



REPUBLIC OF ESTONIA  
COMPETITION AUTHORITY

# **ELECTRICITY and GAS MARKETS in ESTONIA**

## **REPORT**

TALLINN 2015

# SISUKORD

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## Foreword

Dear reader,

The present document provides an overview of the Estonian electricity and gas markets. The Competition Authority presents information on the developments of the markets in 2014 and on the changes in safeguarding the security of supply<sup>1</sup>.

The biggest developments in the electricity market have taken place in connection with the market opening in 2013. The market opening has made consumers active in entering into electricity contracts, while the number of the users of universal service has intensely decreased. Thus, the opening of market is characterised by high activity in the conclusion of electricity contracts. As of the end of 2014 83% of the consumption points had entered into electricity contracts, while 17% used universal service. Aiming at even better functioning of the electricity market the DC power connection *Estlink 2* between Estonia and Finland started commercial operation in the beginning of 2014. The connection raised the transmission capacity between Estonia and Finland up to 1 000 MW. Through the new connection the price of electricity in Estonia and Finland has equalised and lowered the prices in the Estonian electricity market.

In 2014 the Estonian transmission network operator together with its Latvian counterpart applied for investment support from the European Union's energy sector financing facility for the projects of common interest for the construction of the third connection between Estonia and Latvia. The project received financial support of almost 112 million euro, which makes up the rate of support of 65%. The new overhead line between Estonia and Latvia minimises the congestion in the Estonia-Latvia border by increasing the cross-border transmission capacity by 500 to 600 MW.

The operational reliability of the *EstLink 1* and *EstLink 2* power connections between Estonia and Finland have been a problem in 2014. On 12 September 2014 the Competition Authority initiated supervisory proceedings in connection with the occurred transmission capacity interruptions. Due to these two interruptions besides Estonian customers also Latvian and Lithuanian customers suffered as the high price in Estonia raised the prices also in the Latvian and Lithuanian electricity markets. In its analysis the Competition Authority came to the conclusion that existing legislation does not regulate the operation of cross-border connections sufficiently. In order to improve the situation the Competition Authority made the proposal that the legislation shall be supplemented with the DC cross-border connections *EstLink 1* and *EstLink 2* related quality requirements.

Several significant events in the natural gas sector of the Baltic region took place in 2014. Estonia was also affected by these events. In Lithuania the construction of the liquefied natural gas (LNG) terminal was finalised by the end of the year. Through virtual transactions Estonian customers have also access to it. Therefore, from the end of 2014 Eesti Gaas AS is not the only gas importer, besides it also other gas importers and traders have arisen.

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<sup>1</sup> In the preparation of the present report the Competition Authority based on the CEER guidelines „Advice on the structure of future national reports and relevant indicators“ and fulfilled the obligation set forth to the Authority by the Electricity Market Act and the Natural Gas Act to prepare, make it public and submit to the European Commission a report that deals with the issues laid down by law.

In 2014 the unbundling of the natural gas transmission system operator from the vertically integrated group commenced. In the unbundling process the then system operator EG Võrguteenus AS submitted to the Competition Authority the application to carry out the certification process in order to obtain an activity license. The system operator currently holds temporary activity licence, as the certification process is not finalise yet. From 10 April 2015 the system operator uses business name Elering Gaas AS, instead of the former EG Võrguteenus AS.

With best wishes,

*Märt Ots*

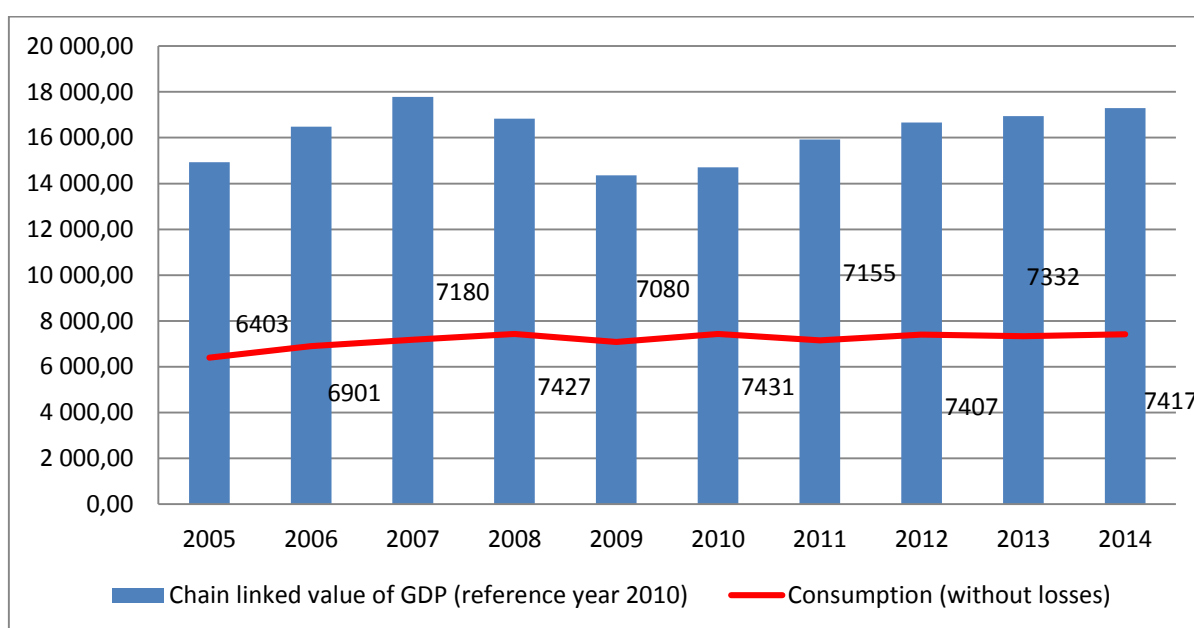
Director General of the Estonian Competition Authority

# 1. Main developments in electricity and gas markets in 2014

## 1.1 Developments in electricity market

### Wholesale and retail market of electrical energy

The annual electricity production in the Estonian electricity system in 2014 was 11 013 GWh, while 7 417 GWh was imported and 7 417 GWh was exported. The domestic net consumption (without network losses) was 7 332 GWh. Figure 1 highlights the relationship between the gross domestic product (GDP) and the consumption of electricity, which reflects well the consumption behaviour of both businesses and people. If more goods and services are produced and bought then also the consumption of electricity is growing and contrary, together with the decrease in the purchase power it decreases as well.



**Figure 1.** Relationship between electricity consumption and GDP. Source: Statistics Estonia

The biggest developments in the electricity market have taken place in connection with the market opening in 2013. As of May 2013 new electricity contracts were entered into by 73 % of the consumption points, the rest 27% of the consumption points used universal service respectively. As of the beginning of 2014 553 282 consumption points had electricity contracts, which is more by 90 000, compared to the beginning of 2013. Universal service was used in 22,5% of the consumption points (source: AS Elering). **Thus, the market opening in Estonia is characterised by very high customer activity and the number of the consumers of universal service is relatively modest compared to other European countries.**

An average electricity price in the Estonian price area of Nord Pool Spot (NPS) in 2014 was 37,61 €/MWh, which is by 12,8% lower than the 2013 price. An average household price including network charge, excise tax and renewable energy charge (without VAT) was 10,35 ¢cent/kWh.

In greater detail the progress in the electricity market in 2014 is described in section 2.2.

## Electricity networks

Currently the Estonian electricity system works synchronously among the united system of the CIS and the Baltic countries IPS/UPS and is connected through alternating current (AC) lines with Latvia and Russia, as well as with Finland through direct current (DC) lines. The transfer capacity of the AC cross-border connections between Belarus, Russia, Estonia, Latvia and Lithuania is high, which assumes close cooperation between the TSOs in the planning and management of the common synchronised parallel operation.

Estonia has the single transmission network service provider Elering AS, who is also the system operator (TSO). The number of distribution network service providing undertakings is 34. In total there are 5 540 km of transmission (110-330 kV) lines belonging to the TSO and almost 69 300 km of low and medium voltage lines belonging to distribution operators. The distribution network undertaking with the biggest market share of 87% is Elektrilevi OÜ.

In 2014 neither Elering AS nor Elektrilevi OÜ submitted applications for network charges' approval.

An annual average transmission tariff in 2014 was 1,18 €cent/kWh, while the distribution tariff was 5,13 €cent/kWh (both without VAT).

More closely the issues of electricity networks' regulation are dealt with in section 2.1.

## Cross-border issues in electricity sector

Some changes have taken place on the issues of cross-border electricity trade and transmission capacity allocation. On 6 November 2014 the Baltic TSOs signed a joint Memorandum. The Memorandum enables the application of the principle of the agreement (agreement between the Baltic TSOs that regulates the cross-border principles) of 15 March 2013 on the Estonia-Latvia border, that in the planning phase the whole tradeable capacity of the Estonia-Latvia-Russia cross section is allocated between Estonia and Latvia. While during the validity of the trilateral agreement (of 15 March 2013) a calculation may have allocated 0 MW result to the Lithuania-Belarus border, according to the Memorandum of 6 June 2014 the minimum trading capacity limit is 200 MW, which is secured by the Lithuanian TSO by keeping additional 100 MW of reserve capacity. The Competition Authority approved the Memorandum for the calculation of transmission capacity by its decision of 13 November 2014.

On 5 November 2014 the new congestion management rules on the border between Estonia and Latvia were agreed upon by the TSOs of the two countries. The new rules raise the volume of auctions: besides monthly and yearly auctions also quarterly auctions were added. The Competition Authority approved the congestion management rules by its decision of 13 November 2014.

Elering AS is continuously dealing with the activities related to minimising of the impact of the Russian transmission system to the functioning of the Estonian electricity system. They prepared the „Report on Security of Supply of Estonian Electricity System 2015“ (hereinafter the Report). The Report contains the issues of connecting of power systems and investments in both domestic and foreign connections until 2030.

The cross-border issues of electricity networks are more closely dealt with in point 2.1.4.

### **Ownership unbundling of transmission system network**

By virtue of Article 10 of Directive 2009/72 EC of the European Parliament and of the Council and Article 3 of Regulation (EC) No 714/2009 the amendments to the Electricity Market Act were enforced on 8 July 2012, which establishes the rules for the management, assessment of compliance with the requirements and post-evaluation (incl. certification) of the transmission network undertaking. The amendments aim at securing full independence of the transmission network undertaking from undertakings which act in the areas of electricity and natural gas production and sales.

On 22 April 2013 Elering AS submitted the application for the assessment of compliance and obtaining of activity licence. After carrying out the assessment on compliance to the requirements, or the so-called certification proceedings, the Competition Authority took the decision on 20 December 2014 which concludes that Elering AS complies with section 18<sup>1</sup> of the Electricity Market Act. On 24 January 2014 the Competition Authority issued the activity licence to Elering AS for the provision of network services through the transmission network.

The issues of the ownership unbundling of activities are more closely dealt with in point 2.1.1.

### **Security of electricity supply**

In 2014 the Estonian energy balance in was continuously positive as the production exceeded the consumption. The peak load in winter 2014 in the Estonian electricity system was 1 423 MW (recorded on 2 December 2014). According to the data available to the Authority the installed capacity in the Estonian electricity system was 2 100 MW. Thus, the installed generation capacity in Estonia exceeded the system's peak load and presumably such tendency will continue at least until the end of 2023.

The security of supply of Estonia was improved by the new DC connection with Finland *Estlink 2*, which started commercial operation in 2014 and the commissioning of the emergency reserve power plant in Kiisa. An important investment was the construction of the Tartu-Viljandi-Sindi 330/110 kV new overhead line in 2011-2014. Also other large scale investments in the electricity transmission network connections with the neighbouring electricity systems are ongoing, like Tallinn-Riga line (the third Latvian line), which received financing support in the framework of projects of common interest of the European Union. The function of the line between Tallinn and Riga is strengthening of the electricity system for a synchronised operation with Central Europe. The Tallinn-Riga line improves electricity supply security of the Baltic countries, minimises the dependence of Member States of the European Union on the third countries and enables customers to select the most favourable electricity supplier and producers to offer electricity in larger open market, which motivates the erection of new production capacity in the Baltic countries.

According to the „*Security of supply report 2014*“ prepared by the TSO Elering AS the security of supply is ensured until 2030 in the concurrence of the production transmission capacities.

In greater detail the security of electricity supply issues are dealt with in section 2.3.



## 1.2 Developments in natural gas market

### Whole sale and retail market of natural gas

An event of a character value in 2014 was the appearance of another wholesaler-importer Baltic Energy Partners OÜ in the market, who for the first time imported 400 thousand m<sup>3</sup> of gas in December (from another Member State of the European Union). Also, Eesti Energia AS made transactions to buy 1000 m<sup>3</sup> of gas in December 2014. In the beginning of 2015 other wholesalers-importers added: Reola Gaas AS and UAB Litgas.

According to the data of the system operator Elering Gaas AS (until 10 April 2015 its business name was EG Võrguteenus AS) e.g. in March 2015 the volume of gas brought from Lithuania to Estonia wholesale traders-importers was 10,6 million m<sup>3</sup>, which constituted 18,1% of the monthly total consumption<sup>2</sup>.

In the Estonian natural gas market considerable decrease (by 22%) in imported and sold annual gas quantity took place (in 2012 – 682 million m<sup>3</sup>, 2013 – 689 million m<sup>3</sup>, 2014 – 538 million m<sup>3</sup>). The main reason being the shutdown of the chemical industry AS Nitrofert again for an unspecified term in the second half of 2013. The other consumption in Estonia in 2014 decreased by 5% (in 2013 – 566 million m<sup>3</sup>, 2014 – 538 million m<sup>3</sup>).

The main area of natural gas application is the production of thermal energy (40% in district heat supply and 28% in local heating) and 30% in industry and 2% in electricity generation. The relatively high price for gas over the last years has motivated the heat producers to convert to other fuels (primarily to local renewable fuels).

In February 2012 the gas consumption peak was the highest in the last five years (5,7 million m<sup>3</sup> daily), while in 2014 the daily peak in winter was 4,18 million m<sup>3</sup>. In the winter period Estonia received all the needed gas volume from the Inčukalns Gas Storage. Also the gas bought in December from Lithuania was delivered from the Storage through swap. No supply disturbances took place.

The country of origin of gas in 2014 was Russia. Currently, it is possible to make purchase transactions also with the Lithuanian liquefied natural gas (LNG), the country of origin of it Norway.

Currently there is five wholesalers in the market (Eesti Gaas AS, Baltic Energy Partners OÜ, Reola Gaas AS, Eesti Energia AS and UAB Litgas). The largest of them is Eesti Gaas AS with its market share of 82% in March 2015.

Nitrofert AS, who supplies gas only for its own use, has not continued gas import by the time being. Another wholesaler-importer Nordic Power Management OÜ, who holds activity licence, has not commenced the import of gas by the time being.

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<sup>2</sup> <http://www.egvorguteenus.ee/uudised/leedust-imporditud-gaas-moodustas-martsis-18-protseti-gaasi-koguimpordist/>

Similarly to the wholesale market also in the retail market AS Eesti Gaas is in market dominant position. In 2014 the share of AS Eesti Gaas in the retail market had increased up to 93,4%. 25 licenced gas traders are currently active in the market.

In greater detail the wholesale and retail markets of gas are described in section 3.2.

### **Natural gas networks**

Estonia has natural gas network connections with Russia and Latvia. Necessary pressure in the Estonian gas system is provided either by the compressor stations of the Russian transmission system or by the Latvian Inčukalns Underground Gas Storage. Estonia has neither gas storages nor liquefied gas terminals.

The natural gas system operator in Estonia is Elering Gaas AS (until 10 April 2015 its business name was AS EG Võrguteenus). Beginning from the second half of the 2013 it does not provide the distribution services of gas any more. The distribution service is being provided by the 25 natural gas distribution undertakings. The largest of them are AS Gaasivõrgud, Adven Eesti AS, Gaasienergia AS and Tehnovõrkude Ehitus OÜ.

On July 2014 the Competition Authority approved the new network service prices for EG Võrguteenus (from 10 April 2015 its business name is Elering Gaas AS). One of the reasons for the price changes were the 2012 amendments to the Natural Gas Act, which changed the allocation of cost related to the unbundling of the transmission and distribution networks.

In greater detail the issues of gas network organisation are dealt with in section 3.1.

### **Ownership unbundling of natural gas transmission network**

On 6 June 2012 Riigikogu passed amendments to the Natural Gas Act which were enforced on 20 June 2012. With the amendment Estonia abandoned the application of the exemption for the transmission system operator's ownership unbundling requirement, which was applied for Estonia in the process of legislative proceedings of Directive 2009/73/EC of the European Parliament and of the Council, which treats of common rules for the internal gas market. Instead, Estonia chose the way of complete ownership unbundling for the fulfilment of the Directive. The amendment creates preconditions for emerge of real natural gas market in Estonian in the future.

In years 2013-2104 AS Eesti Gaas handed over the transmission network (including transit pipelines) to AS EG Võrguteenus (from 10 April 2015 its business name is Elering Gaas AS). The distribution service provider AS Gaasivõrgud separated from the latter. From the beginning of 2014 the sole shareholder of AS EG Võrguteenus (from 10 April 2015 its business name is Elering Gaas AS) is AS Võrguteenus Haldus, who deals currently with the bringing into compliance of the circle of its shareholders with the requirements of the Natural Gas Act. The latter is a precondition for the certification of the system operator. The latest development took place on 18 June 2015, when Elering Gaas AS bought the shares of Gazprom (37% of the equity).

On 26 September 2014 AS EG Võrguteenus (from 10 April 2015 its business name is Elering Gaas AS) submitted the application for obtaining of the activity licence, as existing licence expired on 1 January 2015. The Competition Authority issued the preliminary activity licence to Elering Gaas AS for the provision of transmission service on 30 January 2015. The preliminary licence is valid until the issuance of the principal licence or refusal to issue. In order to issue the principal licence it is necessary to achieve the situation in which none of the owners of the system operator is involved the trading of gas. On 3 March 2015 Elering Gaas AS submitted the application for the assessment of compliance and obtaining of principal activity licence and the Competition Authority initiated the certification proceedings.

In greater detail the gas system operator's ownership unbundling issues are dealt with in point 3.1.1.

### **Security of natural gas supply**

In 2014 there were no changes in the natural gas security of supply. The supply of gas volumes which satisfy the demand is fulfilled in Estonia also in the coming years. The key question of the Estonian gas market development is attracting of new suppliers into the market through infrastructure investments (regional liquefied natural gas (LNG) terminal in Estonia and/or in Finland together with necessary connections) and suspension of the falling gas consumption trend.

Pursuant to Regulation No 994/2010 security of gas supply is a shared responsibility of natural gas undertakings, Member States, notably through their Competent Authorities, and the Commission, within their respective areas of activities and competence. Such shared responsibility requires a high degree of cooperation between them. The centre point in securing of gas supplies is the system operator (Elering Gaas AS).

In greater detail the natural gas security of supply issues are dealt with in section 3.3.

## **1.3 Main changes in legislation**

Major amendments to the Electricity and Natural Gas Acts were brought by the enforcement of the General Part of the Economic Activity Code Act (GPEACA) and the Low Enforcement Act (LEA). Pursuant to the amendments undertakings have to consider now also the provisions of the GPEACA, in their application for activity licences, which are issued on the basis of the Electricity and Natural Gas Acts.

One of the main tasks of the GPEACA is to minimise the number, extent and complexity of the regulations which contain business law – in order to reduce excessive bureaucracy that complicates the performance or commencement of economic activity for undertakings. One of the main differences is that in general the all proceedings related to authorisation takes place in an electronic form through the dedicated web site (ettevõtjaportaal and eesti.ee) and as an alternative, any proceeding related to notifying, applications, including authorisation / activity licencing related procedures can be done by a notary, if an undertaking wishes so.

Therewith, the actions through the web sites or through a notary in applying for activity licence does not influence neither the valid terms nor the undertaking's right to submit any notices and applications on paper or electronically directly to the Competition Authority. For simplification

of the activity licence application process the Competition Authority has elaborated guidelines for activity licence applying, which are available at the web site [https://www.eesti.ee/est/teemad/ettevotja/load\\_ja\\_registreeringud\\_1](https://www.eesti.ee/est/teemad/ettevotja/load_ja_registreeringud_1) in the menu „Energetics“.

With the enforcement of the LEA from 1 July 2014 the sphere of competence of the Competition Authority in exercising supervision over the fulfilment of the Electricity Market and Natural Gas Act. Thus, in addition to the competences by virtue of the mentioned Acts the Competition Authority may apply supervisory proceedings the special measures of state supervision provided for in the LEA (among others, may require necessary information and may enter without the consent of the possessor a fenced or marked immovable, , it is necessary for ascertaining or countering a serious threat).

Regarding other legal issues, a clarification of some provisions of Electricity Market and Natural Gas Acts took place. Thus, in the Electricity Market Act the definition of a small consumer, the unbundling of activities, regulation related to the guarantees of origin and the conditions of contracts were specified or qualified. In the Natural Gas Act the regulation of the transmission network, storage network operator, vulnerable consumer, distribution network undertaking and the conditions of contract were specified or qualified.

By amending of the Government of the Republic Act in connection with that the amending of other acts (enforced on 19 June 2014) the name of the Minister who can issue regulations on the basis of the Natural Gas Act was changed.

### **Energy sector development plan ESDP 2030+**

In 2014 the cooperation between Elering AS, the Ministry of Economic Affairs and Communications, Arengufond (parliamentary development foundation) and Enterprise Estonia continued, in order to update the energy sector development plan ESDP (*in Estonian: ENMAK 2030+*). The development plan describes visions on energy sector developments, selects the most optimal sectoral ways of solution considering the general task of providing consumers energy supply, which has market based price and availability in compliance with the European Union's long-term energy and climate policy targets, at the same time contributing to the improvement of the Estonian economic climate and status of environment and being most competitive in longer run.

## 2. Functioning and regulation of electricity market

### 2.1 Regulation of electricity networks

#### 2.1.1 Ownership unbundling

(Articles 10, 11 and 26 of Directive 2009/72/EC and Article 3 of Regulation (EC) No 714/2009)

Pursuant to Article 10 of Directive 2009/72 EC of the European Parliament and of the Council (hereinafter the internal electricity market directive), which treats of the common rules for internal electricity market and Article 3 of Regulation (EC) No 714/2009 a Member State shall designate and certify the transmission network undertaking. In the result of the certification it is clarified whether the transmission network undertaking complies with the requirements of Article 9 of the internal electricity market directive.

The amendments enacted in the Electricity Market Act establish rules for the management, assessment of compliance with the requirements and post-evaluation (incl. certification) of the transmission network undertaking, pursuant to the internal electricity market directive. The rules aim at securing of full independence of the transmission network undertaking from undertakings which act in the areas of electricity and natural gas production and sales. 100% of the shares of Elering AS, as of the transmission network undertaking, belong to the Estonian State. The same is true with the shares of Eesti Energia AS, who is engaged in the production of electricity. From the spring of 2013 the administrator of shares and the exerciser of shareholder's rights and the shares of Eesti Energia AS is the Ministry of Finance and the administrator of shares and the exerciser of shareholder's rights and the shares of Elering AS is the Ministry of Economic Affairs and Communications. Thus, the shareholder's rights are exercised by different Ministries and different Ministers and this ensures the unbundling of areas of activity and independence of the transmission network undertaking (who performs also the tasks the system operator).

In the second half of 2013 the Competition Authority carried out the assessment of compliance of Elering AS as the transmission network undertaking upon its application or, the so-called certification process. In the assessment to Competition Authority followed in addition to the provisions of the Electricity Market Act also the requirements provided for in Regulation (EC) No 714/2009 of the European Parliament and of the Council. In October 2013 the European Commission delivered its opinion of agreement with the draft decision prepared by the Competition Authority upon the application of Elering AS. The Authority then certified the compliance of the undertaking to the requirement by its decision made in December 2013.

A distribution network undertaking shall form a separate business entity if the number of customers exceeds 100 000 and shall not operate in other area of activity than the provision of network service. The latter applies in reality only to the distribution network Elektrilevi OÜ, as all other distribution network undertakings have less than 100 000 customers.

If a distribution network undertaking has less than 100 000 customers it shall separate its accounts by areas of activity as follows:

- provision of network service;
- sale of electrical energy;
- ancillary activity.

Also, all distribution network operators, regardless of their size, shall keep their accounts on the same principles, as separate undertakings operating in the same area of activity should have been required to keep. Therefore, a distribution network operator that is not required to form a separate business entity is obliged to keep its accounts similarly to a business entity and shall submit in its accounts separately the balance sheet, profit and loss account, management report and other reports provided for in the Accounting Act separately for network services, electricity sales and ancillary activities. Respective information shall be submitted in their annual report and made public. The separation of accounts shall be audited and the auditor's evaluation shall be given.

### **Securing of equal treatment**

With the opening of the electricity market the issue of equal treatment of market participants has become very important as the electricity network and its regulation will remain in the status of a monopoly. Thus, all customers of the network undertaking shall be able to use the electricity network in the same manner and the network operator shall ensure equal possibilities for selling of electricity for all traders.

Pursuant to the Electricity Market Act all network operators are obliged to prepare an action plan with the measures for equal treatment of other electricity undertakings and customers, including the duties of employees in the implementation of these measures. Separate provisions apply to the system operator (who is also the transmission network undertaking).

The system operator is obliged to follow the principles of equal treatment in order to achieve best economic results for the whole system within the framework of existing technical and security of supply requirements and other legal requirements. The Act emphasises that in the preparation of the standard terms and conditions of balance contracts and in the formation of balancing energy price the system operator shall be guided by the principles of equal treatment and transparency. In addition, all network undertakings shall observe the principles of equal treatment and transparency in establishing the technical conditions for connection to the network and the charge for changing of consumption and production conditions (the conditions of connection). The principles equal treatment and transparency also apply to the criteria for the establishing of network charges.

### **Equal treatment in Elektrilevi OÜ**

Elektrilevi OÜ supplements and updates its equal treatment report annually, which is available on the network undertaking's web site (<https://www.elektrilevi.ee/vordse-kohtlemise-pohimotted>).

Elektrilevi OÜ is not allowed to produce and sell electricity, as the number of consumers connected to its network is higher than 100 000. That is why Elektrilevi OÜ as the provider of service of common interest shall designate a seller, which has activity licence (section 76<sup>1</sup> (2) of the Electricity Market Act), for providing universal service. For the provision of universal service and in case of interruption of the open supply chain Elektrilevi OÜ has designated Eesti Energia AS, in the capacity of selling of electricity. Eesti Energia AS belongs to the same group and represents Elektrilevi OÜ also in the conclusion, amendment and termination of the

network contracts. Elektrilevi OÜ uses Eesti Energia AS services in the performing of certain functions like the settlement of customer payments, debt management, call centre and others. However, Elektrilevi OÜ neither concludes electricity sales contracts nor resolves other electricity sale issues.

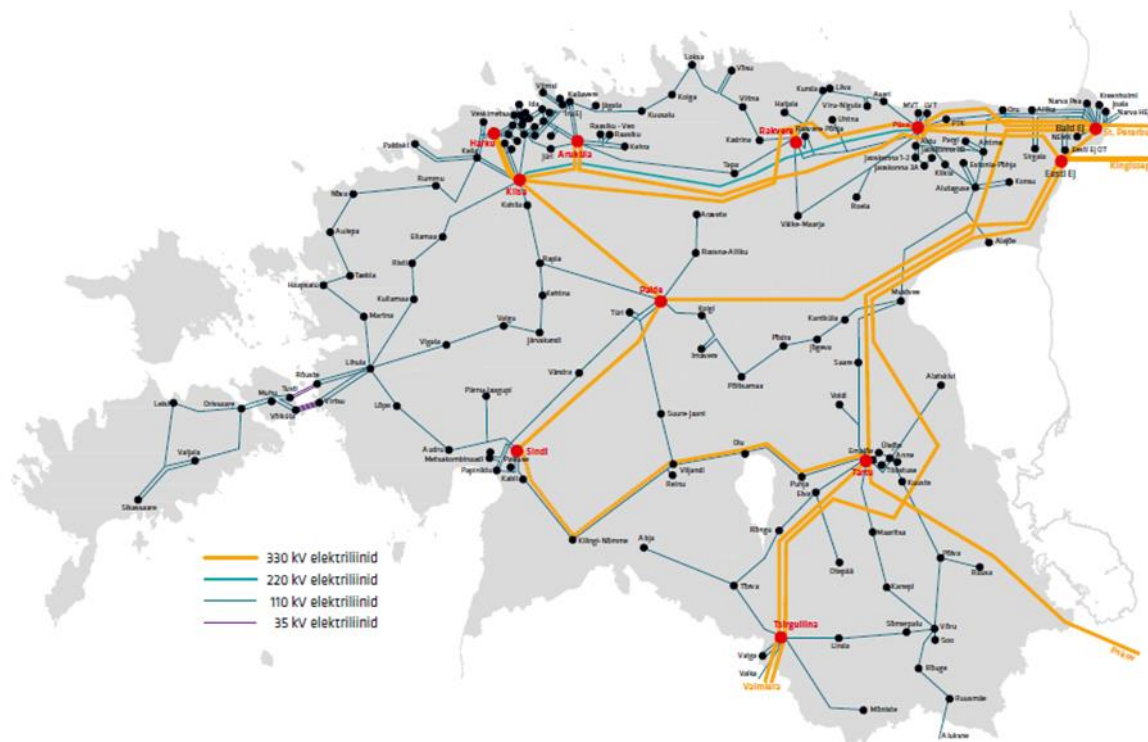
Equal access to the metering point data and to the measurement information is ensured by the means of the data exchange platform (DEP) which was created pursuant to section 42<sup>1</sup> of the Electricity Market Act. Elektrilevi OÜ transmits to the DEP the data stipulated by legal act in order to acquire information for the market participants in time and on equal basis.

