

Residential Prosumers in the European Energy Union

EAHC/2013/CP/04

Mapping the legal and regulatory framework in the 28 Member States, Iceland and Norway

Latvia



This study is part of the mapping of the legal and regulatory framework for residential prosumers in the 28 Member States, Iceland and Norway, within the project on Residential Prosumers in the European Energy Union EAHC/2013/CP/04, and carried out by Milieu Ltd (Belgium), Chaussée de Charleroi, 112, B-1060 Brussels, tel: +32 (0)2 506 1000; web address: www.milieu.be

This study presents the legal and regulatory framework for residential prosumers in Latvia. It has been prepared by Julija Sproge as the author and reviewed by the managers of the project Marta Ballesteros (Marta.Ballesteros@milieu.be) and Marta Santos Silva (Marta.Santos.Silva@milieu.be). The study has been completed in June 2017.

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National report on the regulatory framework for residential prosumers: Latvia

General Description of the national legal and regulatory framework

General

It shall be observed that residential prosumers exist in the Republic of Latvia to a limited extent. This is due to the fact that Latvian electricity market was recently liberalised and Latvian gas market to date is not liberalised. Due to this fact, specific laws relevant to residential prosumers do not exist in the Legal System of the Republic of Latvia. Residential prosumers are regulated by general provisions of the laws in energy sector.

The energy sector of the Republic of Latvia is regulated by the following main laws and regulations:

- Energy Law, *Enerģētikas likums* (adopted 3 September 1998; entry into force 6 October 1998, as last amended on 3 March 2016, national publication reference "*Latvijas Vēstnesis*" 273/275 (1334/1336), 22.09.1998.
- Energy Efficiency Law, *Energoefektivitātes likums* (adopted on 3 March 2016, entry into force on 29. March 2016, national publication reference "*Latvijas Vēstnesis*", 52 (5624), 15.03.2016.
- Electricity Market Law, *Elektroenerģijas tirgus likums* (adopted on 5 May 2005; entry into force on 8 June 2005; national publication reference "*Latvijas Vēstnesis*", 82 (3240), 25.05.2005, "*Ziņotājs*", 12, 22.06.2005.
- Subsidised Electricity Tax Law, *Subsidētās elektroenerģijas nodokļa likums* (adopted on 6 November 2013, entry into force 6 November 2013, national publication reference "*Latvijas Vēstnesis*", 232 (5038), 27.11.2013.
- Cabinet Regulation No 573: 'Electricity generation, transmission and distribution structures' Construction Regulations' *Ministru kabineta noteikumi Nr.573 Elektroenerģijas ražošanas, pārvades un sadales būvju būvnoteikumi* (adopted on 30 September 2014, entry into force on 1 October 2014, national publication reference "*Latvijas Vēstnesis*", 194 (5254), 01.10.2014.
- Cabinet Regulation No. 50: 'Regulations Regarding the Trade and Use of Electricity' *Ministru kabineta noteikumi Nr.50 "Elektroenerģijas tirdzniecības un lietošanas noteikumi"* (adopted on 4 October 2016, entry into force on 7 October 2016), national publication reference "*Latvijas Vēstnesis*", 194 (5766), 06.10.2016.
- Cabinet Regulation No. 1521: 'Terms of subsidized electricity duty application' *Ministru kabineta noteikumi Nr.1521 "Noteikumi par subsidētās elektroenerģijas nodokļa piemērošanu"* (adopted on 17 December 2013, entry into force on 1 January 2014), national publication reference "*Latvijas Vēstnesis*", 252 (5058), 28.12.2013.
- Cabinet Regulation No 573: 'Electricity generation, transmission and distribution structures' Construction Regulations' *Ministru kabineta noteikumi Nr.573 Elektroenerģijas ražošanas, pārvades un sadales būvju būvnoteikumi* adopted on 30 September 2014, entry into force on 1 October 2014.) national publication reference "*Latvijas Vēstnesis*", 194 (5254), 01.10.2014.

- Cabinet Regulation No 759: Rules on public power supply network voltage requirements *Ministru kabineta Nr.759 "Noteikumi par publisko elektroapgādes tīklu sprieguma prasībām"* adopted on 4 October 2011, entry into force on 1 January 2012), national publication reference "*Latvijas Vēstnesis*", 159 (4557), 07.10.2011.
- Cabinet Regulation No. 262: Regulations Regarding the Production of Electricity Using Renewable Energy Sources and the Procedures for the Determination of the Price *Ministru kabineta noteikumi Nr.262 "Noteikumi par elektroenerģijas ražošanu, izmantojot atjaunojamos energoresursus, un cenu noteikšanas kārtību"* adopted on 16 March 2010, entry into force on 1 April 2010), national publication reference "*Latvijas Vēstnesis*", 51/52 (4243/4244), 31.03.2010.
- Cabinet Regulation No. 883: Regulations Regarding Permits for Increasing Electricity Production Capacities or the Introduction of New Production Equipment *Ministru kabineta noteikumi Nr.883 "Noteikumi par atļaujām elektroenerģijas ražošanas jaudu palielināšanai vai jaunu ražošanas iekārtu ieviešanai"* adopted on 11 August 2009, entry into force on 15 August 2009), national publication reference "*Latvijas Vēstnesis*", 129 (4115), 14.08.2009.
- Cabinet Regulation No. 221: Regulations Regarding Electricity Production and Price Determination upon Production of Electricity in Cogeneration *Ministru kabineta noteikumi Nr.221 "Noteikumi par elektroenerģijas ražošanu un cenu noteikšanu, ražojot elektroenerģiju koģenerācijā"* adopted on 10 March 2009, entry into force on 18 March 2009), national publication reference "*Latvijas Vēstnesis*", 42 (4028), 17.03.2009.
- Cabinet Regulation No 1112 Rules for electricity production capacity payment tender *Ministru kabineta noteikumi Nr.1112 "Noteikumi par ieviešamās elektroenerģijas ražošanas jaudas apmaksas konkursu"* adopted on 22 December 2008, entry into force on 30 January 2008), national publication reference "*Latvijas Vēstnesis*", 16 (4002), 29.01.2009.
- Cabinet Regulation No. 476 Regulations Regarding Special Connection to the Electricity Transmission System *Ministru kabineta noteikumi Nr.476 "Noteikumi par speciālo pieslēgumu elektroenerģijas pārvades sistēmai"* adopted on 13 June 2006, entry into force on 6 July 2006), national publication reference "*Latvijas Vēstnesis*", 105 (3473), 05.07.2006.

Brief overview of the energy market in the Republic of Latvia

As it follows from the Energy Development Guidelines 2016-2020¹, the Latvian primary energy structure is dominated by renewable energy and fossil fuels including natural gas (see. Figure 1). Until the year 2020, significant changes in the structure of primary energy sources are planned, such as unbundling of the gas market, further development of the electricity market as well as development of Renewable Energy Sources.

¹ Energy Development Guidelines 2016-2020 (MK 09.02.2016. rīkojums Nr.129/ Ziņojums), p. 17.

