

EUROPEAN BARRIERS IN RETAIL ENERGY MARKETS



SLOVENIA Country Handbook













EUROPEAN BARRIERS IN RETAIL ENERGY MARKETS PROJECT: Slovenia Country Handbook

VaasaETT REKK MRC The Advisory House

Contact:

Philip Lewis, VaasaETT, philip.lewis@vaasaett.com
Balazs Felsmann, REKK, philip.lewis@vaasaett.com
Chema Zabala, MRC, philip.lewis@vaasaett.com
Chema Zabala, MRC, philip.lewis@vaasaett.com

Florian Hirschbichler, The Advisory House, florian.hirschbichler@advisoryhouse.com

Manuscript completed in July 2020

The European Commission is not liable for any consequence stemming from the reuse of this publication.

Luxembourg: Publications Office of the European Union, 2021



© European Union, 2021

The reuse policy of European Commission documents is implemented based on Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (https://creativecommons.org/licenses/by/4.0/). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders.

PDF ISBN 978-92-76-30266-7 | doi:10.2833/018908 | MJ-02-21-197-EN-N

How to cite this report: Felsmann, B., Vékony, A., Dézsi, B., & Diallo, A. (2021). European Barriers in Retail Energy Markets Project: Slovenia Country Handbook. Luxembourg: Publications Office of the European Union. ISBN 978-92-76-30266-7, doi:10.2833/018908.

TABLE OF CONTENTS

SUMMARY	4			
Project Outline	4			
Key barriers in the Slovenian market				
Key recommendations	13			
MARKET OVERVIEW	14			
Introduction				
Background	14			
Market structure	15			
Political and regulatory orientation	16			
Regulatory market characteristics	16			
Context for aggregation/demand response	17			
BARRIERS	18			
Regulatory disincentivisation	20			
2) Market inequality				
Operational and procedural hindrances				
4) Customer inertia				
5) Other	36			
FINDINGS & RECOMMENDATIONS	38			
APPENDIX 1: PROCESSES				
Information gathering before market entry	40			
2) Licences, registrations and contracts	41			
3) Balancing	42			
4) Wholesale	43			
5) System landscape	44			
6) DSO-related operations & market communications	45			
7) Customer switching & moving	46			
8) Operational obligations/duties	46			
9) Market exit	47			

This document has been prepared for the European Commission however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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.

Cyprus



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

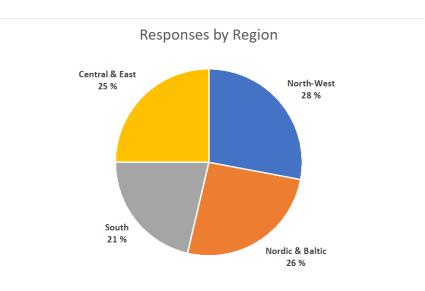
The primary research mediums used in the project were an extensive questionnaire and in-depth interviews. The purpose of the questionnaire, which contained separate questions depending on the type of respondent, was to provide a comprehensive and structured identification, weighting and magnitude of 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 Slovenian market

The following figure highlights the key barriers in the Slovenian market.

Importance of ke	Key barriers specific to Slovenia			
Advantage of vertically integrated market players	Wide-reaching price regulation	Low margin of regulated offer	Small market or customer value	Uncertainty caused by some market players who can influence legislation
Strategic behaviour of the incumbent or other market players	Uncertainty around current regulatory environment or its development	Uncertainty around regulatory future for digitalisation and new technology	Low liquidity on wholesale market	Low level of digitalisation, complex and heterogenious processes
Capacity and ancillary services markets discriminate against new/small players	Low customer awareness or interest	Customers do not trust new suppliers or technology	Poor or no access to operations-critical data	Price and volume risk is present in electricity procurement
Missing market value of novel products	Insufficient price signals for end-users	Lack of data for innovative product development	Lack of data hub	Changing supplier is difficult or has low pay- off for the customer"

:24!£	
	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

As major obstacles, like price regulation or heavy administration processes are not present in Slovenia, the following areas may be suitable for further improvements:

- incentivizing more transparent and formalized public consultations,
- increasing liquidity on the wholesale level (on the gas market),
- digitization of processes and development of transparent platforms,
- implementation of international standards,
- make customers more aware of their opportunities to improve the willingness to switch supplier.

MARKET OVERVIEW

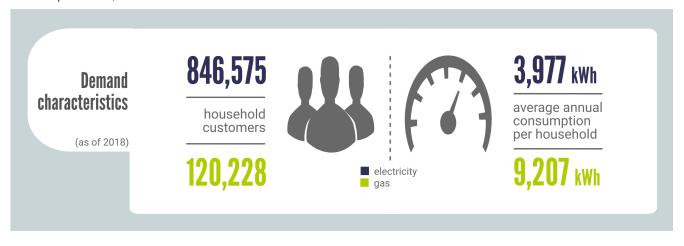
Introduction

15,003 GWh of electricity was delivered to the transmission and distribution system in 2018, of which 34.5% (5,177 GWh) from renewable sources. Fossil fuel-based production, which equaled to RES production in 2017, decreased to 4,343 GWh in 2018. Nuclear plant Krsko produced 5,483 GWh, decreasing its production by 9% from 2017 to 2018. Total electricity consumption was 12,262 GWh (excluding losses) which was covered by domestic production in 2018.

373.3 MW new generation capacities were connected to the grid in 2018, while 250.7 MW was disconnected. The latter covered mostly the closure of one thermal power plant unit (248 MW). Major change related to new capacities was the resumption of operation of a bigger TPP unit (305 MW) and a new gas-fueled unit at Brestanica TPP (53 MW). In case of renewables, 7.6 MW of solar and 0.9 MW hydro capacities were connected to the grid.

