



KONKURENTSIAMET
Estonian Competition Authority

**ELECTRICITY and GAS MARKETS
in ESTONIA**

REPORT

TALLINN 2014

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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 2013 and on the changes in safeguarding the security of supply¹.

Essential developments took place in the Estonian wholesale and retail markets of electricity in 2013. Equal access to the electricity networks and cross-border network connections between the EU Member States is ensured to all electricity producers in the market, which opened in the beginning of the year. This triggered the emerge of many new electricity sellers in the market. Besides contributing to the development of competition it broadened the possibilities of consumers to choose suitable provider of the service. The consumers have been very active in the utilisation of this opportunity and have preferred various price packages to universal service.

In the beginning of 2014 the *EstLink 2* direct current (DC) connection between Estonia and Finland started commercial operation, aiming at better functioning of the electricity market. In 2016 the connection *NordBalt* between Lithuania and Sweden shall be commissioned and in 2020 a new connection with Latvia shall be finalised.

In addition to the enhancement of competition between electricity producers the stronger connections with the Nordic countries also bring about more transparent and lower prices to the consumers. Also, due to the new connections the area of Nordic and Baltic countries will be better integrated with the European Union in the future.

In spite of the complete opening of the electricity market in the beginning of 2013 the power transmission capacity between Estonia and Finland was insufficient (only the *EstLink 1* connection was in operation). Due to this in 2013 Eesti Energia AS maintained its market dominant position as the producer of electricity. But the situation changed in the beginning of this year as the Estonian-Finnish *EstLink 2* new connection started operation.

In the second half of 2013 the Competition Authority carried out the process of assessment of compliance with the requirements, or the so-called certification process, of the transmission network operator Elering AS upon the application submitted by the latter. In addition to the principles laid down by the Electricity Market Act in the performing of the assessment the Competition Authority followed the requirements set forth by Regulation (EC) No 714/2009 of the European Parliament and of the Council (treats of access to the network for the cross-border exchanges in electricity). In October 2013 the European Commission delivered its decision on the agreement with the draft resolution prepared by the Competition Authority upon the application of Elering AS. In December 2013 the Authority made its final decision regarding the compliance of the undertaking with the requirements.

¹ 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.

The amendments to the Natural Gas Act, which were enforced in 2012 provided for the ownership unbundling of the gas transmission service provider (eventually, the aim is to prevent from being both the transmission and distribution service provider at the same time). In 2013 AS EG Võrguteenus submitted to the Competition Authority its action plan. The Authority verifies the fulfilment of the plan. At the same time AS Eesti Gaas handed over the transmission network (except transit pipelines) to AS EG Võrguteenus and out of the latter in turn the distribution service provider AS Gaasivõrgud separated from.

From the beginning of 2014 the sole shareholder of AS EG Võrguteenus is AS Võrguteenus Haldus, who currently deals with the bringing into compliance with the requirements of the Natural Gas Act of the circle of its shareholders. The requirements shall be fulfilled by 1 January 2015. The latter is also a precondition for the certification of AS EG Võrguteenus as the system operator – similarly to the requirements laid down in the Electricity Market Act in relation to the transmission system operator also the undertaking that provides the transmission service of gas has to go through the certification process based on the provisions laid down in the Natural Gas Act.

On 17 April 2013 Regulation No 347/2013 of the European Parliament and of the Council (the Regulation) on trans-European energy market guidelines was enforced. The Regulation lays down that the promoters of the projects included in the first Union list shall submit their investment requests by 31 October 2013 at the latest. Seven gas related and one electricity related common interest investment project requests were submitted to the Competition Authority to date.

Within six months the national regulatory authorities concerned shall take coordinated decisions on the investment requests.

With best wishes,

Märt Ots

Director General of the Estonian Competition Authority

1. Main developments in electricity and gas markets in 2013

1.1 Developments in electricity market

Wholesale and retail market of electrical energy

The annual electricity production in the Estonian electricity system in 2013 was 11 823 GWh, while 2 712 GWh was imported and the export was 6 300 GWh. The domestic consumption (without losses) was 7 332 GWh. The consumption of electricity in Estonia had been gradually growing from year to year, but due to the economic recession in 2009 the consumption decreased. 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 services and goods 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.

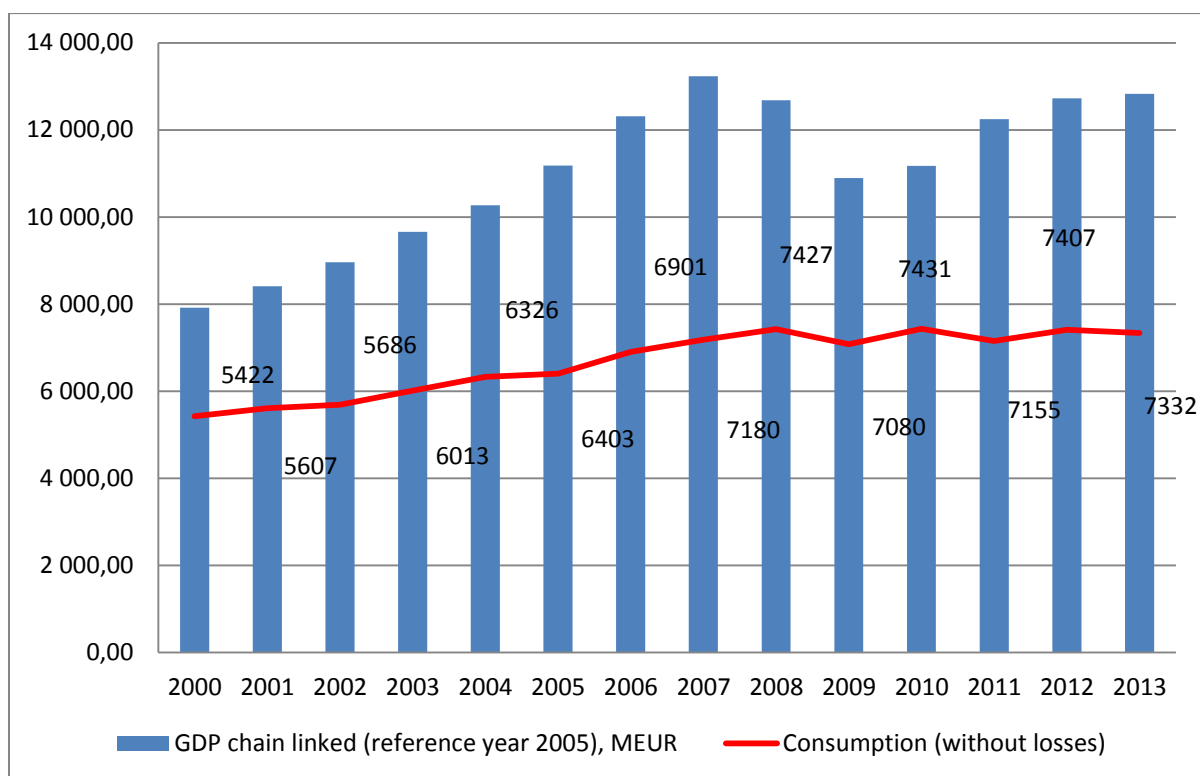


Figure 1. Relationship between electricity consumption and GDP. Source: Statistics Estonia

Pursuant to the exemptions provided by the European Union Estonia should have opened its electricity market in the extent of 35 % by 2009 and for all consumers by 2013. The factual electricity market openness in 2010 was 28,4%, while in 2011 it was 33,2% and in 2012 by 37,6%. Since 1 January 2013 the market is opened by 100 % for all consumers.

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.

On 18 June 2012 the Nord Pool Spot (NPS) opened the new price area on the border between Estonia and Latvia, named NPS ELE. The NPS ELE price area was used by those Latvian and Lithuanian market participants who had concluded contracts with the NPS for trading on the Estonian-Latvian border. At the same time the NPS started operations also in Lithuania by creating the price area named LT. From 3 June 2013 the ELE price area was invalidated and the new NPS Latvian price area named LV was created.

An average price in the NPS Estonia price area in 2013 was 43,14 €/MWh, which is higher than the 2012 price by 37%. An average final consumer price in 2013 including network service, excise tax and the support for renewable energy sources was 11,46 ¢cent/kWh (without VAT).

An average price in the NPS Estonia price area in the first half-year of 2014 was 35,27 €/MWh. The fall in prices was primarily caused by the start of the *EstLink 2* sea cable between Estonia and Finland in the beginning of 2014, which increased the cross-border transfer capacity up to 1000 MW. According to the data from the NPS the Estonian and Finnish electricity power exchange price in the day-ahead market (*Elspot*) in May coincided in the extent of 97,8%, while in April the same indicator was 96,8%.