**The issue of a single invoice is continuously an acute topic. Today those consumers, which do not use universal service or the sale service of an undertaking which belongs to the same group with the network operator, receive two separate invoices: one for the network service and the other one for electricity. The larger sellers of electricity acting in the electricity market have jointly referred to the Competition Authority with the issue, in order to clarify whether there is a violation of the equal treatment principle. The related proceedings in currently ongoing.**

### 2.1.2 Technical functioning

From the end of 2006 there is the direct current connection *EstLink 1* with the capacity of 350 MW between Estonia and Finland. In December 2013 the commissioning of the new connection *EstLink 2* with the capacity of 650 MW was started and in the beginning of 2014 the *EstLink 2* connection was handed over to the servicing of the market. Thus, the transmission capacity between Estonia and Finland has increased up to 1 000 MW.

There is a single transmission network service undertaking Elering AS in Estonia, who is at the same time also the system operator (TSO), and 34 undrtakings that provide ditribution network services. The total length of the transmission lines (110-330 kV) that belong to the transmission network undertaking is 5 540 km, while the length of the low and medium voltage distribution networks is in total 69 300 km. The map of the Estonian electricity system is presented in Figure 2.



**Figure 2.** Estonian electricity system. Source: Elering AS

As regards distribution networks the shares of undertakings are to a large extent the same from year to year. The largest distribution network undertaking is Elektrilevi OÜ, with the annual sale of 6 489 GWh and the share on the market on the basis of sale volume was 87,9%, followed by VKG Elektrivõrgud OÜ with the annual sale volume of 209 GWh and the market share of 2,83%, and Imatra Elekter AS with respectively 203 GWh sale volume and the market share of 2,75%. The annual sale of the rest 31 distribution undertakings is below 500 GWh altogether. The largest among those are TS Energia OÜ, AS Sillamäe SEJ and AS Loo Elekter.

### Balance services (Articles 37(6)(b) and 37(8) of Directive 2009/72/EC)

The Electricity Market Act and the Grid Code lay down the regulation of balance responsibility in detail. Pursuant to these Acts every market participant is responsible for its balance. The transmission network is responsible for the balance of the whole system and several balance providers may act in the market. In order to balance the system the transmission network buys or sells balancing energy. The methodology for calculation of the price for balance energy and standard terms and conditions for balance contracts are to be approved by the Competition Authority. In the formation of the balance energy price the transmission network is obliged to buy or sell balance energy at the most favourable price possible. The prices of balancing energy are published on the web site of Elering AS (<http://elering.ee/bilansienergia-osta-ja-muuk/>).

Balance is determined by means of remote reading devices (*on-line*) in case the customer's electrical connection capacity exceeds 63 A. For the determination of other customer's balance standard load curves are used. This means that for household customers an *on-line* metering is not necessary. The conversion to the remote reading devices takes place gradually until 2017. On 1 January 2017 all connection points have to be equipped with remote reading devices.



According to the principles of electricity market functioning a market participant shall ensure that the amount of electricity supplied to the network and/or purchased by the market participant in each trading period is equal to the amount of electricity acquired from the network and/or sold by the market participant. For the balance of small consumers their distribution network operator is responsible for. Together with the market opening the situation from the competition point of view has improved and new balance providers have come to the market. The biggest balance provider is Eesti Energia AS. Besides, seven other balance providers are active. The list of them is given on the Elering AS web site.

### **Quality of electricity supply (Articles 37(1)(h) and 37(1)(t) of Directive 2009/72/EC)**

Quality of supply requirements arise from the Electricity Market Act. Due to this the requirements are established by the Minister of Economic Affairs and Communications. Following of the requirements is obligatory and in case of violation penalties are stipulated (through misdemeanour proceedings). The quality of supply requirements contain requirements for customer service and acceptable duration of supply interruptions, separately for those caused by faults and those caused by a planned activity. The functions of the Competition Authority are to monitor undertaking's performance in fulfilment of the quality requirements, adequacy of keeping records on quality indicators and to initiate misdemeanour proceedings in case of violation. Disclosure of relevant quality indicators on the web site is obligatory for all undertakings.

The customer service quality requirements determine the maximum acceptable time, during which certain operational procedures have to be accomplished. Undertakings have to submit to the Authority information about the extent of compliance with the service quality requirements. Based on the information it is possible to calculate the percentage of compliance with the service quality requirements. As well, it is possible to analyse the trend: whether it is improving or worsening. In case of failure to comply with the requirements customers have the right to file a complaint with the Competition Authority. The Authority has the right to initiate a misdemeanour proceeding in each specific case and impose a fine (penalty payment) in an amount of up to 3 200 € for a single violation. Therefore, possible level of the punishment can be quite remarkable. In case of application of a fine the money is to be transferred to the state budget.

As regards network service quality both supply interruptions caused by faults (not planned) and planned outages are regulated. Supply disruptions lasting less than 3 minutes are not considered interruptions. According to the quality requirements the time limits (maximum acceptable durations) are set out, during which customers shall be re-supplied. The time limits are distinguished for summer and winter period (see Table 1).

**Table 1. Network service quality requirements**

	<b>Summer period from April to September</b>	<b>Winter period from October to March</b>
<b>Transmission network</b>		
Acceptable duration of an interruption caused by faults	2 hours */ 120 hours **	
Acceptable annual accumulated interruption duration	150 hours***	

<b>Distribution network</b>		
Acceptable duration of an interruption caused by faults	12 hours	12 hours
Acceptable duration of a planned interruption	10 hours	10 hours
Acceptable annual accumulated interruption duration by faults	70 hours	
Acceptable annual accumulated planned interruption duration	64 hours	

Notes: \*Power is supplied through two or more 110 kV transformers or lines

\*\* Power is supplied through a single 110 kV transformer or a line

If undertakings fail to comply with the acceptable time limits specified in Table 1 they are obliged to pay compensation to customers.

The Competition Authority has elaborated a specific form for reporting. Undertakings are required to fill out and to disclose it. Therewith they are required to disclose how many times and in how many grid connection points they failed to comply with the quality requirements. In connection with customer service requirements undertakings shall submit data on how many times they failed to fulfil the service quality requirements. Network operators shall disclose the following network quality (continuity of supply) indicators:

All aforesaid data on network quality are disclosed on the Competition Authority's web site <http://www.konkurentsiamet.ee/index.php?id=18300>. The Authority analyses and takes these into account in the process of price proceedings.

Table 2 presents the quality of electricity supply indicators for the years 2012 - 2014 of the transmission undertaking Elering AS (the TSO) and the largest distribution operator Elektrilevi OÜ.

**Table 2.** Electricity supply quality of Elering AS and Elektrilevi OÜ

Security of supply indicators	Unit	Elering AS			Elektrilevi OÜ		
		2012	2013	2014	2012	2013	2014
Total number of consumption points	pcs	230	233	233	655 540	660 009	700 751
Fault caused annual accumulated interruption duration	minutes	1756	2719	410	122 585 980	272 583 717	88 820 300
Planned annual accumulated interruption duration	minutes	8633	17403	119376	59 654 140	61 111 547	48 682 388
Average fault caused interruption frequency per consumption point per year (CI) (SAIFI)	pcs	0,148	0,223	0,069	1,920	2,65	0,664
Average interruption time per consumption point per year (SAIDI)	minutes	8	12	1,8	187	413	126,8
Average duration of an interruption (CAIDI)	minutes	52	52	25,6	97	155,8	190,8
Average planned interruption frequency per consumption point per year	pcs	0,026	0,043	0,176	0,560	0,601	0,5
Average planned interruption duration per consumption point per year	minutes	37,5	74,7	512,3	91,0	92,6	69,5

Average planned duration of an interruption	minutes	1438,8	1740,3	2911,6	162,5	154,2	138,9
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It is seen from above Table that in 2014 that almost all fault caused electricity quality indicators have improved considerably. Especially noteworthy are the indicators of Elering AS related to the interruptions caused by faults, which is many times lower compared to previous years.

On 12 September 2014 the Competition Authority initiated supervisory proceedings towards Elering AS in connection with the interruption of the power connections between Estonia and Finland (*EstLink 1* and *EstLink 2* connections failed respectively on 10 September 2014 and 09 September 2014. Due to these two interruptions besides Estonian customers also Latvian and Lithuanian customers suffered as the high price in Estonia raised the prices also in the Latvian and Lithuanian electricity markets. In its analysis the Competition Authority came to the conclusion that existing legislation does not regulate the operation of cross-border connections sufficiently. In order to improve the situation the Competition Authority made the proposal that the legislation shall be supplemented with the direct current cross-border connections *EstLink 1* and *EstLink 2* related quality requirements.

The monitoring of the fulfilment of safety requirements is not in the sphere of competence of the Competition Authority. That is why the present report does not reflect the safety requirements of the electricity network undertakings, undertaken measures by them nor their fulfilment.

### **Time taken by transmission system operator to make new grid connections and repairs of cross-border network connections (Article 37(1)(m) of Directive 2009/72/EC)**

Connection to the power network is regulated by the Grid Code established by Regulation No 184 of the Government of the Republic on the basis of section 42(2) of the Electricity Market Act. In order to connect to the transmission network a connectee shall submit to Elering AS a connection application. On the basis of the application an offer for a connection contract shall be issued within 90 days. If the customer wants to connect in an area where the network transfer capacity is not sufficient and the customer does not accept the connection offer together with the cost of construction and strengthening of the network, the network undertaking shall notify the customer and the Competition Authority in 30 days from the reception of the connection application from the customer, that a connection in the specific network area is impossible. If the data presented in a connection application are insufficient or do not comply with the requirements, then the network undertaking shall notify the customer about this in 10 business days from the reception of the application and the customer has 15 days to bring its application into compliance with the requirements. In order to connect a connectee's electrical appliance to the network or to amend the consumption or production conditions the network undertaking shall conclude a connection contract with the connectee.

For the functioning of electricity market it is necessary that the market participants have timely information on the capacity of the power connections and possible connection interruptions. The transmission network undertaking is obliged to disclose the information on cross-border transmission capacity and limitations on the transmission capacity in connection with planned

outages and repair works. Table 3 below presents the data submitted by Elering AS on the time spent for the creation of interconnections between networks and repairs in 2011 - 2014.

**Table 3.** Timing of creating and repairing connections between networks by Elering AS

Line	Interruption duration (hours) 2011	Interruption duration (hours) 2012	Interruption duration (hours) 2013	Interruption duration (hours) 2014
L301 Tartu - Valmiera	113,4	58,2	10,9	504,4
L354 Tsirguliina - Valmiera	189,4	0	507,68	608,03
L358 Tartu - Pskov	288,8	657,7	314,52	206,62
L373 Eesti PP - Kingissepp	763,4	265,3	349,82	2076,83
L374 Balti Substation - Leningradskaja	519,1	1194,3	1556,58	1883,32
L677 Tsirguliina - Valka	2638,3	444,7	92,45	999,05
L683 Ruusmäe - Aluksne	374,7	1307	855,55	2449,92
LN3	0	2080,1	0	0
<b>Total</b>	<b>4887,1</b>	<b>6007,3</b>	<b>3676,6</b>	<b>8728,17</b>
incl. ordered by neighbouring systems	4848	2730	3442,75	7613,15

As seen in Table 3, the total interruption time in the network of Elering AS in 2011 was 4 887 hours, while in 2012 it was 6 007 hours, in 2013 3 677 hours and in 2014 8 728 hours. In 2014 the interruption time increased almost 1,4 times. Interruptions in the grid are primarily caused by faults (old and worn out lines, heavy storms), as well as due to the repair and maintenance works.

### Ensuring access to market of producers basing on renewables and efficient cogeneration (Article 11 of Regulation (EC) No 713/2009)

Pursuant to the current Estonian legislation all producers have equal access to the market. The producers which produce from renewable energy sources or in an efficient cogeneration process and have applied for a support, may bring the whole produced electricity to the market without any limitation. Sections 59, 59<sup>1</sup>, 59<sup>2</sup> and 108 of the Electricity Market Act provide the conditions for being eligible for a support and the rates of the support. In relation to wind energy a limitation is set forth: a producer who uses wind as the source of energy may receive support until the total amount of 600 GWh electricity is generated from wind power in Estonia in a calendar year.

In the connection to the network of the production equipment that use renewable energy sources or operates in an efficient cogeneration process there is no support related differences. Herewith we explain that pursuant to the Electricity Market Act aforesaid producers do not have priorities also in the order of connection (waiting list), nor in the provision of balance. Pursuant to section 32<sup>1</sup> of the Grid Code for a small cogeneration installation (of up to 5 MW electrical capacity) the creation of a new connection is ensured through the transmission network operator's obligation not to take into account connection offers issued to other producers or production capacity for which connection contracts have been concluded, but whose connection to the power network as agreed in the contract or as known to the transmission network operator is intended to occur later than that stated on the installation of the small cogenerator. In addition, the Grid Code provides exceptions for the use of different technologies including wind

generators, in order to secure technical functioning and stability of the system. Hereby the Competition Authority is in the position that the producers which use renewable energy sources or an efficient cogeneration process are supported sufficiently through the renewable energy support scheme. At the moment the new draft act of the Electricity Market Act for amending the support scheme has been worked out and is currently in the legislative proceedings.

### **2.1.3 Access to the network and network service price regulation** (Articles 37(1)(a, f), 37(6)(a), 37(8), 37(10), 37(3)(c, d) of Directive 2009/72/EC)

The Electricity Market Act provides for uniform price regulation for all network undertakings regardless of their size. There number of distribution undertakings in Estonia in 2014 was 34 and only one transmission network undertaking.

A network operator shall connect to the network at the connection point any electrical installation, which conforms to the requirements, of a consumer, producer, line possessor or any other network operator within its service area and amend of the consumption or generation conditions on the basis of a corresponding request. A network operator has the right to refuse to provide network services if:

- the electrical installations of the user of network services do not conform to the requirements of legislation or to the technical conditions established by the network operator for connection to the network;
- the provision of network services is not possible for any other reason due to the user of network services;
- the provision of network services is not possible for reasons independent of the network operator;
- the network of the network operator lacks the necessary transmission capacity for the provision of network services;
- the corresponding right of the network operator arises on any other grounds provided in the Electricity Market Act.

A network operator shall provide the reasons for any refusal to provide network services. The reasons must state the legal basis for refusal and the Competition Authority shall be notified. Aforesaid principles shall ensure connecting of all customers, who apply for, to the network. If necessary, the Competition Authority may verify the grounds for refusal in order to ensure the legal application of law and equal treatment of market participants.

In addition to aforesaid the Competition Authority approves separately the following network charges and methodologies:

- network charges (for transmission and for using of a network connection);
- ancillary services provided by network operator (e.g. replacement of main protective fuse or sealing of meters at the customer and some others);
- the methodology for the calculation of a charge for connecting to the network;
- the methodology of the pricing of balancing energy.

The prices for balance energy and the charges for transits of electricity are not subjects to approval, but the Competition Authority is obliged to monitor the justification of the prices. That means *ex-post* regulation is applied to these charges.

Although Article 14(2) of Regulation (EC) No 714/2009 and the *Guidelines on Transmission Tarification* allow charging producers for the transmission, so far Estonia has not applied it.

### Electricity network charges

The Electricity Market Act lays down the following price regulation principles:

- A network operator shall establish network charges in its service area in accordance with the Energy Market Act and the legislation enacted on its basis;
- The criteria adopted for establishing network charges shall be transparent and in compliance with the principle of equal treatment;
- When setting network charges, the need to ensure security and efficiency of supply and the integration of markets as well as the results of research conducted in this area shall be taken into consideration;
- The rate of network charges must make it possible for a network operator to perform the obligations arising from legislation and fulfil the conditions of the activity licence, and to ensure a justified return on invested capital;
- A network operator shall set the transmission charge such that it guarantees market participants who have paid a connection charge and a charge for use of the network connection the possibility of transmitting electricity throughout the entire system;
- Network charges may differ from one network operator to another.

Pursuant to section 72(4) of the Electricity Market Act the Competition Authority shall prepare uniform methods for the calculation of network charges based on the weighted average cost of capital. The methodologies are disclosed on the Authority's web site. The Competition Authority has elaborated and published on its web site specific tables together with the guidelines for input data collection to be filled in for the approval process. The tables are comprehensive and include technical data and detailed accounts: profit and loss statement, balance sheet, data on acquired fixed assets, planned investments and the expected sale volumes of network services. Since the tables are comprehensive, it is required to fill them in only in the price approval process. On the basis of the data it is possible to verify whether cross-subsidising of different areas of activity is avoided. A regular filling out is not required, but according to need the Competition Authority has the right to ask information on economic performance of and technical indicators and as well to require filling out the tables presented on the web site. The obligation to provide data is prescribed by law and the Authority is entitled to require all the data necessary for both the approval of prices and to carry out supervisory proceedings. The Competition Authority has also the right to perform site inspection any time and require data and the copies of documents. The practice so far has shown that the undertakings do not refuse submission of data. In addition, the undertakings have to separate in their accounts the different areas of activity. An annual accounting report is a public document and all interested parties can access it.

From 1 May 2013 the methodology amendment is in force according to which a network undertaking may not any more approve the prices for a 3-year regulation period. Instead, the approval takes place upon their application. The latter means that undertakings have permanent opportunity to submit an application for the approval of network charges. New network charges shall be approved in case if an undertaking finds that the operating cost, capital cost and the justified return that were used in the approval do not provide the price that meets the provisions of section 71 of the Electricity Market Act. According to necessity the Competition Authority has the right to verify whether the valid network service price is in compliance with the

provisions of the Electricity Market Act. In order to give to the network undertaking a possibility to set long-term goals, to plan its work and to fulfil its legal obligations, the Competition Authority applies the revision of an undertaking's investments in the process of price approval.

The Competition Authority has prepared and published on its web site the "Standard Methodology for Calculating of Electricity Network Charges" and the "Guidelines for the determination of weighted average cost of capital (WACC)".

Pursuant to Regulation of the European Parliament and of the Council No 714/2009 the regulation of the network service prices of the transmission network undertaking has some differences. Similarly to other network operators the charges established by the transmission undertaking must be transparent, take into account the need of ensuring security of the network and reflect all actually incurred costs, provided that they comply with the efficiency criteria and with the cost of other network operators with comparable structure. The charges may not be discriminatory. As the transmission network undertakings incur additional costs and revenues as the result of hosting cross-border transit flows of electricity the Regulation provides for the establishment of a so-called compensation fund between the transmission network undertakings of the EU Member States (ITC fund). On 23 September 2010 the European Commission passed Regulation No 838/2010, which lays down the principles of compensation for transit. All transmission system operators contribute to the ITC fund and from the fund the costs of all transmission operators participating in the transit of electricity are compensated for. Amongst other things Article 4(3) of the Regulation sets out that when setting the charges for the access to the network the payments to and receipts from the ITC fund shall be taken into account. Since the following of the Regulation is mandatory to Estonia, in the approval of network charges the Authority takes into account the costs incurring from the ITC fund.

In the regulation of the network service prices of the transmission network undertaking the revenues resulting from the allocation of cross-border interconnection has been taken into account. Pursuant to Article 16(6)(a) of Regulation (EC) No 714/2009 any revenues resulting from the allocation of the interconnection shall be used for the guaranteeing the actual availability of the allocated capacity (so-called counter-trade) and the rest may be taken into account in the calculation of network tariffs under the provisions of Article 16(6) of the Regulation. From 1 July 2014 the transmission undertaking started the collection of the congestion income for the maintaining or increasing interconnection capacities.

Average prices for network services in 2014 are presented in Table 4. All the valid approved network service prices are disclosed on the Competition Authority's web site.

**Table 4** Transmission and distribution service prices in electricity networks in 2014

<b>Service provider</b>	<b>Number of undertakings</b>	<b>Average price for transmission and distribution service €/cent/kWh</b>
Transmission network	1	1,18
Distribution networks	34	5,13

## **Charges for connecting to network**

Connection to the electricity network is regulated by the Grid Code established by Regulation No 184 of the Government of the Republic on the basis of section 42(2) of the Electricity Market Act. Chapter 5 of the Grid Code sets out the requirements for connecting of a customer's electrical appliance to the distribution network of a network undertaking. For connecting to the transmission network a connection application must be submitted to Elering AS and based on the application, during 90 days an offer for connection is issued. A distribution network undertaking shall issue a connection offer during 30 days from the reception of the application or from performing an action necessary for the transmission network undertaking.

The connection offer shall contain the location of the metering point of the customer's electrical appliance, the charge for connecting and the grounds of its calculation, the conditions for connecting to the network, the conditions for amending or cancelling of the connection contract. The charge for the connection to the transmission network is determined on the basis of the cost pursuant to the principles outlined in the Grid Code. In the calculation of the charge for the connecting to the network the justified cost which incurs in making the connection is considered. The charge includes the necessary and justified cost for connecting the new consumption load or for the amending existing consumption conditions, including the cost of construction of new electrical installations or re-construction of existing ones. It shall be explained herewith that the charge for connecting to the distribution network is calculated according to the methodology approved by the Competition Authority. For the preparation of the methodology the Competition Authority has published the *Guidelines for preparation of methodologies for approval the charge for network connection and amendment of consumption or production conditions*. The Competition Authority approved the „Method for calculation of connection charges“ of Elering AS on 26 June 2015.

### **2.1.4 Cross-border issues**

With neighbouring countries Estonia has power connections with Russia, Latvia and Finland. The map of the Estonian electricity system was presented in Figure 2 above. The map of the power systems of the Baltic countries and north-western part of Russia is given in Figure 3 below. It should be clarified yet that Finland is part of the Nordic power system Nordel, which is not synchronised with the Russian and the Baltic countries' system IPS/UPS, where Estonia belongs to.





**Figure 3.** Map of electricity systems of Baltic countries and north-western part of Russia  
Source: Elering AS

Estonia has three 330 kV overhead AC connections with Russia (500–650 MW) and two 330 kV overhead lines (500–900 MW) with Latvia and a 150 kV DC connection with Finland (350 MW). In December 2014 the second 450 kV DC connection between Finland and Estonia with the capacity of 650 MW was added. Due to network repair works and ambient air temperature variations the transfer capacity to the Baltic region may significantly decrease. The maximum power which can be imported and exported depends on the one hand from the thermal transmission capacity of the lines and on the other hand from the stability margin determined in the operational regime calculations. The one which is lower determines the final limitation. Thus, currently Estonia has connections with neighbouring countries in the total of 2 550 MW.

By statistics of 2014 the peak load from Narva to the direction of Russia was 727 MVA (if on trading takes place between Estonia and Latvia), while from South Estonia in the direction of Russia it was 254 MW. The peak load in the Latvian direction was 776 MW and the same in the direction of Finland was 1 018 MW.

### Rules of calculation and allocation of available capacity (Articles 37(1)(c), 37(6)(c), 37(8), 37(9), 37(3)(f) of Directive 2009/72/EC)

On 15 March 2013 the transmission system operators of the three Baltic countries agreed upon the new *Baltic internal cross-border trading capacity calculation rules*. The Competition Authority approved the agreement by its 31 May 2013 decision. The data on the cross-border transfer capacity calculations made by the TSOs, as well the limitations on the system, their

reasons and impact on the power system on weekly basis, are presented on the NPS web site. In addition on the site the information on actual interruptions in the transmission systems can be found.

In the last years several changes have taken place in the rules of the cross-border transmission capacity allocation between Estonia and Latvia and between Russia and Estonia. The main goal of the changes is to follow the direction undertaken by the European Commission to use only market based solutions in the allocation of the transmission capacity and not to give certain advantages to individual market participants. Such approach enhances competition and improves transparency, which is needed for making new investment decisions, in order to sustain security of supply in the system. In the following an overview of the transmission capacity allocation rules between Estonia and Latvia in different periods is given.

### **Transmission capacity allocation on Estonia-Russia and Estonia-Latvia borders in NPS Estonia price area from 3 June 2013**

On 3 June 2013 the NPS ELE price area was invalidated and the new Latvian price area was created by the NPS. Prior to this the three Baltic TSOs had reached agreement on 15 March 2013 on the allocation of cross-border transmission capacity between both on the borders of the Baltic countries themselves and also on the borders with Russia and Belarus. According to the agreement the bidding areas were formed between the electricity systems of the Baltic countries and the third countries (Estonia–Russia, Latvia-Russia, Lithuania-Belarus and Lithuania-Kaliningrad). The transmission capacity is calculated following the jointly agreed calculation model and methodology. These activities are the first step in the process which has the eventual task of creation single virtual and common Baltic price area for electricity export and import operations with the third countries.

- In the Estonian, Latvian and Lithuanian price area all active market participants can make their bids. The cross-border capacities are allocated by the NPS by using the method of *implicit auctions*;
- According to the agreement between the three Baltic TSOs the NPS directs all the electricity originating from the third countries to the NPS price area on the Lithuania-Belarus border. No commercial capacity is allocated to the borders between Estonia-Russia and Latvia-Russia.

The Competition Authority approved the rules for the transmission capacity calculation on 31 May 2013 by its decision. In the same decision the Authority pointed out that the transmission capacity allocation rules agreed upon by the TSOs facilitate integration of the Baltic electricity market, but for better functioning of the market Elering AS in cooperation with other system operators shall complete a well-developed financial market in the region with proven efficiency (liquidity).

On 6 December 2013 Elering AS and the Latvian TSO signed the agreement „Congestion management rules on the Estonia-Latvia border through the PRT (*physical transmission rights*) auctions“. Thus Elering AS and the Latvian TSOs agreed on the implementation of the congestion management financial instrument of the PRT on the border between Estonia and Latvia. The agreement lays down the rules of implementation and use of the PTR for the market participants. From January 2014 the PTR auctions are offered on the Estonia-Latvia border. For the market participants an annual auction and monthly auctions are arranged. The organiser of the auctions is Elering AS. In order to participate in a PTR auction the market participants,

which have concluded respective contract with Elering AS, shall submit their bids for an auction period on every specified auction day. The difference between the purchased and re-purchased PTR is paid to the PTR owners once in a calendar on the basis of a written clarification.

The Competition Authority approved the PTR-auction rules by its decision of 13 December 2013. The Competition Authority outlined in its decision that the PTR rules take into account the rights and obligations assigned to the transmission network operators and the regional conditions as well, in order to foster real and efficient competition in the electricity market. The Competition Authority also outlined that the agreement between Elering AS and the Latvian TSO on congestion management on the Estonia-Latvia border contributes to the integration of the Baltic electricity market, prevents from unequal treatment of market participants and ensures equal access to the network to all market participants.

### **Transmission capacity allocation on Estonia-Russia and Estonia-Latvia borders in NPS Estonia price area from 1 January 2015**

On 6 November 2014 the Baltic TSOs concluded a joint Memorandum. The Memorandum enables application the contractual principle on the Estonia-Latvia border that in the planning phase the whole tradeable capacity of the Estonia-Latvia-Russia cross section is allocated between Estonia and Latvia. A change is pointed out, which is related to the calculation of the quantities of import from the third countries. While during the validity of the trilateral agreement (15 March 2013) a calculation may have allocated 0 MW result to the Lithuania-Belarus border, according to the Memorandum of 6 June 2014 the minimum trading capacity limit is 200 MW, which is secured by the Lithuanian TSO by keeping additional 100 MW of reserve capacity. The Competition Authority approved the Memorandum for the calculation of transmission capacity by its decision of 13 November 2014.

On 5 November 2014 the new congestion management rules on the border between Estonia and Latvia were agreed upon by the TSOs of both countries. The new rules raise the volume of auctions: besides monthly and yearly auctions also quarterly auctions were added. The Competition Authority approved the new rules by its decision of 7 November 2014.

Pursuant to Article 15 of Regulation No 714/2009 “Provision of information” and Clause 5 of the Guidelines “Transparency” Elering AS has disclosed on its web site (<http://www.elering.ee>) the rules for allocation of aforesaid available capacity and the agreements. The web site also presents information on available transmission capacity, utilised total capacity, demand and production, presenting both actual data and either annual, month-ahead, week-ahead and/or daily estimates pursuant to the Guidelines. In addition to aforesaid the TSO publishes on its web site the planned and emergency outages of the production units in the Estonian electricity system with a rated capacity of over 100 MW and the report on sufficiency of the production capacity in the Estonian electricity system which, among other things, covers long-term infrastructure development issues. The web site includes a separate data disclosure application (*Dashboard*), where the information is visually observable and easily downloadable. The information is disclosed to the market participants simultaneously, transparently, in a user friendly manner and in an easily downloadable format.

## **Use of congestion income from 1 July 2013 to 30 June 2014 (point 6.5 of Annex I of Regulation (EC) No 714/2009)**

Pursuant to Article 16 (6) of Regulation (EC) No 714/2009 the revenues resulting from the allocation of interconnection shall be used for the following purposes:

- a) guaranteeing the actual availability of the allocated capacity; and/or
- b) maintaining or increasing interconnection capacities through network investments, in particular in new interconnectors; or
- c) if the revenues cannot be efficiently used for the two aforesaid purposes, they may be used, subject to approval by the regulatory authorities, as income to be taken into account in the calculation of network charges.