13,261 GWh natural gas was transferred to the transmission system of which 9,448 GWh was domestically consumed, 15 GWh was used for self-consumption and remaining quantities were transferred. Slovenia does not own natural gas sources and storages, so the country is dependent on imports from Austria, Italy and Croatia.

There are approximately 850 thousand household electricity customers with an average annual consumption of 3,977 kWh. The number of household natural gas consumers is 120 thousand with an average annual consumption of 9,207 kWh.



Background

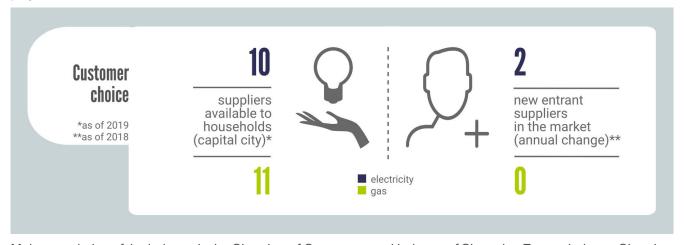
Both the electricity and natural gas market are fully opened since 2007, from then on, all customers have the option to switch their supplier. Market operator organized electricity exchange from 2002 to 2008, but in 2009 it was replaced by BSP regional energy exchange. Croatian and Slovenian day-ahead market coupling was carried out in the middle of 2018.

In 2014 the Energy Act abolished energy licenses so simplified a lot to start-up a company on the energy markets. This new Act was highly awaited by market players, but it did not meet the expectations perfectly, as market players expected the reduction of electricity contributions (which were already below EU average) and charges to reduce final prices and make the inner economic sectors more competitive on an international level.

Market structure

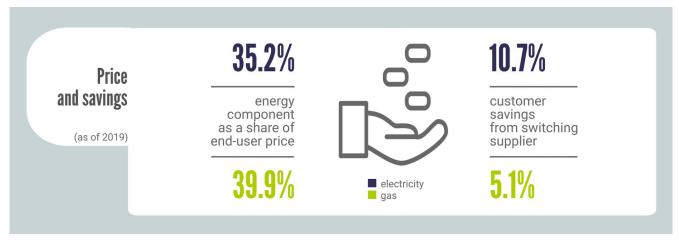
TSO on the electricity market is ELES. d.o.o. and 5 companies 1 carry out distribution activities on behalf of SODO d.o.o. (national DSO) on the basis of the contract for leasing the distribution infrastructure and the provision of services to the DSO. On the gas market the TSO is Plinovodi d.o.o. and there are 13 DSOs. There are also 5 operators of closed distribution systems on both markets.

The number of suppliers was 23 on both markets in 2018, of which 10 and 11 were available on the electricity and gas markets in the capital city. Gas market is significantly more concentrated as the top 5 suppliers (Geoplin, Adriaplin, Energetika Ljubljana, GEN-I, Petrol) have 84.7% market share. On the electricity market the top 5 players have 67.2% market share and former incumbents' have 47.8%.



Main association of the industry is the Chamber of Commerce and Industry of Slovenia - Energy Industry Chamber of Slovenia where the relevant sections are Section Energy Market Data Exchange Section (IPET) and Section for Question of Energy Suppliers. Slovenia's NRA for electricity and gas is Agencija za energijo (Energy Agency). On the Slovenian market TSO, DSO and supply activities has to be carried out by separate companies. Legal unbundling is not required for gas distribution companies, because all companies have less than 100.000 final customers.

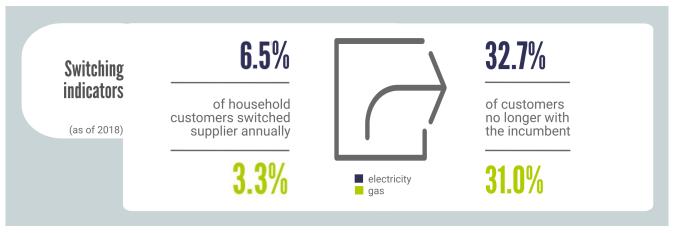
Smart meter rollout was 66% in 2018 on the electricity market, for further expansion no formal plan exists but according to the past years' dynamics a share of about 80% of smart meters till end 2020 is expected.



¹ The 5 companies are: Elektro Celje, d.d., Elektro Gorenjska, d.d., Elektro Ljubljana, d.d., Elektro Maribor, d.d., Elektro Primorska, d.d.,

The energy component of the electricity bill accounts for 35.2% for electricity and 39.9% for gas customers, the rest of the bill comprises of grid tariffs, taxes and duties. Supplier switching can result in a 10.7% customer savings on the electricity market and 5.1% on the gas market. The volume of potential annual savings on natural gas spending for a typical household was peaked in 2017 but narrowed in 2018. Highest potential savings from switching was available in all local communities in 2018.

Ratio of supplier switching is 6.5% on the electricity market, almost twice as high than on the gas market (3.3%). In the retail electricity market, market concentration decreased and the rate of supplier switches was lower than a year before. Higher wholesale prices resulted in higher end user prices in general, also the difference between the cheapest and the most expensive offers grew moderately. Different business models of suppliers are present on the market, their presence on specific segments varies, also it is quite popular that some suppliers generate most of their income in totally different markets and offer bundled services.



Political and regulatory orientation

The latest comprehensive strategic document regarding energy market regulation is the National Energy and Climate Plan (NECP) which defines five areas of action and target setting:

- decarbonization: 15% GHG emission reduction by 2030 (compared to 2005) where the energy sector's part is proportional to the overall target and increasing the share of renewables to 27% of final energy consumption by 2030,
- energy efficiency: reducing overall energy usage is a key measure towards lower emissions,
- energy security: key area especially on the gas market,
- internal energy market: infrastructure development and market integration,
- research, innovation and competitiveness: draft NECP sets 3% in 2020 and 3.6% in 2030 of the country's GDP to spend on R&D.

