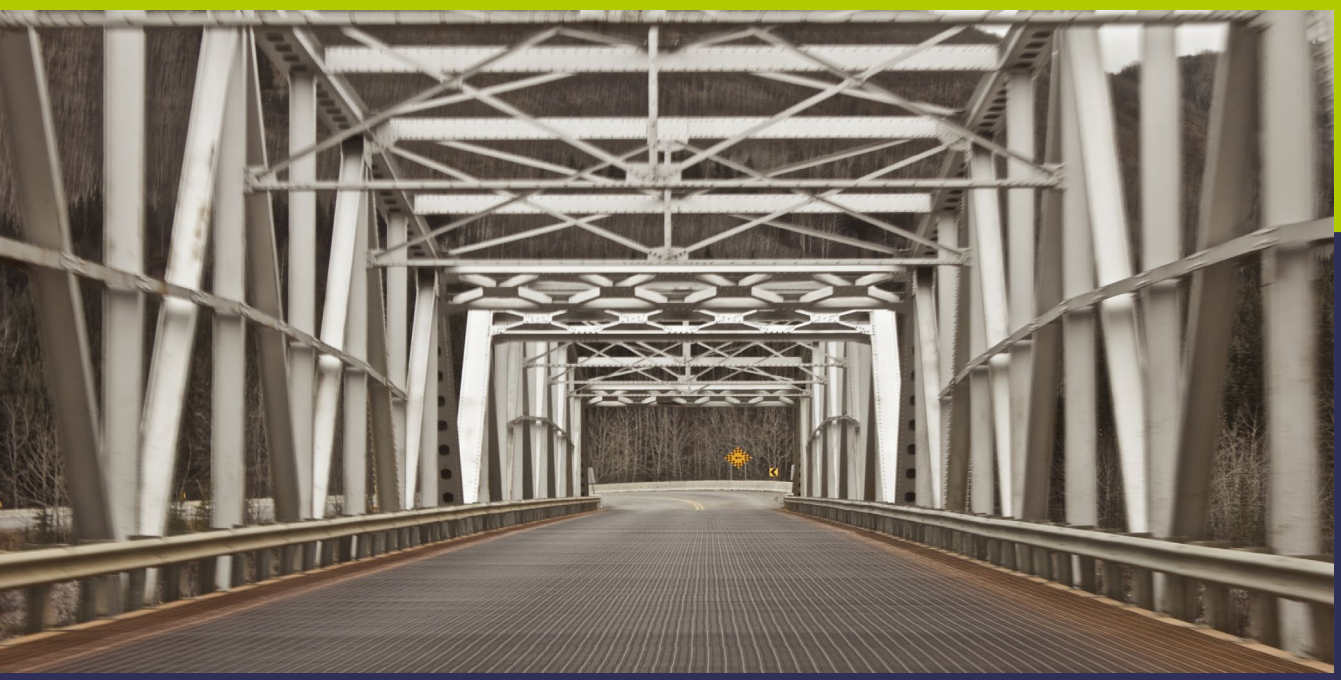
European Commission

EUROPEAN BARRIERS IN RETAIL ENERGY MARKETS



PORTUGAL
Country Handbook

Prepared by vaasa ETT REKK MRC CONSULTANTS AND TRANSACTION ADVISERS A member of the MRC Group of Companies THE ADVISORY HOUSE LISTEN-ADVISE-SUCCEED

Energy

EUROPEAN BARRIERS IN RETAIL ENERGY MARKETS PROJECT: Portugal Country Handbook

VaasaETT
REKK
MRC
The Advisory House

Contact:
Philip Lewis, VaasaETT, philip.lewis@vaasaett.com
Balazs Felsmann, REKK, balazs.felsmann@rekk.hu
Chema Zabala, MRC, jmlopez@mrc-consultants.com
Florian Hirschbichler, The Advisory House, florian.hirschbichler@advisoryhouse.com

Manuscript completed in July 2020

Luxembourg: Publications Office of the European Union, 2021

PDF ISBN 978-92-76-30261-2 | doi:10.2833/42883 | MJ-02-21-191-EN-N

How to cite this report: Napolitano, L., & Zabala, C. (2021). European Barriers in Retail Energy Markets Project: Portugal Country Handbook. Luxembourg: Publications Office of the European Union. ISBN 978-92-76-30261-2, doi:10.2833/42883.

TABLE OF CONTENTS

Please note that this and the other country handbooks form just part of the deliverables of the "European Barriers in Retail Energy Markets" project. For more detail on methodology, Europe-wide results and the Barriers Index, please refer to the following associated reports: "Final Report of the European Barriers in Retail Energy Markets Project"; "Report on the European Retail Energy Market Barriers Index"

SUMMARY

Project Outline

The following project outline describes the overall European Barriers in Retail Energy Markets Project. It relates to all the countries and markets which are the focus of the project.

The Context

European retail energy market liberalization is now well into its third decade in the most mature markets. Customers of electricity and gas are now free to choose their electricity and gas suppliers in nearly all markets across the EU and in a number of other European markets. At the same time, the European Commission and national European regulators have created a basis for non-discriminatory market access for energy suppliers through a series of regulations and directives. In theory at least, the European retail energy market is a place where new suppliers and providers of retail services can enter the market and compete relatively freely and on equal terms for customers in the market; a place where formerly incumbent electricity suppliers can compete for gas customers and where gas suppliers can compete for electricity customers; a place where a supplier from one region or jurisdiction can compete in another, without facing unreasonable or excessive barriers; a place where a capacity aggregator or other innovative business model can compete to provide its services to retail energy customers.

Objective

The European Barriers in Retail Energy Markets project was established to research the extent to which the theory is the case in practice; the extent to which energy suppliers across Europe face a variety of barriers to enter and compete in the market; to identify which barriers exist and to provide some suggested solutions to those barriers. The project thereby aims to support the European Commission and Member States in developing policy and implementing actions to reduce barriers.

This project has also designed and calculated a performance index that ranks different countries according to how easy it is to do business in the retail energy segment by combining a selection of measurements into a single score. The project is on the other hand, not intended as a measure or indicator of the ‘competitiveness’ of any given market, and it does not in this respect judge the effectiveness of regulatory authorities or governments, many of which have put great effort into developing their markets.

It is also important to note that all the markets included in this research are continuously evolving. Changes are being planned and improvements (and in some cases additional barriers) are possible as a result. While this project highlights and considers known future changes, it cannot make assumptions as to the effectiveness and outcomes of those changes. This project is therefore weighted in the present, based on the actual context in the market, whilst accepting that the present context may change, in some cases imminently.

Competitor Perspective

What sets this project apart from previous Europe-wide projects looking at the issue of barriers is above-all that it primarily takes the perspective of the competitor rather than any objective view of regulators, economists or academics. This is an important distinction since it requires an acceptance that even if the existence of specific barriers may not seem logical or rational, and even if they are not permitted or legal, even if they were supposed to have been eradicated, those barriers are significant at least in the experience or expectations of competitors in the market.

Notwithstanding this however, the project does not simply accept whatever competitors claim. On the contrary, the researchers have gone to great lengths to ensure that claims are challenged and justified. Cooperation with regulatory authorities to understand the regulatory context of claims, along with survey and interview feedback from competitors (including incumbent suppliers) with alternative perspectives or points of view, have also been considered to ascertain a balanced evaluation of the barriers in any given market. This approach may therefore be of value to policy makers, and complementary to other studies addressing market outcomes.

In some cases, claims by respondents have been made which cannot be corroborated. For instance, there have been claims by many respondents across Europe about integrated utility behaviours that represent barriers to independent suppliers in the markets. Barriers apparently resulting from a lack full ownership unbundling. Such behaviours may well be regulated against, may even be considered illegal, and authorities may have powers to investigate them – and maybe do so. They are impossible to prove given the mandate and resources of the researchers of this project, yet they are widely reported by respondents and broadly documented in other researches. Such barriers may be considered allegations by the respondents, but where they appear to merit further consideration they have been raised since their potential impact on competition is substantial.

Scope & Scale of Research

The project focuses on electricity and (in most cases) gas markets in 30 European countries, namely the EU27 states plus Great Britain, Norway and Switzerland. It was conducted over the course of more than a year with the cooperation and assistance of nearly all of the relevant national regulatory authorities (the report does not however represent their views and has not been ratified by them), around 150 suppliers and many other stakeholder organizations, across all focus markets. Great Britain was included in the project and cooperation was received from numerous suppliers, the regulator (OFGEM) and other stakeholders. Switzerland and Malta were included to a lesser extent since they are not yet open markets for household customers.

Focus Markets

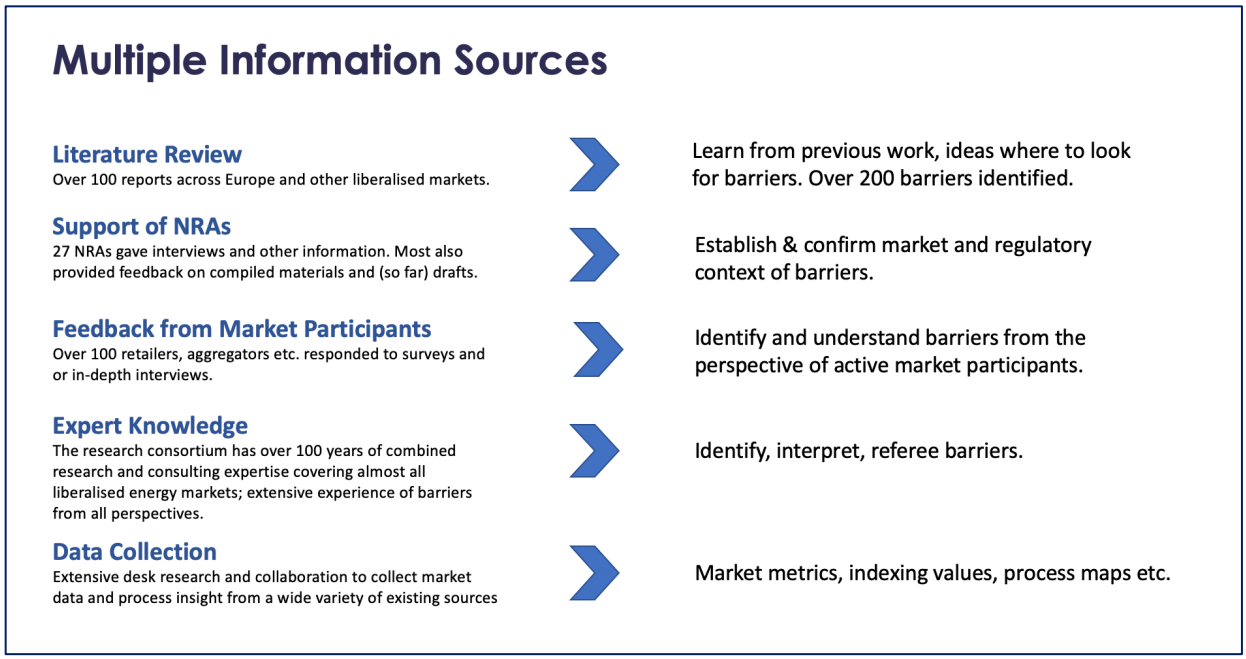
The project focuses on retail (supply), including also demand aggregation services, other additional offerings and new model retail, especially relating to the household segment customers (in some markets households and smaller SMEs may be difficult to distinguish). The project additionally concentrates primarily on barriers that are specific to the energy (electricity and gas) retail market – as opposed to barriers that are true of most markets, such as basic business costs and risk - and it gives priority to barriers for which a potential solution might be sought, as opposed to barriers which are a fact of any energy market and which could not realistically be overcome (such as the barriers relating to the core price volatility of energy as a commodity). The project does not aim to list every possible barrier in the market, however small.

Sources of Information

Many sources of information were used as part of the project. These included an extensive literature review of over 100 public reports, to assist in the targeting of survey questions; interviews with national regulatory authorities (NRAs) to understand the regulatory context in markets; feedback from market participants (suppliers and other competitors) and extensive data gathering for the purpose of collecting market metrics, market processes and

index values. For the latter the task of identifying sources that could deliver comparable and reliable index values was a key challenge of the researchers. The expert knowledge of the project consortium (which has extensive experience from the markets and issues concerned was also used to add judgement to the process. Specifically, the core project team comprised over a dozen researchers and experts from nine European countries, including international experts who have analysed Europe's energy markets since even before they liberalized.

Figure 1 – Multiple Information Sources



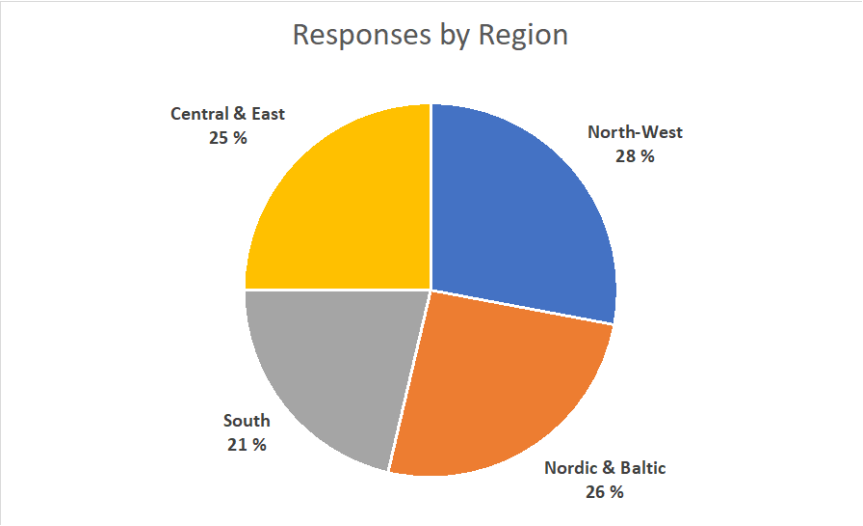
Surveys & Interviews

The primary research mediums used in the project were an extensive questionnaire and in-depth interviews. The purpose of the questionnaire, which contained separate questions depending on the type of respondent, was to provide a comprehensive and structured identification, weighting and magnitude of the barriers as experienced and perceived by suppliers and other competitors. Questions were categorized and broken down according to what was known through the body of existing literature and the experience of the project consortium, ensuring that all known barriers were addressed by the questionnaire. The questionnaire additionally facilitated the identification of barriers that hitherto had not been revealed by the literature review, or which were country specific. Interviews provided additional support and clarification to the findings from the questionnaire as well as allowing respondents to focus on top-of-mind barriers and the interviewers to dig deeper into key and / or unclear issues. While some respondents provided both questionnaire and interview responses, many provided one or the other.

The survey was publicly and widely promoted (via web sites, social media and by other direct means) to potential respondents from 17th June until late October 2019 but remained open until late February 2020 so that stakeholders contacted during Country Handbook development had the chance to respond. The dissemination of information on the project was further facilitated by a widely promoted public website through which over 300 people subscribed.

The Competitor Sample

143 questionnaire and interview responses were received representing 120 unique market-specific responses covering 28 focus markets. 71% of responses were through questionnaires versus 29% through interviews. Malta (a closed market for household customers) and Slovakia were the only markets from which responses were not received, although three additional markets received a level of response which was considered insufficient on which to conclude barriers based solely or primarily on respondent feedback. In these markets, namely Bulgaria, Cyprus, Czech Republic, the project consortium applied their expert insight and additional desk research to support the analysis of the markets. Switzerland, also a closed market for household customers, also naturally received insufficient response. The responses from 24 markets were therefore considered sufficient for the purpose of interpreting the barriers within those markets primarily based on respondent feedback. It is important to note that the response rate in no way impacted the index, which is not dependent on responses.



Analysis of the sample shows that responses were spread evenly among the regions. 66% of responses were non-incumbent competitors compared with 34% which were former incumbents in the markets concerned. In many cases the former incumbents are only former incumbents in one region within the overall country they are in. A large proportion of the former incumbents are furthermore active across multiple regions and countries, and therefore are both incumbents and non-incumbents, defenders and challengers. Among the non-incumbent players were a mix of more established competitors and more recent new entrants, along with more traditional supplies, new model suppliers and aggregators.

More information on the nature of the sample and responses can be found in the Final Report for this project.

Confidentiality

The importance of data protection and anonymity within the project cannot be stressed enough. Most respondents provided information on condition of anonymity. It was promised by default to questionnaire respondents and was in most cases explicitly requested by interviewees. Many participants additionally stated that they were nervous to respond at all since they were active in a market where there were only a handful of suppliers (or at least independent suppliers) which they felt meant that their responses could easily identify them. This risk was perceived as even greater in cases where the participant had made public statements on issues that would be contained in the research (the risk of readers putting two and two together was a concern). In some cases,

respondents stated that they even feared a backlash from other stakeholders if their identity was revealed, or (for e.g. a brand-new entrant in a market with one brand-new entrant) stated that if we revealed that they were a new entrant the market authority would instantly know who they were and that they were afraid it might inhibit their entry process.

Under such circumstances, it was decided that not only would all responses be anonymous, but also that the type of respondents would not be revealed in connection with given responses on a country level. It has been claimed by a handful of market authorities that this policy reduces the value of the research. The researchers feel that it in fact increases the value of the research since it has allowed respondents to provide information in an uninhibited fashion in a European market where, by and large, independent suppliers – and especially independent new entrant suppliers – are few and far between.

Deliverables

The project has three key deliverables:

- **28 country specific handbooks** detailing the barriers identified in each country together with suggestions for possible solutions. While most of the handbooks cover electricity and gas markets, some only cover electricity or cover gas to a lesser extent due to the absence or limited presence of gas. Additionally, two countries, Malta and Switzerland do not have country reports due to their closed nature with respect to household customers.
- **A robust, peer-reviewed barriers index** of how easy it is to do business in each country. The European Retail Energy Market Barriers Index, contained in the separate European Retail Energy Market Barriers Index Report, allows the objective comparison of market barriers across the focus markets. The report also includes a ranking of the focus markets.
- **An overall Final Report** containing a full project description and bringing together the findings and common learnings from all countries.