In the period from 1 July 2013 to 30 June 2014 Elering AS earned congestion income in the total of 35 634 489 euro. Out of this 938 157 euro was used pursuant to Article 16 (6)(a) of Regulation (EC) No 714/2009 for guaranteeing the actual availability of the allocated capacity (so-called counter-trade) and the rest of 34 696 341 euro is used pursuant to Article 16 (6)(b) for maintaining or increasing interconnection capacities through network investments, in particular in new interconnectors.

### **2.1.5 Electricity market related obligations of Competition Authority (Articles 37(1)(b,d,q), 37(3)(a), 37(3)(a,b,e), 37(4)(d), 37(5), and 39 of Directive 2009/72/EC)**

Arising from Directive 2009/72/EC and Regulation (EC) No 714/2009 by virtue of the Electricity Market Act the rights and obligations of the regulatory authority are granted to the Competition Authority. Pursuant to the Electricity Market Act and other legislation enacted on its basis the Competition Authority exercises state supervision over the functioning of the electricity market and the activities of market participants pursuant to the procedure provided in the Act and other legislation.

In order to ensure cooperation with the Agency for the Cooperation of Energy Regulators (hereinafter the ACER) and other regulatory authorities the Electricity Market Act sets out the following rights and obligations to the Competition Authority:

- Cooperate with the ACER and other regulatory authorities of the Member States;
- Engage in cooperation with the transmission network operator and, should this be needed, with other relevant authorities in order to perform its functions, and without prejudice to its independence and special authority. An approval issued by the Competition Authority pursuant to the Energy Market Act may not in any way limit the subsequent exercise of its powers;
- Engage in cooperation with counterpart authorities of other Member States in order to harmonise the data exchange platforms of the electricity market of the region;
- If necessary, the Competition Authority shall involve independent experts and cooperate with other Estonian and foreign supervisory authorities in order to exercise supervision.

The Competition Authority's obligations are set out in chapter 9 of the Energy Market Act „State Supervision“. Amongst others obligations the Authority shall:

- verify compliance with the requirements set out in Regulation (EC) No 714/2009 of the European Parliament and the Council;

- monitor of investments in production capacity and, having regard to considerations of security of supply, where necessary, requiring the system operator to hold the invitation to tender referred to under subsection 4<sup>1</sup> of section 4 of the Energy Market Act;
- monitor and verify of the conduct of the invitation to tender provided for under subsection 4<sup>1</sup> of section 4 of the Energy Market Act;
- resolve disputes between market participants following the procedure provided in the Electricity Market Act;
- disseminate through its website the network operators' network charges that it has approved in accordance with the Electricity Market Act;
- issue decisions of approval in accordance with the Electricity Market Act;
- verify whether the distribution network operator complies with the requirements set out under section 18 of the Electricity Market Act;
- scrutinise the justifications for the expenditure incurred by the transmission network operator for the purpose of administering the support provided for in subsection 4 of section 59<sup>2</sup> of the Electricity Market Act;
- verify whether the price of the electricity sold in the framework of the open supply referred to in 44(4<sup>2</sup>) of the Energy market Act is justified;
- verify the information that is provided by the seller to the consumer under section 75<sup>1</sup> of the Electricity Market Act;
- verify whether the price of electricity sold by way of provision of universal service complies with section 76<sup>3</sup> of the Electricity Market Act;
- verify the issue, transfers and validity of the guarantees of origin described in section 58<sup>1</sup> of the Electricity Market Act;
- verify the prices of balancing electricity set by the system operator;
- verify whether the transmission charges applied by the network operator for the transit of electricity, as well as the operator's connection charges and charges for the amendment of conditions are in conformity with sections 71-73 of the Electricity Market Act;
- in its annual report, stating its opinion regarding the report drawn up by the system operator in accordance with section 39(7) of the Energy Market Act, taking into account whether the report of the system operator is in conformity with the Community-wide network development plan referred to in Article 8(3)(b) of Regulation No 714/2009 of the European Parliament and of the Council, and issuing recommendations concerning the amendment of the system operator's investment plan, if needed;
- monitor technical cooperation between the transmission network operators of the member states of the European Union and of third countries;
- engage in cooperation with counterpart authorities of other member states in order to link up the information exchange platforms of the electricity market of the region;
- monitor the situation concerning market opening and competition, including the prices on the power exchange and the prices set for household customers, and publish, at least once a year, recommendations concerning the setting of the prices of electricity sold to household customers;
- monitor the time that it takes network operators to build connections and to perform repairs;
- monitor the level of transparency of the electricity market, including the transparency of wholesale prices in the electricity market;
- ensure that no cross-subsidisation occurs between the activities of transmission, distribution and sale;

- ensure that no anti-competitive contractual practices are engaged in, including the prohibition to purchase the fixed supply from several sellers at the same time;
- ensure that consumers are granted speedy access to their consumption data without charge;
- in order to perform its functions, and without prejudice to its independence and specific competence, engaging in cooperation with the transmission network operator and, should this be needed, with other relevant authorities. No approval issued by the Competition Authority in accordance with this Act in any way limits the Authority in the subsequent exercise of its powers;
- submit to the European Commission a report on market dominance among electricity undertakings and on predatory and other anti-competitive behaviour, changes in ownership, measures taken to enhance competition, and the potential effects on domestic and international competition of the measures taken to comply with the obligation of providing universal service;
- notify the European Commission of the decision to issue the authorisation to the transmission network operator, and publishing that decision in the Official Journal of the European Union;
- annually draw up, publish on its website and transmit to the European Commission, to the energy regulators of member states and to the Cooperation Agency a report on the measures implemented to perform the functions of the Competition Authority and on the results that those measures have attained;
- in accordance with Article 3 of Regulation No. 256/2014 (EU) of the European Parliament and of the Council, transmit to the European Commission the information described under section 19(5) of the Energy Market Act;
- disseminate through its website information concerning the rights of consumers, the relevant legislation and the possibilities of dispute resolution;
- prepare and publish on its website by 31 July each year an overview concerning the previous calendar year which reflects the following:
  - the rules of allocation of capacity of intersystem connections;
  - the rules for resolving congestions in the system;
  - the time spent on construction and repair of cross-border interconnectors;
  - the information published by network operators concerning cross-border interconnectors and distribution of the capacity of the network, taking into account the need to maintain business secrets;
  - the unbundling of activities referred to in section 16 of the Energy Market Act;
  - the connection conditions established for new producers;
  - the performance of obligations by the system operator and network operators;
  - the competition situation in the electricity market.

In addition to above the Competition Authority may establish temporary network charges or a temporary methodology of calculating network charges in situations where the network charge is not justified or the network charge has not been set and the network operator does not comply with the enforcement order issued by the Competition Authority. The network charges established by the Competition Authority remain in force until such time as the network operator obtains, in accordance with section 73 of the Energy Market Act, the approval of the

Competition Authority for the new network charge. The surplus profits which the network operator earned while applying the unjustified network charge are, taking into account the network operator's ability to continue as a going concern, deducted from its justified sales revenue on the next occasion, or if necessary, also subsequent occasions of approving network charges.

In addition to aforesaid the Competition Authority is obliged to verify compliance of the transmission and distribution network undertaking to the requirements outlined in law. The Authority monitors whether the transmission network undertaking complies with the legal requirements and initiates in cases prescribed in law (including, if the European Commission has submitted a reasoned request) an assessment of compliance of the transmission undertaking. In doing so the Competition Authority shall immediately inform the European Commission of circumstances which permit a person from a third country to acquire control over the transmission system operator.

When exercising the state supervision provided for in the Electricity Market Act, the Competition Authority may apply the special measures of state supervision provided in sections 30, 50 and 51 of the Law Enforcement Act on the grounds and following the procedure provided in that Act. In the event of failure to perform an obligation imposed by an enforcement order, a penalty payment may be imposed pursuant to the procedure provided in the Substitutive Enforcement and Penalty Payments Act. The upper limit for a penalty payment is 1 300 euros. In the event of failure to comply with the requirements established in the Act, the upper limit for a penalty payment to be applied in respect of the transmission network operator is nine million euros, and the total amount of penalty payments which may be imposed in order to achieve the goal prescribed in the enforcement order may not exceed nine million euros. Both an enforcement order and a decision are administrative legislation acts that may be challenged with an administrative court. The latter may invalidate the decision or the enforcement order.

The Competition Authority is independent in exercising the functions entrusted to it by virtue of law. The Authority's rights and obligations in the monitoring of the market are prescribed in both the Electricity Market Act and the Competition Act. In case if an abuse of market dominant position or other competition related violation cannot be resolved pursuant to the special law, it can proceed on the basis of the Competition Act. Independence of the Competition Authority is ensured also pursuant to section 93(6)(1) of the Government of the Republic Act, pursuant to which the prescribed procedure for supervisory control does not extend to the state supervision activities nor to the decisions made in the application of enforcement powers of state. Thus, in application of enforcement by state the agencies in the area of government of the ministries are independent. All parties to proceedings, both companies and consumers have the right to challenge the Competition Authority's decisions with an administrative court, which makes a decision on the exercising of state supervision and the application of enforcement powers of the state. In addition the Competition Authority is independent in utilising of its annual budget authorised by Riigikogu (the parliament).

Pursuant to the Public Service Act the Director General of the Competition Authority is appointed to office for five years and the same person may not be appointed for more than two successive terms. The first term begins with the enforcement of the Act. The obligations of a public servant, including limitations on activity are prescribed in chapter 5 of the Public Service Act, in chapters 1 and 2 of the Anti-corruption Act and in the internal procedure rules of the Authority. The employees of the Competition Authority and the persons responsible for its management act independently from the market interests and in the exercising of their

regulatory tasks do not ask and do not receive direct guidelines from any state agency nor other public or private person.

### **2.1.6 Projects of common interest (Regulation (EU) No. 347/2013)**

From the spring of 2013 Regulation (EU) of the European Parliament and of the Council No 347/2013 imposed on the Competition Authority further obligation of the evaluation of investment projects of common interest and allocation the cross-border costs in cooperation with the regulators of neighbouring countries.

Article 12 of Regulation No 347/2013 provides that as soon as a project of common interest has reached sufficient maturity, the project promoters, after having consulted the TSOs from the Member States to which the project provides a significant net positive impact, shall submit an investment request. That investment request shall include a request for a cross-border cost allocation and shall be submitted to all the national regulatory authorities concerned, accompanied by the following:

- a) a project-specific cost-benefit analysis consistent with the methodology drawn up pursuant to Article 11 and taking into account benefits beyond the borders of the Member State concerned,
- b) a business plan evaluating the financial viability of the project, including the chosen financing solution, and, for a project of common interest falling under the category referred to in Annex II.2, the results of market testing, and
- c) if the project promoters agree, a substantiated proposal for a cross-border cost allocation.

Within six months of the date on which the last investment request was received by the Competition Authority, the national regulatory authorities shall, after consulting the project promoters concerned, take coordinated decisions on the allocation of investment costs to be borne by each system operator for the project, as well as their inclusion in tariffs. The national regulatory authorities may decide to allocate only part of the costs, or may decide to allocate costs among a package of several projects of common interest.

The following Estonia-related electricity projects of common interest are included in the list (com\_2013\_711):

1. Estonia - Latvia third connection comprising the following two projects:
  - a. Interconnection between Kilingi-Nõmme (EE) and the substation of Riga-2 CHP plant (LV);
  - b. National line between Harku and Sindi (EE).
2. Synchronisation of Estonia /Latvia /Lithuania with the Central European networks;
3. Estonian hydro-pumped storage in Muuga.

On 31 October 2013 project promoters submitted to the Competition Authority their investment requests for the projects 1a and 1b.

The third connection between Estonia and Latvia is the project of development of the transmission system, which comprises the new 330 kV overhead line on the territory of Estonia, beginning from the Harku 330 kV substation, Sindi 330 kV substation in the western part of



Estonia and the line beginning from the Kilingi-Nõmme 330 kV substation in Estonia to the 330 kV substation of the in Riga-2 CHP plant in Latvia. The Estonia-Latvia third connection is an important infrastructure project for the future of the whole Baltic Sea region which ensures better security of supply in the region and effective functioning of the electricity market and competitiveness within the Baltic Sea region itself, as well as both between the Baltic countries and Nordic countries and between the Baltic countries and Europe. It is planned to implement the project by the year 2020 and it is incorporated into the development plans of the national grids of Latvia, Estonia and the European Union. The planned electricity line between Kilingi-Nõmme and the Riga-2 substation together with the Harku-Sindi 330/110 kV line enlarges the 330 kV electricity network which is important in securing electricity supply in the whole Estonia. It forms the new 330 kV Estonia-Latvia electricity connection prescribed by the Estonian electricity sector development plan. The new connection is important for Estonia and other Baltic countries also from the security policy point of view – existence of the transmission line is a technical precondition for the disconnecting Baltic countries from the Russian electricity system and joining the synchronous grid of Continental Europe.

**The largest overloaded segment in the transmission corridor of the Baltic countries is on the Estonia-Latvia border and that is why for the integration of markets it is important to increase the transmission capacity. The new 330 kV overhead line decreases the deficit of transmission capacity on the border between Estonia and Latvia, raising the transmission capacity by 500 to 600 MW. The connection will create a transit corridor for the Estonia-Finland connection *EstLink 2* and the Lithuania-Sweden connection *NordBalt*, thus decreasing the Baltic countries' energy dependence on Russia. In addition the overhead line ensures connection opportunities for electricity producers in the western part of Estonia and Latvia.**

Due to the reduction of the overload and increase of the transmission capacity the project will have positive socio-economic impact on the whole Baltic Sea region and Central Europe, as outlined in the development plan of the European transmission networks: *Ten-Year Network Development Plan*, or TYNDP 2012.

In the proceedings the Competition Authority found that the allocation of costs presented in the investment request is justified and made respective decisions on 30 April 2014. The decisions are disclosed on the Competition Authority's web site: <http://www.konkurentsiamet.ee/?id=24555>.

In 2014 Elering AS together with the Latvian TSO applied for investment support from the European Union's energy sector financing facility for the projects of common interest for the construction of the third connection between Estonia and Latvia. The project received financial support of almost 112 million euro, which makes up the rate of support of 65%.

## 2.2 Enhancement of competition in electricity market

### 2.2.1 Wholesale market of electricity

(Articles 37(1)(i,j,k,l,u) and 40(3) of Directive 2009/72/EC)

In April 2010 the Nordic countries' power exchange NPS started operations in Estonia. In 2010 the market was opened by 28,4 and in 2011 by 33,2%, while in 2012 the share of electricity

bought from the power exchange was 37,6%. From 1 January 2013 the market is opened for all, meaning that all electricity consumers which have a valid network contract may choose suitable electricity seller for themselves.

In order to adequately evaluate the activity of electricity producers and wholesale traders it is appropriate to consider their market share in the regional wholesale market together with other Baltic electricity market regulators. Due to the *EstLink 1* and the *EstLink 2* connections between Estonia and Finland the electricity system of the Baltic countries is integrated with Finland and the Estonian and the whole Baltic electricity system even more integrated with the Nordic countries' power exchange NPS.

In 2014 11 013 GWh of electricity was produced (net production) in Estonia. Compared to 2013 the production decreased by 6,9%. The network losses in the Estonian electricity system comprised 842 GWh, compared to 2013 they reduced by 6,8%. The import to Estonia in 2014 was 3 730 GWh, which is more than in 2013 by 37,5%. The domestic consumption increased by 1,2% with the total of 7 417 GWh in 2014. The export from Estonia was 6 484 GWh, which is more than in 2013 by 2,9%. Table 5 presents the changes in the Estonian energy balance in 2013 and 2014.

**Table 5.** Electrical energy balance in GWh. Source: Statistics Estonia

Electricity balance in GWh	2013	2014	Change, %
<b>Net generation *</b>	11 823	11 013	-6,9
<b>Import</b>	2 712	3 730	37,5
<b>Consumption</b>	7 332	7 417	1,2
<b>Losses</b>	903	842	-6,8
<b>Export</b>	6 300	6 484	2,9

Note: \* excluding own consumption (house load) of the power plants

Table 6 presents the volumes of cross-border electricity trade.

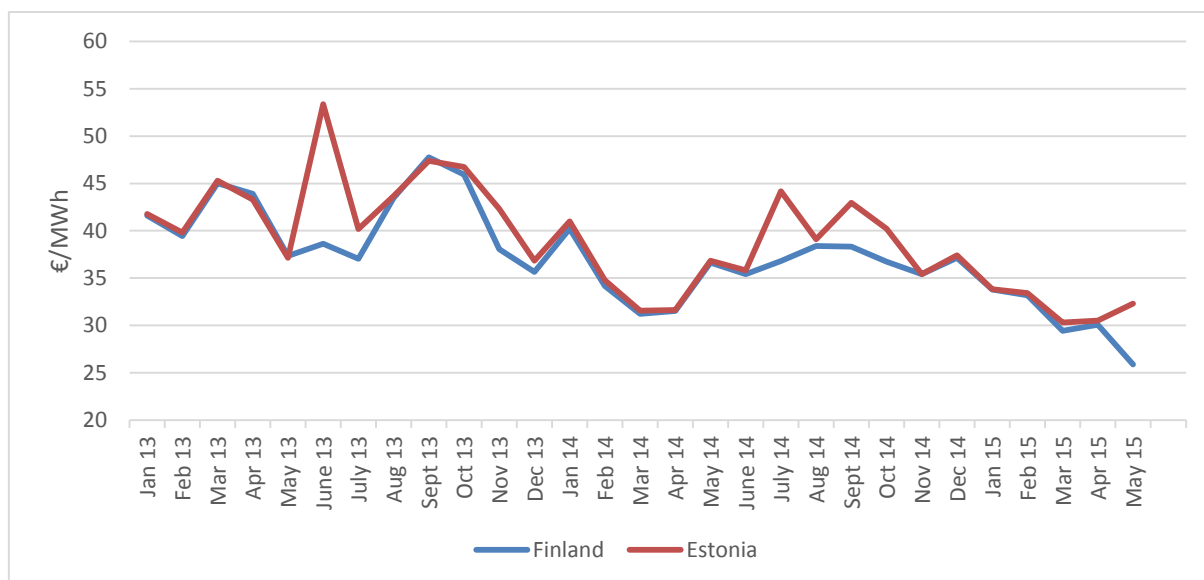
**Table 6.** Cross-border electricity trade, GWh. Source: Statistics Estonia

Cross-border electricity trade, MWh	2013	2013	Change, %
<b>Total import</b>	<b>2 712</b>	<b>3 730</b>	<b>37,5</b>
incl. from Latvia	335	108	-67,8
incl. from Lithuania	0	0	0,0
incl. from Finland	2 377	3 622	52,4
Incl. from Russia	0	0	0,0
<b>Total export</b>	<b>6 300</b>	<b>6 484</b>	<b>2,9</b>
incl. to Latvia	5 739	6 390	11,3
incl. to Lithuania	0	0	0,0
incl. to Finland	561	94	-83,2
incl. to Russia	0	0	0,0

It appears from Table 6, that in 2014 Estonia exported to the neighbouring countries over two times more electricity than imported. In 2014 the total import was 3 730 GWh, which is higher than the volume of 2013 by 37,5%. The largest volume of 3 622 GWh was imported from Finland, which is almost 99% of the total import. The total export in 2014 was 6 484 GWh,

which is by almost 2,9% more than in 2013. The largest export volume of 6 390 GWh was to Latvia, which is 11,3% more than the 2013 volume.

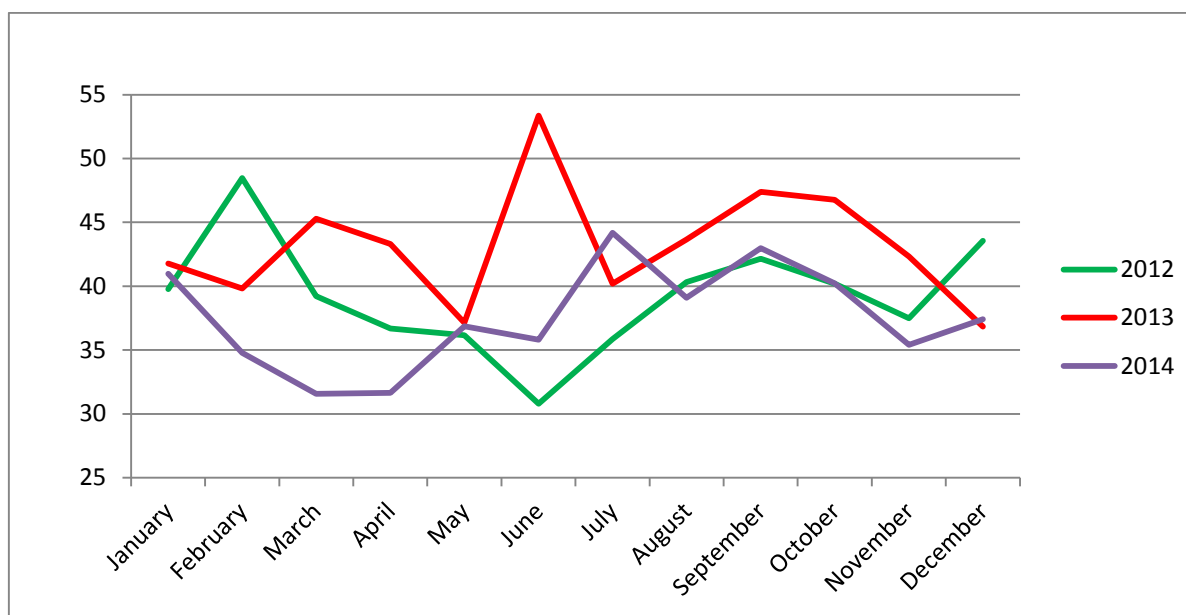
Below Figure 4 presents the comparison of prices in the NPS System, NPS Estonia and NPS Finland from 1 January 2013.



**Figure 4.** Comparison of NPS Estonia and NPS Finland average prices (€/MWh) from 1 January 2013. Source: Nord Pool Spot

It appears from Figure 4 that the Estonian and Finnish electricity were quite similar after the commissioning of *EstLink 2* in December 2013. The differences in prices between Estonia and Finland have been caused mainly by interruptions in *EstLink 1* and *EstLink 2*, when the transmission capacity between Estonia and Finland have decreased.

For comparison the NPS Estonia price area electricity prices in years 2012-2014 are presented in Figure 5.



**Figure 5.** NPS Estonia price area average electricity prices (€/MWh) in 2012-2014. Source: Nord Pool Spot

It appears from Figure 5 that the price volatility in the NPS Estonia price area in recent years has been very high. In June 2012 an average electricity price was at the lowest level, being slightly over 30 €/MWh, while in June 2013 it was the highest, being over 50 €/MWh.

Below Table 7 presents the comparison of the NPS prices in 2013 and 2014.

**Table 7.** Comparison of prices in NPS System, Finland, Estonia, Lithuania and Latvia. Source: Nord Pool Spot

Price area	Unit	Average price 2013	Average price 2014	Maximum price 2014	Minimum price 2014	Average change in price, %
NPS System	€/MWh	38,10	29,61	67,83	2,00	-22,3
NPS Finland	€/MWh	41,16	36,02	200,05	1,95	-12,5
NPS Estonia	€/MWh	43,14	37,61	210,08	1,95	-12,8
NPS Latvia	€/MWh	48,93	50,12	300,01	5,08	2,4
NPS Lithuania	€/MWh	52,41	50,13	300,01	5,08	-4,3

As appears from Table 7, an average price in the NPS Estonia price area in 2014 was 37,61 €/MWh. Compared to the 2013 price, it is lower by 12,8%. In other price areas, such as NPS System, NPS Finland and NPS Lithuania, there were similar decreases in average prices. The prices of electricity were primarily affected by the water reserves in the hydro reservoirs of the Nordic countries and by the deficit of electricity in Latvia and Lithuania. The highest hourly price in the NPS Estonia price area in 2014 was 210,08 €/MWh, while the lowest one was 1,95 €/MWh.

Below Tables 8 and 9 present the quantities of electricity traded in the day-ahead and intra-day markets.

**Table 8.** Quantities traded in day-ahead (Elspot) market in NPS Estonia price area. Source: Nord Pool Spot

Quantities traded in the NPS Estonia price area	Unit	2013	2014	Change, %
Quantity of electricity sold in the day-ahead (Elspot) market in the NPS Estonia price area	TWh	10,7	9,78	-8,6
Quantity of electricity bought in the day-ahead (Elspot) market in the NPS Estonia price area	TWh	7,3	7,03	-3,7

As appears from Table 8, the total sale in the day-ahead (Elspot) market in 2014 was 9,78 TWh, Compared to the quantities sold in 2013 these were lower by 8,6%. The total purchased quantity was 7,03 TWh.

**Table 9.** Quantities traded in intra-day (Elbas) market in NPS Estonia price area. Source: Nord Pool Spot

Quantities traded in the NPS Estonia price area	Unit	2013	2014	Change, %
Quantity of electricity sold in the intra-day (Elbas) market in the NPS Estonia price area	GWh	58,0	37,85	-34,7
Quantity of electricity purchased in the intra-day (Elbas) market in the NPS Estonia price area	GWh	109,5	110,82	1,2

As appears from Table 9, that the quantities sold in the intra-day (Elbas) market in 2014 were in total 37,85 GWh. Compared to the quantities sold in 2013 these were lower by 34,7%. The total of purchases was 109,5 GWh.

The operator of the Nord Pool Spot power exchange and Elering AS have disclosed on their web sites the information on production data and the transmission capacity (including interruptions), as well as data on the prices in all NPS-system power exchange price areas. The data are easily findable and downloadable. The market transparency is ensured also through the uniform organisation of the market with the neighbouring countries.

**In the estimation of the Competition Authority large-scale developments have taken place in the Estonian wholesale electricity market in connection with the opening of markets in the Baltic countries and commencement of the power exchange operations. This is well illustrated by the active import and export with the neighbouring countries. For better functioning of the electricity market the high voltage DC connection between Estonia and Finland *EstLink 2* started operation in the end of 2013. In addition, in 2016 the *NordBalt* connection between Lithuania and Sweden will start operation. The stronger connections with Nordic countries facilitate stronger competition between producers, more transparent and lower prices for consumers and preconditions for a well-functioning electricity market. It is important to emphasize that functioning and transparency in the electricity market of Baltic countries and strong competition is ensured by uniform organisation of the market.**

## 2.2.2 Retail market of electricity

(Articles 37(1)(i, j, k, l, u) and 40(3) of Directive 2009/72/EC)

In 2013 the electricity market in Estonia was completely opened. This means that all consumers, which have a valid network contract, can choose a suitable electricity seller. The undertaking

with the biggest share in the retail market is Eesti Energia AS. The retail market related information is presented in below Table 10.

**Table 10.** General data on retail market

Year	Total consumption (without losses) GWh	No of undertakings with more than 5% market share	No of independent electricity sellers*	Market share of the three biggest sellers			Switch of the seller		
				Large and very large industries	Medium and small industries	Small undertakings and household customers	Large and very large industries	Medium and small industries	Small undertakings and household customers
2008	7 427	1	3	100	92	92	n/a	n/a	n/a
2009	7 080	1	4	100	93	93	n/a	n/a	n/a
2010	7431	1	4	100	94	94	80	n/a	n/a
2011	6845	1	5	100	93	93	116	n/a	n/a
2012	7407	1	5	100	93	93	116	n/a	n/a
2013	7332	2	15	100	90	85	n/a	n/a	n/a
2014	7 417	2	16	100	90	85	n/a	n/a	n/a

\* Does not include network operators

It appears from Table 10 that by the end of 2014 the number of independent electricity sellers had increased to 16. 10 of them are active players in the market. The Competition Authority has no information about the switch of seller between various customer groups (small and large industries, and household consumers). The rate of the switch of seller in 2014 was 5%.

Data on the final consumer price formation (network services + electricity) are presented in below Table 11.

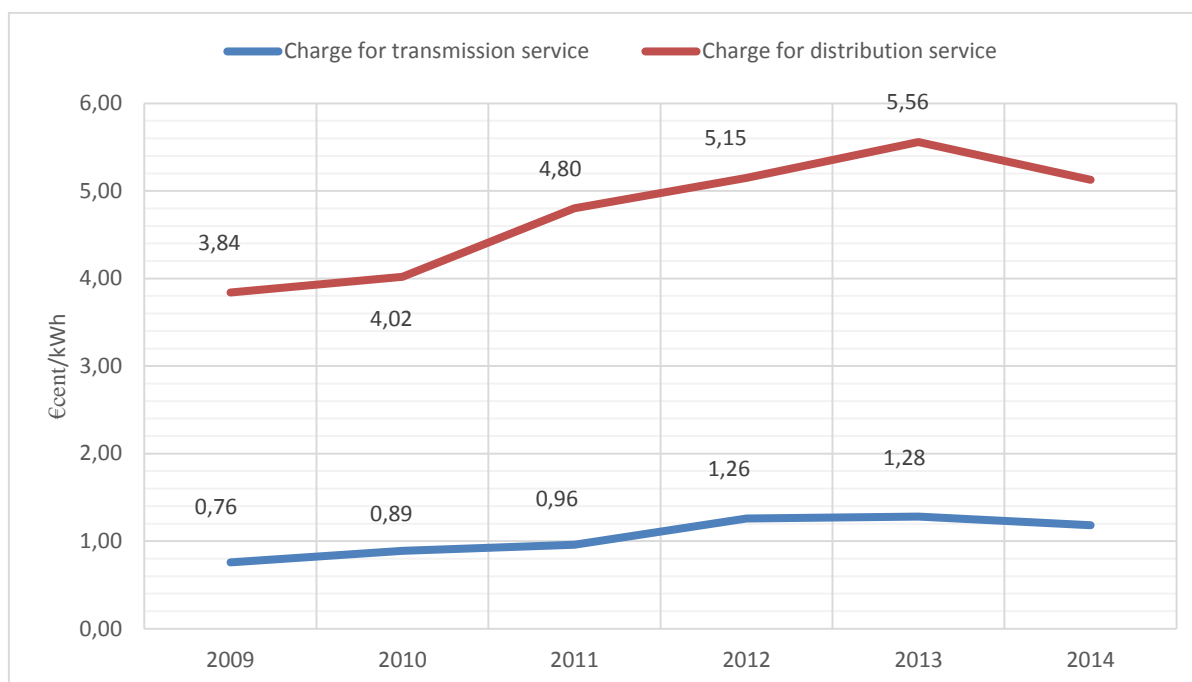
**Table 11** Final consumer prices of electricity in 2014

Price components	Unit	Consumer
Network service (main tariff)	€cent/kWh	5,13
Price of electricity without network service	€cent/kWh	4,00
Excise tax on electricity	€cent/kWh	0,45
Charge for renewable energy	€cent/kWh	0,77
End consumer price without VAT	€cent/kWh	10,35
Value added tax (VAT) 20%	€cent/kWh	2,07
<b>End consumer price incl. VAT</b>	<b>€cent/kWh</b>	<b>12,42</b>

Notes: The basis for the electricity price is the Nord Pool Spot Estonian price area average price in 2014 + the marginal of varying price package of 220 Energia OÜ.