Regulatory market characteristics

Natural gas and electricity retail prices are not regulated in Slovenia. The regulatory environment of entering energy markets is also very inclusive as no license required for energy market activities. Suppliers shall conclude a balancing contract with market organizer to be a part of balance scheme. Registration of market participants takes place according to REMIT.

Slovenian utility bills have to include specific information:

- electricity: electricity, network access, contributions for energy efficiency, RES and CHP, excise duty, VAT
- natural gas: gas, network charge (distribution and metering costs), contributions for energy efficiency, RES and CHP, excise duty, VAT

Electricity suppliers must inform their customers in details about the production sources of electricity they supply and, the environmental impacts of their activity on the invoices and through other platforms.

More detailed information on the registering process and the difference between registering in the gas- or electricity market can be found in the appendix under the chapter "Licenses, registrations and contracts".

Expected regulatory interventions in the near future are required changes according to Clean Energy Package.

Context for aggregation/demand response

Since 2014 three mFRR demand response (DR) providers have entered the ancillary services market. In 2019 the auction based contracted DER power amounted to 27 MW, while in 2014 it amounted to 12 MW. They provide services by using commercial VPP controlling a portfolio of DERs. In 2019 another new market player, primarily aFRR provider NGEN has entered the ancillary services market (investor in biggest battery energy storage system in the region). The market rules very loosely support independent aggregation (special guidance is published by market operator in the domain of aFRR and mFRR only) but do not enforce the rules for BRP-BRP compensation. However, the membership in balance scheme is mandatory for independent aggregators.

According to the Act on the methodology for determining the regulatory framework and network charges for the electricity system, NRA has introduced following "sandbox" for pilot DR projects for regulatory period 2019-2021 that relies on special provisions for Research & Innovation projects using dynamic network charge tariff:

- Qualified pilot or demonstration projects based on dynamic network tariffs must be implemented with the
 aim of responding to key development issues related to the active participation of customers on the
 market, the usability of new technologies and services in the area of smart grids and related market
 mechanisms such as, for example, use of flexibility of final customers.
- In order to stimulate the electricity demand response and demand side management, the system operator may use the pilot mechanisms for charging the network charge:
 - Usage of Dynamic Critical Peak Tarif (Article 135) to reduce the consumption at critical peak load hours or increase the consumption during the critical net-production in the local network,
 - Compensation for achieving self-consumption in communities (Article 137).
 - Compensation for participation of active customers in frequency ancillary services (Article 136) based on market prices.

The costs of qualified pilot projects are eligible but capped.

In the regulatory period 2016-2018 the similar provisions for dynamic network tariff has been in place: 2 pilot projects were qualified, one being part of wider national based NEDO project and another one qualified as H2020 project². In current regulatory period more projects using NRAs pilot mechanisms were qualified.

https://premakni-porabo.si/predstavitev/ https://www.flex4grid.eu/

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

1		Regulatory disincentivisation
z ks	2	Market inequality
Bar Blo	3	Operational and procedural hinderance
	4	Customer inertia

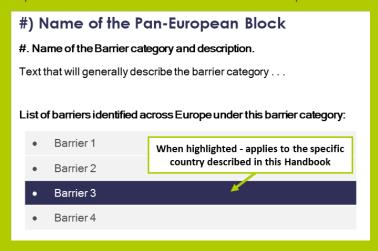
Description of the four-over-arching pan-European barrier blocks:

- 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 chapter. Altogether, we identified 45 barriers, most of which broadly across Europe. Only a selection of them apply to the Slovenian case as reported in the following chapters of this handbook.

HOW TO READ AND INTERPRET THE FOLLOWING SECTIONS

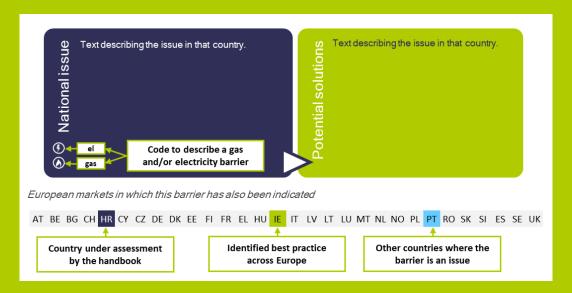
Each of the following four chapters explores one of the four pan-European blocks of barriers and report how each sub-category barrier apply to Slovenia. When a barrier applies to Slovenia, it will be highlighted in the table following a general description of the barrier itself as shown in the example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

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, Country'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 barriers³:

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 CEER⁴, 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.⁵ Across Europe, the following specific barriers related to "price regulation" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Slovenia:

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

³ Please note: these definitions are Europe focused, not Slovenia specific. Highlighted barriers have been identified as country specific.

⁴ Monitoring Report on the Performance of European Retail Markets in 2018. CEER Report 4 November 2019.

- 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 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 Slovenia:
 - 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 Slovenia:
 - 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 do not incentivize novel products (missing perceived value)

1.1 Description of regulatory disincentivisation barriers in Slovenia: Regulatory unpredictability

Uncertainty caused by industry actors influencing legislation, e.g. incumbent or associations shape legislation. While cooperation between authorities and market actors is essential for functioning and lasting market developments, industry bodies or actors may be given too much power to shape legislation, allowing the legislation to be shaped for the benefit of these actors to the detriment of other actors or customers or market competitiveness. Influence of certain actors on regulatory decisions is moderately present on both markets according to the suppliers' responses.