The Barrier Index and Ranking

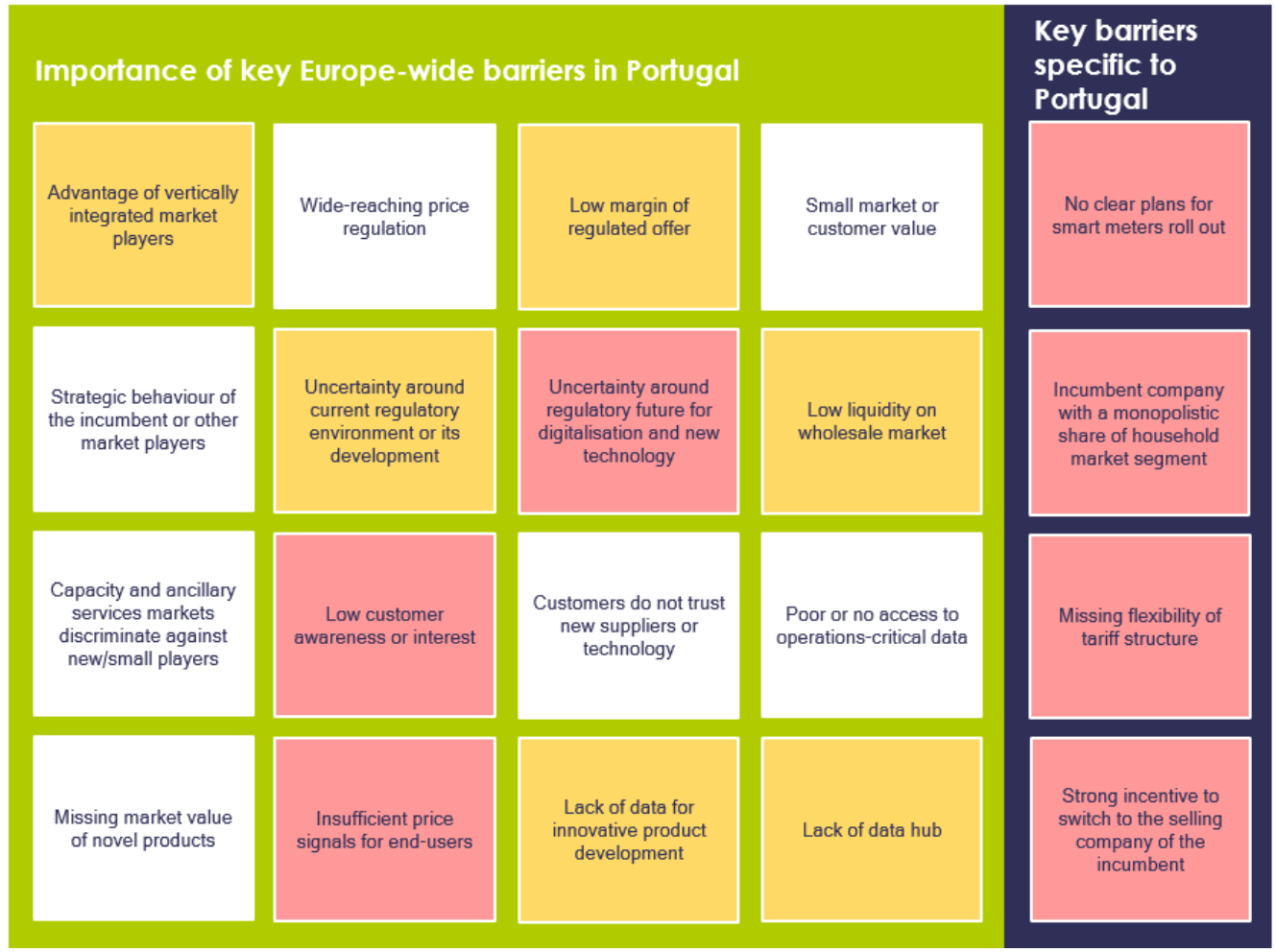
The purpose of the 'European Retail Energy Market Barriers Index' is to enable a degree of comparability between the barriers' context in each of the markets. It is based on metrics that can be collected for all markets, metrics for which available data currently exists. As such it provides a simple, best-available proxy benchmark measure for each of the categories of barriers identified by the project, for each market, and thereby ranks each market. It is intended to be used as an evolving periodical index and ranking on a European and national level.

The index and ranking should, however, presently be considered more of an approach and an indication than an absolute or definitive ranking. It represents the current state of market monitoring data in Europe and will evolve over time as data availability improves. Over time we would expect and recommend that governments and NRAs advance new metric collection to better enable future editions of the index and ranking.

A full description of the Index, its methodology and detailed findings and the ranking can be found in the separate Index report for this project. Within each country handbook the index values for that given country is presented.

Key barriers in the Portuguese market

The following figure highlights the key barriers in the Portuguese market. Please note, the terms are generic across all researched markets.



LEGEND

Has not been raised, indicated or identified as a barrier in this country

Has been raised or indicated as an issue in this country

- May include issues that still are present in the country or are experienced by suppliers even though regulation to address the issue has been enacted by the regulator and effects still awaited; reporting a lag between the regulatory framework structure and its awaited effects
- May include issues where suppliers suffer the effects despite the country being relatively advanced on this topic compared with other EU countries, pilot projects being in place or institutions working to overcome the problem.

Has been identified as an issue in this country and is supported by facts, data or substantial respondent evidence in light of limited initiatives deployed by institutions to control or overcome the issue.

Key recommendations

Identified barriers, can stifle market development and functioning, hence we set a list of recommendations going in the direction of a well-functioning retail energy market, as one where there is a good environment for innovation of energy services and products that benefit the consumer.

- With the transition to the free market ending at the end of 2025 a penalisation factor is recommended to promote the shift but also to eliminate discrepancies as a result of margin squeeze.
  If cross-subsidisation is proven a test should be run to see if they are detrimental to the interests of suppliers and customers. Regulator should ensure the identification, measurement and allocation of supplier costs, not only related to the incumbent's one, that should be carried out appropriately and in line with the economic principles of cost recovery.

- Suppliers concerns was focused on the guarantees requirements to protect suppliers from collection failure with the claim that this system needed a revaluation. In April of 2020, right before the closing of this project, the Regulator informed that there was an enforcement on regulation for guarantees in the electricity market is. A new piece of regulation that balances the need for systemic risk coverage and flexibility to suppliers to address the retail market (ERSE's Directive 2-A/2020).

- Implementation plan to provide all is necessary to identify the operator to deploy smart meters in the country.

- The issuing of regulation after law 5/2019 enactment is a priority, with the Regulator running consultation. However, efficiency and speed of regulation issuance are required. Taking into account the country need for innovation and a degree of suppliers' willingness to invest in this direction.

- Forward market liquidity should be prioritised. Among the others, RES auctions, SLR auctions and mandatory market making obligations may help to achieve a certain degree of liquidity.

- A data hub could level the playing field with regards to data access, easing the entry of new players and boosting market efficiency as well as enabling customers to participate directly in the market.

- ERSE has adopted sanctions to market participants, together with a new guarantees regime to foster the trust on both, the market and the suppliers. Ad-hoc monitoring and follow up activities are crucial in this sense and need to be guaranteed as in the past. This activity helped the regulator to remove suppliers from the market with reputational risk.

- Innovation of the retail market can be pursued through the deployment of smart meters, the promotion of bill settlement on real-time consumption (already implemented in the intelligent metering regulation), the correct implementation of time-of-use tariffs at household level and promotion of innovation in household technology; giving also incentives to customers to play a more active role and better engage with the

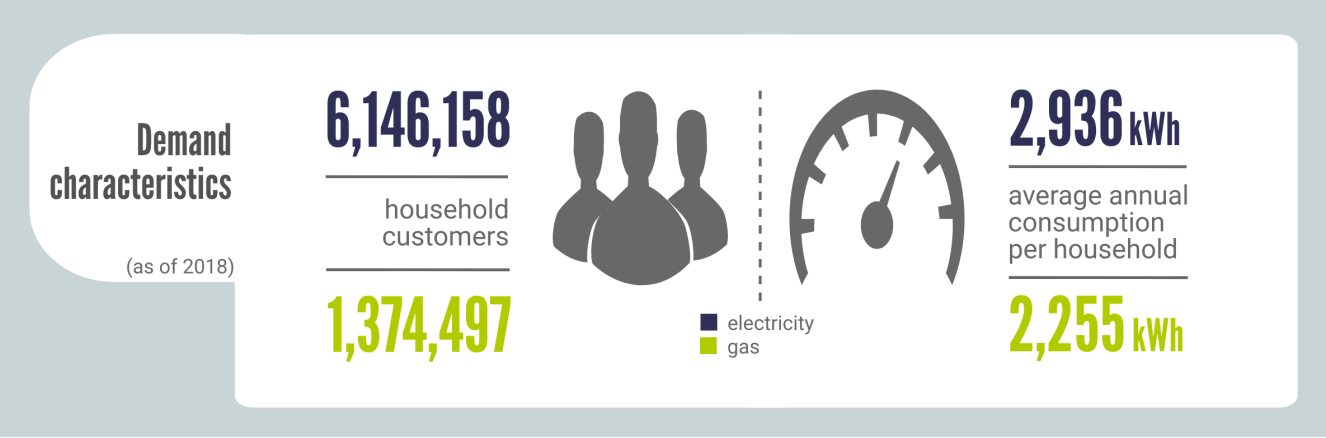
market. Besides, activities aimed at raising customers' awareness and strengthening monitoring activity over suppliers' contractual transparency and customers information obligations are of a great importance.

MARKET OVERVIEW

Introduction

In 2018, Portuguese electricity demand reached the 50.9 TWh level, recording a +2.5% if compared with 2017. In the natural gas sector, consumption increased by 5% compared to 2017 in the conventional market and decreased by 25% in the electrical power market (power plants).

The electricity residential sector is composed of 6.1 million household customers with 2,936 kWh of average annual consumption per household. Meanwhile, the Portuguese gas system has 1.3 million end users, as of 2018, with 2,255 kWh of average annual consumption. By the end of 2018, electricity consumption with free market contracts represented more than 94% of total consumption, 1% more than in 2017. Regarding natural gas, with the exception of electricity power plants, about 97% of consumption was in the liberalised market, representing about 1.2 million customers.



Background

The liberalisation of the energy market in Portugal followed a process similar to most other European countries and as of 2020 is almost fully liberalised.

The Portuguese electricity and gas markets have been progressively opened. The first move towards the opening of the generation in the electricity sector was made in 1981. However, regarding supplying activities, the liberalisation process for large industrial consumers began in the mid-1990s. Since then, the concept of eligibility has been extended to smaller consumers reaching full legal opening of the market in July 2004. However, the eligibility of the household consumers was effective only in September 2006. This date anticipates the compliance deadline in Directive 2003/54/EC, which established 1 July 2007 for all electricity purchasers to be able to freely choose their supplier. Later, in 2010, the gas sector also achieved full retail competition.

Since 2013, regulated retail tariffs were no longer available for the Portuguese electricity customers who needed to change their supplier. The regulated retail rates ended in July 2012 for normal low voltage consumers with contracted power equal or greater than 10.35 kVA and in January 2013 for normal low voltage consumers with contracted power less than 10.35 kVA. Following a decision by the government, ERSE, the national regulatory authority, set a transitional period for the gradual transfer from the regulated market to the free market, which ended in December 2014 for consumers with contracted power equal or greater than 10.35 kVA and in December 2015 for consumers with contracted power less than 10.35 kVA. This transition period has been periodically extended by the government in subsequent years. The current deadline for LV consumers to transition to the free market is 2025.

Stability was the dominant note during the last couple of years for the electricity and natural gas retail markets, seen, for example, through the market shares of the main suppliers. Besides, for the first time ever in the Portuguese retail sector, in 2017 two suppliers seriously defaulted on their financial obligations towards the distribution network operator, relating to the payment of third-party access tariffs. As a result, their contracts for using the network were suspended and their customers were transferred to the supplier of last resort, avoiding any disruption to electricity supply.[1]

Unbundling requirements in Portugal also apply to the distribution activity, which is unbundled from the remaining activities in the electricity sector (with the DSO being autonomous) from a legal, organizational and decision-making perspective.

The low voltage distribution network in Portugal is a concession given to EDP Distribuição SA, for most of the municipal distribution systems. EDP is also the distribution system operator (DSO) of the high and medium voltage distribution grid. Nevertheless, the process to renew the electricity distribution concessions is ongoing, notwithstanding that the law governing the upcoming tenders was approved in May 2017 (Law 31/2017). The law set the principles regarding the organization of public tender procedures and established that all tenders would have been launched in 2019. It also established that each tender would have a delimited geographical area, and proposed inter-municipality grouping as a reference. The retail sector will benefit from the law's ultimate goal of introducing competition.

Market structure

The liberalisation of the energy sector in mainland Portugal has progressed gradually, with the liberalised market consolidating its position, mainly due to the process of extinguishing regulated tariffs that, in January of 2013, started to cover all the clients, including household customers.

[1] Annual Report to CEER, year 2017.
https://www.ceer.eu/documents/104400/6319351/C18_NR_Portugal-EN.pdf/de5f99c7-b514-f893-6fba-22387c474a9f

The extinction of the regulated tariffs has contributed to the increase of the liberalized market dimension. In the liberalized market, the industrial customer segment is the most competitive of all, while the household customer segment had the most market concentration, with the number of suppliers in this segment continuing to increase throughout 2017 and 2018.

In 2018, Portugal continued to witness a consolidation of the liberalized retail market, both in terms of the overall consumption of electricity and in the number of customers.

Structural factors, such as the phase-out of regulated tariffs for end-customers and the adoption of transitional tariffs; the adoption of regulated risk coverage mechanisms by the suppliers; and enhanced transparency in the communication of available offers to end-consumers, facilitated an increase in the number of suppliers that operate in the market, leading to greater market robustness.

Similarly, in terms of economic and market circumstances, the decrease in energy price differences between Portugal and Spain in the wholesale market encouraged the perception of lower commercial risks among suppliers that operate in Portugal and who compete against the other suppliers operating in the Portuguese market.

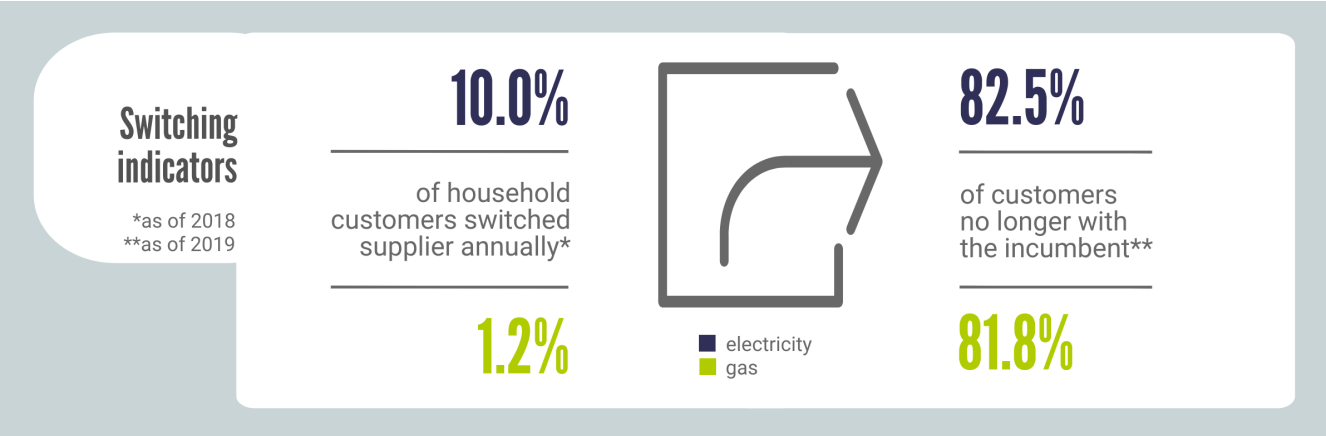
Throughout 2018, in Portugal, there were 29 suppliers operating on the market, 26 of which served household consumers and small companies (with contracted power up to 41.4 kVA). The main supplier of last resort is EDP Serviço Universal which supplies in the continental territory. In the autonomous regions of Azores and Madeira, the suppliers of last resort are Electricidade dos Açores and Empresa de Electricidade da Madeira. The following Figure reports the customer choice only for capital city.

In 2018, supplier switching was marked by a significant penetration of suppliers on the liberalized market in segments such as customers with the highest consumption, large customers and industrial consumers, but also in the household consumers segment: approximately 85% of household consumers were already in the liberalised market at the end of 2018 (2 percentage points (p.p.) more compared to the end of 2017).

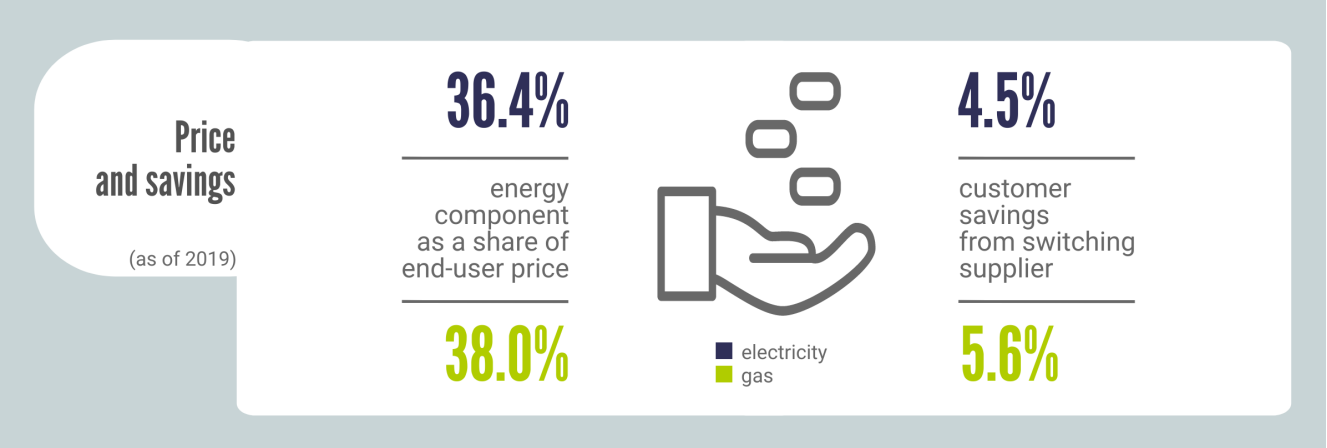
	Electricity	Gas
Top 5 suppliers (energy sales volume as of 2019- in liberalised market)	• EDP • Endesa • Iberdrola • Galp • Goldenenergy	• Galp • GNF • Endesa • EDP • Goldenenergy

The intensity of supplier switching was around 16% in 2017 and 10% in 2018, however. The switches that occurred within the liberalized market represented, in number of customers, approximately half of the total supplier switches.