The network service price is based on the price list of Elektrilevi OÜ

Below Figure 6 presents the formation of the charges for transmission and distribution services from 2009.



**Figure 6.** Formation of network charges from 2009

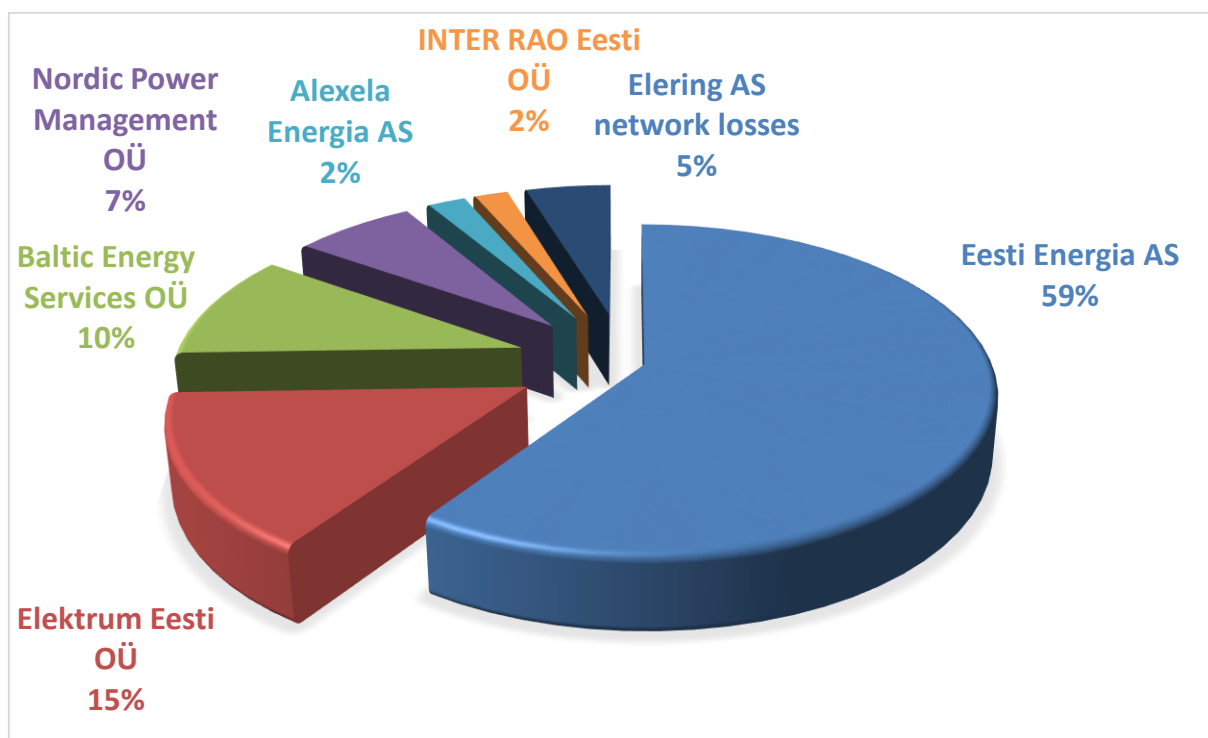
It appears from Figure 7 that beginning from 2009 the charges for transmission and distribution services have gradually grown until 2013. The main reason for the increase are investments in the emergency reserve power plants, in interconnection with neighbouring countries and in remote reading devices as well. However, beginning from 2013 some decrease in the charges is noticeable.

In the estimation of the Competition Authority in 2014 the advance notifying according to requirements about the prices and price changes, as well as the disclosure of the standard conditions of contracts was secured in the retail market of electricity.

### **Overall assessment on retail market by Competition Authority after market opening**

On 1 January 2013 the electricity market in Estonia opened for all consumers in Estonia. For consumers the opening of market means a possibility to select most suitable electricity seller/trader irrespective of the network operator with whom a consumer has contracted for the provision of network services. On the other hand, undertakings are in the situation in which they have to apply more efforts in order to attract more customers. The price for electricity in open market is formed in equal competition conditions. By the end of 2012 all earlier electricity contacts were invalidated. A consumer which did not choose to contract with any trader, is supplied with electricity by the network operator (under the framework of universal service) that provides services in the area where the consumption point is located. The basis for the price of universal service is the previous month's weighted average power exchange price with the addition of justified costs of the undertaking and a reasonable profit margin.

There are 16 sellers of electricity, which offer various price packages in the open market. According to Elering AS, as of the beginning of 2014 710 698 consumption points, which is 83% had entered into electricity contracts, while 17% on the consumption points used universal service.



**Figure 7.** Wholesale market in Estonia in 2014. Source: Elering AS

It appears from Figure 7 that the biggest wholesale market electricity seller in 2014 was Eesti Energia AS, with its share on the balance portfolio of 59%, followed by Elektrum Eesti AS with 15% and Baltic Energy Services OÜ with 10% etc.

### 2.2.3 Enhancement of effective competition (Articles 37(1)(o) and 37(4)(b) of Directive 2009/72/EC)

In order to enhance competition the presence of various producers and traders is necessary. It is also important to create an environment where the information between traders and consumers is moving. The amendments passed to the Electricity Market Act in 2007 established a support scheme in Estonia for supporting renewable energy production. In the result many new electricity producers, first of all wind electricity producers, have come to the market. Along with the development of technology the producers of electricity from solar energy have come to the market. Heat and power cogeneration plants with biomass and biogas as the source of production are gaining ground in the market. In 2014 a CHP plant making electricity from municipal waste was built. In 2014 there were 16 independent electricity traders in Estonia. Interest in coming to the have been showed by several large electricity traders in the European Union (Norway and Denmark). In 2014 a Norwegian company requested electricity sales authorisation from the Competition Authority. At the same time all network operators have the right and obligation to sell electricity (from the market opening only to small consumers under the framework of universal service).

To that end Elering AS created the information exchange platform IEP or, in other words, a data store, intended for market participants. The general function of the store is to ensure data exchange processes in full opening of the market considering the principles of efficiency and equal treatment of market participants. The functioning of the store is an important precondition



for consumers in order to choose and switch electricity suppliers beginning from 2013 and that the information on the whole quantity consumed by customers reaches the electricity seller. Thus, customer information is an essential input in enhancement of competition. An acute topic is also the enactment of electricity trade principles with the third countries, i.e. with the countries that are not members of the EU.

**In the estimation of the Competition Authority the general environment for emerging of new electricity producers and traders to the market is good. In 2014 two new electricity sellers came to the market, one Norwegian undertaking and the other one is undertaking on Lithuanian capital. Both producers and traders need activity licences for acting in the market. The licences are issued by the Competition Authority pursuant to the Electricity Market Act.**

## 2.3 Security of electricity supply

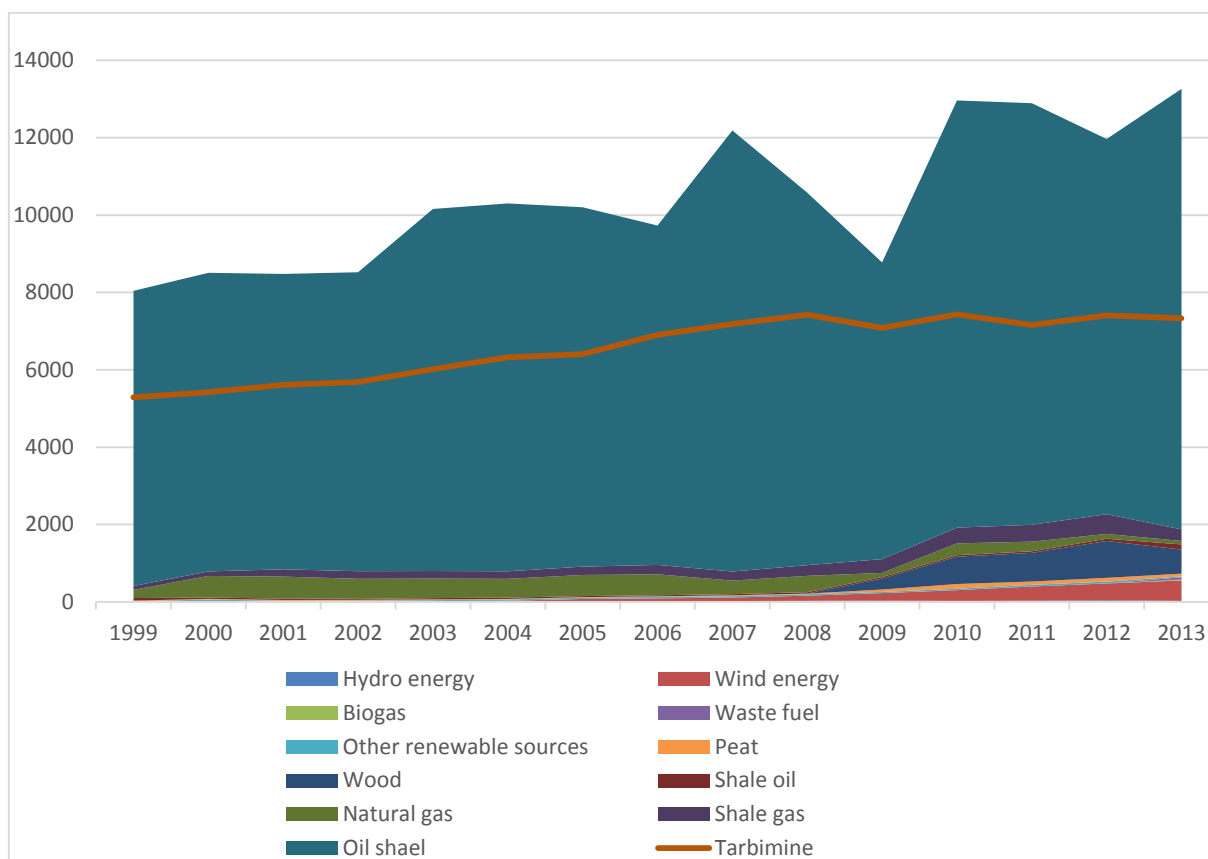
### 2.3.1 Monitoring of balance between demand and supply (Article 4 of Directive 2009/72/EC)

Estonia has sufficient production capacity for covering domestic electricity demand and also for exporting electricity, mainly to Latvia and Lithuania. In 2014 the domestic production was 11 013 GWh, while the import of electricity was 3 730 GWh. The domestic consumption was 7 417 GWh, the network losses were 842 GWh, while 6 484 was exported. Table 12 presents the electrical energy balance from 2002 to 2014.

**Table 12.** Estonian electrical energy balance in GWh. Source: Statistics Estonia

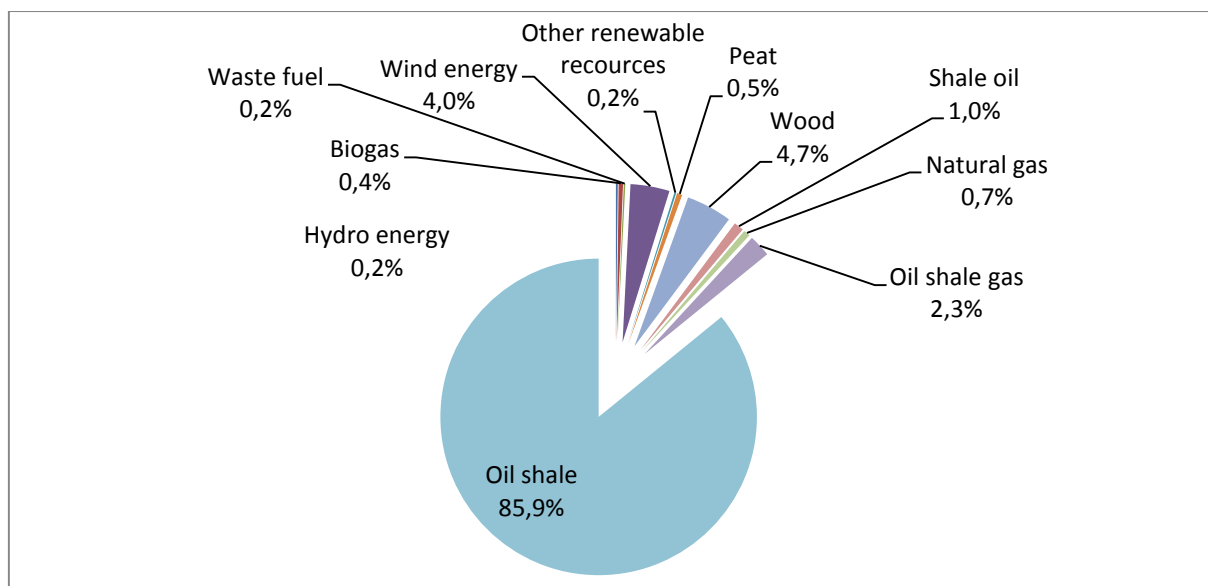
Electricity balance, GWh	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Production (net)</b>	7 634	9 101	9 232	9 114	8 728	10 954	9 498	7 884	11 732	11 356	10 526	11 823	11 013
<b>Import</b>	412	93	347	345	251	345	1 369	3 025	1 100	1 690	2 710	2 712	3 730
<b>Consumption</b>	5 686	6 013	6 326	6 403	6 901	7 180	7 427	7 080	7 431	6 845	7 407	7 332	7 417
<b>Losses</b>	1 258	1 192	1 112	1 103	1 077	1 354	1 130	886	1 047	949	879	903	842
<b>Export</b>	1 102	1 989	2 141	1 953	1 001	2 765	2 310	2 943	4 354	5 252	4 950	6 300	6 484

The Estonian energy portfolio is independent from energy point of view as most of electrical energy is produced from domestic oil shale (see Figure 8). In 2008 the production decreased due to the overall global economic downfall, which had considerable impact on electricity consumption. From 2010 the production increased because of the stabilisation of economic situation. Although the share of oil shale is continuously highest in the general electrical energy portfolio, the electricity production from renewable energy sources has also been steadily increasing. Figure 8 presents the production of electricity by various fuels from 2000 to 2012 (the 2014 data will be disclosed by the Statistics Estonia in the end of summer of 2015).



**Figure 8.** Production of Estonian power plants by fuels in 2000 – 2012 in GWh.  
Source: Statistics Estonia

Figure 9 presents the share of fuels and energy sources used for the generation of electricity in 2013 in greater detail.

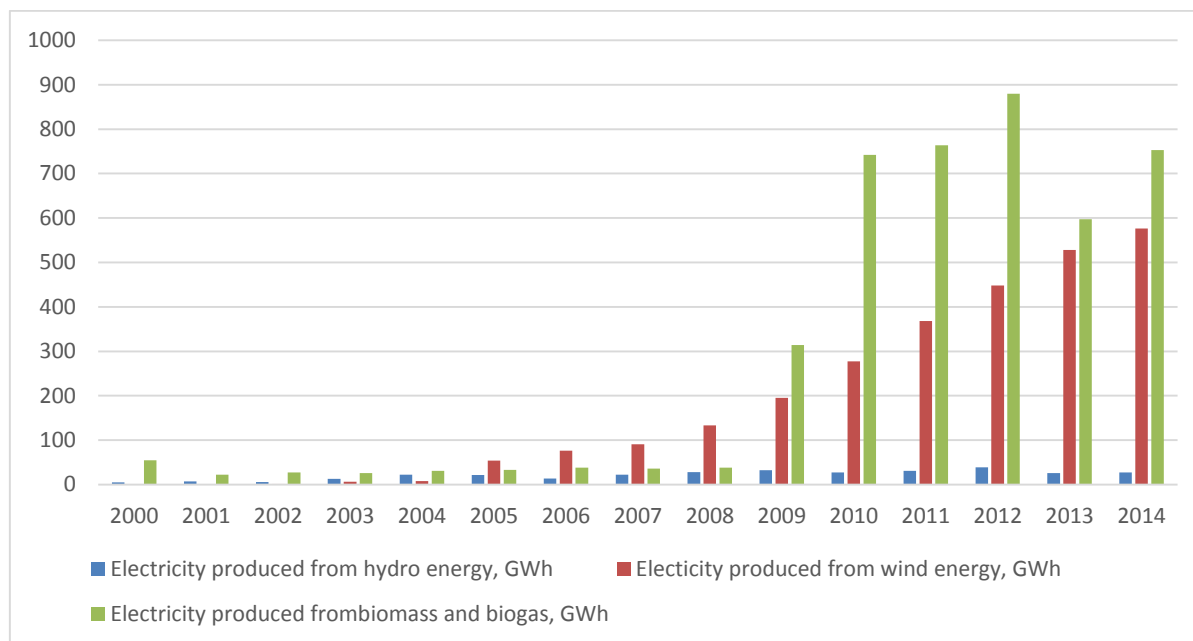


**Figure 9.** Energy sources used for electricity production in 2013. Source: Statistics Estonia

It appears from Figure 9 that in 2013 85,9% of electricity was produced from oil shale, while 9,2% was produced from other non-renewable sources and 5,0% from renewable sources.

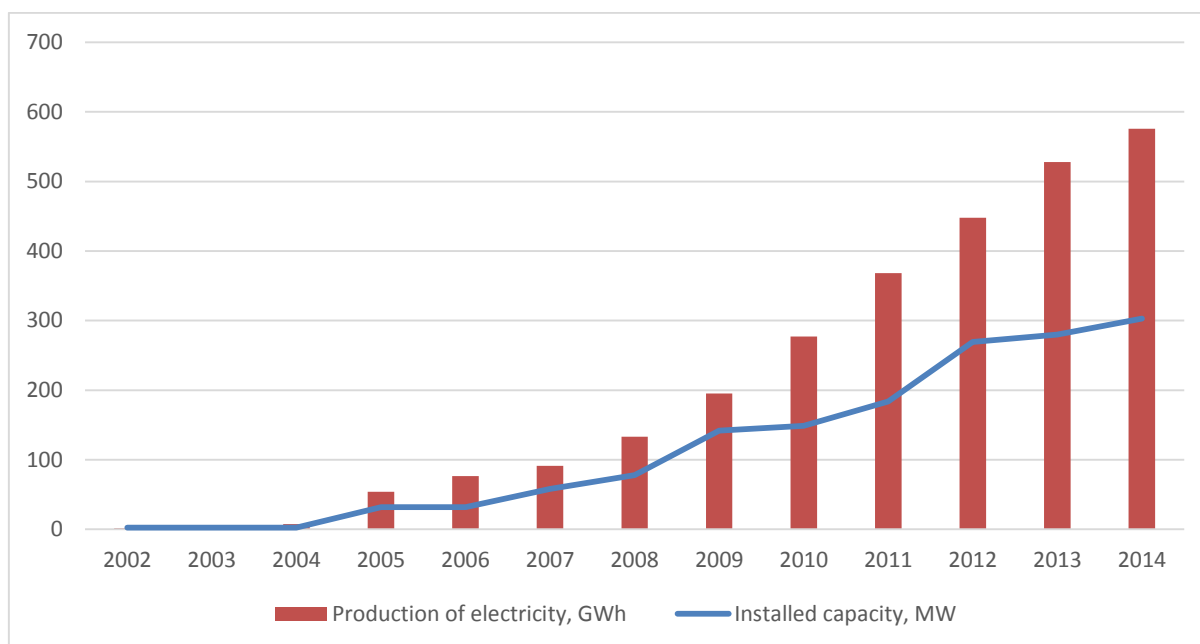
Biomass had the biggest share of all the renewable resources used for the production of electricity.

Figures 8 and 9 show that more and more electricity is generated from renewable energy sources. In 2007 the rates of renewable energy support were raised by the amendments to the Electricity Market Act, which resulted in the erection of new power plants that base on renewable energy sources (wind mills, heat and power cogeneration plants). In 2014 the volume of renewable energy production increased compared to 2013. The share of biomass and wind energy has been steadily increasing. The wind energy increase (see Figure 10) was caused by the addition of new wind mill parks' production to the electrical energy balance.



**Figure 10.** Production of electricity from renewable energy sources 2000–2014. Source: Elering AS

The biggest share of the renewable electricity production in Estonia comes from the biomass and municipal waste using CHP plants. In 2014 the annual production from these sources was 753 GWh. Lower portion of electricity is produced from wind, as of the end of 2014 the total installed capacity of windmill parks was 302,7 MW and their total production was 576 GWh (see Figure 11). The smallest share of renewable energy generation capacity belongs to the hydro power plants with the total capacity of 4 MW with the annual production of 27 GWh in 2014.



**Figure 11.** Installed wind energy net capacity and production of electricity in 2002 – 2014.  
Source: Estonian Wind Energy Association

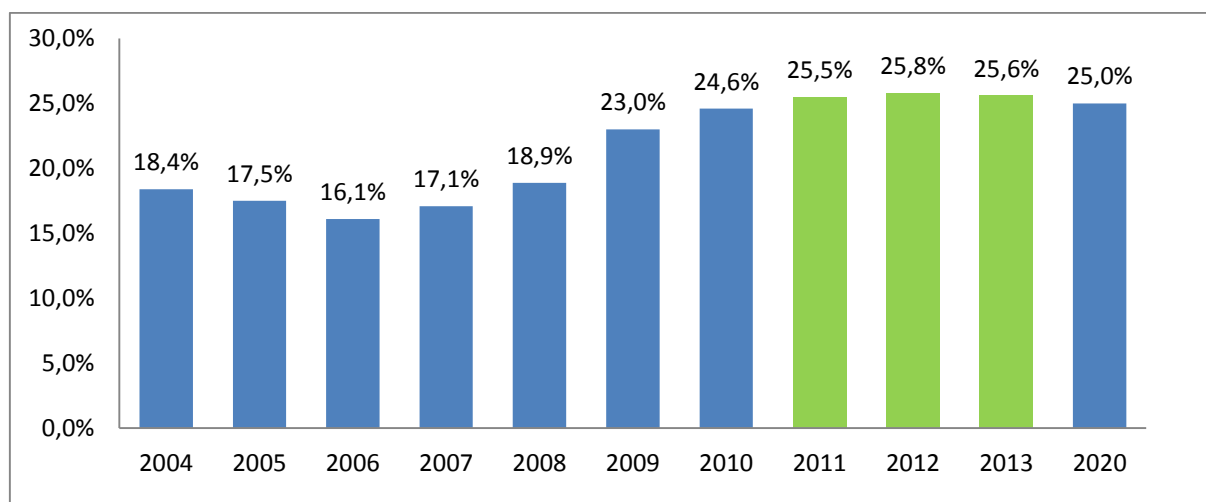
In March 2007 the European Council adopted the European Union's (hereinafter the EU) energy policy action plan for 2007-2009 (hereinafter the EU Energy Policy) aiming at:

- improving of security of energy supply;
- ensure competitive and affordable energy for Europe;
- favour environmental sustainability and fighting against climate change.

The most important measures of the package, the co-called climate package, worked out for the implementation of the EU Energy Policy, which were submitted on 23 January 2008 (comprises four directives and a decision), are the target values for energy efficiency, usage of renewable energy sources and biofuels, including environmental friendly carbon dioxide collection and disposal by the year 2020:

- reduce the emissions of greenhouse gases by at least by 20% compared to the base year of 1990 (by 2005 the reduction was 6 %);
- increase the share of renewable energy to 20% from the final consumption of primary energy (in 2005 an average EU share was 8,5 %);
- achieve higher efficiency in primary use of energy in the final consumption by 20%;
- increase the share of biofuels in the transport fuels to 10%, assuming that it will be succeeded to develop out the second generation biofuels.

Estonia undertook the commitment to achieve 25% share of renewable energy of the final consumption of primary energy by 2020. Below Figure 12 shows that the share of renewables has been steadily increasing from year to year.



**Figure 12.** Sector specific (electricity, heating, cooling and transport sector) share of renewable energy in final consumption of energy. Source: Eurostat

It appears from Figure 12 that according to the Eurostat data the renewable sources in 2011 constituted 25,6% and in 2013 being 25,6% of the final consumption of primary energy. Though in the separate production of electricity the use of renewables is not as high and 90 % of electricity is continuously generated from non-renewable sources. The Eurostat data contain various kinds of energy, both electricity, cooling, transport and heating as well.

### 2.3.2 Means to cover peak load (Article 4 of Directive 2009/72/EC)

The load in the Estonian electricity system peaked on 30 January 2014 at 1 490 MW. The installed usable generation net capacity was 2 049 MW. This must ensure the coverage of peak load consumption and preparedness for a system peak load growth and supply in emergency situations (see Table 13). Elering AS has projected an increase of peak load by 2026 of up to 1 639 MW and an increase of usable installed generation net capacity of up to 1 117 MW. In the projection presented by Elering AS it is assumed that energy units in the Narva Power Plants for which an exemption is provided by the Industrial Emission Directive (IED), will be closed down in 2020. In reality it is allowed to operate these units 17 500 hours in the period from the beginning of 2016 until the end of 2023. It is additionally assumed that the units equipped with flue gas desulphurisation will be gradually closed down in the period of 2020 – 2024. This is a conservative assumption as these units may operate longer from the point of view of environmental limitations.

**Table 13.** Electrical peak load, installed usable net capacity and projections until 2026. Source: Elering AS

Year	Consumption of electricity (incl. losses), MWh	Peak load, MW	Installed capacity, MW
2001	6 968	1 321	2 876
2002	6 944	1 336	2 726
2003	7 205	1 475	2 723
2004	7 438	1 318	2 675

2005	7 506	1 331	2 230
2006	7 978	1 555	2 059
2007	8 534	1 537	2 052
2008	8 557	1 525	1 960
2009	7 966	1 535	1 976
2010	8 478	1 587	1 871
2011	7 824	1 517	2 015
2012	8 139	1 572	2 278
2013	8 100	1 433	2 071
2014	8 400	1 505	2 049
	<b>Anticipated increase (incl. losses), TWh</b>	<b>Anticipated increase, MW</b>	<b>Installed net capacity, MW</b>
2015	8,5	1 515	1 693
2016	8,6	1 527	1 914
2017	8,7	1 539	2 064
2018	8,8	1 548	2 056
2019	8,9	1 560	2 047
2020	9,0	1 571	2 039
2021	9,1	1 582	2 030
2022	9,2	1 594	2 022
2023	9,3	1 605	2 014
2024	9,4	1 616	1 471
2025	9,5	1 628	1 117
2026	9,6	1 639	1 117

The security of supply in Estonia has been improved also through the construction of the two emergency reserve power plants of Elering AS on the territory of Estonia. The construction of the first stage with the capacity of 110 MW was finished in spring 2013, while the second 140 MW stage was commissioned in September 2014.

In addition to the generation capacity Estonia has the AC interconnections with Russia: three 330 kV overhead lines (500-650) MW and with Latvia: two 330 kV overhead lines (500-900) MW, and also the 150 kV DC connection with Finland (350 MW). In December 2013 the second 450 kV DC interconnection between Estonia and Finland with the transmission capacity of 650 MW was added. Thus, currently Estonia has interconnections with the neighbouring countries with the total capacity of 2 550 MW. It is important to remember that due to temperature, electricity transits and repair works the transmission capacity of the connections may considerably decrease. In addition a situation shall be taken into account that there may a simultaneous shortfall in all Baltic republics and in Kaliningrad. This means that through the Latvian interconnections rather export than import will take place. In addition to the interconnections through Estonia the Baltic countries have also the connections between Lithuania and Poland and as well between Lithuania and Belarus and a new DC interconnection between Lithuania and Sweden is under construction.

**Conclusively, in 2014 the installed generation capacity exceeded the system peak load and presumably this tendency will continue at least until 2023.**

### 2.3.3 Security of supply related investments in production capacity and networks (Article 37(1)(r) of Directive 2009/72/EC)

In this chapter the Competition Authority presents the results of the analysis of consumption capacity coverage by 2024 considering the production capacity analysis in the *Report on Estonian Electricity System Security of Supply* prepared by the transmission system operator Elering AS.