National issu

(•)

In Slovenia all regulatory measures must pass public consultations in the preparation phase. After the consultation the public is informed which feedbacks were accepted and which were not. Even tough every stakeholder can present their opinion it seems that only the ones with bigger market shares participate in the process. As a result of this selection bias smaller players and stakeholders are often surprised by regulatory changes.

tential solutions

Allocation of resources to review regulatory materials and to participate in public consultations can be a burden for smaller actors or players who are not yet fully aware of the country's particularities. Incentivizing and helping their participation can help to collect feedback of players with different backgrounds and market power.

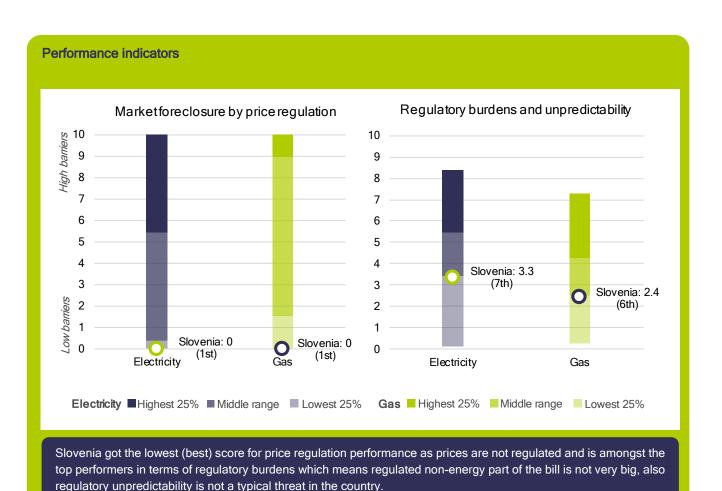
European markets in which this barrier has also been indicated

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

1.2 Slovenia'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 Slovenia are shown against the range across all analyzed countries. These scores contribute to the performance index. The performance indicators of regulatory disincentivisation are the followings:

- 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 the high share of the customers is supplied at regulated price, and the mark-up is significantly lower than
 the average mark-up on the competitive markets.
- Regulatory burdens and unpredictability: The index consists of two sub-indicators. Regulatory burdens
 reflects 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).



2) Market inequality

Within market inequality, barriers across Europe have been sub-categorised into two areas encompassing 8 specific barriers⁶:

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

- · 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.

⁶ Please note: these definitions are Europe focused, not Slovenia specific. Highlighted barriers have been identified as country specific.

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 to an increase in risk, disadvantaging small market participants substantially more than large, established suppliers. Across Europe, the following specific barriers related to "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 Slovenia:

- 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 Slovenia: Unbundling and market power

Discriminating, strategic behaviour of incumbent, and obstruction by other market players. Presence of established players with large market shares can create the opportunity to use tactics in pricing, customer access and other moves which are not available to new entrants. This can especially disadvantage small suppliers with limited opportunities and can deter entrance of new players. According to market share data and responses of market players this barrier is present on the Slovenian market.

All respondents marked this barrier as relevant or very relevant. Almost half of the electricity market and 85% of the gas retail market is served by former incumbent players.

•

Uneven market power is a result of country-specific processes, so the solution has to be very specific as well.

Increase of transparency, enforcing fiercer.

Increase of transparency, enforcing fiercer competition could decrease the market power of the incumbents thus reduce discrimination and strategic behaviour.

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

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

Low liquidity in the wholesale market. From our studies of this market, it appears that this poses a barrier on the Slovenian gas market. 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. Market participants with a lot of market power can withdraw their production capacities from the wholesale market and thus discriminate against other players.

Slovenian does not have own natural gas sources, storage facilities or a developed gas hub.

In Slovenia traded gas volume (volumes traded at hub or exchanges) is relatively low compared to the consumption of the country which is an indicator of low liquidity.

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

High price or volume risk in energy procurement. In general, volume and price risk, due to the difference in time and volume between procurement and billing, raises risks for market participants and therefore presents a barrier. This is a particular problem in combination with a lack of hedging opportunities that would allow companies to insure against wholesale price fluctuations.



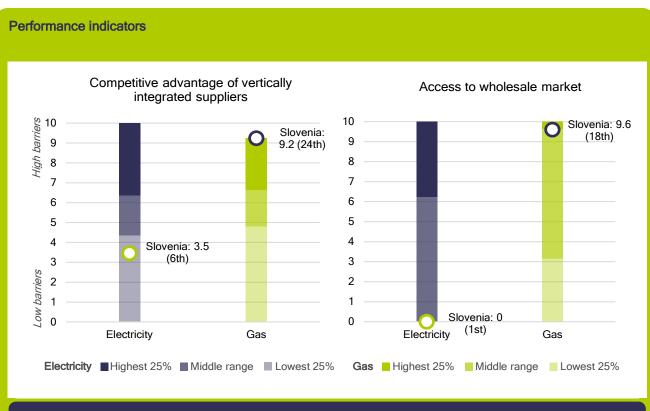
European markets in which this barrier has also been indicated

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 Slovenia'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 Slovenia are shown against the range across all analyzed countries. These scores contribute to the performance index. The performance indicators of market inequality are the followings:

- 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'.



Slovenia's rank in this category is significantly better on the electricity market where the advantage and market power of incumbents is smaller and where the wholesale market is very liquid compared to other European countries. On the gas market these factors are relevant barriers.

3) Operational and procedural hindrances

Within operational and procedural hindrances, barriers across Europe have been sub-categorised into two areas encompassing 13 specific barriers⁷:

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 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 related to "signup & operations compliance" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Slovenia:

- 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

⁷ Please note: these definitions are Europe focused, not Slovenia specific. Highlighted barriers have been identified as country specific.