Portugal also continued to witness a consolidation of the liberalised market, in terms of overall natural gas consumption, and in the number of customers, partly due to the extinction of regulated tariffs for end-customers. At the end of 2018, more than 97% of natural gas consumption within the conventional segment (excluding standard regime power plants) was being supplied by suppliers on the liberalised market. On the liberalised market, at the end of 2018, there were 12 suppliers on the market, all of them operating in the household consumer segment. By the end of 2018, about 212,000 customers, from approximately 1.3 million, had switched supplier through the respective platform, most of them from the household segment.



Energy component of end-user tariff on average is 36% for electricity and 38% for natural gas, as of 2019. While the savings experienced by customers after switching activity, on average was 4.5% and 5.6% respectively for electricity and gas in 2018.



Regarding wholesale market activity, the Iberian power and gas market is largely developed with most of the electricity and gas traded in the market negotiated in bilateral over the counter (OTC) transactions or through the organized market managed by Operador del Mercado Ibérico (OMI Group).

In 2018, the electricity traded in the Iberian market was 276 TWh (including day-ahead, intraday and continuous intraday market) down from the 281 TWh level reached in 2017. With more than 1,000 registered agents across the market platforms.

Mibgas is the wholesale natural gas trading platform, which traded 24 TWh in 2018, almost doubling the volumes traded in 2017 (13 TWh). With 82 registered agents across the market platforms.

- **Natural gas volume traded in 2018:**
  - MIBGAS: 24 TWh
  - OTC: 498 TWh (51% traded PVB virtual hub)
- **Number of suppliers active in the gas OTC:** 92
- **Number of suppliers active in the MIBGAS:** 42 (82 regist.)

Finally, the Portuguese electricity system is operated and managed by REN, the transmission network operator. With 8,733 km of lines all over the country. The 400 kV grid lines mainly run north to south near the coast from the Alto Lindoso power station in the north to the Algarve, and west to east, where they interconnect with the Portuguese grid. In Portugal, imbalances between production and demand and technical constraints are dealt within the scope of the ancillary services market, which is also managed by REN in its capacity as Global Technical System Manager.

The Portuguese gas system is managed by REN-Gasodutos that operates the national natural gas transmission network and manages the natural gas transmission system. The natural gas transmission network comprises 1,375 km of high-pressure gas pipelines, and one regasification unit.

Political and regulatory orientation

- In terms of economic and market circumstances, the decrease in energy price differences between Portugal and Portugal in the wholesale market encouraged the perception of lower commercial risks

among suppliers that operate in Portugal and who compete against the other suppliers operating in the Portuguese market.

- In 2018, the Portuguese retail sector was reformed with the objective of making retail market monitoring more effective, clarifying the rules requiring suppliers to disclose the content of pre-contractual and of contractual information. Making it easier to compare commercial offers registered in ERSE through standardised contractual sheets. Through this measure ERSE believes to enable effective promotion of competition.
- As part of the 2018 reform, it became mandatory for electricity suppliers, when in representation of their clients, to insert in the switching platform the requests relative to the processes included in the switching procedures, with a maximum deadline of 5 working days, in accordance with what was already in place for the natural gas sector.
- The revision also changed the rules in relation to electricity labelling, with the objective to change the allocation of energy under special regimes. The new rules allow for the existence of suppliers with a 100% renewable mix and for suppliers to further differentiate their offers.
- Finally, the revision introduced changes to promote a better retail market functioning allowing for a more effective competition, in the guarantees management process in relation to the contracts for the use of networks and for system services between market agents and system operators. Thus, the new framework introduced the role of guarantees manager, which centralises the guarantees management activity of those contracts, with advantages for suppliers in having a unique entity to interact with in relation to guarantees and on reduction of the default risk. The guarantees manager should apply risk evaluation principles that differentiate between entities with a compliance history and entities with a history of delays or defaults, the latter being penalised in the calculation of the guarantee to be provided.

Regulatory market characteristics

Price regulation

In Portugal, since 1 January 2013, regulated end-user tariffs are no longer available to Portuguese consumers of electricity and natural gas, who must switch to a market supplier. For existing customers with regulated tariffs, a transitional period was foreseen and has been extended to allow a smoother move to the liberalized market. These regulated tariffs may be adjusted on a quarterly basis.

Under the terms of Government Ordinance N. 39/2017 of 26 January 2017, consumers who still have regulated tariffs have a transitional period until 31 December 2020 to choose an electricity market supplier. While, under the terms of Government Ordinance N. 144/2017 of 24 April 2017, consumers who still have regulated tariffs have a transitional period until 31 December 2020 to choose a natural gas market supplier. The government announced in January 2020 a further 3-year extension to this transitional period, until 2023.

This phased extinction of regulated tariffs for domestic consumers is aimed to conclude the process of liberalisation of the electricity and natural gas markets in Mainland Portugal. The process for switching suppliers is free, requires no change of meter, and is driven by the supplier with whom the consumer has entered into a new contract for the supply of energy.

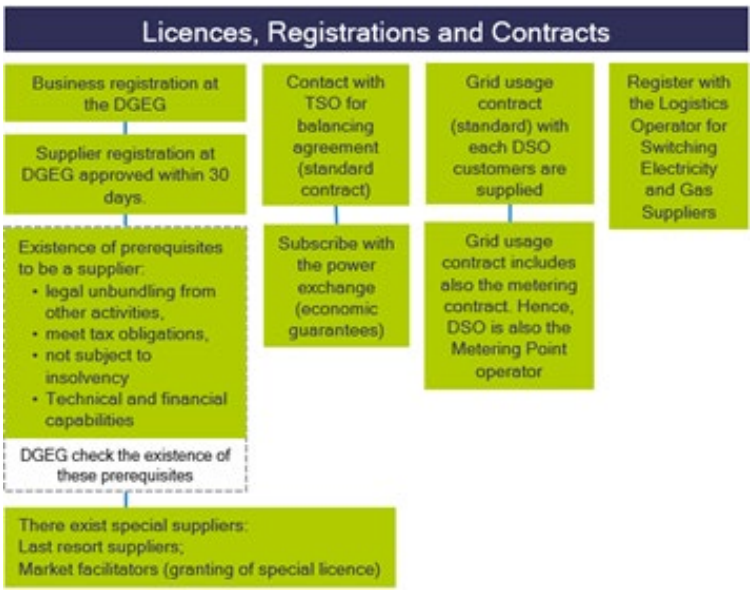
Supplier registration and contracts

Retail supply activity is only subject to registration with Directorate-General for Energy and Geology (DGEG) the Government's administrative body responsible for awarding suppliers' rights to operate within the electricity and gas sector in Portugal. The registration requires confirmation from DGEG, but it is considered tacitly approved if there is no decision in 30 days.

The supplier of last resort is responsible for:

- Buying electricity from generators who benefit from a feed-in-tariff.
- Selling electricity to:
    - certain end-consumers (such as consumers who have not yet moved to the liberalised market in the transitory period prior to full liberalisation).
    - economically vulnerable customers.
    - customers that were supplied by a supplier that went into bankruptcy; and
    - customers in places where there are no offers from other suppliers.

More details on licensing, registration and contracts required to enter and operate in the retail electricity and gas system are reported in the following figure.



Recent regulatory developments

Early in 2019, the National Assembly published a new law n. 5/2019, which establishes the regime of compliance with the duty of information of the energy supplier to the consumer. It applies to suppliers and/or provider of services to consumers of electricity, natural gas, GPL and petroleum derived fuels. Under this law, the supplier must inform the consumer of the conditions under which the supply and/or provision of services is supposed to be performed in a clear and complete manner. In the electricity and natural gas sectors, this is reflected in a greater detail on the invoice information. However, this recent law has raised uncertainty among some retail markets actors, in a way that is contrary to the law's objectives. Specifically, suppliers believe that this creates confusion among customers, mainly complicating the billing structure and worsening the understanding of the bill's components.

In December 2018, ERSE approved the new rules on the participation of consumption in the regulation reserve market, as a result of its 67th public consultation where this topic was discussed among stakeholders.

According to the new rules, participation in the reserve regulation market is open to all consumers recognised by the TSO. They must be capable of offering at least 1 MW bids, following technical and operational certification by TSO, and be connected to at a voltage level equal or greater than MV. For the purpose of this pilot project, rules foresee a limited 1-year duration, starting on 2 April 2019.

This pilot project is the first step towards full participation of consumption in ancillary services markets. Its ultimate goal is to ensure equal treatment for consumers (or their representatives) and producers who currently bid on these markets.

Also, during 2018, ERSE prepared a regulation for the services to be provided to customers by DSOs that hold smart grids, namely in terms of consumption data availability and the provision of grid services carried out remotely.

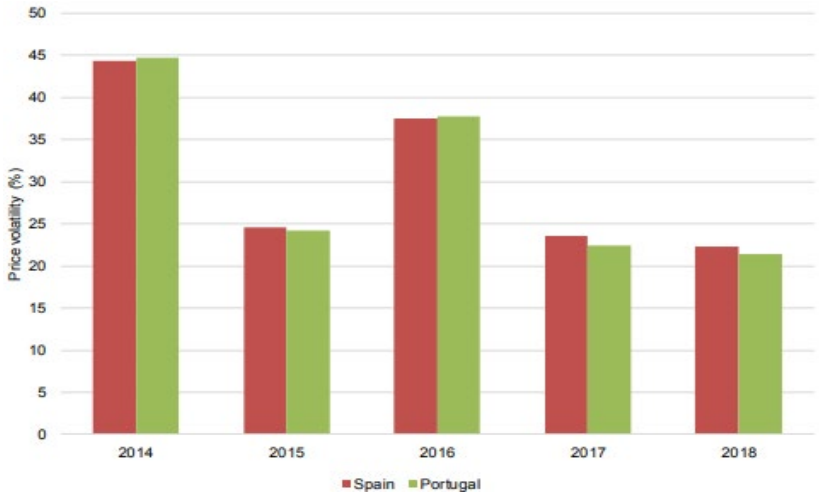
Recently, ERSE has launched public consultations on self-consumption, merger of the electricity and gas commercial relations codes, provision of information to consumers regarding GPL bottles, electric mobility, mechanism for contracting energy for SoLR customers, smart grids.

Other market characteristics

Volatility of wholesale & retail prices

The market's volatility represents an important aspect considered by market agents, namely regarding the need to cover price risks. In 2018, the volatility of the spot market price for Portugal, measured as the coefficient between the standard deviation of prices in the year and the respective average price, was approximately 21%, which means prices ranged, on average, between €45/MWh and €70/MWh.

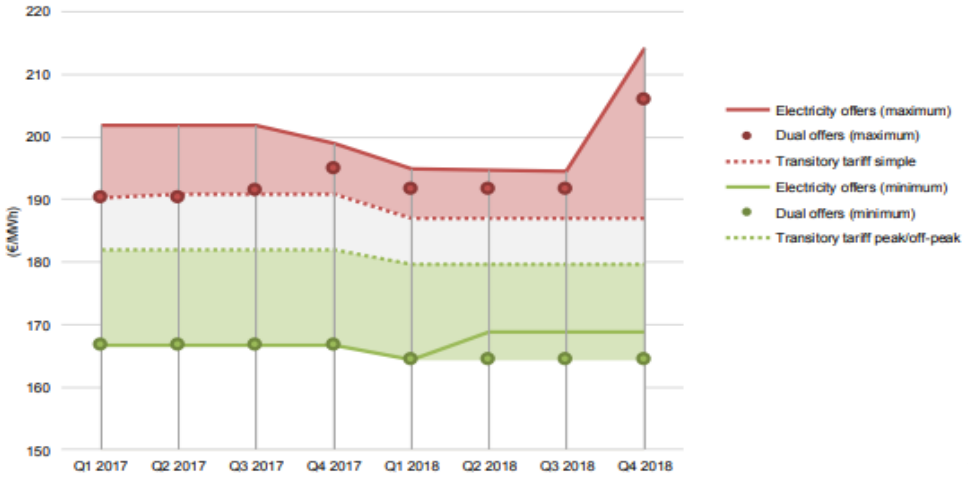
The following Figure[2] shows the evolution of the annual volatility of the spot market price, from 2014 to 2018, for Portugal and Portugal, with a slight decrease in the spot price volatility between 2017 and 2018.



ERSE showed that during 2018 there were 19 suppliers operating in the retail household market segment. In addition, a total of 109 electricity-only offers and 63 dual offers (electricity and natural gas), totaling 172 commercial offers, continued the growth trend in the number of offers. Three of the suppliers also had offers with additional energy services, like for example, technical assistance services and energy audits, and prepayment commercial offers. With the electricity-only commercial offer with the lowest annual electricity bill (844 €/year) was 21% cheaper than the most expensive one (-227 €/year). The dual (electricity and natural gas) commercial offer with the lowest annual electricity bill amounted to 822 €/year and corresponded to a discount of approximately 20% compared to the most expensive dual offer (-208€/year).

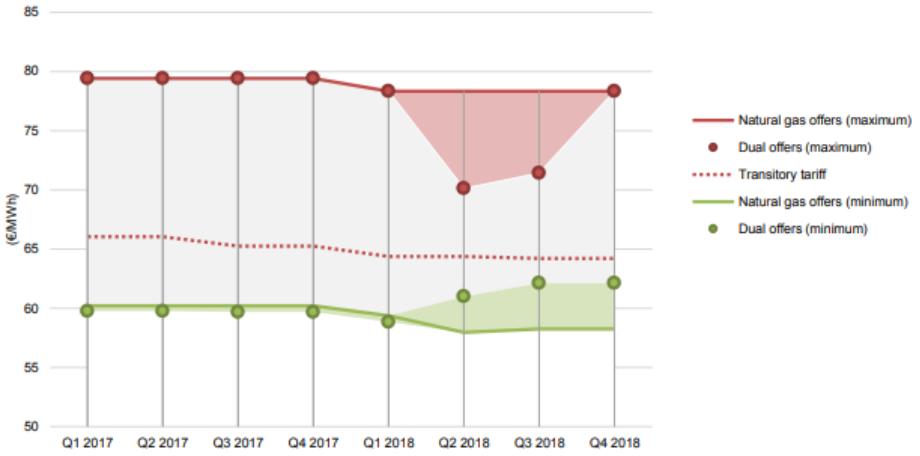
The Figure below shows the evolution of the prices of commercial market offers, as well as the values of the transitional tariffs associated with the simple and bi-hourly options, in 2017 and 2018. In 2018, the commercial offers showed a decrease in the maximum prices when compared to 2017, as a result of a new commercial offer high above the transitional tariff. As regards the minimum prices of commercial offers, prices remained stable during 2018, with a slightly increase in the price of only one service offer (electricity).

[2] National Reports of the EU member countries to the CEER, 2018.



[3]

Regarding retail natural gas market, in December 2018, the commercial offer with the lowest annual bill had a value of 198€/year, corresponding to a mono natural gas offer. The difference between this offer and the most expensive one is 68€/year (26%). The dual natural gas commercial offer with the lowest value of the natural gas supply component amounted to 212€/year, corresponding to a discount of approximately 21% compared to the most expensive offer. As showed in the graph below, in 2018, the prices of commercial offers remained stable in the period, having slightly decreased when compared to 2017.

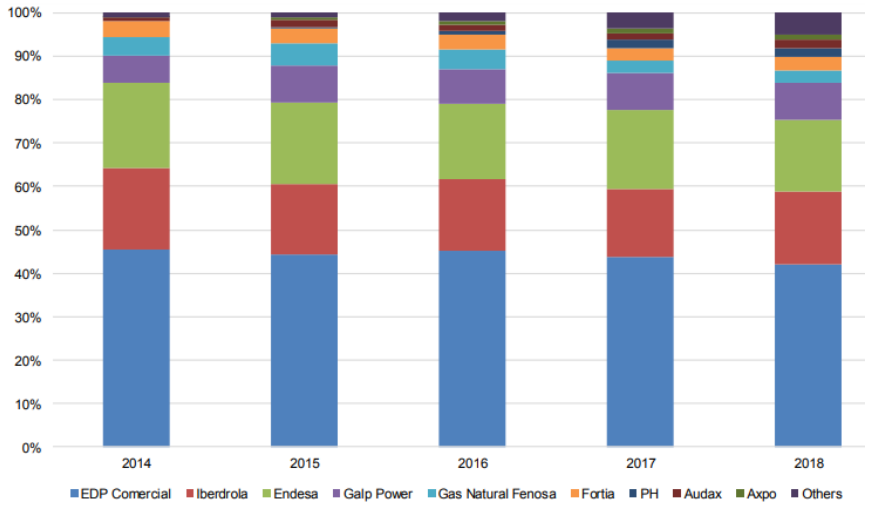


Retail market and customer value

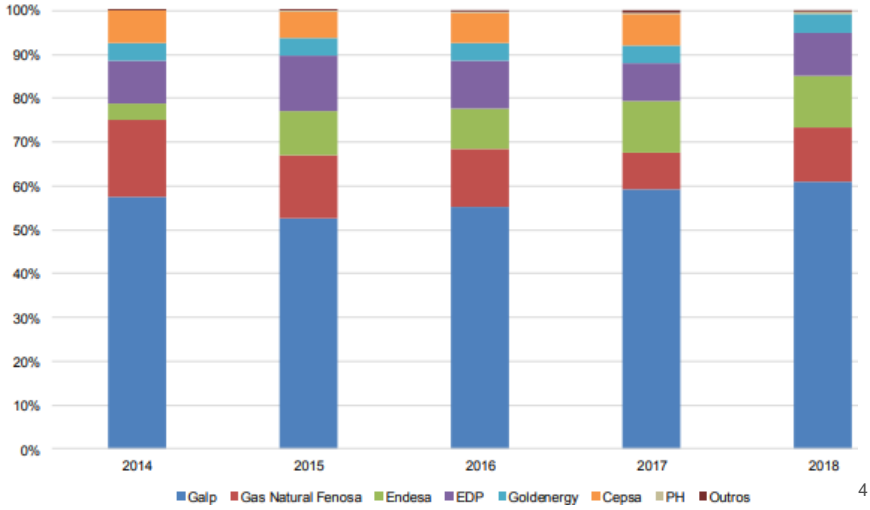
Between 2013 and 2015, the transitional tariffs were increasing every quarter for residential customers during the three-year transitional period, after the price regulation phasing out. This policy encouraged many residential customers who were being supplied by the energy supplier of the last resort to choose a supplier from the liberalized market. This helps to explain Portugal's high switching rate value among other EU countries in those years. However, most of these customers chose EDP Comercial as their supplier in the free market. Hence,

[3] National Reports of the EU member countries to the CEER, 2018.

customers knew they were switching inside the well-established incumbent. Consequently, despite all the improvements in the structure of the Portuguese electricity market and the high switching rates that were experienced in 2013 and 2014, the Portuguese retail electricity market is still highly concentrated in Portugal. Overall business concentration remained high in 2018. The EDP Group's high market share as the leading actor in the electricity market, mainly in the household customers segment, was the factor that contributed most to this situation, as this liberalised market supplier continued to account for approximately 42% of supply in 2018 (44% in 2017), as shown in Figure below.



