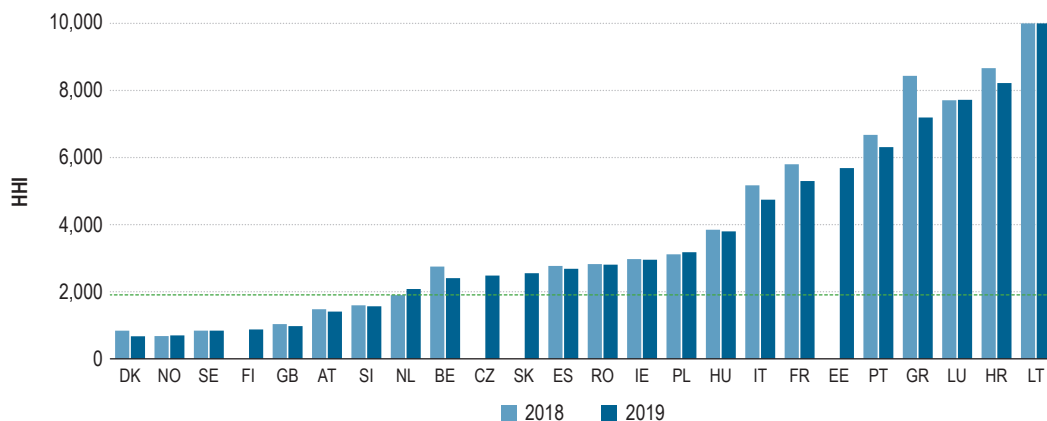
Source: CEER

Note: Average of number of countries reporting different HHI levels per year. A variable number of countries reported HHI data depending on the year, reason why to observe an evolution, absolute numbers have been converted into relative terms (more than 2/3 of the MSs have sent data each year).

4.2.1 Household market

- 144 In general, a high number of suppliers and low market concentration is viewed as the indicators of a competitive market structure⁶⁹. The following figures present the HHI for electricity and for gas in the household market. In the electricity market, seven out of 24 respondent MSs reported low concentration levels (HHI<2000) in 2019. Conversely, Figure 26 shows a large number of MS reporting high market concentration levels.
- 145 In electricity, the 74% of MSs reported a reduction in HHI levels. Greece reported the best performance in terms of reduction in HHI going from a HHI of 8436 in 2018 to a HHI of 7194 in 2019. The main reason for this is that alternative suppliers were able to make better offers than the incumbent company which attracted many consumers, increasing at the same time switching rates. This is sign that competition in Greece is improving, and that in general the retail market enters a more mature phase in this regard.
- 146 Hungary, Lithuania, Croatia and Luxembourg recorded the highest values (between 95% and 100% concentration rate) closely followed by France, with a CR3 of 92 in 2019. This indicates a poorer performance in comparison to other MSs. The MSs that recorded the best performance were Norway (38.8 CR3), Great Britain (45 CR3) and Sweden (46 CR3). CR3 is a traditional structural measure of market concentration based on market shares. In this report we measure the concentration ratio 3 which measures the total market shares of the 3 largest suppliers in one market.

Figure 26: HHI for the household market based on metering points in electricity for selected countries



Source: CEER

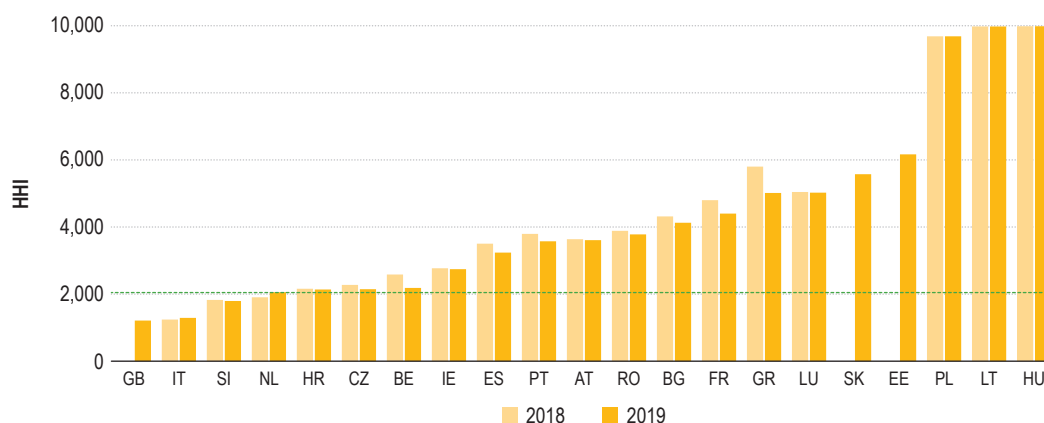
Note: Latvia and Germany do not monitor this indicator.

- 147 In gas, an overall reduction in the HHI for household consumers was recorded, Greece and France reduced their HHI levels the most (-785 and -400 points respectively).
- 148 The CR3 indicator is expressed as the sum of the market shares of the three largest suppliers in a market by metering points. The benchmark used in this report is 70%, since markets with CR3s between 70-100% are considered highly concentrated, ranging from oligopolies to monopolies. Smaller MSs may have a relatively small market, with limited suppliers and hence high CR3 levels.
- 149 In the gas market, Great Britain and Italy⁷⁰ performed the best in 2019, with values of 47% and 56% respectively. Hungary, Lithuania, Luxembourg, Poland and Romania have values between 95-100%.

⁶⁹ See CEER 2017 Handbook for National Energy Regulators (2017), Ref: C16-SC-52-03.

⁷⁰ In Italy, there are many companies operating at a distribution level, which partially explains this result.

Figure 27: HHI for the household market based on metering points in natural gas for selected countries



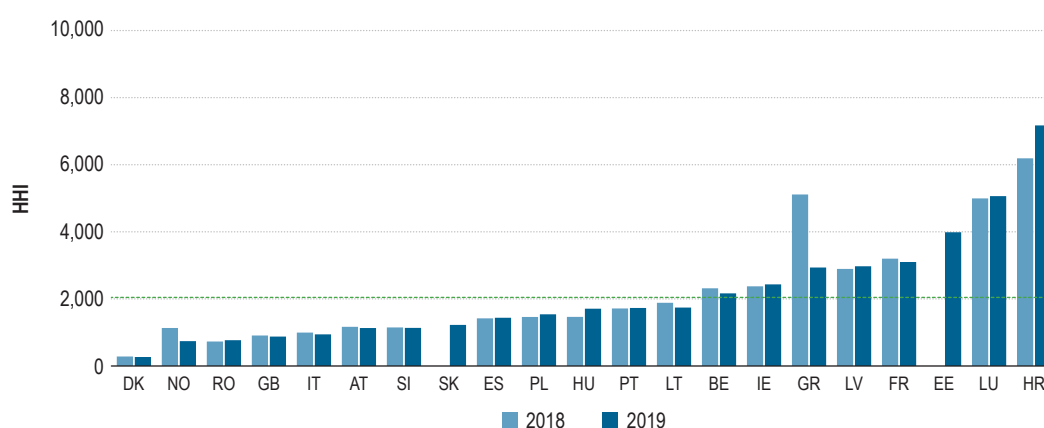
Source: CEER

Note: Denmark, Finland, Sweden, Latvia and Germany do not monitor this indicator.

4.2.2 Non-household market

- 150 In the non-household market, HHI values are less concentrated than household markets. With regard to the electricity and gas markets, the non-household electricity markets are on average less concentrated than gas markets. On average there is an improvement of HHI levels from 2018 to 2019, in electricity (1% improvement) and in gas (2% improvement).
- 151 In the electricity market, 13 out of 22 MSs reported low concentration levels in 2019 ($HHI < 2,000$). This is in line with 2018 figures. On average, a reduction of HHI levels has occurred in 2019. Greece recorded the best improvement (HHI improvement of 2,177, reaching a HHI value of 2,935 in 2019) in the non-household electricity market.
- 152 In the non-household gas market, Latvia and Lithuania recorded significant reductions in HHI from 2018 to 2019 (with improvements of 1508 and 855 HHI points respectively), while in other countries like Portugal and Belgium recorded increases in HHI (with increases of 703 and 377 respectively).

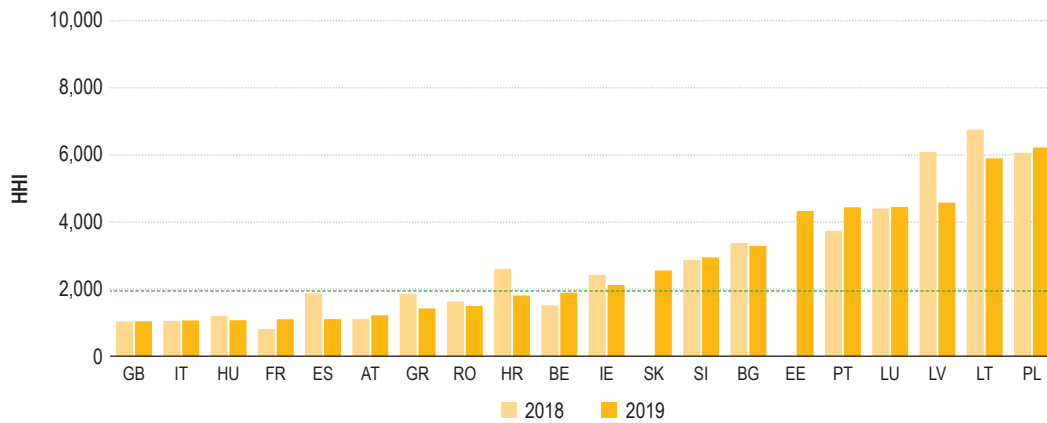
Figure 28: HHI for the non-household market in electricity 2018-2019



Source: CEER

Note: Sweden, Finland, The Netherlands, Czech Republic and Germany do not monitor this indicator.

Figure 29: HHI for the non-household market in natural gas 2018-2019



Source: CEER

Note: Czech Republic, Denmark, Finland, The Netherlands, Sweden and Germany do not monitor this indicator.

153 Examining the concentration ratio CR3, in electricity, the best performers were Romania (CR3 36.92), Italy (CR3 38.8) and Great Britain (CR3 40). Luxembourg and Croatia recorded less positive results with CR3 higher than 90. However, higher figures can be expected in smaller countries. These two countries were followed by Ireland, with 81.1 CR3 value and a bigger market.

154 In gas, Luxembourg, Lithuania and Estonia recorded CR3 levels above 90%, followed by Portugal, with CR3 of 88.8%. Best performers in CR3 levels in 2019 were Hungary (43.06%), Great Britain (47%) and Italy (48.8%).

4.3 Public price intervention

155 This section sets out the status of public price intervention in MSs in 2019. It provides information on the different forms of intervention in retail price setting and the steps taken by MSs towards the removal of price intervention⁷¹. Price regulation continues to vary across MSs in the EU with some MS intervening in consumers' energy prices.

156 In this section public price intervention refers to the energy component of the energy consumers' bill only, which is a price subject to regulation or controlled/intervened by a public authority such as a government, an NRA, or another party.

157 The analyses covered the household market and on the industrial market, focusing for both on three aspects:

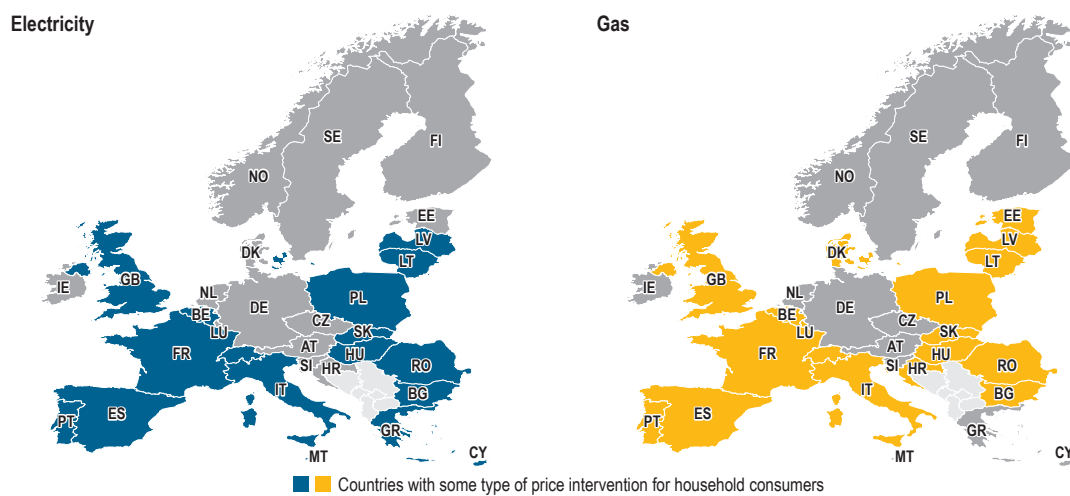
- i) the existence and types of price intervention (like price regulation, price cap, price intervention for vulnerable consumers etc),
- ii) the number of household or industrial consumers under end-users prices with price intervention, and
- iii) roadmaps for the removal of retail prices with price intervention.

71 Where data has been provided.

4.3.1 Household market

- 158 Figure 30 below shows that 16 countries in electricity (out of 28 answering) and 16 countries in gas (out of 26 answering) have some form of price intervention for household consumers⁷².
- 159 In eight out of 16 MSs with price intervention in electricity, the form of intervention in the price setting is end-user price regulation, of which three countries, Cyprus, Great Britain and Spain, have a coexistence of price regulation and price intervention for vulnerable consumers. In eleven MSs out of 16 in gas, the form of intervention is end-user price regulation, of which only Great Britain implemented a coexistence of a price regulation mechanism and a price intervention for vulnerable consumers. In Portugal, while regulated prices have been removed, transitional tariffs are in place. These transitional tariffs are set by the NRA and apply for consumers supplied by the supplier of last resort.

Figure 30: Existence of price intervention in electricity (left) and in natural gas (right) in 2019



Source: CEER database 2019

- 160 In the MSs with price intervention for electricity and gas, it is either the NRA or the government that intervenes in the price. However, in some MSs it is the NRA and the government that set the energy price for example in France and Romania.
- 161 The type of price intervention can take different forms, namely ex-ante, ex-post, or other forms. Most MSs intervene ex-ante, however in electricity both Cyprus and France and Lithuania in the case of gas apply a combination of ex-ante and ex-post to determine the price for energy consumers. Cyprus uses a mix of ex-ante and ex-post price regulation for all tariffs and all consumers, except from the social tariff for the low-income households. Tariffs are set ex-ante, and some adjustments are made on an ex-post basis based on the tariff specific methodology, which is incentive-based.
- 162 80% of MSs reported that the reason for public price intervention in the price setting is to protect energy consumers against price increases. In Romania, in both electricity and gas, the price intervention is in place in order to support household consumers until the implementation of a vulnerable consumer support scheme. According to the Government Emergency Decision⁷³, regulated prices for households were reintroduced in March 2019 for the next three years. In Lithuania, the price regulation that is in place on the gas market is needed in order to protect against discrimination against household consumers and to protect against supply companies abusing their market position.

⁷² Some of the questions regarding price intervention in the CEER database were slightly different for 2019, therefore the results for 2019 are not quite comparable with 2018.

⁷³ Decision 114/2018.

- 163 In electricity, 60% of MSs reported that it is the incumbent supplier that offers the price with public intervention. In gas, price intervention varies across MSs. In Great Britain, price intervention in the case of vulnerable consumers refers to the introduction of a price cap for the consumers on prepayment meters who are considered as vulnerable. This type of intervention applies to all suppliers for both electricity and gas. In Poland, all suppliers can offer a price with public intervention, as tariffs for households in electricity and in gas are set by the energy companies and approved by the NRA. In Spain, only a designated supplier offers prices with public intervention for both electricity and gas. In Romania, only the supplier of last resort can offer regulated prices. In Hungary, in the gas market, only universal service providers can offer public intervention set price.
- 164 Various methodologies and criteria are used among the countries in the setting of the energy price. The most common methodology in electricity is the application of a rate of return with a price cap which includes a profit margin for the supplier. In gas, the majority of MSs with price intervention use a cost-plus pricing methodology in setting the price. However a price cap including a profit margin methodology is also utilised. In 2019, electricity prices were frozen by the legislator ("Price-freezing act") for one year.
- 165 In most instances, public price intervention applies to all consumers. However in some, it is only applicable to vulnerable consumers. In Italy, the public price intervention is applicable to all household consumers who did not chose a supplier or remain without a supplier on the free market.
- 166 In electricity only six countries⁷⁴ (out of 13 that responded), and three countries⁷⁵ in gas (out of 13 responding), replied that some type of intervention exists in the price setting for energy poor or vulnerable consumers. In Belgium, for both electricity and gas, protected consumers get a social tariff based on the lowest commercial tariff and on the lowest network tariff. This tariff is set every 3 months by CREG. In Cyprus, a specific tariff is available to vulnerable consumers, whereas in Spain there is a 25%-40% discount for vulnerable consumers on the regulated prices, depending on the grade of vulnerability. The situation is similar in Latvia where there is a price reduction for the part of energy received by vulnerable consumers.
- 167 In other MSs, while there are specific energy measures energy poor or vulnerable consumers they are not translated into public price setting intervention. In Italy, poor or vulnerable consumers can receive a 30% discount on their yearly electricity bill. This yearly expense is estimated by the NRA and the percentage of the discount is fixed by a Government decree. In Malta, the assistance provided to such eligible consumers takes the form of energy benefit. The amount due for the consumption of electricity is calculated in accordance with the normal regulated tariffs for households, then the energy benefit amount is deducted directly by the supplier from the final amount due by the consumer. The energy benefit is then refunded to the supplier by the social welfare department. In France, social tariffs existed until 2018, but since then, vulnerable consumers have the right to an annual energy payment that can be used for the payment of their energy bills. In Poland, there is no separate system of price setting for vulnerable consumers, but support is available outside the energy tariff system.
- 168 Figure 31 below shows the number of household consumers with price intervention when compared to the total number of households in each MS.⁷⁶ In Poland, all households are subjected to price regulation following the implementation of the Price Freezing Act in 2019 by the Polish Legislator. In Great Britain 53% of households are subjected to a price regulation⁷⁷ In Latvia, the data shows the number of vulnerable household consumers only, as there is only price intervention for this category of consumers. In France 72% of the households in electricity and 36% of households in gas have contracts under regulated prices. In Romania, 70% of the households are supplied under regulated prices in electricity. In several countries, including Cyprus, Lithuania, Slovakia and Malta 100% of the households are supplied under a price intervention mechanism. Where 100% of energy prices paid by consumers are subjected to public intervention, it represents a barrier to entry for potential new market participants. This has the potential to reduce energy consumer choice and stifle innovation in the long term.