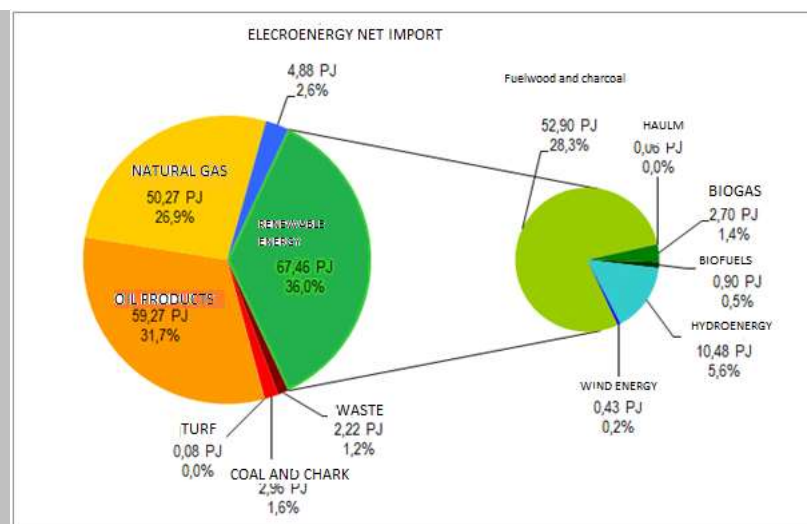


Figure 1. Source: Energy Development Guidelines 2016-2020², p. 17

- Electricity market

In the territory of the Republic of Latvia only registered companies in the electricity trader register are allowed to trade with electricity. Currently, most users buy electricity from the Joint Stock Company *Latvenergo*, which prior to the liberalisation of the electricity sector was the electricity market monopolist. Transmission is carried out in the territory of the Republic of Latvia by one transmission system operator – the Joint Stock Company *Augstsprieguma tīkls* -, but electricity distribution is performed by 11 DSOs (which are listed in the transmission system operator license list) from which the Joint Stock Company *Sadales tīkls* provides 99% of users with electricity supply.

The production of electricity in the Republic of Latvia is performed by undertakings included in the register of producers of electricity. The largest producer of electricity in the territory of the Republic of Latvia the Joint Stock Company *Latvenergo* which is a fully state owned joint stock company. It will remain so since its privatisation, as well as any other form of alienation, is prohibited by law. Furthermore, the power plants and the electricity transmission and distribution networks may not be used as collateral or transferred to any entities other than those fully owned by the state or *Latvenergo*.

Latvenergo has two fully owned subsidiaries that are Joint Stock Companies. They are *Sadales tīkls* (Distribution Network), a distribution system operator, and *Latvijas elektriskie tīkli*, a transmission system owner. The independent transmission operator (ITO) *Augstsprieguma tīkls*, is owned by the State directly. This ownership is in compliance with the ownership unbundling provisions of Directive 2009/72/EU ('the Electricity Market Directive'). This ownership also ensures compliance with the requirements for creating Latvia's bidding area with the Nord Pool Spot, the leading power market in Europe.

Moreover, since the year 2006, *Enefit*, a limited liability company owned by *Eesti Energia* (an Estonian electricity producer), is operating in the Republic of Latvia. It offers electricity to corporate clients. According to the information provided by *Enefit*, it has continuously increased its market share, which has now reached approximately 15% of the electricity market in Latvia. At the beginning of 2012, *Inter RAO Latvia* commenced active operation in a local energy market, offering its services to corporate clients. *Inter RAO Latvia* is a part of *Inter RAO UES*, a Russian energy company. The market share of *Inter RAO Latvia* is still very small, but is expected to grow gradually according to information provided by the company itself.

² Energy Development Guidelines 2016-2020 (MK 09.02.2016. rīkojums Nr.129/ Ziņojums), p. 17.

Within the boundaries of the EU, Latvia is interconnected with Lithuania and Estonia via long established grids, as well as with Finland via the *Estlink* (an undersea cable between Finland and Estonia). In addition, Latvia is interconnected with the Russian electricity network via interconnectors constructed prior to 1990. Additional interconnectors are planned with Finland via *Estlink-2*, as well as with Sweden via *NordBalt* (an undersea cable between Sweden and Lithuania). The *NordBalt* project would also involve electricity network improvement in the Baltic States.³

- Renewable Energy Sources (RES)

In the Republic of Latvia, renewable electricity generation is stimulated through a complex support system based on a feed-in tariff, which also includes elements of a quota system and tenders. The new tax for subsidized electricity producers was introduced in January 2014. The tax should be paid by companies receiving financial support for power generation from renewable energy sources or from combined heat and power plants. Since 1 January 2014 RES-E is promoted also through net-metering. Heating and cooling from renewable energy sources is promoted through different tax benefits. Also the only incentive currently available for renewable energy sources in the transport sector is a tax regulation mechanism.⁴

Access of renewable energy plants to the grid is subject to the general legislation on energy. However, electricity from renewable sources is not given priority. Pursuant to Latvian laws, priority connection for renewable energy sources cannot be provided, due to the fact that all plant operators are entitled against the grid operator to the connection of their plants to the grid and to the transmission of electricity according to the principle of non-discrimination.⁵ In addition, there is no special legislation promoting the connection of RES heating devices to the heat transmission network at the national level.⁶

The actual share of RES in total primary energy resources continues to grow slowly. It is expected that by 2020 RES will reach the target set in Directive 2009/28/EC and will reach the level of 40%.⁷

As it follows from **Figure 1**, the most important RES in Latvia is **wood biomass**, a major local fuel which is used for central and local heating and cogeneration, and **hydropower**.

Hydropower

Following the register of RES available on the webpage of the Ministry of the Economy of the Republic of Latvia, there are more than 70 registered medium and small HPP in the Republic of Latvia.⁸

Latvian medium and small rivers' theoretical hydropower resources amount to 900 GWh of electricity per year, without counting big rivers, such as river Venta, Lielupe and Gauja. Hydropower of small rivers is estimated to 250 to 300 GWh of electricity per year. Volume of electricity from hydropower depends on the flow of the river Daugava. Daugava cascade - Riga Hydropower plant (HPP), *Ķegums* HPP and *Plavinas* produce on average 40% of electricity consumed by Latvian energy market.⁹

The levels of capital investment in hydropower costs are relatively lower as compared to the amount of energy generated. Latvia has suitable conditions for the use of hydropower; some

³ Information available on the web-page of the Ministry of Economy of the Republic of Latvia, viewed 9 January 2017, <https://www.em.gov.lv/>.

⁴ Information available on the web-page of the RES Legal, viewed 9 January 2017, <http://www.res-legal.eu/>.

⁵ Information available on the web-page of the RES Legal, viewed 9 January 2017, <http://www.res-legal.eu/>.

⁶ Information available on the webpage of the RES Legal, viewed 9 January 2017, <http://www.res-legal.eu/>.

⁷ Energy Development Guidelines 2016-2020 (MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*), p. 17.

⁸ Information available on the webpage of the Ministry of Economy of the Republic of Latvia, viewed 9 January 2017, https://www.em.gov.lv/lv/nozares_politika/atjaunojama_enerģija_un_kogeneracija/subsidetas_elektroenerģijas_nodokļa_liks_un_razotāju_reģistrs/.

⁹ Energy Development Guidelines 2016-2020 (MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*), p. 19.

hydropower plants - in combination with energy storage in reservoirs with flexible manufacturing capabilities from fossil or biogas energy - can also be developed¹⁰.

Wind energy

As it follows from Figure 1 above, wind energy market is very small and amounts to 0.43 PJ. This is because wind energy power on the territory of the Republic of Latvia is highly uneven, as Figure 2 below shows. The Latvian wind atlas is marked in zones with different average annual wind speed intervals - from 2.8 m/s to more than 5.4 m/s.

