



**Joint-Stock Company  
Conexus Baltic Grid**

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Medium-term strategy  
For 2019-2023

## ABBREVIATIONS AND TERMS

Table 1 Abbreviations used in the medium-term strategy for 2019-2023

Abbreviation	Explanation
RER	Renewable energy resources
JSC	Joint-Stock Company
AST	JSC Augstsprieguma tīkls
BCM	Billion cubic meters
Conexus	JSC Conexus Baltic Grid
EC	European Commission
ENTSOG	European Network of Transmission System Operators for Gas
MoE	Ministry of Economics
EP	European Parliament
EU	European Union
EUR	Euro
Gas Directive	Directive 2009/73/EC concerning common rules for the internal market in natural gas
Inčukalns UGS	Inčukalns Underground Gas Storage
IS	Information system
IT	Information technology
LG	JSC Latvijas Gāze
MCM	Million cubic metres
M <sup>3</sup>	Cubic metre
Mil.	Million
MK	Cabinet of Ministers
MR	Home regulator
MWh	Megawatt-hour
GTP	Gas transmission pipelines
TSO	Transmission system operator
RAB	Regulated asset base
PUC	Public Utilities Commission
RGMCG	Regional Gas Market Coordination Group
ROE	Return on equity ratio
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
DSO	Distribution system operator
t	Tonne
k	Thousand
TWh	terawatt-hour, 1 terawatt-hour is equal to 1 billion kWh
MAR	Market area responsible

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## 2. STRATEGY SUMMARY

### 2.1. THE GOAL OF THE STRATEGY

On 11 February 2016, the Parliament of the Republic of Latvia adopted amendments to the Energy Law, envisaging legal separation of gas transmission and storage systems from the trader. As a result of reorganisation and separation of the transmission and storage operations from JSC Latvijas Gāze (hereinafter referred to as LG), the common natural gas transmission and storage system operator JSC Conexus Baltic Grid (hereinafter referred to as Conexus or the Company) was established on 22 December 2016.

According to the 5 December and 19 December 2017 decision of the Cabinet of Ministers, shares of Conexus were purchased by the Latvian power transmission system operator JSC Augstsprieguma Tīkls (hereinafter referred to as AST). Shares in equity of AST are held by the Ministry of Finance, therefore the Conexus equity shares are owned by the Latvian state.

Taking into account the expected changes in the regional natural gas market, it is necessary to update the strategic directions and priorities of the company and, according to the Law On Governance of Capital Shares of a Public Person and Capital Companies, it is necessary to prepare a medium-term strategy for 2019/2023.

The medium-term strategy for 2019-2023 is a planning document that sets strategic goals, defines medium-term priorities and the set of measures for achievement of the goals set by Conexus.

### 2.2. SHORT DESCRIPTION OF THE COMPANY AND ITS BUSINESS

Conexus is the only natural gas transmission and storage operator Latvian and provides an opportunity for registered traders to use the Latvian natural gas transmission system for trading natural gas not only in Latvia, but also in neighbouring regions. In total, Conexus manages 1,188 km of mainline gas pipeline system, covering the regions of Latvia and transmitting natural gas to the local gas distribution system via 40 gas regulating stations. The company also has an international gas metering station in Korneti.

### 2.3. MAIN FINDINGS OF INDUSTRY ANALYSIS

In 2017, Latvian consumption of natural gas amounted to 13.1 TWh (including natural gas for technological applications) and it was mainly consumed for production of electricity and heat (56%)<sup>1</sup>. It is forecasted that natural gas consumption in Latvia in 2018 will decrease and amount to approximately 12.6 TWh.

In 2017, the consumption of natural gas decreased by 18% in comparison with 2012.

The main factors influencing the reduction of natural gas consumption are as follows:

- ◆ State-subsidised investments for the use of fuelwood and the price of wood chips relative to the price of natural gas;
- ◆ The price of electricity in the Baltic area of Nord Pool affecting the use of natural gas for electricity generation;
- ◆ Launch of operations of biomass cogeneration plants in the largest Latvian cities. The largest consumer of natural gas in Latvia is JSC Latvenergo which uses natural gas for heat generation in Riga CHPP. The generated heating energy is sold to the main heating energy distributor, JSC Rīgas Siltums (further- RS). According to publicly available information, RS plans to create two new biomass cogeneration plants that would reduce the heat consumption by RS, and therefore the gas consumption by Latvenergo.

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<sup>1</sup> Information of the Central Statistical Bureau

# 3. GENERAL INFORMATION ON CONEXUS AND ITS STRATEGIC OBJECTIVES

## 3.1. SHORT DESCRIPTION OF THE COMPANY

The company was established in December 2016, after the reorganisation of LG. Conexus received the natural gas infrastructure: the common natural gas transmission system and the Inčukalns Underground Gas Storage (hereinafter referred to as Inčukalns UGS).

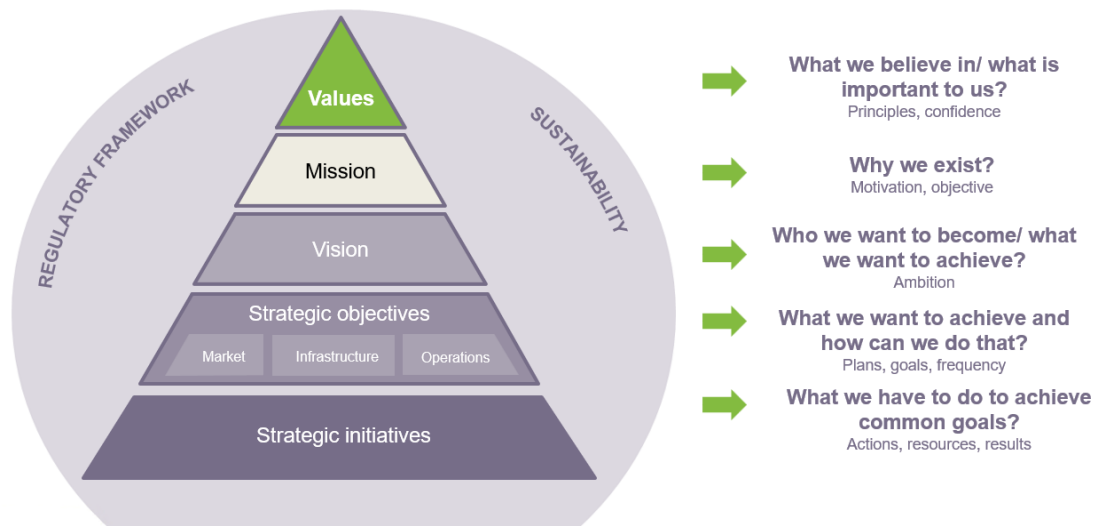
The company cooperates with legal entities — registered natural gas traders in the region, providing services in accordance with the natural gas transmission system and Inčukalns UGS service tariffs approved by the Public Utilities Commission (hereinafter referred to as PUC).

Conexus manages the only functioning underground gas storage facility in the Baltic States, which provide regional gas supply stability and is an important strategic object in the entire region. It ensures the energy security and independence of the entire region. The active natural gas reserves of Inčukalns UGS may reach up to 24.2 TWh (2.3 billion cubic metres), which is enough to fully provide for the natural gas needs of Latvia and the region during the heating season. For traders, it provides the possibility to store natural gas in a strategic location.

The advanced mainline natural gas transmission system, which is part of the company's structure, is 1,188 km long and connects the Latvian natural gas market with Lithuania, Estonia and Russia. The transmission system allows traders to provide flexible and reliable supply of natural gas to customers, as well as international transit, which is the cornerstone of the region's natural gas supply.

In order to provide effective natural gas supply and delivery options for traders, Conexus maintains and improves the mainline transmission system and storage infrastructure, makes the required investments in infrastructure development, monitors and controls the stability of the transmission network and storage facility eliminates any damage that has occurred.

## 3.2. STRATEGIC PLAN FRAMEWORK, MISSION AND VISION



Picture 1 Conexus Strategic plan framework, mission and vision

The strategic framework of the company consists of the company's values, mission, vision and strategic objectives. To define future priorities and strategic directions, it is important for the company to define the determination, motivation and future ambitions by observing the

principles of sustainability and the existing regulatory framework. The company's values, mission and vision allow setting its strategic objectives which can be achieved through a variety of strategic initiatives. The vision, mission and values of Conexus are described in more detail below, while the company's strategic goals and initiatives are described in Chapter 6.



Picture 2 Conexus vision, mission, values

Conexus is an independent and competitive company with a high quality of service that enables development opportunities for customers as well as employees.

### Vision

To become the most reliable energy source in the region by facilitating the development of the transmission system and using the potential of the underground gas storage.

### Mission

To promote sustainable energy market in the region, offering reliable operation of natural gas transmission and storage system.

### Values

- ◆ **Secure operation of the system** – we ensure secure operation of the infrastructure through regular infrastructure monitoring.
- ◆ **Flexibility and openness through competent solutions** – we are in favour of market development and open to new solutions that support market development.
- ◆ **Sustainable development** – to protect people and the environment from potential safety risks, we regularly invest in modernisation and security of the gas system and technological development.
- ◆ **Professional and united team** – we appreciate professionalism in everything we do and our colleagues, customers and partners can rely on us.

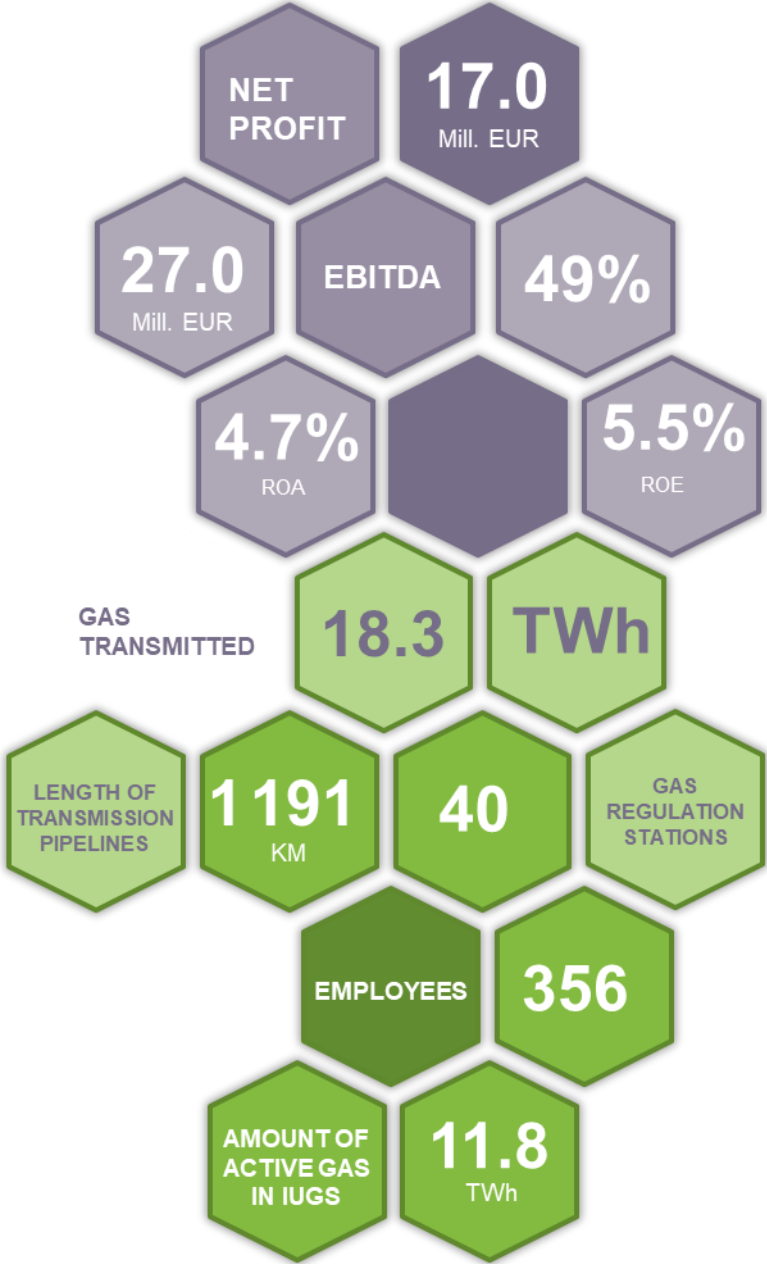
### Sustainability

We are a socially responsible company that enables the growth of employees and contributes to the overall development of the industry by creating sustainable employment and added economical value, while taking care of the impact of technological processes on the environment.

Alongside strategic objectives, Conexus has defined three development guidelines closely related to all planned medium-term activities. These development guidelines complement the strategic objectives and contribute to their implementation. The defined guidelines are as follows:





- ◆ **Digitalisation.** Operations of Conexus will be focused on technological advancements, improvement, decentralised management of assets, staff and finances, as well as introduction of effective resource management model.
- ◆ **Conexus – an energy company.** The vision of Conexus is to become the most reliable source of energy in the region, making Conexus a major player not only in the natural gas, but also electricity market.
- ◆ **Cooperation with other transmission system operators in the region.** In the medium term, Conexus intends to promote cooperation with other transmission system operators in the region by coordinating routine cooperation and implementing a periodic comparative analysis system with other TSOs in the region.