- 1. 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 related to "data access & processes" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Slovenia:
 - 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 Slovenia: Signup & operations compliance

Poor availability of information for market entrants & active participants. Detailed information about legislation, licensing requirements and procedures during operations etc. are not always available, or only in the local language. This makes it difficult for potential new entrants to (1) understand the market and judge its suitability for their business; (2) efficiently go through the entry process to establish on the market; (3) operate effectively and efficiently. Some respondents in Slovenia raised this as a moderate barrier, our studies of this market confirm that.

Translating the original content of all Availability of market information otential solutions authorities' and stakeholders' websites to information on consumers was defined as a moderate barrier on both markets. English. Standardized reporting and information Energy Act is translated but other regulatory sharing processes can help to improve materials are only available in Slovenian, also current situation. the English version of the respective Ministry's website is less informative than the Slovenian version. •

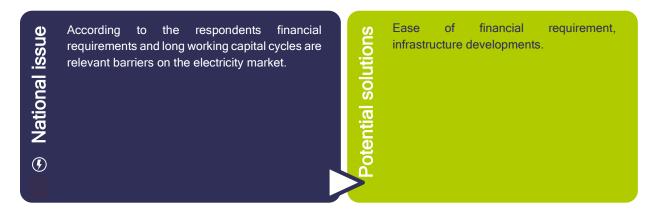
European markets in which this barrier has also been indicated

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

AUSTRIAN BEST PRACTICE CASE: Availability of information for market entrants & active participants.

The Austrian NRA, E-Control offers a comprehensive "starter kit" with all the necessary information for new market entrants in German and English language. Furthermore, statistical data, covering switching rates, price levels, smart metering rollout progress and others is frequently being published. Therefore, a barrier is not only non-existing, but even more, the situation in Austria can be regarded as a best practice.

High financial requirements (incl. long working capital cycles) and forced risk during operations. High financial requirements such as securities and minimum account balances for balancing services and procurement, as well as long working capital cycles, e.g. due to expensive IT infrastructure, can present a barrier due to the amount of capital that must be set aside. This is a challenge especially for small and new retailers. A high level of risk, e.g. non-refusal right of customers, can similarly act as a barrier. Some respondents in Slovenia raised this as a barrier.



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 environmental obligations. Some respondents in Slovenia raised this as a barrier. Environmental obligations such as energy efficiency schemes and certificates of origin may present a barrier as they can lead to increased bureaucracy and costs. Such obligations can be perceived as a barrier particularly if their relevance to the market is not clear to suppliers or if their implementation is felt to be unfair.



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 Slovenia: Data access & processes

Complex, heterogenous IT infrastructure and/or low level of digitalisation. Some respondents in Slovenia raised this as a barrier. 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.



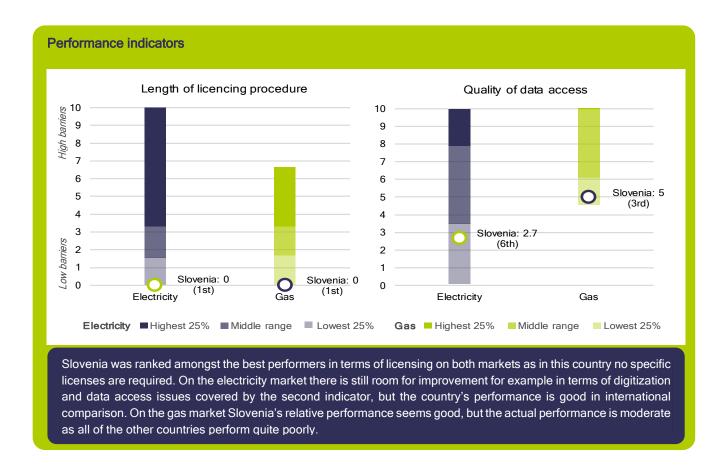
European markets in which this barrier has also been indicated

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 Slovenia'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 Slovenia are shown against the range across all analyzed 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.



4) Customer inertia

Within operational and procedural hindrances, barriers across Europe have been sub-categorised into one area encompassing 6 specific barriers⁸:

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 related to "customer orientation" were detected by this study. Those highlighted in blue have been raised, indicated or identified as barriers in Slovenia:

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

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

Low customer awareness or interest makes it difficult to attract customers If customers are not well informed about their opportunities to participate in the market or are not motivated to use them, or find the market too complex to access, they are not driven to seek out or engage with new energy suppliers. If energy is not a core priority for customers in their lifestyle, it is difficult to engage them in the market overall. This barrier also prevents uptake of novel services, as the benefits are difficult to promote to customers who do not already value energy or their role in the market. Some respondents in Slovenia raised this as a barrier.

National issue

(

Building customer base as a new, small and less known supplier is difficult mainly because of the lack of awareness of the benefits of switching and not because of cultural factors (e.g. language).

Even if the regulator re-established a trusted price comparison tool its usage is not sufficiently widespread among consumers.

Potential solutions

Neutral information campaigns focusing on general market functioning and customer options can help in levelling the playing field and reduce this barrier.

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. Customers stay with their current, usually incumbent supplier (e.g. because of mistrust of switching processes or of quality of other suppliers, or because there is no explicit driver to make the effort to engage in the market) which was raised as a barrier by some respondents in Slovenia.

National issue

Customer inertia is shomewhat present on both markets according to the perception of survey responses.

ential solution

If customers are aware that they can switch back to their original supplier without any additional cost, they would be more willing to try new suppliers.

Regulatory environment should help to develop a well-informed market.