In greater detail the developments in the electricity market in 2013 are 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 the 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 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 transmission system operator (TSO). The number of distribution network service providing undertakings is 35. In total there are 5 223 km of transmission (110-330 kV) lines belonging to the TSO and almost 68 825 km of low and medium voltage lines belonging to distribution operators. The distribution network undertaking with the biggest market share (87%) is Elektrilevi OÜ.

An annual average transmission tariff in 2013 was 1,28 ¢cents/kWh, while the distribution tariff was 5,56 ¢cents/kWh (without value added tax).

For Elering AS the change in network charges was mainly caused by the investment-related price components. The most significant investments are the second HVDC connection *Estlink 2* between Estonia and Finland and the construction of two quick start emergency reserve power plants with the capacities of 110 and 140 MW respectively. Elering AS is also constructing new connections and switchgear in order to increase the transmission capacity of its electricity networks and to minimise the network losses.

The new 3-years regulation period applicable for Elektrilevi OÜ began on 1 August 2011 and lasts until 31 July 2014. The change of charges was caused mainly by the network maintenance and repairs, as well as the investment related price components. The network maintenance, repair and the total investment volume in the regulation period is about 310 million €. At this sum Elektrilevi OÜ maintains and repairs a large number of existing installations and several new connections will be built.

Beginning from 2013 the prices for undertakings are not approved any more for a 3-years regulation period but instead, as pursuant to law an undertaking may submit an application any time for the approval of new network charges. If necessary, the Competition Authority has the right to verify (apply supervision) whether the price conforms to the provisions of the Electricity Market Act.

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

Cross-border issues in electricity sector

A number of changes have taken place on the issues of cross-border electricity trade and transmission capacity allocation. On 18 June 2012 amendments in the transmission capacity allocation principles took place due to the expansion of the Nordic countries' power exchange NPS to Lithuania. At the same time also changes on the Estonian-Latvian border took place. Until 17 June 2012 there were two sequential in time transmission capacity allocation mechanisms in use. The first one was the power auctions (*explicit auctions*) where 20% of the total trading capacity was allocated in weekly intervals. The rest was allocated by NPS in the day-ahead trading through the indirect auctions (*implicit auctions*).

As in Latvia the market price was not known, then in the transmission capacity allocation the so-called power optimisation mechanism was used: two bidding areas were established – one in the Latvian direction and the other one in the Estonian direction. Available capacity was allocated in both directions separately. The new allocation mechanism, which was undertaken on 18 June 2012, added together both bidding areas. Thus, in essence two price areas were created in Estonia – the Estonian price area (EE) and the other price area on the Estonian-Latvian border (ELE).

On 3 June 2013 the NPS ELE price area was given up and a new Latvian price area was created by the NPS power exchange. In doing so the three Baltic countries' electricity system operators Elering AS, Litgrid and Augstsprieguma Tīkls AS had previously on 15 March 2013 reached mutual agreement on the cross-border transmission capacity allocation both on the borders between the Baltic countries themselves, as well as on the borders with Russia and Belarus.

According to the agreement bidding areas were formed between the Baltic States' electricity systems and the third countries (Estonia-Russia, Latvia-Russia, Lithuania-Belarus and Lithuania-Kaliningrad) and the transmission capacity is calculated following the jointly agreed method and calculation model. The new rules came into force on 3 June 2013, when the NPS Latvian price area became operative. These activities are the first steps in the process, which has the final task of creation of a common virtual price area of the Baltic countries for electricity export and import operations with the third countries. The Competition Authority approved the aforesaid transmission capacity calculation rules by its

decision on 31 May 2013. In the same decision the Authority noted that the rules of capacity allocation established by the TSOs facilitate integration of the Baltic market but for better functioning of the market Elering AS in cooperation with the other TSOs has to shape a well-developed financial market 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 PTR limited (*physical transmission rights*) auctions“. Thus, the Estonian and Latvian TSOs agreed on the implementation of the congestion management financial model on the border between Estonia and Latvia. The agreement lays down the rules of implementation and use of the PTR for market participants. From January 2014 the PTR auctions are offered on the Estonia-Latvia border. The Competition Authority approved the PTR-auction rules by its decision of 13 December 2013.

In cooperation with the neighbouring countries' system operators in 2012-2014 a study of feasibility of connecting the Baltic States with the Central Europe frequency area is conducted. Synchronised operation with the Central Europe frequency area means that the Estonian electricity system's frequency will be controlled together with other electricity systems belonging to the united electricity system of continental Europe.

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

Ownership unbundling of transmission system network

From 1 July 2010 the Electricity Market Act lays down the requirement that the transmission network undertaking cannot at the same time be also a distribution network undertaking, nor belong to the same group with an undertaking who is acting in the areas of activity related to the production or sale of electricity. In Estonia the TSO (Elering AS) is separated by ownership from all other electricity production and sale undertakings.

From 27 January 2010 100% of the Elering AS shares belong to the Estonian state. The same is true also for the shares of Eesti Energia AS that deals with electricity production. Earlier the shares of both, Elering AS and Eesti Energia AS belonged to the Ministry of Economic Affairs and Communications, which was in conflict with the ownership unbundling principles. By the governmental decision No 129 of 21 March 2013 the possessing and exercising of shareholder's rights of the shares of Eesti Energia AS was handed over to the Ministry of Finance. This ensures that the shareholder's rights are exercised by different ministries and different ministers.

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 amendment to the Electricity Market Act was enforced on 8 July 2013, 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 No 7.1-3/13-028 on 24 January 2014 which concludes that Elering AS complies with

paragraph 18¹ of the Electricity Market Act. On 24 January 2014 the Competition Authority issued the activity licence to Elering AS for providing 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 2013 the Estonian energy balance in was continuously positive as the production exceeded the consumption. The peak load in winter 2013 in the Estonian electricity system was 1 422 MW (recorded on 18 January 2013). According to the data available to the Authority the installed capacity in the Estonian electricity system was 2 071 MW.

Thus, the installed generation capacity in Estonia exceeded the system's peak load and presumably such tendency will continue at least until 2020. In addition to the production capacity the security of supply in Estonia is improved through the large investments in the national grid and cross-border connections with the electricity systems of neighbouring countries. These are first of all the emergency reserve power plant in Kiisa and the new DC connection with Finland, which started commercial operation in 2014. Also, according to the *Security of supply report 2013* by the Estonian TSO Elering AS during the following ten years the production capacities in Estonia are sufficient for securing supply of electricity for consumers during consumption peaks and in extreme weather conditions as well.

Although 90% of electricity in Estonia is produced from non-renewable sources, by 2013 Estonia has fulfilled the target that was set to be achieved by 2020 – renewable energy constitutes 25% of the final consumption of primary energy.

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

1.2 Developments in natural gas market

Wholesale and retail market of natural gas

In 2013 an increase in the two sequential years in the volume of annual gas sales took place in the Estonian natural gas market (in 2011 – 627, in 2012 - 679 and in 2013 – 689 million m³ per annum). The reason was that the chemical industry AS Nitrofert re-started its operation in December 2012. In August 2013 the production plant was stopped for a planned maintenance. Until present the plant has not restarted its operation and this is not planned also in the nearest future. In other Estonian sectors the consumption of gas decreased in 2013 by 14% (in 2012 – 658, in 2013 – 566 million m³).

The main area of natural gas application is the production of thermal energy (32% in district heat supply and 9% in space heating of industrial consumers) and the industrial processes (18% in fertiliser production and 22% in other industrial processes. 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 m³ daily). In 2013 the daily winter consumption was 4,7 million m³. In the winter period Estonia receives all the needed gas volume from the Inčukalns Gas Storage and no supply disturbances have taken place.

The country of origin of gas is Russia and currently only one wholesale trader acts in the market – AS Eesti Gaas. The import licence has been issued also to other two undertakings: to AS Nitrofert who supplied gas only for its own production needs and to Baltic Energy Partners OÜ, who has not made real gas supplies so far. Similarly to the wholesale market also in the retail market AS Eesti Gaas is in market dominant position. In 2013 the share of AS Eesti Gaas in the retail market had increased up to 89,2%, and the rest 10,8% of the retail market gas was purchased by other network undertakings from AS Eesti Gaas for re-selling. 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 AS EG Võrguteenus. Beginning from the second half of the 2013 it does not provide any more the distribution services of gas. The distribution service was taken over by AS Gaasivõrgud, which separated from it. In addition to AS Gaasivõrgud there are other 25 natural gas distribution undertakings in Estonia. The largest ones are Adven Eesti AS, Gasum Eesti AS, Tehnovõrkude Ehitus OÜ and AS Sillamäe SEJ.

From 1 May 2013 the transmission and distribution charges of the transmission network undertaking AS EG Võrguteenus increased and the structure of prices changed. The reason for the price change was the supplement, pursuant to the Natural Gas Act, according to which the price of natural gas shall include the book value of the assets needed for the provision of transmission and distribution services. Earlier the assets were taken into account as the rental cost. The price was also influenced by the 8% decrease in the volume of sales. The verification of the sales volume was based on the principle laid down in the Natural Gas Act, according to which the sales volume shall be calculated as the arithmetical average of the last three years.