74 Belgium, Cyprus, Greece, Great Britain, Spain and Latvia.

75 Belgium, Great Britain and Hungary.

76 Responses received from 15 countries in electricity and 12 countries in gas.

77 This includes energy-poor or vulnerable consumers.

Figure 31: Electricity household consumers with price intervention compared to the total number of households in the country in 2019

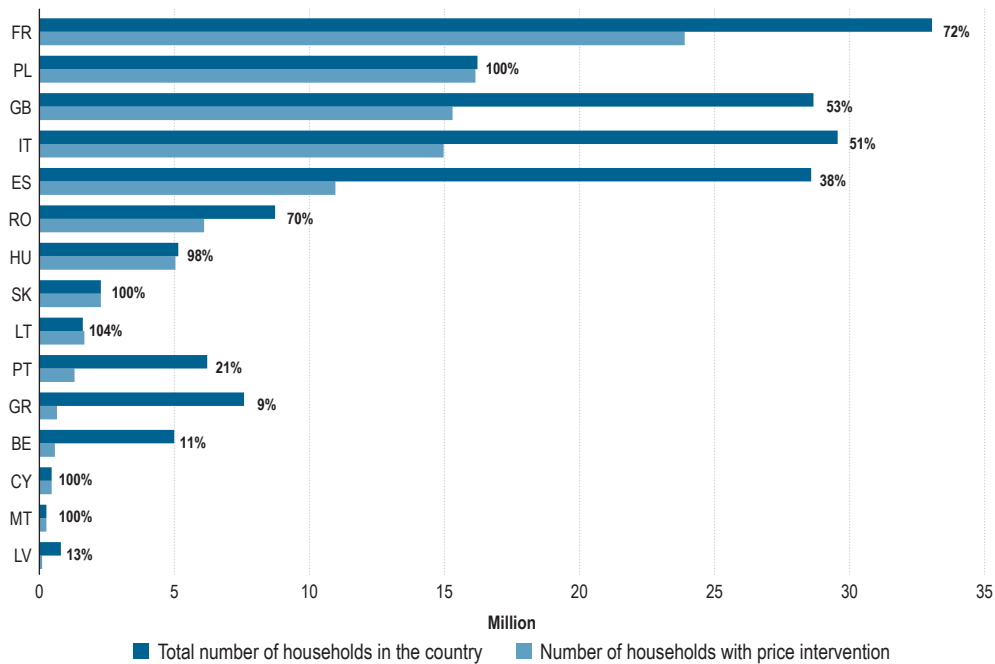
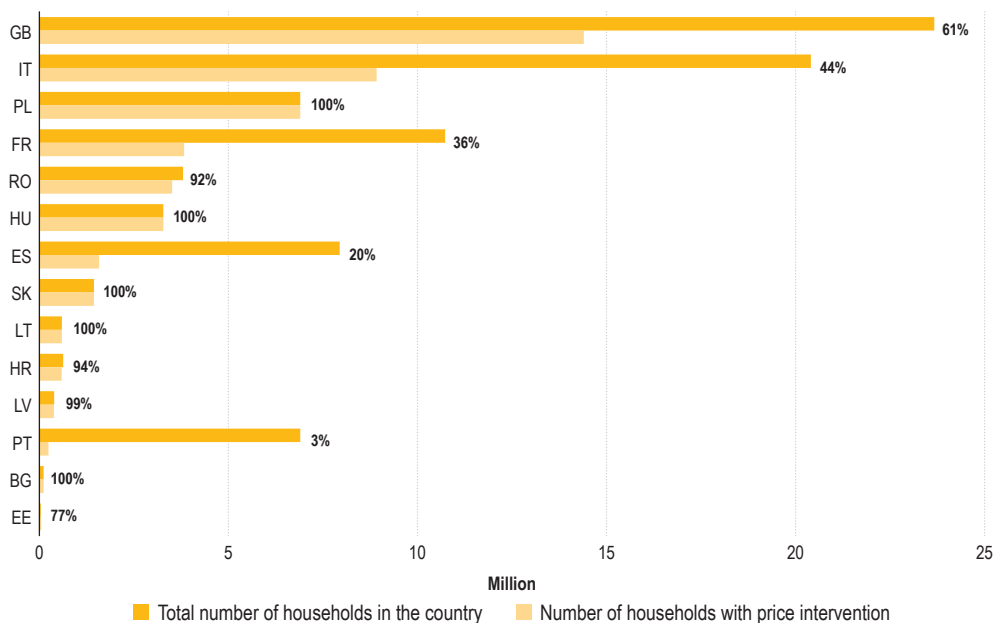


Figure 32: Gas household consumers with price intervention compared to the total number of household consumers in 2019



Source: CEER database 2019.

169 As outlined earlier, in Belgium, Greece, and Latvia, price intervention applies only to energy poor or vulnerable consumers. However, in Great Britain, Italy or and Spain, the number of energy poor or vulnerable consumers is just a proportion of all of the household consumers benefiting from price intervention, as several types of price intervention exists.

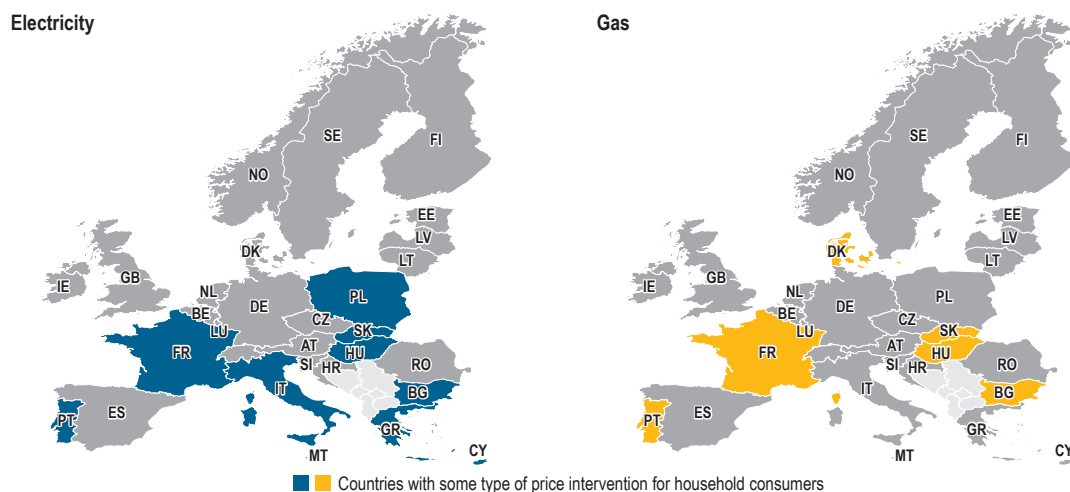
170 The data on the proportion of energy poor or vulnerable household consumers is only available for nine countries in electricity and four in gas. The proportion of energy poor or vulnerable household consumers subjected to price intervention, ranges from 1% in Poland to 15% in Great Britain for electricity and from 1% in Hungary to 14% in Great Britain for gas.

- 171 Five MSs in electricity (out of 15 countries with price intervention) and six MSs in gas (out of 15 countries with price intervention), reported that they intend to remove the public intervention in energy price setting for household consumers. In Italy, for electricity and for gas, the standard offer regime is a transitory regime and it will be removed from January 2022. In Lithuania, price regulation for household electricity consumers will have been abolished by 2023 in three stages⁷⁸. From 1 January 2023, the supply of electricity will be guaranteed to consumers who have not chosen an independent supplier or whose independent supplier will not be able to perform its functions or will cease its activities. The Lithuanian NRA will set the price for the service of guaranteed supply.
- 172 For the gas market, few countries explained their roadmap for price intervention removal. In France, gas regulated tariffs will be removed for household consumers as of 1 July 1 2023. In Poland, price regulation will be removed on 1 January 2024 following the implementation of a Price-freezing Act in 2019 by the Polish Legislator. In Romania, the acquisition price regulation and end-user price for household consumers is set to end on 30 June 2020⁷⁹.
- 173 In all the EnC CPs (excluding Montenegro) end-user electricity prices for household consumers were regulated in 2019. In Montenegro, there is a certain public intervention applicable to public suppliers, under which the prices for this category of consumers cannot be increased beyond the weighted electricity price realized in the previous year and futures for the following year on a reference energy exchange nominated by the regulator. Also the end user gas prices for household consumers were regulated in majority of the EnC CPs. The exception in the gas sector is North Macedonia. All electricity and gas consumers, including households, are eligible to change their suppliers. However, only very limited number of households chose to do so under current market conditions.

4.3.2 Non-household market

- 174 Figure 33 shows the level of price intervention in both electricity and gas across the EU. In 2019, public price intervention for non-household consumers is reported to exist in ten countries in electricity out of 28 answering and six in gas, out of 26 MSs answering.

Figure 33: Existence of price intervention the non-household segment in electricity (left) and in gas (right) in 2019



Source: CEER database 2019

78 By the end of 2020 for consumers that consume > 5000 kWh per year, must select independent supplier; 2) By the end of 2021 consumers, that consume 1000—5000 kWh per year, must select independent supplier; 3) By the end of 2022 consumers, that consume less than 1000 kWh per year, must select independent supplier (exceptions apply to vulnerable groups of consumers in the 1st and 2nd stages of the reform).

79 Electricity and Gas Law no. 123/2012.

- 175 In the majority of responding MSs (around 80%), public price intervention takes the form of price regulation, except in Poland where a price freeze was implemented in 2019. In Poland, in the first half of 2019 all consumers could benefit from frozen electricity prices, in the second half of 2019, prices were frozen for micro and small enterprises, hospitals, public sector entities only (medium and large enterprises were excluded). In Portugal, regulated prices were removed but transitory tariffs calculated by the NRA still exist. In Greece, price regulation is only applied to non-household consumers who receive the Universal Service⁸⁰. In Malta for example, all the industrial consumers are on a regulated tariff. In the majority of the MSs, only the small non-household consumers are impacted by the public price intervention. In France, only small business industrial consumers (microenterprises)⁸¹, can choose a regulated tariff in electricity and only small business industrial consumers with an annual consumption below 30 MWh can choose a regulated tariff in gas. In Slovakia, small industrial consumers with a yearly consumption below 30 MWh can access public price intervention. In Italy for electricity, small enterprises⁸² (who do not choose a supplier or remain without a supplier in the free market) are supplied in the so-called standard offer regime (Maggior tutela). Under the standard offer regime, a single buyer⁸³ is responsible for the procuring electricity on the wholesale market and to resell it to standard offer retailers at a price reflecting the costs borne by the single buyer, including procurement costs. The standard offer prices are decided by the Italian Regulator based on the prices of the wholesale market in order to cover the supply costs borne by those undertakings in charge to provide this service (i.e. dedicated retail companies or distributors with less than 100,000 consumers connected). With respect to commercialization, the criterion employed reflects the costs borne by a hypothetical new operator to enter the market of electricity sales to small-sized consumers.
- 176 The main reason for public price intervention reported in the majority of the MSs is to protect the non-household consumer and to limit the impact of a price increase.
- 177 In the majority of the MSs, for both electricity and gas, the NRA intervenes in the price setting. But it can also be the government as in Hungary or both entities like in France.
- 178 The type of end-user price regulation can take different forms, namely ex-ante or ex-post. Almost all MSs with price regulation have an ex-ante type of price intervention, except for France in gas that has a combination of ex-ante and ex-post intervention in the price setting and Cyprus in electricity. Cyprus uses a mix of ex-ante and ex-post price regulation for all tariffs and all consumers, except for the social tariff for the low-income households. Tariffs are set ex-ante, and some adjustments are made on an ex-post basis based on an incentive-based tariff methodology.
- 179 The end-user regulated prices are offered by the incumbent supplier in the majority of the before-mentioned countries, except for Poland and Slovakia where they can be offered by every supplier. In Portugal, while regulated prices can be offered by every supplier, limited suppliers offer such a product.
- 180 France and Italy, have specific rules regarding price intervention removal. In France, the new French energy law established in November 2019 states that regulated electricity tariffs will be removed as of 1 January 2021 for small business consumers employing more than 10 people whose annual balance exceeds 2 million euros. This same law states that regulated gas tariffs will be removed for small business consumers consuming less than 30 MWh per year as of 1 December 2020. In Italy, the standard offer regime is a transitory regime. According to the Law 124/2017 (revised in 2020) it will be removed starting from January 2021 for small enterprises and from January 2022 for micro-undertakings.

80 Article 27 Directive 2019/944.

81 With a subscribed power under 36 kVA.

82 Undertakings connected to the low voltage distribution network with less than 50 employees and an annual turnover below 10 million euro per annum.

83 Called "Acquirente Unico".

- 181 In the EnC CPs, electricity price regulation schemes for non-households vary. In Bosnia and Herzegovina, Moldova, North Macedonia and Serbia, only small non- households were supplied under regulated price, in Albania those connected below 35kV and in Georgia all non- households had regulated prices. Small non- households in Montenegro are supplied at non- regulated prices, however the same price intervention mechanism as for the households applies also for small non- households. In Kosovo*, all non-household consumers that are connected to the DSO network have regulated prices, and consumers that are connected to the TSO network (220 kV and 110 kV voltage level) are supplied under non- regulated prices. Ukraine abandoned regulation of electricity end- user prices for non- households to a certain extent in 2019. Namely, non- households have the right to choose their suppliers at non-regulated prices, but also to remain under the universal service supplier, at a price which is based on day-ahead market price, in accordance with methodology developed by the NRA. This universal service applies to consumers with the capacity of up to 50kW that are defined as small non- households and, temporary, by end 2020, to those with up to 150kW and budgetary institutions regardless of the capacity.
- 182 In the gas sector, the application of price regulation for non- households differs among EnC CPs: while in North Macedonia and Georgia all non- household consumer categories were supplied under non- regulated prices, in Serbia and Ukraine certain non- household categories may buy gas at regulated prices – i.e. small and medium enterprises with a yearly consumption up to 100,000 m³ and connected to the distribution system in Serbia; and district heating companies and religious organizations in Ukraine. Finally, in Moldova all industry consumers were supplied at regulated prices.

5 Consumer engagement: How can consumers exercise their right to choose?

- 183 This section provides information on consumer engagement across the EU and the EnC CPs and was previously included in the ACER-CEER MMR⁸⁴. Section 5.1 details the range of energy offers available to consumers. The existence of offers allow for the participation of a more active energy consumer to unlock value and benefits.
- 184 In many MSs, consumers can nowadays choose from a wide variety of electricity and gas offers. Directive 2019/944⁸⁵ entitles consumers to a dynamic electricity price contract from 2019 onwards (pending national transposition of Directive 2019/944). While in the early days of liberalisation, suppliers tended to put rather identical products in the market, current offers range from energy from various fossil and renewable sources, dynamic or fixed pricing, online and offline products, product bundles or stand-alone products and many other products paying more and more attention to the digitization of the energy markets.
- 185 Section 5.2 provides information on comparison tools (CTs) and their use across the EU. Comparison tools are crucial instruments in providing information to consumers. They empower energy consumers by offering a clear and trusted service and, if additional information is available, by helping consumers navigate and understand the market⁸⁶.
- 186 CTs have emerged to portray that variety to consumers online, assisting them in finding out about choice and how to switch supplier⁸⁷. Directive 2019/944 requires MSs to ensure that at least one of such CTs shall exist subject to defined quality standards and what it should be able to deliver to consumers, aiming at enhancing trust in such tools and thus spreading its use among consumers.
- 187 Section 5.3 provides information on energy consumer switching rates across the EU. Switching rates provide a good indication as to the level of competition within a specific market and also provides information as to the level of participation of the energy consumer in the energy markets.
- 188 Energy consumers have been entitled to switch their energy supply for free from the very early stages of the liberalisation of European electricity and gas retail markets. Switching supplier shall be accomplishable within a 3-week maximum according to Directive 2019/944⁸⁸. This is already widely the case as previous editions of this Volume have documented. By 2026, the technical process of switching supplier shall take no longer than 24 hours and shall be possible on any working day. Consumers must not be charged any fees for switching. Only in cases consumers prematurely terminate a fixed-term fixed-price electricity contract, penalty fees can be charged provided that such fees are part of a contract that the consumer has voluntarily entered and that such fees have been clearly communicated upfront. Consumers shall receive their final bills within six weeks to swiftly conclude old contractual relationships.

84 With the exception of Section 6.1.

85 Article 11.

86 Comparison tools are one instrument available to consumers. Please see Section 6.2.3 regarding electricity products and services enabled by smart meters.

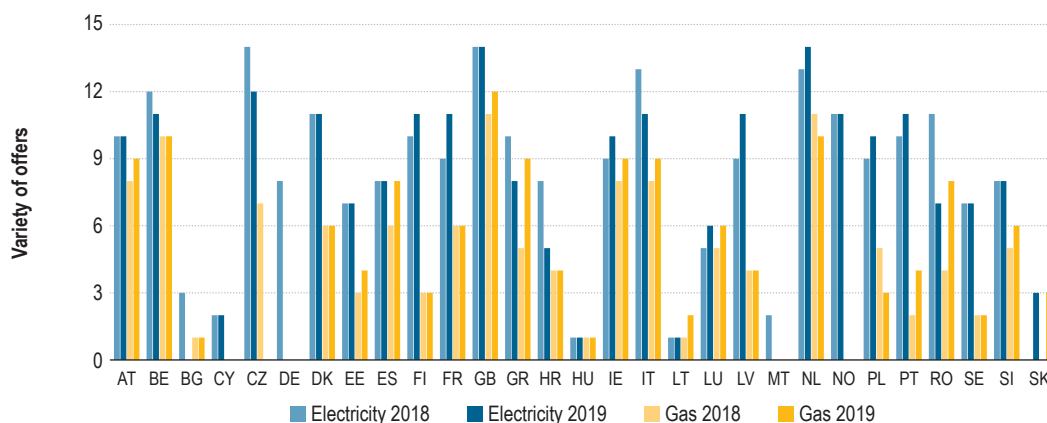
87 Article 14.

88 Article 12.

5.2 Variety of offers

- 189 One of the important features of well-functioning retail markets is the engagement level of consumers in market activities. Consumers can exercise engagement by comparing the offers available on the market, choosing a supplier and switching to it. Their engagement can depend on many factors such as the existence of preferred contact types, ease of switching processes, their awareness of existing offers and rights or tools that can empower them to participate. The engagement of consumers puts pressure on existing energy suppliers and opens new opportunities for potential entrants, which in turn enhances competition and hence variety or innovation offered to energy consumers.
- 190 Directive 2019/944 highlights several factors that can hinder consumers from accessing, understanding and acting upon the various sources of market information available to them. It follows that the comparability of offers should be ensured and barriers to switching should be minimized to the greatest practicable extent without unjustifiably limiting consumer choice. This section analyses the variety of products in MSs across European Union. The aim is to find out which products in the EU are most disseminated and in which countries consumers benefit from a broad variety of offers. For this purpose, NRAs were asked to indicate the availability of following 15 offer types⁸⁹.
- 191 Figure 34 shows the number of available offers in MSs in electricity and gas. The results do not show the same clear positive trend overall with respect to the number of available offer types in MSs in 2019, which was the case in last years' volume. While six MSs reported a decrease, eight MS indicated an increase in the variety of offer types in 2019. In contrast to 2018 where a particular positive development in terms of offer variety in many eastern and southern European countries was recorded, electricity consumers in central and north Europe, namely in Finland, France, Ireland, and the Netherlands had an increased number of offers. The largest decrease was recorded in Romania which is to be explained by electricity price regulations for households since March 2019. Twenty two out of 26 MSs reported five or more different offer types in their electricity markets in 2019. On the other hand, the results still indicate that there is a relationship between the liberalisation and the variety of offer types available to consumers.

Figure 34: Number of available type of offers in MSs in Electricity and Gas

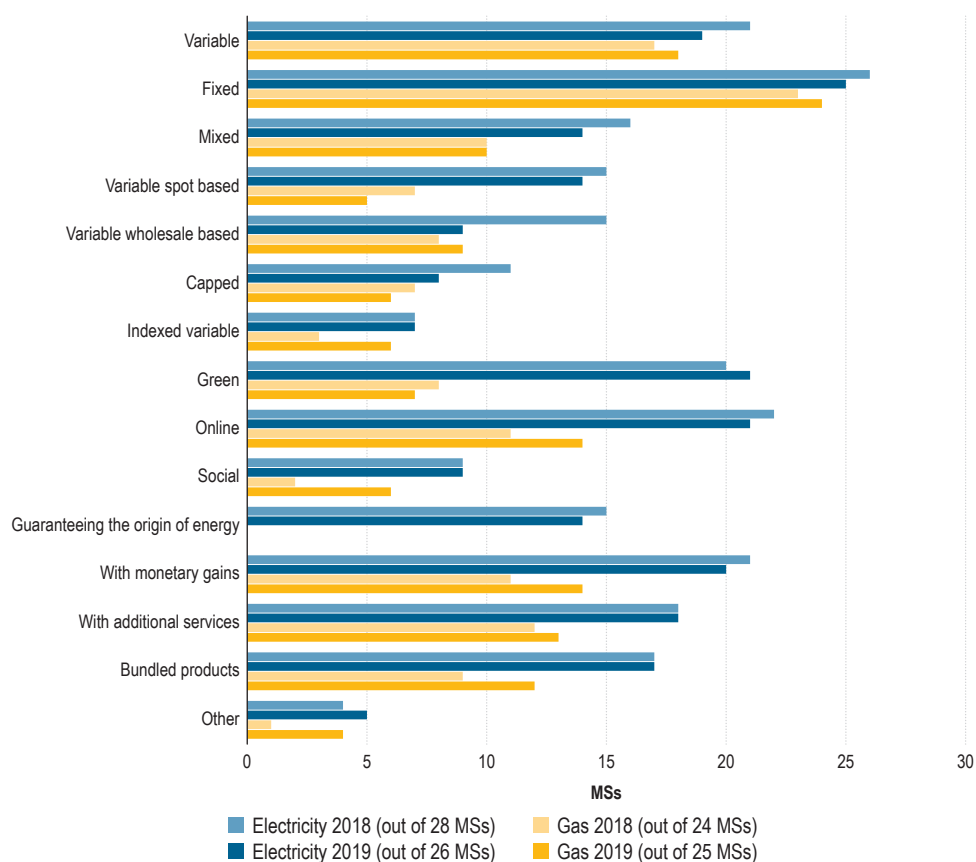


Source: CEER

89 Variable offers, Fixed offers, Mixed offers, Variable spot based offers, Variable wholesale price based, Capped offers, Indexed variable offers are i.e. similar to spot-based which is linked to wholesale, Green offers based on renewables,(9) Online offers are products with savings/discount for managing accounts online, online billing, Social offers are products which are designed i.e. for vulnerable consumers), Guaranteeing the origin of energy, Offers with monetary gains, discount, supermarket vouchers, etc. Offers with additional services, Bundled products, other. other pricing offers that does not fit any of above descriptions.