3.3. FACTS AND FIGURES



Picture 3 Facts and figures (2017 year information)

### 3.4. THE MOST SIGNIFICANT EVENTS OF THE RECENT YEARS

<p><b>2014</b></p> <ul style="list-style-type: none"> <li><b>March.</b> The Parliament approves amendments to the Energy Law regarding market liberalisation.</li> </ul> <p><b>2016</b></p> <ul style="list-style-type: none"> <li><b>February.</b> The Parliament approves amendments to the Energy Law concerning the need to separate natural gas transmission and storage infrastructure from natural gas trade and distribution functions.</li> <li><b>March.</b> Shareholders of LG decide to commence the reorganisation of the company and separate the transmission and storage segment from LG.</li> <li><b>December.</b> The common natural gas transmission and storage operator Conexus is established.</li> </ul> <p><b>2017</b></p> <ul style="list-style-type: none"> <li><b>April.</b> The Latvian natural gas market is formally opened on 3 April.</li> </ul> 	<ul style="list-style-type: none"> <li>Any legal entity is free to buy natural gas from any merchant registered in Latvia.</li> <li><b>On 13 April 2017,</b> the PUC approved the natural gas transmission system terms of operation and the Incukalns UGS terms of operation.</li> <li><b>May.</b> On 30 May, the PUC approves the natural gas transmission system service tariffs.</li> <li><b>July.</b> Starting from 1 July, the natural gas market is open and the new transmission system tariffs apply.</li> <li><b>July.</b> Starting from 1 July, Conexus in cooperation with the operators of the neighbouring countries introduces implicit capacity allocation at cross-border interconnection points with Lithuania and Estonia.</li> <li>Conexus holds an auction for providing natural gas availability in system interconnection with Incukalns UGS in 2017-2018.</li> </ul> 	<ul style="list-style-type: none"> <li>Starting from July, Get Baltic introduced the ICA process, which allows booking natural gas capacity together with the purchase of natural gas volume, thus facilitating cross-border trade of natural gas.</li> <li><b>August.</b> On 24 August, the PUC establishes the capital return rate for transmission, distribution and storage segments at 4.7%.</li> <li><b>November.</b> On 22 November, Conexus submits the new tariff proposal for approval by PUC, foreseeing the introduction of new storage products and tariff setting principles.</li> <li><b>December.</b> On 21 December, Conexus submits a new tariff proposal for approval by the PUC, foreseeing the introduction of new transmission system products and including the costs of auction on providing natural gas availability at the transmission system interconnection with the storage in the transmission system tariffs.</li> </ul> 	<p><b>2018</b></p> <ul style="list-style-type: none"> <li>JSC Augstsprieguma Tikis acquires 18.31 of Conexus shares.</li> <li><b>February.</b> On 7 February, the PUC approves amendments to methodology of natural gas storage service rates calculation.</li> <li><b>April.</b> On 26 April, the PUC council approves the new natural gas storage tariffs.</li> <li><b>May.</b> On 8 May, the Cabinet of Ministers defines the required volume of natural gas at Incukalns UGS.</li> <li>The PUC approves the Incukalns UGS terms of use.</li> <li><b>June.</b> On 11 June, the PUC approves the natural gas transmission service calculation methodology.</li> <li>On 18 June, the PUC approves the natural gas transmission system service tariffs.</li> </ul> 
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Picture 4 The most significant events of the recent years

#### Reorganisation of JSC Latvijas Gāze

2017 saw a number of changes in the natural gas sector. According to the European Union (EU) Gas Directive, the 11 February 2016 amendments to the Energy Law and the regulated market principles set forth by the Cabinet of Ministers, LG was reorganised into two separate companies, thus significantly changing the existing operations of the natural gas transmission and storage system operator. Before the opening of the natural gas market, the vertically integrated company LG controlled the natural gas transmission, storage, distribution and marketing and, thanks to long-term contracts and demand estimates produced by the company, was able to plan the long-term use of the system.

After the opening of the natural gas market opening, the applicable regulations do not require traders to assume responsibility for ensuring supplies of natural gas, whereas Article 112 of the Energy Law only requires the common transmission and storage operator to ensure the management of natural gas flows in the natural gas transmission system in conformity with the technical capabilities of the system and in accordance with non-discriminating conditions for receipt of natural gas from foreign states and transportation to foreign states.

#### Availability of transmission and storage products

The technical capabilities of the Latvian natural gas transmission system are sufficient to supply the residents and other users of natural gas and meet the demand, however, the weak point is not the technical capabilities of the infrastructure, but the availability of the natural gas as a product. Although the technical capacity of the system is sufficient, in cases where natural gas is not available at entry points in winter, the operator cannot ensure the supplies to the distribution operator in the volume required by the natural gas users. Historically, the availability of the product under licence was ensured by LG as a vertically integrated and regulated natural gas monopoly. Availability of the product was historically handled by using Incukalns UGS as a seasonal natural gas storage, injecting natural gas in the summer to deliver it to consumers in the winter.

In early summer of 2017, traders did not express interest to store significant amounts of natural gas at the storage facility for winter supply needs. The transmission operator sought solutions



to comply with the set of duties set forth by the law, which is to ensure the technical capability matching the expected demand. Through analysis of possible solutions, Conexus decided to purchase the natural gas pressure provision service at an auction, requiring the traders to store the natural gas owned by them at the store facility until a date established by the operator, to ensure that the transmission operator is able to receive the volume of gas that is required to meet the demand. This step was a prerequisite for traders' interest to use the storage facility, and a total of 11.36 TWh of natural gas was injected into the storage facility in 2017, including 7.4 TWh as a result of the auction.

Opening of the market means increased competition in the natural gas market. In order for a trader to become a user of the natural gas transmission system, it has to conclude an agreement with the common operator for transmission only or for both transmission and storage. Contracts for transmission and storage are concluded separately, while a transmission contract is a prerequisite for concluding a storage contract.

In 2017, the common operator concluded 23 contracts on transmission and 15 contracts on storage with system users. Out of all traders, 15 users were active in transmission and 9 in storage of natural gas.

### Storage services

In November 2017, the Conexus submitted to PUC the new Inčukalns UGS storage service tariffs for approval, proposing three new basic products for the users purposefully designed to convenient and economically viable in the new natural gas market conditions. On 26 April 2018, the PUC council approved the new natural gas storage service tariffs.

In order to promote the interest amongst traders to use the storage facility following the opening of the natural gas market in Latvia, on 14 February 2018 the PUC approved amendments to the natural gas storage service tariff calculation methodology, allowing a more flexible response to changes in the natural gas market and allowing the market players to plan their activities.

### Transmission services

In December 2017, Conexus submitted to PUC the new transmission tariffs' proposal purposefully prepared in accordance with the new situation in the Latvian natural gas market. To promote further interest in Inčukalns UGS amongst the market players and allow traders to use their stocks for daily balancing, the tariffs include a provision for a 100% discount at the interconnection with Inčukalns UGS. On 18 June 2018 the PUC council approved the new natural gas transmission system service tariffs.

On 9 March 2018, the PUC approved amendments to the natural gas transmission system service tariff calculation methodology, introducing some editorial changes, the most significant of which is a new edition of the cost correction section.

### Changes in the regulatory environment

The regulator monitors the natural gas industry, including natural gas storage, transmission, distribution and sales. The regulator independently makes decisions and issues administrative acts within its scope of competence. The 11 February 2016 amendments to the Energy Law stipulated that the PUC is required to:

- ◆ issue the methodologies for calculating the tariffs for natural gas supply services (natural gas transmission, distribution and storage service tariff calculation methodology, natural gas price calculation methodology for captive consumers), which provides approval of the relevant tariffs for natural gas volumes expressed in energy units;

Taking into account the duties of the PUC established by the Energy Law, on 28 November 2016 the Regulator approved the natural gas transmission system service tariff calculation methodology and on 16 March 2017 approved the natural gas storage service tariff calculation methodology. These methodologies require the PUC to prepare a Weighted Average Cost of Capital (WACC) calculation once a year by 1 September, which shall be used by transmission and storage operators for preparation of the tariff proposals.

On 24 August 2017, the PUC established WACC of 4.70% for preparation of the natural gas transmission and storage system service tariff proposal.

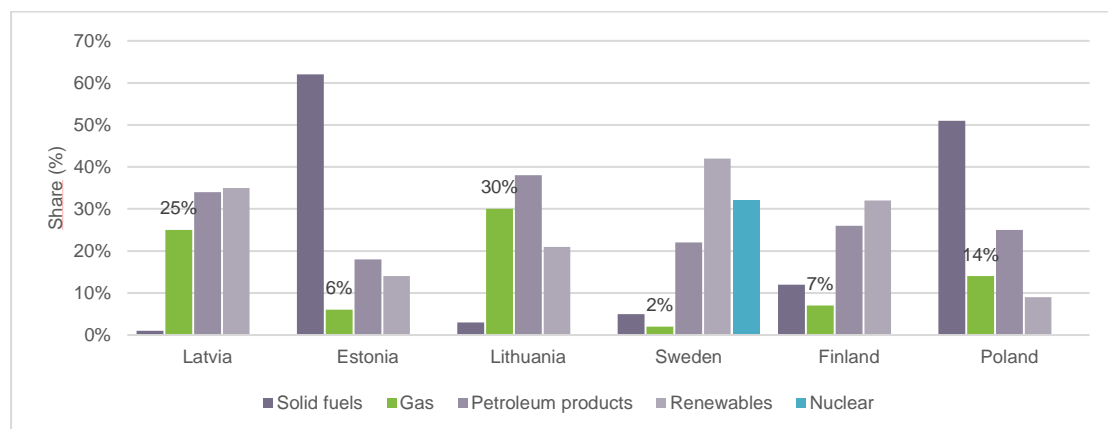
## 4. OVERVIEW OF THE NATURAL GAS MARKET

### 4.1. IMPORTANCE OF THE ENERGY MARKETS FOR THE EUROPEAN UNION AND THE REGION

#### 4.1.1. Natural gas as a key component of the energy market

The EU is the largest importer of natural gas in the world, and its consumption makes up one quarter of total energy consumption in the EU. The biggest consumer of natural gas is the electricity generation industry (including combined heat and electrical power plants). The electricity generation sector accounts for 26% of the total natural gas consumption in the EU, the production industry accounts for 23%, while the household and service sector makes up the remaining share of the total natural gas consumption<sup>2</sup>.

The region's energy market consists of the Danish, Estonian, Finnish, Latvian, Lithuanian, Polish and Swedish energy markets. Natural gas has the largest market share in Denmark, Lithuania and Latvia, with the proportion ranging from 20% to 30% of the national energy market. Meanwhile, in Estonia, Finland and Poland the share of natural gas in the total energy market ranges from 5% to 15%. For breakdown of national energy markets by energy types and consumption share, see the image below. Poland has the highest natural gas consumption demand in the region's energy market, with an average consumption of 195 TWh per year, and it is estimated that long-term demand for natural gas will increase.



Picture 5 Proportion of consumption by sources of energy at the national level in the region (Eurostat, 2016 data)

Under current scenarios, it is estimated that the EU natural gas consumption will decrease at a very slow or moderately slow pace.<sup>3</sup> The possible reasons for decrease are: (1) general energy efficiency improvements and more efficient use of energy; and (2) reduction of the use of natural gas as a CO<sub>2</sub> source and its replacement with renewable energy sources.

Only one, less likely scenario foresees growth of EU natural gas consumption in the medium term based on accelerated replacement of coal energy with natural gas. In addition, a factor contributing to natural gas demand in the future is the need to reduce the emissions in the transport sector.

Studies on the EU's natural gas market outlook highlight the production of renewable natural gas. It includes the use of compressed and liquefied natural gas in transport, production of biomethane gas or conversion of electricity into natural gas and its storage and transportation.

<sup>2</sup> European Commission report "Liquefied Natural Gas and gas storage will boost EU's energy security", 2016

<sup>3</sup> "ENTSOG Ten-Year Network Development Plan (TYNDP) 2017" and "EU Reference Scenario 2016"

Compressed natural gas technology has become popular only in some of the EU countries, but it has not become a major source of natural gas consumption in any of them. At the European level (especially amongst vehicle manufacturers) electromobility (*e-mobility*) is preferred because it does not create CO<sub>2</sub> emissions. Liquefied natural gas still has great potential for long-distance and marine transport. Use of biomethane is not widespread because of its high production costs compared to biogas, as it needs to be purified and recycled to attain parameters suitable for natural gas injection. Pilot projects for conversion of electricity to natural gas take place regularly, however, the current technology is not able to offer profitable solutions to businesses yet. Although work is being carried out on new, renewable natural gas technology, it is not expected that these innovations will have a major impact on natural gas consumption forecasts by 2025. Taking into account the latest market trends and technological developments, Conexus is already open for the introduction of new solutions and ready to cater for a variety of customer needs in compliance with the quality specifications and technical standards.

To estimate the total natural gas consumption in the EU, three potential scenarios for interaction between the European climate goals and the energy policy are assumed<sup>4</sup> – **the climate action contributing scenario, the sustainable transition scenario and the distributed generation supportive scenario**, which provides for substantial involvement of consumers in the process.