Wind power can be used only in the areas where the wind force is strong. As it is shown on Figure 2 below, territories with the strongest wind force are the Baltic Sea coast and the Northern part of the Gulf of Riga. Wind speeds in these zones can reach 5.1-5.8 m/s.

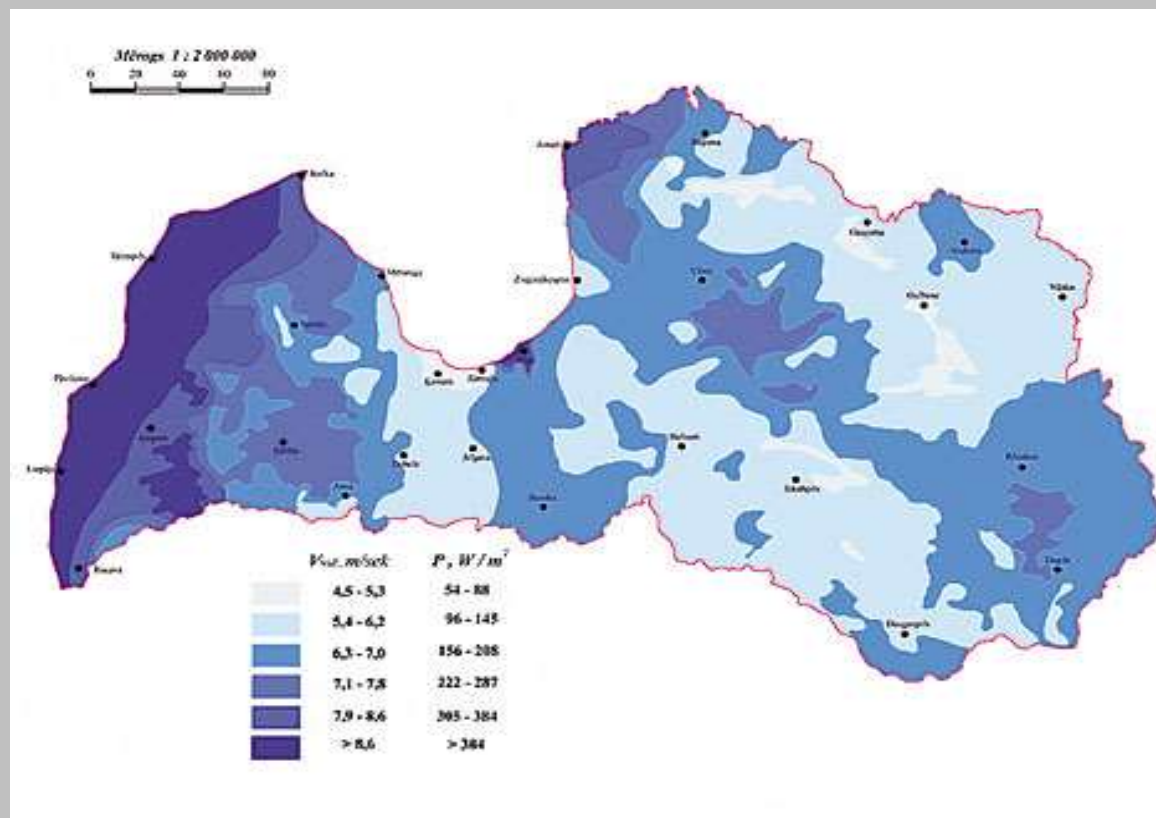


Figure 2. Source: Energy Development Guidelines 2016-2020¹¹, p. 20

Other territories of the Republic of Latvia have wind potential of 1.5 TWh (Rational electrical energy per year). According to the TSO Forecast, wind energy potential could reach 95 MWh.¹²

At present moment total installed electric capacity of the wind energy generator is 69 MW, out of which mandatory procurement support is received by 53 wind energy generators.¹³

Solar energy

Latvian solar energy is used in a very limited manner, because of the high technological costs, which to date hamper the full use of the existing solar resources.¹⁴

¹⁰ Energy Development Guidelines 2016-2020 (MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*), p. 17.

¹¹ MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*.

¹² Energy Development Guidelines 2016-2020 (MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*), p. 21.

¹³ Information available on the webpage of the Ministry of Economy of the Republic of Latvia, viewed 9 January 2017, https://www.em.gov.lv/lv/nozares_politika/atjaunojama_enerģija_un_kogeneracija/subsidetas_elektroenerģijas_nodokļa_liku_ms_un_razotāju_reģistrs/.

¹⁴ Energy Development Guidelines 2016-2020 (MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*), p. 25.

Geothermal resources

The main geothermal resources in the Republic of Latvia are related to the thermal water with temperatures above 30° C, and hot underground rocks.

Geothermal water use options and hot underground rocks options can potentially be used in **Eleja** region and Southern coast of the Baltic Sea, where the temperature in **Eleja** region geothermal sources reaches 57°C. Temperature on the Southern coast of the Baltic Sea and from 50°C to 65°C in the Baltic Sea coastal part, as Figure 3 below shows.

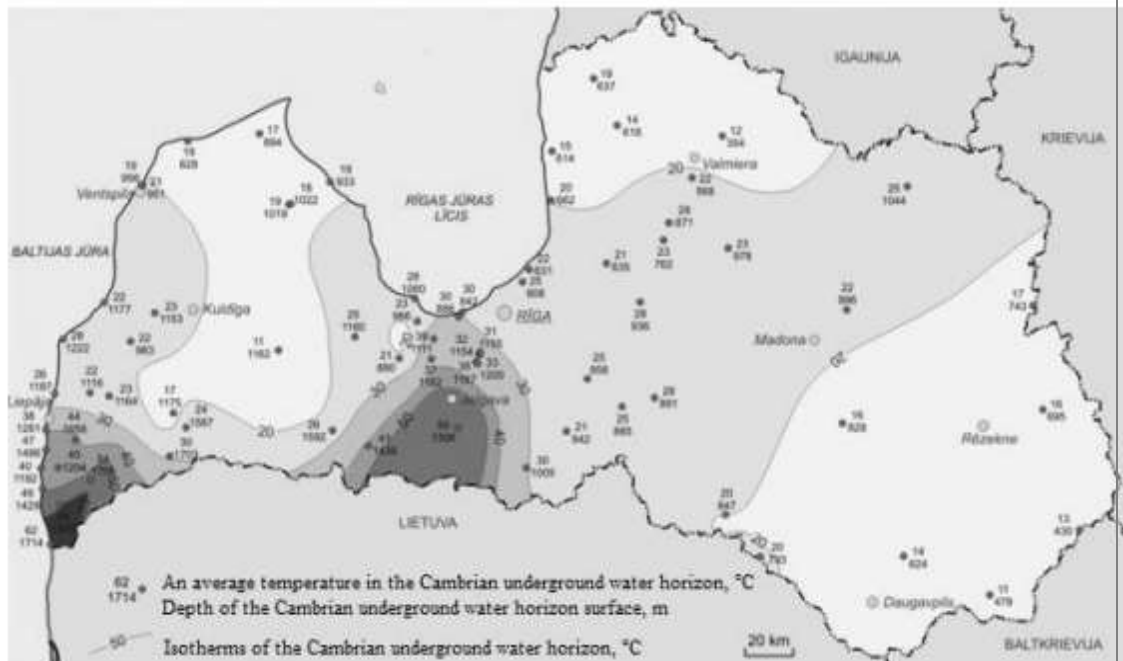


Figure 3. An average temperature map in the Cambrian underground water horizon (LNGA, 2014)

It was estimated that the Devonian and Cambrian strata is 65 000 PJ large, equalling to 1.6 billion toe. Taking into account the study of the calculations made when the Latvian territory is acquired the warm waters of the total thermal power stations can be from 175 MW.¹⁵

- Gas market

Currently, the Gas market in Latvia is fully monopolised.