- 192 The number of types of gas offers is generally lower (there are mainly fixed offers) than in electricity products in MSs. This is primarily due to the fact that natural gas is a primary energy source and is not that diversified in its generation as electricity. Secondly, gas markets were opened to liberalization later than electricity markets in many countries and thus there is a time difference in terms of product variety. Nevertheless, the data shows that in 13 out of 23 MSs, the number of types of gas offers increased in 2019 and consumers had more variety than in 2018. Greece reported the highest growth in this year. The data shows that in 16 out of 25 MSs, five or more different types of offers were available in 2019. Belgian, Dutch and Great British consumers had the most choice on the market.
- 193 A general decline is observed regarding the availability of certain offer types in electricity across MS in 2019. This may be due to some missing data for 2019 of a few MSs where respective products were available. Nevertheless, the picture remains the same if it comes to the availability of fixed, variable, online and green tariffs. They are still the most available products on the European electricity markets. It should be noted that consumers in more MSs had access to online offers in 2018 and 2019 compared to 2017. The number of products such as different pricing options and guaranteeing the origin increased from 2017 to 2019. The trend to online offers with origin guarantee can be interpreted that there is an increasing demand and hence economic and environmental awareness of electricity consumers and consequently companies offer more online products.
- 194 Some positive changes have been observed in the gas sector when it comes to the offer type availability in the MSs. Ten offer types are available in more MSs in 2019 than were available in 2018. A major increase has been recorded in social offers, which has been available in two MSs in 2018 and were available in eight MSs in 2019. In addition, some MSs reported the introduction of offers with monetary gains or additional service and different pricing options on their markets.

Figure 35: Number of MS where the offer type is available



Source: CEER

Notes: In some countries (as DK or LU), the categories "Green" and "Guaranteeing the origin of energy" offers generally infer the same meaning while in others (as GB or IT), the latter category will be used as a label which indicates the location of generation⁹⁰

90 See CEER 2019 Self-Assessment Status Report on the CEER Roadmap to 2025 Well-Functioning Retail Energy Markets for a detailed discussion.

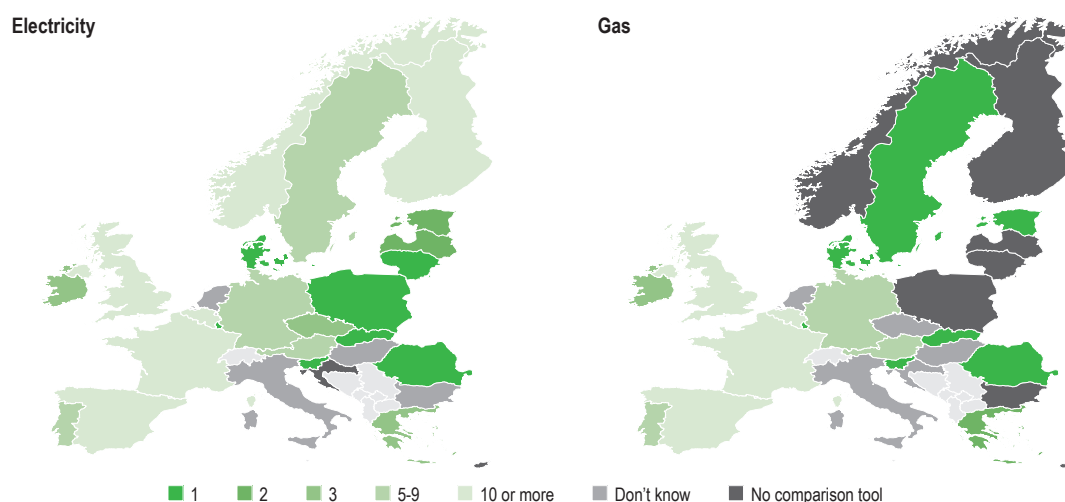
195 Consumers have demonstrated an interest in so-called “bundled products” in recent years. Bundled products are marketing packages of combined products and/or services within a sector or across several sectors, for example broadband bundles (e.g. internet/fixed telephone/TV/mobile telephony services) or products bundled across multiple sectors (e.g. energy and household insurance; banking and travel insurance; or other combinations). Figure 35 shows that bundled product offers increased for gas but remained constant in 2019 in electricity when compared to 2018.

5.2 Comparison tools

196 Comparison tools (CTs) are crucial instruments in the provision of information to energy consumers. They empower energy consumers by offering a clear and trusted service and, if additional information is available, by helping consumers navigate and understand the market.⁹¹

197 CTs provide consumers the ability to compare prices of different offers, which they may otherwise complex. As Figure 36 shows, CTs for electricity exist in 20 MSs and in 15 MSs for gas. Some MSs have more than 10 CTs, while other MSs have only one. However, there are several MSs where no CT currently exists for electricity, i.e. neither a private company nor a public body currently operates a CT for households and microenterprises (e.g. in Bulgaria, Cyprus, Hungary and Malta, where only one supplier operates). Three MSs could not provide the number of comparison tools for electricity (Netherlands, Italy and Croatia).

Figure 36: Number of CTs in EU MSs and Norway – 2019



Source: CEER

198 According to Directive 2019/944⁹², MSs shall ensure that at least household consumers and microenterprises with an expected yearly consumption of up to 100,000 kWh have access, free of charge, to at least one tool comparing the offers of suppliers, including offers for dynamic electricity price contracts. The CT shall meet the standards presented in Figure 37 below, may be operated by any entity, including private companies and public authorities or bodies.

199 In 11 MSs⁹³, the NRA provides one or more comparison tools the CT for electricity. In Belgium, Great Britain, Ireland and Greece, the NRA provides a trust mark or certifies commercial comparison tools. In several MSs, a public body other than the NRA operate the CT. However, in ten MSs⁹⁴, the NRA has no responsibility with respect to the comparison tool as the responsibility is borne by another public body. Figure 37 shows how many public CTs that currently meet the minimum standards set in Directive 2019/944. For example, 17 public CTs for

91 Comparison tools are one instrument available to consumers. Please see Section 6.2.3 regarding electricity products and services enabled by smart meters.

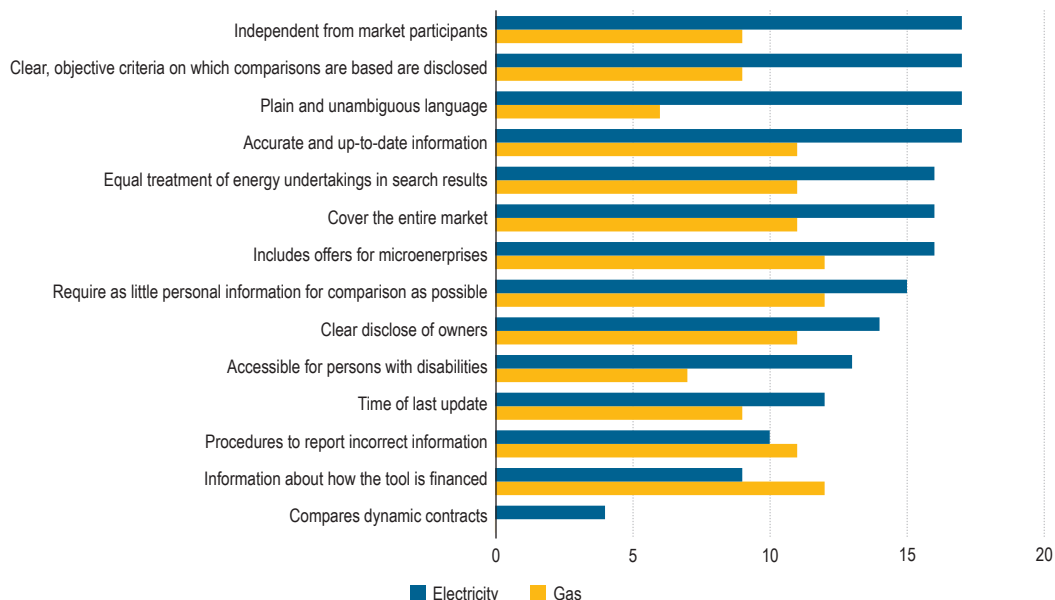
92 Directive 2019/944 must be implemented on 1 January 2021.

93 Austria, the Czech Republic, Denmark, Finland, Spain, Greece, Portugal, Romania, Sweden, Slovenia and Slovakia.

94 Cyprus, Germany, Estonia, France, Hungary, Latvia, Lithuania, the Netherlands, and Poland.

electricity use plain and unambiguous language. Only Denmark, Finland, Latvia and Norway compare offers for dynamic contracts. Notably, only nine CTs include information about how the tool is financed. Fewer of the CTs for gas meet the standards shown in Figure 37 (the criteria to include dynamic contracts are not relevant for gas).

Figure 37: CTs that meet the legal minimum standard in EU MSs and Norway – 2019



200 The listed criteria provide consumers better access to neutral and objective information that empowers them to take a more active role in the liberalised energy markets. As of 2019, only the Norwegian NRA state that their public CT fulfil all the above-mentioned criteria. In Austria, Belgium, Denmark, Spain, France, Italy and Slovakia, there is at least one CT which meets 13 out of 14 of the listed criteria. The Austrian, Belgian, French, Italian and Slovakian CTs meet all criteria's except the one to include dynamic contracts, The latter is defined in Directive 2019/944 as an electricity supply contract that reflects the price variation in the spot markets, including in the day-ahead and intraday markets, at intervals at least equal to the market settlement frequency. In Denmark, the CT includes dynamic contracts, however the CT does not contain information as to when the comparison was last updated. It is important to note that few CTs include dynamic contracts, this is likely due to the fact that dynamic contracts are not yet offered in all MSs.

201 According to Directive 2019/944, CTs should aim to include the broadest possible range of available offers, and to cover the market as completely as is feasible so as to give the consumer a representative overview. Figure 37 shows that 16 CTs for electricity (11 for gas) meet the criteria to cover the entire market. However, the precise definition of what "cover the entire market" means is not outlined in Directive 2019/944. This is a criterion that may have to be balanced against the criteria for comparability and the criteria for accurate information, especially in markets with high number of suppliers that each offer many, and sometimes unique, contract types. If every contract type on the market is presented at the CT, there will probably be contract types that only one or few suppliers offer. Displaying these contract types at the CT, alongside contract types that most or many supplier's offer, risks to create complexity for the energy consumer. For NRAs, or other public bodies that operate CTs, including all available contract types also means more resources allocated to the monitoring and ensuring that the information at the CT is accurate and up-to date.

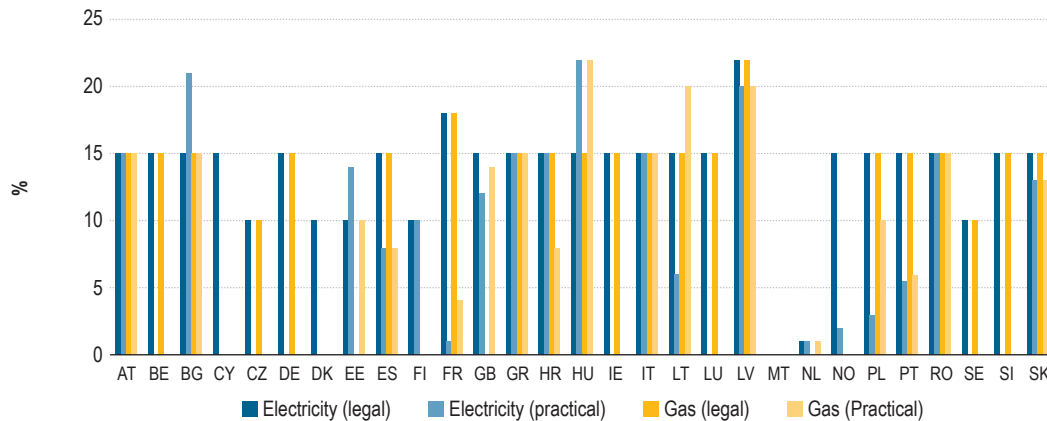
202 In the EnC CPs, price comparison tools were developed only in Bosnia and Herzegovina and North Macedonia, in both countries for electricity. In all other EnC CPs, in 2019, regulatory authorities launched the projects for creating relevant comparison tools.

5.3 Switching

5.3.1 Switching Duration

- 203 Supplier switching has been the most direct way for energy consumers to take part in the energy markets since their liberalisation. Furthermore, supplier switching strengthens competition, affecting market shares and thus putting competitive pressure on energy suppliers to offer better products and services.
- 204 Figure 38 shows that the legal maximum duration of an electricity and a gas switch meets the respective Directive requirements of three weeks (or 15/18 working days) in most MSs. Only in Latvia, switching still takes longer since switching is limited to the first day of the following month if the new supplier has informed the DSO before the 15th day of the month. In other MSs, such as the Netherlands, legal switching durations have already decreased to under three weeks.
- 205 Practical switching durations meet legal requirements in most MSs, yet there remain a few MSs in which switching still takes longer, such as in Bulgaria, Lithuania, Hungary, and Latvia.

Figure 38: Legal maximum and actual switching duration in EU MSs and Norway – 2019 (in working days)



Source: CEER 2020.

- 206 To further empower consumers, most MSs have already cut the switching duration short by making it possible for both consumers and suppliers to choose a precise switching date according to their individual preferences and circumstances (e.g. end of contract). This possibility depends on the practical switching procedures in place. In Luxembourg the ultimate decision lies with suppliers and in Estonia, Croatia, Latvia, Slovenia and Slovakia it is not possible to choose the precise switching date at all. The situation is similar for gas.
- 207 Furthermore, Article 12 of Directive 2019/944 stipulates that by no later than 2026, the technical process of switching supplier shall take no longer than 24 hours and shall be possible on any working day. The duration for technical switching is available in 11 MSs in electricity and nine MSs in gas. These durations range between one working day in Italy and the Netherlands to 15 days in Greece and Slovenia. One explanation for these national differences may be found in different definitions of the technical process of switching.
- 208 Article 12 of Directive 2019/944 explicitly prohibits the use of termination fees of energy contracts except in very specific circumstances, that is, fixed term and fixed price contracts. Such fees are only allowed if they are part of a contract that the consumer has voluntarily entered into and if they are clearly communicated to the consumer before signing the contract. These fees themselves shall be proportionate and shall not exceed the direct economic loss to the supplier or the market participant engaged in aggregation resulting from the consumer's termination of the contract, including the costs of any bundled investments or services that have already been provided to the consumer as part of the contract.

209 In 18 MSs, such termination fees are currently permitted. However, in Austria, Belgium, Bulgaria, Cyprus, Estonia, France, Croatia, Italy and Luxembourg, NRAs report that specific contract termination fees are not allowed. In Austria, compensation in case of pre-mature termination follows the rules of general civil law. However, as the following list shows, lump sum early termination fees appear to be the exception (Latvia) and are only relevant for fixed-short-term contracts (e.g. within the first few months of such a contract in Denmark and Slovenia).

- In Germany, early contract termination fees are not principally prohibited by law. Nevertheless, a general contractual penalty for termination of the contract would be illegal if laid down in terms and conditions.
- Pursuant to the Danish Consumer Contracts Act, a consumer is free to terminate a supply contract with one month's notice, when five months have passed after conclusion of contract, i.e. the supplier cannot charge termination fees. If, on the contrary, a consumer wishes to terminate the contract prior to the six months, the supplier can charge a termination fee provided that the consumer has agreed to this contractual term.
- In Latvia, termination fees are permitted provided that they are part of a contract that the consumer has voluntarily entered into and that such fees are clearly communicated to the consumer.
- Charging penalties, damages, compensation or any other form of payment for reasons of withdrawal from the contract prior to the expiry is prohibited in Slovenia for household consumers if such withdrawals take effect after one year from conclusion of the contract.

5.3.2 Switching rates of final household consumers

210 The switching rate of consumers is one of the key indicators for well-functioning energy retail markets. Even though switching processes have been facilitated by regulation and the automation of processes in many MSs, there still is a high number of energy consumers – especially household consumers – who remain with their incumbent supplier. There are multiple reasons for consumers not to switch their supplier, ranging from regulatory barriers to behavioural aspects. Regulatory barriers can refer to regulated prices in the first place. This is especially the case if regulated prices are set below cost levels such that the development of competitive retail markets is hampered and no economic incentive for switching exists.

211 However, there are other reasons why monetary incentives to switch are not sufficient, for example, if taxes and other fixed price components⁹⁵ make up a high percentage of the final price. In other cases, the economic incentives might diminish after first switching as the consumer's transaction costs exceed the potential benefits in following period. This is mainly the case where the consumers switch from the incumbent suppliers. In addition, behavioural aspects such as a lack of trust in new suppliers or loyalty to the old supplier may prevent consumers from switching, as well as perceived complex and time-consuming switching procedures. All of these factors come together if one looks at the different external switching rates across MS.

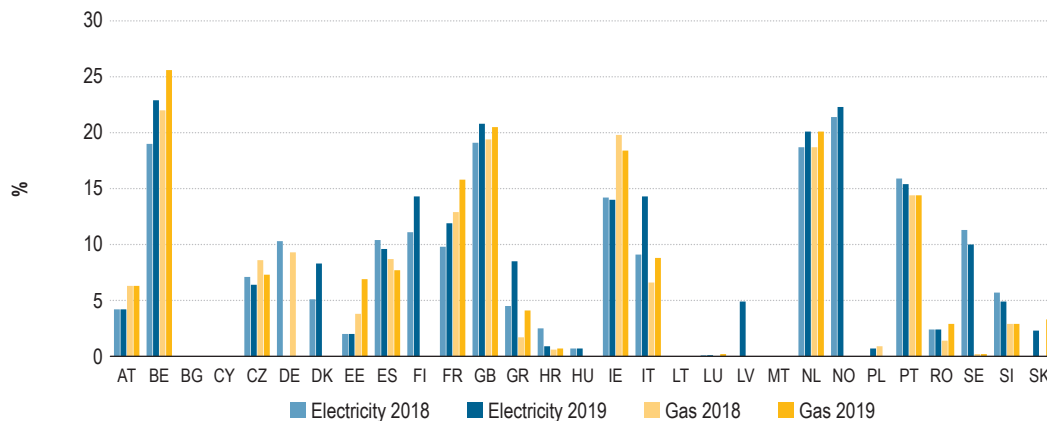
212 External switching is defined as the voluntary action by which a consumer changes their supplier. Figure 39 shows switching rates for electricity household consumers by metering points in 2018 and 2019. It reveals that among MSs, external switching rates of household consumers differ significantly. For electricity, countries with a relatively high switching rate for electricity household consumers by metering points in 2019 (at least 10%) are Finland, Ireland, the Netherlands and Portugal. Especially Great Britain, Norway and Belgium have recorded continuously very high switching rates, around 20%, over the last years. One of the main drivers of this performance is the existence of a pool of consistently engaged consumers, who have realised the benefits of switching and continue to be incentivised to do so by the competitive offerings that suppliers are bringing to the market.