- ◆ **The global climate action scenario** provides for the most active implementation of climate-supporting actions, promoting projects and investments increasing the use of renewable energy resources, thus attaining the environmental objectives while reducing the use of fossil energy resources, including natural gas. Natural gas produced from renewable sources and transmitted in the common networks has an important role in this scenario.
- ◆ **The sustainable transition scenario** provides for gradual decarbonisation, primarily switching from coal to natural gas. In this scenario, the natural gas consumption in the EU is expected to increase.
- ◆ **The distributed generation scenario** provides for a significant increase in domestic energy production.

In Latvia, the most consumed primary energy resources are petroleum products (34%) and natural gas (25%), while in Estonia and Poland solid fuels are most commonly used. It is important to note that, due to the EU's climate policy, solid fuels could disappear as an energy resource in the next few years in the region and most likely be replaced by natural gas or renewable resources.

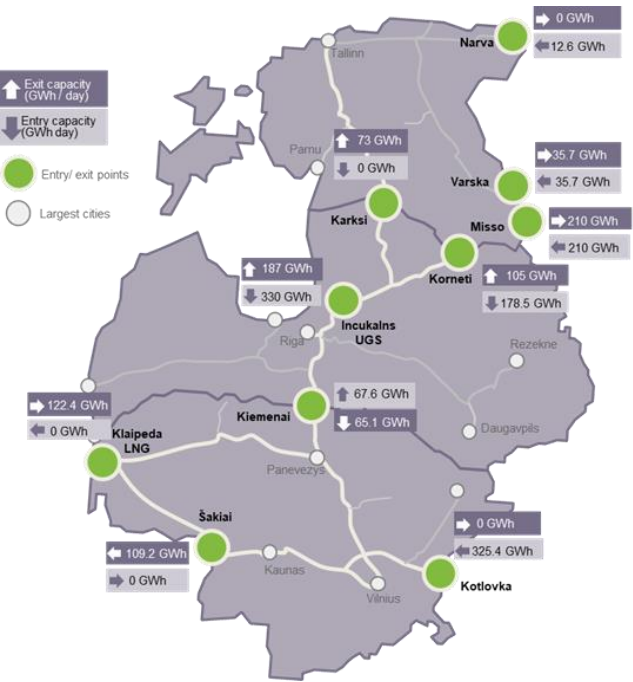
For example, in January 2018, the Minister of Agriculture and the Environment of Finland Kimmo Tiilikainen published a report stating that the Finnish government will support the transition of the Finnish economy from coal to natural gas and renewable energy sources by 2025. This is an important step for the region because the share of natural gas in Finland's energy balance is relatively low. At present, it is difficult to accurately assess the impact of this transition on the potential consumption of natural gas because some of this market will be taken over by renewable energy resources, however, if only a half of the coal power would be replaced by natural gas, the natural gas consumption of Finland could double from 22 TWh to 40 TWh per year by 2025. According to these assumptions, the regional gas consumption could increase to 75-80 TWh per year.

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<sup>4</sup> ENTSOG forecast

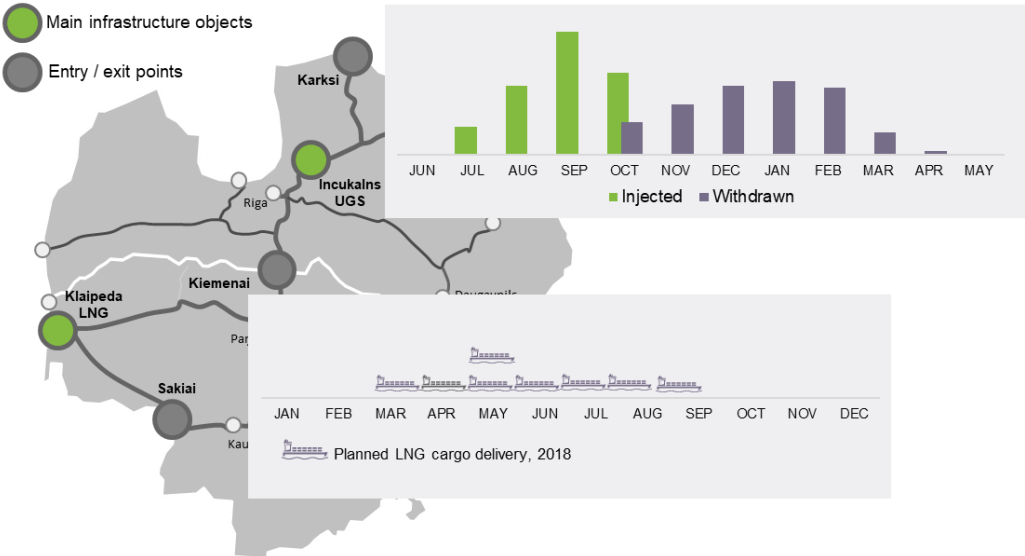
4.2. REGIONAL NATURAL GAS MARKET

Although the global consumption of natural gas continues to increase, in Europe it has been steadily declining in the recent years. Last year, the Eastern Baltic region, which includes Finland, Estonia, Latvia and Lithuania, has seen a significant drop in natural gas consumption. In 2017 the consumption of natural gas in Finland was approximately 24.7 TWh<sup>5</sup>; Lithuania was the largest consumer of natural gas amongst the three Baltic countries with 24.3 TWh<sup>6</sup>. The consumption of natural gas in Latvia and Estonia was 13.1 TWh<sup>7</sup> and approximately 5.2 TWh, respectively<sup>8</sup>. Some of the main reasons for the decreased demand are the transition to other fuels in electricity and heat generation sectors, the transition to the production of energy from biomass, as well as reduction of consumption by various industrial enterprises, which is seen, for example, in the shrinking paper industry of Finland.



Picture 6 Regional gas market (ENTSOG, 2017)

Current infrastructure



Picture 7 Key infrastructure objects.<sup>9</sup>

<sup>5</sup> Natural gas consumption in Finland, ENTSOG data  
<sup>6</sup> Natural gas consumption in Lithuania, Ambergrid, annual report, 2017  
<sup>7</sup> Natural gas consumption in Latvia, Conexus information  
<sup>8</sup> Natural gas consumption in Estonia, Elering, 2018, available at: [https://elering.ee/sites/default/files/public/Investorile/Elering\\_AA\\_2017\\_210x280\\_ENG\\_WEB\\_UUS\\_2.pdf](https://elering.ee/sites/default/files/public/Investorile/Elering_AA_2017_210x280_ENG_WEB_UUS_2.pdf)  
<sup>9</sup>Klaipėdos Nafta, 15 June 2018; "Joint annual schedule of the terminal of gas year 2018"; accessed: [https://www.kn.lt/uploads/files/dir54/dir2/16\\_0.php](https://www.kn.lt/uploads/files/dir54/dir2/16_0.php)

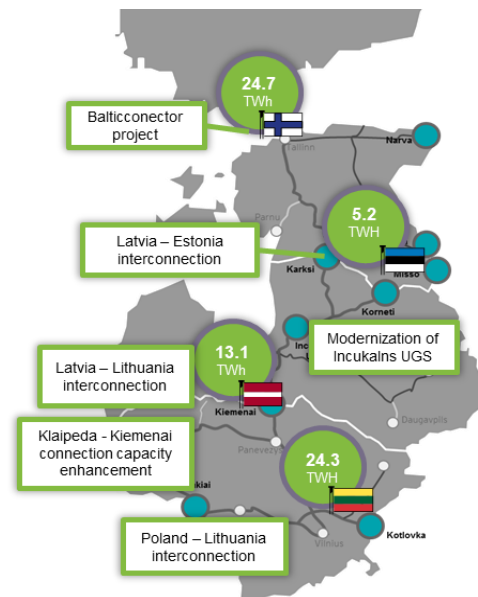
The key natural gas infrastructure objects in the Baltic states are the Inčukalns UGS and the Klaipeda liquefied natural gas (further- LNG) LNG terminal.

- ◆ **Inčukalns UGS** is an integral part of the Baltic natural gas supply system and is the only functionary storage facility in the Baltic states and ensures the stability of the regional gas supply. During the summer season, when consumption of natural gas is several times lower than in the winter season, natural gas is injected into the storage to be delivered to customers in Latvia, Estonia, the north-western region of Russia and (in smaller amounts) in Lithuania during the heating (winter) season. The total capacity of Inčukalns UGS has been 4.47 billion m<sup>3</sup>, of which 2.32 billion m<sup>3</sup> has been active gas or gas that is regularly extracted. Inčukalns UGS is described in more detail in Chapter 4.4.
- ◆ Historically, the region has been dependent solely on natural gas supplies from Russia, but since the opening of the Klaipeda LNG terminal in 2014, an alternative natural gas supply route is available in the region. Since the terminal was opened, more than 50 shipments of natural gas from suppliers in Norway, USA and other countries have been received. In 2017, natural gas received from the Klaipeda LNG was injected into the Inčukalns UGS.

### Planned infrastructure development projects

The regional energy market is treated as a single energy market, whereas looking at the natural gas market in isolation, it is still not fully connected and consists of several unconnected natural gas networks. The natural gas network of Baltic states is interconnected, but not connected to the rest of the EU network, while the Finnish natural gas network is completely isolated from the EU.

To remedy the situation and connect the Eastern Baltic region gas supply system with the joint EU gas transmission network, there are certain European projects of common interest (hereinafter referred to as PCIs), for which facilitated procedure and, in some cases, funding from the EU infrastructure fund is available.



Picture 8 Planned infrastructure development projects in the region

The key planned infrastructure development projects for integration of the regional gas transmission systems with the joint EU gas transmission network are the construction of the Poland-Lithuania interconnection, the Estonia-Finland interconnection and improvement of the Latvia-Estonia and Latvia-Lithuania interconnections.

- ◆ **Construction of the Estonia-Finland interconnection (Balticconnector).** The construction of this interconnection will allow to connect Finland’s natural gas transmission system directly to the Baltic natural gas transmission system. Balticconnector is a precondition for creation of single Baltic natural gas market, as the natural gas markets of Estonia and Finland that have been closed until now will be opened in 2019, along with the commissioning of the interconnector. The planned entry and exit capacity of Balticconnector will be 79 GWh/d.
- ◆ **Improvement of Latvia-Estonia interconnection (Karksi).** The improvement of this interconnection will allow the increase of natural gas flows to the volumes required in the single Baltic natural gas market and allow Estonian and Finnish traders to store natural gas at Inčukalns UGS. The planned entry capacity of the interconnection is 42 GWh/d and the exit capacity is 105 GWh/d. The improvement of the interconnection is expected to be completed in 2019.

- ◆ **Increasing Inčukalns UGS capacity.** Taking into account the fact that Inčukalns UGS is the largest and most important natural gas storage facility in the Eastern Baltic region and supplies the region during the winter, with increased withdrawal capacity it will be possible to withdraw a larger amount of natural gas from the storage and that will significantly improve the natural gas supply security, as well as operational efficiency of the storage facility, which will be especially important in the single Baltic natural gas market. The key benefit from the implementation of the project is the ability to reduce the dependence of withdrawal capacity on the volume of gas reserves in the Inčukalns UGS.
- ◆ **Improvement of the Latvia-Lithuania interconnection.** Increase of the interconnection capacity will enable the exchange of greater volumes of natural gas between Latvia and Lithuania, which will be especially important after establishment of the single Baltic natural gas market. It is expected to increase the interconnection capacity to 125 GWh/d when the project is completed. The project is scheduled to be completed in 2023.
- ◆ **Construction of the Poland-Lithuania interconnection (GIPL).** This project aims to connect the Polish and Lithuanian natural gas transmission systems, thus connecting the Eastern Baltic gas transmission systems to the single EU natural gas transmission network. GIPL will function as an alternative gas supply source for the Eastern Baltic region, improving the natural gas supply security in the region and allowing to integrate the region in the EU natural gas transmission network. The project is scheduled to be completed in 2023. The planned capacity will be 73.9 GWh/d towards Lithuania and 51.1 GWh/d towards Poland.

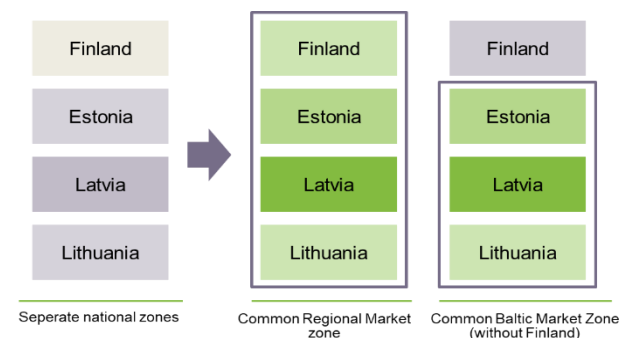
In 2017, as part of the Baltic Energy Market Interconnection Plan (BEMIP), the regional transmission system operators jointly completed the development of the third Gas Regional Investment Plan (GRIP), providing collected information on the planned projects in the BEMIP region. According to this plan, the following GRIP projects are going to be implemented in the Eastern Baltic region in addition to the aforementioned PCI projects<sup>10</sup>:

- ◆ Construction of the Paldiski LNG terminal in Estonia;
- ◆ Construction of the Tallinn LNG terminal in Estonia;
- ◆ Construction of the Syderiai UGS in Lithuania;
- ◆ Acquisition of the Klaipeda LNG terminal.