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

Lack of trust in new or foreign suppliers and in new technology. Lack of trust in new and/or foreign suppliers can be caused by previous bankruptcies in the market or simply customer unfamiliarity with the new supplier's quality of service. This presents a barrier for new suppliers trying to attract customers, as they have to invest heavily in building a new relationship. Customers and hence retailers may also mistrust new technology, at least until they have been convinced that it is useful and will not disrupt their lifestyle, which is difficult to do until enough people use the technology. Some respondents in Slovenia raised this as a barrier.

lational issu

•

Players on the electricity market face the lack of trust from the customers, but this factor is only moderate relevant on the gas market.

tential solution

If customers are aware that they can switch back to their original supplier without any additional cost, they would be more willing to try new suppliers.

Regulatory environment should help to develop a well-informed market.

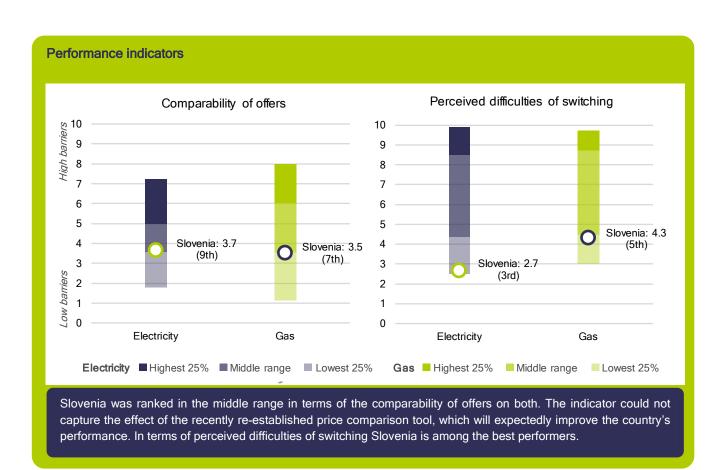
European markets in which this barrier has also been indicated

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 Slovenia'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 Slovenia 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.

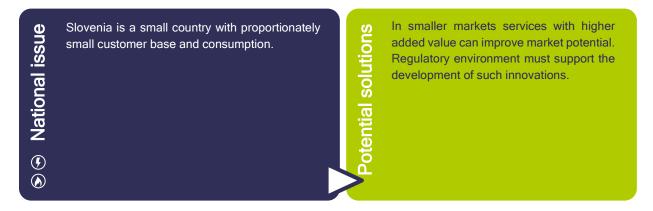


5) Other

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.

5.1 Description of other barriers in Slovenia: Other

Small market or customer value. A small population and/or low consumption hinders profitability. Market size as a barrier could be ameliorated by better harmonization of markets. Several respondents in Slovenia raised this as a barrier, also from our studies of this market, it appears that this would pose a barrier.



European markets in which this barrier has also been indicated



FINDINGS & RECOMMENDATIONS

This handbook provides a high-level framework of relevant barriers to entry and operate for energy suppliers into the Slovenian 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.

12 of the 45 identified barriers proved to be present at least at one of the energy retail markets in Slovenia. These barriers are quite heterogenous and cannot be grouped into one or two typical areas. Slovenian energy markets are in a special condition compared to other European countries as both the electricity and the gas market is relatively small and strongly connected to the neighboring markets, especially the gas market in the absence of local sources or storage facilities. Among other factors this can be one reason why Slovenia has already implemented the most important measures to create an open and transparent retail market which is relatively easy to enter. In general, it can be told that Slovenia's energy retail markets are not burdened with very serious problems, but of course there are some areas where difficulties appear. As major obstacles, like price regulation or heavy administration processes are not present, the following areas may be suitable for further improvements. Regarding market inequality, barriers have been identified arising from a perceived uneven playing field for different types of suppliers. Suppliers responding to the survey reported a retail market conditioned by inequality of opportunities for example in terms of a higher influence on legislation and they are perceived to engage in strategic behaviour.

Price or volume risk on the wholesale level is also present as Slovenia does not have an own gas hub. Increasing the liquidity on the wholesale level can reduce procurement risk and is able to reduce the above-mentioned differences among market players.

Information availability and digitalization of processes are also areas where measures are needed, to develop transparent platforms, standardized data formats and reporting or the implementation of international standards. In the field of digitalization supporting pilot projects and the evaluation of their performance can help to incentivize innovative solutions.

Another important problem is that customers awareness and willingness to switch supplier is low, which is a significant barrier for new entrants or less established market players. Making customers more aware of their opportunities can be helpful to develop more flexible customer behavior.

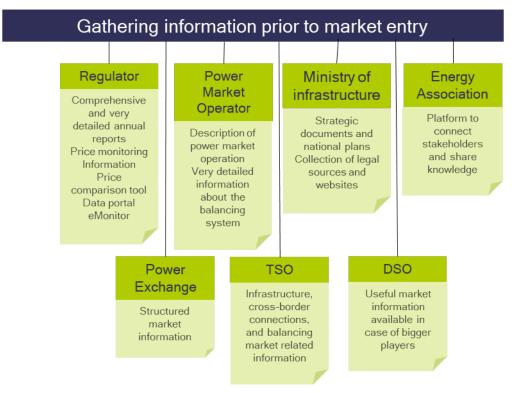
High financial requirements and burdensome environmental obligations are also perceived as entry barriers by market players. In this field it is important that these obligations have their legitimate purpose so in the first place, regulator can provide help to meet these obligations or in the second place can consider the reduction of requirements where appropriate.

The last barrier raised was that a market with a not that big customer base is not obviously an attractive business opportunity for investors. Supported pilot projects can serve as good examples to incentivize innovations and to introduce customers new opportunities. In the early stages subsidization is necessary to incentivize innovative projects. Turning towards solutions with higher added value can help to improve business potential in a smaller country.