213 Some MSs reported a very low switching rate (below 1%) for example Poland, Luxembourg, and Croatia. In Croatia, a decline of active suppliers, limited saving potential and trust issues can be counted as main drivers of the low switching rates. In other cases, switching rates have remained constant or reported minor changes since 2018. Greece, Italy and Finland reported a significant increase in comparison to 2018. In Greece, the price increased in the competitive market of the incumbent electricity company in August 2019, and better offers and proactive marketing strategies of alternative suppliers led to a higher switching percentage. In the Greek gas

95 See Section 3 for information on energy price components.

market, higher switching rates is mainly due to the increasing competition resulted by the market opening to new entrants in 2018 and 2019. One should note that 2018 was the first year of market opening, and during that time many consumers remained hesitant to switch supplier. However, in 2019 consumers became more familiar with the new market conditions and adapted accordingly. In Italy the high switching may have been also pushed by the end of the standard offer regime which, until December 2019, was expected for 1 July 2020. It was then postponed, by decree-law 30 December 2019⁹⁶, to 1 January 2022 for household consumers as well as microenterprises and to 1 January 2021 for small enterprises. However, it is noted that the observed increase coincides with a change of methodology⁹⁷.

Figure 39: Percentage of external switching rate of household consumers (by number of eligible meter points)



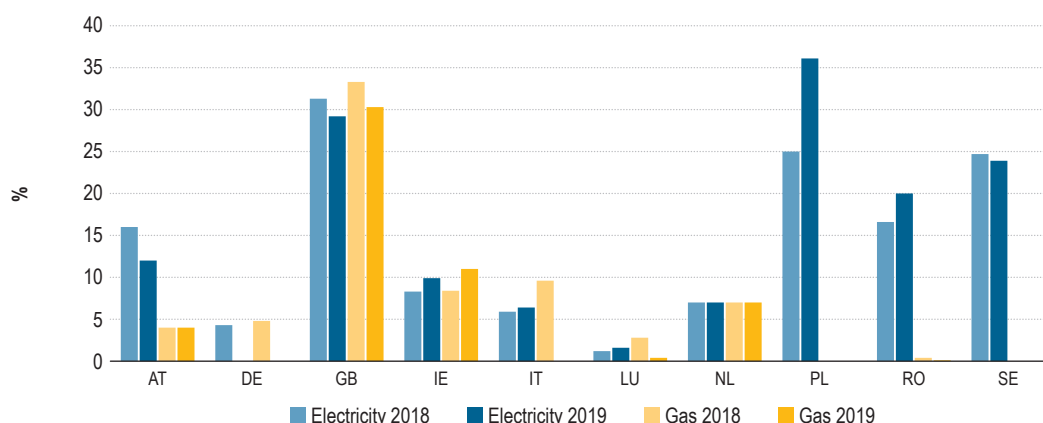
Source: CEER

- 214 Consumers can exercise their engagement on the market by so-called internal switching as well. Internal switching is defined as a change of product or contract with the same supplier after renegotiation and/or choosing a different option. Automatic roll-overs and changes of contract that only affect payments are excluded in this definition. Like switching to another supplier, a switch of contract requires an active decision by the consumer. Every switch (external and internal) is a market activity and a sign of a competitive environment on the retail market. Data for annual internal switching rates has been collected from CEER on annual basis; however, the number of countries reporting is limited.
- 215 Figure 40 shows the developments of internal switching for electricity and gas household consumers in the years 2018 and 2019. Like external switching rates, the level of internal switching varies among MSs. In 2019, the highest switching rates for electricity was reported by Great Britain and Poland and Norway. A comparison with the external switching rates might give some indications on the respective markets and consumer behaviour. While in some MS as the Netherlands (for electricity), the consumers obviously might favour external switching, in Poland and Romania for instance, consumers appear more content to keep their existing supplier and prefer an internal switching process (e.g. out of a tariff-based to a market based contract.). It may result from consumer behaviour (willingness to stay with the same supplier) because of ability to get simultaneous variety of present supplier's offers, as well as from loyalty programs. In addition, electricity contracts also cover other services, the need to change supplier would require a change of supplier for related services. When it comes to the gas market, the data are more limited but again Great British consumers have been most active in 2019.

96 n. 162

97 For the first time the analysis of 2019 switching in the electricity sector includes data extracted directly by the Sistema Informativo Integrato (the data Hub), that by definition manages all the switching in the Italian market. In previous years data were collected from DSOs using the annual survey on the regulated sectors.

Figure 40: Percentage of internal switching rate of household consumers (by number of eligible meter points)



Source: CEER

216 In markets where both regulated and non-regulated prices exist, consumers can choose under circumstances to switch out or in those contracts. France, Poland, Portugal, Romania, Spain reported any switching activities for regulated prices in 2019.⁹⁸ In 2019, Romania⁹⁹ was the country with the highest electricity switching rate of the countries that reported any switching activities out of regulated prices (6.2%), followed by Portugal (4.7%). In the gas sector, France reported a very high switching activity from regulated prices. Switching into regulated prices is a rare phenomenon, all countries reported values smaller or equal than 2% both in electricity and gas markets.

Table 1: Switching rates in markets with regulated and non regulated prices

	Electricity – Switching rates		Gas – Switching rates	
	out of regulated prices (by metering point) for household	in regulated prices (by metering point) for household	out of regulated prices (by metering point) for household	in regulated prices (by metering point) for household
ES	2,1	1,3	0,8	0,7
FR	3,6		13,0	
PL	0,4	-0,4		0,8
PT	4,7	0,0	1,2	0,0
RO	6,2	0,3	2,0	

Source: CEER

217 For the EnC CPs only external switching was registered in 2019 and the data provided shows that a very small number of households in North Macedonia and Serbia changed electricity supplier. In the gas sector, there were no changes of suppliers in 2019 in the household segment or the information was not available (Ukraine and Georgia). The main reason for such a limited consumer activity is the prevailing end-user price regulation, usually below costs, that does not provide any incentive to households to change their electricity and gas suppliers.

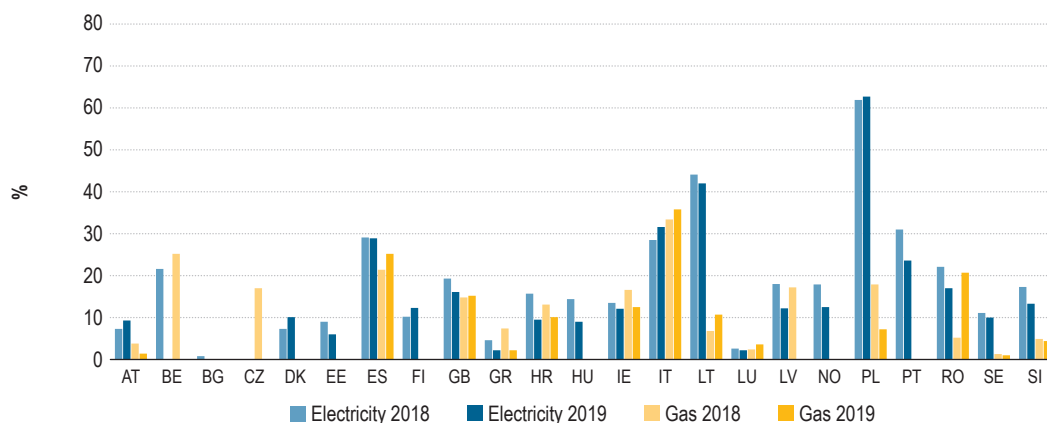
98 More information about countries with intervention in price setting and in price regulation can be found in section 5.3.

99 As a result of the legislative changes in Romania in Q1 2019, a system of regulated tariffs / prices for household consumers has been restored. Therefore, household consumers who do not want to benefit from competitive prices may remain at their incumbent supplier at regulated prices or may return from a competitive supplier to regulated prices offered by an incumbent supplier. In this way, the sharp increase in the size of the competitive supply market for household consumers registered in 2018 determined by the completion of the deregulation process, slowed down in 2019. Consequently, the switching rate from regulated to competitive prices in case of household consumers decreased from 13.41% in 2018 to 6.20% in 2019. Even in these conditions, the switch from the regulated prices continued, more and more household consumers choosing to conclude supply contracts at competitive prices (moving to another supplier or changing from regulated to competitive prices with the same supplier), determined by the wide range of offers promoted by the suppliers, customized for household market.

5.3.3 Switching rates of non-household consumers

- 218 Compared to household consumers, switching behaviour of non-household consumers is more sensitive to market developments (e.g. prices) and available information. For this reason, the European averages over the years and the data collected on an MS basis are generally higher than the ones for households. One important reason is certainly the strong incentive for non-household consumers to minimize costs which yield higher saving potentials if one considers higher consumption. Therefore, non-household consumers might exercise more negotiation power or access to legal advice and technical know-how, compared to household consumers. These advantages help them to easily compare suppliers and switch more frequently.
- 219 Annual switching rates of non-household consumers are reported in many countries by eligible volume instead of metering points. Figure 41 shows the switching rates for electricity non-household consumers in 2018 and 2019. For electricity, Italy, Lithuania¹⁰⁰, Poland¹⁰¹, and Spain demonstrated high switching rates (at least 25%).
- 220 In the gas market, Spanish and Italian non-household consumers appear more active than consumers in other MSs. In the Spanish electricity retail market for non-households for example, there are no regulated offers for MSs and contracts are to be renewed every year, so the consumers switch to get better offers every year. For this reason, most of the suppliers find this market very attractive. Notable is the high increase of switching rates of Romanian non-households which can be explained by a decrease of total consumption in 2019 and relative increase of the number of consumers in the competitive segment.

Figure 41: Percentage external switching rate of non-household consumers



Note: The values for Ireland are measured by metering points.

Source: CEER.

- 221 For the EnC CPs, the regulatory authorities reported switching rates both in the number of metering points and in the volume of electricity, whereby the share of consumption of non-households that changed supplier in the total number of consumption of non-households is much higher than shares measured in the number of metering points. For example, in Ukraine, the switching rate of non-households in the number of metering points of 5.8% corresponds to the switching rate by volume of 32.5%. In other EnC CPs, the relevant rates are 3.81% (5.38%) in Serbia, 7% (14.7%) in North Macedonia, and less than 1% in Kosovo and Bosnia and Herzegovina. For the gas sector, only information on switching rates of non-households in Serbia was registered amounting to 1.46% in the number of metering points.

100 In Lithuania, a number of large commercial consumers change suppliers several times per year. Therefore, the NRA has noticed a new activity related to consulting on energy sector products and prices. This is not yet possible to state whether this market activity will affect changing the suppliers in Lithuania, but it may affect the market in the future

101 Contrasts to the switching rates observed in the household market.

6 The active consumer: What developments and tools enable consumer participation?

- 222 This section provides information on the current status of the availability of tools that enable enhanced consumer participation in energy markets. It was previously included as part of the ACER- CEER MM Section 6.1 below provides information detailing the aims as set out in the Clean Energy Package for all Europeans with regard to active consumer participation in the energy market. The participation of consumers is a key aspect of the Clean Energy Package. To enable this participation, a range of tools will need to be available to both the household and industrial consumers to ensure that the full potential of their participation can be unlocked.
- 223 Section 6.2 provides an update as to the roll out of smart meters across the EU and the EnC CPs in both gas and electricity. In contrast to a conventional meter which simply provides information as to the energy consumption over a certain period of time, the smart meter is capable of providing the energy consumer with real time information regarding their energy consumption. The roll out rate of electricity smart meters has reached 80% in Spain, Italy, Malta, Luxembourg, Denmark¹⁰², Estonia, Norway, Sweden and Finland. France, the Netherlands, Slovenia and Latvia reported roll-out rates between 50 and 80%. In Austria, Great Britain and Portugal, roll-out rates at the end of 2019 ranged between 20% and 40%. In nine MSs the roll-out has started but has not yet reached such a significant level. However, the actual functionalities offered by smart meters differ by MS.
- 224 Section 6.3 provides information as to the status of prosuming across the EU. Prosumers are individuals, groups of individuals, small businesses or households able to operate in an organised way that are simultaneously producers and consumers of energy produced in smaller installations located in back yards or on residential or commercial buildings. Apart from electricity generation, this term includes heating and cooling.
- 225 Section 6.4 provides information on Energy Communities. Energy Communities are a key aspect of the Clean Energy Package and will enable more active participation from end users in the energy market. Statistical coverage of citizen energy communities is still very limited. Only four MSs report data about the number of energy communities: Ireland with 345 energy communities, Great Britain with 299 energy communities (24 more than in 2018), France with 28 and Slovenia with one energy community.
- 226 Finally, section 6.5 provides information regarding demand side response (DSR) in the EU. DSR refers to the ability of energy consumers to change their consumption from their normal or current consumption patterns. DSR can provide significant benefits for consumers in terms of reduced bills.

6.1 Consumers and the European Green Deal

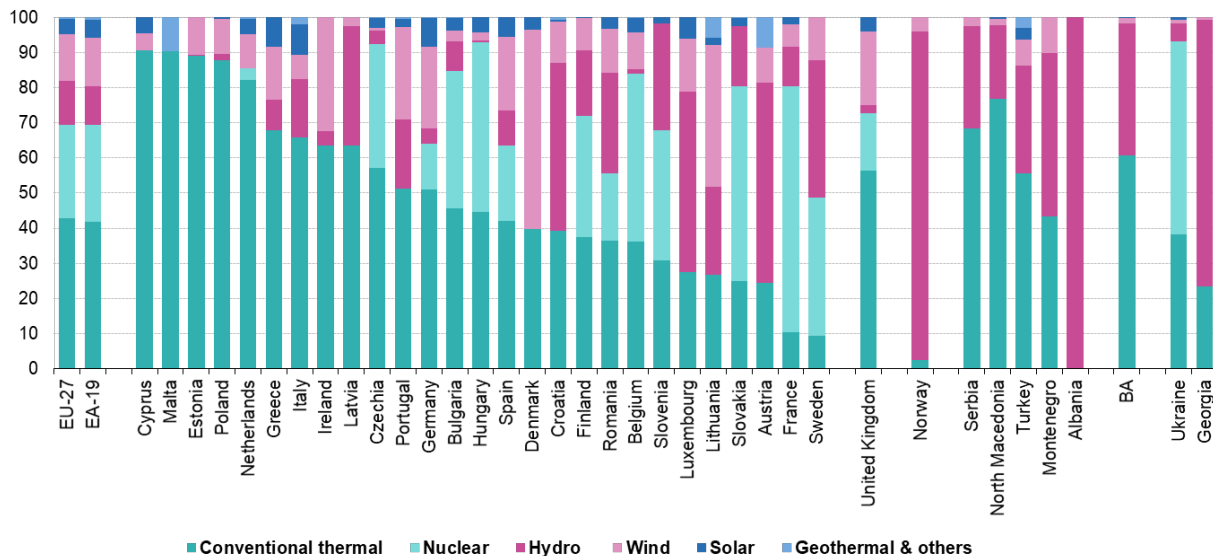
- 227 The transition towards a carbon-neutral economy in general and a clean energy system in particular is amongst the greatest challenges of the 21st century. From 2016 onwards, the EU has tackled these challenges by proposing a revised energy policy framework to facilitate this crucial transition. A stable legal environment should stimulate the necessary public and private investments for a carbon-neutral economy. Industrial production needs to turn away from greenhouse gas emissions. This is particularly true for the energy sector as one of the major emitters of CO₂ worldwide. Policy, however, also raises much needed awareness, knowledge and understanding among consumers how to navigate this transition, how to assess the carbon footprint of both the production of goods and services and their consumption and identify best practices for action on this journey by no later than 2050. Importantly, since much of this is novel to consumers, citizens need to learn and be taught how to adjust their consumption behaviours to this goal.
- 228 As a package, the new rules and objectives set out in the Clean Energy for all Europeans Package reinforce consumer rights, putting them at the heart of the energy transition. The European Green Deal proposal, published in December 2019, is the European Commission's roadmap for making the EU's economy sustainable. The aim of turning climate and environmental challenges into opportunities across all policy areas and making

102 In Denmark, 100% roll out of electricity smart meters has to be reached by the end of 2020 according to national law. An 80% target was never defined, however that level was reached in 2018.

the transition just and inclusive for all most certainly contains a vision for Europe's energy consumers about carbon-neutral energy sources, economical and efficient energy consumption and involving citizens to actively participate in mitigating climate change in many dimensions.

- 229 For consumers, the European Green Deal is meant to create awareness and opportunities for empowerment to successfully head towards carbon-neutrality. Besides a heightened awareness of the climate impacts of various energy sources, consumers are bound to more efficiently and sustainably use energy. Consumers are incentivized to invest in renewable energy, be that through the purchase of renewable energy, own production facilities, home storage or collective forms of participating in such an energy transition, for instance, via joining a renewable or citizens energy community. Figure 42 shows the starting points for consumers vary significantly across Europe – and that pathways to carbon-neutrality are thus significantly steeper for some countries. As for 2019, approximately 42% of electricity produced in Europe comes from non-renewable, conventional generation. The overall share of solar, hydro and wind combined is 30% of all electricity production across the EU – indicating a long way to carbon-neutrality in the electricity sector. In 2016, an average of 300g of CO₂ for each kWh of electricity produced was emitted in European electricity generation¹⁰³.

Figure 42: Electricity production by source (%)



Source: European Commission, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Electricity_generation_statistics_%E2%80%93_first_results, access on 4 September, 2020.

- 230 As parts of the updated legislation, Directive 2018/2001, Directive 2018/2002 and Directive 2019/944 already include several provisions directed towards the goal of decarbonisation, digitisation and investment into renewable energy, envisaging that a “smart integration of renewables, energy efficiency and other sustainable solutions across sectors will help to achieve decarbonisation” (cf. European Green Deal, p. 6).¹⁰⁴
- 231 The following sections explore the pertinent provisions. First, smart meter roll-out is widely viewed as an integral part of the digitisation of the energy sector. It delivers the necessary information about household energy use dependent on the time of day. Thereby, smart metering offers inroads into a more flexible and demand response driven use of energy increasingly coming from intermittent sources. Partaking in such activities may be a contribution to the energy transition. Likewise, the recast legislative acts allow for an increased level of activity, be that individually via rooftop energy production by small scale PV (prosuming) or collectively via newly created energy communities, which should both speed up the integration of renewable energy into the system.

6.2 Smart meters

¹⁰³ European Environment Agency; <https://www.eea.europa.eu/data-and-maps/indicators/overview-of-the-electricity-production-2/assessment-4>; accessed on June 29, 2020.

¹⁰⁴ See: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1588580774040&uri=CELEX:52019DC0640>.

- 232 Directive 2019/944¹⁰⁵ defines a smart metering system as an electronic system that is capable of measuring electricity fed into the grid or electricity consumed from the grid, providing more information than a conventional meter, and that is capable of transmitting and receiving data for information, monitoring and control purposes, using a form of electronic communication.
- 233 Articles 19 to 21 of Directive 2019/944 reinforce and clarify the provisions regarding the roll-out of smart meters, seeking to encourage their widespread deployment across the EU. Directive 2019/944 also entitles consumers to request a smart meter to be installed in MSs where the cost-benefit assessment is negative, as long as the consumer bears the associated costs.
- 234 The European Commission Recommendation on preparations for rolling-out smart metering systems¹⁰⁶ aims to facilitate the roll-out of smart meters and mandates common minimum functional requirements for smart meters in electricity. The meters must provide two-way communication for maintenance and control, support advanced tariff systems, allow remote control of the power supply and/or flow or power limitation, and provide import/export facilities for data. Furthermore, meters must provide secure data connections, fraud prevention and detection mechanisms. The smart metering systems shall comply with relevant EU data protection and security rules.

6.2.1 Smart meters roll-out

- 235 Annex II of Directive 2019/944 states that where the deployment of smart metering systems is assessed positively, at least 80% of final consumers shall be equipped with smart meters either within seven years from the date of the positive assessment or by 2024 for these MSs that have initiated the systematic deployment of smart metering systems earlier.
- 236 For the gas sector, Annex I of Directive 2009/73 requires MSs to prepare a timetable for the roll-out of gas smart meters with no indication of a timeline, but also subject to cost-effectiveness. The roll-out of gas smart meters is still very limited, with only Germany, Estonia, France, Great Britain, Ireland¹⁰⁷, Italy, Luxembourg, Poland and the Netherlands having started.
- 237 In 2014, the Commission issued the document “Benchmarking smart metering deployment in the EU-27 with a focus on electricity”¹⁰⁸. According to this study, as of 2018, it was expected that almost 72% of European electricity consumers would have a smart meter by 2020. However, progress has been slower than expected, so the European Commission re-estimated an expected penetration rate of 43% for 2020 (corresponding to 123 million smart meters).
- 238 Figure 43 shows when the electricity smart meter roll-out is planned to reach 80% or more of electricity household consumers according to national laws. In 2019, Luxembourg, completed the roll-out and has equipped consumers with electricity smart meters. By the end of 2020 Austria, France and the Netherlands are expected to do the same. In total, a decision not to implement the roll-out of smart meters based on a cost-benefit analysis, or no decision about a roll-out at all, has been taken in seven MSs: Czech Republic, Belgium, Croatia, Bulgaria, Portugal, Malta and Hungary.