Gas retail market continues its consolidation of the market liberalisation phase, mainly due to the extinction of regulated tariff for end-customers. As reported by CEER, at the end of 2018, more than 97% of natural gas consumption within the conventional segment (excluding standard regime power plants) was being supplied by suppliers on the liberalised market. With 12 suppliers operating in the household liberalized market. Galp Group is the main supplier in the liberalised market with still an important share of the market (61%). Followed by Gas Natural Fenosa, Endesa, EDP, Goldenenergy, CEPSA, PH and others.



[4]

[4] REN gasodutos data, 2018.

Context for aggregation/demand response

The Portuguese NRA, ERSE, held a public consultation about the rules of a pilot project addressing the demand side participation in reserve market, namely regulation reserve. The results and lessons learned from this pilot are intended to contribute for the new legislation and may pave the way for more attractive demand-side management (DSM) markets in Portugal.

Regarding the general situation in Portugal, the DSO is the responsible party for metering infrastructure and access to data of final customers and for forwarding it to relevant energy agents such as suppliers. The DSO activities are regulated and the investments on the grid, including metering, have to be approved by ERSE.

Although EDP, the DSO, has an internal plan for the roll-out of smart meters, the engagement with the national regulator is pivotal for addressing this issue. Important are the benefits for clients on applying to demand response aggregation schemes, justifying a public investment on the grid infrastructure that could enable these business models.

On the other hand, aggregators can also try to explore new solutions which do not rely on DSO investments. In that case, they would be responsible to deploy all the necessary systems to proceed with the implementation of the business model.

Also, participation in the reserve regulation market is open to all consumers recognised by the TSO. They must be capable of offering at least 1 MW bids, following technical and operational certification by TSO, and be connected to at a voltage level equal or greater than MV. For the purpose of this pilot project, rules foresee a limited 1-year duration, starting on 2 April 2019.

BARRIERS

The European Barriers to Entry and Competition in Retail Energy Markets project has researched barriers across 30 European markets. From this research, barriers to entry have been identified and grouped into four over-arching pan-European barriers' blocks.

Over-arching pan-European barrier blocks

Barrier Blocks	1	Regulatory disincentivisation
	2	Market inequality
	3	Operational and procedural hinderance
	4	Customer inertia

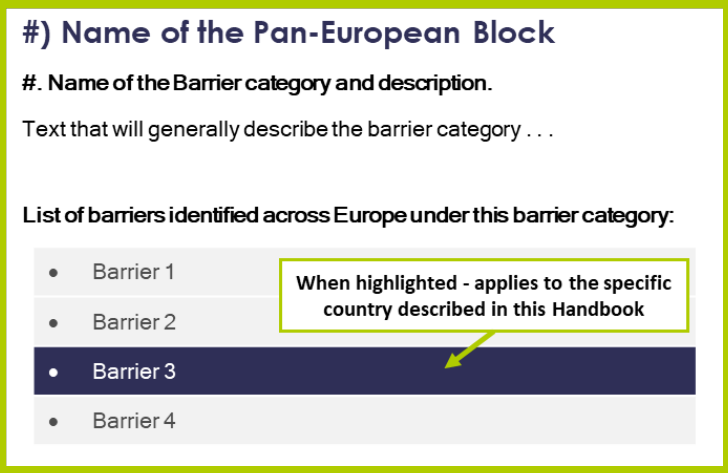
Description of the four-over-arching pan-European barrier blocks:

1. **Regulatory disincentivisation:** barriers arising as a consequence of the general regulatory framework of the natural gas and electricity retail markets. We address the impact of price regulation, burden (-sharing), regulatory unpredictability and access to innovation. All these items may disincentivize competition within the natural gas and electricity retail markets, as well as entrance by new suppliers.
2. **Market inequality:** barriers arising from an uneven playing field for different types of suppliers. Often, certain market players already have a competitive advantage by being very close to the formerly integrated DSO (or still being vertically integrated in case the de-minimis rule applies), controlling a large amount of generation capacity or having a large market share. If market rules do not prevent this, such players can exercise their market power to treat other market players in a discriminatory way, creating market barriers. We examine issues related to unbundling, historical roles and access to market mechanisms.
3. **Operational and procedural hindrances:** barriers arising as a consequence of the complexity and national/regional differences in standards and procedures in different process areas, affecting how easily new entrants can enter and operate in the energy retail market. We look at issues and differences in licensing, signing up and operations compliance, as well as data access, processes and data management from the suppliers' point of view.
4. **Customer inertia:** barriers arising due to customer behavior and attitude. For the energy market to function, end-users must be willing and able to switch supplier. If customers do not switch supplier, suppliers need not worry about losing customers, so there is no incentive for suppliers to improve their services, minimize prices or innovate to compete for customers. We examine barriers related to customer inactivity or disinterest in the energy markets.

Within each of these high-level blocks are contained sub-categories, which are also mostly pan-European in nature. Each of these sub-categories contain the specific barriers which relate to individual markets as described in the following page. Altogether, we identified 45 barriers, most of which broadly across Europe. Only a selection of them apply to the Portuguese case as reported in the following chapters of this handbook.

HOW TO READ AND INTERPRET THE FOLLOWING SECTIONS

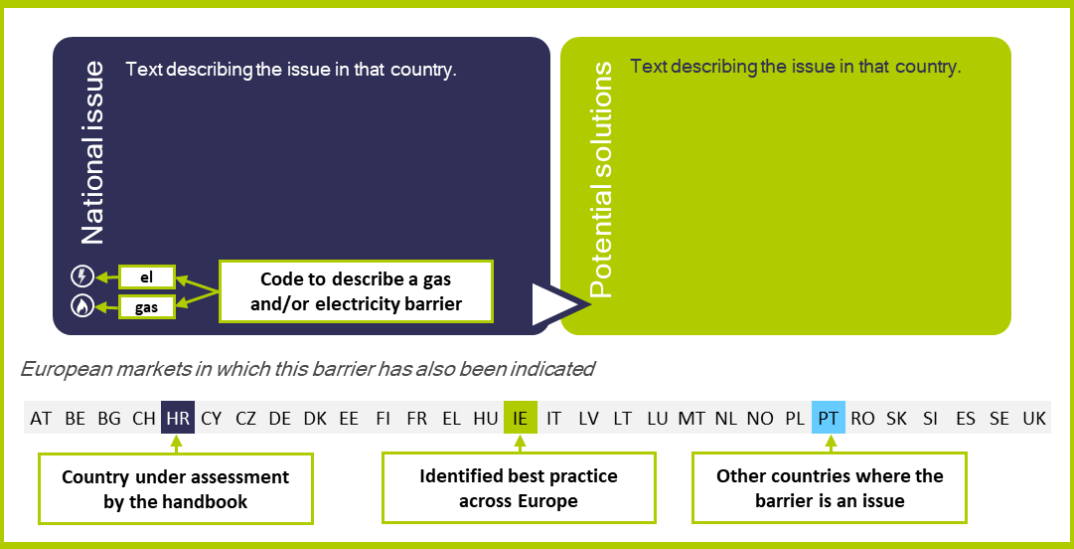
Each of the following four chapters explores one of the four pan-European blocks of barriers and report how each sub-category barrier apply to Portugal. When a barrier applies to Portugal, it will be highlighted in the table following a general description of the barrier itself, as shown in the example below:



As showed in the above figure, the table lists all the barriers we have identified in Europe within the specific barrier category. **Only if a sub-category barrier is highlighted in the table, it means that suppliers raised it as a barrier, and it is perceived as a prevalent issue in Portugal**.

Highlighted sub-category barriers are then briefly described following a twofold methodology which:

- reports what the suppliers are experiencing in the market as a national issue and
- suggests potential solutions to the problem as depicted in the below figure.



At the end of each chapter, Portuguese's performance within the category, according to quantitative indicators, is then presented.

For additional market context, please see Appendix 1: Process Maps, which gives a high-level graphical overview of the most critical steps involved in establishing and operating as a supplier in the national market.

1) Regulatory disincentivisation

Within regulatory disincentivisation, barriers across Europe have been sub-categorised into four areas encompassing 17 specific barriers[5],

1. **Price regulation.** Regulated prices usually refer to regulation or control of end-user's prices by a public authority, usually the National Regulatory Authority (NRA). Price regulation can take different forms, such as setting or approval of prices, price caps or various elements of these. In Europe, there still exist Member States which have maintained end-user regulated prices during the market opening process and after, in the intention of protecting households or even non-household customers from significant increases in energy prices, especially in a context of limited competition. In some cases, this regulation has led to below cost prices and to low margin to cover the supplier activity risk, discouraging investments and the emergence of newcomers.

   According to CEER[6], 14 European countries out of 27 answering a recent CEER survey have price intervention in electricity for household consumers. Where regulated prices remain, NRAs tend to consider them as a significant barrier to entry for alternative suppliers. All Member States, where NRAs consider regulated prices as a significant barrier, are planning to remove them, at least for non-household customers. Across Europe, the following specific barriers related to price regulation were detected by this study. Those highlighted in blue have been either raised, indicated or identified as barriers in Portugal:

   - Price regulation discriminates against certain suppliers.
   - High penetration of price regulation
   - Low margin of regulated offer (margin squeeze)

2. **Burden sharing.** Energy suppliers across Europe are often required to collect payments for services not part of their business, or to provide other services such as services related to energy efficiency, or to manage assets such as those of the metering system. These requirements can pose a barrier for suppliers' operation on the retail market by raising their costs and distracting focus from their core business and might deter entry into the retail market by newcomers. Across Europe, the following specific barriers related to "burden(-sharing)" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal:

   - Obligation to collect tariffs unrelated to energy on behalf of others
   - Obligation to keep a minimum-security stock as a gas reserve

3. **Regulatory unpredictability.** The establishment of an internal natural gas and electricity market in the European Union is an ongoing process. European legislative packages are boosting this process, making

[5] Please note: these definitions are Europe focused, not Sweden specific. Highlighted barriers have been identified as country specific.
[6] Monitoring Report on the Performance of European Retail Markets in 2018. CEER Report 4 November 2019.

market regulation evolve rapidly. Transposition of regulation into the national regulatory frameworks is not always smooth and NRAs' actions are sometimes unpredictable. This leads to uncertainties for suppliers related to unclear and unknown future developments of the regulatory framework, including the attitude of the institutions that regulate the retail market and oversee market operation and organization. This uncertainty is a barrier that impacts suppliers' business, preventing their entrance in the market, making strategic business planning difficult or forcing them to adopt different approaches during operation. Across Europe, the following specific barriers related to "unpredictability of regulatory framework" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal:

- Suppliers face uncertainty because of a newly liberalized regulatory environment or uncertain future development of the regulatory framework
- Uncertainty caused by industry actors influencing legislation, e.g. incumbent or associations shape legislation
- Uncertainty regarding future regulatory developments, especially in the field of digitalization and new technology
- Attitude of authorities hinders development of the market
- Uncertainty regarding environmental obligations and non-renewable generation capacity

4. Access to innovation. Most European energy market are currently designed based on practices as they were during the period of national monopolies by what today are incumbent suppliers. Allowing suppliers and new entrants to be innovative depends not only on the opportunity to compete on prices, but also to diversify, welcoming new products, market actors and business models. When national regulatory frameworks do not take into account innovation in the retail market (regarding e.g. availability and functionality of smart metering, the possibility of flexible contracting and tariffs, or whether the demand side can bid in the balancing system), this may pose a barrier for new market entries, particularly more modern players. If new entrants are to be enabled in order to increase the level of competition in the retail market, regulations must accommodate future developments on the energy markets, especially considering that in the future new entrants may not only be electricity and gas suppliers but also act as aggregators or energy service companies (ESCOs). Across Europe, the following specific barriers related to "innovation-friendliness" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal:

- Data protection issues
- Lack of incentivisation for novel pilot projects or post-pilot market rollout
- Lack of data for innovative product development
- No fit between new business models and existing regulation/obligations
- Missing flexibility in tariff structures
- Missing information and incentives for demand-side grid management
- Market structures does not incentivize novel products (missing market value)

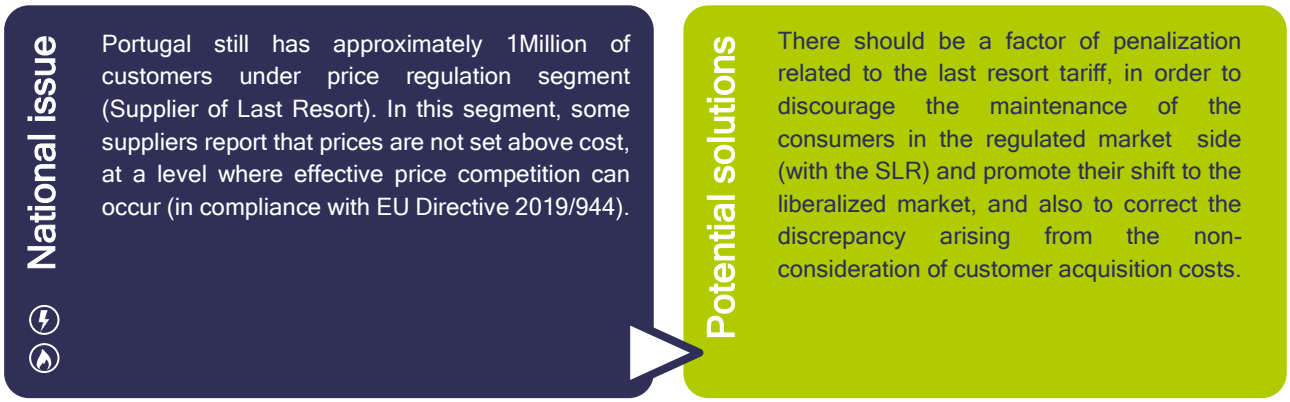
1.1 Description of regulatory disincentivisation barriers in Portugal: Price regulation

Low margin of regulated offer (margin squeeze). In the research this barrier was raised as being still an issue in Portugal.

It is common across Europe that price regulation sets the regulated price to a defined level and allows all market participants to serve customers within this regulated segment. However, this can create a barrier in the market if the regulated price is set to such a low level that only companies that can benefit of from economies of scale are able to generate a sustainable margin. All other market participants will be confronted with a margin squeeze, making it very difficult to compete.

Regarding Portugal, regulated end-user tariffs are no longer available to customers of electricity and natural gas markets. However, a part of the household customer category is still regulated and a transitional period up to 2023 has been settled to allow a smooth transition to the liberalised segment.

Identified national issue and related potential solutions regarding the Portuguese case are reported in the graphic below.



European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

Best practice example:

Roadmap for removal of regulated retail prices.

Portugal removed end-user price regulation for non-household customers and the transitional period ended in 2016. As part of the phase-out process, which started in 2010 for gas non-household customers and in 2011 for electricity non-household customers, a transitional period was defined by the government in Portugal in order to enable customers supplied under regulated end-user prices to choose a new market supplier and move to the liberalised market. During this period, the NRA (ERSE), sets a tariff (called the 'transitional tariff'), which may include an additional value, whose objective is to promote customers to switch to a market tariff.

Lastly, under the terms of Government Ordinance N. 39/2017 of 26 January 2017, consumers who still have regulated tariffs have a transitional period until 31 December 2020 to choose an electricity market supplier. While, under the terms of Government Ordinance N. 144/2017 of 24 April 2017, consumers who still have regulated tariffs have a transitional period until 2023 to choose a natural gas market supplier.

1.2 Description of regulatory disincentivisation barriers in Portugal: Burden (-sharing)

Obligation to collect tariffs unrelated to energy on behalf of others.

In the research this barrier was indicated as an issue in Portugal. It shall be noted that this is common across suppliers regardless their origin. However, as in any other segment of the economy, ultimately this financial burden affects more the smaller companies.

In general, the obligation to collect non-energy-related charges, with the risk of delayed or non-payment, presents a barrier as it can substantially increase the total risk as well as required cash reserves. In other European markets, energy suppliers may be tasked with collecting fees for unrelated services, e.g. TV licence fees, or providing other services, e.g. energy efficiency measures.

Identified national issue and related potential solutions regarding the Portuguese case are reported in the graphic below.

National issue

Responding suppliers were pointing out the issue of bearing the risk of cash collection of the whole bill (including network tax components and TV fees). Some suppliers indicate that this generates a waste of resources.

Potential solutions

- Charges unrelated to suppliers business should be collected with different methods.
- Regulation should protect suppliers (in the free market) from collection failure.

In Portugal, the regulator is updating guarantees requirements to protect suppliers from collection failure. Which indicate progress already in place towards valuable solution of this issue.