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 was 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.

The system operator EG Võrguteenus AS has three years to take its activities into compliance with the legal requirements. On 31 December 2012 the system operator submitted to the Competition Authority the plan for fulfilment of the ownership unbundling requirements. According to the plan the system operator will be brought into compliance with the requirements laid down in the Natural Gas Act by 1 January 2015 at the latest, 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

In 2013 AS Eesti Gaas handed over the transmission network (except transit pipelines) to AS EG Võrguteenus and out of it the distribution service provider AS Gaasivõrgud separated from. From the beginning of 2014 the sole shareholder of AS EG Võrguteenus is AS Võrguteenus Haldus, who deals currently with the bringing into compliance with the requirements of the Natural Gas Act of the circle of its shareholders by 1 January 2015. The latter is also a precondition for the certification of the system operator. By this point in time AS Võrguteenus Haldus has not yet fulfilled the requirements.

On 28 May 2014 AS EG Võrguteenus submitted the application for assessment of compliance with the requirements and obtaining of the activity licence. Upon the application 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

Regulation No 994/2010 of the European Parliament and of the Council, which treats of security of natural gas supply, requires maintaining of gas supplies in the event of disruption of the single largest gas infrastructure, i.e. the fulfilment of the so-called N-1 criterion also during a day of exceptionally high gas demand. In Estonia the value of N-1 criterion in 2013 was 104,5%. This means that even in an event of a disruption of the largest connection the needed gas supply to the Estonian consumers is ensured also during peak consumption.

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.

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

1.3 Main changes in legislation

In 2012 the amendments were introduced in both the Electricity Market Act and the Natural Gas Act according to which the transmission network undertaking shall be fully independent

from the undertakings acting in the area of electricity and natural gas production and sales, as well the requirement of ownership unbundling of the transmission system operator was laid down. Differently from 2012 in 2013 there were no considerable amendments of the Acts.

By now Estonia has introduced amendments in both the Electricity Market Act and the Natural Gas Act pursuant to the requirements 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 concerning the management of the transmission network undertaking and the transmission system operator, as well as the assessment of compliance to the requirements and the post-evaluation rules.

Important changes were caused by the enforcement of the General Part Act of Economic Activity Code (GPAEAC) and of the Law Enforcement Act (LEA) from 1 July 2014. These enforcements in return formed the basis for amending of both the Electricity Market Act and the Natural Gas Act. The activity licences are issued on the bases of the Electricity Market and Natural gas Acts. But, from now on, pursuant to the amendments, the undertakings have to additionally consider also the provisions of the GPAEAC, while applying for the activity licence.

One of the main tasks of the GPAEAC is to limit the number of regulations which contain the legal norms of economic activity, their extent and complicity – i.e. to minimise excessive bureaucracy that would prevent undertakings from performing or starting its activities. One of the important changes is that in general all the proceedings related to the activity licences of undertakings shall be carried out in an electronic format through dedicated web sites (*ettevõtjaportal* and *eesti.ee*) and as an alternative, any notifications and applications, including the whole activity licence related proceedings, may be in future carried out by a notary, if so needed and wished by an undertaking.

However, the activity licence issuance related actions by means of a web site or of a notary do not influence neither the specified deadlines nor the right of an undertaking to submit any messages and applications on paper or digitally directly to the Competition Authority. In order to simplify the application of activity licences issued on the basis of the Electricity Market Act and the Natural Gas Act the Competition Authority has elaborated instructions for the application of activity licences, which are available on the web page https://www.eesti.ee/est/teemad/ettevotja/load_ja_registreeringud_1 in subsection „Energeetika“.

As for the time being these are the features applicable in the practice of proceedings for the first time ever, it is difficult to evaluate how such features will influence the activity licences related proceedings or the assessment of the economic activity of undertakings in the future. It is important that herewith first of all it is necessary to base on the provisions of the Electricity Market Act and the Natural Gas Act (as the special acts) and afterwards to consider the requirements of the GPAEAC.

Concerning the LEA the Competition Authority can conclude that by the enforcement of this Act from 1 July 2014 the sphere of competence of the Authority in terms of reference of supervision was strengthened. Thus, in addition to the sphere of competence arising from the Electricity Market and Natural Gas Acts the Competition Authority may in its state supervisory proceedings apply also the special measures arising from the LEA (particularly,

to require necessary information and in order to ascertain or eliminate serious danger may enter limited or marked immovable property without the owner's consent).

Since the LEA is an act which was enforced just recently, it is herewith very important to work out proceedings for the Competition Authority, which comply with the fulfilment of obligations arising from law and are proportional to the interests of undertakings.

No significant amendments were introduced in the Electricity Market and Natural Gas Acts in 2013.

Energy sector development plan ESDP 2030+

In the end of 2012 Elering, the Ministry of Economic Affairs and Communications, Arengufond (parliamentary development foundation) and Enterprise Estonia started cooperation in order to update the energy sector development plan ESDP (*in Estonian: ENMAK 2030+*). The purpose of the development plan is to select the most optimal scenario of energy supply, which has reasonable price and availability for consumers, low environmental impact, in compliance with the European Union's long-term energy and climate policy targets and most competitive in longer run. For the preparation of the development plan various energy supply related sectors are firstly analysed individually and then the connections between the sectors are highlighted with the task of reflecting the economically most preferable action plan in order to achieve economic growth through optimal utilisation of existing resources and improvements in the life environment.

As an important input to the development plan updating several possible energy market development scenarios in the Estonian and whole Baltic Sea region until 2050 were modelled. The scenarios conform to the tasks of the European Union until 2030 and 2050. In addition the impact of the scenarios was analysed and many other studies in various energy related sectors was carried out. The performed analyses and studies are the basis in the elaboration of the development plan measures and related to electricity, gas and heat supply sectors, availability of fuels, energy consumption and conservation, transport, housing and the production of indigenous fuels.

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.

Pursuant to section 22 of the Electricity Market Act the transmission network undertaking can operate only on the basis of the activity licence issued to him by the Competition Authority (the regulator) provided that the undertaking complies with the requirements prescribed in law. The activity licence is without a term, but every year the regulator verifies compliance of the undertaking with the requirements and pursuant to the State Fees Act the licensee pays for that an annual fee. Pursuant to section 36 of the Electricity Market Act the licence is revoked if the undertaking is not fulfilling the requirements imposed by law. The Competition Authority has verified compliance of Elering AS with the requirements of the Electricity Market Act and pursuant to section 26 of the Electricity Market Act issued to Elering AS the activity licence for the provision of network service through the transmission network.

The amendment to the Electricity Market Act, which was enforced on 8 July 2012, establishes 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 belong to the Estonian State. The same is true with the shares of Eesti Energia AS, who is engaged in the production of electricity. Earlier the shares of both Elering AS and Eesti Energia AS belonged to the Ministry of Economic Affairs and Communications. This was in conflict with the ownership unbundling principles. By Decision No 129 of 21 March 2013 the Government designated the Ministry of Finance as the administrator of shares and the exerciser of shareholder's rights and the shares were transferred to the Ministry of Finance. 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).

On 22 April 2013 Elering AS submitted the application for assessment of compliance and obtaining of activity licence. The Competition Authority initiated the certification proceeding, which may take up to 8 months (including the hearing of the opinion of the European Commission). The Competition Authority prepared a draft of the resolution on the assessment of compliance with the requirements. The draft was submitted to the European Commission on 28 August 2013 to get an opinion. In the draft the Competition Authority analysed the compliance of Elering AS to section 18¹ of the Electricity Market Act and also whether Elering AS performs the duties assigned by the internal electricity market directive. On

24 October 2013 the European Commission delivered its opinion about the draft of the assessment resolution to the Competition Authority in which an evaluation to the ownership unbundling of the transmission undertaking was given. The Commission paid attention to the circumstances that the belonging of *EstLink 1* to the undertakings engaged in the production of electricity does not comply with the rules of ownership unbundling and that the Finnish transmission undertaking Fingrid Oy was not certified and thus, an independent operation of *EstLink 1* and *EstLink 2* is not ensured. This was solved on 27 November 2013, when Elering AS and Fingrid Oy made the purchase/sales deal by which they became the owners of *EstLink 1* from 30 December 2013. The Competition Authority took the Commission's notes into consideration in its final decision No 7.1-3/13-028 of 20 December 2013 decided that Elering AS complies with the requirements of section 18¹ of the Electricity Market Act. On 24 January 2014 the Competition Authority issued to Elering AS the licence to provide network services through the transmission network.