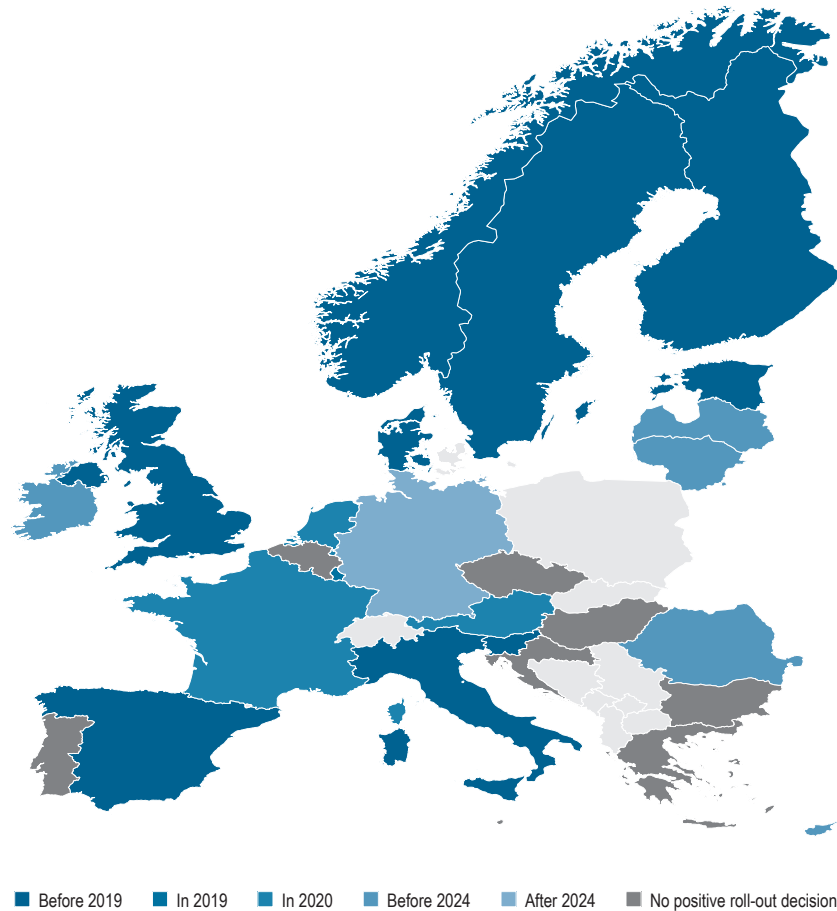
105 Article 2(23)

106 Commission Recommendation 2012/148/EU of 9 March 2012 on preparations for the roll-out of smart metering systems (OJL73, 13.3.2012, p. 9–22).

107 Smart ready gas meters are being provided by default as part of a meter replacement programme, with smart gas meter functionality due to go live at the end of 2024

108 REPORT FROM THE COMMISSION Benchmarking smart metering deployment in the EU-27 with a focus on electricity /*COM/2014/0356 final

Figure 43: Target year by when the 80 % rate of electricity smart meters will be reached in EU MSs and Norway – 2019



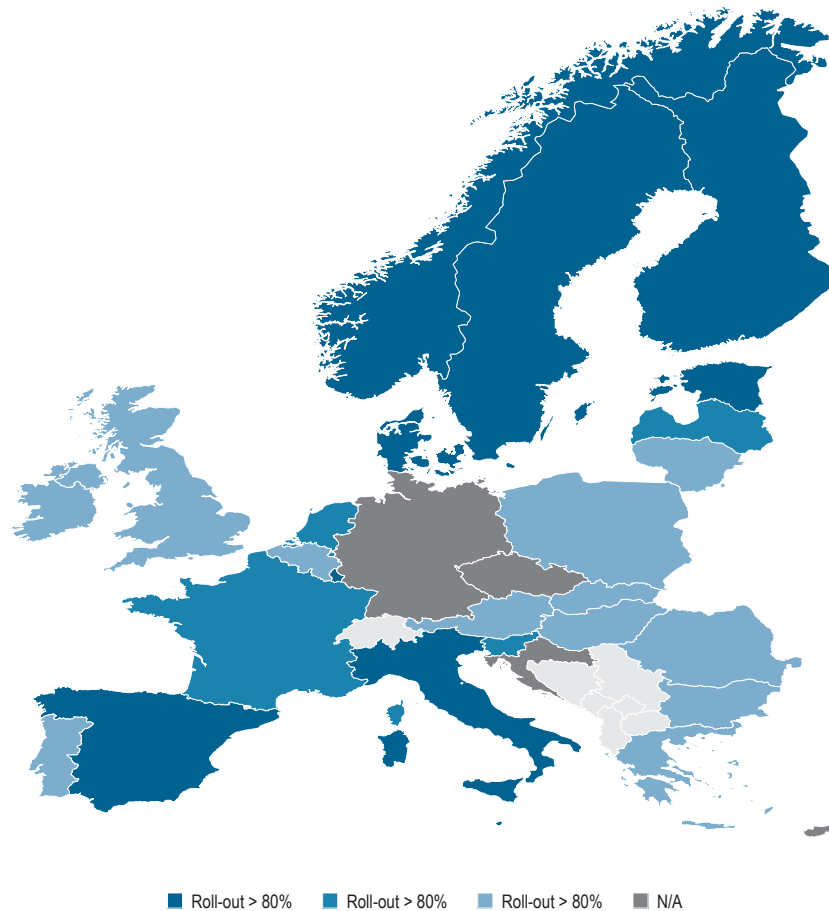
Source: CEER 2020.

239 Figure 44 shows the status of the roll-out of electricity smart meters at the end of 2019. In nine countries, the roll out rate of electricity smart meters has reached 80%, i.e. Spain, Italy, Malta, Luxembourg, Denmark¹⁰⁹, Estonia, Norway, Sweden and Finland. There were four countries with roll-out rates between 50 and 80%: France, the Netherlands, Slovenia and Latvia. In Austria, Great Britain and Portugal, roll-out at the end of 2019 reached levels between 20% and 40%. In nine MSs the roll-out has started but has not yet reached such a significant level. However, the actual functionalities offered by smart meters differ by MS.

240 Taking into account the progress of roll-out based on a juxtaposition of legal plans (>80%) and actual roll-out rates, some delays can be expected. An example of this situation is the case of Austria with an 80% target by the end of 2020 (Figure 43) and an actual roll-out of roughly 25% by the end of 2019. Other examples where current national plans and roll-out achievements fall farther apart are Great Britain, where the target to reach 80% roll-out rate was set in 2019 but at the end of 2019, roll-out levels were below 50% or Slovakia where the original target to reach 80% was set in 2017 but at the end of 2019, roll-out rates are far from 50% (Figure 44).

109 In Denmark, 100% roll out of electricity smart meters has to be reached by the end of 2020 according to national law. An 80% target was never defined, however that level was reached in 2018.

Figure 44: Electricity smart meter roll-out rates in EU MSs and Norway – 2019 (%)



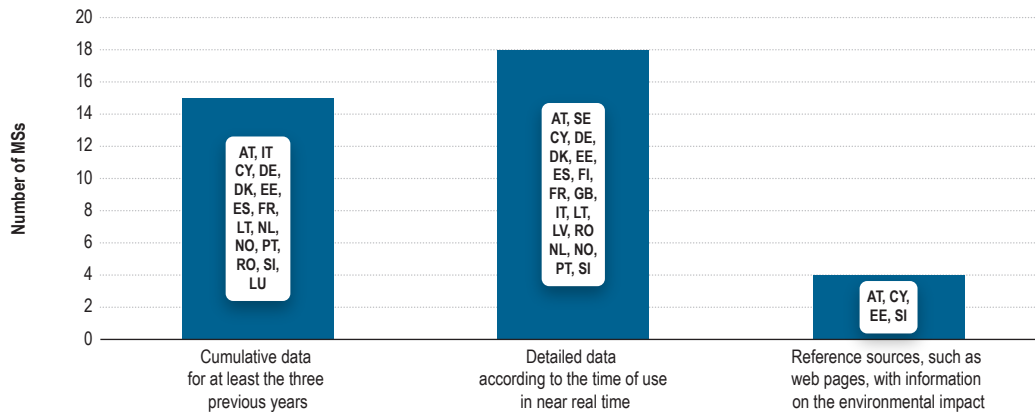
Source: CEER 2020.

6.2.2 Functionalities and consumption information

- 241 In order to ensure benefits to household consumers, minimal technical and other requirements for smart meters in are defined in legislation in 19 MSs for electricity and in eight MSs for gas. Most of these MSs require that smart meters provide consumers with information on their actual consumption, make billing based on actual consumption possible and ensure easy access to information for household consumers. The most common functionalities required for smart meters in the EU include: secure data communication, mandatory interface, mandatory in-home display, bills based on actual consumption, historical consumption, and information on real-time consumption among others.
- 242 Figure 45 shows in which MSs where consumers with smart meters have access to complementary information on historical consumption.¹¹⁰ In 18 MSs, consumers have access to additional detailed data according to the time of their use of electricity for any day, week, month and year via internet or the meter interface. In 15 MSs, consumers have access to cumulative data for at least 3 years or the period since the start of the supply contract if this is shorter. In four other MSs, consumers also receive information on the environmental impact of their consumption.

¹¹⁰ Historical consumption information and, subsequently, smarter products may also be provided to household consumers without smart meters based on frequent actual readings and more sophisticated usage of standard load profiles.

Figure 45: Complementary information on historical consumption that final household consumers with smart meters must have access to – 2019 (number of MSs)

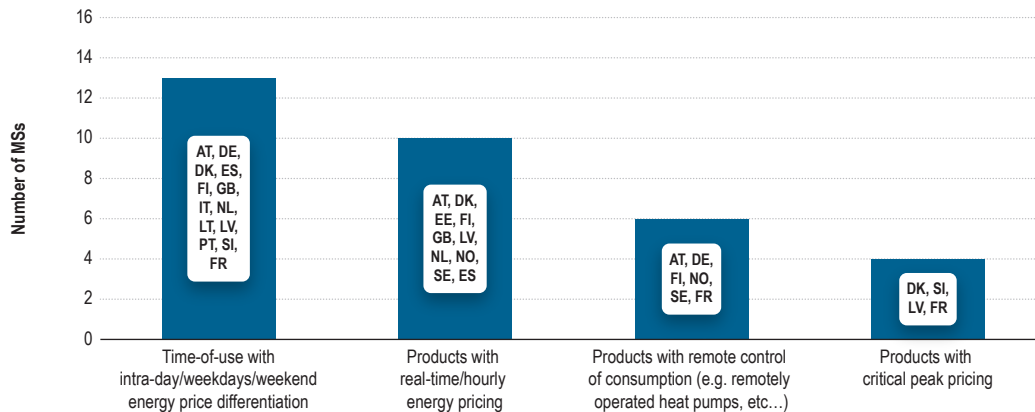


Source: CEER 2020.

6.2.3 Electricity products and services enabled by smart meters

- 243 According to both Directive 2009/72 and Directive 2019/944, all consumers should be able to benefit from direct participation in the market by adjusting their consumption according to market signals and in return benefit from lower electricity prices. Dynamic price contracts create price-driven incentives for consumers to react flexibly to wholesale market conditions providing greater transparency regarding the price of electricity and incentivise consumers to actively adapt their electricity consumption, for this type of price contracts; smart meters play a crucial role.
- 244 MSs must ensure that final consumers with smart meters can request a dynamic electricity price contract from at least one supplier and/or from every supplier that has more than 200,000 final consumers. Listed below are the benefits available to energy consumers via smart meters.
- Smart meters enable a range of new products and services for electricity consumers Time-of-use products, where the cost of electricity depends on the time of day, or the weekday/weekend, seem to be the most common ones;
 - Real-time pricing matches consumer energy prices much more closely to wholesale prices;
 - Critical peak prices generally signal peak consumption levels in determining the price of energy. Smart appliances with remote consumption control functionality (and/or connected to the web) are, for example, devices that adapt the operation of specific home appliances, such as heat pumps, to hourly electricity prices, in order to benefit from shifting consumption to lower-price periods.
- 245 Currently, electricity consumers in thirteen MSs can sign up to time-of-use contracts with intra-day, weekdays or weekend energy price differentiation. In ten MSs, electricity consumers can choose real-time or hourly energy pricing, in six MSs consumers have access to products with remote control of consumption, whereas in four MSs consumers have access to products with critical peak pricing as shown in Figure 46.

Figure 46: Types of electricity products enabled by smart meters available in EU MSs and Norway – 2019 (number of MSs)



Source: CEER 2020.

246 Very few MSs have (partial) smart meter roll-out, however, suppliers must already formally inform their final household consumers about the opportunities, costs and risks of dynamic electricity price contracts. In Germany, some suppliers do inform their final consumers, however there is no national legal obligation to do so. In the case of Great Britain, there is no specific licence requirement that requires suppliers to inform consumers of opportunities, costs and risks. If they were to offer these tariffs, it would be expected for suppliers to provide information to their consumers about the tariffs and make the conditions clear.

6.3 Prosuming

247 As referenced in Directive 2019/944, prosumer energy can be regarded as an essential element of the transition to distributed generation, “a solution that is generally desirable from the point of view of energy security, and bearing in mind environmental and social considerations¹¹¹” which would facilitate achieving the goals of the Paris Agreement.

248 Prosumers are individuals, groups of individuals, small businesses or households able to operate in an organised way that are simultaneously producers and consumers of energy produced in smaller installations located in back yards or on residential or commercial buildings. Apart from electricity generation, this term includes heating and cooling.

249 Given the small scale of the power generated by individual prosumers, access to the network should be facilitated. Directive 2018/2002 envisages ways to bear and share of costs of technical adaptations, such as grid connections, grid reinforcements and the introduction of new grids, improved operation of the grid and rules on the non-discriminatory implementation of the grid codes, which are necessary in order to integrate new producers feeding electricity produced from high-efficiency cogeneration into the interconnected grid. Furthermore, Directive 2019/944 underlines the need to organise electricity markets in a more flexible manner and to fully integrate all market players – including producers of renewable energy, new energy service providers, energy storage and flexible demand.

250 Factors that incentivise a stronger presence of prosumers are, for example, the existence of incentives and falling costs of renewable energy technologies, especially PV panels, which in some MSs produce electricity at a cost that is competitive with supplier retail prices.

251 Profitability depends partly on the share of the electricity produced that prosumers can consume themselves, on how this is regulated and also on the availability of funding for installation of renewable energy generation capacity. In addition, as pointed out at the last European Parliament Think Tank on Distributed Energy Resourc-

111 Prosumer Energy and Prosumer Power Cooperatives: opportunities and challenges in the EU countries. Opinion paper by European Economic and Social Committee.

es¹¹² (DER), home ownership and the ability to afford upfront investment costs are preferable prerequisites to investing in DERs. Without careful policy-making, there is a risk that vulnerable, low-income households could be left behind as a 'prosumer divide' emerges between those that can afford DER technology and those left reliant on the main grid, paying higher electricity costs.

- 252 At present, only 13 NRAs are in the position to report about the use of PV panels among household consumers, which can be used as an indication of percentage of consumers participating actively in the energy transition. The MS with the highest share of households with PV panels for self-consumption¹¹³ is Malta with 12%. In Great Britain, Cyprus and Denmark the share of final household consumers with photovoltaic installations for self-consumption is around 3%. In the remaining MSs for which data was reported – Slovakia, Luxembourg, Lithuania, Norway, Estonia, Slovenia, Hungary, France and Italy - the share is below 2%.

6.4 Energy communities

- 253 One of the fundamental goals of the “Clean Energy for all Europeans Package” is to place consumers at the heart of the energy transition. In this trend, the recast renewable energy communities” REC energy directive (RED II) and the recast electricity market directive (EMD) introduce a framework for “citizen energy communities” (CEC) and “Renewable Energy Communities”. These communities should help mobilize private financial means, lower public resistance against the energy transition and enhance the flexibility in the market.
- 254 The EC Task Force on Energy Communities recently drafted a document called “Energy Communities in the EU”¹¹⁴ to investigate the legal nature of energy communities in detail. This document presents case studies of existing energy communities. According to the findings of this analysis, the Energy Communities provision in the Clean Energy Package leave room for a broad interpretation, so the question is how these provisions will be transposed into member states’ national laws. The 27 MSs have until June 2021 to transpose the recast Renewable Energy Directive and from then on consumers, as prosumers, will have the right, if not the case yet, to consume, store or sell energy generated on their premises.
- 255 Some of the differences in Energy Communities between MSs are:
- a) different forms of legal entities: while in Greece, Energy Communities are available for-profit and not-for-profit energy cooperatives, in the Netherlands they can be legally established as associations or cooperatives;
 - b) requirements to take part in an Energy Community; in some countries they are intended for vulnerable and poor families while others define conditions such as affinity, purchase of a minimum amount of shares or the approval by the board; and,
 - c) other issues that vary in the definition of Energy Communities between countries are the number and type of actors required to be involved, the purpose of the Energy Community or the type of structure and autonomy.
- 256 Statistical coverage of citizen energy communities is still very limited. Only four MSs report data about the number of energy communities: Ireland with 345 energy communities, Great Britain with 299 energy communities (24 more than in 2018), France with 28 and Slovenia with one energy community.
- a) The Irish NRA reports the existence of 345 energy communities. CRU describes energy communities as entities which are comprised of groups of consumers who all have the aim to develop a sustainable energy masterplan for the benefit of the community¹¹⁵.

112 European Parliament Think Tank. Will distributed energy resources (DERs) change how we get our energy?

113 Number of households with PV panels out of the total number of household metering points.

114 Energy Communities in the EU. Task Force Energy Communities. Brige-Horizon 2020.

115 The Sustainable Energy Community Programme was introduced in 2015 and is overseen by the Sustainable Energy Authority of Ireland (SEAI). The communities in this programme express interest in what types of sustainable activities they would like to engage in and work together with the SEAI to realise their goals.

- b) The French regulator reports 28 energy communities. Energy communities taken into account are self-consumption communities only at this stage. In France, a self-consumption operation is collective when the supply of electricity is carried out between one or more producers and one or more end consumers linked to each other within a legal person and whose points of withdrawal and injection are located on the low voltage network.
- c) In Slovenia, only one energy community has been established so far. The energy community is located in the Municipality of Luče, where 102 kW of solar power plants are installed in nine buildings (mostly residential houses, farms, work buildings, and a small company, biomass boiler room, fire station, cultural centre, and post office). Five house batteries were also installed. Within the project, they developed the so-called Home Energy Management System (HEMS), which is intended to process metering data from connected devices and managing systems. The village is completely energy self-sufficient in certain periods of the year.