European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

1.3. Description of regulatory disincentivisation barriers in Portugal: Regulatory unpredictability

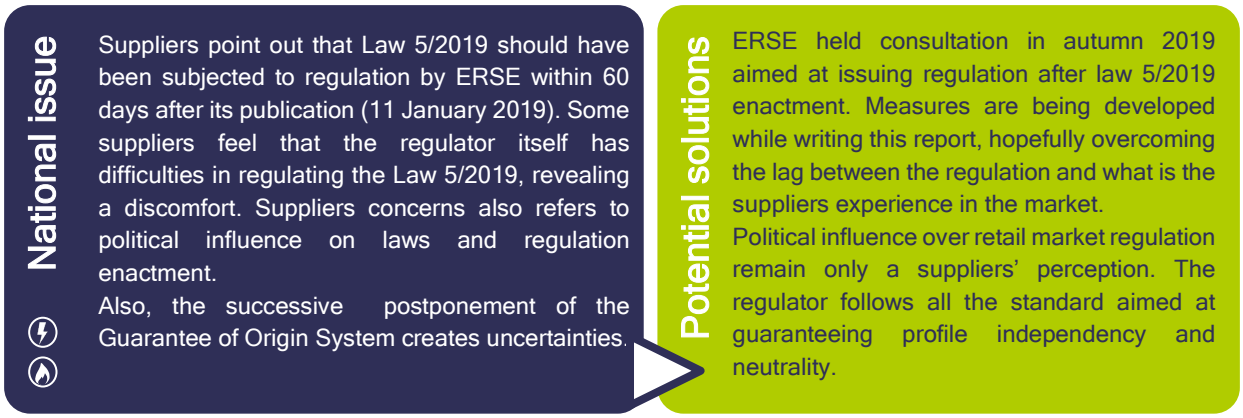
Attitude of authorities hinders development of the market. In the research this barrier was raised as an issue in Portugal.

In general, the regulator, TSO and/or government do not view a well-functioning competitive energy market as a high priority, or are mistrustful towards new products and services, or do not seek or use the cooperation of market players. This atmosphere can discourage new entrants and novel developments. Such an attitude may also favour the incumbent through involving it directly in regulation or through inertia around regulation to decrease its market share.

In Portugal, suppliers are concerned on the attitude of the legislator and the regulation direction that is holding back the energy sector from innovation, not keeping the pace of other EU countries regarding specific topics.

However, it has been found that the regulator in Portugal produces regulations to promote a well-functioning competitive energy market, using asymmetric regulatory conditions in order to facilitate the small suppliers to enter and operate in the market. These actions are surely incentivizing the entrance in the market and boosting competition.[7] Plus, ERSE's regulations are submitted to public consultation, where all agents can give their opinion on the shape of the regulation.

Identified national issue and related potential solutions regarding the Portuguese case are reported in the graphic below.



European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

[7] Examples are: Diretiva n.º 8/2017 - agentes de mercado elegíveis para integrar a unidade de desvio de comercialização para consolidação dos desvios em carteira de pequenos comercializadores a atuarem no mercado retalhista; Diretiva n.º 11/2018 - regime transitório de riscos e garantias no SEN.

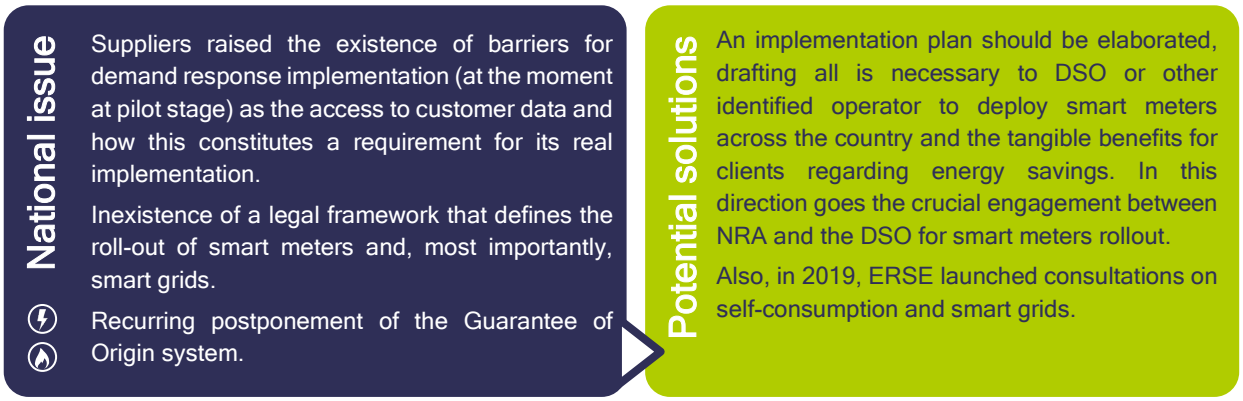
1.4. Description of regulatory disincentivisation barriers in Portugal: Access to innovation

Lack of incentivisation for novel pilot projects or post-pilot market rollout. In our research this barrier was raised as an issue in Portugal.

As a general concept, regulatory frameworks need to provide an environment for not only piloting new business models but also allow for further advancements without risking any grid stability, e.g. net-metering schemes and self-consumption. Regulatory requirements/obligations designed for traditional suppliers may not make sense for innovative players who are nonetheless bound by them. Unclear current regulation around demand response aggregation, such as missing role definitions, makes it challenging for novel services to enter and grow.

In Portugal, the regulator is putting in place big efforts in gathering results from consultation for the development of, for instance, self-consumption and smart grids, among the others.

Identified national issue and related potential solutions regarding the Portuguese case are reported in the graphic below.



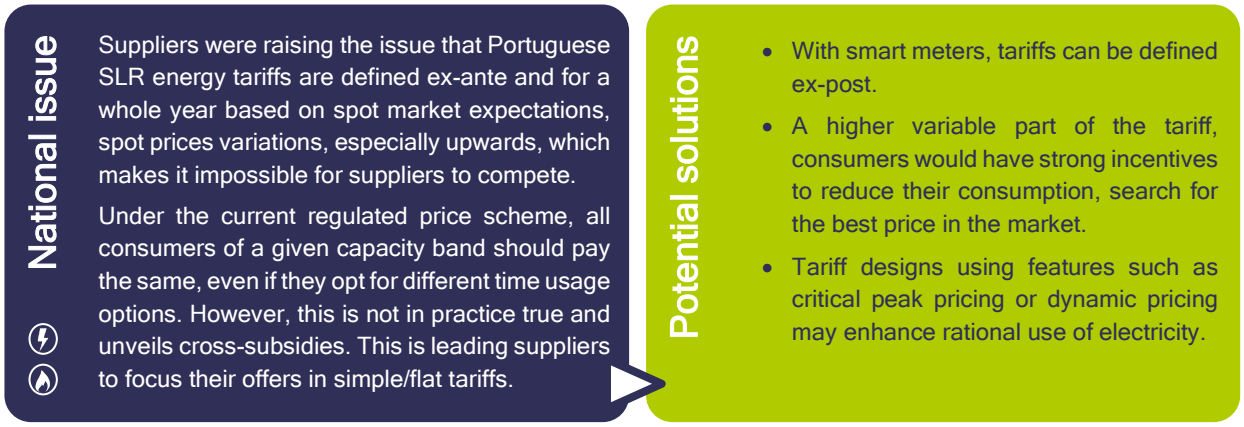
European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

Missing flexibility in tariff structures. In our research this barrier was raised as an issue in Portugal.

In general, the potential of tariff structure to be flexible is a main driver of demand flexibility, as it allows the design of incentive-based tariffs with several Time-Of-Use tariff zones, encouraging customers to consume when it is cheaper. This is true for grid as well as energy components. Rigid or flat structures, which are defined by regulation, hinder new and innovative demand-shifting offerings on the market.

National issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.



European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

Market structures does not incentivize novel products (missing market value). In our research this barrier was raised as an issue in Portugal.

In general, without an existing demand and/or mindset for novel services such as DR, new entrants face the barrier of establishing the entire market before they can act in it. A low level of perceived value can due to a technology lag, customers' being unaware or not incentivized, or little competition between traditional suppliers resulting in little need for suppliers to innovate/differentiate.

In Portugal, suppliers irrespective of its dimension are free to offer innovative products and significant part of them also operates in energy efficiency or other added value services, creating market value.

National issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.

European markets in which this barrier has also been indicated

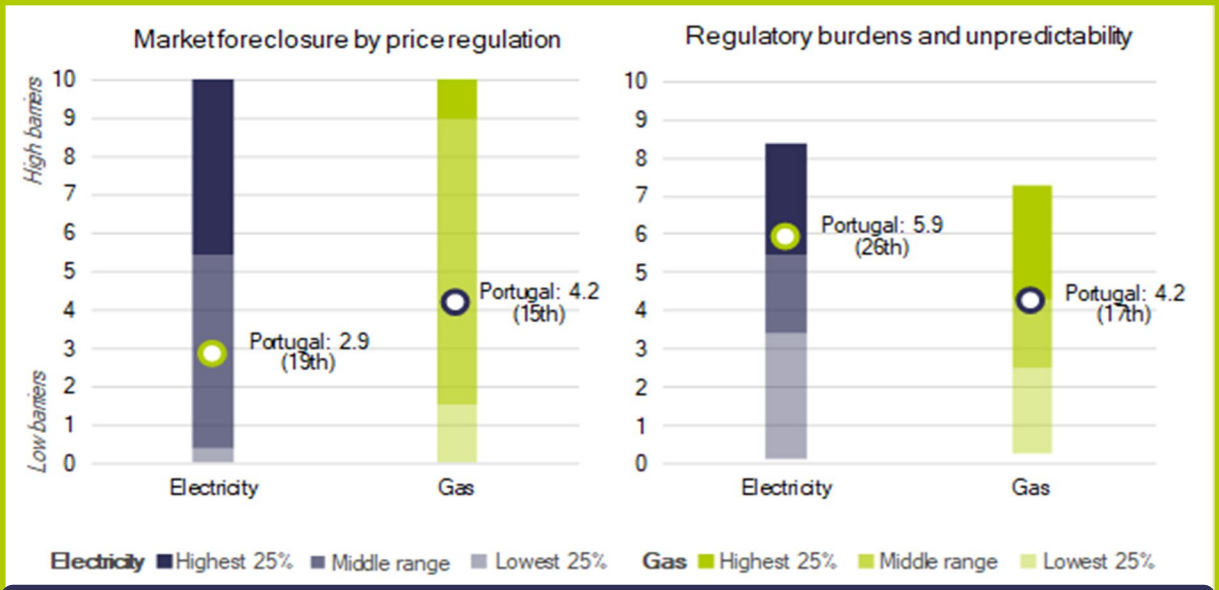
AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

1.5. Portugal's performance in this barrier category

The following figure shows quantitative indicators of how far regulatory disincentivisation acts as a barrier in this market. The values for Portugal are shown against the range across all analyzed countries. These scores contribute to the performance index. The performance indicators of regulatory disincentivisation are the following:

- **Market foreclosure by price regulation:** The index consists of two sub-indicators, the penetration of price regulation (among residual customers), and the mark-up of the regulated offer. A high score is attributed if a high share of customers is supplied at regulated price, and the mark-up is significantly lower than the average mark-up in the competitive markets.
- **Regulatory burdens and unpredictability:** The index consists of two sub-indicators. Regulatory burdens reflect the non-energy share of the energy bill in an average household, which are regulated (taxes, network fees). Regulatory unpredictability was measured via the related question in the supplier survey conducted for this project. A high score is attributed if the share of the non-energy elements is high, and if survey respondents scored the question highly (as an important barrier).

Performance indicators



Portugal was ranked in the middle range for market foreclosure by price regulation as still a part of the electricity and gas customers are served under regulated prices and considering the prices mark-ups. While Portugal was ranked in the upper bound of middle range of regulatory burdens and unpredictability.

2) Market inequality

Within market inequality, barriers across Europe have been sub-categorised into two areas encompassing 8 specific barriers[8]:

1. **Unbundling and market power.** In order to facilitate better competition and improve performance of the individual parts of the energy companies, the Energy Directives introduced rules for legal, functional and accounting unbundling between DSOs and supplier. Although legal unbundling has been implemented throughout all EU member states, barriers arising from vertical integration can still be observed in many markets, raising the question if the required level of unbundling is sufficient in order to meet the goal of a fair and competitive retail market. Companies serving less than 100,000 customers are only obliged to implement accounting unbundling.

   In order to avoid confusion among end customers between the separate parts of integrated energy businesses, brand unbundling has been a focus area for NRAs over the last years. Nevertheless, in several EU countries, the difference in the branding of the supplier and the DSO is perceived as insufficient. Strategic and unfair advantages for incumbent suppliers around transparency, pricing and access to information and data occur in most of the European countries studied. Access to production capacities can also be limited for small suppliers if market players with a large generation portfolio can withdraw production capacity from the accessible markets. Balancing and ancillary services markets can also be distorted as they are often still designed to mainly benefit large-scale generation, discriminating against smaller market participants. Below, we describe these barriers related to market power in more detail.

   Across Europe, the following specific barriers around "unbundling and market power" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal:

   - Lack of brand unbundling
   - Discriminating, strategic behaviour of incumbent, and obstruction by other market players.
   - Strategic, unfair advantage of vertically integrated market players and lack of transparency.
   - Limited or biased access to production.
   - Discrimination against new and small market players in capacity and ancillary services markets.

2. **Equal access to and maturity of wholesale market.** The wholesale markets present one of the most important sources for energy procurement for all market participants. New and small suppliers tend to have weaker bargaining position in bilateral negotiations, which occurs higher sourcing costs, therefore leading to a competitive disadvantage. Access to a well-functioning wholesale market (an energy exchange) therefore enables smaller suppliers to buy energy for competitive prices.

   Barriers related to the wholesale market can arise by discriminatory market platform access and the absence of any viable alternative. Furthermore, a lack of available products and low liquidity can both lead

[8] Please note: these definitions are Europe focused, not Portuguese specific. Highlighted barriers have been identified as country specific.

to an increase in risk, disadvantaging small market participants substantially more than large, established suppliers. Across Europe, the following specific barriers around "equal access to and maturity of wholesale market" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal:

- Discriminatory market platform access (standards, guarantees, etc.)
- Low liquidity in the wholesale market
- High price or volume risk in energy procurement

2.1. Description of market inequality barriers in Portugal: Unbundling & market power

Best practice example:

Brand unbundling

Inefficient brand unbundling between distribution and supply companies, such as similarities in the name and logo of the incumbent supplier and the DSO had a negative impact on the Portuguese retail market, in terms of competition until early 2019. However, during the second half of 2019, ERSE approved a new image and name for *EDP Serviço Universal*, which is now called *SU Eletricidade*. The measure aims to avoid confusion with the other EDP group brands and implies the complete distinction of the graphic, chromatic, symbolic and communicational elements of that last resort supplier. Finally, the DSO image is also changing, for a new image (new designation, new logo and different color).

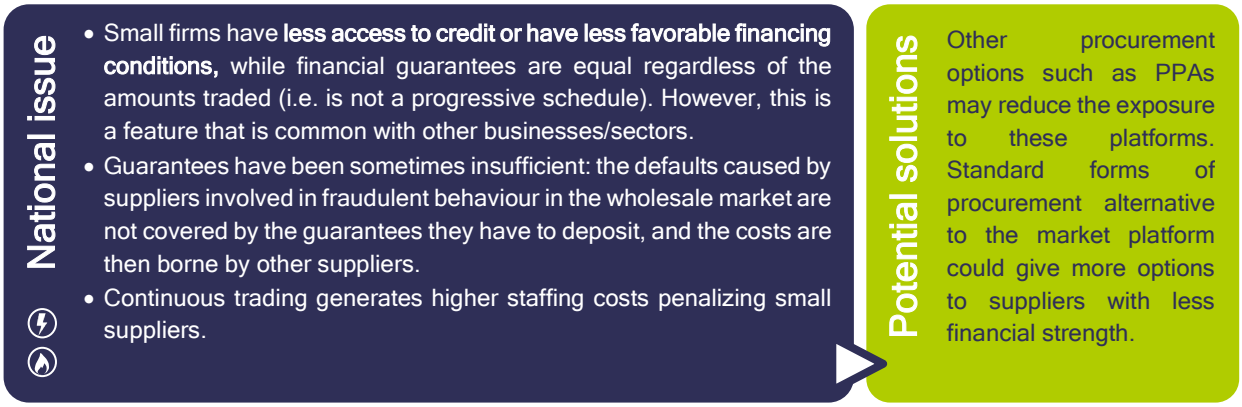
Notwithstanding the above measures, the level of consumer awareness and ability to distinguish between DSO and suppliers remains low, due to either the recent application of this legal binding decision by the regulator or due to the scarce level of information among customers. Keeping high the competition advantage of incumbent suppliers.

2.2. Description of market inequality barriers in Portugal: Equal access to & maturity of wholesale market

Discriminatory market platform access (standards, guarantees, etc.). In our research this barrier was identified as an issue in Portugal.

In general terms, across Europe, if the same requirements/treatment for establishing market access are applied regardless of company size, small suppliers bear a disproportionate administrative or financial burden for market access. Nonetheless, it is worth mentioning that most of these platforms are privately managed and thus it is unlikely the ability to reverse such barriers. Market arrangements favoring the development of new generation and bilateral agreements may partially relief this burden.

The requirements and administrative burden to become a member in Portugal are minimal, and this had led to hundreds of generators, suppliers and traders becoming members in one of the most liquid power exchanges in Europe. However, more onerous requirements when entering a market is embedded in the current market environment and mostly driven by financial institutions' requirement. An issue that is common with other sectors. Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.



European markets in which this barrier has also been indicated

AT	BE	BG	HR	CY	CZ	DE	DK	EE	FI	FR	EL	HU	IE	IT	LV	LT	LU	NL	NO	PL	PT	RO	SK	SI	ES	SE	UK

Low liquidity in the wholesale market. In our research this barrier was raised as an issue in Portugal.

In general terms, a lack of liquidity in the wholesale market is a barrier to operation as it leads to higher prices and risks, and therefore increases sourcing costs.

The Portuguese electricity spot market is one of the most liquid in Europe. However, the forward market platforms are still at incipient level not having the same level of liquidity of the spot market platform. It is worth mentioning the notable increase on forward market liquidity outside OMIP. In the last years, other platforms operating at EU level have reached a surprisingly high liquidity. Also, that the lack of liquidity impacts suppliers that due to the size of their customer base have significant open positions on its procurement.

Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.