### Creation of a single Baltic natural gas market

The Baltic states and Finland are working on the creation of a single natural gas market, which would be the first single market region of its kind in the European Union. A Regional Gas Market Coordination Group (RGMCG) was established on 5 December 2014, following an agreement between the prime ministers of the Baltic states and Finland regarding creation of a single natural gas market by 2020. Members of the RGMCG – TSOs, regulators and the responsible ministries – have been assigned a variety of objectives.

Transmission system operators have been tasked with harmonisation of the third party access rules, balancing measures and creation of a single entry-exit area. Regulators have been tasked with development of single tariff area methodology and key natural gas infrastructure socialisation principles for the single entry-exit area, as well as the harmonisation of licensing regimes. The ministries are responsible for regional security of supply matters.

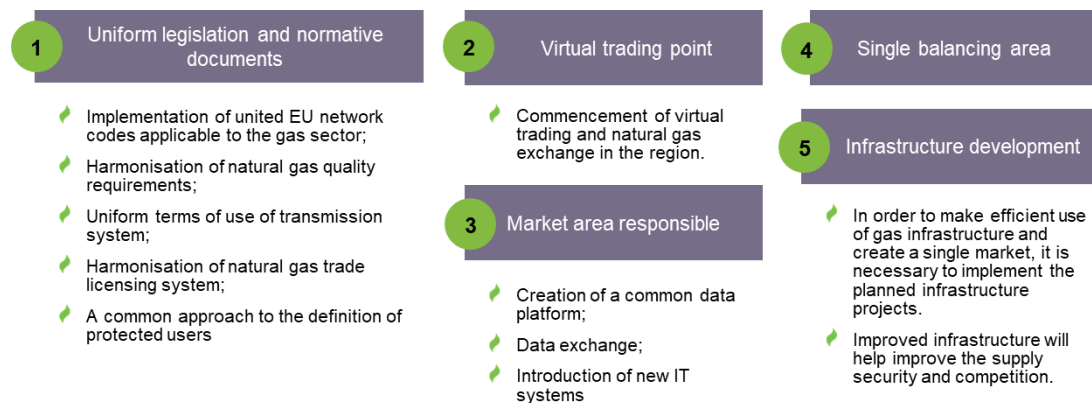


Picture 9 Regional natural gas market development scenarios

<sup>10</sup> GRIP Annex A: Infrastructure projects. Available at: [https://entsog.eu/public/uploads/files/publications/GRIPs/2017/entsog\\_BEMIP\\_GRIP\\_2017\\_Annex\\_A\\_web.pdf](https://entsog.eu/public/uploads/files/publications/GRIPs/2017/entsog_BEMIP_GRIP_2017_Annex_A_web.pdf)

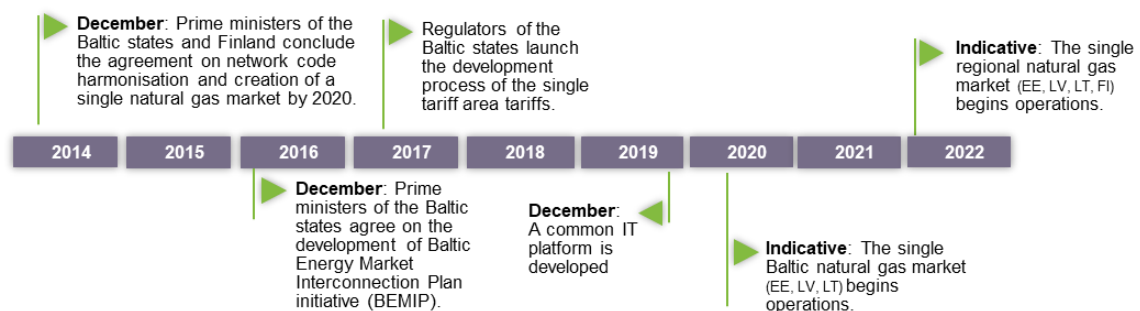
In 2017, the regulators of the Baltic states launched the development process of the single tariff area. In the process, the regulators tasked PSOs with developing the inter-TSO compensation mechanism (ITC), intended for revenue reallocation between operators due to changes resulting from merger of the previously independent entry-exit areas. Conexus is the leading TSO in the development of the compensation mechanism and four ITC mechanism models based on different principles were developed by the end of 2017 in cooperation with TSOs of other Baltic countries and Finland. In parallel until the end of 2017, Baltic TSOs worked on a framework document for defining the key principles of regional balancing and capacity booking. In addition, the following documents were developed as well:

- ◆ Potential tasks and competencies required for regional market area manager;
- ◆ Harmonisation of balancing and capacity booking principles with third countries, underground gas storage facility and liquefied natural gas terminal;
- ◆ VAT and excise duty regime analysis in the Baltic states;
- ◆ Trading of natural gas in the region (an explanatory document).



Picture 10 Preconditions for a single natural gas market

Region natural gas transmission operators in the region are JSC Gasum (Finland), JSC Elering (Estonia), JSC Balticconnector (Finland), JSC Conexus Baltic Grid (Latvia) and JSC Amber Grid (Lithuania). One of the main strategic directions of development for all these transmission operators is the development of a single regional gas market and each company has an important role in its achievement.



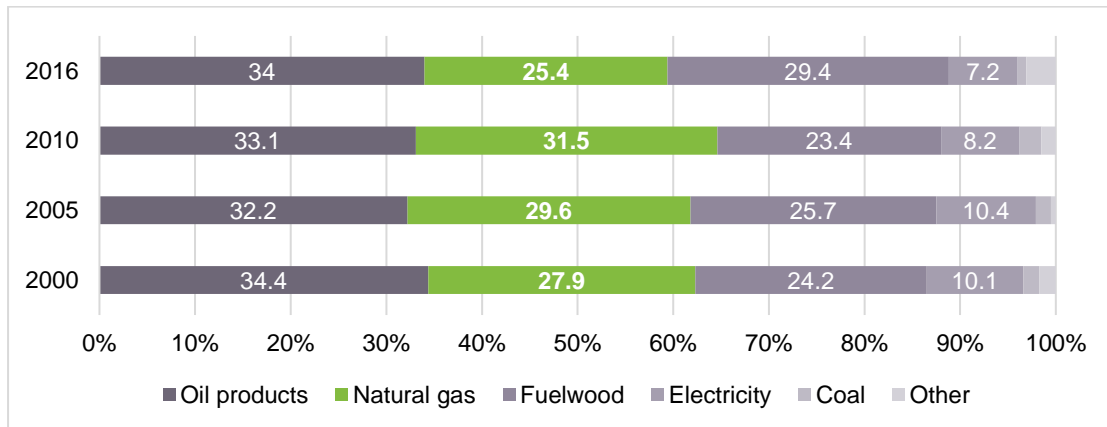
Picture 11 Timeframe of creation of the Baltic natural gas market



### 4.3. NATURAL GAS MARKET OF LATVIA

#### 4.3.1. Consumption of energy resources in Latvia

Latvia is dependent on energy imports. Petroleum products and natural gas accounted for the largest proportion of primary energy consumption in 2016 with 34% and 25% respectively. Only one third of the total energy consumption is provided by local sources of energy. The most important domestic energy sources are wood and hydroelectric power plants on the river Daugava. In 2016, fuelwood accounted for 29% and electricity for 7% of the total energy consumption.



Picture 12 Consumption of energy resources in Latvia

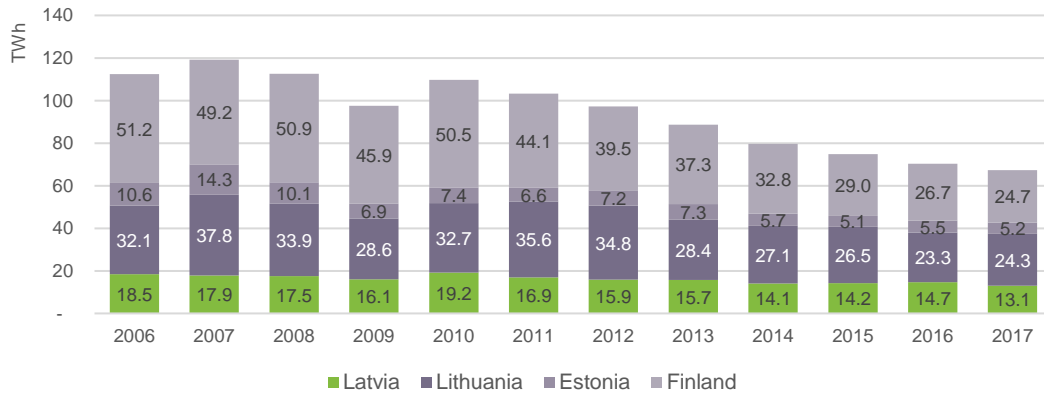
The highest consumption of energy resources in 2016 was in the **transport sector** (consuming 30%) **households** (consuming 29%) **energy and industrial sectors**, (consuming 20% of energy resources).

The main energy resource of the transport sector is diesel fuel and its share in the total transport sector energy consumption structure in 2016 was 63%.

However, taking into account the initiative aimed at mitigating climate change, the consumption of LPG, as well as natural gas (compressed and liquefied) has the potential to increase.

Changes in the overall consumption structure of energy resources have been observed in recent years – the proportion of consumption of natural gas is decreasing, while the proportion of renewable energy resources (RER), especially fuelwood, in the overall consumption is increasing. Over ten years, the natural gas consumption has decreased by 4.2%, and in 2016 it accounted for 25.4%. At the same time the share of fuelwood consumption increased by 4.4%, and in 2016 amounted to 29.4%.

Despite the decrease in consumption, natural gas continues to have an important role in the overall energy consumption structure of Latvia.



Picture 13 Historic natural gas consumption (in the Baltic states and Finland, 2006-2017)

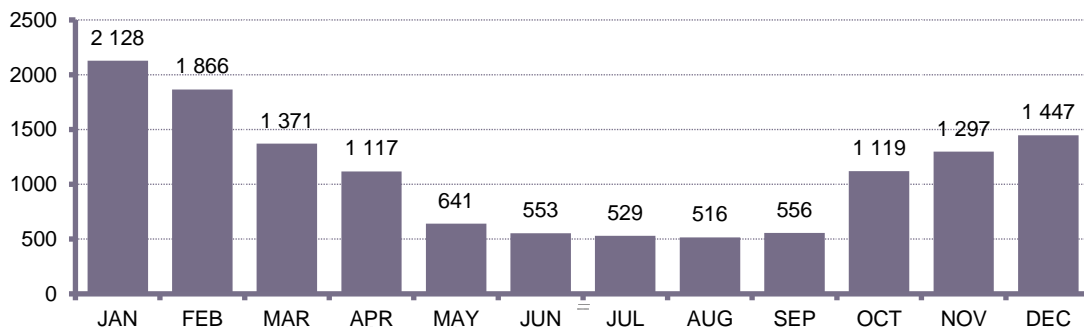
In recent years, the consumption of natural gas consumption has decreased both in the Baltic states and in Latvia. In Latvia, the consumption of natural gas has decreased by 58% in the last 25 years and in 2017 amounted to 13.1 TWh. This trend is largely due to the general economic development dynamics:

- ◆ population decline by about 700 thousand people;
- ◆ the industrial crisis (insolvency of the Jēkabpils sugar factory and Līgatne paper mill, ceasing of production at Jelgava and Liepāja sugar factories, end of operations at the Riga Autobus Factory, bankruptcy of the metallurgical enterprise JSC Liepājas Metalurģis);
- ◆ increased intensity of use of other types of energy resources.

The total natural gas consumption is influenced by a number of factors:

- ◆ the outside air temperature (the warm winters of the recent years have resulted in temperature above the average statistical norm);
- ◆ the transition from natural gas to alternative fuels for centralised heating (such as wood chips, waste wood, sawdust, pellets, briquettes);
- ◆ the general development of the economy, including manufacturing;
- ◆ the introduction of energy efficiency measures (e.g., building insulation);
- ◆ changes in the consumption of natural gas for electricity generation, which in turn is dependent on gas and electricity market price fluctuations.

In 2017, the consumption of natural gas in Latvia was 13.1 TWh, which corresponds to 1.16 billion m<sup>3</sup>. Reduction of natural gas consumption in 2017 can be attributed to the relatively higher air temperature during the heating season.



Picture 14 The volume of natural gas delivered to the Latvian distribution system in 2017 (GWh)

Table 2 Temperature comparison of 2015-2017 heating seasons, [oC].