6.5 Demand response

- 257 According to Directive 2019/944, 'demand response' means the change of electricity load by final consumers from their normal or current consumption patterns in response to market signals, including in response to time-variable electricity prices or incentive payments, or in response to the acceptance of the final consumer's bid to sell demand reduction or increase at a price in an organised market, whether alone or through aggregation. Demand response provides an opportunity for consumers positively to affect the operation of the electric grid by, for example, reducing or shifting their electricity usage away from peak periods in response to time-based tariffs and/or energy prices or other forms of financial incentives.
- 258 Article 17 of Directive 2019/944 outlines that MSs shall allow and foster participation of demand response through aggregation in a non-discriminatory manner in all electricity markets. All consumers should be able to benefit from directly participating in the market, in particular by adjusting their consumption according to market signals and, in return, benefiting from lower electricity prices or other incentive payments. The benefits of such active participation are likely to increase over time, as the awareness of otherwise passive consumers is raised about their possibilities as active consumers and as the information on the possibilities of active participation becomes more accessible and better known.
- 259 There are two forms of demand-side flexibility: (i) implicit demand-side flexibility, which is the consumer's reaction to price signals (some implicit demand response mechanisms are time-based rates, time-of-use pricing, critical peak pricing, variable peak pricing, real time pricing, and critical peak rebates) and (ii) explicit demand-side flexibility, which is committed and dispatchable flexibility that can be traded (like generation flexibility) on different energy markets (wholesale, balancing, system support and reserves markets). Electricity consumers receive specific rewards or incentives in order to change their consumption patterns upon request (using more or using less).
- 260 Examples of explicit demand response in different EU countries as of 2019:
- a) In Germany, consumers with controllable consumer devices are charged lower network fees, if they are controllable by the DSO for congestion management reasons and have the necessary grid usage contract.
 - b) In Great Britain, the availability of explicit demand response offers is limited to consumers that are half-hourly settled, i.e. to those consumers who have meters that record electricity use on a half-hourly basis and for whom these half-hourly readings are used to determine the volume of electricity attributed to their supplier in each settlement period.
 - c) In Sweden, households can participate in ancillary services based on products defined by TSO through aggregation while in Lithuania such offers are only available to non-household consumers (legal amendments are currently discussed to enable demand side response also for household consumers).

7 Consumer Protection: What measures are in place to safeguard their rights?

261 This section contains information regarding consumer protection measures available to energy consumers across the EU. This section was previously included in the ACER-CEER Consumer Protection MMR.

262 In stressing justice and affordability for all Europeans, the European Commission aims to ensure a high level of consumer protection from disruptions in their electricity and gas consumption due to financial or other personal strains. Certain public service obligations shall ensure a continuous energy supply irrespective of the economic “success” of suppliers or consumers. Defining groups – vulnerable consumers – and demarcating specific living conditions – energy poverty – worth of wider protection are paramount to the EC’s inroad into securing affordable energy for all Europeans.

263 At European level, several provisions set the stage for national elaborations of the concepts of vulnerability and energy poverty. MSs shall ensure that adequate safeguards are in place for the vulnerable (Article 28 Directive 2019/944 and Gas Directive), and in case of a significant level of energy poverty – what this is remains to be seen – MSs shall develop objectives to reduce the level of energy poverty and outline policies and measures addressing energy poverty (Article 3 3d Regulation 2018/1999 and Article 29 Directive 2019/944).

7.1 Vulnerable consumers and energy poverty

7.1.1 Vulnerable consumers

264 According to Article 28 of Directive 2019/944 and Article 3 of Directive 2009/73, MSs shall take appropriate measures to protect consumers and shall ensure that there are adequate safeguards to protect vulnerable consumers. In this context, each MS shall define the concept of vulnerable consumers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity to such consumers in critical times. Earlier Volumes have already shown that MSs predominantly use explicit rather than implicit¹¹⁶ definitions of the concept of vulnerable consumers in both electricity and gas.

265 Article 28 of Directive 2019/944 further specifies that the concept of vulnerable consumers may include income levels, the share of energy expenditure in disposable income, the energy efficiency of homes, critical dependence on electrical equipment for health reasons, age or other criteria. Income levels belong to the defining criteria of vulnerability in 19 and 14 MSs in electricity and gas respectively, followed by critical dependency for health reasons in 11 and six MSs and age in nine and seven MSs. Many NRAs reported a combination of the listed determinants as well as specific ones, such as mental and/or physical disabilities, larger family size, unemployment or remote locality. Especially in MSs with implicit definitions of the concept of vulnerable consumers, e.g. AT, determining criteria are closely bound to eligibility criteria for ear-marked social benefits.

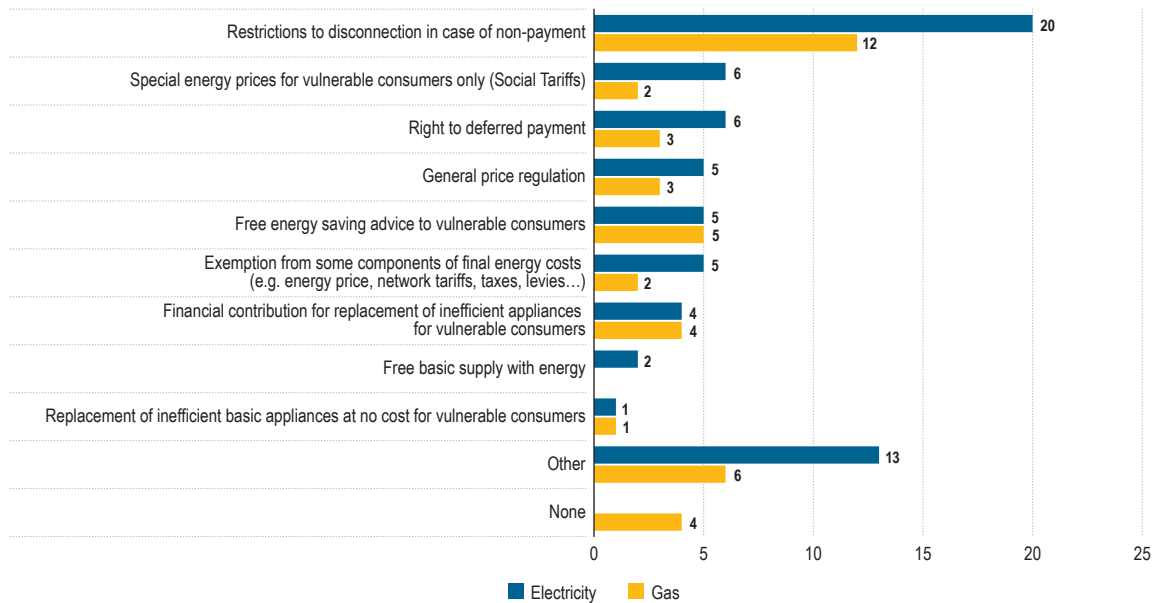
266 While Directive 2009/73 does not further specify safeguards, Directive 2019/944 states that MSs shall take appropriate measures, such as providing benefits by means of their social security systems to ensure the necessary supply to vulnerable consumers, providing for support for energy efficiency improvements, or to address energy poverty. Such measures shall not impede the effective opening of the market.

267 Figure 47 demonstrates what safeguards are currently in place. MSs most frequently apply restrictions to disconnection due to non-payment in order to protect vulnerable consumers. Some MSs also maintain special energy prices for such groups. Other measures - such as (non) earmarked social benefits to cover energy costs, exemptions from parts of the energy costs (especially funding contributions to renewable energy or energy efficiency) or (partial) grants for replacing old appliances with new, more energy efficient ones – have gained popularity in a few countries.

116 Explicit definitions refer to the case when the concepts of vulnerable consumers are stated in legislation, e.g. social protection laws or energy laws which mention the characteristics of such consumers. Implicit definitions refer to the case when the concepts of vulnerable consumers are an integral part of the national legislations without being put into specific wording.

268 The explicit definitions of vulnerable consumers are introduced in the majority of EnC CPs, except Georgia and Bosnia and Herzegovina (for electricity). In 2013, the Energy Community adopted the Outline of the Social Strategy¹¹⁷ which provided a definition of socially vulnerable electricity and gas consumer and invited Contracting Parties to take into consideration when establishing national definitions. Although there is a variety of national approaches in defining the criteria for obtaining the status of vulnerable consumer, the common criteria are income levels and critical dependence on electricity powered equipment for health reasons. The most common measures for protection of vulnerable consumers in EnC CPs are restrictions to disconnection due to non-payment and earmarked social benefits to cover energy expenses.

Figure 47: Measures in place to protect vulnerable consumers in EU MSs and Norway – 2019 (number of MSs)



Source: CEER 2020.

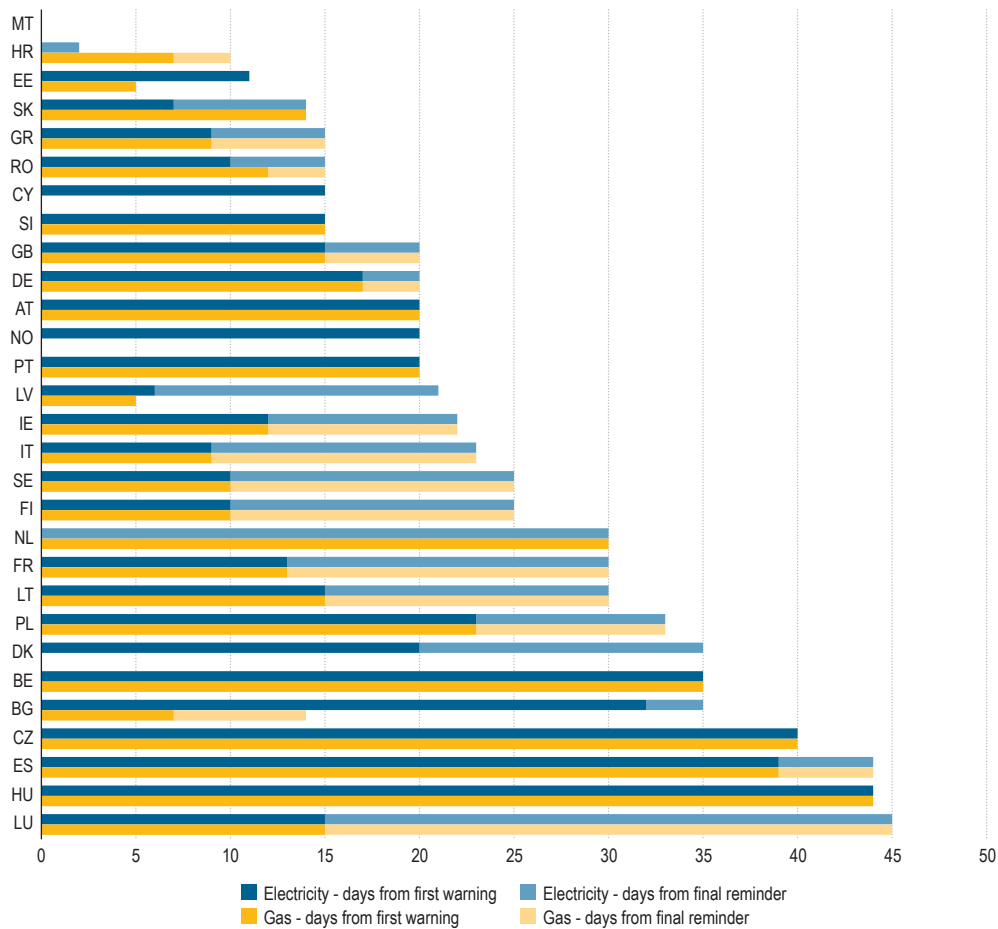
7.1.2 Disconnection due to non-payment

269 Consumers are widely protected against an immediate loss of access to electricity and gas across the EU. In most MSs, warning procedures alert consumers to pay their energy bills on time to avoid being disconnected. In addition to written reminders to settle accounts even under financial strain, some MSs have introduced additional prohibitions to disconnect on specific days (e.g. weekends), seasons (e.g. winter) or in specific circumstances (e.g. if consumers critically depend on energy for life-supporting appliances). Article 10 of Directive 2019/944 now requires that electricity suppliers provide household consumers with adequate information on alternative measures to disconnection in advance of any planned disconnection.

270 A lengthier disconnection process enables consumers to settle their pending bills and generally increases the likelihood of payment. However, excessively long processes may incentivise consumers to delay payment even further; after all, suppliers and DSOs depend on timely payments to run a viable business. As shown in Figure 48, many MSs differentiate between a first reminder to pay (or warning) and a final warning about imminent disconnection in the event of prolonged non-payment, yielding durations between first reminder and disconnection of less than a week (Hungary) to nine weeks (Luxembourg). In Denmark, electricity consumers in arrears receive a first reminder to pay a security posit at least 35 working days (7 weeks) prior to disconnection and a second and final warning is sent 15 working days (3 weeks) before disconnection. In Finland, disconnections may take place at the earliest five weeks after the due date of an unpaid energy bill, subject to a written notification of the failure to pay to the consumer and a separate disconnection notice at the earliest two weeks following the written notification of failure to pay.

117 See: https://www.energy-community.org/dam/jcr:a58c61f5-feca-45a0-97c0-2bdb6d5ed5bf/PHLG062013_Outline_Social_Strategy.PDF.

Figure 48: Legal minimum duration of the disconnection process in EU MSs and Norway – 2019 (in working days)

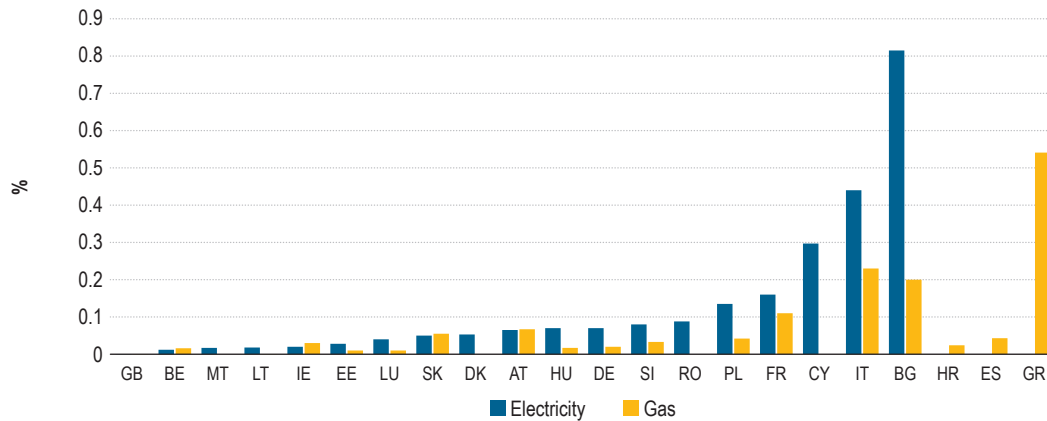


Source: CEER 2020.

- 271 As in previous years, available data suggests that disconnection processes take longer than the legal minimum duration in most MSs on average. For instance, in Great Britain the actual average duration of a disconnection is about 80 working days, in Lithuania 57 days. In contrast, actual disconnection processes are significantly shorter in Latvia (14 working days) and Cyprus and Greece (15 working days), but as shown in Figure 48, not shorter than the respective national legal minimum. These findings apply also to gas consumers.
- 272 Article 10 of Directive 2019/944 states that electricity suppliers shall provide household consumers with adequate information on alternative measures to disconnection sufficiently in advance of any planned disconnection. Such alternative measures may refer to sources of support to avoid disconnection, prepayment systems, energy audits, energy consultancy services, alternative payment plans, debt management advice or disconnection moratoria and not constitute an extra cost to the consumers facing disconnection.
- 273 In 2019, 20 MSs in electricity and 17 MSs in gas declared that such information is already provided to household consumers, although not necessarily by suppliers and even despite the lack of a legal obligation to do so in some of these MSs at the time. In most cases, available alternative measures to disconnections are payment plans, the installation of a prepayment meter, information about various kinds of (social) benefits, and, if applicable, the registration as a vulnerable consumer. Even where such information is not handed over systematically yet, e.g. in Austria, household consumers often receive (oral) information in their personal communication with their supplier and/or DSO before a planned disconnection.
- 274 Both Directive 2019/944 and Directive 2009/73 oblige NRAs to monitor disconnection rates. The data presented in Figure 49 refers to the cases of disconnections because of non-payment of energy bills only, since these are relevant from the point of view of consumer protection. Other disconnections, especially in cases of moving

home or vacant accommodations, are not relevant from a consumer protection perspective and should not be considered in the analysis.

Figure 49: Share of disconnections due to non-payment in EU MSs, Great Britain and Norway in 2019



Source: CEER 2020.

275 As an alternative to disconnection, prepayment meters are available for household consumers in some but not all MSs (for instance, there are no prepayment meters available in France). Figures on the shares of equipped final household consumers are only available for 6 MSs in electricity and range between a very low 0.04% in Austria and Germany to 15.4% in Great Britain. In gas, the situation is almost identical with share from 0.01% in Austria and Germany and up to 14.5% in Great Britain and 17% in Ireland.

276 For the EnC CPs, information on legal minimum duration of the disconnection process due to non-payment is measured in days starting from the due date of payment and varies between only 8 days in Montenegro to 60 days in Albania and North Macedonia. As in MSs, the actual duration of disconnection process is often longer than legal minimum in majority of EnC CPs. The share of household disconnections due to non-payment of electricity bills in the EnC CPs, measured in percentage of metering points, ranges from more than 9% in Kosovo* and North Macedonia, 7% in Montenegro, to less than 2% in Bosnia and Herzegovina, Serbia and Ukraine.

7.1.3 Energy poverty

277 MSs shall assess the number of households in energy poverty (Article 3 3d Regulation 2018/1999). According to Article 29 of Directive 2019/944, MSs shall establish and publish a set of criteria, which may include low income, high expenditure of disposable income on energy and poor energy efficiency when assessing the number of households in energy poverty. EU guidance what to consider in this assessment covers necessary domestic energy services needed to guarantee basic standards of living in the national context, social and other relevant policy.

278 Obviously, energy poverty goes beyond affordability of electricity and gas. Importantly, energy poverty generally includes heat consumption from all sources, but excludes energy consumption for mobility. The measurement criteria may include several indicators such as low income, high expenditure of disposable income on energy and poor energy efficiency.

279 In 2019, seven NRAs¹¹⁸ reported having an official definition of energy poverty. Some definitions are presented below in more detail.

- Spain: Energy poverty is the situation where a household consumer cannot satisfy the basic energy supply, because of insufficient income level and that, in its situation, it can be worse when having an energy inefficient living place.
- France: Energy poverty is related to housing rights: consumers who are not able to pay their rent, insurance or utility bills

118 Cyprus, France, Great Britain, Ireland, Romania, Slovakia, and Spain,

- Great Britain: There are national definitions for fuel poverty. Devolved nations in GB have different definitions. In England, fuel poverty is measured using the Low Income High Costs (LIHC) indicator. Under the LIHC indicator, a household is fuel poor if: they have required fuel costs that are above average (the national median level); were they to spend that amount, they would be left with a residual income below the official poverty line. In Scotland, a household is in fuel poverty if, in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income on all household fuel use. In Wales, a household is in fuel poverty if it needs to spend more than 10% of its net income on all household fuel use to maintain a satisfactory heating regime.
 - Ireland: A household is considered energy poor if it spends more than 10% of their disposable income on energy cost.
 - Slovakia: Energy poverty is defined as any condition when average monthly household expenditures for the consumption of electricity, gas, heat for heating and the preparation of hot service water, form a significant share in an average monthly household income.
- 280 Data on the share of energy poor households is available in six MSs: 14% in Belgium, 13% in Latvia, 10% in Great Britain, 4% in Cyprus and Spain and 3% in Italy.
- 281 As for assessment criteria, low income is the most widespread one in electricity (in five MSs), followed by high energy consumption (four) and poor energy efficiency (one). Some MSs have added assessment criteria, such as delays in paying bills in Spain.
- 282 To assist MSs in their efforts to combat energy poverty, the EU Energy Poverty Observatory, an initiative by the European Commission, has been developed by a consortium of 13 organisations, including universities, think tanks, and the business sector.¹¹⁹ The repository contains a huge amount of information on energy poverty, its possible definitions, methods of operationalization and measures, drivers, consequences, etc. Importantly, the dedicated comprehensive Observatory also contains Member State Reports on Energy Poverty 2019¹²⁰, where significant information about energy poverty in all MSs can be found.
- 283 In June 2020, the EU Commission published the third pan-EU energy poverty report¹²¹, which contains a comprehensive analysis of how national energy and climate plans (NECPs) tackle energy poverty in each MS. A good overview of how energy poverty is currently conceived across 13 dimensions¹²² in MSs can be found in the report's Table 1 which is pictured below. A high score, such as is the case for Belgium, Spain, France and Lithuania, for instance, is indicative of a comprehensive engagement with energy poverty in the NECPs, a low score such as the one for Sweden indicates that the Swedish NECP does not engage with energy poverty at all (cf. Bouzarovski et al, 2020).

119 See online, <https://www.energypoverty.eu/> (last accessed June 29, 2020).

120 See online, https://www.energypoverty.eu/sites/default/files/downloads/publications/20-06/mj0420245enn.en_.pdf (last accessed June 29, 2020).