The only source of natural gas for the Republic of Latvia is the Russian Federation, which is provided by two companies— **Gazprom** and **ITERA Latvija**. Previous agreements with the Russian Federation do not allow for any alternative methods of supply of natural gas for the Republic of Latvia until April 2017¹⁶. Moreover, to date, there is no liquefied natural gas (LNG) terminal in the Republic of Latvia.

In December 2016 a new Joint Stock Company *Conexus Baltic Grid* was established, which has replaced the monopolist *Latvijas Gāze* and will facilitate gas market unbundling in the Republic of Latvia.¹⁷ However, as from 7 October 2016, new Cabinet Regulations No. 650 are in force. The Requirements for Biomethane Converted into a Gaseous State from the LNG and Transport of

¹⁵ Zajacs A., Nazarova K. and Borodinecs A., 'Review of geothermal energy potential in Europe', 5th *International Conference in civil engineering*, viewed 9 January 2017, http://llu.lv/conference/Civil_engineering/2015/Latvia_CivilEngineering2015Vol5-108-115.pdf.

¹⁶ Information available on the webpage of the Ministry of Economy of the Republic of Latvia, viewed 1 February 2017, <https://www.em.gov.lv/>.

¹⁷ Information available on the webpage of the Ministry of Economy of the Republic of Latvia, viewed 9 January 2017, <https://www.em.gov.lv/>.

Natural Gas Transmission and Distribution System" (*Ministru kabineta noteikumi Nr. 650 Prasības biometāna un gāzveida stāvoklī pārvērstas sašķidrinātās dabasgāzes ievadīšanai un transportēšanai dabasgāzes pārvades un sadales sistēmā*) will provide the renewable energy industry with the opportunity to use the existing Latvian natural gas pipeline infrastructure.

1. What types of residential prosumers are there in your country on the basis of type of RES used and size of the installation?

Answer:

To date, Latvian laws do not contain a definition of residential prosumer as such and do not differentiate legal treatment in relation to the type of RES used.

However, the term residential prosumer can be translated into Latvian language as 'smart consumer' LV: *prātīgais patērētājs*, *vieds patērētājs* or *viedērētājs* (literal translation of both terms into English) which is the terminology used in relevant literature¹⁸.

However, 'residential prosumers' are not defined in Latvian laws.

In fact, the Energy law provides only for a definition of 'autonomous producer'. The rules relevant to the autonomous producers can be seen as relevant to the 'prosumer' concept.

Pursuant to Article 1(2) of the Energy law (Energy Law, *Enerģētikas likums* (adopted on 3 September 1998; entry into force on 6 October 1998; national publication reference "*Latvijas Vēstnesis*", 273/275 (1334/1336), 22.09.1998.), autonomous producer is a merchant, energy supply merchant or natural person generating electricity, heat or cooling energy required for his/her own consumption or for local heating or cooling purposes.

2. What is the institutional framework & division of competences regarding residential prosumers in your country?

Answer:

Overall, there is no specific institutional framework in order to distinguish competences of institutions regarding residential prosumers in the Republic of Latvia.

General competences of institutions are foreseen in the laws regulating energy sector and apply to residential prosumers as well as all other market participants. Thus the following institutions take major role in energy field, including residential prosumers:

- **Saeima** (Parliament of the Republic of Latvia);
- The **Saeima** is a unicameral parliament consisting of 100 members who are elected by proportional representation. The **Saeima** has the main law making power in the Republic of Latvia in the field of energy. Cabinet of Ministers of the Republic of Latvia, which is the highest executive body of the country;

The Cabinet of Ministers of the Republic of Latvia is the central government of the Republic of Latvia and has the executive powers in the field of energy.

- The Ministry of Economics of the Republic of Latvia, which is in charge of the energy policy;
- The Ministry of Economics is the leading state administrative institution in the field of economic policy formation in Latvia. This ministry is responsible for the implementation of energy policy in the Republic of Latvia. Furthermore, pursuant to the powers delegated to the Ministry of

¹⁸ For example, in the scientific literature available from the conference 'Smart Energy 2016', viewed on 9 January 2017, http://www.buvinzenierusavieniba.lv/index.php?option=com_k2&view=item&id=111688:Aicin%C4%81jums-piedal%C4%ABties-Baltijas-Ener%C4%A3%C4%93tikas-foruma-konferenc%C4%93-Smart-Energy-2016&catid=45:aktualitates&Itemid=51

Economics of the Republic of Latvia by **Saeima**, the Ministry of Economics can issue specific Regulations in order to facilitate implementation of the Energy policy in the Republic of Latvia. These Regulations are legally binding.

- Public utilities commission, which is the Regulator of public services in the Republic of Latvia (SPRK);

The energy sector is regulated by the rules published by the Public Utilities Commission (SPRK). This Commission is an institutionally and functionally independent, fully-fledged, autonomous body governed by public law which regulates public services in energy, electronic communications, post, municipal waste management and water management sectors in accordance with the law "On Regulators of Public Utilities" and special legal acts of the regulated sectors.

SPRK performs the functions attributed by law and, within its competence, it adopts decisions and issues administrative acts which are binding to specific providers and users of public services.

Moreover, energy policy follows the Energy Development Guidelines 2016-2020¹⁹, which were developed by the Ministry of the Economy of the Republic of Latvia.

Specific Questions on the regulatory framework for residential prosumers

3. What is the regulatory framework for residential prosumers in your country?

General.

Overall, there is no specific regulatory framework for residential prosumers in the Republic of Latvia.

However, the following main laws and regulations regulating the energy sector are relevant, *inter alia*, to the residential prosumers:

- Energy Law, *Enerģētikas likums* (adopted 3 September 1998; entry into force 6 October 1998, as last amended on 3 March 2016, national publication reference "*Latvijas Vēstnesis*" 273/275 (1334/1336), 22.09.1998.
- Energy Efficiency Law, *Energoefektivitātes likums* (adopted on 3 March 2016, entry into force on 29. March 2016, national publication reference "*Latvijas Vēstnesis*", 52 (5624), 15.03.2016.
- Subsidised Electricity Tax Law, *Subsidētās elektroenerģijas nodokļa likums* (adopted on 6 November 2013, entry into force 6 November 2013, national publication reference "*Latvijas Vēstnesis*", 232 (5038), 27.11.2013.
- Cabinet Regulation No 573: 'Electricity generation, transmission and distribution structures' Construction Regulations' *Ministru kabineta noteikumi Nr.573 Elektroenerģijas ražošanas, pārvades un sadales būvju būvnoteikumi* (adopted on 30 September 2014, entry into force on 1 October 2014, national publication reference "*Latvijas Vēstnesis*", 194 (5254), 01.10.2014.

SPRK decisions regulating the energy sector are relevant, inter alia, to the residential prosumers:

- SPRK decision No 1/6: System connection regulations for electricity system participants *SPRK lēmums Nr.1/6 Sistēmas pieslēguma noteikumi elektroenerģijas sistēmas dalībniekiem* (adopted on 22 February 2012., entry into force on 1 March 2012, national publication reference "*Latvijas Vēstnesis*", 34 (4637), 29.02.2012.

¹⁹ MK 09.02.2016. rīkojums Nr.129/ Ziņojums.