Month	Average temperature *	2015	2016	2017
January	-2.9	-0.1	-6.0	-2.2
February	-2.9	+0.8	+1.8	-2.1
March	+0.7	+4.6	+2.5	+2.6
October	+7.4	+6.8	+5.6	+6.7
November	+2.4	+5.1	+1.5	+3.8
December	-1.0	+3.6	+1.9	+1.3

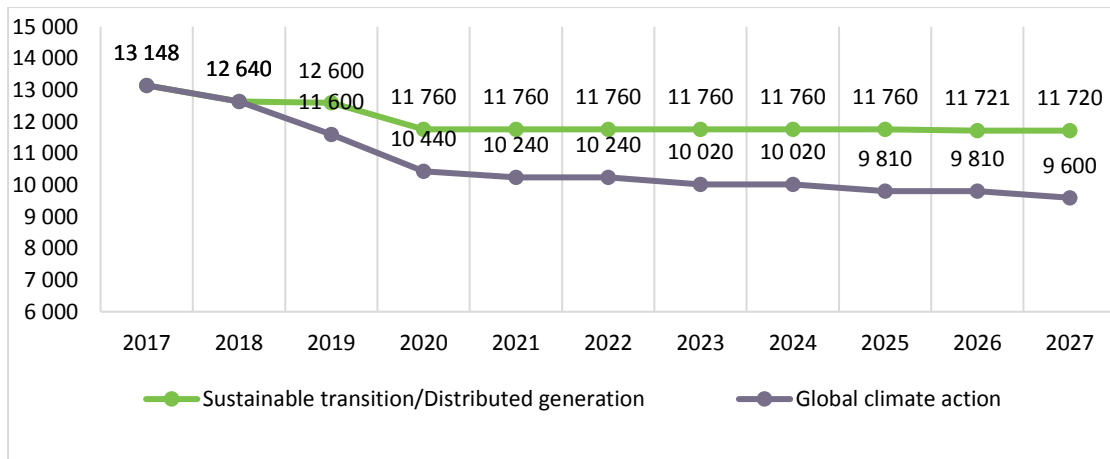
Demand for natural gas in Latvia during the winter and summer seasons is distinctly different and the disparity between the winter and summer months can be up to 4-5 times.

Although in 2017 the consumption decreased, the maximum daily consumption of natural gas in the winter of 2017 was comparable with the previous years. The highest demand in 2017 was on 5 January and the lowest demand on 23 July.

#### 4.3.2. Forecast of natural gas consumption in Latvia

The forecast of natural gas consumption in Latvia uses the guidelines of the European Network of Transmission System Operators for Gas (ENTSO-G) for forecasting scenarios. As mentioned above in Chapter 4.1.1, to estimate the total natural gas consumption in the European Union, three potential scenarios – **the climate action contributing scenario, the sustainable transition scenario and the distributed generation supportive scenario, which provides for substantial involvement of consumers in the process.** The impact of the scenarios on consumption of natural gas in Latvia is described below.

- ◆ **Climate action contributing scenario:** Taking into account the fact that heat generation accounts for a significant proportion of natural gas consumption in Latvia, this scenario has the highest impact on natural gas consumption. It is estimated that, if the global climate action contributing scenario will dominate the policymaking, it could lead to decrease of Latvia's natural gas consumption by 27%, reaching 9.6 TWh per year. These forecasts are made with the assumption that production of natural gas from renewable resources will not develop significantly in Latvia and that alternative areas of use of natural gas (such as replacement of petroleum products in land transport) will not develop. However, if the technology develops and becomes more accessible, then it is possible that in this scenario the consumption of natural gas recovers.
- ◆ **Sustainable transition scenario:** Coal has no significant proportion in the primary energy resource portfolio, therefore no increase of consumption of natural gas can be expected in this scenario. In this scenario, a negative impact on consumption is observed in the already ongoing renewable energy projects in the heating segment, but later consumption has stabilised and remains at 11.7 TWh.
- ◆ **Distributed generation supportive scenario:** Since the introduction of local generation has already partially taken place in Latvia, this scenario has no significant impact on the projected consumption in Latvia. Thus, in the transmission operator's view, natural gas consumption forecasts for sustainable development and distributed generation scenario do not differ.



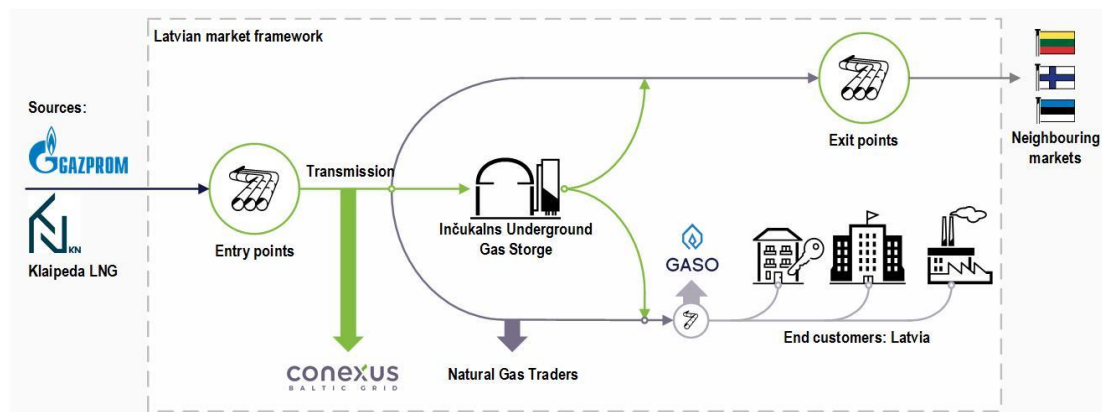
Picture 15 Natural gas consumption forecast until 2027 (GWh)

Summary of the analysed impacts allows estimating that the consumption of natural gas will decrease over the next two years, mainly driven by implementation of already approved projects in heat generation, while from 2020 onwards the consumption of natural gas will be stable, if the sustainable development scenario is the primary choice of the European Union. If the European Union or Latvia takes radical decisions contributing to introduction of new renewable resources, a respective decrease of natural gas consumption can be expected. In the transmission operator's view, taking into account the implementation costs of the global climate scenario, which will have to be borne by energy users, the sustainable development scenario will be adapted as the primary scenario.

#### 4.3.3. Participants of the natural gas market

The natural gas supply industry includes storage, distribution, redistribution and trade of natural gas (with the exception of natural gas trade in automotive gas filling compressor stations), and the merchants in the sector are supervised by the Regulator. According to the Energy Law, an open natural gas market is operating in Latvia since 3 April 2017, where each merchant operates under the liberalised natural gas market regulation.

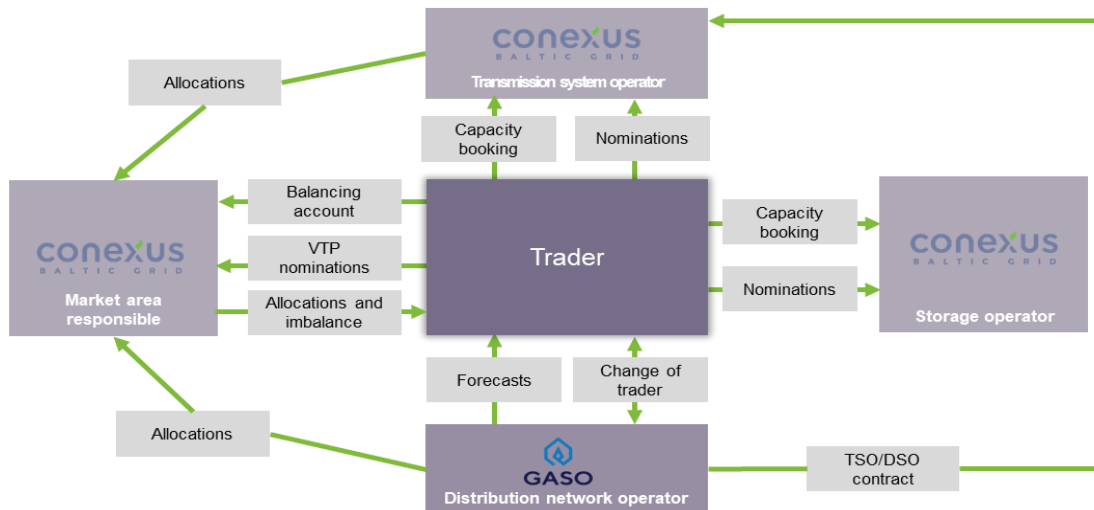
Latvian natural gas market consists of the following participants: the transmission system operator (TSO); the distribution system operator (DSO); the storage system operator and natural gas traders.



Picture 16 Framework of the natural gas market of Latvia

TSO	DSO	MAR	Trader
<b>Role/Responsibility</b>			
<ul style="list-style-type: none"> <li>Provides access to the system</li> <li>Ensures continuity of services</li> <li>Sells capacity products</li> <li>Maintains the virtual trading point</li> </ul>	<ul style="list-style-type: none"> <li>Ensures distribution network stability</li> <li>Maintains a list of gasified objects</li> <li>Ensures the change of trader</li> </ul>	<ul style="list-style-type: none"> <li>Maintains the balancing account system</li> <li>Ensures the operation of VTP</li> <li>Calculates commercial imbalance</li> </ul>	<ul style="list-style-type: none"> <li>Sells gas</li> <li>Offers a variety of products (contracts with different duration/degree of flexibility)</li> <li>Concludes infrastructure use contracts</li> </ul>
<b>Role in balancing</b>			
<ul style="list-style-type: none"> <li>Responsible for ensuring the stability of the transmission network (technical balancing)</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for ensuring the stability of the distribution network (technical balancing)</li> </ul>	<ul style="list-style-type: none"> <li>Encouraging traders to ensure their commercial balance</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for the commercial balance of its own transaction portfolio</li> </ul>
<b>"Technical/physical balancing"</b>		<b>"Commercial balancing"</b>	

Picture 17 Roles of natural gas market participants

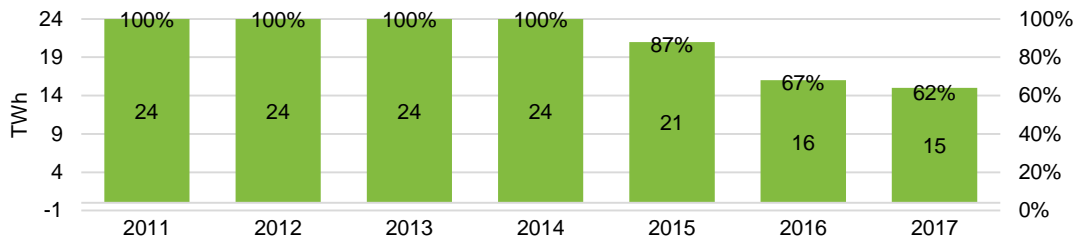


Picture 18 Latvian natural gas market activity

#### 4.4. ROLE OF NATURAL GAS STORAGE SEGMENT IN LATVIA

Inčukalns UGS is an integral part of the Latvian and Baltic natural gas supply system and is the only functioning storage facility in the Baltic states. In the long term, thanks to the unique geological structure of Latvia, it is possible to create at least 11 additional natural gas storage facilities with a total capacity of up to 50 billion m<sup>3</sup>, accounting for about 10% of the EU's annual consumption and the total storage capacity across the EU.

The role of Inčukalns UGS in the Latvian natural gas system is not limited to seasonal storage of natural gas reserves, but also includes the operational management and balancing of the system. As an example, in 2017 traders started using the advantages of the flexible storage use to carry out balancing with the help of the storage facility. During the summer season, when consumption of natural gas is several times lower than in the winter season, natural gas is injected into the storage to be delivered to customers in Latvia, Estonia, the north-western region of Russia and (in smaller amounts) in Lithuania during the heating season. The total capacity of Inčukalns UGS has been 4.47 billion m<sup>3</sup>, of which 2.32 billion m<sup>3</sup> has been active gas or gas that can be regularly injected and extracted. In 2017, the active gas balance at the beginning of Inčukalns UGS injection season was 3.7 TWh and during the 2017 injection season the volume of natural gas injected into the underground storage facility was 11.3 TWh. The volume of active natural gas in the storage after the closure of the injection season in 2017 was 15 TWh, or 62% of the possible active gas volume.

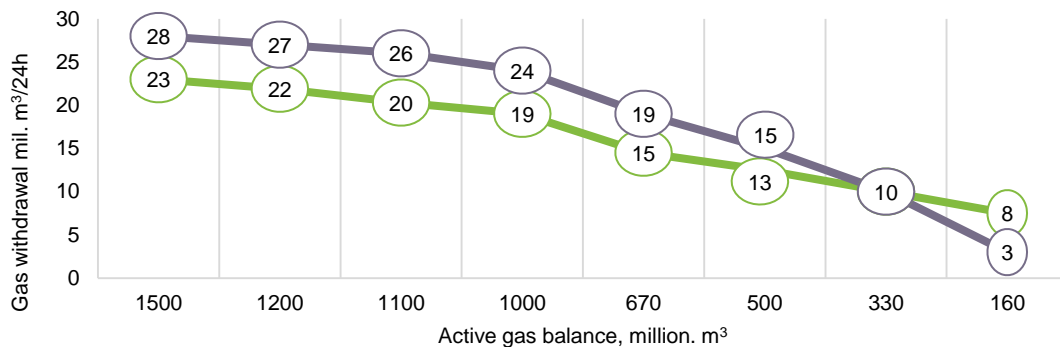


Picture 19 Volume of active gas in Inčukalns UGS at the injection season close (TWh and % of full storage)

The ability of the storage to deliver the flow required in the system is directly dependent on the volume of natural gas in the storage. Withdrawal of natural gas from storage takes place using pressure difference, therefore the daily withdrawal capacity is dependent on the volume of the reserves in the storage. The maximum withdrawal capacity of the storage is 316 GWh/d (30 million m<sup>3</sup>/d) and is available with active gas volume above 18 TWh. If the storage is less full, the withdrawal capacity decreases according to storage withdrawal capacity curve.

As can be seen from the image above, over the last two years the volume of active natural gas at the end of Inčukalns UGS injection season has amounted to approximately 60% of the maximum volume of natural gas that can be injected into the storage. Insufficient injection of active natural gas into Inčukalns UGS can reduce the performance of the storage and have a significant impact on further operation of the storage.