APPENDIX 1: PROCESSES

This section describes market processes in energy retail in Slovenia. This provides context for the market barriers described above by giving a high-level overview of the most critical 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



Further comments

As a part of the country report preparation we have studied the available written sources and made interviews with representatives of the regulatory authority and market associations. Our statements based on these exploratory works are as follows:

- The regulator: Agencija za energijo (Energy Agency) presents the most comprehensive information about both electricity and natural gas markets. The agency's annual report is available in English (with delay in case of the latest editions) and describe retail market situation in details (market players, business models, prices, benefits of supplier switching, final prices, transparency, market effectiveness). Market information are available also in data portal eMonitor.
- Energy Agency monitors prices, provides market and bill comparison application and determines the Retail Price Index for electricity and natural gas as well. Customer information are available in Single point of contact.

- Energy Agency presents information specifically for new entrants and makes it available in English. Web page presents also relevant legal sources and the main stakeholders for each energy sector
- Energy Act is available in English translation⁹, other sources of legislation are available only in Slovenian
- Ministry of Infrastructure Portal Energetika collects all the strategic documents and national plans, also
 the lists the relevant legal sources and the websites of the main stakeholders for each energy sector but
 most of the documents and websites are available only in Slovenian
- TSOs (ELES for electricity and Plinovodi for natural gas) share a lot of information about the infrastructure, cross-border connections and balancing market
- Suppliers with bigger market shares and which are subsidiaries of international companies have websites
 quite informative about the market but they do not share helpful information to understand market entry
 conditions
- Energy Industry Chamber of Slovenia aims to serve as a platform to gather information and to share knowledge among stakeholders, basic information is available in English.
- Slovenian Power Market Operator Borzen describes the operation of power market and shares the most relevant documents, also describes very detailed information about the balancing system in English
- BSP Southpool is the Slovenian power exchange, it provides quite transparent, easily available structured information in English

2) Licences, registrations and contracts



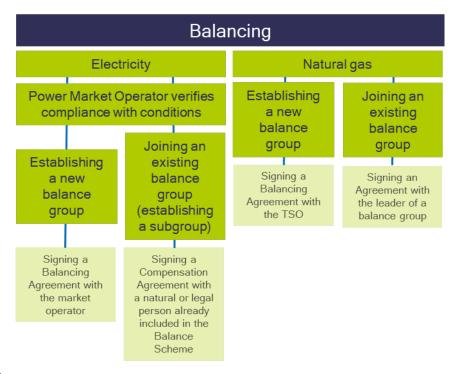
- There is no need to obtain licence for electricity and/or natural gas supply, trading and transport
- Any company wants to perform energy supply activity on the Slovenian retail market have to be registered at an EU member country as an energy supplier
- Players from abroad have to join a balance group. With the exception of the European Company (SE),
 only legal entity established in Slovenia or branch office may carry out economic activities in Slovenia. To

⁹ https://www.energetika-portal.si//predpisi/energetika/slovenija/krovni-zakon-ez/

start electricity and/or natural gas market activity all companies have to apply for EIC code at Local Issuing Office

- Specific permit needed from the regulator in case of closed distribution systems when the customer is a separated industrial customer (due to specific technical and security reasons)
- Suppliers must have an agreement with the system operators on handling the customers network usage agreements and supply contracts

3) Balancing



Further comments

Electricity market:

- To establish a new balance group the player must submit the following documents:
 - o an application for the Balance Scheme Responsible Party;
 - a tax registration certificate or VAT identification number, if the applicant is a person taxable for value-added tax;
 - an extract from the court or similar register including the latest amendments, except when the
 Market Operator can obtain the extract from the Slovenian public electronic records free of charge;
 - a company's balance sheet and profit and loss account and/or annual report for the last three years of operation or for the whole period of operation in the case of a shorter period of operation which indicate short-term solvency, permanent liquidity and long-term solvency, as well as capital adequacy in accordance with the provisions contained in the Financial Operations, Insolvency Proceedings and Compulsory Dissolution Act;
 - a document confirming that the person signing the application, and at a later stage the balancing agreement, is authorised to do so (if the signatory is not the managing director).
- To join an existing balance group the player must submit the following documents:

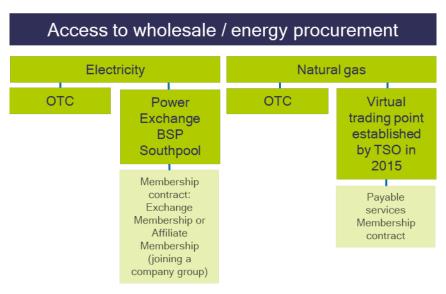
- an application for the Balance Subgroup Responsible party;
- o a signed copy of a statement regarding the conclusion of a compensation agreement;
- an extract from the court or similar register including the latest amendments, except when the
 Market Operator can obtain the extract from the Slovenian public electronic records free of charge;
- a document confirming that the person signing the application, and at a later stage a statement regarding the conclusion of a compensation agreement (if the signatory is not the managing director).
- A balance group may only start to trade on the electricity market after submitting financial guarantees and meeting all required conditions

Natural gas market:

- To establish a new balancing group a Balancing agreement has to be signed with the TSO and it must include the following provisions: (i) information on contracting parties; (ii) provisions regulating reporting; (iii) method of projecting the required quantities; (iv) termination clauses and rights and obligations of parties in connection with a termination; (v) dispute resolution method; (vi) method of securing financial obligations; (vii) term of validity and termination reasons.
- If a player wants to join an existing balance group as a leader, it must include in the agreement the same provisions as in the case of establishing a new group.
- A balance group is part of a balance scheme and includes a balance statement, which in turn includes the
 monitoring and billing of deviations from the delivery and consumption of natural gas with respect to
 schedules.

Industrial end customer can also conclude Balancing agreement with the TSO. In this case end consumer has the same obligations as Balance group leader.