National issue

Suppliers pointed out that forward markets are illiquid advantaging market actors with high market power. Even though they are also short in their position and remain heavily exposed to this low liquidity.

The lack of attractive market due to the low regulated tariffs lead to difficulties among supplier to find alternative procurement options.

Potential solutions

Measures to promote the liquidity of the wholesale market, including the mandatory market making obligations should be deployed for forward markets. Some liquidity accelerators are deployed (Renewables auctions and Supplier of last resort auctions) but are clearly insufficient to foster liquidity.

Low liquidity can also be the consequence of too restrictive financial regulation for energy forward markets, e.g. capital requirements and position limits rules. Worth a review according to the energy market's needs.

European markets in which this barrier has also been indicated

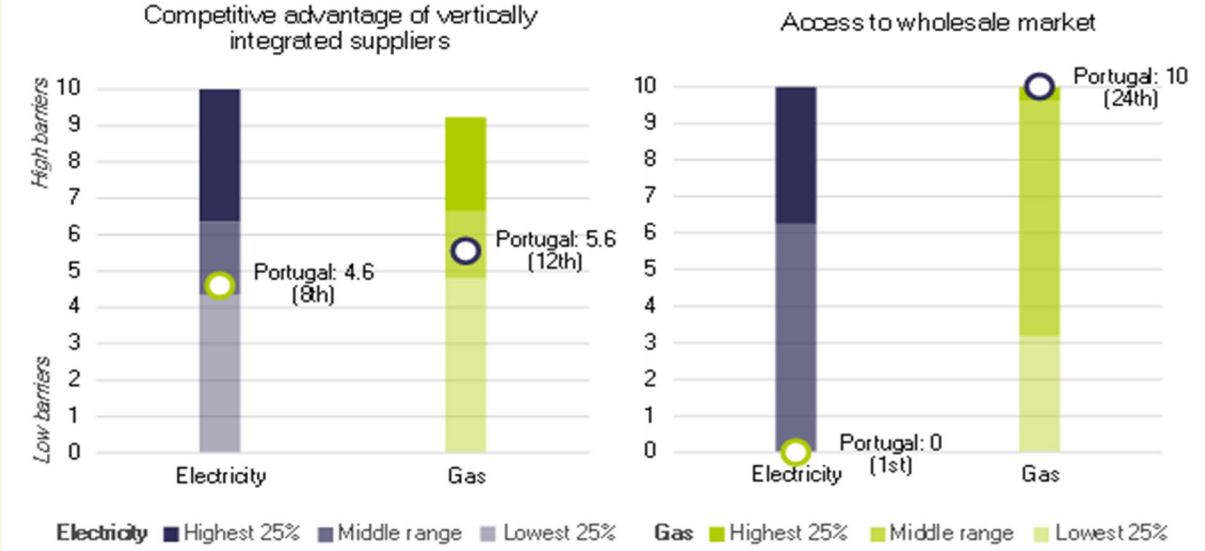
AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

2.3. Portugal's performance in this barrier category

The following figure shows quantitative indicators of how far market inequality acts as a barrier in this market. The values for Portugal are shown against the range across all analyzed countries. These scores contribute to the performance index. The performance indicators of market inequality are the following:

- **Competitive advantages of vertically integrated players.** The index consists of two sub-indicators, the market share of vertically integrated suppliers (on the residential market), and the strictness of DSO unbundling. A high score is attributed if the vertically integrated suppliers have a high aggregated market share, and the unbundling regime is not very strict (brand unbundling is not in force, high share of local, integrated companies).
- **Access to wholesale market.** The indicator measures the accessibility of the wholesale market by quantifying the liquidity of wholesale markets. High score is attributed if the traded volume is relatively low compared to the consumption of the country (churn rate). Traded volume includes volumes that are traded at hub as recorded by brokers (OTC) or exchanges and does not include 'contracted' (LTC or other bilateral deals) volumes which are conducted 'off market'.

Performance indicators



Portugal was ranked in the middle range for competitive advantage of VIU. While in for access to wholesale market, Portugal scored 1st among EU countries due to its churn ratio, while for gas data were not available.

3) Operational and procedural hindrances

Within operational and procedural hindrances, barriers across Europe have been sub-categorised into two areas encompassing 13 specific barriers[9]:

1. **Sign-up & operations compliance.** Sign-up, licensing or registration, along with other administrative requirements or system establishment such as arranging contracts with relevant stakeholders (TSOs, DSOs, BRPs) are among the first steps that a new supplier undergoes to enter and operate in a retail energy market. To deliver natural gas or electricity to final consumers in Europe, an energy supplier usually needs to be registered to a certain institution list, or to proceed with a notification, or follow a process to grant a licence. Entrance processes for suppliers often requires commitments such as a minimum standard of customer service obligations, requirements on service quality, to provide financial guarantees or to have a communication system in place.

   In most responding NRA countries, suppliers need to register and make contracts with certain stakeholders (mainly TSOs and DSOs) to procure the access to the energy grid: transport capacity, balancing. This procedure can be very different from a country to another. Accessing wholesale markets

[9] Please note: these definitions are Europe focused, not Portuguese specific. Highlighted barriers have been identified as country specific.

and balancing may also require a license or prior agreement/registration with the market operator. In some markets, business processes to enter and operate in the retail market can be extremely detailed and burdensome. The lack of a functioning national wholesale market may also hinder the entrance of retail companies that are not vertically integrated.

Across Europe, the following specific barriers around "sign-up & operations compliance" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal.

- Poor availability of information for market entrants & active participants
- Heavy administrative process for entry (registration / licensing)
- High financial requirements (incl. long working capital cycles) and forced risk during operations
- **Excessive reporting requirements during operations**
- Excessive information requirements around billing and energy labelling
- Highly complex or country-specific systems & processes
- Regional differences or differences between DSOs within a country
- Cumbersome or biased switching process
- Unduly burdensome environmental obligations
- **Unduly burdensome or insufficiently regulated market exit**

2. **Data access & processes.** Data access and management refers to the processes by which data are sourced, validated, stored, protected and processed and by which it can be accessed by suppliers or customers. In a well-functioning energy retail market, it is important that the information required to operate in the market is available to newcomers (subject to applicable legislation on data protection). This may include information on, for example, individual consumption or more specific meter details. This data is required in order for suppliers to carry out their market role, such as initiating a switch, or billing a customer. A standardized approach to the provision and exchange of data creates a level playing field among stakeholders and helps to encourage new, challenging market actors to enter the market. In order to avoid data management and access processes acting as a significant barrier to entry, Member States' initiatives to standardize data format and processes, including investments in data hub infrastructure, have the potential to make a positive impact.

   Across Europe, the following specific barriers around "data access & processes" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal.

   - **Lack of data hub**
   - **Complex, heterogenous IT infrastructure and/or low level of digitalisation**
   - Missing access or poor quality of operations-critical data

3.1. Description of operational and procedural hindrances barriers in Portugal: Sign-up & operations compliance

Excessive information requirements around billing and energy labelling. In our research this barrier was raised as an issue in Portugal.

In general, excessive billing and labelling information constitutes a barrier when the market participants are required to disclose a disproportionate amount of information on the customer bill, which may be challenging to collect and curate. All information on the bill that does not add any value for the customer can be regarded as disproportionate.

Suppliers responding to the survey were pointing out that, in Portugal, the introduction of the law 5/2019, has increased the required amount of information to be provided to the customers, increasing suppliers' costs and reducing customers understanding of the bill.

Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.

European markets in which this barrier has also been indicated

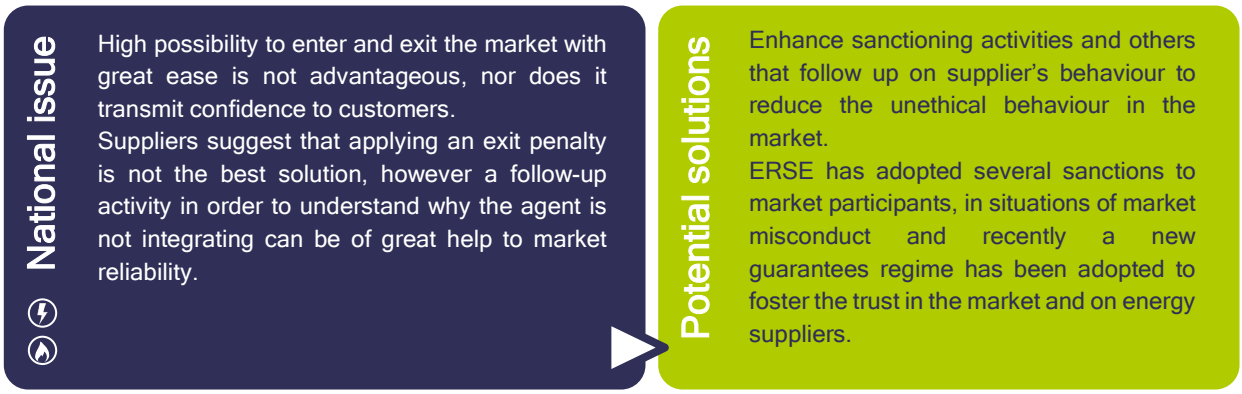
AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

Unduly burdensome or insufficiently regulated market exit. In our research this barrier was raised as an issue in Portugal.

In general, the possibility for suppliers to exit the retail market very easily or to be able to act without sufficient/timely sanctions on improper behavior, is not advantageous to market functioning, nor does it transmit confidence to customers. Unethical and irresponsible suppliers may negatively affect the retail market by discouraging new suppliers from entering and reducing customer trust and hence willingness to engage with the market. At the same time, the exit process should not be unduly burdensome as suppliers deciding on potential market entry will take this into consideration.

From the Portuguese regulator perspective, those market participants whose unethical behavior is detected, the sooner are out of market the better. Identifying sanctioning powers and guarantees regime, alongside with the supervisory activities as the most proficient way to raise suppliers' reliability.

Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.



European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

3.2. Description of operational and procedural hindrances barriers in Portugal: Data access & processes

Lack of data hub. In this research this barrier was raised as an issue in Portugal.

In general terms, this barrier may increase the time and effort required by suppliers to access customer or network data, e.g. to enact a switch or target potential new customers.

As of today, there have been a lot of progress in centralize data and process for switching between suppliers. In a nutshell current tools and protocols include: i) a platform for switching, managed by the OLMC; ii) and DSO data can be accessed via an internet portal – with a login and username, and with consumer consent. In some cases, the concern is more related with the lack of complete information which is due to the data protection regulation and thus cannot be changed and affect equally all suppliers.

Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.

National issue

A central **datahub** for data exchange, to simplify and accelerate switching processes is **not in place.** This is currently done separately with suppliers complaining on the data access and quality.

Potential solutions

A central platform for data exchange and switching may help the data standardization and exchange.
A datahub could level the playing field with regards to data access, opening data of the same quality to all players on equal terms. Easing the entry of new players into the market and boosting market efficiency as well as enabling customers to participate directly in the markets.

European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

DENMARK BEST PRACTICE CASE: Denmark's DataHub

The development of the DataHub is held up by market actors in other countries as a good example of regulatory development that involved and cooperated with market players. A key aspect of the successful development process was that a single organization (the TSO) had a clear system-wide responsibility to implement the changes, enabling streamlining of the process. Market players report the launch of the DataHub as the most important recent innovation in Denmark's energy system.

NORWAY BEST PRACTICE CASE: A well-designed data hub improved market equality in Norway

The Norwegian market is characterized by a large number of small, local, currently vertically integrated supplier-DSOs. Across Europe, this study has found vertical integration to cause issues around data access, where the integrated supplier (usually the incumbent) has an advantage in data access through its affiliation with the DSO, which collects and controls the information. However, such issues were not raised in Norway.

This favourable situation results from the existence since 2019 of a centralized data platform, Elhub, that is functioning near-perfectly according to suppliers to even out the playing field around data access (see section 3.2). Previously, independent suppliers faced delays and obstruction in obtaining customer data from DSOs. The impact on data exchange was so great that one supplier described their dealings with DSOs as "different pre- and post-Elhub worlds". The Elhub moreover allows the regulator to technologically control that actors are behaving appropriately.

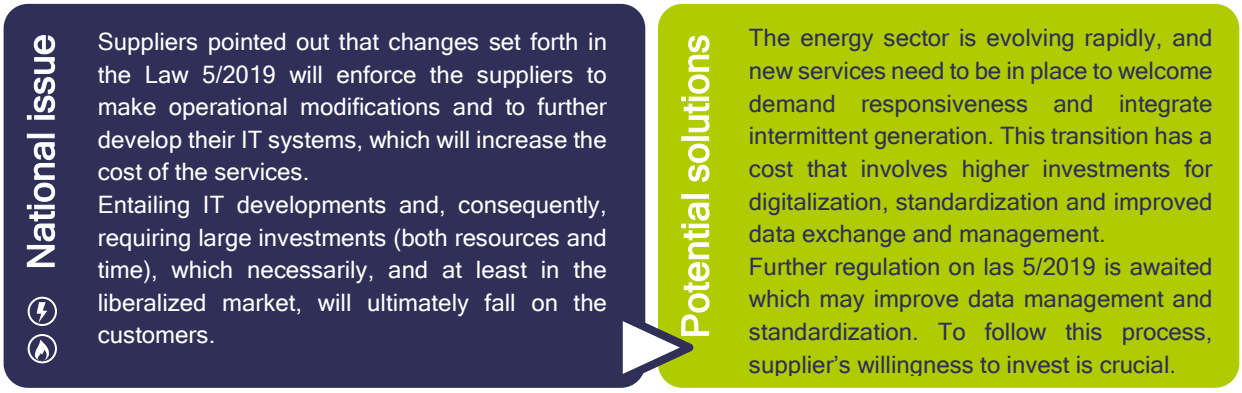
Complex, heterogenous IT infrastructure and/or low level of digitalisation. In this research this barrier was raised as an issue in Portugal.

In general, heterogenous and complex IT infrastructure, required to communicate and exchange data with all relevant market participants, or a high level of manual processes in such exchanges, can both increase costs

substantially. Such systems can be financed more easily by large market players via economies of scale, so small players are disadvantaged for technical reasons.

However, in a sector under development like the Portuguese, extra costs and investments for suppliers cannot be discarded and actually need to be received as undeniable. The new enactment of law 5/2019 and the awaited regulation that it may originate create concerns among suppliers regarding the resulting costs and obligations.

Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.



European markets in which this barrier has also been indicated

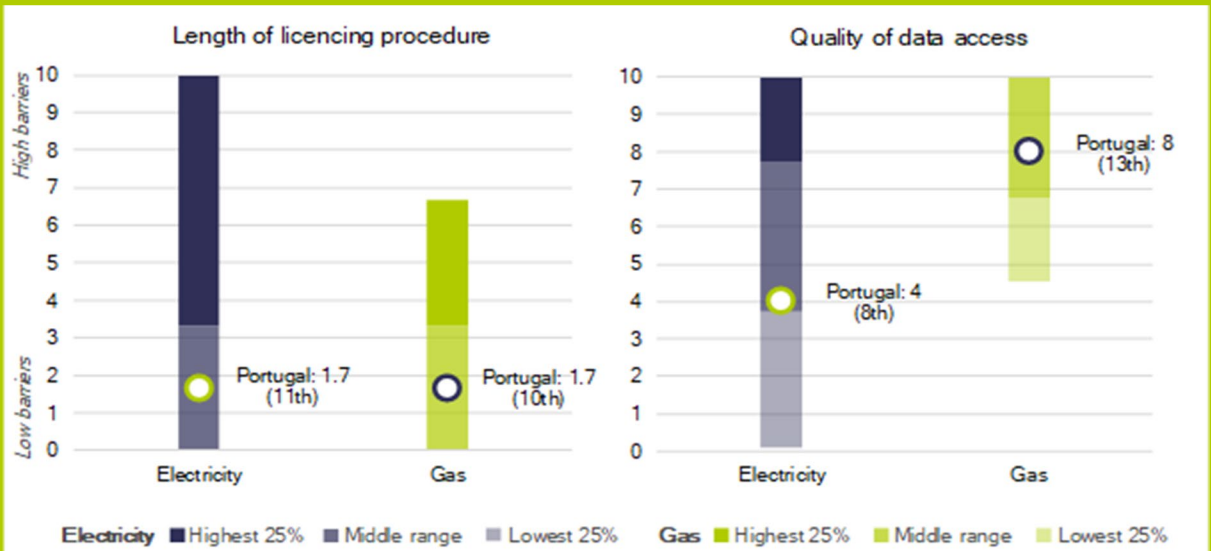
AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

3.3. Portugal's performance in this barrier category

The following figure shows quantitative indicators of how far operational and procedural hindrances act as a barrier in this market. The values for Portugal are shown against the range across all analysed countries. These scores contribute to the performance index. The performance indicators of operational and procedural hindrances are the following:

- **Length of licensing procedure.** The complexity of the licensing procedure is quantified using the legal deadline of the licensing procedure. A higher score is attributed the longer the regulator's authorization period, while a score of 0 is attributed if there is no licensing obligation in the country.
- **Quality of data access.** Barriers relating to the quality of data access are measured with a checklist indicator, which focuses on the DSO's practices regarding data collection and access provision to suppliers. A high score is attributed if the format of the data provision is not standardised, third party access is not available via website or data hub, and the smart meter rollout is small.

Performance indicators



Regarding the time of getting a license, Portugal was ranked in the first 11 position among the EU countries for electricity and 10th for gas. While was scoring 8th in electricity and 13th in gas for quality of data access, as although data standards are advanced, smart meters are not well developed in the country.

4) Customer inertia

Within operational and procedural hindrances, barriers across Europe have been sub-categorised into one area encompassing 6 specific barriers[10]:

1. **Customer orientation.** Whether customers want to or can engage with the market depends on a broad range of market characteristics, including how well authorities inform and support customers and how energy companies are viewed by the customer. For example, if there is no trusted central place to compare offers from different suppliers, customers may struggle to make an informed choice; or if customers perceive all energy companies as irresponsibly profit-driven, or providing a poor service, they may feel there is nothing to be gained from switching. Moreover, across Europe, most energy markets have been liberalized relatively recently (last 20 years, some only a few years ago), so for a considerable portion of customers the potential for them to engage may still feel unfamiliar.

   Across Europe, the following specific barriers around "customer orientation" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Portugal.