- SPRK decision No 1/6: Grid system connection regulations for electricity generators *SPRK lēmums Nr.1/6 Sistēmas pieslēguma noteikumi elektroenerģijas ražotājiem* (adopted on 22 February 2012, entry into force on 1 March 2012, national publication reference "*Latvijas Vēstnesis*", 34 (4637), 29.02.2012.

3.1 What is the existing legislative framework regulating Renewable Energy Projects in your country?

Answer:

The following primary laws contain the legislative framework regulating Renewable Energy Projects in the Republic of Latvia:

- Energy Law, *Enerģētikas likums* (adopted 3 September 1998; entry into force 6 October 1998, as last amended on 3 March 2016, national publication reference "*Latvijas Vēstnesis*" 273/275 (1334/1336), 22.09.1998.
- Energy Efficiency Law, *Energoefektivitātes likums* (adopted on 3 March 2016, entry into force on 29. March 2016, national publication reference "*Latvijas Vēstnesis*", 52 (5624), 15.03.2016.
- Subsidised Electricity Tax Law, *Subsidētās elektroenerģijas nodokļa likums* (adopted on 6 November 2013, entry into force 6 November 2013, national publication reference "*Latvijas Vēstnesis*", 232 (5038), 27.11.2013.

3.2 Does the Renewables National Action Plan include any objectives for residential prosumers (if so, please specify)

Answer:

The Renewables National Action Plan is included into the Energy Development Guidelines 2016-2020. The aforementioned Guidelines do not include any specific objectives for residential prosumers. However, Energy Development Guidelines 2016-2020 stress the importance to develop advanced, environmentally-friendly technologies (hydrogen generators, solar and thermal cells, wind turbines, or a combination of several of these technologies), giving an intelligent consumer energy management and accumulation opportunities.²⁰ Indeed, an autonomous power supply can be seen as an alternative environmentally friendly technology in order to reduce the total length of the network and maintenance costs in remote rural areas where there are very few users.

²⁰ Energy Development Guidelines 2016-2020 (MK 09.02.2016. *rīkojums* Nr.129/ *Ziņojums*)., p. 21.

3.3 Is there a definition (legal or regulatory) of residential prosumers (or self-consumption) in your country? If so, state it and describe the elements of this definition?

Answer:

Latvian laws do not contain a definition of residential prosumer or self-consumption as such.

However, the Energy law provides for a definition of autonomous producer. Pursuant to Article 1(2) of the Energy law, autonomous producer is a merchant, energy supply merchant or natural person generating electricity, heat or cooling energy required for his/her own consumption or for local heating or cooling purposes.

While the use of the term 'smart consumer' can be seen in recent **literature**²¹, no definition of 'smart consumer' is foreseen in the Latvian laws.

4. What are the permitting requirements for each type of residential prosumer?

General

Electricity

In order to get permission for the installation of the microgenerator of electric energy, **Cabinet Regulation No. 883: Regulations Regarding Permits for Increasing Electricity Production Capacities or the Introduction of New Production Equipment (Ministru kabineta noteikumi Nr.883 "Noteikumi par atļaujām elektroenerģijas ražošanas jaudu palielināšanai vai jaunu ražošanas iekārtu ieviešanai"** adopted on 11 August 2009, entry into force on 15 August 2009), national publication reference "Latvijas Vēstnesis", 129 (4115), 14.08.2009.) must be followed.

Steps to be followed

It shall be noted that the preparation and issue of information about microgenerator installation possibilities is a paid service provided by **Sadales tīkls**. The price for this service (incl. VAT 21%) is EUR 59.00.²²

First, a permit (license) issued by the Ministry of Economics to install a new electricity generator, including a microgenerator is required. Therefore, an applicant shall complete an application for the receipt of a permit and submit it to the Ministry of Economics. The ministry shall examine the submitted documents, verify the veracity of the information indicated therein and, within 30 days, take a decision regarding the issuance of a permit.

Second, in case if microgenerator shall be installed in the internal electricity networks of an apartment house or in a property with several owners, it is required to obtain the approval for the microgenerator installation from the house manager and other owners shall be obtained in a written form.

Third, the application for the connection of a microgenerator shall be submitted to **Sadales tīkls** by filling in the form "For the connection of a microgenerator" available on the customer portal of **Sadales tīkls** www.e-st.lv. This application shall be sent by email to st@sadalestikls.lv. A copy of the permit issued by the Ministry of Economics shall be enclosed to the application. Where

²¹ For example, in the scientific literature available from the conference 'Smart Energy 2016', viewed on 9 January 2017,

http://www.buvinzenierusavieniba.lv/index.php?option=com_k2&view=item&id=111688:Aicin%C4%81jums-piedal%C4%ABties-Baltijas-Ener%C4%A3%C4%93tikas-foruma-konferenc%C4%93-Smart-Energy-2016&catid=45:aktualitates&Itemid=51

²² Information available on the webpage of the distribution network Sadales tīkls, viewed 1 February 2017, <https://www.sadalestikls.lv/>

relevant, a written permission obtained from the house manager and other owners shall also be submitted.²³

In this regard, Article 16(3) of the Energy law stipulates that, if it is permitted by the technical capabilities of the transmission or distribution system, the system operator in the area of operation of the licence shall provide the autonomous producer with a possibility to transmit or distribute the surplus of the electricity or thermal energy generated in order to sell it to other energy users.

After the installation of the microgenerator is made and the contract between the household and *Sadales tīkls*, the electricity NET payment system for microgenerators will be applied, pursuant to Article 30.¹ of the Electricity Market Law (Electricity Market Law, *Elektroenerģijas tirgus likums* (adopted on 5 May 2005; entry into force on 8 June 2005; national publication reference "Latvijas Vēstnesis", 82 (3240), 25.05.2005, "Ziņotājs", 12, 22.06.2005.)

This system is in effect from January 1, 2014, for all households producing electricity for own needs from renewable resources, e.g. by using solar cells or wind generators – it is possible to conduct net metering or, in other words, to transfer the produced electricity to the power network and use it again when it is needed.

In a month when the household has transferred to the power network more electricity than it has consumed, the corresponding amount of electricity is counted towards the consumption of subsequent months.²⁴

Heating energy

Article 46(4) of the Energy law foresees that autonomous manufacturer of the heating energy shall not obtain any licence for his/her heat transmission and distribution business.

4.1 Does your country recognize certain forms of self-consumption and subject prosumers to certain

- requirements,
- application fees and
- one-off costs

in order to give them a permit or licence to generate energy?

Answer:

A microgenerator shall have a current of up to 16A. A microgenerator shall have a capacity of at least 3.68 kW in a single-phase electricity network and a capacity of 11.04 kW in a three-phase electricity network. Furthermore, a certified microgenerator inverter shall be chosen, which is compliant with the requirements of the European standards.²⁵

Pursuant to point 10 of 'SPRK decision No 1/6: Grid System connection regulations for electricity generators', the connection fee shall be determined in accordance with the economically justified costs of connection installation.

Furthermore, pursuant to point 12 of the aforementioned decision, all the costs for the connection to the system installation shall be paid by the energy producer.²⁶

²³ Information available on the webpage of the distribution network Sadales tīkls, viewed 1 February 2017, <https://www.sadalestikls.lv/>

²⁴ Ibid

²⁵ Ibid

²⁶ Lastly, Article 46(4) of the Energy law foresees that the autonomous manufacturer of the heating energy shall not obtain any licence for his/her heat transmission and distribution business. In fact, the subsequent analysis has shown that no specific requirements were identified, other than those foreseen for other energy producers.