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 (until 17 May 2012 its name was Eesti Energia Jaotusvõrk OÜ), which belongs to the Eesti Energia group, 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

Until 1 January 2013 all network operators were 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. Pursuant to the legal amendments published on 8 July 2012 respective obligation is imposed only on the distribution network undertakings and it does not apply to the transmission network undertaking. Whilst law still contains a number of specifications, which extend also 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/-/doc/6305157/ettevottest/vordse_kohtlemise_tegevuskava.pdf).

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.

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 76¹ (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.

Elektrilevi OÜ performs supervision over the consumption of electricity. 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 42¹ 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.

Along with the market opening the issue of a single invoice has raised. 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

The Estonian electricity system comprises of power plants, transmission networks, distribution networks and electricity consumers. The Estonian electricity system is synchronised with the united Russian electricity system (IPS/UPS) and is connected through 330 kV transmission lines with Russia and Latvia. 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. 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 transmission system operator (TSO), and 36 undrtakings that provide ditribution network services. The total length of the transmission lines (110-330 kV) that belong to the transmission network undertaking is 5 223 km, while the length of the low and medium voltage distribution networks is in total 68 825 km. The map of the Estonian electricity system is presented in Figure 2.

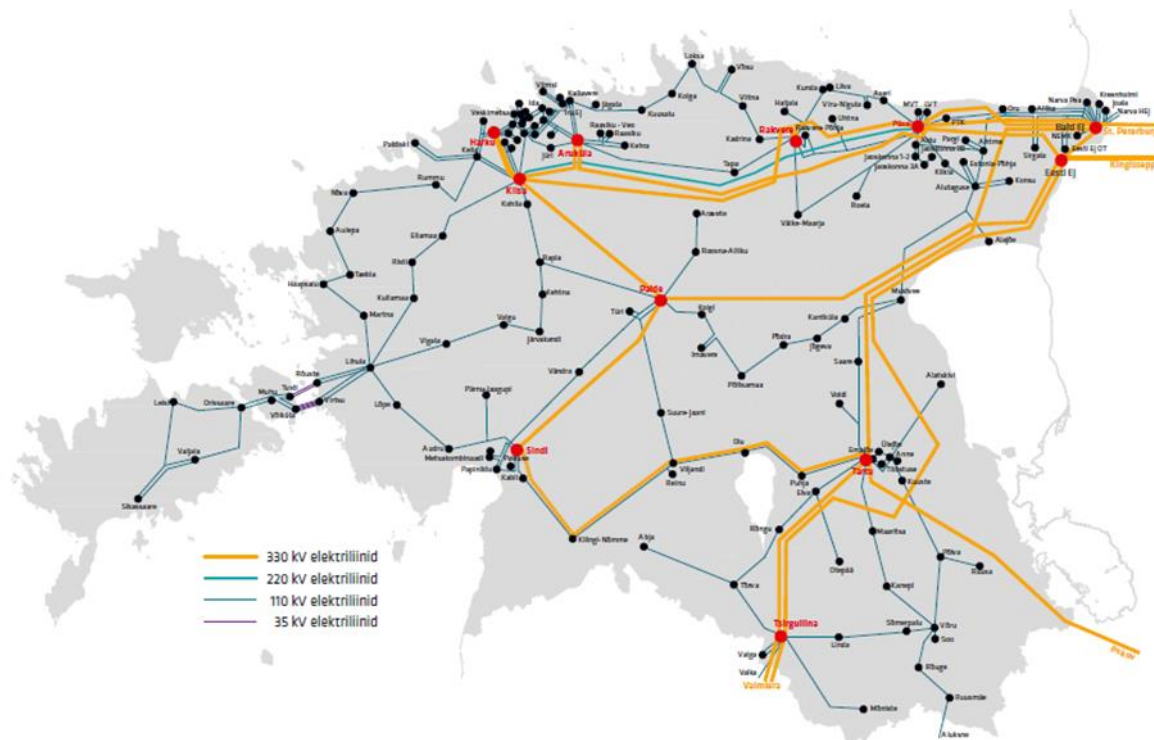


Figure 2. Estonian electricity system. Source: Elering AS

As regards distribution networks the concentration of market is extremely high and the market 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 6 491 GWh and the number of customers of 496 513 in 2013. It's the share on the market on the basis of sale volume was 87,3%. The next two largest distribution network undertakings had close sale volumes: VKG Elektrivõrgud OÜ with the annual sale volume of 219 GWh and 33 898 customers and Imatra Elekter AS with respectively 199 GWh sale volume and 24 689 customers. The annual sale of the rest 33 distribution undertakings is below 500 GWh altogether. The largest among those are TS Energia OÜ, AS Sillamäe SEJ and AS Loo Elekter. The annual sale of the smallest networks is below 2 GWh.

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, when all connection points have to be equipped with so-called smart meters.

Eligible customers conclude with a seller an open supply contract, which designates the balance provider who has taken the responsibility to provide balance of the eligible customer. For the balance of non-eligible 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, six 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. Pursuant to it, 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

	Summer period from April to September	Winter period from October to March
Transmission network		
Acceptable duration of an interruption caused by faults	2 hours */ 120 hours **	
Acceptable annual accumulated interruption duration	150 hours***	
Distribution network		
Acceptable duration of an interruption caused by faults	12 hours	16 hours
Acceptable duration of a planned interruption	10 hours	8 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 may also initiate a misdemeanour proceeding in each specific case and impose a fine in an amount of up to 3 200 €.

The Competition Authority has elaborated a specific form for reporting. Undertakings are required to fill in 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:

- Average fault caused interruption frequency per consumption point per year (**CI; SAIFI**). SAIFI shows an average number of fault caused interruptions during year per customer in the area concerned.
- Average fault caused interruption time per consumption point per year (**SAIDI**). SAIDI is the main indicator describing the quality of network service provision, which shows an average fault caused total interruption duration of a customer during year. SAIDI is an aggregated indicator which best characterises the operation of the whole network or its part. Its decrease directly indicates the improvement of reliability.

- Average fault caused duration of an interruption (**CAIDI**). CAIDI is an average measure of duration of a fault caused interruption and characterises average time of for re-supply of a customer. The task is decreasing of CAIDI but it is not directly related to the improvement of reliability.
- Average planned interruption frequency per consumption point per year.
- Average planned interruption time per consumption point per year.
- Average duration of a planned interruption.

All aforesaid data on network quality are disclosed on the Competition Authority's web site. The Authority takes them into account in the process of price proceedings.

Table 2 presents the quality of electricity supply indicators for the years 2011 - 2013 of the transmission undertaking Elering AS and the largest distribution operator Elektrilevi OÜ.

Table 2. Elering AS and Elektrilevi OÜ electricity supply quality

Security of supply indicators	Unit	Elering AS			Elektrilevi OÜ		
		2011	2012	2013	2011	2011	2012
Total number of consumption points	pcs	253	230	233	636 762	655 540	660 009
Fault caused annual accumulated interruption duration	minute s	6386	1756	2719	242 094 462	122 585 980	272 583 717
Planned annual accumulated interruption duration	minute s	10044	8633	17403	70 816 955	59 654 140	61 111 547
Average fault caused interruption frequency per consumption point per year (CI) (SAIFI)	pcs	0,257	0,148	0,223	2,126	1,920	2,65
Average interruption time per consumption point per year (SAIDI)	minute s	25	8	12	380	187	413
Average duration of an interruption (CAIDI)	minute s	98	52	52	179	97	155,8
Average planned interruption frequency per consumption point per year	pcs	0,079	0,026	0,043	0,550	0,560	0,601
Average planned interruption duration per consumption point per year	minute s	39,7	37,5	74,7	111,2	91,0	92,6
Average planned duration of an interruption	minute s	502,2	1438,8	1740,3	202,3	162,5	154,2

It is seen from above table that in 2013 the durations of interruptions caused by faults have increased both in the network of Elering AS and that of Elektrilevi OÜ as well. This was caused by heavy storms in the autumn.

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 - 2013.

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
L301 Tartu - Valmiera	113,4	58,2	10,9
L354 Tsirguliina - Valmiera	189,4	0	507,68
L358 Tartu - Pihkva	288,8	657,7	314,52
L373 Eesti PP - Kingissepp	763,4	265,3	349,82
L374 Balti Substation - Leningradskaja	519,1	1194,3	1556,58
L677 Tsirguliina - Valka	2638,3	444,7	92,45
L683 Ruusmäe - Aluksne	374,7	1307	855,55
LN3	0	2080,1	0
Total	4887,1	6007,3	3676,6
incl. ordered by neighbouring systems	4848	2730	3442,75

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 and in 2013 3 677 hours. In 2013 the interruption time in comparison with 2012 shortened by 39%. 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, 59¹, 59² 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.

As regards 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 32¹ 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 enough through the renewable energy support scheme.