121 See Bouzarovski S, Thomson H, Cornelis M, Varo A and Guyet R, Towards an inclusive energy transition in the European Union: Confronting energy poverty amidst a global crisis, Publications Office of the European Union, Luxembourg, 2020, available online, https://op.europa.eu/en/publication-detail/-/publication/4a440cf0-b5f5-11ea-bb7a-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.ria_c=37085&WT.ria_f=3608&WT.ria_ev=search (last accessed June 29, 2020).

122 These dimensions are: 1. Whether energy poverty is recognised as a distinct phenomenon in the document; 2. Whether energy poverty is explicitly defined; 3. If explicit energy poverty indicator(s) have been formulated; 4. There are direct policies to address energy poverty; 5. There are energy poverty measures involving direct tariff or bill support; 6. There are energy poverty measures involving energy efficiency investment; 7. There are energy poverty measures involving market regulation; 8. there are energy poverty measures involving infrastructure investment; 9. New financing models to address energy poverty have been proposed; 10. EU funding has been recognised as source for energy poverty alleviation; 11. There are effective national best practices to address energy poverty; 12. There are effective local or regional best practices to address energy poverty; 13. There are effective engagement mechanisms to address energy poverty.

Table 2: A summative assessment of energy poverty across the NECPs.

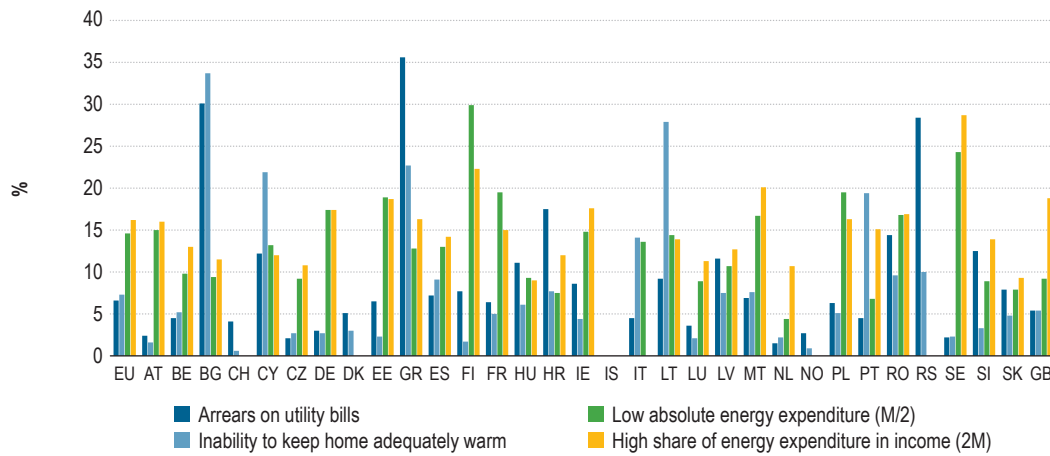
Criterion	BE	ES	FR	LT	BG	GR	IT	MT	HR	CY	PL	RO	AT	HU	FI	PT	SK	CZ	LV	DE	EE	NL	DK	SI	LU	SE
EP recognised	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2					2		
EP defined		2		2			1	1		2			2		2											
Explicit EP indicator(s)	2	2	2	2			2	2		2		2	2	2				2	2		2	2				
Direct EP policies	2	2	2		2	2	2	2	2	2		2		2						2	1					
Tariff bill EP measures	2	2	2	2	2	2	2	2	2	2		2				2	1							2		
EE for EP	1	2	2	2	2	2	2	2	2	2	2		2	2	1	2	1				1		1			
Market regulation	2			2	2		2				2			2			1						1			
Infra. investment	2	2	2	2	2	2		2			2	2					1						1			
New financing	1		2			2					2															
EU funding for EP	1			2	2	2	1		2		2								2							
National BPs for EP	2	2	2					2							2					2						
Local/regional BPs	2														2			2								
Engagement mechanisms		2	1	1					2			2	2		2	2	2			1						
Summative score	19	18	17	17	14	14	14	13	12	12	12	12	10	10	9	8	8	6	6	5	4	4	3	2	0	0

Source: Bouzarovski S, Thomson H, Cornelis M, Varo A and Guyet R, *Towards an inclusive energy transition in the European Union: Confronting energy poverty amidst a global crisis*, Publications Office of the European Union, Luxembourg, 2020.

Note: According to Bouzarovski et al (2020), a single score of 2 signals a comprehensive engagement with the issue at national level, a score of 1 signals some engagement and a score of 0 signals the lack of (recognizable) engagement with issues of energy poverty in national energy and climate plans.

- 284 As for the latest cross-nationally comparable figures on energy poverty, Figure 50 shows 2018 results for the four primary indicators of energy poverty recommended by the EU Energy poverty Observatory. On more subjective measures such as self-reported arrears on bills or inability to heat the home sufficiently, consumers in Bulgaria, Greece and Lithuania report high incidence rates, whereas the populations of several countries, including Austria, the Czech Republic, Germany, the Netherlands, Norway and Sweden hardly report such experiences. For monetary measures of energy poverty ($r = 0.78$), the lower exhibit shows high percentages for Finland and Sweden, and low percentages for Hungary, the Netherlands and Slovakia. Subjective and objective indicators are, however, only poorly and even negatively correlated at the national level (r between -0.13 and -0.22).
- 285 A definition of energy poverty does not exist in the EnC CPs. However, in the majority of them energy poverty is tackled through a certain framework, such as energy development strategy or national action plans (Bosnia and Herzegovina, Kosovo, Moldova, Montenegro and Serbia) or via an annual program for reduction of energy poverty in North Macedonia. The measures which directly or indirectly address energy poverty are implemented in the majority of EnC CPs and are mostly related to energy efficiency and financial support for energy-poor consumers.

Figure 50: Four main indicators of energy poverty and average energy household expenditure of energy expressed as percentage of households in 2018 (%)



Note: Arrears on energy bills: Share of (sub) population having arrears on utility bills, based on question “In the last twelve months, has the household been in arrears, i.e. has been unable to pay on time due to financial difficulties for utility bills (heating, electricity, gas, water, etc.) for the main dwelling?”

Inability to keep home adequately warm: Share of (sub) population not able to keep their home adequately warm, based on question “Can your household afford to keep its home adequately warm?”

Low absolute energy expenditure (M/2): The M/2 indicator presents the share of households whose absolute energy expenditure is below half the national median, or in other words abnormally low. This could be due to high energy efficiency standards, but may also be indicative of households’ dangerously under-consuming energy. M/2 is a relatively new indicator that has been used in Belgium to complement other expenditure and self-reported indicators. Note: this indicator is influenced by the underlying distribution of absolute energy expenses in the lower half of households. If the median is relatively high and the distribution below very unequal, the M/2 indicator is high.

High share of energy expenditure in income (2M): The 2M indicator presents the proportion of households whose share of energy expenditure in income is more than twice the national median share. Note: where income distributions are more equal, variance in energy expenditure translates to higher 2M shares. High variance in energy/income shares can occur due to structural differences in energy expenditure between household groups, as well as in situations where energy is often, but not exclusively, included in rent.

Source: EU Energy Poverty Observatory – energypoverty.eu (4 September 2020)

7.2 Supplier of last resort

- 286 To ensure the right to universal service according to Article 27 of Directive 2019/944, MSs may appoint a supplier of last resort (SOLR) and impose on DSOs an obligation to connect consumers. Directive 2009/73, also calls for a SOLR for consumers connected to the gas system but does not call for the imposition of a universal service obligation. Yet, the European legislation is not exhaustive on the meaning and functions of SOLR.
- 287 As previous Volumes have shown, all but two MSs (Bulgaria and France) have SOLR mechanisms in place in electricity and all but 3 MSs (Bulgaria, Greece, and Slovenia) in gas. The situation is quite static in recent years. MSs have assigned different functions to SOLR. Most NRAs conceive the SOLR as a precaution for the business cessation of suppliers and/or DSOs (25 MSs in electricity/21 MSs in gas). Other functions are to protect inactive consumers (11/8), or to protect consumers with payment difficulties (6/4).
- 288 In total, electricity a SOLR have been called upon in 26 instances of business cessation in 2019 in eight MSs. A SOLR has been needed most often in Great Britain in nine instances affecting approximately a total of 2,000 consumers, followed by six instances in Spain. In gas, a SOLR has been called upon in 10 such instances also across eight MSs. Hence, abrupt and unorderly endings of business are rare events across European electricity and gas markets given the large number of operating businesses.
- 289 Many MSs report figures on the share of final household consumers supplied by the supplier(s) of last resort¹²³ (18 in electricity and in 13 gas). In the vast majority of these MSs, the share is below 1% (eight in electricity, nine in gas). In contrast, 80% of final household consumers are supplied by the supplier(s) of last resort in Cyprus (where there is only one electricity supplier), Croatia (electricity) and Slovakia (electricity and gas).
- 290 SOLR electricity prices tend to be more expensive than non-SOLR prices in 16 MSs according to NRAs' assessment, in gas this is the case in 13 MSs. Such price comparisons are not possible in other MSs because of the case-by-case nature of SOLR pricing. However, no NRA states that SOLR energy prices are generally cheaper than non-SOLR prices.
- 291 A supplier of last resort for electricity has been appointed in all EnC CPs. For gas a supplier of last resort exists in North Macedonia, Moldova, Serbia and Ukraine. However, in Serbia and Bosnia and Herzegovina- Republika Srpska entity, the small consumers (households and small non- households) cannot turn to the supplier of last resort, but to a so called public supplier. A SOLR may be appointed to a consumer where a consumer is to source a supplier, when current supplier is bankrupt, or when the license of their current supplier has been revoked. The same circumstances apply to the consumers in the gas market. The information on SOLR electricity and gas prices for households was available only for Ukraine and, partially, Bosnia and Herzegovina (Federation BIH and Brcko District), according to which these prices are higher than average market prices for households in Ukraine and Federation BIH and lower than market prices in Brcko District.

123 In Croatia, the Supplier of last resort is referred to as a "Universal service supplier".

8 Complaints and dispute resolution

- 292 This section analyses available complaint data from MSs across Europe and was previously included in the ACER-CEER Consumer Protection MMR. Due to national differences in both how complaints are defined and handled, and population sizes, the number of complaints vary significantly between MSs. However, when complaints to NRA's, ADRs and Ombudsmen are compared, the picture that emerges indicates that most complaints in most MSs concern suppliers, with a few exceptions where DSOs receive a majority of complaints. The most common complaint-category for electricity suppliers is invoicing/billing and debt collection, while the most common complaint category for electricity DSOs is metering.
- 293 European consumers have the right to effective complaint-handling procedures and out-of-court mechanisms for the settlement of disputes. This chapter describes who is responsible for complaint handling, consumer's access to information about how to complain, and the legal maximum time to respond to a complaint for energy companies, NRAs, ADRs and Ombudsmen.
- 294 Complaint data indicate consumer discontent and can be used by NRAs to understand how the market functions. It can also be used as a base for decisions regarding where to focus monitoring exercises, or to suggest changes in the regulation.

8.1 Complaint handling bodies and procedures

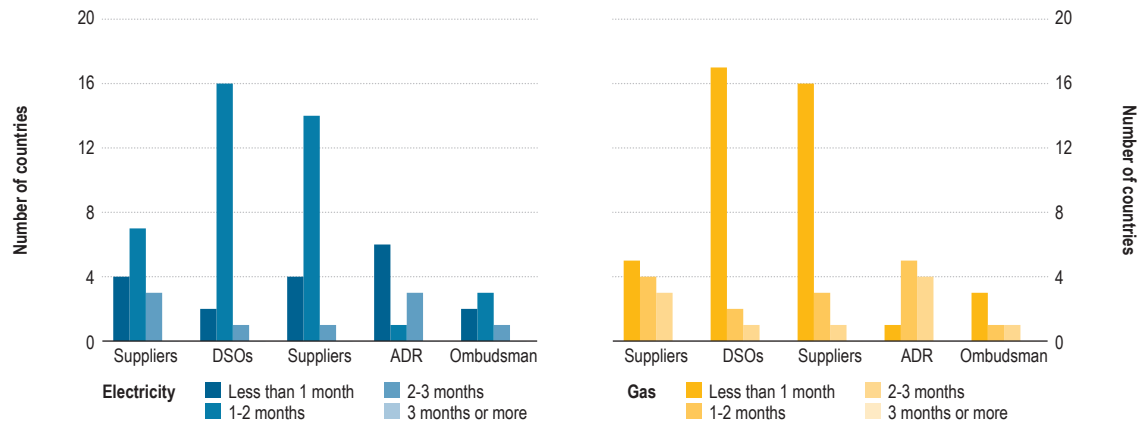
- 295 Directive 2019/944 requires that MSs introduce speedy and effective complaint-handling procedures. Here MSs need to assign roles and responsibilities in handling consumer complaints and design a process on how to handle consumer complaints. Article 10 gives final consumers the right to a good standard of service and complaint handling by their suppliers.
- 296 In most MSs, the role of dealing with final consumer complaints has been assigned to NRAs. In 18 MSs for electricity (14 for gas), NRAs also forward complaints to other responsible parties.
- 297 First and foremost, consumers complain to their contractual counterparty in energy affairs, i.e. their supplier and/or the DSO. Secondly, if the response from the energy company is not in line with the consumer's expectations, complaints are made to NRAs, ADRs or (energy) Ombudsmen.
- 298 Information about what consumers complain about and how often they do is widely available. In 16 MSs, NRAs must publish complaint data about final household consumers. In three MSs¹²⁴, DSOs for electricity and gas must publish such complaints. In four MSs¹²⁵, suppliers must publish such complaints. In 14 MSs (11 for gas) the Alternative Dispute Resolution (ADR) body or the Ombudsman¹²⁶ also must publish complaints. In five MSs (Belgium, Czech Republic, Estonia, Poland and Slovakia), reporting data on consumer complaints is not obligatory for any of the above-mentioned parties.
- 299 Information about where and how to complain must be made available in electricity and gas consumer contracts or bills. In most MSs, such information is even mandatory in contracts, bills and on suppliers' websites. In the majority of MSs, some complaint information is also necessary on advertising materials and other information leaflets.
- 300 To accelerate the complaint services, a short legal maximum processing time is set for the various market actors, as shown in Figure 51. In 16 MSs, suppliers and DSOs for electricity are requested to respond to consumer complaints within two months or faster (17 MSs for gas). NRAs and Ombudsman are given more time to handle complaints due to their role and responsibility in acting as a balanced and neutral party between energy service companies and consumers.

124 Greece, Croatia and Portugal.

125 Greece, Croatia, Portugal and Romania.

126 NEON (the European network of independent, not-for-profit consumer dispute-resolution services and ombudsmen active in the energy sector) publish statistics annually.

Figure 51: Legal maximum processing time to handle complaints in MSs and Norway – 2019 (number of MSs)



Source: CEER 2020

8.2 Complaint data

- 301 Consumer complaint data can be an important source of information for NRAs. The data can be used to understand how the market functions and what the specific issues that impact consumers are. The information can also be used as a base for decisions regarding where to focus monitoring exercises or to suggest changes in the regulation.
- 302 The number of final household consumer complaints received by NRAs, suppliers, DSOs, ADRs or energy Ombudsmen continues to vary significantly across MSs because of different definitions used and population sizes. Apart from that, variation is caused by differences in handling and reporting procedures in MSs, so that the absolute number of complaints is not a straightforward indicator of the quality of service in a country. Hence, a cross-national comparison of the number of complaints is challenging and robust conclusions about consumer protection and market-functioning are difficult to draw from such comparison.
- 303 However, according to available MS-data, approximately 5.8 million complaints in electricity and 2.4 million complaints in gas to either suppliers, DSOs, ADR bodies, Ombudsmen or NRAs were reported in 2019. On top of that has Great Britain reported 2.7 million complaints to both electricity and gas suppliers but are not able to provide figures separated for each market.

304 Per entity receiving the complaints, the situation is as follows:

- **Suppliers** received the majority of complaints: in 2019, 5 million complaints in electricity and 1 million in gas. However, separate data on complaints received by electricity and/or gas suppliers is only reported by 13 NRAs (out of 29), where a few MSs stand for the majority of complaints made directly to suppliers¹²⁷. The other NRAs are not able to submit numbers of complaints received by suppliers.
- **DSOs** also received many complaints; however, less compared to those received by suppliers (660,000 complaints directed at electricity DSOs and 1.3 million at gas DSOs).
- **NRAs** received approximately 50,000 complaints for electricity and 10,000 complaints for gas. The numbers of complaints directly addressed to NRAs vary significantly across MSs, also because of the NRA's national role in complaint handling.
- On top of this, **ADRs** and **energy ombudsmen** received approximately 104,000 complaints for electricity and 84,000 complaints for gas.

305 Statistics on complaints directly addressed to NRAs¹²⁸ and national ADR/Ombudsman appear to be more comparable than data on complaints submitted to suppliers or DSOs, since they are better reported across more MSs. The following two sections (9.2.1 and 9.2.2) comments on the final household consumer complaints directly addressed to NRAs and/or ADR/Ombudsman in countries where these public bodies register complaints separately for both electricity and gas markets as well as suppliers and DSOs.

306 NRAs, ADRs and Ombudsmen receive less complaints than suppliers and DSOs that consumers turn to in the first place. However, most of these complaints might be ones which have not been solved by the energy companies and thus “moved on” to NRAs, ADRs and Ombudsmen representing maybe the most contested cases.

8.2.1 Electricity market

307 17 NRAs¹²⁹ and 10 national ADRs or Ombudsmen¹³⁰ register complaints separately for electricity and gas markets. 13 NRAs¹³¹ and seven national ADRs/Ombudsmen¹³² register complaints separately for suppliers and DSOs.

308 On a European level, 64% of the complaints regarding the electricity market concern suppliers and 36% concern DSOs¹³³. Even though suppliers attract more complaints than DSOs in a majority of the MSs where data are available, there are national exceptions. In Sweden, the situation is the opposite with 66% of complaints concerning DSOs.

309 Figure 52 shows that the biggest average share of complaints regarding electricity suppliers concerns invoicing/billing and debt collection (47%). When it comes to electricity DSOs, the complaints are spread over more categories. Metering attracts the biggest share of complaints (24%), followed by invoicing/billing and debt collection (17%).

127 For example, Greece reported 3.1 million, Spain 777 500 and Poland 451 000 complaints to electricity suppliers.

128 In their capacity as NRA, not as ADR.

129 Austria, Bulgaria, Germany, Spain, Finland, Greece, Croatia, Hungary, Ireland, Luxembourg, Latvia, Poland, Portugal, Romania, Sweden, Slovenia, and Slovakia.

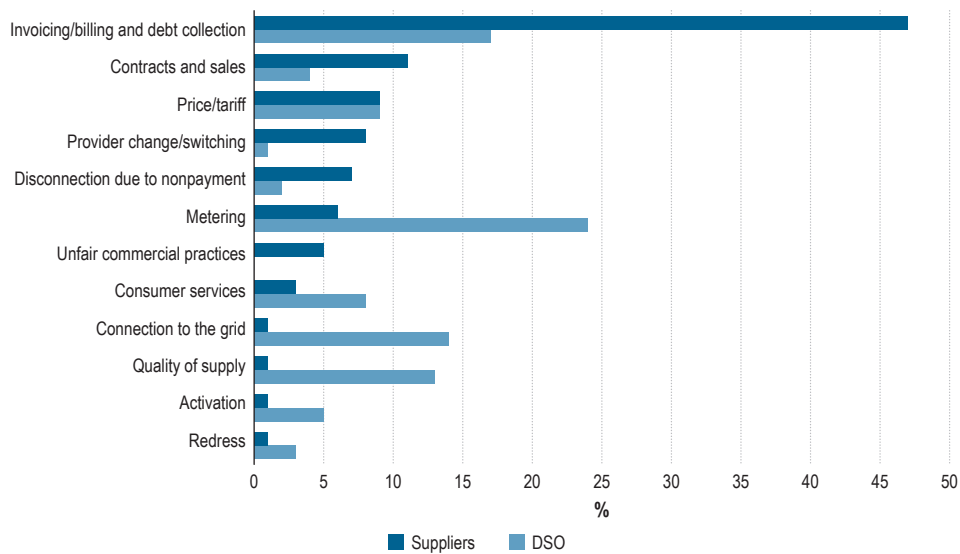
130 Austria, Denmark, France, Ireland, Italy, Luxembourg, Latvia, Poland, Romania and Slovakia.