4.2 Does the national legal/regulatory framework determine the contractual conditions under which prosumers are allowed to feed or sell their surplus back into the grid or to other consumers?

Answer:

No specific contractual conditions were identified, other than those foreseen for other energy producers. In this regard, contractual requirements are regulated by the Civil law of the Republic of Latvia as well as certain provision of general laws in the field of energy.

Electricity: In order to gain access to the grid *Sadales tīkls*, prosumers shall submit an application to the *Sadales tīkls*, after authorisation from the Ministry of the Economy of the Republic of Latvia is obtained.

Heating energy: Article 46(4) of the Energy law foresees that autonomous manufacturer of the heating energy shall not obtain any licence for his/her heat transmission and distribution business

5. What are the rules applicable to the access to the grid?

General

It shall be noted that the preparation and issue of information about microgenerator installation possibilities is a paid service provided by *Sadales tīkls*. The price for this service (incl. VAT 21%) is EUR 59.00²⁷.

In accordance with Article 16(2) of the Energy law, an autonomous producer may also sell the surplus of electricity or thermal energy generated also to other energy users using services of such a system operator for payment in the area of operation of the licence of which the generator is located, or sell this energy surplus to the system operator.

Furthermore, pursuant to Article 16(3) of the Energy law, if such is permitted by the technical capabilities of the transmission or distribution system, the system operator in the area of operation of the licence shall provide the autonomous producer with a possibility to transmit or distribute the surplus of the electricity or thermal energy generated in order to sell it to other energy users.

5.1. What is the inter-connection configuration used for each type of residential prosumer?

Answer:

No specific inter-connection configuration requirements were identified, other than those foreseen for other energy producers.

In order to install a microgenerator of electric energy (an installation used for producing electricity with an operating current of up to 16A intended for placement in the customer's electrical installation for parallel operation with a low-voltage distribution network a capacity of 3.68 kW in a single-phase electricity network and a capacity of 11.04 kW in a three-phase electricity network) it is important to choose a certified microgenerator inverter, which is compliant with the requirements of the European standards, to entrust the installation of the microgenerator to a certified electricity technician and to get the approval on the installation of the microgenerator from *Sadales tīkls*.

For a microgenerator inverter to be recognised by *Sadales tīkls*, it must meet the requirements of standard LVS EN 50438 "Requirements for micro-generating plants to be connected in parallel

²⁷ Information available on the webpage of the distribution network '*Sadales tīkls*', viewed 1 February 2017, *we-paghe* of <https://www.sadalestikls.lv/>

with public low-voltage distribution networks” and must provide for the opportunity to configure the network security settings established by *Sadales tīkls*. The compliance of the microgenerator inverter must be tested in the Metrology Laboratory, or a different accredited laboratory.

During the parallel operation of the microgenerator and the public electricity network, the customer’s electricity network is permanently connected to the public electricity network, while a two-way exchange of electricity and metering between the customer’s electricity network and the public electricity network is ensured (see Figure 4 below. *This example shows installation of microgenerator of electric energy obtained from solar energy. The same installation principle applies to other renewable sources of energy.*)

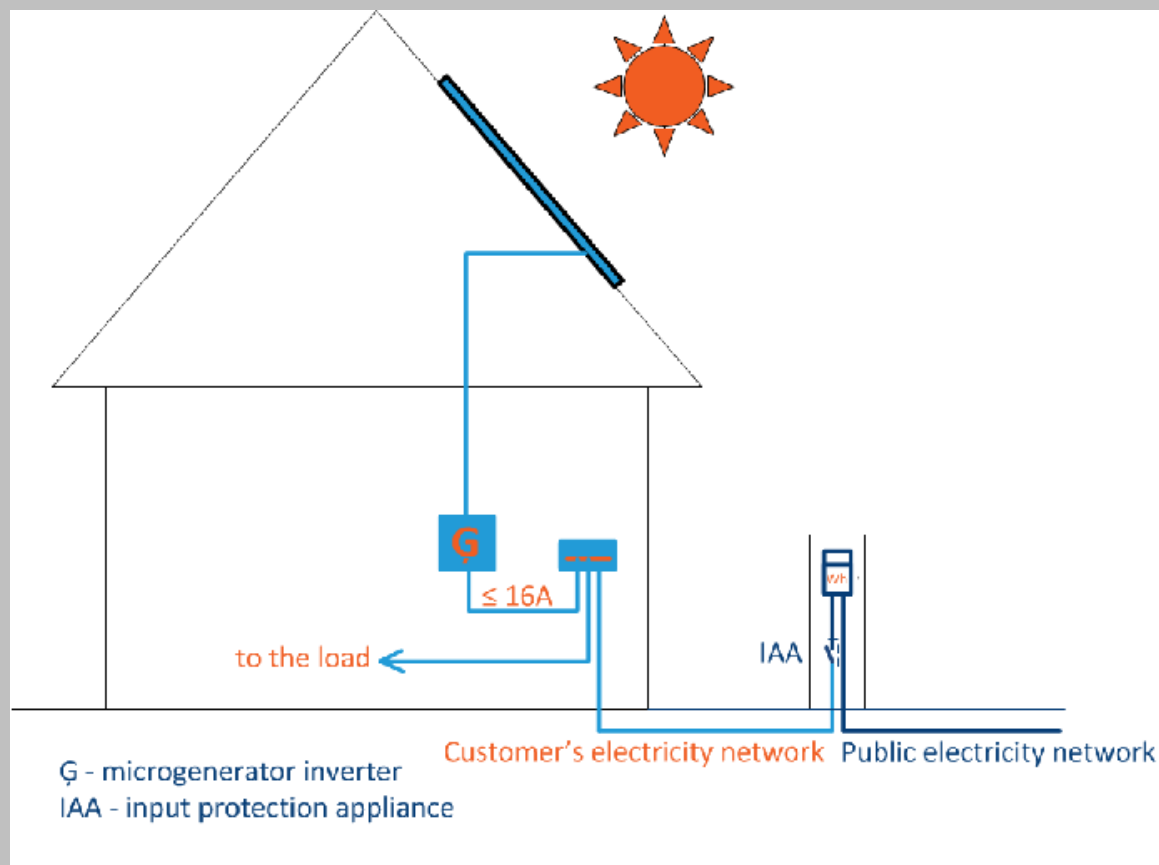


Figure 4. Source: the webpage of the distribution network *Sadales tīkls*²⁸

5.2. Does the competence to determine the inter-connection configuration lie at State level or at a regional/lander level?

Answer:

The competence to determine inter-connection configuration lies at the State level.

²⁸ Information available on the webpage of the distribution network *Sadales tīkls*, viewed 1 February 2017, <https://www.sadalestikls.lv/>

5.3. Are there any rules to ensure that prosumers are inter-connected to the distribution network/the grid?

Answer:

No specific rules are applicable other than the rules foreseen for autonomous producers.

The distribution network *Sadales tīkls* provides information to the applicant consumer regarding connection to the grid in exchange of a fee of EUR 59.²⁹

In accordance with Article 16(2) of the Energy law, an autonomous producer **may also sell** the surplus of electricity or thermal energy generated also to other energy users using services of such a system operator for payment in the area of operation of the licence of which the generator is located, or sell this energy surplus to the system operator.

Furthermore, pursuant to Article 16(3) of the Energy law, if such is permitted by the technical capabilities of the transmission or distribution system, the system operator in the area of operation of the licence shall provide the autonomous producer with a possibility to transmit or distribute the surplus of the electricity or thermal energy generated in order to sell it to other energy users.