4) Wholesale



• Implementation of EU Regulation and the Energy Act (EA-1) provided the framework for transparency in the wholesale electricity and natural gas market

Natural gas

- As Slovenia does not have domestic production sources, LNG terminals or storages; its wholesale market is import based
- Slovenia does not have a gas hub, a virtual trading point was established in 2015 by the TSO, Plinovodi
- Wholesale natural gas market is quite concentrated (dominated by Geoplin and Petrol) but the presence
 of alternative sources and the possibility to procure natural gas from abroad helps to maintain sufficient
 level of competition according to a recent EC decision

Electricity

- Any private individual or legal entity who has the legal right to act on wholesale electricity market can become a member of the power exchange, either on its own (as Exchange Member) or by joining a company group (as Affiliate Member)
- Decision on acceptance contains three parts: access to exchange, operations within the clearing and settlement system, issuing invoices
- Registration and the submission process is one month long on average
- Products available at BSP Southpool: day-ahead, intraday, balancing, future products (for time-periods longer than day-ahead)

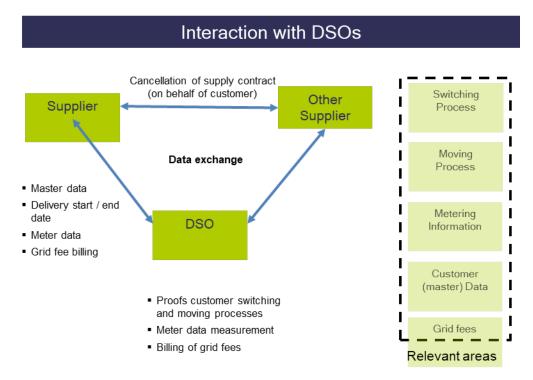
5) System landscape

Establishing Systems		
Customer Information / Web page	Forecasting	Meter to cash
Relationship Management	Balancing	Billing / Revenue Assurance
Contract Management	Risk Management	Message testing certification
Customer Service / Call center management	Operational Reporting / Compliance	Market player data exchange
Sales & Marketing (e.g. product / price / quote mgmt.)	tyŗ	oical system landscape

Further comments

 There are no obligations regarding running specific IT systems. The requirements for integration of IT systems in order to implement required B2B/A2A data exchange and general legal provisions for efficient data interchange are in place only. Central data hub (called Perun), operated by DSO covering B2B domain is in place for metered data and other needed information exchange supporting key market processes (imbalance settlement, billing, change of supplier, ...). Registration of market player at DSO is required. Data exchange is standardized (defined in DSO network code).

6) DSO-related operations & market communications



Further comments

Natural gas

- Gas supplier and the distribution system operator may be combined in one company (with separate
 accounting records for every energy activities) or in two different companies. If the supplier and the
 operator are not the same company, the customer normally receive one single bill from supplier, but it is
 also possible to receive two separate bills, one for gas supply service and the other for network use
- The gas DSO can provide household consumers with smart meters to encourage the active participation of consumers in the gas supply market

Electricity

- supplier is not part of the distribution system operator, because for electricity distribution operator legal unbundling is required. The customer normally receive one single bill from supplier, but it is also possible to receive two separate bills, one for electricity supply service and other for network use.
- · Customers with smart meters receive bill with actual consumption data.

In last years, more and more suppliers are active on electricity and gas market and offer joint offers for electricity and gas.

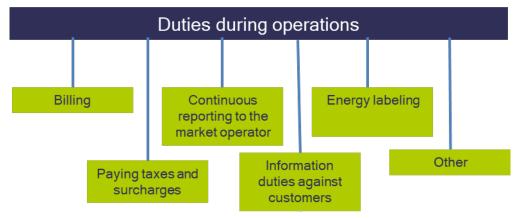
7) Customer switching & moving



Further comments

- The regulator continuously calculates the benefits of supplier switching for electricity and natural gas as well
- The Retail Price Index is based on the lowest offer from suppliers that is available to all households and
 is not restricted to the possibility of switching supplier. The RPI index somehow reflects potential price
 savings of the standard consumer household groups. The methodology of the RPI is fully developed by
 the Energy agency and is calculated twice per year.
- Consumers can influence part of the final price which is not regulated by switching supplier which is theoretically allowed almost every month
- Suppliers offer various products (regular offers, discount offers, bundled offers) of which regular offers are available to all customers and enable switching at any time
- Special offers (with additional services, smart meters, etc) can include penalties if a consumer terminates
 the contract before due time
- According to the questionnaire sent to market players building customer base as a new, small and less known supplier is quite difficult mainly because of the lack of awareness of the benefits of switching and not because of cultural factors (e.g. language).
- · Strategic behaviour and other advantages of the incumbent players also makes the situation difficult
- Players on the electricity market face the lack of trust from the customers, but this factor is not very relevant on the gas market

8) Operational obligations/duties



- Electricity suppliers must inform their customers in details about the production sources of electricity they supply and the environmental impacts of their activity on the invoices, online and other promotional materials.
- Suppliers have to report specified data and information to Energy Agency as a part of its market monitoring process
- The electricity bill has to include the following sections: electricity, network access, contributions, excise duty and VAT. The suppliers also have to present the production sources of electricity they are selling
- The natural gas bill has to include the following sections: consumed gas, network charge (distribution and metering costs), contributions for energy efficiency, RES and CHP, excise duty and VAT

9) Market exit



- Balance scheme membership ceases when the compensation or the balancing agreement expires
- Energy suppliers can leave the market, but they must fulfill their obligations in the role as energy supplier.
- There are no penalties for leaving the market per se. Penalties might arise in case legal obligations are violated.
- Conditions for cancellation of bilateral contracts (e.g. with service providers or balancing responsible parties) are depending on the individual contracts.

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.