   - Lack of information regarding available offers and switching possibilities
   - Low customer awareness or interest makes it difficult to attract customers

[10] Please note: these definitions are Europe focused, not Portuguese specific. Highlighted barriers have been identified as country specific.

- Insufficient price signals for end-users
- Changing supplier is cumbersome or has little pay-off for the customer
- Consumers prefer status quo
- Lack of trust in new or foreign suppliers and in new technology

4.1. Description of customer inertia barriers in Portugal: Customer orientation

Insufficient price signals for end-users. In this research this barrier was identified as an issue in Portugal.

In general, many factors can mean that market price signals do not reach end-users, e.g. small energy component of bill, low energy prices, simplified/estimated settlement, etc. With limited price signals, there is little incentive for customers to engage with the market as they have limited power to bring their costs down, or to see an impact of their behavior on their bills.

In Portugal, the introduction of dynamic tariffs may give an extra push to competition at household level. Hence, metering system needs to be updated to allow the energy system to improve the responsiveness of electricity demand. This comes at a cost usually borne by the fixed part of the bill but however giving to suppliers more room for competition.

The Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.

National issue

Suppliers raised the issue that, in the household segment of the market, customers have a low incentive to switch given their limited incentive to engage with the market. Suppliers report that the weight of energy costs over the total expenditure (energy + access + taxes & levies) can be as low as 30%. And with everyone competing with flat prices, price differences between retailers are often discarded.

Potential solutions

- Smart meters must be installed that can accurately record customers consumption in real-time and relay the information to the supplier.
- Promote bill settlement on real-time consumption to allow suppliers to provide cost-reflective price.
- Implement real time Time-Of-Use tariffs at household level.
- Enhance promotion of innovation in household technology.

European markets in which this barrier has also been indicated

AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL **PT** RO SK SI ES SE UK

Consumers prefer status quo. In this research this barrier was identified as an issue in Portugal.

Generally, customers can experience strong incentives to stay on a regulated price (e.g. because it is cheaper, and they mistrust new suppliers).

This is the case in Portugal, where supplier's perception is that customers prefer to stay under the regulated price regime.

The Portuguese national issue raised by suppliers and related potential solutions regarding the Portuguese case are reported in the graphic below.

European markets in which this barrier has also been indicated

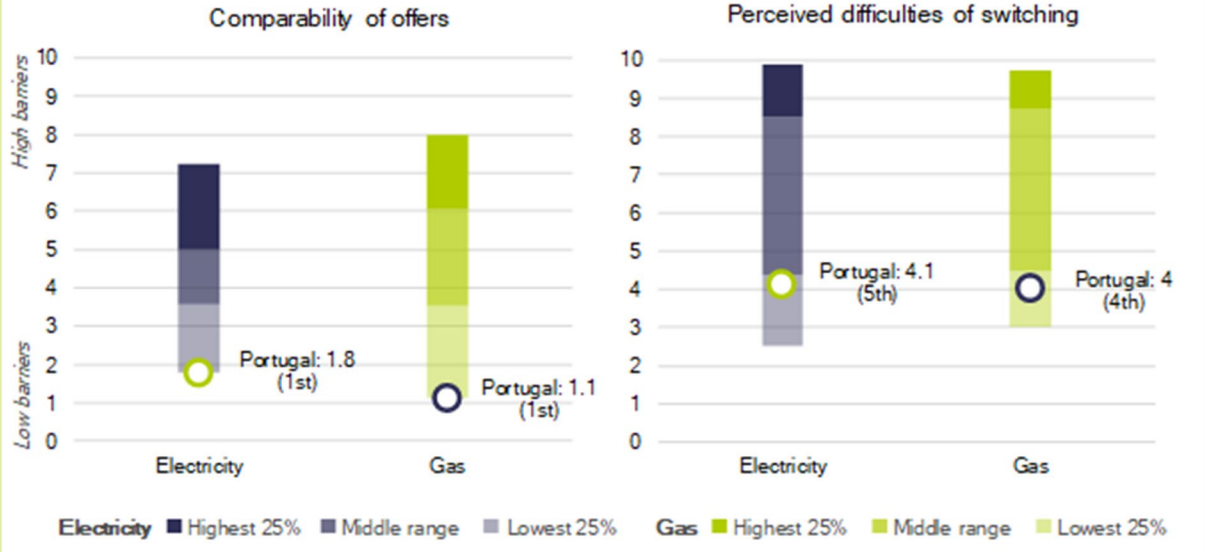
AT BE BG HR CY CZ DE DK EE FI FR EL HU IE IT LV LT LU NL NO PL PT RO SK SI ES SE UK

4.2. Portugal's performance in this barrier category

The following figure shows quantitative indicators of how far customer inertia acts as a barrier in this market. The values for Portugal are shown against the range across all analyzed countries. These scores contribute to the performance index. The performance indicators of customer inertia are the following:

- **Comparability of offers**. The index consists of two sub-indicators. The first measures consumers' ability to compare offers, based on a survey commissioned by the DG Justice and Consumers. The second is a checklist indicator which quantifies the availability of comparison websites, based on their number and functionalities. A high score is attributed if the consumers gave low scores for comparability, and there are no comparison websites in the country.
- **Perceived cost of switching.** Difficulties around the switching process are also measured based on DG Justice's survey. The indicator incorporates the experience and opinions both of customers who have switched, and also of those who have not because they faced obstacles or thought it might be too difficult. A high score is attributed if a high share of consumers reported a bad experience of or poor opinion on the switching process, among all customers who considered switching.

Performance indicators



Portugal was ranked 1st for the comparability of offers and in the top 5 among the EU countries for the perceived difficulties of switching supplier.

5) Other

Other aspects of the market not directly related to its functions, as addressed above, may also impact suppliers' ease to enter and operate in the market. These relate to characteristics of the market that are not necessarily a barrier per se, but their impact on the energy retail environment could be minimized to benefit market function.

No substantial such barriers were identified in Portugal.

FINDINGS & RECOMMENDATIONS

This handbook provides a high-level framework of relevant barriers to entry and operate for energy suppliers into the Portuguese retail electricity and gas markets, as well as examples of actions that relevant institutions as NRAs, ministries, etc., have taken, are taking or could take in the future to remove them.

In particular, the handbook groups the barriers to entry and operate in the energy retail market into four different categories as listed below.

1. Regulatory disincentivisation.
2. Market inequality.
3. Operational and procedural hindrances.
4. Customer inertia.

In this section we report the main findings and recommendations for each category.

Under the first group, **regulatory disincentivisation**, we highlight that Portugal has removed end-user price regulation contributing to the increase of the liberalized market dimension. This is an important step towards market liberalization completion, bringing the liberalized market at approximately 94% and 97% of the total consumption at the end of 2018, respectively for electricity and gas. Within this category, we reported the Portuguese roadmap for removal of regulated retail prices as a best practice within the framework of activities for the completion of the market liberalization. However, suppliers that have been interviewed for this project or that have been answering to the survey, report that energy prices are set below cost, at a level where effective price competition cannot occur. This apply to that approx. 1 million customers that still are under regulated price regime with energy delivered by the so-called Supplier of Last Resort (SLR). To this regard a transition period has been settled to force LV customers to switch to the liberalised market before the end of 2025 (31 December). However, a penalisation factor is recommended to promote the shift to the liberalised market. Also, there is a perception of cross-subsidies within SLR category and it is not clear if it is detrimental to the interests of suppliers and customers. Besides, under this category, suppliers were reporting a barrier posed by the task of collecting tariffs unrelated to energy on behalf of others. To this regard the Portuguese regulator is updating guarantees requirements to protect suppliers from collection failure. Finally, barriers are posed in terms of authorities' activities that seems to hinder market development, especially in the field of billing (law 5/2019), demand response, guarantee of origin and smart meters roll-out. On the latter, it is recommended to deploy an implementation plan providing all is necessary to the identified operator to deploy smart meters in the country. Consultation aimed at issuing regulation on law 5/2019 are on the focus of the authority, however efficiency in this procedure is recommended.

Regarding **market inequality**, barriers have been identified arising from an uneven playing field for different types of suppliers. Similarities in the name and logo of the incumbent supplier and the DSO had a negative impact on the Portuguese retail market, in terms of competition until 2018 and early 2019. Functional and brand unbundling is now in place for EDP to help prevent confusion with the other EDP group brands. However, inequalities persist, sometimes they are common with other sector, strictly related to the company size and capabilities, while other

times are related to the characteristics of the market itself. Illiquid forward market platforms are perceived as an uneven playing field by small suppliers, with low liquidity fostered by too restrictive financial regulation. Creation of RES auctions, SLR auctions and mandatory market making obligations may help to solve the problem. Enduring market inequality, in this case, seems to be the result of a kind of a regulatory lag, where requested measures are deployed but the effects are still awaited. In 2018, the overall retail business concentration remained high with the EDP group being the leading operator in the electricity market, in the household customers segment above all. Similar situation is observed in the gas sector with the Galp group.

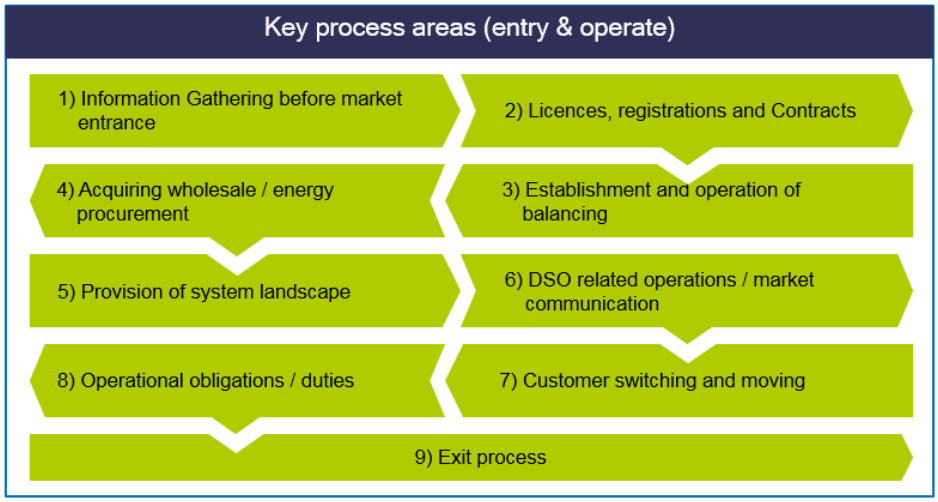
Operational and procedural hinderances are regarded as barriers by some of the suppliers responding to the survey. Complexities and differences in standards and procedures may affects suppliers' entrance and operation in the retail market. Suppliers still experience discrepancies in getting metering data. A data hub could level the playing field with regards to data access, easing the entry of new players and boosting market efficiency as well as enabling customers to participate directly in the market. Besides, market reliability can be jeopardised by suppliers' unethical behaviour. To this regard, ERSE has adopted sanctions to market participants, together with a new guarantees regime to foster the trust on both, the market and the suppliers. Finally, suppliers report a greater burden on billing and information provided to the customers, originated by the new law 5/2019. If on one side, regulation to be issued by the ERSE is awaited and hopefully ease the obligation over bill information, on the other hand, progress on digitalization and information related topics are inevitable. The energy sector is evolving, and new services need to be in place to welcome demand responsiveness and integrate intermittent generation. It is a transition cost that involves higher investments for digitalisation, standardisation and improved data exchange and management. Hence, further regulation on law 5/2019 is awaited and may improve data and information management and standardization. However, to follow this process, supplier's willingness to invest is crucial.

Customer inertia barriers category group all those issues related to customer behaviour and attitude. Despite the downward trend, supplier switching rates in Portugal are still significant and among the highest in Europe. 16% and 10% for electricity respectively in 2017 and in 2018. However, following cases of failing suppliers (bankruptcy) 13,558 electricity customers returned under the SLR regime. Portuguese suppliers report to have a limited action range to win customers, mainly due to a low share of the energy charge in the end-user tariff, 30%, with price differences withing the retail market often discarded. Limiting also the incentives to customers to engage with the market. Notwithstanding the high switching rate that characterises the retail market, there is still a strong incentive for customers to stay with the current company, usually the incumbent. Suppliers report that still customers do not fully distinguish between DSO and suppliers service and its quality. Discounting the legacy of a previous market structure with only one supplier. To this extent, innovation of the retail market through the deployment of smart meters, the promotion of bill settlement on real-time consumption, the implementation of time-of-use tariffs at household level and promotion of innovation in household technology could give incentives to customers to play a more active role and better engage with the market. Besides, activities aimed at raising customers awareness and strengthening monitoring activity over suppliers' contractual transparency and customers information obligations are of a great importance. In this direction goes the ERSE initiative to require suppliers to disclose the content of pre-contractual and contractual information to electricity customers in Portugal, harmonising them

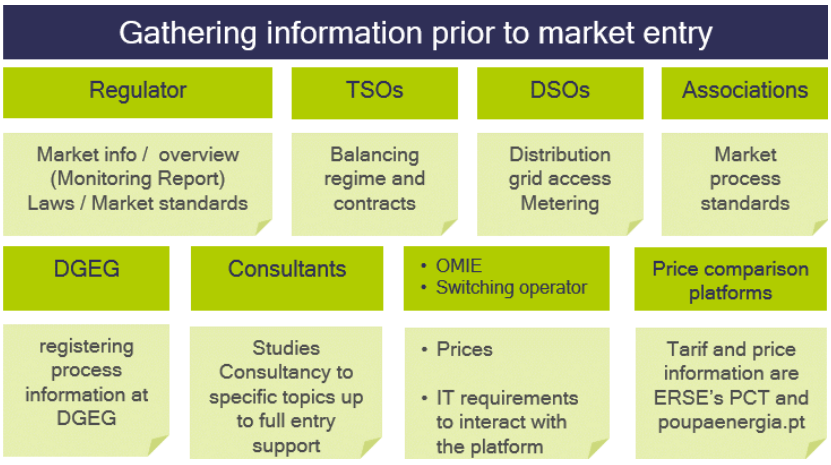
through a standardised contractual sheet. Having in this way a more effective way to access information and raising the comparability between offers.

APPENDIX 1: PROCESSES

This section describes market processes in energy retail in Portugal. This gives a high-level overview of the most important aspects involved in establishing and operating as a supplier in the national market. The stages of market entry and operation are described in sequence, each with an illustration ("process map") showing that stage's various processes together with comments/details on market specifics.



1) Information gathering before market entry



Relevant comments on information gathering

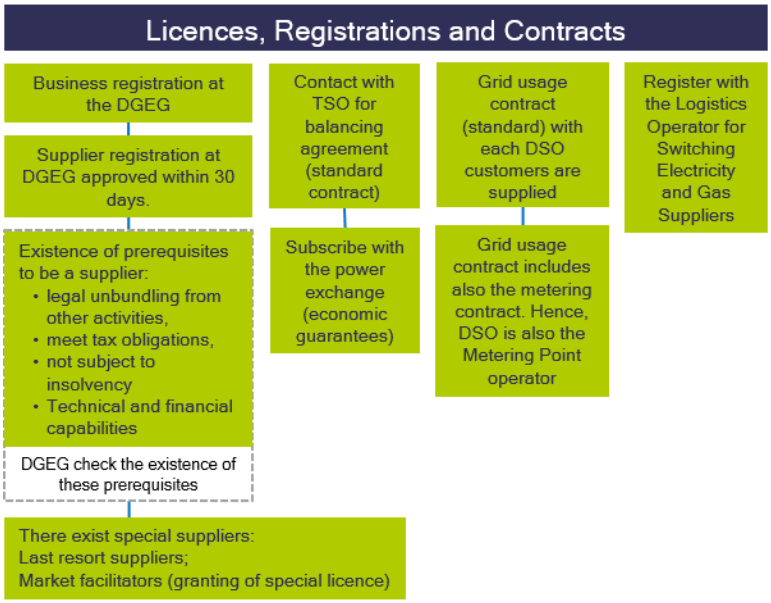
- **Main route to information:**
  - Retail supply activity is only subject to registration with DGEG (General Directorate of Energy and Geology) as there is a free competitive regime. The registration requires confirmation from DGEG,

but it is considered tacitly approved if there is no decision in 30 days. There are special suppliers, that is the last resort supplier and the market facilitator.

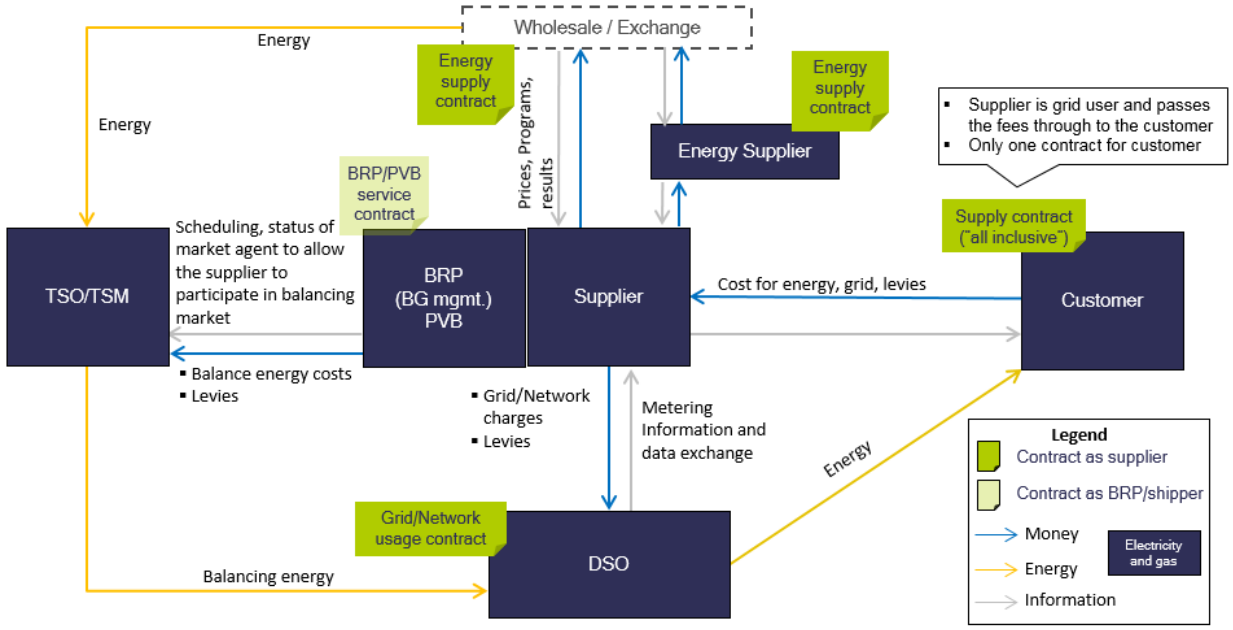
- To become a market agent at the OMIE/MIBGAS platform, a guide and market rules are available.
- Grid costs are published by each DSO on their website, but no central free database is available.
- Infrastructure and TPA costs are published by ERSE.