Withdrawal capacity curves over the last two years are shown in the image below.



Picture 20 Dependence of Inčukalns UGS withdrawal volumes on the natural gas stocks

On 8 May 2018 the Cabinet of Ministers adopted amendments to the 19 April 2011 Regulations of the Cabinet of Ministers No. 312 "Procedure of supply of energy to users and sale of fuel during a declared energy crisis and national threats", setting a new obligation for the common transmission system and storage operator to ensure at least 3.16 TWh of natural gas reserves at the storage facility from the end of the injection season until 1 March of the next year. This amount has been determined in accordance with a study by the Joint Research Centre (JRC) and foresees the use of the aforementioned reserves by 1 March solely for meeting the Latvian consumption in case of a declared energy crisis.

In addition, the Ministry of Economy has been tasked to assess the possibilities to increase the reserves of Inčukalns UGS to at least 4.9 TWh. These conditions are in effect until 1 March 2022.

### Activities of Inčukalns UGS following the introduction of a single regional market

With the introduction of a single regional market, it is expected that merging of the Baltic and Finnish market will have a positive impact on the activities of Inčukalns UGS. The combined market does not present any risks that were already not present under the existing conditions; it rather provides the opportunity to offer Inčukalns UGS services within the area at a lower cost and enables access to a wider gas market.

In the common market zone the internal interconnection points lose the significance of tariff application and nomination points and become internal (technical) interconnection points. Therefore, in order to maintain the competitiveness of Inčukalns UGS, the transmission tariff at the interconnection point with Inčukalns UGS should be reduced to zero. Otherwise, in order to deal with fluctuations in gas demand, it will be economically more beneficial for the system users to use the pipeline supplies of the combined system.

Taking into account the fact that, apart from Inčukalns UGS, there will be no significant sources in the new market area that could provide the market flexibility (except for the LNG terminal storage and TSO reserves), it is estimated that the establishment of the regional market will have a positive impact on the activities of Inčukalns UGS.

#### 4.5. ROLE OF NATURAL GAS TRANSMISSION SEGMENT IN LATVIA

Transmission of natural gas is provided by the main natural gas transmission system being in Conexus property whose total length is 1 188 km and which connects the Latvian natural gas market with Lithuania, Estonia, as well as the north-west region of Russia.

Latvian transmission gas pipes (hereinafter - TGP) are a part of the Baltic countries natural gas transmission system. Until 2014, all the Baltic states, including the Republic of Latvia, had only one gas supply direction, i.e., from Russia. However, after putting into operation of Klaipeda LNG terminal on 1 January 2015, alternative gas supplies are available. The existing natural gas transmission system gives a possibility for Latvia to receive natural gas from Russia through transmission pipes Valdaja - Pskov - Rīga and Izborsk - Inčukalns UGS, as well as from Lithuania.

Supply of natural gas in the direction from Pskov to Rīga is provided with two parallel gas pipes which have connecting lines between themselves. The transmission system provides supplies to the largest cities of the republic - Rīga, Daugavpils, Aizkraukle, Preiļi, Iecava, Liepāja, Dobeles, Cēsis, Valmiera, Jelgava, Jūrmala, Bauska, Ogrē, Jēkabpils, Līvāni, Rēzekne and Saldus with natural gas in full amount with the existing gas pipe and distribution system's connecting stage - transmission backups of gas regulation stations (hereinafter - GRS). Rīga, Jelgava, Valmiera and Jūrmala are provided with double-sided gas supply through independent GRS.

The Latvian natural gas supply system's transmission pipeline network has three international connections (natural gas metering stations are listed below) whose capacity upon the existing condition of gas pipes is indicated in the table below.

Table 3 Natural gas transmission system's technical capacities in 2017 (GWH/per day)

Entry/exit point	Technical capacity of entry	Technical capacity of exit
Inčukalns UGS	246*	178
Kiemenai (LV/LT)	67,6	65,1
Karksi (LV/EE)	0	73,08
Korneti (LV/EE)	188,5	105

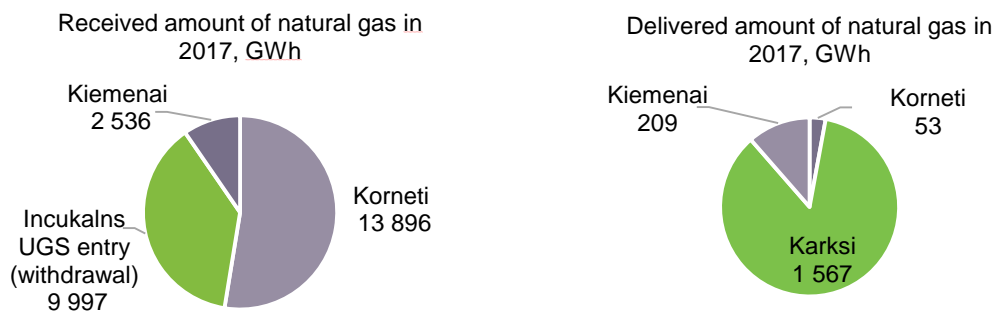
\* - technical capacity in 2017 upon storage completeness 14.98 TWh (62% of maximum fill-up)

\*\* entry/exit point has a seasonal character, the actual role - interconnection with the Russian Federation's transmission system

Inter-country connections with Russia and with Lithuania provide a possibility to supply gas in both directions - both to the Latvian natural gas supply system, as well as from it, thus ensuring safety of natural gas supply in Latvia. Inter-country connection with Estonia is mainly meant for supply of natural gas in the direction to Estonia, however in emergency situations it is possible to supply natural gas to Latvia too. By using inter-country connection with Lithuania, if necessary, it is possible to provide additional natural gas supplies to Inčukalns UGS.

In 2017 the total amount of natural gas transmitted through the system was 18.3 TWh. The major natural gas flows in the Latvian transmission system can be observed in the summer, during the injection season. During the winter time, the highest flows are observed in January and March. The following charts below show the system's total proportion of entry and exit flows.

In the winter period, the primary supply is organized from the storage. In winter months, the natural gas received from the storage makes up to 100% of the total monthly entries. In exit points to neighbouring countries (Russia, Estonia and Lithuania), total amount of delivered gas in 2017 is 1.8 TWh, which is 7% of the total amount of natural gas delivered from the system in exit points.



Picture 21 Amount of natural gas received in the system and delivered from the system



Picture 22 Amount of natural gas received in the system and delivered from the system in transborder interconnection points in Kiemenai, Karksi and Korneti in 2017

#### 4.5.1. Conexus offered products

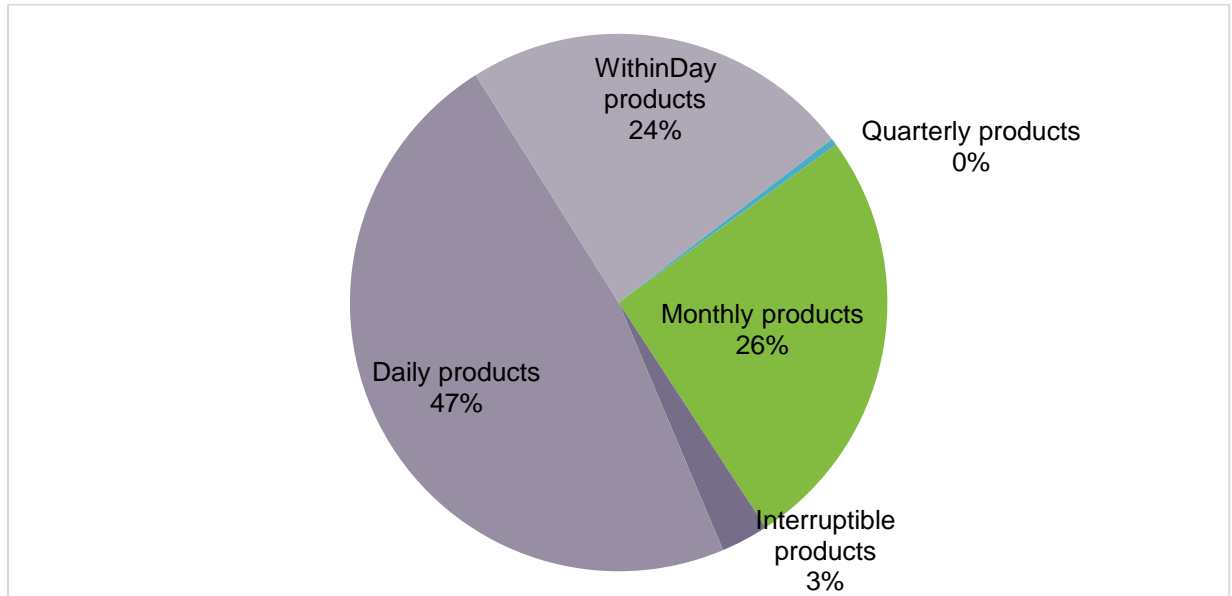
Transmission system after opening of market will offer various term fixed and interruptible capacity products. Conexus offers the following standard capacity products - for a year, a quarter, for a month, for a day-ahead, as well as for the within-day. Each of these products is offered as uninterrupted service and as an interruptible service. In Latvia, in no one of entry/exit points the demand is forecasted for annual capacity products due to non-constant flow distribution over the year. In some entry/exit points it is justified to buy quarterly capacity products, but most part of income for the transmission system's operator are forecasted from the monthly capacity product sale.

The tariffs for the respective products were approved with delay and came into force only on 1 July 2017. The tariff regime introduced in Latvia provides very low multipliers for short-term capacity product tariffs (short-term multiplier). It does not motivate system users to plan and in timely fashion book the necessary transmission system's capacities for ensuring supplies, thus substantially causing difficulties for the dispatching service to plan effectively the transmission system's regimes and cooperation with neighbouring countries' operators for planning of



regional transmission system’s operational regime, especially in circumstances of high demand.

If taking a look at the below picture, we can see that the system users mainly choose short-term products (day-ahead or within-day products). In 2017 annual and quarterly products were not required by system users. In order to motivate system users to plan and book the necessary capacities in advance, as well as increase their interest about quarterly and annual products, it is necessary to apply seasonal factors for capacity products.



Picture 23 shows a summary of Conexus offered products in 2017

#### 4.6. ANALYSIS OF INTERNAL AND EXTERNAL FACTORS

##### 4.6.1. Analysis of environmental factors

###### Internal factors

For Conexus as a transmission and storage system operator the main internal factors are connected with the operation, maintenance and restoration of infrastructure, as well as the application of up-to-date solutions for modernization of Conexus operations.

###### External factors

**Political** - decisions influenced by changes in political environment, which may materially influence the operation of Baltic natural gas market, regional consumption of natural gas and structure of transmission rates.

**Legislation** - unfavourable EU or national political decisions in respect to environmental ratios, quality of natural gas or customer service quality.

**Technological** - options of introducing modern technologies, which would promote internal system’s diagnostics, asset management, development of human resources and competencies and sustainable company’s activities.

**Social** - changes in community habits in respect to the use of natural gas.

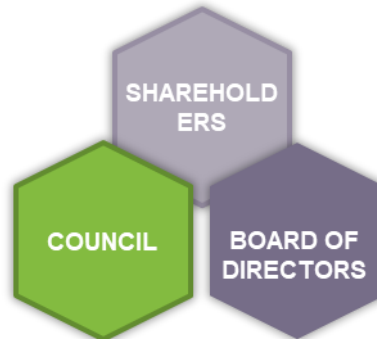
**Demographic** - decrease in the number of population, which results in decline in natural gas consumption.

**Environmental** - climatic conditions materially impact the operation of natural gas transmission and storage system.

## 5. OPERATION OF CONEXUS

### 5.1. SHAREHOLDERS, COUNCIL, BOARD OF DIRECTORS

Conexus has a three level management function (see the picture below).

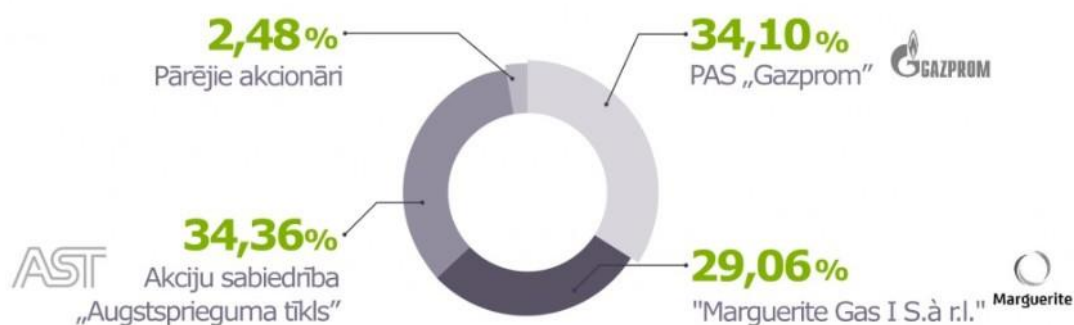


Picture 24 CONEXUS management structure

#### 5.1.1. Shareholders

Conexus is a closed type stock company whose shares are 100% bearer shares. The total number of shares is 39 089 and their face value is 1.00 EUR. The total number of shareholders exceeds 4.8 thousand where 97.52% of the total shares are held by 3 major shareholders. Shareholders are entitled to a proportional part of profit according to the distribution of shares. No one of the shareholders has special control rights or voting rights restrictions.