5.4. What are the grid access and grid use principles and rules for the energy generated by each type of residential prosumer?

Answer:

No specific rules, other than the principles and rules for any energy producer are identified.

Pursuant to Latvian laws, priority connection for renewable energy sources cannot be provided, due to the fact that all plant operators are entitled against the grid operator to the connection of their plants to the grid and to the transmission of electricity according to the principle of non-discrimination.

5.5. What are the network costs and charges for each type of residential prosumer?

Answer:

No specific charges, other than those foreseen for all the producers are applicable.

6. What are the incentives (e.g through taxes or tariffs) for each type of residential prosumers?

General

An incentive through the applicable taxes is identified.

Low tax level (5% and 10 %) on taxable income from electricity sold is applicable to prosumers under the condition that the electricity is produced from high efficiency cogeneration units or renewable sources. Therefore, low tax levels are also applied as incentives for residential prosumers.

Pursuant to the Subsidised Electricity Tax Law, the following taxes and tariffs are applicable:

²⁹ Information available on the webpage of the distribution network *Sadales tīkls*, viewed 1 February 2017, <https://www.sadalestikls.lv/>

In accordance with Article 5 of the Subsidised Electricity Tax Law:

- Tax rate in the amount of 10 % shall be applied to taxable income from:
 - a) electricity sold within the scope of mandatory procurement, in the production of which renewable energy resources were used;
 - b) from guaranteed payment for the electric capacity installed in electricity production units, in which renewable energy resources are used;
 - c) from guaranteed payment for the electric capacity installed in cogeneration installations, in which renewable energy resources are used.
 - Tax rate in the amount of 5 % shall be applied to taxable income from electricity sold within the scope of mandatory procurement, if the following criteria are met concurrently:
 - a) electricity was produced in high efficiency cogeneration units with installed electric capacity not exceeding 4 megawatts in cogeneration units of natural gas, or without restriction of installed electric capacity in cogeneration units of renewable energy resources;
 - b) the taxpayer sells at least 70 % of thermal energy obtained as a result of cogeneration process during a taxation year as a heating system transmission or distribution merchant licensed by the Public Utilities Commission or transfers to another heating system transmission or distribution merchant licensed by the Regulator or local government that provides services of centralised heating system.
 - Tax rate in the amount of 5 % shall be applied to taxable income from electricity sold within the scope of mandatory procurement, if the following criteria are met concurrently:
 - a) electricity was produced in high efficiency cogeneration units with installed electric capacity not exceeding 4 megawatts;
 - Tax rate in the amount of 5 % shall be applied to taxable income from electricity sold within the scope of mandatory procurement, if the following criteria are met concurrently:
 - a) electricity was produced in high efficiency cogeneration units with installed electric capacity not exceeding 4 megawatts;
 - b) electricity is produced from wood biomass;
 - c) the taxpayer uses not less than 70 % of the thermal energy obtained as a result of cogeneration, which is remaining after energy consumption of the main units producing or transforming energy.
 - Tax rate in the amount of 5 % shall be applied to taxable income from electricity sold within the scope of mandatory procurement, if the following criteria are met concurrently:
 - a) electricity was produced in high efficiency cogeneration units with installed electric capacity not exceeding 4 megawatts in cogeneration units of natural gas, or without restriction of installed electric capacity in cogeneration units of renewable energy resources;
- However, the same percentage is also applied when electricity was produced from fossil energy resources (natural gas) or biogas.
- The tax should be paid by those receiving financial support for power generation from renewable energy sources or selling the electricity, as explained in section 5.3. The aforementioned taxes are not applicable when the net-metering scheme is in place and where prosumers do not 'sell' the electricity and therefore do not receive income from it.

6.1. Does your country apply specific tariffs to prosumers

- to charge them for the electricity they draw from the grid for consumption?
- or to compensate them for the electricity they feed back into the grid?

Answer:

There are no specific tariffs to prosumers to charge them for the electricity they draw from the grid for consumption. In fact, there is a net-metering system in place whereby if the household transfers energy to the power grid, the amount of this energy is deducted from the invoice a household is receiving for the next billable month.³⁰

6.2. Does your country

- tax prosumers in a specific way?
- allocate to them a certain part of the cost to upgrade the grid to accommodate the extra generation they feed into the grid?

Answer:

Pursuant to the Subsidised Electricity Tax Law, the tax rate for prosumers varies between 5 and 10%, depending on the type of generation, is applied.

No certain part of the cost to upgrade the grid to accommodate the extra generation into the grid is allocated.

7. **A. What are the conditions that may encourage the take up of residential prosumers (to entry into activity or during functioning)?****General**

As mentioned above in question 6, tax incentives have the potential to encourage the development of prosumers in Latvia. However, at the moment the market is not developed.

- Low tax level (5% and 10 %) applicable to prosumers to taxable income from electricity sold, under condition that electricity produced was produced when high efficiency cogeneration units were applied or renewable sources were used.

B. What are the conditions that may act as barriers for residential prosumers (to entry into activity or during functioning)?**General**

Conditions which can be seen as barriers:

- Long procedure in order to get access to the grid *Sadales tīkls* since it requires 3 steps. A permit (license) issued by the Ministry of Economics is received within 30 days. In addition, there is no time limit for the procedure for approval of the microgenerator installation from the house manager and other owners of the building where the installation will be placed. Furthermore, the time limit for receiving answer to the application from *Sadales tīkls* is not set.
- Unclear costs level for getting access to the grid.
- General lack of special tailor-made procedures for prosumers regarding redress procedures, cooperatives as well as other relevant information on possibilities and attractiveness to become a prosumer.

³⁰ Information available on the webpage of the distribution network *Sadales tīkls*, viewed 1 February 2017, <https://www.sadalestikls.lv/>

7.1. What are the metering systems for each type of residential prosumer? Do these systems provide adequate conditions for prosumers integration in the market?

Answer:

Residential prosumers are using the so-called electricity net settlement system, which is obligatory as from 1 January 2014 for all the households, which produce electricity for their own needs from renewable sources, such as solar PWC or wind generators. This metering system enables to make net accounting or, in other words, enables to count the transfer of the electricity to the grid and re-used of the transferred energy at times when it is necessary.³¹

At present moment 209 households are using the net settlement system.³²

The currently deployed metering technology provides separate registers for grid input and output which can be considered an adequate condition for prosumers' integration in the market.

7.2. What are the billing conditions for each type of residential prosumer?

Answer:

No specific billing conditions are foreseen for residential prosumers. The general billing conditions are applicable.

7.3. Are there measures to encourage the creation of energy communities at municipal level, or other schemes to encourage inclusive development of the market?

Answer:

No specific measures or incentives were identified.

7.4. Are there rules facilitating the creation of energy cooperatives to provide a legal entity to energy communities? Are there measures facilitating other type of schemes and if so which ones?

Answer:

No specific rules facilitating the creation of energy cooperatives to provide a legal entity to energy communities or measures facilitating other type of schemes were identified. In fact, no specific laws regarding energy cooperatives are available in the Republic of Latvia.

7.5. What are the procedures/provisions for establishing cooperatives for prosumers? Are they more simple/less costly than those for other schemes?

Answer:

No specific laws regarding energy cooperatives are available in the Republic of Latvia.