#### Security of supply report prepared by Elering AS

The TSO and the transmission network undertaking Elering AS has prepared *Report on the Estonian Electricity System Security of Supply* which deals with the security of supply in Estonia and the Baltic region until 2030, existing supply possibilities, quality of the networks and the level of their maintenance, measures for satisfying the maximum estimated (peak) demand and the measures undertaken in an event of capacity deficit, operational security of the networks, major investments in the Estonian transmission network, anticipated security of supply situation in the period from 5 to 15 years. The report is submitted to the European Commission, to the Ministry of Economic Affairs and Communications and to the Competition Authority. Thus, one of the objectives of the report prepared by the TSO is to provide estimates of the needed investments into generation capacities. Taken into account the analysis prepared by Elering AS the Competition Authority has the right to oblige the TSO to arrange competitive tendering for the procurement of new generation capacity. Table 14 presents the production equipment connected to the Estonian electricity system as of September 2013.

**Table 14.** Production equipment connected to Estonian electricity system. Source: Elering AS

<b>Power plant</b>	<b>Installed net capacity, MW</b>	<b>Production capacity available during peak load, MW</b>
Estonian Power Plant	1 355	1 057
Balti Power Plant	432	362
Iru CHP Plant	173	173
Kiisa Emergency Reserve Power Plant	250	0
Northern CHP Plant	54	54
Southern CHP Plant	7	7
Sillamäe CHP Plant	15,8	10
Tallinn CHP Plant	21	21
Tartu CHP Plant	22	22
Pärnu CHP Plant	20	20
Industrial and small CPH plants	52	41
Hydro power plants	7,5	4
Wind mills	301	0
Micro-producers	2,1	0

<b>Total</b>	<b>2 713</b>	<b>1 770</b>
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From November 2013 until the first half year of 2015 the following generation capacities were connected with the transmission network or, will be connected according to plans:

- Tamba-Mäli windmill park, 12 MW 2nd stage;
- Enefit-280 oil factory, 37,5 MW;
- First unit of Auvere Power Plant 270 MW.

The following generation capacities were connected with the distribution network in 2014 and will be connected according to plans in the first half of 2015:

- Tartu Ilmatsalu biogas station, 1,56 MW;
- Läätsa windmill park, 2,2 MW;
- REPO gas turbine, 1,8 MW ;
- Kiviõli CHP plant, 6 MW (net 4,5 MW);
- Aburi windmill, 1,8 MW;
- Paide CHP plant, 2 MW;
- Grüne Fee CHP plant, 2 MW.

In the coming years the following higher generation capacities will be added to the Estonian electricity system:

- 2015 Enefit Power Plant 22,5 MW;
- 2015 Northern Power Plant 22,5 MW;
- 2016 New unit of Auvere Power Plant 270 MW.

There are also several high capacity windmill park projects in the design phase, which cannot be taken into account as assured generation capacity. Several solar energy related production projects are going to be added as well.

The transmission system operator has been informed about the following close down of production capacity, reduction in capacity and mothballing of production equipment:

- 2014 closing down of a unit in Balti Power Plant, 140 MW;
- 2015-2024 closing down of a unit in Balti Power Plant, 110 MW;
- 2016 mothballing of a unit in Iru power plant, 62 MW;
- 2016-2023 limitations on old units operating on the basis of IED1 alleviation measures 619 MW;
- 2024 closing down of units in Eesti Power Plant, 489 MW;
- 2024 closing down of a unit in Balti Power Plant, 130 MW;
- 2014-2024 reduction in capacity of small power plants 7 MW.

### **Investments in transmission networks**

In the coming years Elering AS pays attention to the investments concentrated on synchronisation with the frequency area of Continental Europe. In the end of 2014 Elering AS presented the plan for synchronisation with the frequency area of Continental Europe „Synchronisation 2025“, which was submitted to the Ministry of Economic Affairs and Communications. An anchor of the plan is close interweaving of the synchronisation activities and domestic electricity network developments. Re-directing the energy flows to north-south



direction will considerably re-shape the load profile of the electricity network and make former insignificant regions more important. Regarding the network investments related to synchronisation with Continental Europe the investment decision shall be made after full clarity in the synchronisation project is obtained. Important factors are the decision of Poland – whether there will be investments in increase of the transmission capacity of national grid, and the decision of the European Commission – whether financing will be provided for the network investments of Elering AS related to synchronisation with the frequency area of Continental Europe.

### **National transmission network**

Elering AS has allocated investments into for areas (Tallinn with outskirts, north-eastern Estonia, central and southern Estonia and western Estonia and islands) and separately the 330 kV network. In the regional development the company concentrates in the renovation and transformation of the Tallinn area electricity network, including replacement of the overhead lines with the underground ones in the city, construction of the Kiisa-Topi-Kvartsi connection and optimisation of the Aruküla-Tapa area network. In the north-eastern part of Estonia the largest power plants are located and from there 330 kV north-south direction connections to Latvia begin. These lines are close to the end of their lifespan. A complete renovation or partly reconstruction of these lines is necessary in order to increase the transmission capacity. The consumption north-eastern Estonia is mainly concentrated in industrial areas and due to the transmission capacity limitations it is necessary to reconstruct the 110 kV network which connects the industrial consumers. In the area of southern Estonia the highest consumption concentration is in Tartu and its surroundings where an increase in consumption is foreseeable. Related to this limitations will take place in transmitting electricity from the 330 kV network to the 110 kV network which interconnects the supply substations. In order to avoid the limitations it is necessary to invest in increase of the 330 kV transmission capacity and in reconstruction of the 110 kV network. It is also planned to replace the overhead lines in the city with the underground cables, when the technical lifespan of the overhead lines is spent. The western and island's region of Estonia is a rapidly developing area due to wind energy. The 110 kV transmission network capacity is spent and the highly varying production of the generation equipment causes high voltage level fluctuations. Security of supply will be improved by the Harku-Lihula-Sindi 330 kV line which under construction now. In order to improve security of supply of the two big islands it is planned to construct two submersible 110 kV cables in the next 5 years. In addition to the reconstruction of old lines and construction of new ones also construction of new substations and reconstruction of old ones takes place all over Estonia.

Foreseeable level of security of supply the electricity network in a 15 years perspective shall be good and the network development contributes to the addition of new electricity generation sources, general development of electricity market and integration with the neighbouring systems.

The Competition Authority initiated supervisory proceedings related to justification of investments that are planned by Elering AS for the provision of network services. The Competition Authority found that the network investments of Elering AS shall be made according to the actual technical condition of equipment. Elering AS shall enhance cooperation with Elektrilevi OÜ in order to determine the best and most optimal solutions for the network investments. Before making an investment decision for the replacement overhead lines with the

underground ones in the Tallinn area, an expert assessment which is independent from the company shall be ordered. The expertise shall evaluate the technical condition of the lines and determine how indispensable these investments are and what rational time period to implement them. The decision on investments in the network aimed at synchronisation with the Continental Europe's networks shall be made after full clarity in the synchronisation project is achieved. Therewith the Competition Authority recommends to the owners of Elering AS and Elektrilevi OÜ, the Ministry of Economic Affairs and Communications and the Ministry of finance to make it clear which installations of Elering AS, including substations should be justified to hand over to Elektrilevi OÜ in order to optimise the network systems. In 2009 the unbundling of the transmission network from the Eesti Energia group took place. The transmission network was then established on the basis of existing assets and thereby Elering AS partly acquired to its ownership assets, which are needed for the provision of distribution service. Thus, the status of the assets of Elering AS shall be thoroughly analysed and the assets that are used for the provision of distribution service should belong to the distribution operator.

### Interconnections with neighbouring countries

Today Estonia has altogether six essential electricity network direct connections with the three neighbouring countries: Russia, Finland and Latvia. With Russia the Estonian electricity network is connected through the three 330 kV overhead lines, with Latvia through two AC 330 kV lines, and with Finland Estonia is connected through two submarine DC cables with the capacities of 350 and 650 MW. The latter (*EstLink 2*) was commissioned in December 2013. Table 15 presents the cross-border transfer capacities of the transmission network.

**Table 15.** Cross-border transfer capacities and transmission reliability margin \*\*\*\*

Year	Technical transfer capacity MVA				Actual peak load, MVA			
	Lines from Narva towards Russia	Line from South-Estonia towards Russia	Lines from South-Estonia towards Latvia *****	Line towards Finland (two lines from December 2013)	Lines from Narva towards Russia	Line from South-Estonia towards Russia	Lines from South-Estonia towards Latvia	Line towards Finland (two lines from December 2013)
2001	1050/950*	500/400**	750	-	662	321	720	-
2002	1050/950*	500/400**	750	-	698	250	721	-
2003	1050/950*	500/400**	750	-	472	194	663	-
2004	1050/950*	500/400**	750	-	707	194	718	-
2005	1050/950*	500/400**	750	-	450	236	885	-
2006	1050/950*	500/400**	750	-	483	141	658	-
2007	1050/950*	500/400**	750	365	565	204	623	388
2008	1050/950*	500/400**	750	365	211	158	809	385
2009	1050/950*	500/400**	750	365	633	334	732	385
2010	1050/950*	500/400**	750	365	*630	190	811	384
2011	1050/950*	500/400**	750	365	584	176	679	386
2012	1050/950*	500/400**	750	365	683	213	740	385
2013	1050/950*	500/400**	750	1032	807	213	921	1029

2014	1050/950*	500/400**	750	1032	727	254	776	1018
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Notes:

\* - Narva-Petersburg direction transfer capacity 1050 MVA; Petersburg-Narva direction transfer capacity 950 MVA

\*\* - Tartu-Pskov direction transfer capacity 500 MVA; Pskov-Tartu direction transfer capacity 400 MVA

\*\*\* - the transfer capacity depends on the domestic grid of Russia, Latvia, Lithuania, and Belarus – precise data on the transmission network of these countries are not available

\*\*\*\* - maximum for a normal situation with the 20% transmission reliability margin is given

\*\*\*\*\* - commercially the capacity of the line between Latvia and Russia is added (currently maximum 1150 MVA)

Due to *EstLink 2* the congestion between Estonia and Finland has decreased, but in an event of high volume of import from Nordic countries limitations in the Estonia-Latvia-Pskov cross-section may take place also in longer perspective.

At the moment the construction of the third line between Estonia and Latvia is ongoing. In 2014 this third line got support in the extent of 65% from the funds of the European Union. The Estonia-Latvia third connection shall be ready by 2020.

**Conclusively, the Competition Authority is in the position that proceeding from the known data on the generation capacity and on the cross-border interconnections, as well as from the consumption projections made by the TSO Estonia has no security problems in electricity supply today and presumably until 2024. To the contrary, the installed capacity and the production exceed the Estonian domestic consumption peak (including 10% reserve capacity is considered for the case of exceptionally cold winters).**

**Beginning from 2014 large part of existing energy units in Narva Power Plants will be closed down. But, considering the investments in the interconnections with the electricity systems of neighbouring countries and the production capacity in the regional electricity market presumably, the production capacity is sufficient. In addition to the capacities in the electricity market in emergency situations it is also possible to use the 250 MW emergency reserve power stations.**

### **3. Functioning and regulation of natural gas market**

#### **1.1 Regulation of natural gas network**

##### **3.1.1 Ownership unbundling**

**(Articles 10, 11 and 26 of Directive 2009/73/EC and Regulation (EC) No 715/2009)**

In the process of legislative proceedings of Directive 2009/73/EC of the European Parliament and of the Council, which treats of common rules for the internal gas market, Estonia applied for an exemption in the implementation of the obligation of the transmission system operator's ownership unbundling provision, considering the status of an isolated gas market with a single supplier. Article 49 of Directive 2009/73/EC sets out an exemption for Estonia and does not require ownership unbundling of the transmission system from the producer and/or seller until any of the Baltic countries or Finland is directly connected to the interconnected system of any Member State other than Estonia, Latvia, Lithuania and Finland.

Based on the experience of other countries, on the conclusions of the European Union's energy package economic impact analysis on the implementation of the electricity and gas market package the Government of the Republic came to a conclusion that the models other than ownership unbundling will not ensure practical competition. In the Estonian conditions from the gas market development point of view the most proportional is the model with the TSO – transmission system operator, which is independent from sellers and importers. In order to foster competition the ownership unbundling is necessary, as there is no certainty that an ownership unbundled natural gas transmission service provider will make sufficient investments in order to give access to the transmission network for competitive gas suppliers.

On 8 July 2012 the amendment to the Natural Gas Act was enforced. By this Riigikogu (the parliament) made a decision not to apply in the future the exemption provided by Directive 2009/73/EC and choose the way of complete ownership unbundling. In longer perspective the amendment will create prerequisites to the development of a real gas market in Estonia.

The system operator has three years in order to comply with the requirements of law. On 31 December 2012 the system operator EG Võrguteenus AS (its present business name is Elering Gaas AS) submitted to the Competition Authority the plan for fulfilment of the requirements of the ownership unbundling. According to the plan, by 1 January 2015 at the latest the system operator shall meet the requirements of the Natural Gas Act, including complete unbundling and certification by the Competition Authority pursuant to Article 3 of Regulation (EC) No 715/2009 of the European Parliament and of the Council.

The first step was that the system operator acquired the transmission network and the metering systems on the state border from AS Eesti Gaas. To that end the contract of handing over of the non-monetary contribution between AS Eesti Gaas and EG Võrguteenus AS (from 10 April 2015 its business name is Elering Gaas AS) was signed on 31 May 2013. The object of the contract was transfer of the assets used in the transmission activity by AS Eesti Gaas to Elering Gaas AS. The contract did not include the 21,3 km long parts of Pskov-Riga and Izborsk-Riga transit pipelines (two parallel pipes) and the Misso gas metering station, as pursuant to the Natural Gas Act the assets used for transit were not interpreted as part of the transmission network.

From 10 April 2014 the amendment of definition of transmission network in the Natural Gas Act was enforced. According to the new definition also the transit connections of gas belong to the composition of the transmission network. The transit pipelines and Misso gas metering station were acquired by the system operator from AS Eesti Gaas on 19 December 2014.

The second step was the unbundling of the distribution service provision from Elering Gaas AS. The distribution service provision was handed over to the new business entity established for the purpose AS Gaasivõrgud. In the result of the changes, from 1 August 2013 AS EG Võrguteenus (from 10 April 2015 its business name is Elering Gaas AS) provides only the transmission service.

The third step was the establishing of the Elering Gaas AS' holding company AS Võrguteenus Valdus. As a result, from 2 January 2014 the sole owner of 100% shares of AS EG Võrguteenus AS Võrguteenus Valdus (from 10 April 2015 its business name is Elering Gaas AS).

On 3 January 2015 the state owned electricity network system operator Elering AS acquired 51,38% of the shares of the Finnish energy company Fortum Heat and Gas Oy in AS Võrguteenus.

In compliance with the amendments in ownership and statutes of AS Võrguteenus Valdus, by which Elering AS has acquired dominant influence over the system operator, the Competition Authority issued the preliminary activity licence to Elering Gaas AS for the provision of transmission service on 30 January 2015. The preliminary licence is valid until the issuance of the principal licence. In order to issue the principal licence it is necessary to achieve the situation in which none of the owners of the system operator is involved in the trading of gas.

With the transaction of 22 June 2015 Elering AS bought the share that belonged to Gazprom group in AS Võrguteenus Valdus. With this transaction Elering acquired 89,1 per cent of AS Võrguteenus Valdus. At the moment the process of certification of Elering Gaas AS is ongoing.

### **3.1.2 Technical functioning**

The system operator Elering Gaas AS owns the Estonian gas transmission network of 885 km (contains 43 km of transit pipes), including 37 gas distribution stations (GDS, in Estonian abbreviated as GJJ) and 3 gas metering stations (GMS, in Estonian abbreviated as GMJ), see Figure 13.

The Estonian gas transmission system has been rolled out from the gas network of the former Soviet Union and thus, is connected with the Russian and Latvian gas systems. The Estonian gas system has no own compressor stations and the necessary pressure level for the transmission of gas is maintained either by the Russian transmission system's compressor stations or from the Inčukalns underground Gas Storage in Latvia.

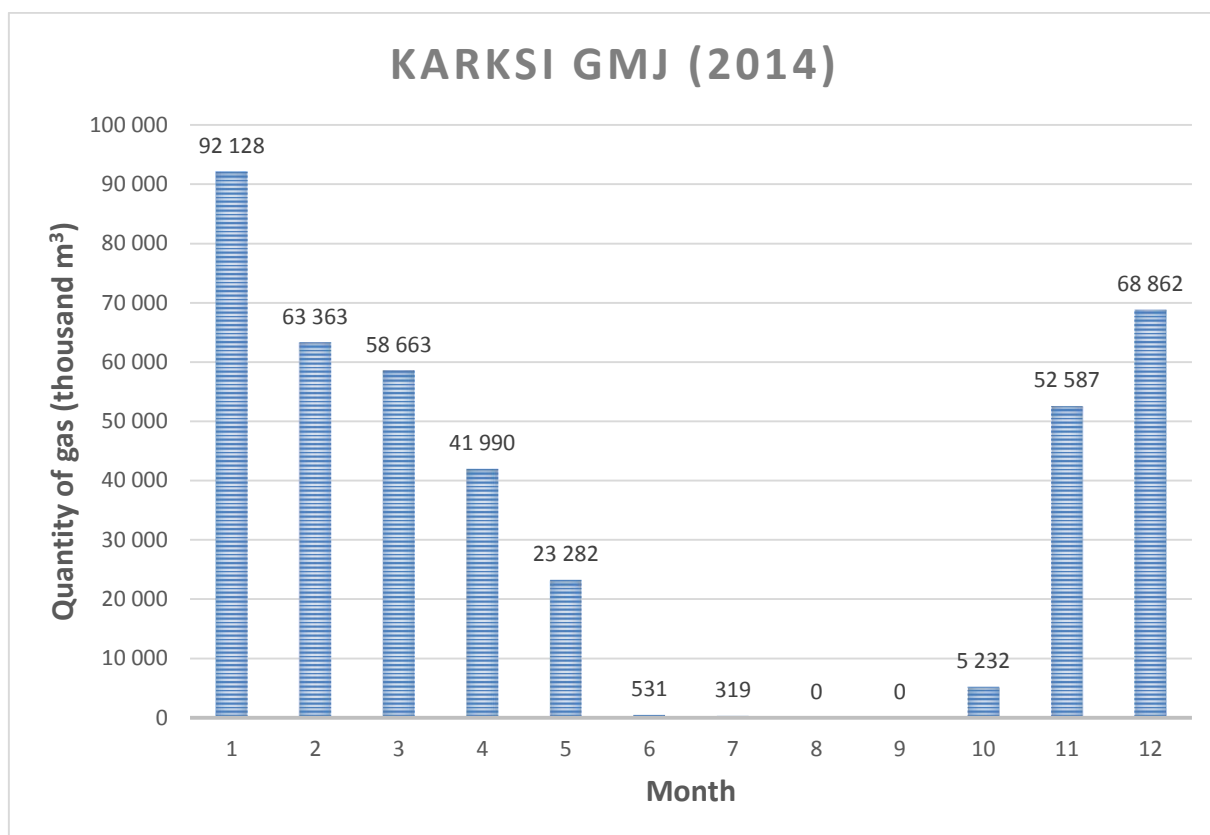


**Figure 13.** Transmission network of Estonian gas system. Source: Elering Gaas AS

The volumes of gas are metered and its properties are determined in the gas metering stations - GMS (in Estonian abbreviated as GMJ) in Värskä, Karksi, Misso and Ivangorod.

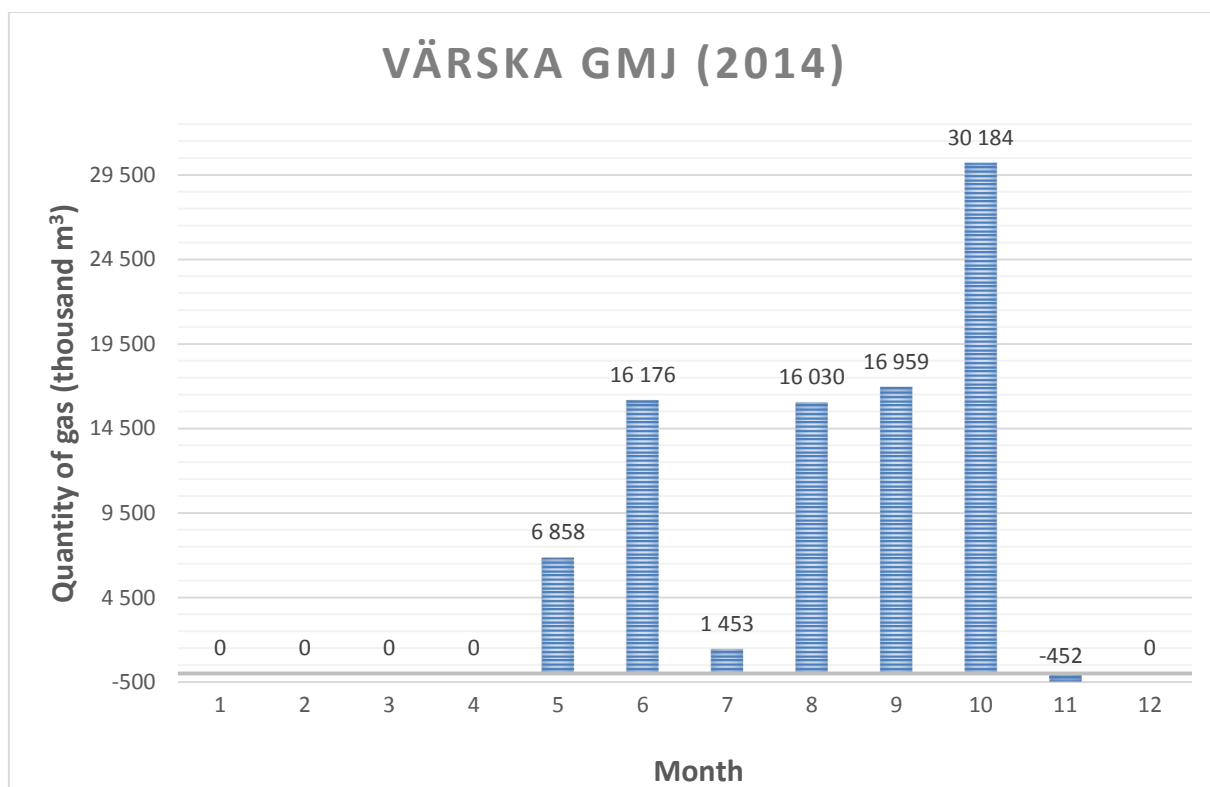
The Estonian gas transmission network, which is in the ownership of Elering Gaas AS, has the following connections:

- With the Latvian transmission network:
  - Vireši-Tallinn (DN 700, PN 55 bar) transmission pipeline and through the Karksi GMS/GMJ, which ensures continuous unidirectional gas flow transmission possibility from Latvia to Estonia (the transmission of gas from Estonia to Latvia is technically possible without metering).



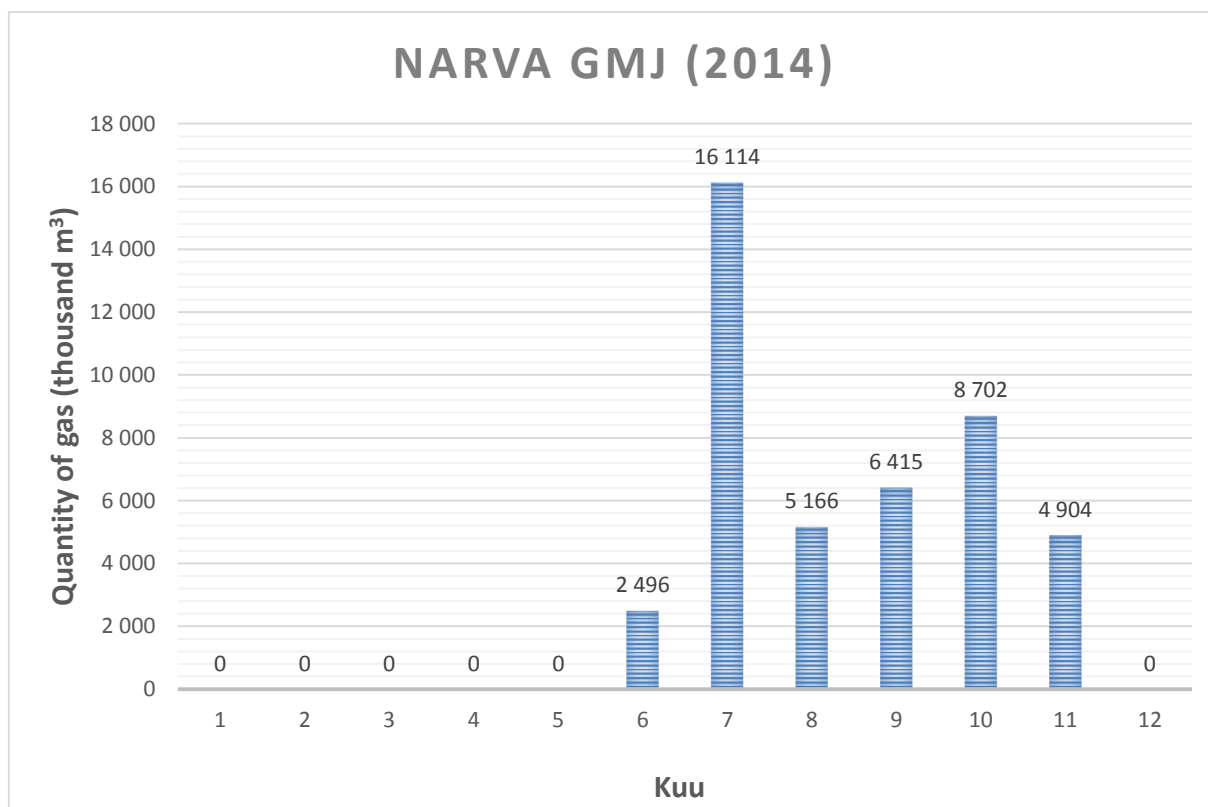
**Figure 14.** Gas flows through Karksi GMS/GMJ in 2014. Source: Elering Gaas AS

- With the Russian transmission network:
  - Izborsk-Tartu-Rakvere (DN 500, PN 55 bar) transmission pipeline and through the Värskas GMS/GMJ;



**Figure 15.** Gas flows through Väraska GMS/GMJ in 2014. Source: Elering Gaas AS

- Through the Narva border crossing: Kohtla-Järve-Narva double pipe (DN 400, PN 38 bar) transmission pipeline and through the Ivangorod GMS/GMJ.



**Figure 16.** Gas flows through Narva border crossing in 2014. Source: Elering Gaas.

Two other transit pipelines go through the southern part of Estonia (Izborsk-Inčukalns (DN 700, PN 55 bar) and Valdai-Pskov-Riga (DN 700, PN 55 bar), through which gas is transported from Russia to Latvia in the summer months. From this pipeline also the Misso area is supplied with gas (metering in the Misso GMS/GMJ and distribution from the Misso GDS/GJJ).

The distribution market leader in Estonia is AS Gaasivõrgud, who uses the 1 465 km long distribution network, owned by AS Eesti Gaas, under the commercial lease contract. Besides AS Gaasivõrgud there are other 24 natural gas distribution enterprises, which possess 650 km of distribution networks.

## Balance services

### (Article 41(6)(b) and (8) of Directive 2009/73/EC)

Pursuant to the regulation of the balance responsibility laid down by the Natural Gas Act every market participant is responsible for its balance. In order to maintain the balance a market participant may enter into respective contract with a seller or a balance provider. The balance provider of a household consumer is the seller. The system operator (Elering Gaas A) is responsible for the balance of the whole system and there may be many balance providers which act on the market. The calculation methodology for the price of balance gas and standard conditions for balance agreements are subject to approval with the Competition Authority.



In 2014 the Commission Regulation (EU) No. 312/2014 was enacted, which establishes the grid code for balancing of gas supply in the transmission systems. The Regulation is enforced from 10 October 2015.

Article 2(2) of the Regulation provides that the Regulation is not applied in the balance areas of the Member States for which the exemption set out by Article 49 of Directive 2009/73/EC is valid.

Article 49 of Directive 2009/73/EC explains that the Directive is not applied to Estonia, Latvia and/or Finland until any of the countries in question is directly connected to the interconnected system of any Member State other than Estonia, Latvia, Lithuania and Finland.

The Competition Authority approved the balance gas price determination methodology and standard conditions for application for Elering Gaas AS in 2008. Currently the processing of standard conditions for the balance contracts of the system operator are ongoing.

### **Time spent for establishing new network connection and quality of gas supply** **(Article 41(1)(h,m) of Directive 2009/73/EC)**

Pursuant to the Natural Gas Act a network operator is required, within the technical limits of the network, to provide a network connection for all persons located within its network area who submit respective application. The Act does not limit the time for establishing a new connection but a network operator cannot establish the connection, it shall provide reasons for refusal of an application from a connectee in writing within 30 days as of the receipt of the application. The Competition Authority is unaware of any case of refusal by the network operators to establish a new connection.

The gas supply quality requirements were established by amending of the Natural Gas Act in the beginning of 2007. Pursuant to the amendments a fault caused sequential duration of a disruption of gas supply may not last longer than 72 hours and an annual total duration of disruptions may not be longer than 130 hours. The records on the duration of disruptions shall be kept by network operators, while the Authority's responsibility is the monitoring of fulfilment of the quality requirements. In 2014 no quality requirements' violations were recorded.