In 2017 the structure of Conexus shareholders changed. On 15 December 2017 the Latvian power energy transmission system operator AST signed a contract with the German energy company Uniper Ruhrgas International GmbH on the purchase of 18.31% shares of the natural gas transmission and storage system operator. But on 19 December 2017 AST signed a deal with SIA Itera Latvia on the purchase of its 16.05% shares of the natural gas transmission and storage operator. Thus AST is the largest Conexus shareholder and it owns 34.36% of shares. Conexus shareholder structure is indicated in the picture below.



Picture 25 The structure of Conexus shareholders

#### 5.1.2. Council

The Council of the transmission and storage operator is elected by the Shareholders' Meeting of transmission and storage operator. The Council of the transmission and storage operator should be absolutely independent from the merchant, which means that the Council of the transmission and storage operator should not include the merchant's Council or Board members, heads of administrative structural units or persons with signatory powers, thus

ensuring that there is no exchange of commercial information between the distribution operator and merchant. In 2018 Conexus Council had 7 Council members.

### 5.1.3. Board of Directors

The Board of Directors of the transmission and storage operator is elected by the Council of transmission and storage operator. The Board of Directors of the transmission and storage operator should be absolutely independent from the merchant, which means that the Board of Directors of the transmission and storage operator should not include the merchant’s Council or Board members, heads of administrative structural units or persons with signatory powers.

The Board of Directors of the transmission and storage operator should be set up in the way (including fixing of the number of Board Members and their areas of liability) that the management capacity is ensured focusing on development in order to provide a substitution principle.

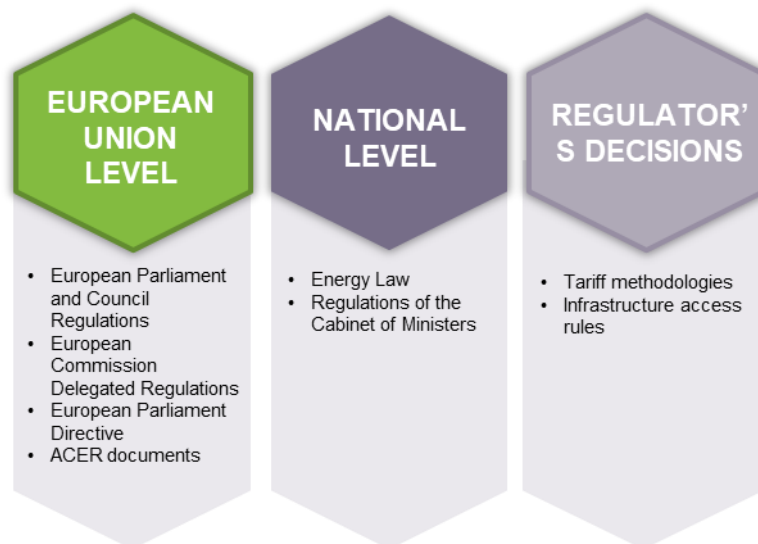
Given the functions that the transmission and storage operator should ensure, the areas of Board members’ liability are as follows:

- ◆ **Technical direction.** This direction includes operation of networks, management of divisions, construction works, purchases and emergency service.
- ◆ **Administrative direction.** This direction includes staff, lawyers, office keeping, Board desk officers and communication, as well as cooperation with other state transmission and storage operators.
- ◆ **Finances and IT.** This direction includes IT, accounting department, budgeting part and control, as well as calculation of rates.

## 5.2. LEGAL REGULATION

### 5.2.1. European Union’s level

The area of natural gas is regulated both in EU level, as well as national level. On national level the operation of transmission and storage system is regulated by the laws, Cabinet Regulations and Regulator’s decisions.



Picture 26 Transmission and storage legal regulation

Legal regulation of EU level promotes integration of infrastructure existing in member countries and thus - establishment of a unified market, information circularization and service provision standards. This legal regulation, especially, the EU regulation laws, are binding on all EU member countries and are also the basis of Conexus establishment.

On EU level the natural gas transmission and storage system is regulated by means of the following legislative acts:

- ◆ Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC;
- ◆ Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators;
- ◆ Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005;
- ◆ Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009;
- ◆ Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks;
- ◆ Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013;
- ◆ Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas;
- ◆ Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules;
- ◆ Commission Implementing Regulation (EU) No 1348/2014 of 17 December 2014 on data reporting implementing Article 8(2) and Article 8(6) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency;
- ◆ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.

### 5.2.2. National level

Within the scope of this legal regulation, tax rates are being fixed and the gas market is regulated within the national borders. Periodic amendments are being made to the national level legal regulations in order to reflect the impact of the European Union's Directives.

On the national level the natural gas transmission and storage system is regulated by means of the following legislative acts:

- ◆ Construction Law;
- ◆ Energy Law;
- ◆ Law on Public Service Regulators;
- ◆ Regulation of the Cabinet of Ministers No. 482 of 20 June 2006 "Regulations on natural gas transmission system's operator's annual assessment report";
- ◆ Regulation of the Cabinet of Ministers No. 839 of 23 December 2014 "Procedure in which the amount of penalty is fixed in power energy and natural gas supply";
- ◆ Regulation of the Cabinet of Ministers No. 78 of 7 February 2017 "Natural gas trading and usage regulations";

### 5.2.3. Public Utilities Commission

In Latvia the natural gas sector is regulated by the PUC (the Regulator). PUC is an institutionally and functionally independent authority with full rights and an autonomous subject of public law, which realizes public services regulation in power, electronic mail, post, household waste management and water treatment areas according to the law "On Public Services Regulators"

and the legislative enactments of the respective regulated areas. The Regulator independently performs the functions assigned to it by law and within the scope of its competence makes independent decisions and issues administrative acts, which are binding on specific public services providers and users.

The law “On Public Services Regulators” fixes that the main Regulator’s functions are as follows:

- ◆ to protect the interests of consumers and promote development of public service providers;
- ◆ fix the rating calculation methods;
- ◆ fix the rates if the special laws of the areas do not provide another procedure of fixing rates;
- ◆ license provision of public services or register a new public service provider;
- ◆ review disputes in the cases and in the procedure provided in the law “On Public Services Regulators”;
- ◆ promote competition in the regulated areas and supervise compliance of public services with the licensing terms, specific quality and environmental protection requirements, technical regulations, standards, as well as the terms and conditions of agreements;
- ◆ provide the ministries in charge for the regulated areas with the information at their request and proposals regarding public services regulation issues;
- ◆ inform society about its activities and also about the activities of public service providers in provision of public services;
- ◆ perform other functions, which are fixed in specialized laws of the areas.

PUC regulates natural gas transmission and storage system with the following decisions:

- ◆ PUC decision No.69 of 18 June 2018 “On the stock company’s “Conexus Baltic Grid” natural gas transmission system’s service rates”,
- ◆ PUC decision No.60 of 7 June 2018 “On the rights of the stock company “Conexus Baltic Grid” to fix natural gas storage rates”,
- ◆ PUC decision No.1/10 of 28 May 2018 “Inčukalns Underground Gas Storage Facility’s Usage Conditions”,
- ◆ PUC decision No.47 of 26 April 2018 “On the stock company’s “Conexus Baltic Grid” natural gas storage service rates”,
- ◆ PUC decision No.1/2 of 7 February 2018 “Amendments to the PUC decision No. 1/7 of 16 March 2017 “Methodology of natural gas storage service rates calculation”,
- ◆ PUC decision No.95 of 24 August 2017 “On fixing capital return rate for development of natural gas storage service rating project”,
- ◆ PUC decision No.1/16 of 13 April 2017 “Natural gas transmission system’s usage terms and conditions”,
- ◆ PUC decision No.1/7 of 16 March 2017 “Methodology of natural gas storage service rates calculation”,
- ◆ PUC decision No.1/6 of 9 March 2017 “Regulations on information to be provided to electricity and natural gas end users”,
- ◆ PUC decision No.1/4 of 16 February 2017 “Regulations on certification of unified natural gas transmission and storage system’s operator and natural gas transmission operator”,
- ◆ PUC decision No.164 of 8 December 2016 “On fixing capital return rate for development of natural gas storage service rating project”,
- ◆ PUC decision No.271 of 23 November 2005 “On regulations regarding the procedure, in which a power supply merchant provides public access for the users to merchant’s financial information”,

In connection with market changes over the last years, PUC has adopted a considerable number of decisions related to transmission and storage system, as a result of which the regulative environment in the natural gas market is unclear and permanently changing. Instable regulative environment causes a substantial risk related to regulatory environment, as well as decreases competitiveness of natural gas as a power resource.

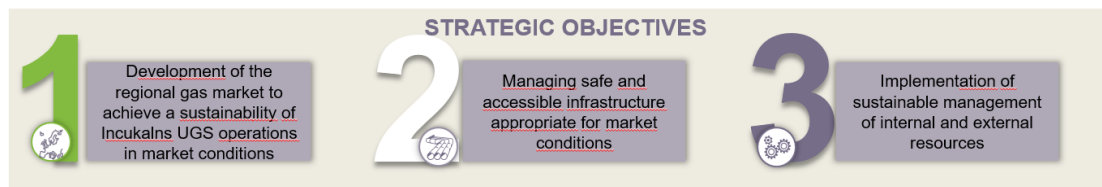
### 5.3. HISTORICAL OPERATIONAL RATIOS

Table 4 Historical Conexus operational ratios

	Measurement unit	2017
<b>Total turnover</b>	<b>thousand EUR</b>	<b>52 085</b>
Regulated income	thousand EUR	51 444
Income from basic activities	thousand EUR	51 444
Other operating income	thousand EUR	641
<b>Net sales</b>	<b>thousand EUR</b>	<b>51 444</b>
<b>Operating expenses (basic)</b>	<b>thousand EUR</b>	<b>27 121</b>
Material and service costs	thousand EUR	13 681
Personnel expenses	thousand EUR	<b>9 393</b>
Depreciation, amortization and decrease of value of fixed assets	thousand EUR	18 544
Other operating expenses	thousand EUR	<b>4 047</b>
<b>Gross profit</b>	<b>thousand EUR</b>	<b>6 420</b>
Financial income, net	thousand EUR	225
<b>BET</b>	<b>thousand EUR</b>	<b>6 195</b>
CIT	thousand EUR	10 826
<b>Profit for the year</b>	<b>thousand EUR</b>	<b>17 021</b>
<b>Main operating ratios</b>		
Transmitted natural gas	thousand GWh	26 468
Active natural gas Inčukalns UGS	thousand GWh	11 806
Natural gas for Latvian consumers	thousand GWh	13 147
Length of main pipelines	km	1 188
Transmission segment's assets (without cash)	thousand EUR	183 804
Storage segment's assets (without cash)	thousand EUR	161 298

# 6. CONEXUS MEDIUM-TERM STRATEGY

## 6.1. CONEXUS STRATEGIC TARGETS



Picture 27 Conexus strategic targets and initiatives

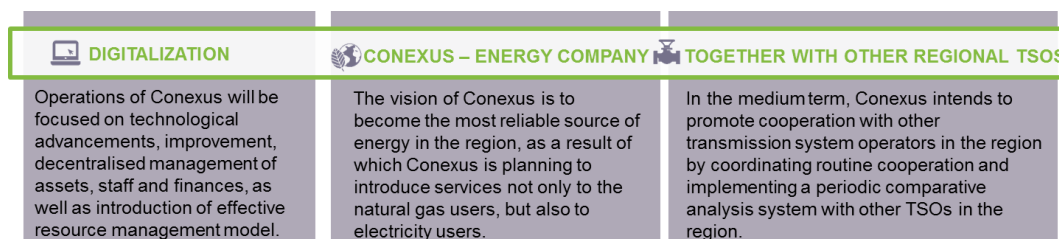
The key medium-term (2019-2023) objectives of Conexus are related to three areas: **market development, infrastructure provision and development of operations**. The strategic objectives have been set in line with the Conexus values, the company vision and the Conexus mission – **promoting sustainable operation of energy market in the region, ensuring reliable operation of natural gas transmission and storage system**.

The strategic objectives defined in the Conexus strategic development plan for 2019-2023 are as follows:

- ◆ Development of the region’s natural gas market to ensure sustainable operation of Inčukalns UGS in the market conditions;
- ◆ Providing infrastructure that is safe, accessible and adequate for the market;
- ◆ Implementing sustainable management of internal and external resource capacity.

Alongside strategic objectives, Conexus has defined three development guidelines closely related to all planned medium-term activities. These development guidelines complement the strategic objectives and contribute to their implementation. The defined guidelines are as follows:

- ◆ **Digitalisation.** Operations of Conexus will be focused on technological advancements, improvement, decentralised management of assets, staff and finances, as well as introduction of effective resource management model.
- ◆ **Conexus – an energy company.** The vision of Conexus is to become the most reliable source of energy in the region, as a result of which Conexus is planning to introduce services not only to the natural gas users, but also to electricity users.
- ◆ **Cooperation with other transmission system operators in the region.** In the medium term, Conexus intends to promote cooperation with other transmission system operators in the region by coordinating routine cooperation and implementing a periodic comparative analysis system with other TSOs in the region.



Picture 28 Conexus strategic development areas

Detailed information about strategic development areas and strategic targets is described below.