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 2013 was 36 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 can 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 in 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 in 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. As the 3-years regulation period was not implemented due to the provisions of the legislation – pursuant to the Electricity Market Act undertakings have had the right to discontinue the 3-year regulation period any time and apply for the approval of a new cost based price. Thus, approved network service charges may last longer than a year. Aforesaid principle was valid also before the methodology amendment, as pursuant to the Electricity Market Act existing price have been valid until the application of new ones. 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 interconnection has been taken into account. Pursuant to Article 16 (6) point (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.

Average prices for network services in 2013 are presented in Table 4. 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 2013

Service provider	Number of undertakings	Average price for transmission and distribution service €cent/kWh
Transmission network	1	1,28
Distribution networks	36	5,56

Charges for connecting to network

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 13 December 2011.

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 CIS 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 2013 the peak load from Narva to the direction of Russia was 807 MW, while from South Estonia in the direction of Russia it was 213 MW. The peak load in the Latvian direction was 921 MW and the same in the direction of Finland was 1 029 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 13 August 2009 the Competition Authority accepted the general plan prepared by the TSO Elering AS for the calculation of the total transfer capacity and the transmission reliability margin based upon the electrical and physical features of the network. On these principles Elering AS calculated the transmission capacities and approved them with Latvian TSO according to the signed agreement *Trading capacity value calculation rules*. The agreement sets out the methodologies used by Elering and the Latvian TSO for the calculation of cross-border transmission lines' transfer capacity.

On 15 March 2013 the transmission system operators of the three Baltic countries agreed upon the *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 18 June 2012 until 3 June 2013

On 1 April 2012 the new ELE price area was established by the Nordic countries' power exchange NPS for trading on the Estonia-Latvia border and the LT price area for trading in Lithuania. The transmission capacity between Estonia and Latvia given to the allocation by the NPS was allocated by using the power optimisation method. This was because in Latvia no NPS price area was opened and the method of implicit auctions could not be used.

For the allocation of the transmission capacity between Estonia and Latvia, and as well as between Estonia and Russia the following bidding areas were formed:

- in the Estonian bidding area all market participants which act in Estonia can make bids;
- the ELE area can be used by those Latvian and Lithuanian market participants, who had concluded an agreement with the NPS on trading on the Estonia-Latvia border;
- in the Russian import area those market participants can make bids who wanted to import electricity from Russia to the power exchange.

In the NPS Estonia price area the price was calculated according to the NPS rules, therewith considering the bids made and approved in the Estonian and Russian import bidding areas.

In the ELE price area the price was calculated according to the NPS rules, therewith considering the bids made and approved to the ELE bidding area.

Transmission capacity allocation on the Estonia-Russia and Estonia-Latvia borders in NPS Estonian 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 PTR limited (*physical transmission rights*) auctions“. Thus Elering AS and the Latvian TSOs agreed on the implementation of the congestion management financial instrument of the PTR 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.

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 28 229 801 euro. Out of this 1 151 924 euro is used pursuant to Article 16 (6) of Regulation (EC) No 714/2009 for guaranteeing the actual availability of the allocated capacity (so-called counter-trade) and the rest of 27 077 878 euro will be taken into account in the calculation of the network tariffs pursuant to the section before the last of Article 16 (6) (in the report – point 6c of Article 16).

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 (ACER) and other regulatory authorities the Electricity Market Act sets out the following rights and obligations to the Competition Authority:

- Cooperation with the ACER and other regulatory authorities of the Member States;
- Engagement 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;
- Engagement 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:

- issue and revoke activity licences, extend the term of activity licences, establish and amend the conditions thereof and monitor compliance with the conditions of activity licences;
- notify the European Commission of the decision to issue an activity licence to the transmission network operator, and shall publish that decision in the Official Journal of the European Union;
- issue enforcement orders to ensure performance of the network development obligation;
- approve principles to govern the hourly regulation of the system, approve the distribution plan of cross-border capacity and the principles for congestion management pursuant to Regulation No 714/2009;
- monitor the prices of balancing electricity set by the system operator and approve standard terms and conditions of balance agreements;
- approve methods for the calculation of network charges, approve the network charges, except for transmission charges for the transit of electricity, and approve standard terms and conditions for the provision of network services;
- monitor the transmission charges applied by network operators for the transit of electricity, as well as the connection charges and the charges for the amendment of conditions;
- verify the fulfilment of the conditions provided for in Regulation 714/2009/EC of the European Parliament and the Council;
- monitor investments in production capacity and, having regard to considerations of security of supply, direct the system operator, if this is needed, to hold the competition specified in subsection 4¹ of section 4 of the Energy Market Act;
- monitor the time that transmission network operators and distribution network operators take to build connections and to perform repairs;
- issue an evaluation in its annual report regarding the report drawn up by the system operator, 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) of Regulation No 714/2009 of the European Parliament and of the Council, and issue recommendations concerning the amendment of the system operator's investment plan, if this is necessary;

- monitor the technical cooperation between the transmission network operators of the member states of the European Union and of third countries;
- verify that market participants comply with the requirements set out in the Act and the legislation enacted on its basis, and perform the relevant obligations;
- resolve disputes between market participants which are related to infringements of obligations provided in the Electricity Market Act and the legislation enacted on its basis;
- prepare and publish on its website by 31 July each year an overview concerning the previous calendar year which shall reflect:
 - the rules of allocation of capacity of inter-system 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;
 - unbundling of activities;
 - the connection conditions established for new producers;
 - performance of obligations by the system operator and network operators;
 - the situation of competition in the electricity market
- perform other duties imposed by the Electricity Market Act, and by Regulation No 714/2009/EC of the European Parliament and of the Council.

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.

Pursuant to law the Competition Authority is obliged to issue mandatory enforcement orders to market participants in the event of a violation of the Electricity Market Act to put an end to the violation or breach, to eliminate and remedy its consequences or to perform other acts. 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 amendment to the Public Service Act enforced on 8 July 2012 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 begun 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

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 lays down 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 **national regulatory authorities** concerned, 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.

Regulation No 347/2013 lays down that, for projects included in the first Union list, project promoters shall submit their investment request by 31 October 2013 at the latest. The following Estonia-related electricity projects of common interest are included in the list (com_2013_711):

1. Cluster Estonia - Latvia between Kilingi-Nõmme and Riga [currently known as 3rd interconnection] including the following two projects:
 - a. Interconnection between Kilingi-Nõmme (EE) and Riga CHP2 substation (LV);
 - b. Internal line between Harku and Sindi (EE).
2. Synchronous interconnection of Estonia /Latvia /Lithuania with the Central European networks;
3. Hydro-pumped storage of Eecost in Estonia - 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 CHP No 2 in Riga, 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 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 CHP No 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>.

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* connection between Estonia and Finland the electricity system of the Baltic countries is integrated with Finland. In Latvia and Lithuania the electricity market is opened by now. By the end of 2013 the *EstLink 2* connection was completed, which even more integrated the Estonian and the whole Baltic system with the Nordic countries' power exchange NPS.

In 2013 11 823 GWh of electricity was produced (net production) in Estonia. Compared to 2012 the production increased by 12,3%. The network losses in the Estonian electricity system comprised 903 GWh, compared to 2012 it is more by 2,7%. The import to Estonia in 2013 was 2 712 GWh, which is more than in 2012 by 0,1%. The domestic consumption decreased by 1% with the total of 7 332 GWh in 2013. The export from Estonia was 6 300 GWh, which is more than in 2012 by 27,3%. Table 5 presents the changes in the Estonian energy balance in 2012 and 2013.

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

Electricity balance in GWh	2012	2013	Change, %
Net generation *	10 526	11 823	12,3
Import	2 710	2 712	0,1
Consumption	7 407	7 332	-1,0
Losses	879	903	2,7
Export	4 950	6 300	27,3

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 in GWh. Source: Statistics Estonia

Cross-border electricity trade, MWh	2012	2013	Change, %
Import total	2 710	2 712	0,1
incl. from Latvia	554	335	-39,5
incl. from Lithuania	545	0	-100,0
incl. from Finland	1 611	2 377	47,5
incl. from Russia	0	0	0,0
Export total	4 950	6 300	27,3
incl. to Latvia	2 500	5 739	129,6
incl. to Lithuania	2 022	0	-100,0
incl. to Finland	428	561	31,1
incl. to Russia	0	0	0,0

It appears from Table 6, that in 2013 Estonia exported to the neighbouring countries over two times more electricity than imported. In 2013 the total import was 2 712 GWh, which is close to the volume of 2012. The largest volume of 2 377 GWh was imported from Finland, which is almost 88%. The total export in 2013 was 6 300 GWh, which is by almost 27% more than in 2012. The largest export volume was to Latvia: 5 739 GWh, or 91%.

Below Figure 4 presents the comparison of prices in the NPS System, NPS Estonia, NPS ELE, NPS Finland, NPS Lithuania and NPS Latvia, which was opened from 3 June 2013.