- List of **key players and institutions** to talk to: ERSE, General Directorate of Energy and Geology (DGEG), Redes Energéticas Nacionais (TSO/System's Technical Managers); ADENE/OLMC the switching operator; DSOs, OMIE and MIBGAS (market operators).
- **ERSE:** Monitoring report of the regulator gives a good high-level overview of market structure, and developments (the annual report to the EC and the Market Monitoring Reports to ACER are in English, the remaining reports made public by ERSE are in Portuguese). ERSE incorporates information on electricity offers in simulation and decision-making support tools for consumers on its website. Recently, ERSE has also started the publication of quarterly newsletters on reference market prices in LV. The price comparison website is also available in English.
- A **central platform** for registering tariffs does not exist, but there are two public price comparison websites, ERSE PCT (http://www.erse.pt/pt/Simuladores/Paginas/Simuladores.aspx) and poupaenergia.pt; as well as a trustworthy website for comparison provided by consumer association DECO (https://www.deco.proteste.pt/casa-energia/eletricidade-gas). There are another 2 websites which are not official platforms.
- **Laws and standard contracts** (e.g. with DSO) available in Portuguese only (statutory law and regulation might be found in English with non-binding translation).
- **Balancing regime** very well described on TSO websites and grid/network code.
- **Language of information:** mainly in Portuguese, although non-binding translations of market rules are available.

2) Licenses, registrations and contracts



Dependencies / Contracts for Electricity and Gas

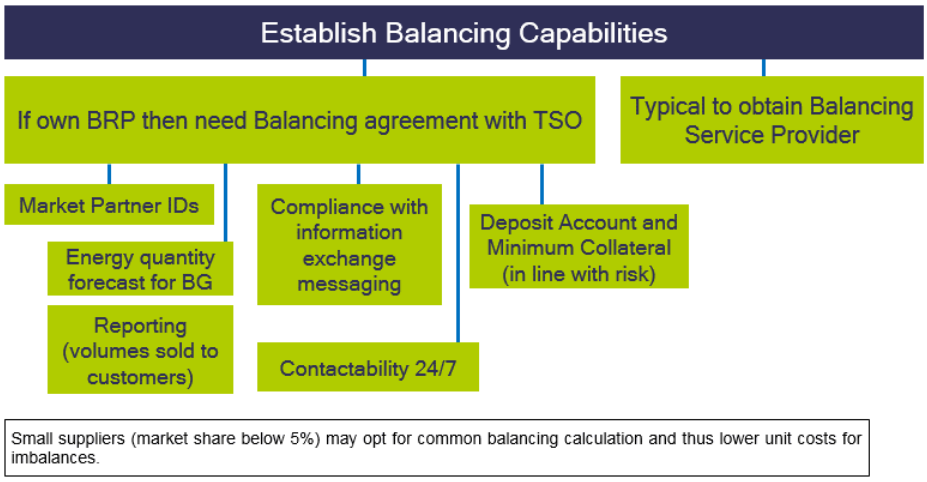


Further comments

- Contracts with end-consumers must also comply with the:
  - Commercial Relations Regulation
  - Quality of Service Regulation
  - General law, including standard terms provided under consumer protection laws
- Contract to close: electricity/gas supply contracts with either the market operator or energy supplier; BRP/PVB service contract if any; grid usage contract.
- REN (TSO), ERSE and OMIE/MIBGAS ask each candidate to provide several legal/financial documents (accounts, certificates of being up to date with payments to fiscal authorities, etc.) and ask for a minimum technical capacity (IT systems).
- Grid usage contract must be concluded with each DSO (paper contracts) and includes metering and settlement.
- Market access guide (OMIE/MIBGAS) encloses all the details to become a market agent:
  - http://www.omie.es/files/guia_omie_april2019_en-final.pdf
  - http://m.mibgas.es/en/gas-markets/participants/how-become-member/access-guide
- Foreign energy supply companies - regardless of their place of business – must also register if they supply household customers in Portugal. Portuguese companies benefit from mutual recognition due to the existence of an agreement between the two countries.

Any company acting in OMIE/MIBGAS shall be registered.

3) Balancing

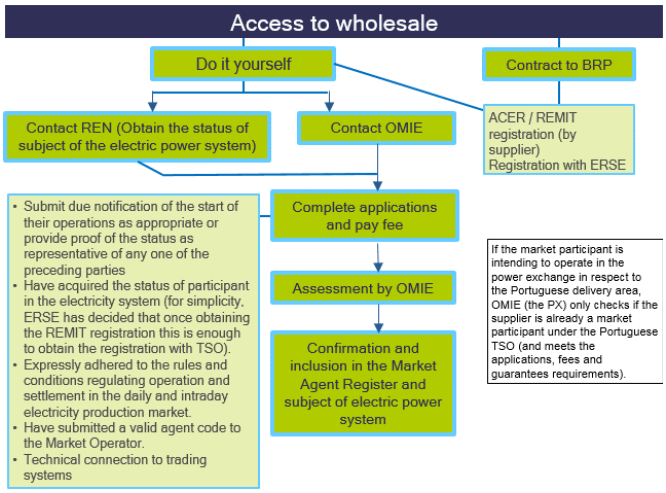


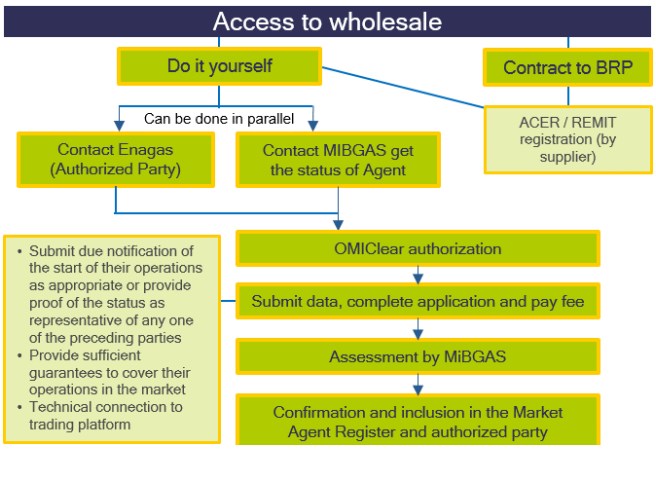
Further comments

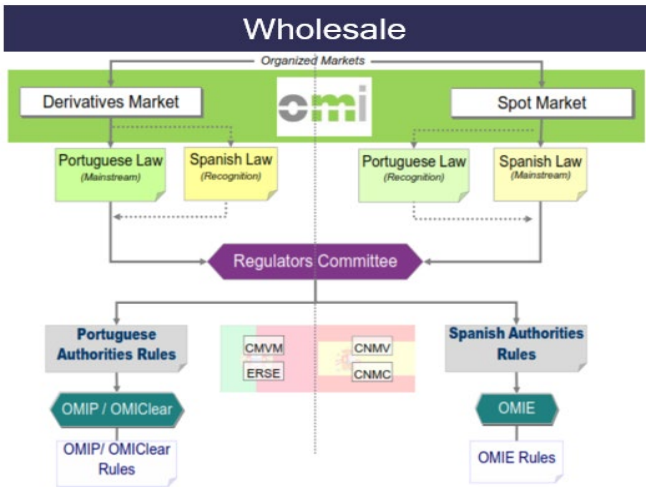
- Imbalances between production and demand and technical constraints are dealt with in the scope of the ancillary services market, which is managed by REN in its capacity as Global Technical System Manager, as set out in the Network Operation Code (ROR), revised in 2017, and in the Manual of Procedures for Global Technical System Management for the Electrical System (MPGGS).
- BRP are related to forecasting of managed volumes and keeping the represented parties posted on regulatory changes and foreseeable implications. Suppliers usually perform subsequent analysis to improve the quality of their forecasts.
- Hence, a typical risk is related to imbalances and forecast errors of both volumes and prices.
- The market is open to ESCO services, including offering demand response in balancing markets (currently under a pilot project). There is one retailer acting as a demand aggregator for large customers already for several years.

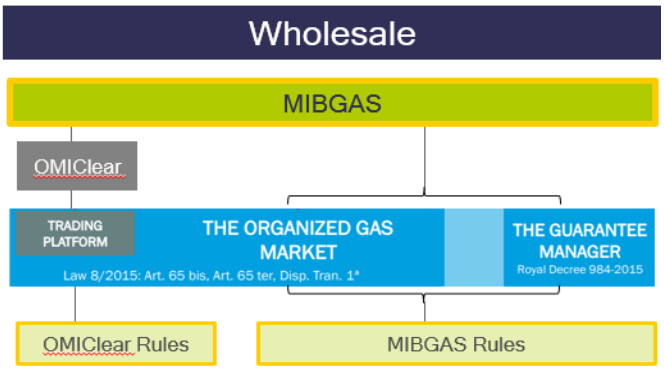
4) Wholesale

Electricity	Gas





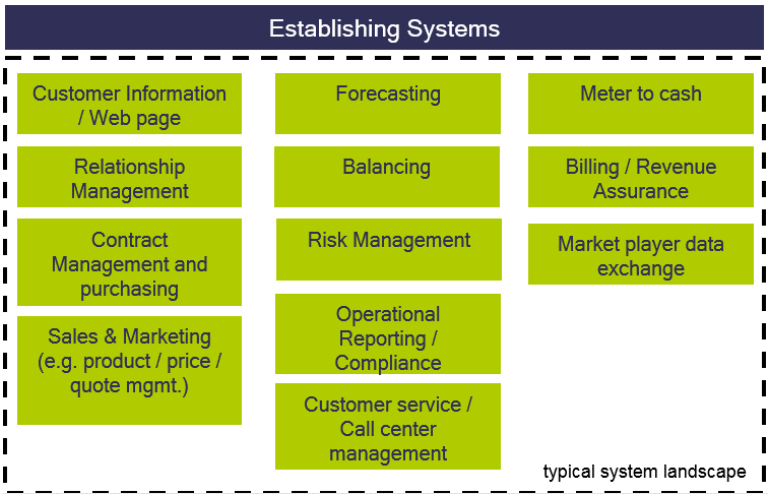




Further comments

- A supplier can have access to wholesale market directly or procure the energy by outsourcing this service.
- Also, a supplier may own generation power plants. However, most suppliers don't have generation assets in the same economic company portfolio. Portuguese legal framework defines that retailer and generator can't be the same legal entity.
- Access rules to the wholesale market follow the EU market rules.

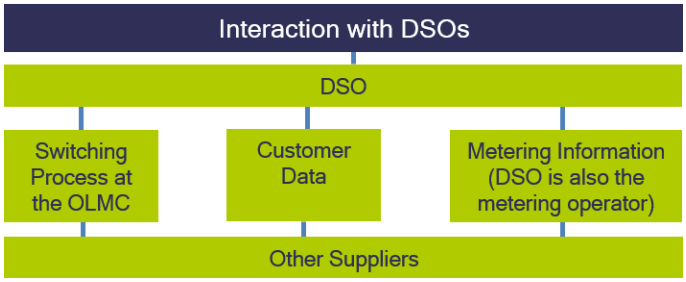
5) System landscape



Further comments

- To make an accurate supply forecast, it is necessary for the supplier to know and analyse the historical consumption of its customers. The supply curve is thus based on historical data or profiles published by REN (annually and by customer type).
- Data exchange and management can be time consuming and software is available. There are customized software solutions provided by IT companies to implement integration with DSO IT systems. If a manual process is chosen by the supplier, it also follows standard files under standard software tools (such as Excel, csv format, etc.).
- Mandatory connections with OMIE, OMIclear and REN.

6) DSO-related operations & market communications

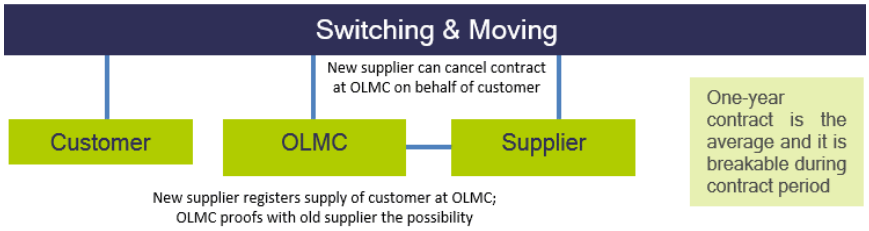


Further comments

- To deliver energy to a customer, a supplier needs to have a contract with the relevant DSO. Meaning to have an agreement with those DSOs active in the area where suppliers' customers are located.

- The supplier needs to be in touch with OLMC primarily to facilitate the switch and with the DSO for metering and master data information.
- Business processes for energy delivery and supplier change are standardized:
    - Cancellation of supply contract (OLMC)
    - Master data exchange (OLMC)
    - Delivery end date / start date (OLMC)
    - Substitute / Basic supply
    - Grid fee billing / settlement
- Smart meter data and analogue meter data provided by the DSOs. DSO is obliged to provide suppliers with data on monthly basis, moreover, to bill them for the use of networks (access tariffs).
- The data exchange process has some complexity depending on the number of customers served, but there are standards approved by the regulator (following public consultation). Suppliers with large number of customers tend to have peer-to-peer integration with DSO IT systems. Small scale retailers can do it manually.
- The DSO is obliged to report to ERSE and subjected to periodic audits (to assess whether the provisions are met or not).
- The customer data format is standardized and approved by ERSE. It is available through the switching platform most commonly within 1 to 2 days. In any case, customer mandate is needed.

7) Customer switching & moving



Further comments

Switching process

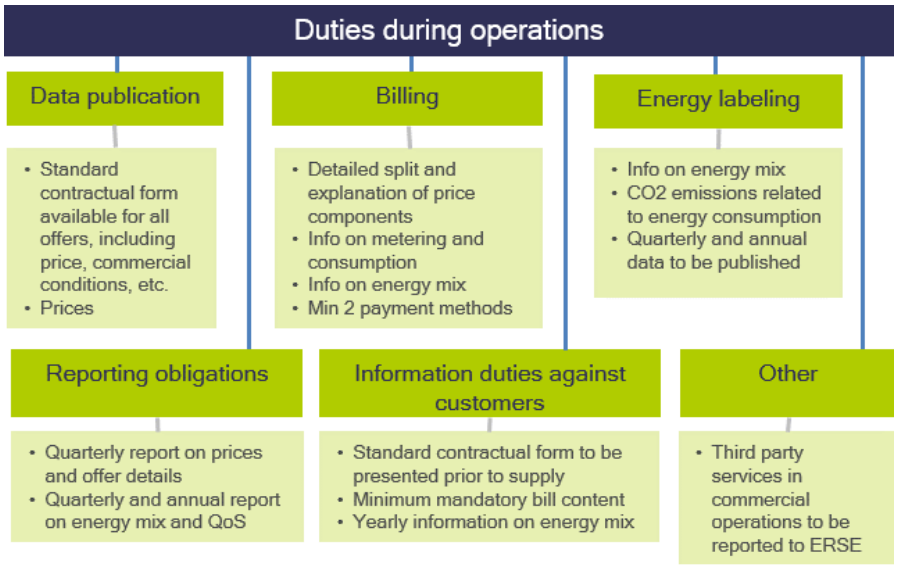
- Switching process at OLMC is standardized; they also include deadlines for each business process and market players.
- It is possible to change suppliers during the month on any working day of the week.
- Minimum and maximum contract length is not defined. The most common is to have one-year contract automatically renewed.
- Contracts are in general breakable during contract length, especially for domestic consumers.

- Obviously, it is up to the customer to decide to either stay with the current supplier or switch to a new one. Once the new supplier places a request (to register the contract) in the switching platform, the previous supplier cannot object to it. Price matching is thus possible during contract negotiation phase and more often on the basis of information provided by the customer. ERSE approved strict regulation to prevent aggressive win-back actions by previous suppliers.

Moving process

- Moving in case of supplier bankruptcy, its customers are (automatically) moved to the last resort supplier; No customer action needed.
- Moving in: if no offer to customer, the last resort supplier can be contracted; Customer action needed
- Moving out: when contracting with a market supplier; Customer action needed

8) Operational obligations / duties



Further comments

- Suppliers must have a standard contractual form available for all offers, which includes information to customers regarding detailed identification of supplier, price, payment methods, contract duration, loyalty clauses and information on vulnerable and special needs customers.
- Standard contractual form is presented prior to supply and integrates the contract once in operation. This obligation is intended to ease comparison between offers.

- Billing activity contains minimum data, related to clear identification of supplier, price (energy and access tariff in detail), consumption and meter readings, due date, payment methods, energy mix, taxes and levies. Nevertheless, no standard bill format is approved by the regulator.
- Suppliers also present other information to consumers, such as period to present direct meter readings, quarterly and annual information on energy mix and CO2 emissions,
- Suppliers have reporting obligations to regulator regarding prices, offer details, QoS (commercial), energy mix, CO2 emissions and third-party services used in commercial operations.
- Reference prices are the set of tariffs, tariff options, and corresponding prices and indexes per billing variable offered by suppliers to their customers, as well as the conditions for applying the tariffs, namely consumption characteristics, contract duration, and price revision conditions.
- Reference prices are the supplier's basic standard offer, thus not inhibiting the application of differentiated contractual conditions such as discounts or other promotional campaigns. This information must be sent on an annual basis (end of January) and whenever there is a change in prices or contractual conditions.

Getting in touch with the EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:
- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by email via: https://europa.eu/european-union/contact_en

Finding information about the EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications from: https://op.europa.eu/en/publications. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

MJ-02-21-191-EN-N

Publications Office
of the European Union

ISBN 978-92-76-30261-2