## Market development

*“Development of the region’s natural gas market to ensure sustainable operation of Inčukalns UGS in the market conditions”*

The Baltic States together with Finland are working on establishment of a united natural gas market, which might become in the future the first such a united market region in the EU. A united natural gas market will promote market liquidity, will lessen the dependency of the market on Russian natural gas supplies, and will open new business possibilities both for transmission system’s operators, as well as natural gas traders. In order to establish a unified natural gas market, it is necessary to harmonize the transmission system’s usage terms and conditions and the balancing measures among the member countries. More about the regional natural gas market and its establishment in the subsection 4.2.

In the current market conditions when the regulative framework is changing and unclear and it is planned to establish a united regional market, it is important to pay attention what is happening in the natural gas market, note the activities related to market development, as well as stimulate cooperation with involved parties.

Conexus forecasts that establishment of a united market will positively affect the potential of Inčukalns UGS, therefore one of the main targets in a united market situation is to ensure sustainable operation of Inčukalns UGS. In order to avoid situation when insufficient amount of active natural gas is injected in Inčukalns UGS and the operation of Inčukalns UGS is disturbed, Conexus also in the future is planning to attract new users of the storage by informing the market players of Finland and other neighbouring countries about possible services and options offered by Inčukalns UGS.

One of the major Conexus advantages is the fact that Conexus is a united natural gas transmission and storage operator and that is able to grant higher flexibility and more advantageous solutions to its users. In order to ensure the requirements of the users, the possibilities of Inčukalns UGS will be evaluated in middle term and the role of the storage will be assessed in guaranteeing the electricity generating capacities. It is forecasted that in the future Inčukalns UGS might have a material role not only as a seasonal storage and a national and regional supply safety solution, but also as a source of local gas supply flexibility, which helps to ensure the necessary support for guaranteeing generating capacities, especially in the forthcoming electricity market conditions after desynchronization.

## Infrastructure development

*“Providing infrastructure that is safe, accessible and adequate for the market”*

Provision of safe infrastructure has always been the basic target of transmission and storage segments. Also further on it is of major significance to provide infrastructure that is safe, accessible and adequate for the market. For Conexus, similarly as it is for the operators of neighbouring transmission systems, one of the chief priorities is to implement projects for European common interests. In medium term, it is planned to enforce the Latvian-Lithuanian and Latvian-Estonian interconnection capacity enhancement projects, as well as Inčukalns UGS capacity enhancement project.

Conexus in medium term is planning to continue technical modernization of the existing infrastructure, including renovation of the existing infrastructure. Priority role for ensuring uninterrupted functioning of the system will be devoted to underground pipeline internal diagnostics and timely aversion of defects found as a result of such diagnostics.

Historically insufficient investments were made into implementation of digital solutions in transmission and storage systems. In order to timely identify and evaluate the system operation in the future, it is planned to develop a technical management policy, as well as implement a centralized asset management system. Upon implementation of an asset management



system, it will be possible to ensure complete control of technical operation process and parameters, as well as increase the equipment expectancy and reduce overhauling costs.

### Operational development

“Implementing sustainable management of internal and external resource capacity”

According to market development tendencies, it is important to improve the company’s operation and satisfy not only the needs of existing and potential customers, but also promote employee growth and strengthen internal resources management.

In medium term, one of Conexus main targets is to implement and ensure sustainable internal resources operational management by ensuring development of human resources and competencies, as well as a reasonable and sustainable investment programme and attract investments to system operation, modernization and renewal. As a result of strengthening internal resources management, it will be possible to improve efficiency of internal processes and optimize the operations.

Given the fact that historically insufficient investments were made into introduction of digital solutions in transmission and storage systems, Conexus is oriented to modernization and upgrading of technologies. In medium term, it is planned to implement a centralized human resources, asset management and financial management system. Implementation and renovation of a centralized information technology system will promote effective resource management, as well as avert the possible safety related risks.

- ◆ **Human resources.** One of the major Conexus values is loyal and professional employees. In order to ensure growth and improvement of employees, Conexus is planning to organize staff training according to the necessary competencies. Additionally, Conexus is planning to develop a staff competency management plan, by means of which it will be possible to identify the strengths of employees and specify the areas for each employee where the training is necessary.
- ◆ **Internal resources management.** For provision of Conexus operations, it is material to ensure effective internal resources management. In order to realize this, in medium term Conexus is planning to work out management and supervision processes policies, as well as implement a centralized management system. In addition, Conexus together with other transmission system’s operators is planning to establish a united comparative analysis system thus ensuring more effective information flow and synchronization of activities.
- ◆ **Financial resources management.** In medium term, Conexus is planning to ensure sustainable investments attraction, maintenance of optimal cost base, as well as sustainable dividend policy.

## 6.2. STRATEGIC INITIATIVES

In medium term (for years 2019-2023), Conexus is planning to introduce several significant changes, which are connected both with implementation of digital solutions, as well as establishment of a regional market, and the overall development of the company.

In order to make it possible to implement these changes and realize the fixed medium-term strategic targets, Conexus has set 6 strategic initiatives. These initiatives are as follows:

- 1) ensuring of optimum Inčukalns UGS workload and effective operation;
- 2) establish loyal and sustainable customer relations;
- 3) strengthen a view about natural gas an environment-friendly energy resource;
- 4) ensure uninterrupted supplies of natural gas and safety of system;
- 5) ensure human resource succession and competence development;
- 6) ensure strong management system and sustainability.



Picture 29 Strategic initiatives

Detailed information about strategic initiatives and activities to be performed is given below.

Table 5 Conexus strategic initiatives and activities

	Strategic initiative	Planned activities
1	Ensuring of optimum Inčukalns UGS workload and effective operation:	<ul style="list-style-type: none"> <li>◆ development of technical parameters of the storage and their adaption to services being on demand in the market;</li> <li>◆ strengthening of the Baltic united market’s operative cooperation;</li> <li>◆ ensuring of sustainable Inčukalns UGS business model by informing and signing contracts with storage users.</li> </ul>
2	Establishment of loyal and sustainable customer relationship:	<ul style="list-style-type: none"> <li>◆ meeting the customers’ technical requirements;</li> <li>◆ provision of IT solutions for business needs.</li> </ul>
3	Strengthening of a view about natural gas an environment-friendly energy resource:	<ul style="list-style-type: none"> <li>◆ promotion of cooperation with the involved parties and creation of Conexus image;</li> <li>◆ ensuring of corporate social liability thus promoting company’s sustainable development;</li> <li>◆ promotion of market development, including a set-up of united VTP, stock exchange and a united regional zone, as well as strengthening of natural gas as a power resource.</li> </ul>
4	Ensuring of uninterrupted supplies of natural gas and safety of system:	<ul style="list-style-type: none"> <li>◆ ensure independent internal system’s diagnostics and aversion of defects found thus implementing zero incident policy;</li> <li>◆ implementation of asset management process;</li> <li>◆ PCI implementation;</li> <li>◆ ensuring of system pressure 50 bar.</li> </ul>
5	Ensuring of human resource succession and competence development:	<ul style="list-style-type: none"> <li>◆ development of human resources and competencies, including set-up of a good team.</li> </ul>

	Strategic initiative	Planned activities
6	Ensuring of strong management system and sustainability:	<ul style="list-style-type: none"> <li>◆ ensure transparency and trustworthiness of reporting and support financing options in the financial markets;</li> <li>◆ ensure sustainable dividend policy at the cost level set by the shareholders;</li> <li>◆ development and implementation of company's management policies by ensuring sustainable company's activities;</li> <li>◆ implementation of periodic comparative analysis system with other region's TSOs;</li> <li>◆ access to capital market.</li> </ul>

### 6.3. FINANCIAL AND NON-FINANCIAL TARGETS

In order to enforce the set strategic targets and strategic initiatives, Conexus has identified non-financial and financial targets. Additionally, in order to fix Conexus operational development, Conexus together with other region's TSOs is planning to develop a united comparative analysis system. More about non-financial and financial targets below.

### 6.4. RISK ANALYSIS

Risk analysis is an integral, agreed and uninterrupted process in all company levels in order to identify and evaluate threats which impact or might impact reaching of the company's targets, as well as decision-making Risk management is an uninterrupted process, which includes realization of company's strategic targets. During this process, the risks are identified, assessed, analysed and controlled, which refer to Conexus past, present and future activities.

For risk decreasing events planning purposes, the priority risks have been set. The higher the risk significance, the faster and more active risk decreasing measure is required to be implemented. The necessary measures to be taken are set according to each risk's significance.

Each identified risk is classified according to its potential impact on Conexus operations by applying the following criteria:<sup>11</sup>

Table 6 Risk impact assessment

Classification	Significance
I	Insignificant risk influence
II	Low risk influence
III	Medium risk influence
IV	High risk influence
V	Critical risk influence

Moreover, each identified risk is classified depending on its probability by applying the following criteria<sup>12</sup>:






Table 7 Risk probability assessment

Classification	Probability	Likelihood	Explanation
A	Very unlikely	0-10%	Unlikely to appear in the next 5 years
B	Very unlikely	10-33%	Likely to appear in the next 3-5 years
C	Likely	33-66%	Likely to appear in the next 2-3 years
D	Very likely	66-90%	Likely to appear in the next 24 months
E	Almost sure	90-100%	Likely to appear in the next 12 months

<sup>11</sup> European Commission's guidelines regarding performance of cost and benefit analysis (IIA) for 2014-2020

<sup>12</sup> European Commission's guidelines regarding performance of cost and benefit analysis (IIA) for 2014-2020

Table 8 Risk matrix

Risk level	Colour	Impact/probability	I.	II.	III.	IV.	V.
Very low		A	Very low	Very low	Very low	Low	Low
Low		B	Very low	Low	Low	Medium	Medium
Medium		C	Very low	Low	Medium	High	High
High		D	Low	Medium	High	Very high	Very high
Very high		E	Low	Medium	High	Very high	Very high

The below table shows the main identified risks whose risk level has been assessed as high or critical.

Table 9 Identified risks

No.	Respective strategic target	Name of risk	Explanation of risk	Assessment of risk		
				Impact	Probability	Risk level
1	Infrastructure	Energy crisis risk	Inčukalns UGS filling rate does not permit to perform the requested supplies in the system, as a result of which it is not possible to supply Latvian consumers with sufficient volume of natural gas in the winter season.	Critical	Very likely	Critical risk
2	Infrastructure	Storage working ability risk	Storage ability to inject and extract natural gas is decreased due to insufficient capacities of the storage facility.	Critical	Likely	High risk
3	Infrastructure	Risk in interconnection points	In interconnection points (Karksi, Korneti, Kiemenai) the forecasted volume of natural gas is not received (in medium risk amount).	Medium	Very likely	High risk
4	Activities	EU financing risk	Risk that the forecasted EU financing for realization of capital investments is not received, or the financing is refused during the project realization, which cause unplanned growth of RAB and tariff rates.	Critical	Very likely	Critical risk
5	Activities	Certification risk	Risk that PUC decision about certification is negative and causes financial losses to the company (max 10% of turnover)	Critical	Very likely	Critical risk
6	Activity	Personnel risk	The company does not have available employees or their competencies are insufficient in order to ensure performance of basic operational processes and cause threat to achievement of targets	Medium	Very likely	High risk
7	Activities	New IT projects implementation risk	Risk that upon introduction of new IT solutions the set efficiency ratios are not met, as a result of which the rates for some of the segments should be increased by 5-15%, or the project targets are not met	Medium	Very likely	High risk
8	Activities	Unavailable financing risk	Risk that the company does not have available financial resources in order to cover the planned capital investments, or to refinance the previous loans	Critical	Likely	High risk
9	Activities	Asset value reduction risk	Risk that the company has to write off the asset value due to changes in tariff methodology or changes in the total regulation regime of the storage.	Critical	Likely	High risk
10	Market	Storage regulation risk	A decision is made that the storage services are not a regulated type of activities.	High	Very likely	Critical risk
11	Market	Seasonal pricing risk	Unfavourable winter-summer spread in gas prices, as a result of which the demand of users for storage of natural gas in Inčukalns UGS decreases.	High	Very likely	Critical risk
12	Market	Single supplier's risk	Risk that the storage filling up to 18 TWh may be reached only with supplies from Russia, which increases unpredictability regarding injection deadlines.	High	Very likely	Critical risk
13	Market	Regional market risk	Regional market is set up in a way which is not sufficient in its scope in order to ensure filling of storage up to 18 TWh (no Finland, no Lithuania).	Critical	Likely	High risk
14	Market	Rating risk	PUC approves tariffs, which do not cover the costs (do not provide sustainable operation) or do not comply with the market needs.	High	Likely	High risk

No.	Respective strategic target	Name of risk	Explanation of risk	Assessment of risk		
				Impact	Probability	Risk level
15	Market	Energy policy risk	Changes at the State level or European policy which promote development of renewable resources and decreases competitiveness of natural gas as a resource.	High	Likely	High risk

In order to ensure that the company realizes risk management system according to the developed risk management plan, the following measures will be taken:

- ◆ risk classification and determination of risk availability levels and assignments of involved staff;
- ◆ risk identification and analysis;
- ◆ determination of risk significance according to their assessment (probability and impact);
- ◆ working out of risk management strategy (decrease of risks, distribution of risks, acceptance of risks);
- ◆ preparation, introduction and supervision of risk management plan;
- ◆ preparation of risk management supervision report and informing of top management about the implemented risk management plan measures.