If the system operator has reliable information that an event may take place which could to a significant extent adversely affect the supply situation or that a supply disruption has already taken place, it shall notify the Ministry of Economic Affairs and Communications and the Competition Authority of the event or the disruption and of the market measures applied by the system operator.

The Ministry of Economic Affairs and Communications together with the Competition Authority shall analyse the information received and the market measures implemented by the system operator. If the analysis reveals that for the purpose of ensuring security of supply it is necessary to implement any of the measures of compulsory reduction of gas demand prescribed in the Natural Gas Act, the Ministry of Economic Affairs and Communications shall communicate this to the crisis committee of the Government of the Republic and then make a proposal to the Government of the Republic to allow the implementation of the measures of

compulsory reduction of gas demand named in the plan of measures required to eliminate the supply disruption or to alleviate the effects of such disruption.

### **3.1.3 Access to network and network service price regulation** (Article 41(1)(a, f), (6)(a), (8), (10) and (12) of Directive 2009/73/EC)

Pursuant to the Natural Gas Act the price regulation is uniformly applied to all network operators regardless of their size. In 2014 there were 24 distribution network undertakings in Estonia and a single transmission network undertaking (operator of the transmission network).

For the purpose of the Natural Gas Act a connection to the network is connecting to the network of a consumer installation, a gas production facility, a network, belonging to another network operator or an LNG terminal. Within the technical limits of the network, a network operator is required to provide a network connection for all persons located within its network area who have submitted respective application for connecting unless this endangers the security of supply for earlier connectees. A network operator must provide reasons to any refusal of an application from a connectee in writing within 30 days as of the receipt of the application. On the basis of an application from a connectee, the network operator shall issue the conditions for connection to the network, which shall be transparent and unambiguous:

- comply with the principle of equal treatment of similar connectees;
- take into consideration the technical and economic conditions of each particular connection;
- take into consideration the interests of network development and stability;
- take into consideration the technical capacity of the network.

A connection fee shall not be collected upon replacement of a consumer installation connected to a network or in the event of a change of ownership of the consumer installation provided that the following conditions are met concurrently:

- connection to the existing consumer installation occurs such that the supply point remains unchanged;
- no application is made for a change in the combined usage capacity or consumption regime set out in the contract entered into by the former customer;
- technical conditions for connecting the connectee's consumer installation continue to exist.

Pursuant to law the Competition Authority shall approve the following network service price and methodologies separately for:

- the prices for transmission service;
- the prices for distribution service;
- the methods for calculating connection fees;
- the methods for determining the price for balancing gas.

The charge for the transit of gas is not subject to approval.

## Natural gas network charges

The amendments to the Natural Gas Act that enforced on 8 July 2012 prescribe the principles of price regulation already in the Act itself. Herewith we would pay attention that the amending of the Act does not mean a change in the principles of regulation, as the same bases were consistently used by the Competition Authority in the regulation of prices also before, i.e. the fundamentals have remained the same after the introduction of the Act. The main principles are the following:

- In the calculation of the price for network service the arithmetic average sales volume of the three last calendar years is taken into account. If necessary, an additional analysis is carried out in order to determine the sales volume.
- The cost included in the price shall be justified, guided by cost-efficiency and allow an undertaking to fulfil the obligations laid down on it by law.
- In the evaluation of justified operating cost the following principles are observed:
  - monitoring of the cost dynamics in time and comparison of it with the dynamics of consumer price index;
  - thorough analysis of justification of the cost (including expert opinions);
  - comparison of the cost of an undertaking and the statistical indicators calculated upon these with the cost of other similar undertakings.
- In the calculation of justified return and depreciation of fixed assets, as components of the price, only the assets which are necessary for the provision of network service are taken into account.
- The accounting of the value of fixed assets is consistent and continues also in an event of change of the undertaking or ownership relations.
- The calculation of justified return takes place on the principle that the sum of the value of the fixed assets necessary for the provision of network service and working capital is multiplied by the weighted average cost of capital.
- The basis for the calculation of depreciation of fixed assets is the value of the fixed assets necessary for the network service and the rate of depreciation which corresponds to the useful technical lifespan of the fixed assets.

Pursuant to section 23(4<sup>1</sup>) of the Natural Gas Act the Competition Authority developed uniform method for calculating the prices of network services, which specifies the application of the principles laid down in the Act and serves as the basis for the formation of transmission and distribution service prices and their approval. The methodology is disclosed on the Competition Authority's web site. For the collection of input data for the approval process the Authority has elaborated and published on its web site respective tables together with the guidelines of filling out. The data enable to verify whether cross-subsidising between various areas of activity is avoided. Pursuant to the Natural Gas Act undertakings are obliged to separate in their accounts the income, cost, liabilities and assets.

By its decision on 30 July 2014 the Competition Authority approved the transmission price of 0,01678 €/m<sup>3</sup> (1,61 €/MWh) without excise tax and VAT for EG Võrguteenus AS (from 10 April its business name is Elering Gaas AS). On 4 August 2014 the Competition Authority approved the distribution service price of 0,03858 €/m<sup>3</sup> (3,69 €/MWh) for AS Gaasivõrgud. The increasing trend of natural gas network service prices is caused by the decreasing consumption volumes. As practically the whole cost base consist of operational costs, then this has heavy impact on the price formation and the further decline in consumption will have similar effect on the network service prices.

The prices for network services shall be disclosed at least 90 days prior to their entry into force. In addition to the web site the prices shall be disclosed at least in one national daily newspaper. If a gas undertaking sells both network services and gas, it is obliged to separate in customer bills the data on the network service and the sale of gas. Besides network service prices an undertaking has to disclose on its own web site also the method for connection charge calculation and standard terms and conditions for the contracts.

The Natural Gas Act prescribes that the quantity of gas shall be given both in cubic metres and in parallel in kilowatt-hours. The quantities of gas shall be converted into the energy units of kWh according to the methodology established by a regulation of the Minister of Economic Affairs and Communications.

### **Network connection charges**

A network operator has the right to collect justified connection fees from connectees. The basis for calculating the connection fee is ensuring of the coverage of justified expenses for the connection, including:

- investments, including the construction of metering system;
- compliance with environmental requirements;
- compliance with quality and safety requirement.

The connection fee shall be calculated by the network operator based on a methodology for connection fees' calculation, which shall be approved by the Competition Authority.

### **3.1.4 Cross-border issues**

**(Article 41(1)(g), (6)(c), (8), (9), (10) and (12) of Directive 2009/73/EC)**

The Estonian national gas system has been configured in the way that in normal situation the gas streams of other Member States do not flow through the pipelines used for national gas supplies. The transit streams between Russia and Latvia are guided through separate transit pipelines. From this transit pipeline in Estonia only Misso settlements is locally supplied (see also Figure 13. *Transmission network of Estonian gas system*). Arising from aforesaid and pursuant to the exemption provided for Estonia and Latvia by Article 49 of Directive 2009/73/EC, Estonia has not worked out rules for cross-border capacity allocation and congestion management. The amendments to the Natural Gas Act that enforced on 20 June 2012 sets out to the system operator the obligation to comply with the requirements laid down for the transmission network undertakings by Regulation (EC) No 715/2009 of the European Parliament and of the Council. Amongst others the requirements arising from the Regulation on are related to the principles of capacity allocation, the rules of congestion management, balancing rules, trading with capacities, transparency requirements and storage of data, as well as the obligation to ensure third party access to the transmission network. In addition, the Natural Gas Act obliges the system operator to cooperate within the European framework of natural gas transmission system operator's network in the regional and the European Union level for effective functioning of the gas market.

By now Elering Gaas AS has not elaborated cross-border capacity allocation and congestion management rules neither unilaterally nor in cooperation with the Latvian system operator.

Article 6(5) of Regulation (EC) No 994/2010 of the European Parliament and of the Council, which treats of measures to safeguard security of gas supply, lays down that the transmission system operators shall enable permanent bi-directional capacity on all cross-border interconnections between Member States as early as possible and at the latest by 3 December 2013, except:

- in the case of connections to production facilities, to LNG facilities and to distribution networks; or
- where an exemption has been granted in accordance with Article 7.

On 4 April 2015 Elering Gaas AS submitted to the Competition Authority for approval their ten years development plan 2015-2025. Arising from the amendment to the Natural Gas Act which enforced on 10 April 2014 and revoked the right and obligation of the Competition Authority to approve the 10-years development plan of the gas network, the Authority was appraised of the development plan.

According to the plan the construction of bi-directional gas metering station to be commissioned in 2017 and Puiatu gas compression station to be commissioning in 2020 are scheduled. These measures would enable two way gas flows between Estonia and Latvia. It is also stated in the plan that commissioning of the *Balticconnector* connection is scheduled for 2021. The construction of Balticconnector is listed among the projects of common interest.

### **3.1.5 Fulfilment of relevant legally binding decisions by regulator and market participants**

**(Articles 41(1)(b, d, r), (3), (4)(d), (5), and Article 43 of Directive 2009/73/EC)**

Pursuant to the Natural Gas Act the task of the Competition Authority is to fulfil and apply all relevant legally binding decisions of the Agency for the Cooperation of Energy Regulators (ACER). The same is provided for by Article 41(1)(d) of Directive 2009/73/EC.

Pursuant to the Natural Gas Act and legislation enacted on its basis the Competition Authority executes state supervision over the activities of market participants, including the functioning of the natural gas market in a manner prescribed in the Act and other legislation.

Obligations of the Competition Authority are prescribed in Chapter 5 „State Supervision“ of the Natural Gas Act. Amongst others the Authority has the following obligations:

- Scrutinise the price of the gas to be sold to household customers and the compensation of household customers for price differences;
- Scrutinise the terms and conditions of balance agreements and the prices for providing the balance responsibility service;
- Approve the methods for calculating connection fees;
- Approve the prices for network service;
- Issue and revoke activity licences, establish and amend the conditions of activity licences, and monitor compliance with those conditions;
- Proceed applications for obtaining the temporary derogation from third party access, make the corresponding decisions and forward these to the European Commission;
- Prepare, publish and submit reports on security of supply to the European Commission by 31 July of the given year;
- Monitor compliance of the use and management of cross-border connections with the requirements of competition and effective functioning of the market;

- Scrutinise that market participants comply with the conditions set out in this Act and the legislation enacted on its basis, and perform the relevant obligations (separate accounts, independence of the network operator, publication of information, etc.);
- Prepare and publish annual reports on the results of supervision with regard to the obligations of the Competition Agency;
- Exercise supervision over compliance with the requirements established in respect of system operators and LNG terminal operators in Regulation (EC) No 715/2009 of the European Parliament and of the Council and with the guidelines established in Article 23 of the same regulation;
- Perform other functions imposed on the Competition Authority by Regulation (EC) No 715/2009 of the European Parliament and of the Council;
- Make sure that no cross-subsidisation occurs in the case of transmission, distribution and supply activities and the handling of LNG;
- Assess and monitor the investments made in order to implement the network development plan and provide recommendations for modifying the investment plan if necessary;
- Perform the duties imposed on the Competent Authority by virtue of Article 3 of Regulation (EU) No 994/2010 of the European Parliament and of the Council;
- Transmit to the European Commission the information described in Article 3 of Council Regulation (EU, Erratum) No 617/2010.

The Competition Authority is independent in exercising the functions entrusted to it by virtue of law. In an event of abuse of market dominant position or other competition related violation cannot be resolved pursuant to special law, it can proceed on the basis of the Competition Act. Pursuant to law the Competition Authority has the obligation and right to make decisions and issue mandatory enforcement orders within its competence, to put an end to the violation of the Natural Gas Act or other legislation enacted on its basis. In the event of failure to perform an obligation imposed by an enforcement order, a penalty payment may be imposed pursuant to the procedure provided in the Substitutive Enforcement and Penalty Payments Act. Both an enforcement order and a decision are administrative legislation acts that may be challenged with an administrative court. The latter may invalidate the decision or the enforcement order.

### **3.1.6 Projects of common interest (Regulation (EU) No. 347/2013)**

Regulation (EU) of the European Parliament and of the Council No 347/2013 imposed on the Competition Authority further obligation of the assessing of investment projects of common interest and allocation the cross-border costs in cooperation with the regulators of neighbouring countries.

It is important to diversify gas supplies so that no Member State depends on only one source of supply. It is also necessary to improve the flexibility of the gas system reliability in short-term and middle-term perspective in order to increase the share of gas as the backup fuel if energy is produced from several sources, considering the long-term EU target for reduction of CO<sub>2</sub> emissions. Efforts should also be made to utilise the recent developments in the liquefied natural gas market, biogas and non-conventional types of fuels, first of all in the USA. Well integrated gas network is the best security to compensate for possible failure of the largest gas infrastructure of any Member State.

Article 12 of Regulation No 347/2013 provides that as soon as a project of common interest has reached sufficient maturity, the project promoters, after having consulted the TSOs from the Member States to which the project provides a significant net positive impact, shall submit an investment request. That investment request shall include a request for a cross-border cost allocation and shall be submitted to all the national regulatory authorities concerned, accompanied by the following documents:

- a) a project-specific cost-benefit analysis consistent with the methodology drawn up pursuant to Article 11 and taking into account benefits beyond the borders of the Member State concerned,
- b) a business plan evaluating the financial viability of the project, including the chosen financing solution, and, for a project of common interest falling under the category referred to in Annex II.2 (gas), the results of market testing; and
- c) if the project promoters agree, a substantiated proposal for a cross-border cost allocation

The following Estonia-related electricity projects of common interest are included in the list (com\_2013\_711):

1. interconnector between Estonia and Finland "Balticconnector";
2. one of the competing regional liquefied natural gas (LNG) terminal project:
  - a. Finngulf LNG terminal (Finland);
  - b. Paldiski LNG terminal (Estonia);
  - c. Tallinn LNG terminal (Estonia);
  - d. Latvian LNG terminal (Latvia).
3. Enhancement of the Estonia-Latvia interconnection (construction of reverse flow metering in the Karksi GMS and construction of Puiatu compressor station);
4. Modernization and expansion of Inčukalns Underground Gas Storage;
5. Capacity enhancement of Klaipeda-Kiemenai pipeline (Lithuania);
6. Construction of Poland-Lithuania interconnection (known as „GIPL“)

On 31 October 2013 the project developers submitted investment request to the regulators for cross-border cost allocation for projects 1, 2a, 2b, 2c, 4, 5 and 6.

Regarding the Tallinn LNG terminal project by now the regulators have come to the common position that the project is not mature enough for cross-border cost allocation.

Finngulf and Paldiski LNG are looking for cooperation opportunities in order to construct regional LNG terminals on both sides of the Gulf of Finland.

In the proceedings of the projects of common interest the project promoters of the Inčukalns Gas Storage and the Klaipeda-Kiemenai pipeline came to the conclusion that the expected income in Estonia is below materiality level and Estonia is excluded from further allocation of cross-border costs.

In 2014 the ACER made a decision related to Estonia – the Decision No. 01/2014 on the investment request for the Poland-Lithuania gas pipeline together with cross-border cost allocation. According to the Decision the system operator has to compensate to the Polish system operator 1,5 million euro after commissioning of the project. The Competition Authority shall take the compensation amount into account in the approval of transmission charges as the justified cost. The *Connecting Europe Facility* (CEF) allocated financial support for the project

more than the compensation for the Baltic countries provided for in the ACER Decision. Thus, the request for compensation by the Decision was covered and the Estonian gas consumers will not bear any cost.

Concerning the allocation of cross-border cost of the GIPL pipeline connection the Estonian, Latvian, Lithuanian and Polish regulators failed to reach an agreement. That is why the resolution of the issue is to be continued by the Cooperation Agency (ACER), pursuant to the principles laid down in Regulation No 347/2013. The ACER made a decision on the subject on 11 August 2014.

In 2013 Gasum and EG Võrguteenus OÜ presented the joint design application, which stumbled over disputes of where to build the liquefied natural gas terminal. On 9 September Gasum and EG Võrguteenus withdraw the presented design application. In November 2014 the prime ministers of Estonia and Finland signed the joint memorandum in connection with the construction of *Balticconnector*. On 19 June 2015 Elering Gaas AS submitted the investment request for *Balticconnector* to the Estonian and Finnish regulators without the Finnish gas company Gasum. The investment application has not been definitely debated with the Finnish system operator. That is why the Estonian and Finnish system operators and energy market regulators continue keeping consultations on the subject.

## 3.2 Enhancement of competition in natural gas market

### 3.2.1 Wholesale market of natural gas

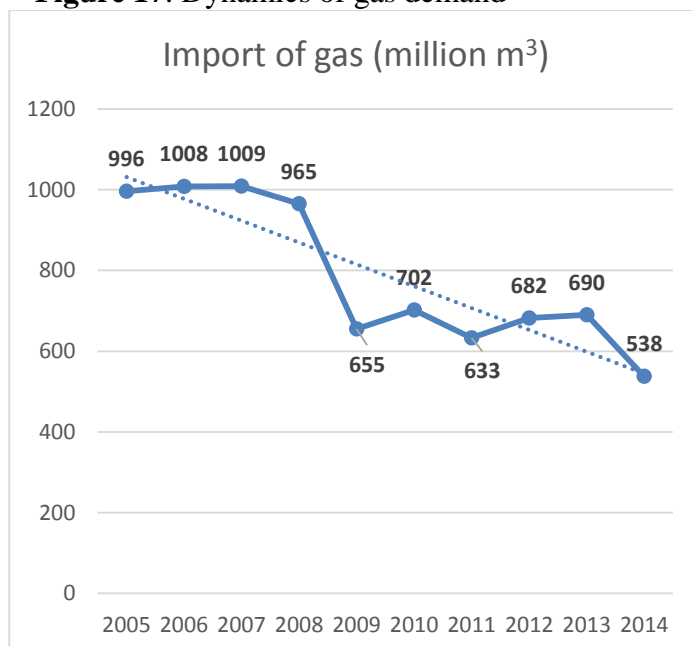
(Article 41(1)(i,j,k,l,u) and Article 47(3) of Directive 2009/73/EC)

The developments in the natural gas market (demand and import) in Estonia during the last 10 years are illustrated in Table 16. The table reflects only natural gas indicators. However, also biogas is produced in Estonia, but it cannot be transported to the gas network.

**Table 16.** Gas demand in Estonia

Year	Import of gas			
	Eesti Gaas AS	AS Nitrofert	Other	Total
	million m <sup>3</sup>	million m <sup>3</sup>	million m <sup>3</sup>	million m <sup>3</sup>
2005	780	216	0	996
2006	793	215	0	1008
2007	801	208	0	1009
2008	750	215	0	965
2009	631	24	0	655
2010	702	0	0	702
2011	633	0	0	633
2012	661	21	0	682
2013	566	124	0	690
2014	537,67	0	0,4	538

**Figure 17.** Dynamics of gas demand



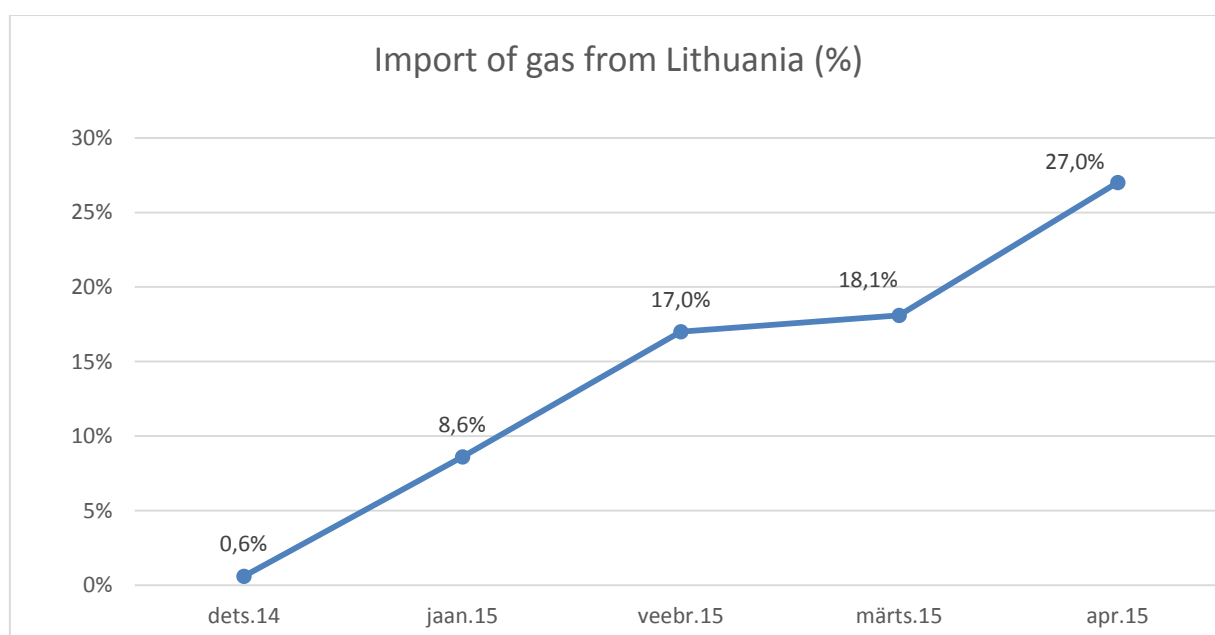
**Table 16.** Gas demand in Estonia



As seen from Tables 16 and 17, during the last years considerable decrease in import of gas has taken place. The sale volume of imported gas in 2014 was by 47% lower compared to 2008. Further decrease in sales is foreseen also in the coming years. This is related to the conversion of district heat supply companies from gas to renewable fuels and higher efficiency energy use by heat consumers.

The other natural gas importers (from other Member State of the European Union) in 2014 were Baltic Energy Service OÜ, who for the first time imported in December 400 thousand m<sup>3</sup> of gas and Eesti Energia AS, who imported 1 million m<sup>3</sup> of gas.

Thus, in 2014 for first time in the Estonian wholesale market competition took place, and it has enhanced this year. The gas sellers located in Estonia have made so-to-say virtual transactions with the Lithuanian gas traders.



**Figure 18.** Diversification of gas import 2014-2015. Source: Elering Gaas AS

It appears from Figure 18 that the import of gas from Lithuania to Estonia has increased from December 2014. While in December 2014 the import from Lithuania to Estonia was 0,6%, by April 2015 the import had increased by 27%.

In 2013 the new municipal waste incineration cogeneration unit in Eesti Energia AS Iru Power Plant was commissioned. At its full load operation an annual reduction in gas consumption will be about 35 million m<sup>3</sup>.

In 2014 the following district heat suppliers converted to biofuels the major part of their resources: Põlva Soojus AS, Eraküte AS, Jõgeva and Rapla regions. Considerable decrease in gas consumption has taken place also in Kiviõli Soojus AS and Kuusalu Soojus OÜ. According to estimates the reduction in gas consumption is about 10 million m<sup>3</sup> per annum.

District heat supplier Tallinna Küte plans to invest 100 million euro in the construction of a new power plant. Resulting from this the supply of district heating for Tallinn will not depend

any more in gas<sup>3</sup>. The target for Tallinna Küte is to take the share of gas down to 20% by 2017 (in 2013 it was 65%). According to estimates this will reduce the need for gas by further 60 million m<sup>3</sup> annually.

### **Wholesale prices of natural gas**

Pursuant to the Natural Gas Act the wholesale prices and the prices of sale to non-household customers are not subject to regulation and the importers-wholesalers sell gas at negotiated price both to non-household customers connected to the network and for re-sale to other network undertakings.

The largest wholesaler Eesti Gaas AS has gas the long term supply contract with the Russian company OAO Gazprom, which is effective until 31 December 2015. According to the contract the import price of gas for AS Eesti Gaas is generally calculated by the price formula that considers nine months heavy and light fuel oil average prices in USD/tonne proceeding to the accounting month, taking into account the USD/EUR exchange rate.

The import contracts of other gas wholesalers are short term ones - a year or less. A precondition for the activity of such wholesalers is that they shall be able to offer better price than that of Eesti Gaas AS.

The Competition Authority monitors the situation in the wholesale market and if necessary, applies measures to bring the activities of market participants into compliance with law. Since AS Eesti Gaas is the undertaking in market dominant position, its activity as the wholesaler of gas is regulated both by the Natural Gas Act and by the Competition Act. Articles 9<sup>1</sup> of the Natural Gas Act and article 16 of the Competition Act provide regulation for a gas undertaking in market dominant position.

The Natural Gas Act gives possibility to supervise a market participant in over fulfilment of the rules provided for in the Act. In addition, the Competition Authority can apply supervision over market manipulation and abuse of market dominant position pursuant to the Competition Act.

### **Transparency of natural gas wholesale prices**

As a rule, Eesti Gaas AS sells natural gas to larger consumers and to other natural gas network undertakings on the basis of a price formula. The formula considers the volume of gas sold to customers in a period, type of supply, stability of consumption, security of supply and payment conditions. In addition it is possible to conclude with AS Eesti Gaas AS a balance responsibility contract by which the responsibility for balance is delegated to the seller.

In the gas price formula the variable components are the world market prices of competitive fuels (heavy and light fuel oils), currency exchange rate and the actual upper calorific heat value of the gas.

The Competition Authority cannot influence the import price which is formed by the contract between Eesti Gaas AS and Gazprom, but can verify whether the gas seller fulfils legal

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<sup>3</sup> <http://www.aripaev.ee/uudised/2014/05/27/tallinna-kute-investeerib-100-miljonit-eurot>

requirements and sells gas at equal conditions to all customers. The process of the formation of price by a price formula (the calculation through an average of the nine months fuel oils prices) is transparent and predictable.

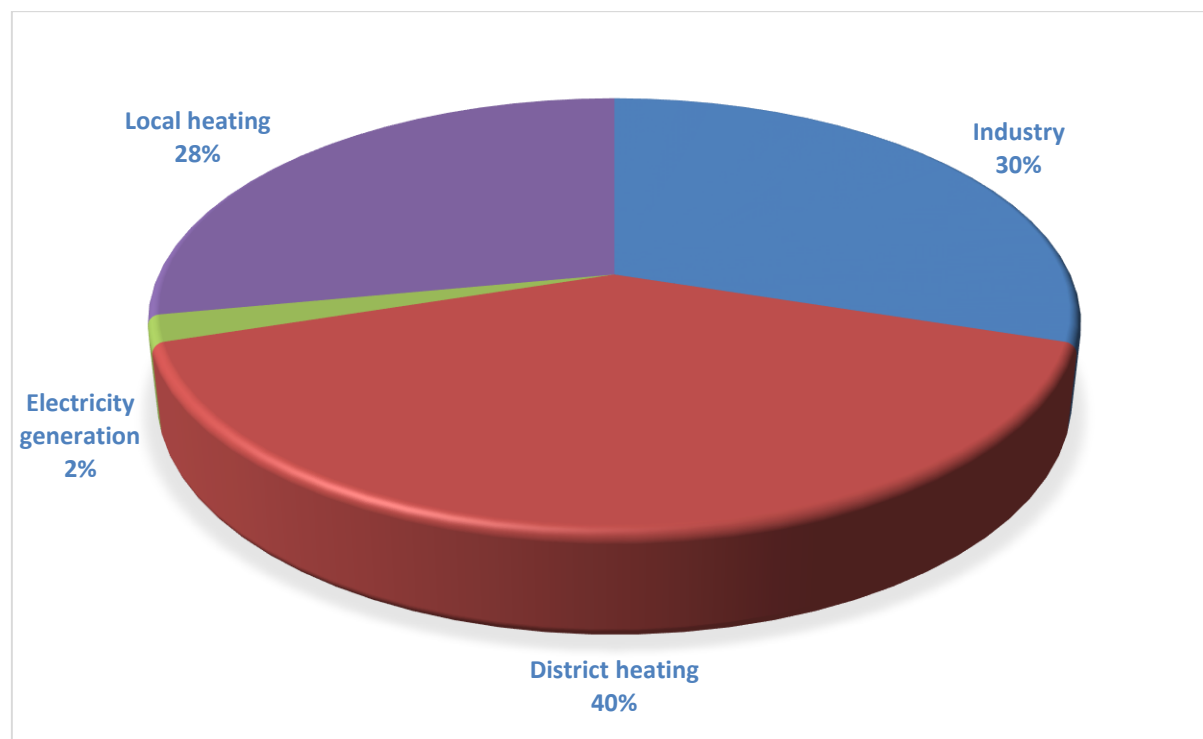
### Effective competition in wholesale market

In 2014 the wholesale market of gas in Estonia changed when new market participants started to import and offer gas besides the monopolistic gas supplier Eesti Gaas AS.

In the beginning of 2015 the new wholesale-importers (Baltic Energy Partners OÜ, Eesti Energia AS, Reola Gaas AS and UAB Litgas) started active operations. According to the data of the transmission system operator Elering Gaas AS the volume of transactions made in Lithuania in March was 10,6 million m<sup>3</sup>, which is 18,1% of the total monthly consumption<sup>4</sup>. In order to fix the active wholesale market new projects in the framework of TEN-E (projects of common interest) have been initiated for creation of new import possibilities (Baltic regional liquefied natural gas terminal and interconnection of the Baltic countries' gas networks with the European gas networks).

### 3.2.2 Retail market of natural gas

The retail market is shared between the natural gas using activities according to Figure 19. The produced biogas is used locally for the production of electricity and heat.



**Figure 19.** Use of natural gas in 2014. Source: Elering Gaas AS

<sup>4</sup> <http://www.egvorguteenus.ee/uudised/leedust-imporditud-gaas-moodustas-martsis-18-protseti-gaasi-koguimpordist/>

It appears from Figure 19 that in 2014 40% of whole gas was used in the district heating sector 30% in industry, 28% in local heating and 2% in electricity generation.