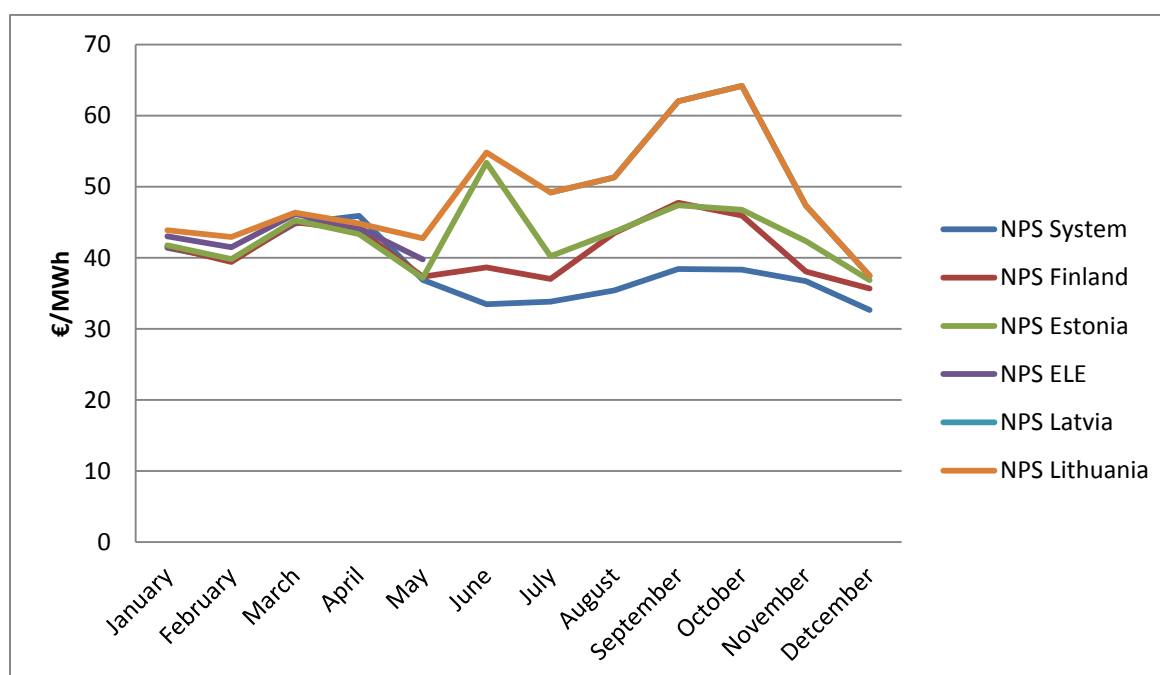


Figure 4. Comparison of NPS System, NPS Estonia, NPS ELE, NPS Finland, NPS Lithuania and NPS Latvia monthly average prices (€/MWh) in 2013. Source: Nord Pool Spot

The reasons for difference in prices in various price areas, as seen from Figure 4, are the high export ability of the Estonian producers, deficit of electricity in Latvia and Lithuania, high water reserves in the hydro reservoirs of the Nordic countries, congestion in the Estonian-Latvian cross-border lines and technical failures and repairs in the *EstLink 1* sea cable.

The trend of the NPS System, NPS Estonia, NPS ELE, NPS Finland, NPS Lithuania and NPS Latvia (from 3 June 2013) prices in 2013 was rising due to the reserves of water in the hydro reservoirs of the Nordic countries. In June, July and August 2013 the NPS Estonia, NPS Latvia and NPS Lithuania prices were strongly affected by the transmission capacity limitations on the cross-border lines between Estonia and Latvia which raised the Balti NPS areas' prices considerably. It can be seen in Figure 4 that the price volatility of different price areas of the power exchange is very high. The NPS Estonia area was mainly affected by the differences in summer and winter period consumption demand, as well as the congestion between Estonia and Latvia, while the Latvian and Lithuanian power systems are mainly in shortage during summer months.

For comparison the NPS Estonia price area electricity prices in years 2011-2013 are presented in Figure 5.

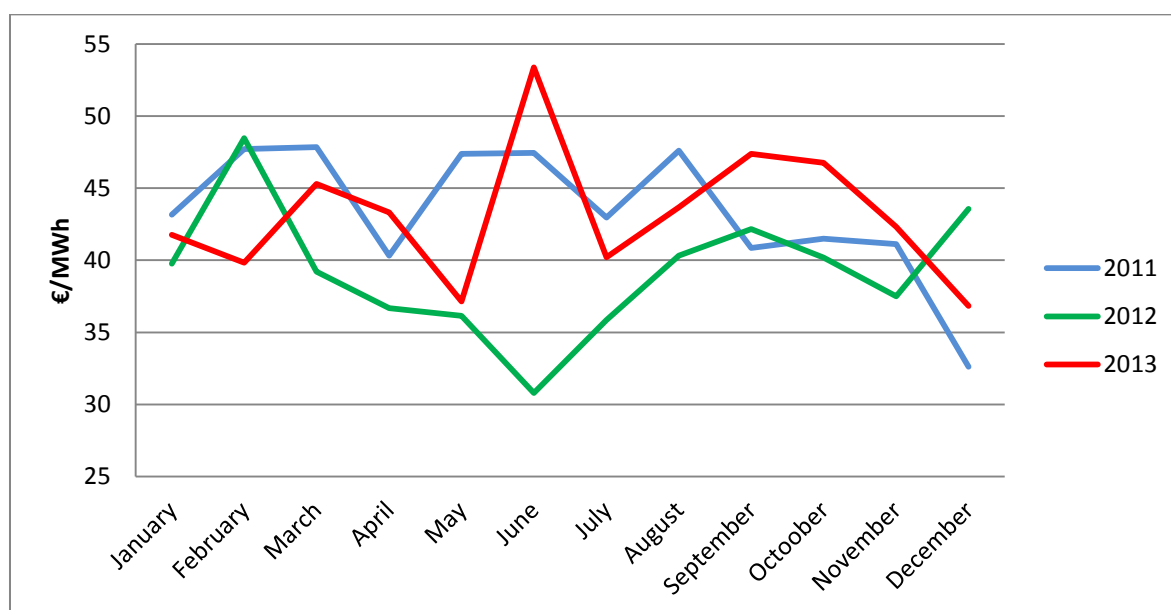


Figure 5. NPS Estonia price area average electricity prices (€/MWh) in years 2011-2013. Source: Nord Pool Spot

It appears from Figure 5 that the price volatility 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 2012 and 2013.

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

Price area	Unit	Average price 2012	Average price 2013	Maximum price 2013	Minimum price 2013	Change, %
NPS System	€/MWh	31,20	38,10	109,55	1,38	22,1
NPS Finland	€/MWh	36,64	41,16	210,01	1,38	12,3
NPS Estonia	€/MWh	39,20	43,14	210,01	5,08	10,1
NPS ELE	€/MWh	42,63	42,84	109,55	8,75	0,5
NPS Lithuania	€/MWh	45,50	52,41	210,01	5,08	15,2

NPS Latvia	€/MWh	-	48,93	210,01	3,09	-
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Note: NPS ELE price area until 2 June 2013, NPS Latvia price area from 3 June 2013

As appears from Table 7, an average price in the NPS Estonia price area in 2013 was 43,14 €/MWh, compared to the 2012 price, it is higher by 10%. In other price areas, such as NPS System, NPS Finland and NPS Lithuania, there were similar increases 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 2013 was 210,01 €/MWh, while the lowest one was 5,08 €/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 Elspot market in NPS Estonia price area. Source: Nord Pool Spot

Quantities traded in the NPS Estonia price area	Unit	2012	2013
Quantity of electricity sold in the day-ahead (Elspot) market in the NPS Estonia price area	TWh	4,1	10,7
Quantity of electricity bought in the day-ahead (Elspot) market in the NPS Estonia price area	TWh	2,9	7,3

As appears from Table 8, the total sale in the day-ahead (Elspot) market in 2013 was 10,7 TWh and the total purchased quantity was 7,3 TWh.

Table 9. Quantities traded in Elspot market in NPS Estonia price area. Source: Nord Pool Spot

Quantities traded in the NPS Estonia price area	Unit	2012	2013
Quantity of electricity sold in the intra-day (Elbas) market in the NPS Estonia price area	GWh	37,1	58,0
Quantity of electricity purchased in the intra-day (Elbas) market in the NPS Estonia price area	GWh	45,2	109,5

As appears from Table 9, the quantities sold in the intra-day (Elbas) market in 2013 were in total 58,0 GWh, while the total of purchases was 109,5 GWh. Thus, the increase compared to 2012 was more than two-fold.