³¹ Information available on the webpage of the distribution network Sadales tīkls, viewed 1 February 2017, <https://www.sadalestikls.lv/>

³² Information available on the webpage of the distribution network Sadales tīkls, viewed 1 February 2017, <https://www.sadalestikls.lv/>

8. Other questions on the regulatory framework

8.1. What are the provisions for establishing a complaint procedure? What are the complaint handling procedures for each type of residential prosumer?

Answer:

A general complaint procedure foreseen in Article 105 of the Energy law shall be applied. In specific, if the Regulator has taken a decision by which it has imposed a duty to ensure conformity with the respective requirements of this law within a specified time period and has expressed a warning, but the natural gas system operator, trader or market participant has not carried out the decision within the time period stipulated by the regulator, the regulator is entitled to take a decision to impose a fine. The administrative act of the regulator, issued in accordance with this the Energy Law, may be appealed to the Administrative District Court. The Administrative District Court shall examine the case as the court of first instance in the composition of three judges. The court judgment may be appealed by submitting a cassation complaint.

Furthermore, the general provisions foreseen in the Civil law and Administrative law as well as the Consumer Rights Protection Law are applicable to residential prosumers.

8.2. Are there any specific redress procedures available only to residential prosumers?

Answer:

No specific redress procedures available only to residential prosumers are foreseen in Latvian laws. The general provisions foreseen in the Civil law and Administrative law as well as the Consumer Rights Protection Law are applicable to residential prosumers.

Country fiche (Summary and ranking)

The **country fiche** below summarises the information from the report and ranks the level of favourable impact of measures in relation to its favourable impact to the take up of residential prosumers.

Country fiche	Ranking Low/Medium/High
General Description of the national regulatory framework - Types of residential prosumers To date, Latvian laws do not contain a definition of residential prosumer as such and do not differentiate legal treatment in relation to the type of RES used. - Institutional framework Overall, there is no specific institutional framework in order to distinguish competences of institutions regarding residential prosumers in the Republic of Latvia. General competences of institutions are foreseen in the laws regulating energy sector and apply to residential prosumers as well as all other market participants. - Applicable legislation, plans and objectives Overall, there is no specific regulatory framework for residential prosumers in the Republic of Latvia. The Renewables National Action Plan is included into the Energy Development Guidelines 2016-2020. The aforementioned Guidelines do not include any specific objectives for residential prosumers. - Definition of residential prosumers Latvian laws do not contain a definition of residential prosumer or self-consumption as such. However, the Energy law provides for a definition of autonomous producer. Pursuant to Article 1(2) of the Energy law, autonomous producer is a merchant, energy supply merchant or natural person generating electricity, heat or cooling energy required for his/her own consumption or for local heating or cooling purposes.	Low
Specific Questions on the regulatory framework for residential prosumers	
Permitting requirements for each type of residential prosumer Pursuant to Article 16(2) of the Energy law, an autonomous producer may also sell the surplus of electricity or thermal energy generated also to other energy users using services of such a system operator for payment in the area of operation of the licence of which the generator is located, or sell this energy surplus to the system operator. Furthermore, pursuant to Article 16(3) of the Energy law, if such is permitted by the technical capabilities of the transmission or distribution system, the system operator in the area of operation of the licence shall provide the autonomous producer with a possibility to transmit or distribute the surplus of the electricity or thermal energy generated in order to sell it to other energy users. Lastly, Article 46(4) of the Energy law foresees that autonomous manufacturer of the heating energy shall not obtain any licence for his/her heat transmission and distribution business.	Low
What are the rules applicable to the access to the grid? <u>Electricity</u> In order to gain access to the grid <i>Sadales tīkls</i>, prosumers shall submit an application to the <i>Sadales tīkls</i>, after authorisation from the Ministry of the Economy of the Republic of Latvia is obtained.	Low

<u>Heating energy</u> Article 46(4) of the Energy law foresees that autonomous manufacturer of the heating energy shall not obtain any licence for his/her heat transmission and distribution business.	
What are the incentives (e.g taxes and tariffs) for each type of residential prosumers? Low tax level (5% and 10 %) applicable to prosumers to taxable income from electricity sold, under condition that electricity produced was produced when high efficiency cogeneration units were applied or renewable sources were used. There are no specific tariffs to prosumers to charge them for the electricity they draw from the grid for consumption. In fact, when the household transfers energy to the power grid, the amount of this energy is deducted from the invoice a household is receiving for the next billable month.	Low
What are the conditions encouraging or acting as barriers for residential prosumers? Conditions which can be seen as barriers: • Long procedure in order to get access to the grid <i>Sadales tīkls</i>. • Unclear costs level for getting access to the grid. • General lack of special tailor-made procedures for prosumers regarding redress procedures, cooperatives as well as other relevant information on possibilities and attractiveness to become a prosumer. Encouraging measures: • Low tax level (5% and 10 %) applicable to prosumers to taxable income from electricity sold, under condition that electricity produced was produced when high efficiency cogeneration units were applied or renewable sources were used. The tax should be paid by those receiving financial support for power generation from renewable energy sources or selling the electricity (Article 16 Energy Law). The aforementioned taxes are not applicable when the net-metering scheme is in place and where prosumers do not 'sell' the electricity and therefore do not receive income from it. Metering systems for each type of residential prosumer Residential prosumers are using the so-called electricity net settlement system, which is obligatory as from 1 January 2014 for all the households, which produce electricity for their own needs from renewable sources, such as solar PWC or wind generators. This metering system enables to make net accounting or, in other words, enables to count the transfer of the electricity to the grid and re-used of the transferred energy at times when it is necessary.³³ Billing conditions for each type of residential prosumer No specific billing conditions are foreseen for residential prosumers. The general billing conditions are applicable. Measures to encourage the creation of energy communities at municipal level There are no measures to encourage the creation of energy communities at municipal level.	Low

³³ Information available on the webpage of the distribution network *Sadales tīkls*, viewed 1 February 2017, <https://www.sadalestikls.lv/>

Rules facilitating the creation of energy cooperatives There are no rules as regards creation of energy cooperatives. There are no rules for the establishment of cooperatives in Latvia.	
Other questions on the regulatory framework • Complaint handling procedures for residential prosumer A general complaint procedure foreseen in Article 105 of the Energy law shall be applied. This procedure is in line with the general Administrative Process complaint procedure foreseen in the laws of the Republic of Latvia. No tailor-made rules for the residential prosumers could be identified, • Redress procedures available only to residential prosumers No specific redress procedures available only to residential prosumers are foreseen.	Low

Executive Summary

Overall, residential prosumers exist in the Republic of Latvia to a limited extent. This is due to the fact that the Latvian electricity market was recently liberalised and the gas market has not been liberalised to date. Therefore, **specific laws relevant to residential prosumers do not exist** in the legal system of the Republic of Latvia. Residential prosumers are regulated by general provisions of the laws in energy sector and there is no legal definition of this concept. Thus, the development of residential prosumers has been slow in Latvia.

There is no specific institutional and regulatory framework in order to distinguish competences of institutions regarding residential prosumers. The Renewables National Action Plan is included into the Energy Development Guidelines 2016-2020, which do not include any specific objectives for residential prosumers. The net-metering system provides for an incentive to prosumers complemented with low taxes applied to income from electricity sold (art 16 of the Energy law), under condition that electricity produced was produced from renewable sources.

Currently the procedure for residential prosumers in order to get **access to the grid is very long**. Furthermore, the costs level for getting access to the grid is unclear. The general billing conditions are applicable. There are **no measures to encourage the creation of energy communities** at municipal level. There are no rules as regards creation of energy cooperatives.