### Retail prices of natural gas

Similarly to the wholesale market AS Eesti Gaas is in market dominant position also in the retail market. Its retail market share in 2014 has increased up to 93,4% (in 2013 it was 89,2%) and the rest 6,6% of the gas sold in the retail market was purchased by the 25 retail sellers of gas from AS Eesti Gaas for re-selling to their customers.

In 2014 for the first time an element of retail competition emerged: Baltic Energy Service OÜ sold in December 400 thousand m<sup>3</sup> of gas, which was bought in the framework of deals in Lithuania. In 2015 their sales volume has increased even more (see Figure 18).

The market dominant undertaking (Eesti Gaas AS) is obliged to approve with the Competition Authority the sales margin, as a component of the price of the gas sold to households. The approved sales margin is added by the undertaking to the import price of gas. The Competition Authority supervises developments in the gas market and obviously, the best solution is emergence of alternative supply sources. Along with the development of the wholesale and retail competition the desirable final solution would be the end of the market dominant position of Eesti Gaas AS. In free competition there would be no need for price regulation.

Data on average natural gas final consumer prices in 2014, compared to 2013 are presented in Table 17 below.

**Table 17.** Final consumer average prices. Source: Statistics Estonia

Customer group	Price 2013	Price 2014	Change
	€/GJ	€/GJ	%
Household consumer, annual consumption < 20 GJ	14,61	13,15	-10,0
Household consumer, annual consumption 20 - 200 GJ	11,58	11,40	-1,6
Household consumer, annual consumption > 200 GJ	10,84	10,63	-2,0
Eligible consumer, annual consumption > 1000 GJ	11,16	11,15	-0,1
Eligible consumer, annual consumption 1000-10000 GJ	10,82	10,74	-0,7
Eligible consumer, annual consumption 10 - 100 TJ	10,18	10,03	-1,5
Eligible consumer, annual consumption 100 - 1000 TJ	9,70	9,80	1,0
Eligible consumer, annual consumption 1000 - 4000 TJ	9,63	9,78	1,5

Consumer expenses for buying natural gas are also influenced by the increase in the excise tax. The intended excise tax increase rate known at the moment is presented in Table 18.

**Table 18.** Increase in excise tax imposed on natural gas planned by legislation<sup>5</sup>

Year	Excise tax on natural gas €/1000m <sup>3</sup>	Change compared to previous year	Change compared to 2014
2014	23,45	x	0,0%
2015	28,14	20,0%	20,0%
2016	33,77	20,0%	44,0%
2017	40,52	20,0%	72,8%

### Transparency of natural gas prices

In the retail market an undertaking (the seller of gas) itself forms the sale price of gas according to the purchase price from the importer and its sale margin. The gas sale price is not subject to regulation, except the sales margin of an undertaking in market dominant position.

Pursuant to the Natural Gas Act household consumers have to be notified about changes in the price 30 days in advance. The retail sale prices of the gas sold to final consumers are disclosed on the web sites of the gas undertakings. Based on the published market prices consumers can decide whether they wish to switch the seller of gas.

### Effective competition on natural gas retail market

Competition on the retail market of gas is suppressed by the importer, as the single importer operates also in the retail market. The re-sellers of gas cannot sell at remarkably lower prices, as the sale price for re-sellers is set by AS Eesti Gaas to a level which generally makes it difficult to compete with their retail prices. In 2015 the competition situation in the retail market is improving, due to the diversification of import sources and importers.

The number of customers in the retail market is approximately 50,5 thousand. 48,5 thousand of them are household consumers. In 2013 83 customers switched the seller of gas (56 of them were households), while in 2014 the number was 8381 (4729 of them were household consumers). Thus, 17% of customers switched their seller of gas in 2014.

The main direction of moving of the customers over the last years have been from small network undertakings / gas sellers towards the market dominant undertaking AS Eesti Gaas (the balance of 2014 was 133).

### 3.2.3 Enhancement of effective competition in natural gas market (Articles 41(1)(p) and 41(4)(b) of Directive 2009/73/EC)

Article 41(4)(b) of Directive 2009/73/EC provides that Member States shall ensure that regulatory authorities are granted the powers enabling them to carry out investigations into the

<sup>5</sup> <https://www.riigiteataja.ee/akt/130062015015?leiaKehtiv>

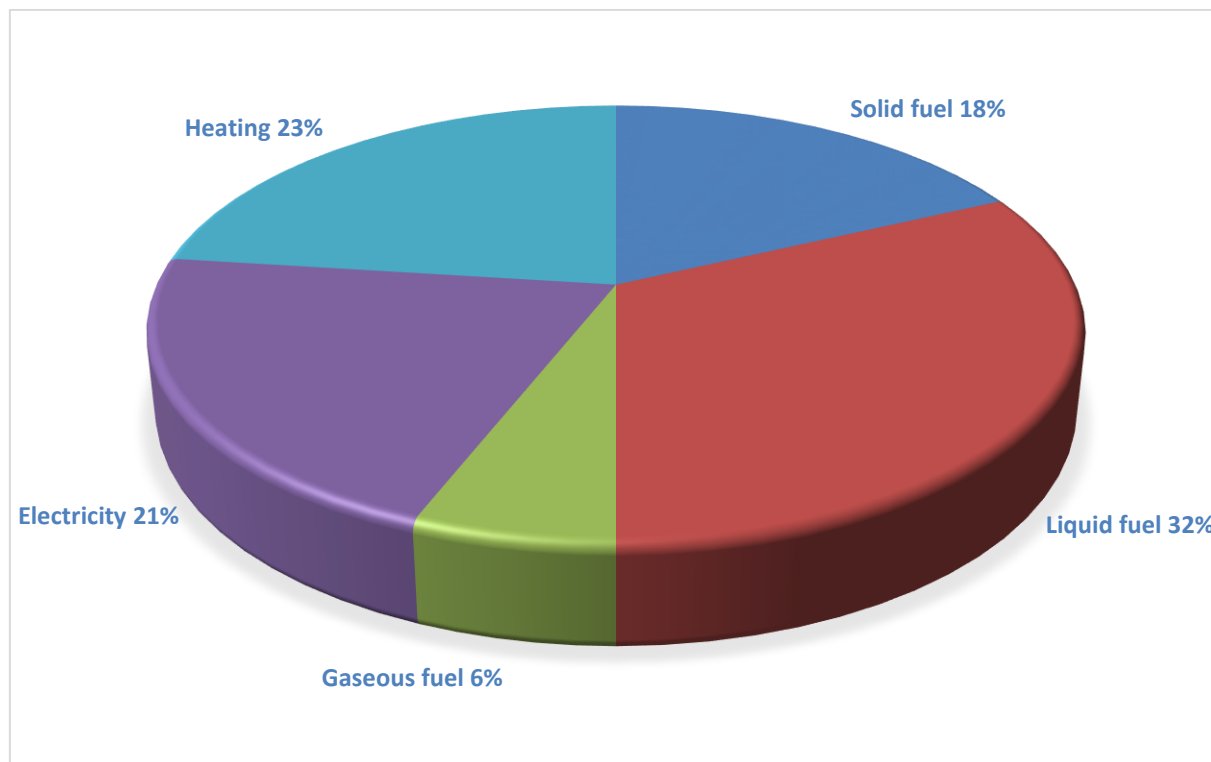
functioning of the gas markets, and to decide upon and impose any necessary and proportionate measures to promote effective competition and ensure the proper functioning of the market.

The Natural Gas Act does not grant the regulatory authority (the Competition Authority) the powers pursuant to Article 41(4)(b) of Directive 2009/73/EC, but the Competition Authority can therewith apply the provisions of the Competition Act. However, as the Estonian gas system is supplied with natural gas by only one supplier who does not belong to the European Union, neither whole sale nor retail market normal and effective functioning is possible and the regulatory authority has no possibility to give recommendations for the formation of prices pursuant to Article 41(1)(p) of Directive 2009/73/EC.

**The Competition Authority is in the position that due to the single natural gas importer, who was at the same time also the retail seller in market dominant position, there was no liquid retail market of gas in Estonia in 2014. In 2015 the situation in the retail market is improving due to the diversification of import sources and importers.**

### 3.3 Security of natural gas supply

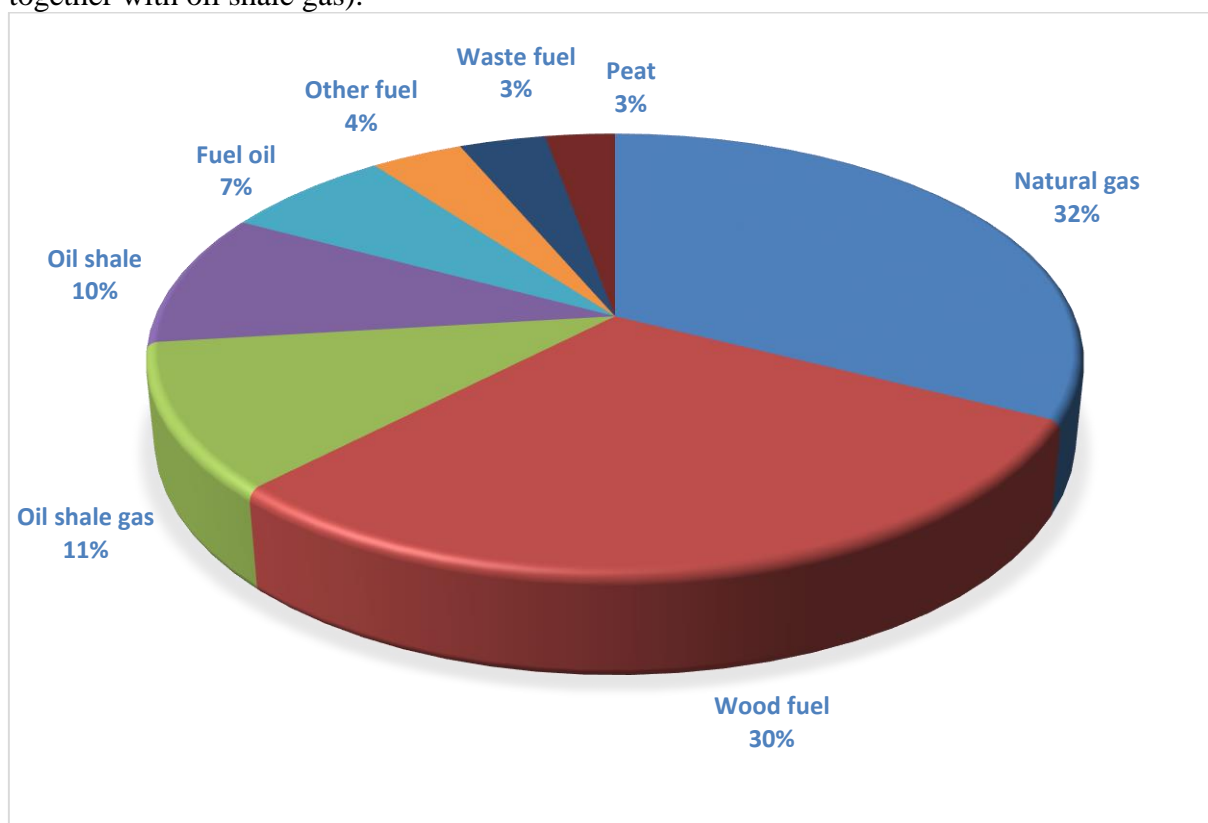
From the security of supply point of view it is important to know what is the share of natural gas in the final consumption in Estonia. The share of gaseous fuels (incl. natural gas, liquefied petroleum gas (LPG), and oil shale gas) is 6% of the final consumption of energy (see Figure 20), majority of this constituted natural gas. Oil shale gas and petroleum gas cannot be considered as a source of common supply, as they cannot replace natural gas.



**Figure 20.** End consumption of energy in 2013. Source: Statistics Estonia

It appears from below Figure 21 that for the production of heat in 2013 (Statistics Estonia will publish the 2014 data in the end of summer 2015) mainly natural gas (32%) and wood fuel

(30%) were used. Oil shale has also considerable share of in the production of heat (21% together with oil shale gas).



**Figure 21.** Fuels used for heat production in 2013. Source: Statistics Estonia

### 3.3.1 Monitoring of balance between supply and demand

The environmental friendliness or, the low carbon emission level compared to other fossil fuels, comfort of use, high efficiency and the latest developments in the global gas market (emerging of liquefied gas market, introduction of usage of unconventional gas reserves) has made gas an attractive fuel in the world.

Gas can be considered as a fuel which enables replacing of high carbon emission fuels until the mankind will be able to go over to use of fully climate neutral energy sources.

At the same time Estonia has not been able to support wider use of natural gas due to energy and supply security considerations. In the conditions of monopolistic market it is not meaningful to have excessive energy dependence from the fuel sold by a single supplier of a non-member country. In the Estonian gas market a dilemma has occurred, where on the one hand, due to smallness of the market there is little interest to sell gas here, and on the other hand, due to a single supplier and a single supply chain a wider use of gas is limited. This has brought the gas consumption in Estonia to a falling trend. The gas demand history and projections for the years immediately ahead is presented in Figure 22. The decrease in gas consumption projections for 2015 is first of all due to Nitrofert AS, which stopped consumption because of the suspension of production.

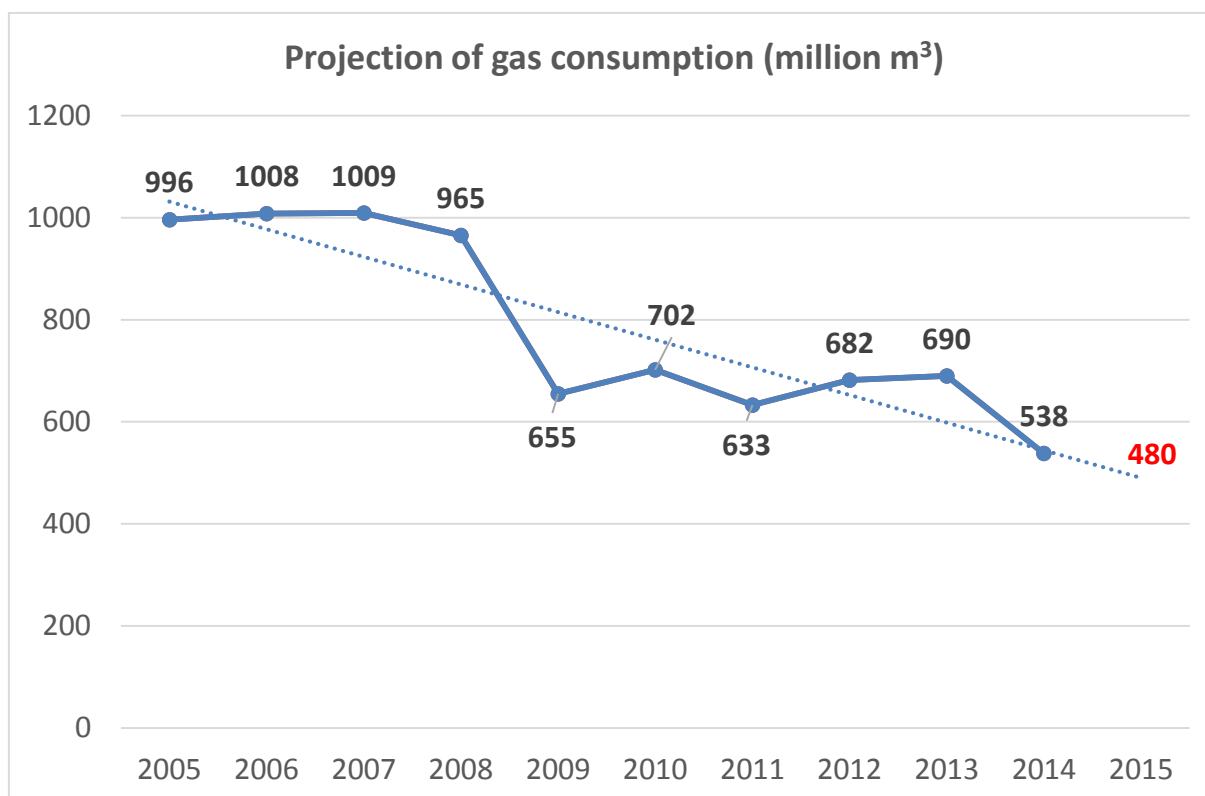


Figure 22. Consumption of natural gas in Estonia and projection

There is no lack of import capacity as the gas network has been built up to satisfy considerably higher demand. The Estonian transmission system capacity at 40 bar incoming pressure is up to 14,0 million m<sup>3</sup> per day (24h). The capacities of individual connections are as follows:

- Karksi connection with Latvia 7 million m<sup>3</sup> daily (at incoming pressure of 40 bar)
- Värška connection with Russia 4 million m<sup>3</sup> daily (at incoming pressure of 40 bar)
- Narva connection with Russia 3 million m<sup>3</sup> daily (at incoming pressure of 22 bar)

In the period from May to October the supply of the Estonian gas system with gas takes place mainly directly from Russia through the Värška and Narva connections. Such operational arrangement, when Estonia takes less gas during the non-heating season through the Värška or Karksi connections enables OOO „Gazprom Transgaz Sankt-Petersburg“ more efficiently pumping gas to the Inčukalns underground Gas Storage and by this improving security of gas supply during the season of peak consumption (in the period from November to April).

In the period from November to April gas is supplied also from the Latvian Inčukalns Gas Storage through the Karksi and Värška gas metering station (GMS).

The actual capacity of connections during the last 5 years is presented in Table 19.



**Table 19.** Capacity of natural gas cross border connections. Source: Elering Gaas S

Year	Technical transfer capacity, million m <sup>3</sup>			Actual peak load, million m <sup>3</sup>		
	Narva-Russia connection	Värskä-Russia connection	Karksi-Latvia connection	Narva-Russia connection	Värskä-Russia connection	Karksi-Latvia connection
2010	0,5	4	7	0,3	2,6	4,5
2011	0,5	4	7	0,4	1,7	4
2012	3	4	7	0,3	2,6	5,0
2013	3	4	7	1,8	2,8	4,2
2014	3	4	7	0,6	2,1	4,2

As it is known the Competition Authority, there have not been problems so far in the conclusion of natural gas import contracts between AS Eesti Gaas and OAO Gazprom for supplying Estonia with sufficient volumes of gas.

**Conclusion: in Estonia the supply of gas has been in balance with the demand. Considering the capacity of the Estonian transmission system it is possible to import gas in considerably larger volumes, but due to the competitive positions of gas the consumption projection for 2015 is decreasing.**

### 3.3.2 Anticipated future demand and available free capacity together with planned additional quantities

The highest gas demand in the last 20 years was in 2006 when the annual consumption was 1009 million m<sup>3</sup> (see Figure 22). Compared to 2006 the 2014 consumption was lower by 47%.

The general decrease in the Estonian gas consumption projection is first of all related to the falling production volumes of industries and the termination of operations, as well as to the changes in the structure of the usage of fuels (expansion in the use of renewables). The current national energy sector development plan does not support investments in gas using installations and in connection with that it is estimated that also in the future the gas consumption trend in Estonia will be falling.

Further decrease in sales is foreseen also in the coming years. This is related to the conversion of district heat supply companies from gas to renewable fuels and higher efficiency energy use by heat consumers.

In 2013 the new municipal waste incineration cogeneration unit in Eesti Energia AS Iru Power Plant was commissioned. At its full load operation an annual reduction in gas consumption will be about 35 million m<sup>3</sup>.

In 2014 the following district heat suppliers converted to biofuels the major part of their resources: Põlva Soojus AS, Eraküte AS, Jõgeva and Rapla regions. Considerable decrease in gas consumption has taken place also in Kiviõli Soojus AS and Kuusalu Soojus OÜ. According to estimates the reduction in gas consumption is about 10 million m<sup>3</sup> per annum.

District heat supplier Tallinna Küte plans to invest 100 million euro in the construction of a new power plant. Resulting from this the supply of district heating for Tallinn will not depend any more in gas<sup>6</sup>. The target for Tallinna Küte is to take the share of gas down to 20% by 2017 (in 2013 it was 65%). According to estimates this will reduce the need for gas by further 60 million m<sup>3</sup> annually.

Arising from all these circumstances the Competition Authority estimates continuing decrease in import. The Estonian annual import volume of gas in the near future will be 500 million m<sup>3</sup>.

In order to stop the decrease in gas consumption and to support of new importers' coming to the market it is necessary to undertake parallel weighted steps both to find new spheres of using for gas, as well as the development of new supply chains. The Competition Authority sees possibilities for broader use of natural gas as the transportation fuel and also in local space heating production.

AS Eesti Gaas has five filling stations for vehicles that use natural gas as the motor fuel. Two of them are in Tallinn, while Tartu, Pärnu and Narva – each has a single filling station. 1,4 million m<sup>3</sup> of natural gas was used in 2013 for the production of pressurised gas.

The market of natural gas can develop only through new gas consumers coming to the market and merger of markets, as the steadily decreasing Estonian market, if taken separately, is too small to attract larger players. The solution could be interconnecting of the Finnish and Baltic countries' markets into a joint *entry-exit* area. In addition to establishing new cross-border connections and enlargement of existing ones Estonia and its neighbours have to create possibilities for access to the market of new gas sellers (importers), alternative to OAO Gazprom. Such solutions can be establishing of new interconnections with other European countries (Lithuania - Poland connection GIPL, Estonia - Finland connection Balticconnector).

The commissioning of the liquefied natural gas terminal Lithuania in the end of 2014 and possible new liquefied natural gas terminals in the future in Estonia and in Finland will also contribute to the activity on the markets.

**Conclusion: the supply of gas that corresponds to the demand in Estonia is ensured in the coming years. The key question of the Estonian gas market development is the suspending the downward trend in gas consumption through investing in infrastructure and coming of new suppliers to the market. As in the development of the district heat supply sector the tendencies of converting to local fuels and reduction of the district heating areas is visible, one of the serious factors for creating demand for gas could be the development of natural gas based local heating systems. Secondly, gas offers a possibility for electricity production using modern combined cycle gas turbine technologies, in order to balance the fluctuating capacity of wind mill parks. The third opportunity could be using natural gas as the transport fuel.**

### **3.3.3 Measures to cover peak demand and supply deficit (Article 41(1)(t) of Directive 2009/73/EC)**

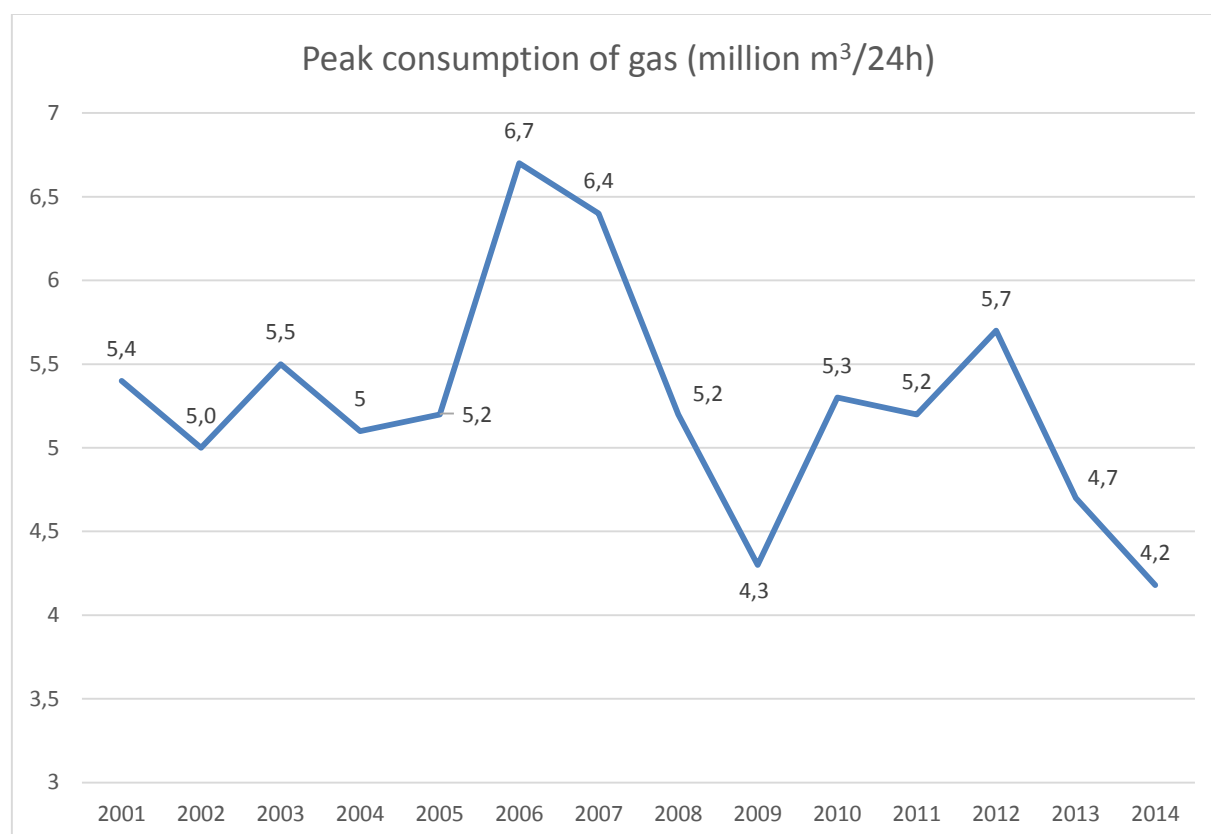
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<sup>6</sup> <http://www.aripaev.ee/uudised/2014/05/27/tallinna-kute-investeerib-100-miljonit-eurot>

The measures to cover peak demand or shortage in supply can be related either to the infrastructure or to the supply chain.

### Infrastructure measures to cover peak demand or supply deficit

The peak consumption of gas is characterised by Figure 23. The maximum transmission network capacity is 14,0 million m<sup>3</sup>/day.



**Figure 23.** Peak consumption of natural gas. Source: Elering Gaas AS

Pursuant to Regulation (EC) No 994/2010 the security of supply criterion is the N-1 criterion, which indicates sustainability of a gas system in the event of disruption of the single largest gas infrastructure. The calculation formula for the N-1 criterion is:

$$N - 1 [\%] = \frac{EP_m + P_m + S_m + LNG_m - I_m}{D_{\max}} \times 100\%, \quad N - 1 \geq 100\%$$

where:

EP<sub>m</sub> - capacity of all inlet points of the system (million m<sup>3</sup>/d)

P<sub>m</sub> - domestic production capacity (million m<sup>3</sup>/d)

S<sub>m</sub> - volume supplied by domestic gas storages (million m<sup>3</sup>/d)

LNG<sub>m</sub> - volume supplied by domestic liquefied gas terminals (million m<sup>3</sup>/d)

I<sub>m</sub> - technical capacity of the biggest network connection (million m<sup>3</sup>/d)

D<sub>max</sub> - maximum natural gas demand during the last 20 years (million m<sup>3</sup>/d)

In connection with the present report and fulfilment of the requirements of Regulation No 994/2010 in respect security of supply criterion, the Competition Authority asked Elering Gaas AS to present updated data and calculations on the fulfilment of the abovesaid requirements.

The variables in the formula according to the data submitted by Elering Gaas AS have the following values (in usual conditions):

$$EP_m = 10,6 \text{ million m}^3/\text{d}$$

$$P_m = 0 \text{ million m}^3/\text{d}$$

$$S_m = 0 \text{ million m}^3/\text{d}$$

$$LNG_m = 0 \text{ million m}^3/\text{d}$$

$$I_m = 6 \text{ million m}^3/\text{d} \text{ (Karksi – Tallinn)}$$

$$D_{\max} = 6,7 \text{ million m}^3/\text{d} \text{ (2006. a).}$$

According to these values the N-1 criterion for the Estonian gas system is the following:

$$N-1 [\%] = \frac{(10,6) + 0 + 0 + 0 - 6}{6,7} \times 100\% = 68,7\%$$

The future projects with the highest impact on security of supply for Estonia is the construction of Balticconnector by 2020 and possible erection of a liquefied gas terminal in Estonia. As there is no joint decision on the erection of a terminal, Elering Gaas AS has evaluated the Estonian gas supply security both having the terminal (expected capacity of 4-14 million m<sup>3</sup>/d) and without it. Depending on the planned infrastructure projects and gas consumption scenarios, the N-1 criterion for 2030 is calculated as follows:

**Table 10.** Fulfilment of N-1 criterion by 2025. Source: Elering Gaas AS

	<b>Conservative scenario</b> (peak up to 6,7 MCM/d)	<b>Optimistic scenario</b> (peak up to 7,0 MCM/d)
<b>Current system</b>	68,7%	65,7%
<b>Balticconnector</b>	158,2%	151,4%
<b>Balticconnector + liquefied natural gas terminal</b>		
LNG 4 MCM/d	232,8%	222,9%
LNG 14 MCM/d	307,5%	294,3%

It appears from above table 20 that, according to the evaluation of Elering Gaas AS the *Balticconnector* project is of an utmost importance for security of supply for Estonia. Without *Balticconnector* it may be necessary to limit unprotected customers in case of a major emergency in the system. This risk disappears in connection with the construction of *Balticconnector*. Besides the improved security of supply the possibility of interconnecting Baltic and Finnish gas markets takes place, through which all the countries will gain socio-economic benefits.