The operator of the Nord Pool Spot power exchange and Elering AS have disclosed on their web sites the information on the 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 whole sale 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 beginning of 2014. 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
2001	5 607	1	0	100	93	93	0	0	0
2002	5 686	1	0	100	93	93	0	0	0
2003	6 013	1	0	100	93	93	1	0	0
2004	6 326	1	0	100	93	93	1	0	0
2005	6 403	1	0	100	93	93	1	0	0
2006	6 902	1	3	100	92	92	1	0	0
2007	7 180	1	3	100	92	92	0	0	0
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

* Does not include network operators

It appears from Table 10 that in 2012 there were five sellers, independent from network undertakings, which sold electricity to eligible consumers. By the end of 2013 the number of independent electricity sellers has increased to 15. 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 the whole retail market (per one consumption point) in 2013 was 5%.

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

Table 11 Final consumer prices of electricity in 2013

Price components	Unit	Consumer
Network service (main tariff)	€cent/kWh	5,56
Price of electricity without network service	€cent/kWh	4,58
Excise tax on electricity	€cent/kWh	0,447
Support for renewable energy	€cent/kWh	0,87
End consumer price without VAT	€cent/kWh	11,46
Value added tax (VAT) 20%	€cent/kWh	2,29
End consumer price incl. VAT	€cent/kWh	13,75

Notes: The basis for the electricity price is the Nord Pool Spot Estonian price area average price in 2013 + the marginal of varying price package of Eesti Energia AS.

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

In the estimation of the Competition Authority in 2013 the advance notifying about the prices and price changes, as well as the disclose 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 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 15 sellers of electricity, which offer various price packages in the open market. According to Elering AS, as of the beginning of 2013 77,5% of consumption points had entered into electricity contracts, while 22,5% on the consumption points used universal service. In 2013 Eesti Energia AS was the largest seller of electricity with an average balance portfolio share of 71,9%, followed by Elektrum Eesti AS with 10,7%, 220 Energia OÜ with 1,7%, Elektrimüügi AS with 1,4% etc.

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

Estonian electricity market was characterised by the transitional period until 2013. Thus, only those large customers were acting in competition conditions whose electricity consumption constituted 2 GWh per annum. In 2011 the electricity market was opened by 33,2%, while in 2012 the openness rate was 37,6%.

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. The utilisation of wood in electricity generation has also increased and this has led to emerging of new heat and power cogeneration plants in the market. In 2012 there were 5 independent electricity traders in Estonia, but together with market opening the number of them increased to 13. The independent traders offer price packages in open market. At the same time network operators have the right and obligation to sell electricity (from opening of the market only to small consumers under universal service). In order to move to free market smoothly, to emerge fair competition and to have a market functioning in an efficient manner, it is necessary to ensure as correct procedural side as possible. 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 the coming of new electricity producers and traders to the market is good. In the end of 2012 and the beginning of 2013 several new sellers started trading activity. 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 2013 the domestic production was 11 823 GWh, while the import of electricity was 2 712 GWh. The domestic consumption was 7 332 GWh, the network losses were 903 GWh, while 6 300 was exported. Table 12 presents the electrical energy balance from 2002 to 2013.

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
Production (net)	7 634	9 101	9 232	9 114	8 728	10 954	9 498	7 884	11 732	11 356	10 526	11 823
Import	412	93	347	345	251	345	1 369	3 025	1 100	1 690	2 710	2 712
Consumption	5 686	6 013	6 326	6 403	6 901	7 180	7 427	7 080	7 431	6 845	7 407	7 332
Losses	1 258	1 192	1 112	1 103	1 077	1 354	1 130	886	1 047	949	879	903
Export	1 102	1 989	2 141	1 953	1 001	2 765	2 310	2 943	4 354	5 252	4 950	6 300

The Estonian energy portfolio is independent from electricity point of view as most of electrical energy is produced from domestic oil shale (see Figure 6). 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 6 presents the production of electricity by various fuels from 2000 to 2012 (the 2013 data will be disclosed by the Statistical Office in the end of summer of 2014).

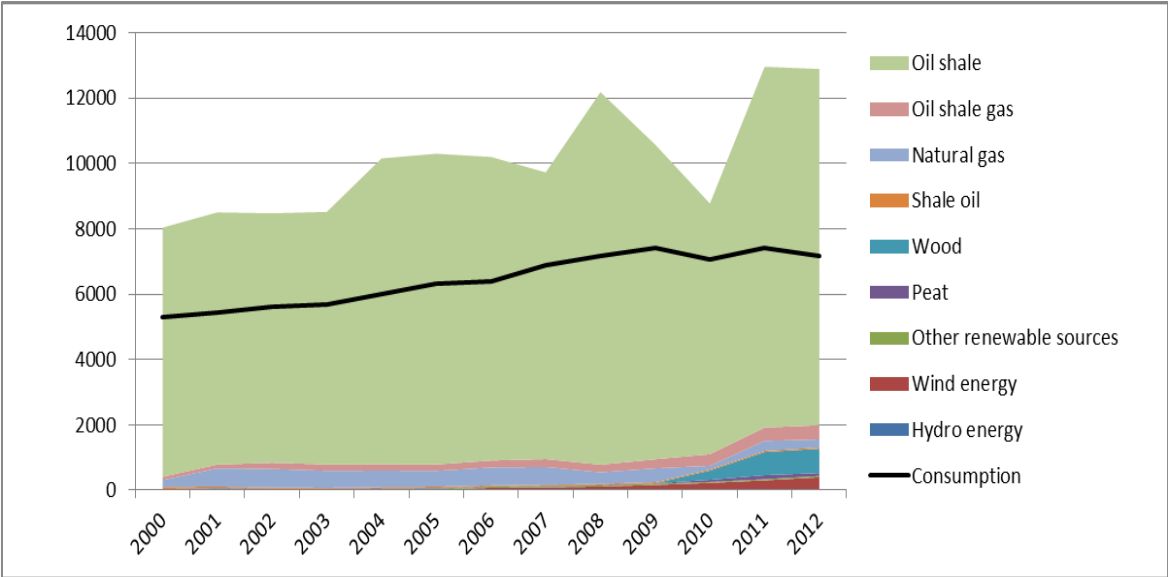


Figure 6. Production of Estonian power plants by fuels in 2000 – 2012 in GWh. Source: Statistics Estonia

Figure 7 presents the share of fuels and energy sources used for the generation of electricity in 2012 in greater detail.

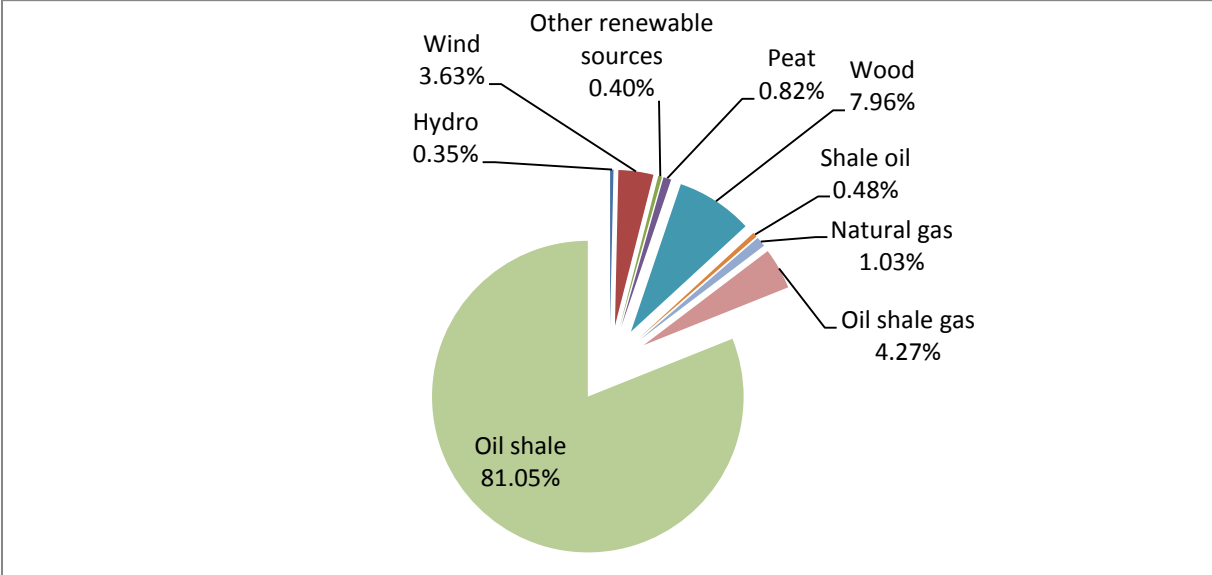


Figure 7 Energy sources used for electricity production in 2012. Source: Statistics Estonia

It appears from Figure 7 that in 2012 81,1% of electricity was produced from oil shale (in 2011 respectively 84,5%), while 6,6% was produced from other non-renewable sources and 12,3% from renewable sources. Biomass had the biggest share of all the renewable resources used for the production of electricity.