131 Austria, Spain, Finland, Croatia, Hungary, Ireland, Luxembourg, Latvia, the Netherlands, Portugal, Romania, Sweden and Slovenia.

132 Austria, Belgium, Denmark, Ireland, Luxembourg, Latvia and Malta.

133 Population weighting and the number of complaints reported by each NRA are not considered. The percentages are a European average of MS-level shares of supplier/DSO-complaints.

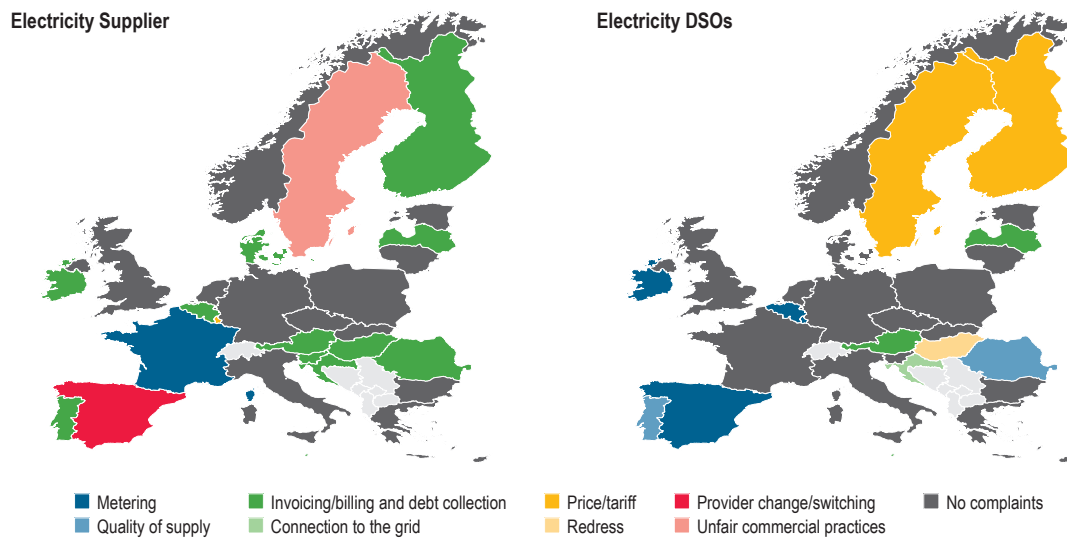
Figure 52: Average national shares of types of final household consumer complaints in the electricity market directly addressed to NRAs, ADR or Ombudsmen for MSs and Norway – 2019 (%)



Note: For the presentation of the types of consumer complaints, the population weighting and the number of complaints reported by each NRA are not considered. Resulting figures thus refer to MS-level average percentages of complaints in the various categories.

310 Figure 53 shows the variations across Europe regarding the dominant complaint category for suppliers and DSOs. Regarding electricity suppliers, in Spain 57% of complaints concerned switching¹³⁴ and in Sweden 42% concerned unfair commercial practices¹³⁵. Regarding DSOs, in Slovenia 98% of the complaints concerned metering¹³⁶ and in Sweden 59% concerned prices and tariffs¹³⁷.

Figure 53: Complaint category that attracts highest share of complaints for electricity suppliers (left map) and electricity DSOs (right map) to NRAs, ADR or Ombudsmen for MSs and Norway – 2019



134 143 of 252 complaints regarding suppliers addressed to the NRA. However, the most common complaint addressed directly to suppliers were about metering.

135 65 of 156 complaints regarding suppliers to NRA.

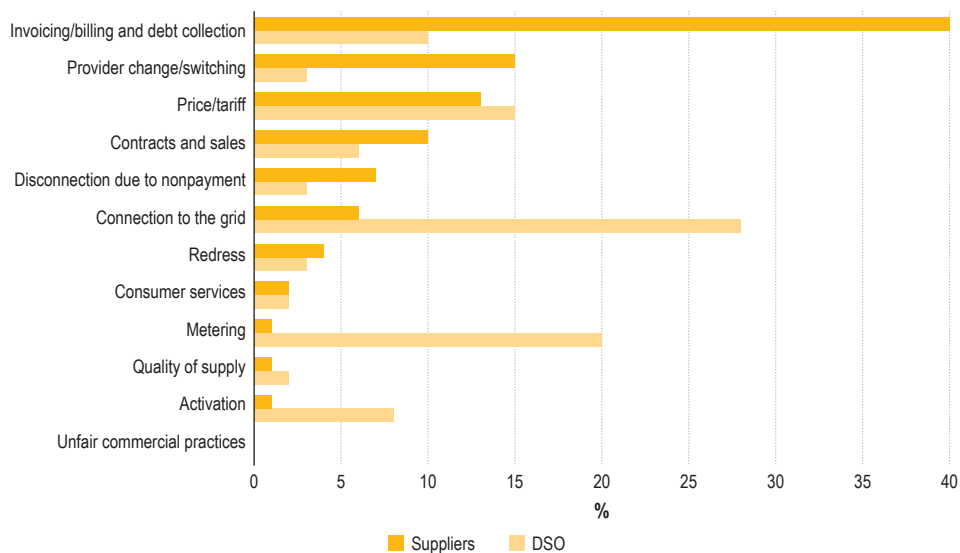
136 1336 of 1369 complaints regarding DSOs to NRA.

137 183 of 309 complaints regarding DSOs to NRA.

8.2.2 Gas market

- 311 10 NRAs¹³⁸ and six national ADRs/Ombudsmen¹³⁹ register complaints for gas suppliers and DSOs separately.
- 312 On a European level, gas suppliers attract more complaints than gas DSOs. 62% of the complaints regarding the gas market concern suppliers and 38% concern DSOs¹⁴⁰. However, compared to the electricity market there are more exemptions from this finding. In four of thirteen countries the situation is the opposite, for example in Lithuania where 82% of the complaints concern DSOs¹⁴¹ and in Romania 51% concern DSOs¹⁴².
- 313 Figure 55 shows that the biggest average share of complaints regarding gas suppliers concerns invoicing/billing and debt collection (40%). When it comes to gas DSOs, the category connection to the grid attracts the biggest average share of complaints (28%), followed by metering (20%) and Price/tariff (15%).

Figure 54: Average national shares of types of final household consumer complaints in the electricity market directly addressed to NRAs, ADR or Ombudsmen for MSs and Norway – 2019 (%)



Note: For the presentation of the types of consumer complaints, the population weighting and the number of complaints reported by each NRA are not considered. Resulting figures thus refer to MS-level average percentages of complaints in the various categories.

- 314 Figure 55 shows some variations across Europe regarding the type of dominant complaint category for suppliers and DSOs. Regarding suppliers, in Spain, all complaints concerned switching¹⁴³. Regarding DSOs, in Romania 94% of the consumer complaints concern the category connection to the grid¹⁴⁴ and in Portugal 58% concern the category activation¹⁴⁵.

138 Austria, Hungary, Ireland, Luxembourg, Latvia, Netherlands, Portugal, Romania, Sweden and Slovenia.

139 Austria, Belgium, Denmark, Ireland, Luxembourg and Latvia.

140 Population weighting and the number of complaints reported by each NRA are not considered. The percentages are a European average of MS-level shares of supplier/DSO-complaints.

141 32 of 39 complaints to NRA, ADR/Ombudsman/other entity.

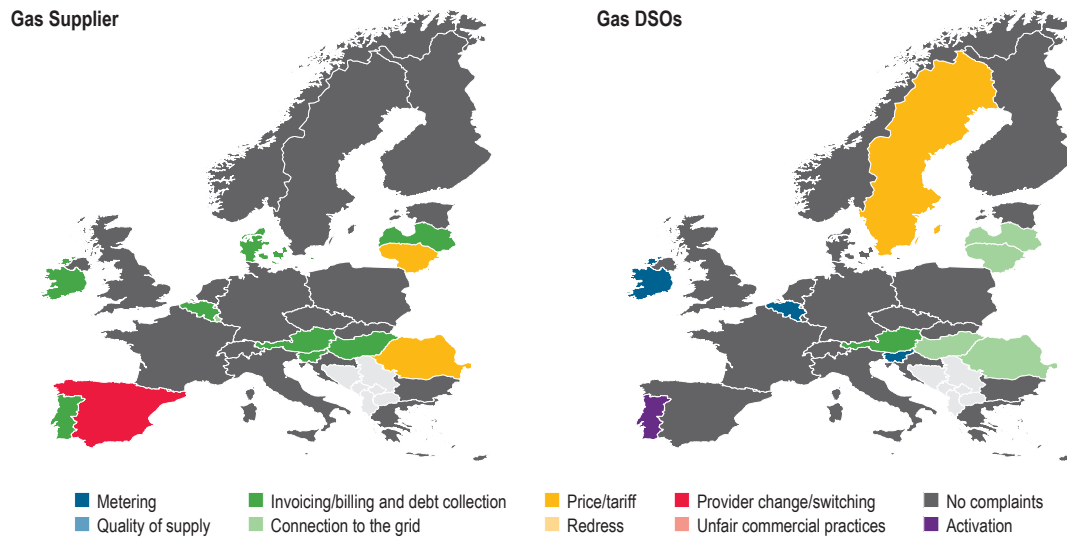
142 1342 of 2612 complaints to NRA, ADR/Ombudsman/other entity.

143 52 of 52 complaints regarding suppliers to NRA.

144 1264 of 1343 complaints regarding DSOs to NRA.

145 256 of 444 complaints regarding DSOs to NRA.

Figure 55: Complaint category that attracts highest share of complaints for suppliers and DSOs to NRAs, ADR or Ombudsmen for MSs and Norway – 2019



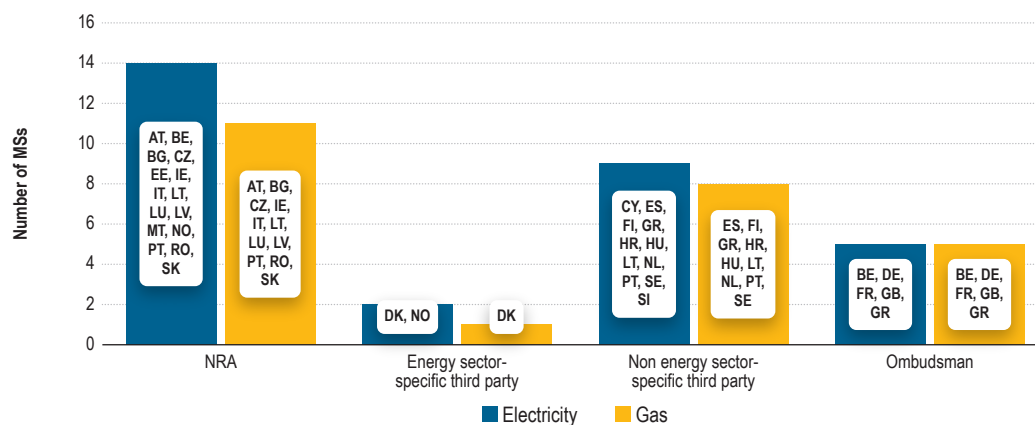
8.3 Alternative dispute resolution (ADR)

- 315 Directive 2019/944 requires that MSs shall ensure that final consumers have access to simple, fair, transparent, independent, effective and efficient out-of-court mechanisms for settling disputes through an independent mechanism such as an energy ombudsman or a consumer body, or through a regulatory authority.
- 316 All MSs have implemented an ADR mechanism for electricity and most MSs have for gas¹⁴⁶. Furthermore, an ADR is available free of charge for final household consumers in most MSs¹⁴⁷. As shown in Figure 56, ADR for electricity services in Norway is handled by the NRA and an energy sector-specific third party. In Poland and Slovenia the ADR-responsibilities is given to a party other than the above-mentioned bodies.
- 317 Figure 56 shows that most often MSs have assigned the role of ADR in both electricity and gas to the NRA. Non-energy sector specific third parties, such as non-sector specific consumer bodies, come in second place.
- 318 Figure 56 also shows that MSs have frequently shied away from designing energy sector-specific third parties as ADR mechanism. Ombudsman also remains a minority choice when it comes to alternative dispute settlement.
- 319 ADR for electricity services in Norway is handled by the NRA and an energy sector-specific third party.

146 Not Estonia and Great Britain.

147 Not in Denmark, Croatia and Netherlands. In DK, consumer complaints can be sent to the Energy Supplies Complaint Board. The consumer must pay a fee of DKK 160 (approximately EUR 22) that is fully refunded, if the Board upholds the consumer's contention.

Figure 56: Entities responsible for ADR in EU MSs and Norway – 2018 (number of MSs)



Annex 1: The relationship between retail and wholesale prices in electricity and gas markets for households by country

Figure A1-1: Responsiveness of the energy component of retail electricity prices to wholesale electricity prices and evaluation of mark-up in the household market from 2008 to 2019 (euros/MWh)



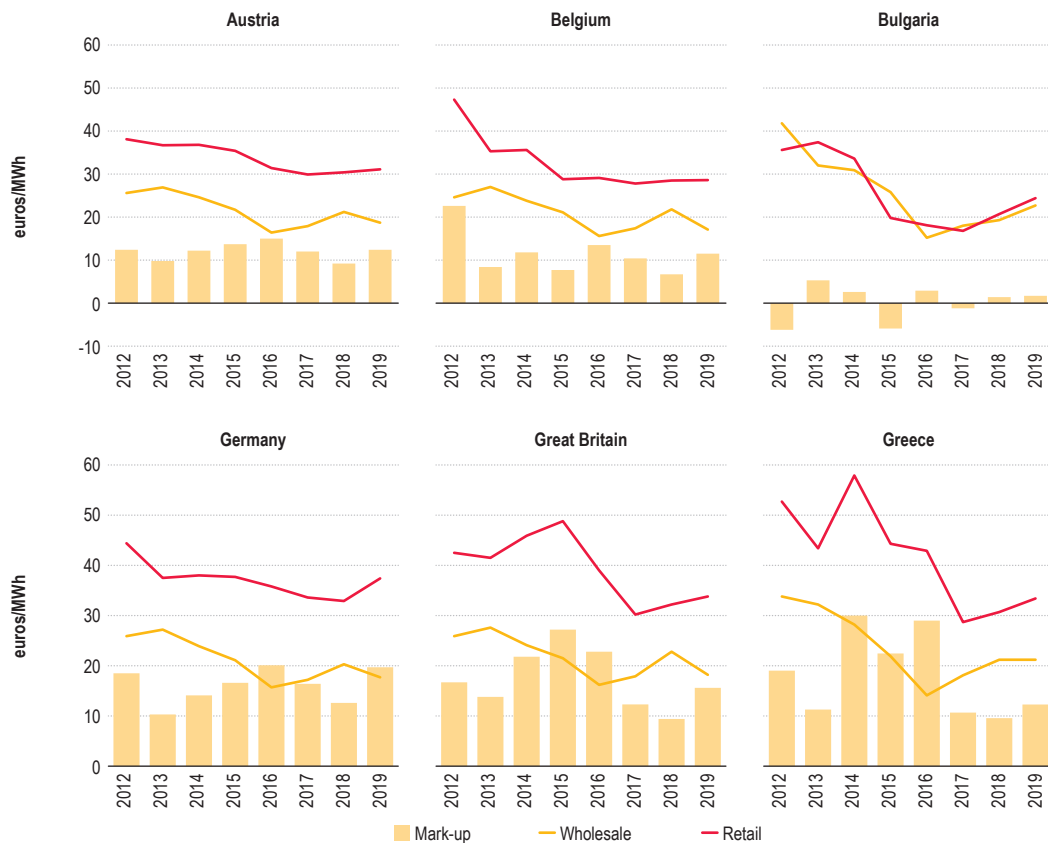




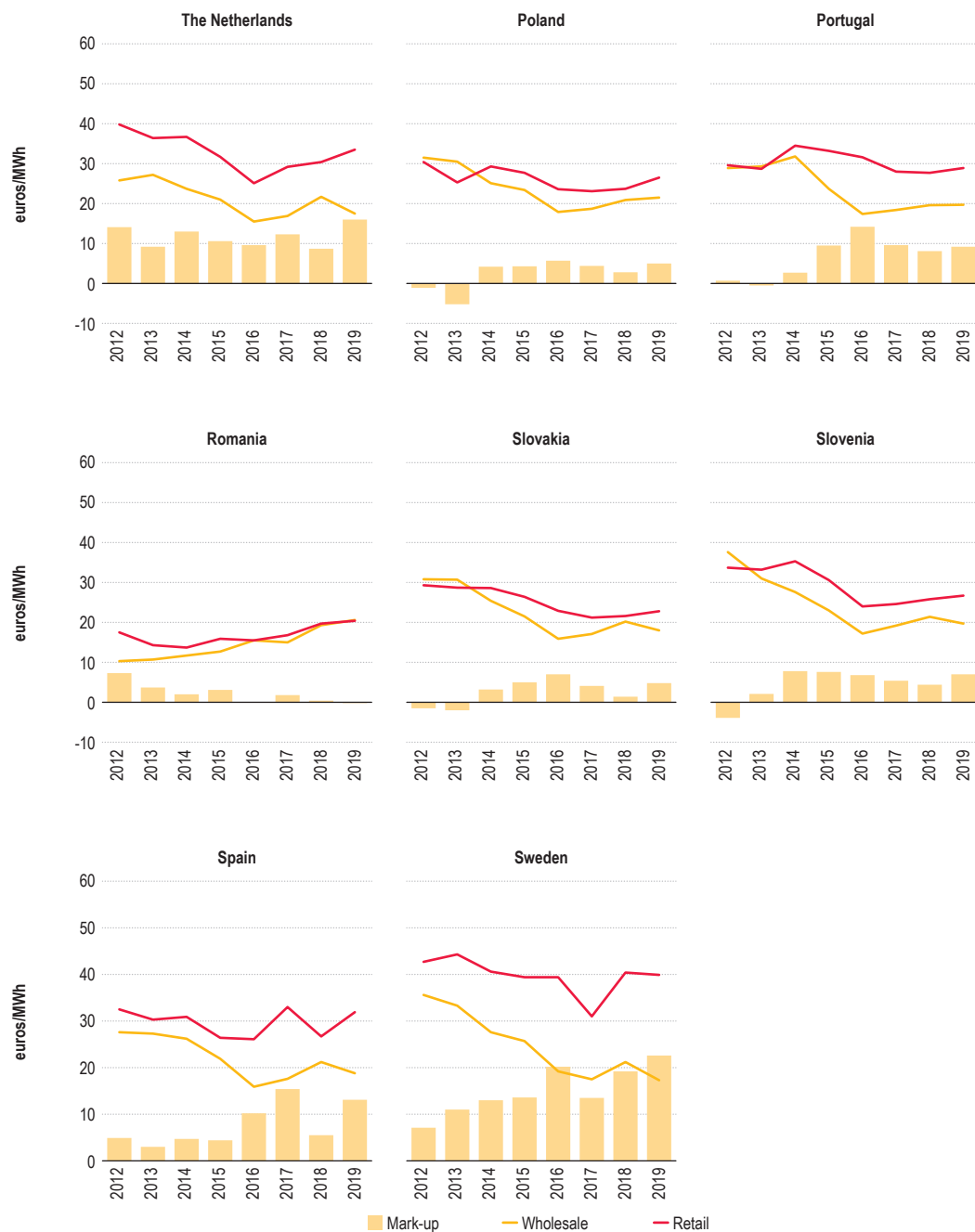
Source: Eurostat, European power exchanges, NRAs and ACER calculation.

Note: In the legends to all charts, the term 'Retail' refers to the 'Energy component of the retail price' and term 'Wholesale' to the 'Wholesale energy price'.

Figure A1-2: Responsiveness of the energy component of retail gas prices to wholesale gas prices and evaluation of mark-up in the household market from 2008 to 2019 (euros/MWh)







Source: ACER Database, Eurostat, Eurostat Comext, ICIS Heren, NRAs and ACER calculations.

Note: In the legend to all charts, the term 'Retail' refers to the 'Energy component of the retail price' and the term 'Wholesale' to the 'Wholesale energy price'.

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