When comparing this year's presented data on the fulfilment of the N-1 criterion with the previous data it is seen that the new, fully independent system operator has evaluated the probability of N-1 criterion fulfilment of 68,7% (instead of the previous 104,5%). The main

reason reviewed the possibilities of gas deliveries from Russia to Estonia through the Narva connection. It became clear that in reality the system operator cannot guaranty neither the volume nor the pressure given in the previous risk analysis. According to the explanation by Elering Gaas AS the reasons are first of all of technical nature, as the pipeline towards Narva is quite old and worn out. Problems are also apparent on the Russian side, which cannot guaranty higher volumes and pressures because of the worn out pipeline on their side. In addition, the Russian side requirements to the pipeline usage and related limitations have been re-evaluated as Estonia itself cannot influence them. Elering Gaas AS is also in the position that earlier information on the fulfilment of the N-1 criterion was based on the circumstance that the vertically integrated company, who used to be also the system operator, had no interest and motivation to invest in security of supply and in ensuring sufficient capacity.

The Competition Authority shares the position of Elering Gaas AS that for 100% fulfilment of the security of supply criterion it is necessary to have additional supply sources, which could be the planned *Balticconnector* connection with Finland and or the construction of liquefied natural gas terminal(s).

### **Supply related measures to cover peak demand or supply deficit**

As the Estonia gas system is supplied with natural gas by only one supplier, which does not belong to the European Union, in case of supply problems of that supplier Estonia has no possibility to compensate the deficit from alternative suppliers.

In such case the regulation laid down in the Natural Gas Act shall be applied. Section 26<sup>2</sup>(1) of the Act provides that if the system operator has reliable information that an event may take place which could to a significant extent adversely affect the supply situation, the system operator shall notify the Ministry of Economic Affairs and Communications and the Competition Authority of the event or the disruption and of the market measures implemented by the operator.

Currently valid legislation and the system of contracts of AS Eesti Gaas practically does not enable the implementation of market measures in case of supply disruptions for the reduction of gas consumption.

The Ministry of Economic Affairs and Communications shall analyse together with the Competition Authority the received information and the market measures implemented by the system operator. If the analysis reveals that for the purpose of ensuring security of supply it is necessary to implement any of the measures of compulsory reduction of gas demand listed in section 26<sup>2</sup>(3) of the Act, the Ministry shall communicate this to the crisis committee of the Government of the Republic and then make a proposal to the Government to allow the implementation of the measures of compulsory reduction of gas demand named in the plan of measures required to eliminate the supply disruption or to alleviate the effects of such disruption.

Pursuant to the Natural Gas Act the following measures, amongst others, can be implemented:

- reduction of the supply of gas to persons who use gas for purposes other than production of heat;
- authorisation of reduction of the supply of gas to undertakings producing heat;

- authorisation of a reduction in the temperature of the water released for the heating of residential buildings;
- obligating the undertakings producing heat to use back-up (reserve) fuel.

**Conclusion: as long as alternative natural gas suppliers do not exist, in an event of supply disruptions Estonia can implement only non-market measures - the reduction of consumption.**

## 4. Consumer protection and resolution of disputes in electricity and natural gas sectors

### 4.1 Consumer protection

#### 4.1.1 In electricity sector

(Directive 2009/72/EC, Annex 1, implementation of consumer protection measures)

Article 37(1)(n) of Directive 2009/72/EC provides that the regulatory authority shall help to ensure, together with other relevant authorities, that the consumer protection measures, including those set out in Annex I “Measures on consumer protection”, are effective and enforced. Annex I lists the consumer protection measures which shall ensure general protection of consumers. The Estonian legislation is harmonized with the requirements laid down in the Directive.

Pursuant to the Electricity Market Act the protection of household consumer rights is shared between the Competition Authority and the Consumer Protection Board. The Act provides that supervision over the provision of network services, offer or sales of electricity or making electricity available in the market in another manner shall be exercised by the Consumer Protection Board to the extent of the authority granted to it by the Consumer Protection Act. In the case of a dispute which has arisen in relation to a connection contract, network contract or electricity contract, and which the parties have been unable to settle, the consumer is entitled to file a complaint with the Consumer Disputes Commission or another person or body or court which deals with similar complaints. As previously, the Competition Authority shall resolve complaints of one market participant about activity or inactivity of other market participant which contradicts the Electricity Market Act or other legislation enacted on its basis. Both the contract and the invoices shall include information on the consumer rights and resettlement of disputes.

#### Customer contracts

In the evaluation of the Competition Authority the field of customer contracts is a well-regulated and customer interests are sufficiently protected. Pursuant to the Electricity Market Act standard terms and conditions of contracts for the provision of network services, for connecting to the network and for universal service are subject to approval by the Competition Authority. In the approval of standard conditions the Competition Authority follows the principle of proportionality of contract conditions, aiming at balance of rights and obligations of both undertakings and customers. An important criterion in approval of standard terms and conditions is also their compliance with the Law of Obligations Act.

Network contracts shall be made in writing, electricity contracts may be made by oral agreement, if both parties agree to do so. Network contract shall include the following information:

- the name, registration number in the Commercial Register, address and other contact details of the network operator;
- a description of the services;
- the principal parameters of the quality of the services provided or a reference to a document which is accessible and which sets out such parameters;

- the time of initial connection to the network pursuant to a connection contract entered into for connection to the network or for amendment of the consumption or generation conditions;
- a description of the maintenance services provided;
- the manner of obtaining relevant information concerning the charges payable on the basis of the contract;
- in the case that the delivery of an invoice submitted on the basis of a contract is delayed, or where an incorrect invoice is submitted due to an error of the network operator, or in the case of an advance payment by the consumer, information concerning the way in which the consumer may obtain a refund, set-off or compensation in the manner of a payment or any other manner;
- if the quality of services provided on the basis of a network do not conform to the terms and conditions of the contract, information concerning the way in which the consumer may obtain a refund or compensation in the manner of a payment or any other manner;
- at least two different payment options in the case of charges payable under a contract;
- information concerning the procedure for dealing with complaints;
- the term of the contract.

The following data shall be presented in an electricity contract:

- the name, registration number in the Commercial Register, address and other contact details of the seller;
- main parameters of the electrical energy;
- the manner of obtaining relevant information concerning the charges payable on the basis of the contract;
- in the case that the delivery of an invoice submitted on the basis of a contract is delayed, or where an incorrect invoice is submitted due to an error of the network operator, or in the case of an advance payment by the consumer, information concerning the way in which the consumer may obtain a refund, set-off or compensation in the manner of a payment or any other manner;
- at least two different payment options in the case of charges payable under a contract;
- information concerning the procedure for dealing with complaints;
- the term of the contract.

A network contract or an electricity contract may be made for an unspecified term or for a specified term. As a rule, contracts for an unspecified term are concluded. The network operator may amend the conditions of contract only if such amendments are objectively justified and necessary in order to take into account a change in the circumstances and provided the amendments have been approved by the Competition Authority. A network operator shall give notice of the cancellation of a network contract at least 30 days in advance. The notice shall set out the grounds for cancellation of the contract and the date of termination of the contract.

An electricity contract which is made for an unspecified term shall terminate upon termination of the network contract entered into in respect of the network connection through which electricity was sold on the basis of the electricity contract. An electricity contract may be entered into by a market participant who holds a valid network contract in respect of the metering point of his place of consumption.

A network operator may cancel a network contract and disconnect the place of consumption from the network if the network connection has been interrupted due to a breach of the network



contract and the interruption has lasted at least 180 consecutive days and the customer has failed, during that period, to eliminate the circumstances which served as grounds for the interruption. Similarly, or if the customer has materially breached the obligations arising from the network contract and has failed to remedy the breach within a reasonable period of time granted by the network operator, in view of which the network operator cannot reasonably be expected to continue performing the contract. A network operator is entitled to cancel a network contract also due to failure to pay an amount payable according to the contract.

A network operator shall give a notice of the cancellation of a network contract at least 30 days in advance. The notice shall set out the grounds for cancellation of the contract and the date of termination of the contract.

A seller shall be entitled to cancel an electricity contract if the consumer has materially breached obligations arising from the contract and has not remedied the breach within a reasonable period of time granted by the seller, or if the consumer has used electricity illegally or has intentionally or due to gross negligence damaged the seals or verification marks placed on the metering devices.

A consumer shall be notified of the cancellation of an electricity contract at least 30 days in advance. The notice shall state the grounds for cancellation of the contract and the date of termination of the contract.

A seller may cancel an electricity contract before the agreed due date, if the place of consumption stipulated in the contract has been the subject of a transfer of property and there is no legal basis for the consumer to use that place.

## **Customer information**

Network undertakings are obliged to maintain a web site and disclose on it the following information:

- principles of the calculation of connection charges;
- data reflecting efficiency, quality and profitability of the network activity;
- charges for network services;
- standard conditions for the provision of network service;
- standard conditions for the provision of universal service.

The network charges shall be disclosed at least 90 days prior to their entry into force. In addition to web site the tariffs have to be published also in at least one daily national newspaper. The standard terms and conditions for provision of network services and for the selling of electricity shall be disclosed at least 30 days prior to their entry into force.

All electricity sellers shall submit an invoice for the electricity consumed to the customer once a month, unless agreed otherwise with the customer. The following information shall be presented together with the invoice:

- the distribution of energy sources which were used for the generation of electricity by the producer or which were purchased from the producer during the financial year preceding the period of the sale;

- the proportion of electricity purchased from a power exchange in the financial year preceding the period of the sale;
- a reference to a website which sets out information concerning the environmental impact caused by emissions of CO<sub>2</sub> and SO<sub>2</sub>, the oil shale ash that must be deposited, and radioactive waste, which were released in the course of producing the electricity supplied by the seller during the financial year preceding the period of the sale;
- information concerning the customer's rights and the options for resolution of disputes;
- starting 1 April, the volume of electricity which was supplied in the previous calendar year and whose origin was certified by means of guarantees of origin;
- the volume of supplied electricity whose origin is not certified by means of guarantees of origin, using the residual mix value published by the transmission network operator.

In the case of a change of seller, the seller shall submit its final invoice to the customer within six weeks as of the termination of the contract for the sale of electricity. If, after the final invoice has been submitted, a fault of the metering system is discovered or the submitted data differs from the actual consumption, the consumer's metering data shall be corrected on the information exchange platform and the seller shall submit an invoice to correct the final invoice. No additional fee shall be charged for the submission of the invoice.

### **Ensuring of access to customer data**

Article 37(1)(p) of Directive 2009/72/EC provides that a regulatory authority shall ensure access to customer consumption data, the provision, for optional use, of an easily understandable harmonised format at national level for consumption data, and prompt access for all customers to such data under point (h) of Annex I "Measures on consumer protection". The requirement of the Directive is harmonized into the Estonian legislation.

In connection with the market opening in 2013 the information exchange platform (Data Store) was created in 2012, which is an important precondition for the Estonian electricity consumers that they can choose and change electricity sellers. The system operator Elering AS developed the digital environment, which has the general task of ensuring efficient data exchange processes in fully opened market considering equal treatment principles and complying with the requirements arising from the Electricity Market Act. Through the Data Store information exchange on the electricity market takes place in order to change the open supplier, transmit the metering data and fulfilling the legal obligations imposed on the market participants (consumer, network undertaking, and seller) and ensuring their rights.

The Data Store integrates data of all the contracts related to the sale of electricity and network services, as well as the metering data in electricity consumption. A customer has the right to get the following information from the Data Store:

- name of the network undertaking with whom the consumer has entered into network contract and validity period of the contract;
- name of the seller with whom the consumer has entered into open supply contract for a connection point(s) and validity period of the contract;
- name of the network undertaking or the seller, who holds activity licence, designated by the network undertaking for the provision of universal service;

- electricity quantities measured at consumer related metering points, with the possibility to observe historical consumption data;
- names of those sellers to whom the consumer has given the authorisation to see its consumption data and who have inquired for the data.

### **Definition of vulnerable customer and interruption of electricity supply**

Interruption of electricity supply is regulated in very detail. In the evaluation of the Competition Authority the protection of socially vulnerable customers in possible case of failure to pay in time is sufficient. A network operator may interrupt the connection of a customer to the network if the customer has failed to pay the amount payable on the basis of the contract entered into with the network operator or seller or, has in another manner materially breached an obligation arising from the contract. Before interrupting of a network connection a notice concerning the planned interruption of the network connection shall be sent to the customer. The notice shall set out the grounds for interrupting the network connection and the planned time of the interruption. The network connection of a customer may be interrupted after at least 15 days have passed since the notice was sent and if, during that period, the customer has failed to eliminate the circumstances which were the grounds for interruption of the network connection and has not notified the network operator or seller, as appropriate, thereof.

If a network connection is interrupted on the grounds that a customer, who is a natural person, has failed to pay an amount payable according to the contract due to the temporary insolvency of the customer because of his or her serious illness or unemployment, the customer may notify the network operator or seller thereof in writing. Evidence of those circumstances shall be annexed to the notice. On receiving the notice and the evidence, a network operator may interrupt the network connection of a customer, who is a natural person, after at least 30 days have passed since the notice was sent and if, during that period, the customer has failed to eliminate the circumstances which were the grounds for interruption of the network connection and has not notified the network operator or seller, as appropriate, thereof.

If a network connection is interrupted on the grounds that the amount due has not been paid, the connection may be interrupted during the period from 1 October to 30 April in a building or a part thereof which is residential space, used as a permanent residence and heated in full or primarily by electricity only when at least 90 days have passed since the notice and if, during that period, the customer fails to remove the circumstances which were the grounds for the interruption and has not notified the network operator or seller, as appropriate, thereof. A network operator may also limit the capacity of the network connection of a customer, if a customer has failed to pay for the consumed electricity in due time. The customer shall be notified of such limitation at least 15 days in advance.

A network operator may promptly interrupt the network connection of a customer if the customer increases, without authorisation, the limited capacity, uses electricity or network service without authorisation, uses electrical installations which do not meet technical requirements, are dangerous or interfere with the operation of the network as a whole or prejudice security of supply.

## Regulation of universal service

Universal service is intended for household consumers, apartment associations, communities of apartment owners and such commercial consumers (small consumers) whose electrical installation is connected to the network by using low voltage and through a main circuit breaker of up to 63A, in the case if they do not choose any electricity seller for themselves. Universal service shall ensure a price for consumers, which corresponds to the market price and avoids earning of unreasonably high income.

Universal service is the selling of electricity to household or small consumers by the network operator or by the seller designated by him on the basis of the standard conditions for universal service approved by the Competition Authority. The price for universal service is formed according to the market or power exchange price, to which justified cost and reasonable profit is added by the seller. The Competition Authority is obliged to verify justification of the latter. The seller is required to publish the basis for price formation by the ninth day of the following month.

## Intelligent metering systems

Article 37(1)(n,p) of Directive 2009/72/EC referring to section 2 of Annex I “Measures on Consumer Protection” provides that Member States shall ensure the implementation of intelligent metering systems that shall assist the active participation of consumers in the electricity supply market. The implementation of those metering systems may be subject to an economic assessment of all the long-term costs and benefits to the market and to individual consumers or, which form of intelligent metering is economically reasonable and cost-effective and which timeframe is feasible for their distribution.

The Grid Code lays down requirements for metering and provides that from 1 January 2017 all consumers shall have remote reading devices (including households). The Grid Code also prescribes that from 1 January 2013 a remote reading device shall enable at least once every 24 hours to forward to the network operator through the data communication network the measurement data registered during each trading period and ensure access of a person agreed between the market participant and the network operator to the measurement.

As of the end of 2014 Elektrilevi OÜ has installed the remote reading devices for 34,8% of the household customers, Imatra Elekter AS for 75,7% and VKG Elektrivõrgud for 85% of the household customers.

The Ministry of Economic Affairs and Communications plans to include the implementation of intelligent metering systems in the next energy sector development plan until 2030.

The Competition Authority is in the position that the “Measures on Consumer Protection” of Annex I referred to in Article 37(1)(n,p) of the electricity Directive 2009/72/EC are ensured by the Estonian legislation.

**Conclusively, the Competition Authority is in the opinion that electricity consumers are well protected and the obligations of market participants are precisely prescribed. Sufficient information is available to consumers both related to the standard conditions**

**of contracts, typical load curves, energy sources used for production and others. The network undertakings maintain well shaped and sufficiently informative web sites.**

#### **4.1.2 In natural gas sector**

**(Directive 2009/73/EC, Annex 1. implementation of customer protection measures)**

Article 41(1)(o) of Directive 2009/73/EC provides that the regulatory authority shall help to ensure, together with other relevant authorities, that the consumer protection measures, including those set out in Annex I “Measures on consumer protection”, are effective and enforced. Annex I lists the consumer protection measures that shall ensure general protection of consumers. The requirements arising from the Directive are adopted into the Estonian legislation.

#### **Customer contracts**

In the estimation of the Competition Authority the field of customer contracts is a well-regulated field and customer interests are sufficiently protected. Pursuant to the Natural Gas Act both the standard terms and conditions for selling gas to household customers and standard conditions for the provision of network services are to be approved with the Authority. The Authority has to monitor whether network service user’s rights and obligations are balanced in the contract, as this forms the basis for the approval of prices for network services.

A connection contract, network contract or a contract for the sale of gas that is executed in a written or electronic form or a form that allows written reproduction or in any other form subject to stricter formal requirements, or the standard terms and conditions of such a contract, shall set out the following information:

- in the case of a network or connection contract, the name of the network operator, in the case of a contract for the sale of gas, the name and registration number in the Commercial Register of the network operator or the seller, as well as the address and other contact details of the network operator and the seller;
- a description of the services provided on the basis of the network or connection contract and the date on which the provision of services commences or the principal parameters of the natural gas sold under the contract for the sale of gas;
- the principal quality parameters of the services provided on the basis of the network or connection contract or a reference to a document which is accessible and which sets out such parameters;
- the time of initial connection to the network in accordance with the connection contract entered into for connection to the network or for amendment of the consumption or production conditions;
- a description of the maintenance services provided;
- the manner of obtaining relevant information concerning the charges payable under the contract;
- the conditions for amendment of the contract and the conditions for cancellation of the contract, including cancellation without charge;
- information concerning the conditions under which the consumer may obtain a refund or a money or other compensation if the services provided under the network or

connection contract or the a contract for the sale of gas do not conform to the terms and conditions of the corresponding contract;

- in the case of a network contract or a contract for the sale of gas, the term of the contract and the conditions for renewal and termination of the contract;
- the procedure for estimating the amount of consumed gas by the network operator in the case that the customer has not provided that information;
- the options of payment for the services.

The standard terms and conditions for the sale of gas shall, amongst other things, set out the following:

- the name, registration number in the Commercial Register, address and other contact details of the seller;
- a description of the services provided;
- the principal quality parameters of the services provided or a reference to a document which is accessible and which sets out such parameters;
- the procedure for notification of customers of the charges applied;
- the term of the contract, conditions for renewal, amendment and termination of the contract;
- conditions for cancellation of the contract without charge;
- the options of payment for the service.

Besides aforesaid the contract for the sale of gas shall set out the category of supply.

A contract for the sale of gas to a household customer may also include provisions of the contract for network services which deal with the provision of the network services necessary for the distribution of the gas to be sold.

The seller of gas shall allow termination of a contract for the sale of gas in the case of the customer's switching to another seller, within three weeks of submission of the corresponding application by the customer, provided the obligations arising from the contract to be terminated have been performed.

Pursuant to the Natural Gas Act the network operator or the seller shall transmit to the customer a corresponding notice at least 30 days prior to amending the terms and conditions of a contract, including prices and tariffs. The notice shall set out the envisaged amendments, the basis for the envisaged amendments and the date on which they are intended to take effect, as well as information concerning the fact that the consumer is entitled to cancel the contract if he does not agree to the amendments.

### **Customer information**

Both the gas network undertakings and the sellers of gas are obliged to maintain a web site and disclose on it the following information:

- charges for network services;
- maximum prices for gas;
- method for the calculation of connection fees;
- standard terms and conditions for contracts.

The network charges shall be disclosed at least 90 days and the prices for the gas for household consumers at least 30 days prior to their entry into force. In addition to the web site the tariffs have to be published also in at least one daily national newspaper. Besides the undertakings also the regulator is obliged to disclose all approved network service prices on its web site.

All gas undertakings are obliged to submit an invoice to a consumer for the consumed gas and network service at least once a month, unless otherwise agreed upon with the consumer. No additional fee shall be charged for the submission of the invoice.

In case of a customer's switch to another seller, the former seller submits to the consumer final settlement invoice in six weeks after the termination of sales contract.

### **Ensuring access to customer data**

Article 41(1)(q) provides that the regulatory authority shall ensure access to customer consumption data, the provision for optional use, of an easily understandable harmonised format at national level for consumption data and prompt access for all customers to such data under point (h) of Annex I "Measures on Consumer Protection".

Some network undertakings have created their own web based environment where consumers can see their contractual and metering data, also historical ones.

### **Definition of protected customer and disruption of gas supply**

From 10 April 2014 the Natural Gas Act provides that the *vulnerable customer* is a household customer to whom subsistence benefit has been awarded pursuant to section 22(1) of the Social Welfare Act.

The Natural Gas Act provides for suspension of gas supply. According to it network operators have the right to suspend a network connection without giving advance notice thereof to the final customer if there is a danger to the life, health or property of persons or to the environment. A network operator has the right to suspend a network connection immediately after it is established if there has been an unauthorised consumption of gas. Besides aforesaid, a network operator has the right to suspend gas supply, giving at least 7 days' advance notice, if:

- the consumer installation is adversely affecting the supply of gas to another final customer or damaging the technical parameters of the network;
- the network operator is prevented from accessing a metering system located within territory owned or possessed by a final customer in order to inspect or replace the system or to perform necessary work for the gas installation to operate;
- breach of the contract entered into on the basis of the Natural Gas Act or violation of the stipulated conditions.

If a household customer fails to pay the contractual charge in time and if the customer has a permanent residential space heated by gas, supply may be suspended during the period from 1 October to 1 May only when at least 90 days have passed since relevant notice.

Before the gas supply is suspended in events as described above, the network operator shall give the final customer a reasonable term to eliminate the deficiencies and shall notify the final customer of the pending suspension in writing. The notice shall set out the grounds for suspension of gas supply, the term for elimination of the deficiencies. A network connection or gas supply that has been suspended for the reasons explained above shall be restored after the customer has paid for the justified costs of suspension and reconnection, unless the contract has been terminated.

### **Selling obligation and final consumer price regulation**

Pursuant to the Natural Gas Act a seller of gas possessing the biggest market share within its network area is required to sell gas, within the technical limits of the network, to all household customers who have a network connection and are willing to buy. In addition to above the Act provides that a market dominant producers applies a principle in setting up prices for the gas sold to household consumers that a weighted average price for gas contains the import price and a sales margin added to it.

In the purchasing of gas an undertaking shall base on good business practice and buy gas at most favourable price and the sales margin added to the purchase price is subject to approval by the Competition Authority.

The ceiling rate of the sales margin must cover the costs incurred in the sale of gas and ensure justified profitability. The Authority has elaborated and disclosed in its web site a unified methodology for the calculation of the ceiling rate of the sales margin and relies on it in the approval process. According to section 6.3 of the methodology the sales margin consists of the sum of non-controllable costs, operating costs, capital expenditure and a justified return, which is divided by the sales volume.

The Authority applies *ex-post* regulation to the gas sold to households and this is first of all in relation to the market dominant seller of gas. If during a calendar year a weighted average price for sold gas differs from the weighted average purchase price with the added sales margin for the same period, then at the end of each calendar year the undertaking makes a settlement of accounts (equalization) with its consumers during three months period and submits a relevant report to the Authority each year by 1 May at the latest. The equalization shall be reflected on a separate line of the sales invoice. Small gas sellers (which are not in market dominant position) have no obligation to approve with the Competition Authority the sales margin as a component of the price of gas sold to household consumers.

### **Intelligent metering systems**

Article 37(1)(o,q) of Directive 2009/72/EC referring to section 2 of Annex I “Measures on Consumer Protection” provides that Member States shall ensure the implementation of intelligent metering systems that shall assist the active participation of consumers in the electricity supply market. The implementation of those metering systems may be subject to an economic assessment of all the long-term costs and benefits to the market and the individual consumer or which form of intelligent metering is economically reasonable and cost-effective and which timeframe is feasible for their distribution.



The Competition Authority is in the position that unless the diversification of natural gas importers, who could ensure the functioning of the market, it is not reasonable in Estonia to start massive replacement of existing gas meters with intelligent metering systems as such cost would lead to considerable increase of the network service price.

**Conclusively, the Competition Authority is in the opinion that natural gas consumers are well protected and the obligations of market participants are precisely prescribed. Sufficient information is available to consumers both related to the standard conditions of contracts and the rights to switch the seller. Also, the Competition Authority has good possibilities to exercise supervision over the market.**

## 4.2 Resolution of disputes

### 4.2.1 In electricity sector

(Article 37(11), (5)(c) and (4)(e) of Directive 2009/72/EC)

Article 37(11) of Directive 2009/72/EC provides that any party having a complaint against a transmission or distribution system operator in relation to that operator's obligations under this Directive may refer the complaint to the regulatory authority which, acting as dispute settlement authority, shall issue a decision within a period of two months after receipt of the complaint. That period may be extended by two months where additional information is sought by the regulatory authority. That extended period may be further extended with the agreement of the complainant. The regulatory authority's decision shall have binding effect unless and until overruled on appeal.

Pursuant to Article 37(4)(e) of Directive 2009/72/EC the regulatory authority shall be granted the appropriate rights of investigations and relevant powers of instructions for dispute settlement.

The Estonian legislative basis can be considered a good one, as it gives the Competition Authority sufficient possibilities for exercising market regulation.

The Competition Authority has the right to get necessary information from a market participant and from state and local municipal authorities, right to enter their territory, premises and facilities for the purpose of on-site inspection, examine the documents necessary for supervisory activities and other information and circumstances and make extracts, transcripts and copies thereof. The Authority can also inspect the price formation practices applied by market dominant producers or sellers. The regulator can establish development obligation for an undertaking through the conditions of activity licence. For example, an obligation to invest in the electricity network can be imposed if the operator's former performance has not secured the supply of electricity to customers in accordance with requirements.

All market participants have the right to refer to the Competition Authority as to an extra-judicial body. A market participant may file a written complaint with the Authority against an action or an omission of another market participant, which is in conflict with the Electricity Market Act or legislation enacted on its basis. The Authority reviews the complaint and makes a decision thereon within 30 days as of the receipt of the complaint. If the Authority requests information necessary for resolving the complaint, the passage of the term shall be suspended,

but not for longer than 60 days. The Authority's decisions can be challenged with an administrative court in 30 days since receiving of the decision.

In 2014 the number of consumer references to the Competition Authority was 88 (both complaints and inquiries), in order to establish violation of law by electricity undertakings or to get other electricity market related information. The consumer references were caused by the questions related to problems with entering into contracts, contract amending and cancelling, as well the questions of pricing (universal service, charge for renewables, excise tax on electricity) and the topics of installation of remote reading devices and the single invoice. The proceeding on the complaint related the activity of the system operator in connection with the transfer capacity on the Estonia-Latvia border was finalised.

#### **4.2.2 In natural gas sector**

##### **(Articles 41(11) and (4)(c) of Directive 2009/73/EC)**

Article 41(11) of Directive 2009/73/EC provides that any party having a complaint against a transmission, storage, LNG or distribution system operator in relation to that operator's obligations under this Directive may refer the complaint to the regulatory authority which, acting as dispute settlement authority, shall issue a decision within a period of two months after receipt of the complaint. That period may be extended by two months where additional information is sought by the regulatory authority. That extended period may be further extended with the agreement of the complainant. The regulatory authority's decision shall have binding effect unless and until overruled on appeal.

Pursuant to Article 41(4)(c) of Directive 2009/73/EC the regulatory authority may require any information from natural gas undertakings relevant for the fulfilment of its tasks, including the justification for any refusal to grant third-party access, and any information on measures necessary to reinforce the network.

The Estonian legislative basis can be considered a good one, which gives the Authority enough possibilities for exercising market regulation.

The Competition Authority has the right to get necessary information from a market participant and from state and local municipal authorities, the right to enter their territory, premises and facilities for the purpose of on-site inspection, examine the documents necessary for supervisory activities and other information and circumstances and make extract, transcripts and copies thereof. The Authority can also inspect the accounts and price practices applied by gas undertakings and obtain necessary information concerning their economic activities. The Competition Authority can establish temporary prices for the transmission and distribution of gas for no longer than two months in situations where those prices are not justified or the gas undertaking fails to follow a precept issued by the Authority. The Competition Authority can establish development obligation for an undertaking through the conditions of activity licence. For example, an obligation to invest in gas network can be imposed if the operator's former performance has not secured stable gas supply to customers in accordance with requirements.

All market participants have the right to refer to the Competition Authority as to an extra-judicial body. A market participant may record a written complaint with the Authority against an action or an omission of another market participant which is in conflict with the Natural Gas

Act or legislation established on the basis thereof. The Authority reviews the complaint and makes a decision thereon within 30 days as of the receipt of the complaint. If the Authority requests information necessary for resolving the complaint, the passage of the term shall be suspended, but not for longer than 60 days. The Authority's decisions can be challenged with an administrative court in 30 days since receiving of the decision.

In 2014 there were 19 natural gas related inquiries and 1 complaint. The main topics were connection, the correction of gas quantities and price related issues. The Competition Authority initiated supervisory proceeding on the correction of gas quantities. In 2014 the Competition Authority did not receive any complaint on the activity of the system operator.