Figures 6 and 7 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 2013 the volume of renewable energy production decreased compared to 2012, first of all because the production of electricity from biomass in Narva Power Plants was seized. At the same time the share of wind energy has been steadily increasing. The wind energy increase was caused by the addition of new wind mill parks' production to the electrical energy balance.

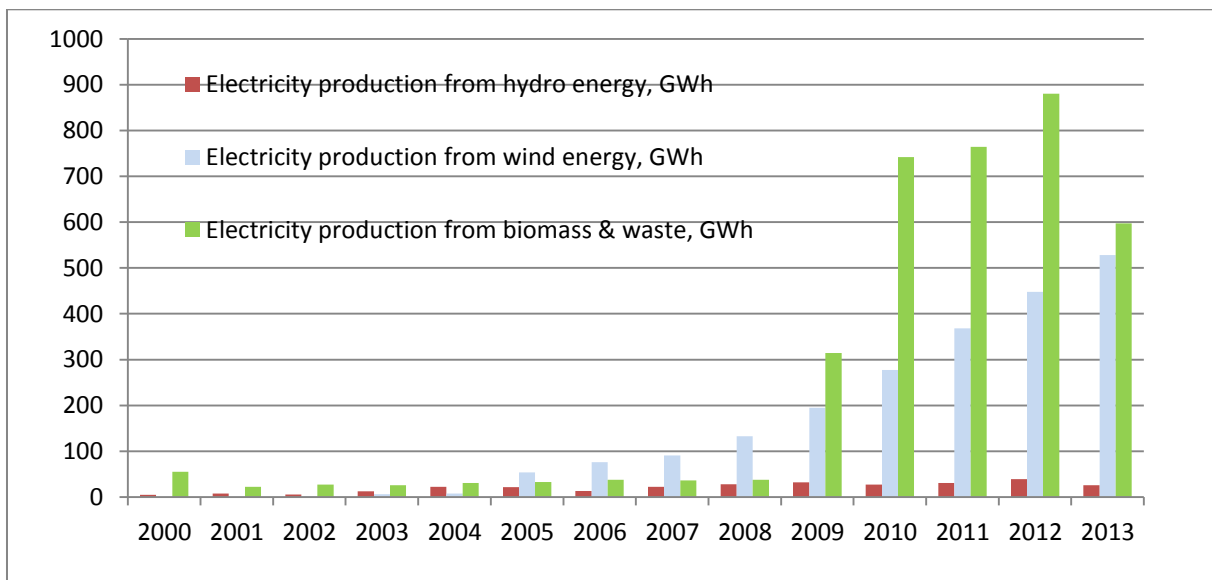


Figure 8. Production of electricity from renewable energy sources 2000–2013. Source: Elering AS

The biggest share of the renewable electricity production in Estonia comes from the biomass and municipal waste using CHP plants. In 2013 the annual production from these sources was 597 GWh. Lower portion of electricity is produced from wind, as of the end of 2013 the total installed capacity of windmill parks was 280 MW and their total production was 528 GWh (see Figure 9). 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 26 GWh in 2013.

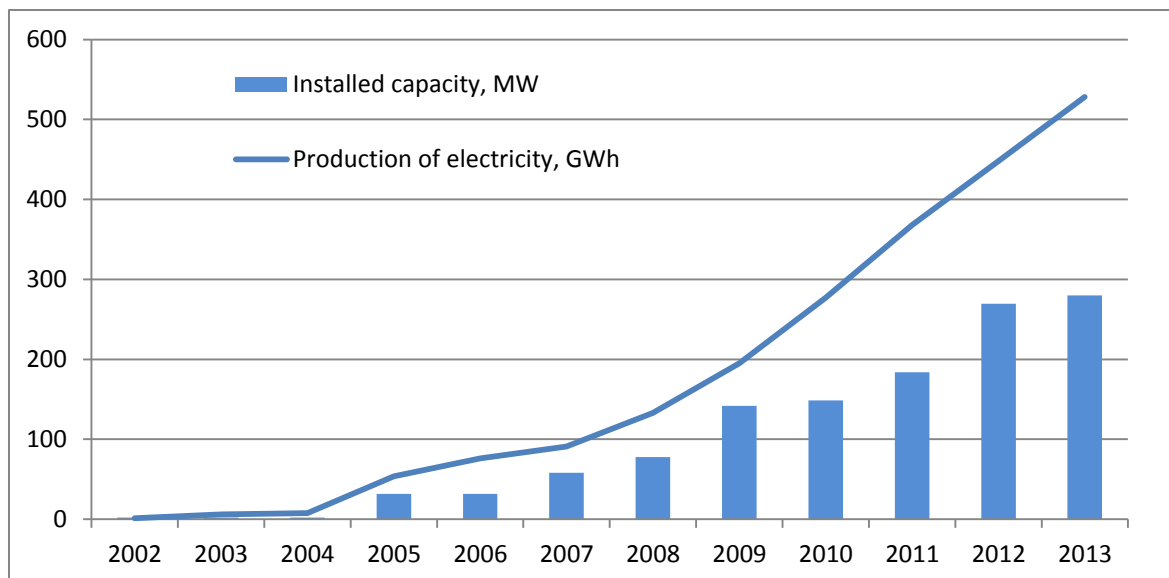


Figure 9. Installed wind energy net capacity and production of electricity in 2002 – 2013.
Source: Estonian Wind Energy Association

In March 2007 the European Council adopted the EU energy policy action plan for 2007-2009 (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 so-called climate package, worked out for the implementation of the EU Energy Policy, which were submitted on 23 January 2008 (comprises 4 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 second generation biofuels will be developed out.

Estonia undertook the commitment to achieve 25% share of renewable energy of the final consumption of primary energy by 2020. Below Figure 10 shows that the share of renewables has been steadily increasing from year to year.

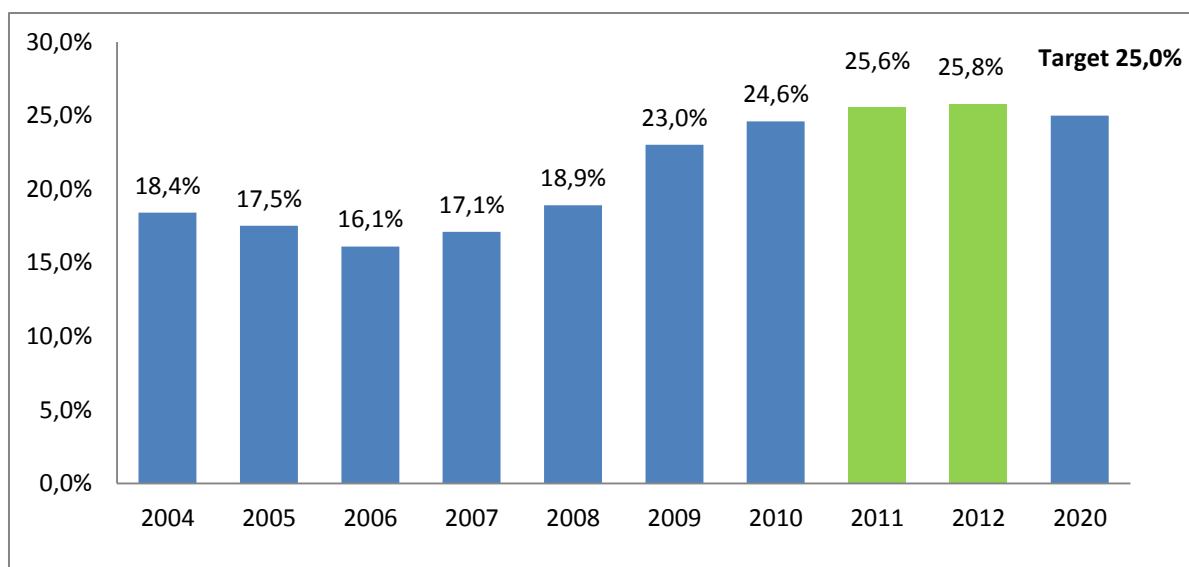


Figure 10. Sector specific (electricity, heating, cooling and transport sector) share of renewable energy in final consumption of energy. Source: Eurostat

It appears from Figure 10 that according to the Eurostat data the renewable sources in 2011 constituted 25,6% and in 2012 being 25,8% 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 in 2013 peaked on 18 January at 1 433 MW. The installed usable generation net capacity was 2 071 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 2020 of up to 1 617 MW and an increase of usable installed generation net capacity of up to 2 016 MW. With the net capacity estimated by Elering AS it is possible to cover the domestic peak load with existing connections and power plants as from the Estonian security of supply considerations it is extremely important to cover the system's peak demand with installed generation capacity.

Table 13. Electrical peak load, installed usable net capacity and projections until 2024. 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	8,1	1 433	2 071
	Anticipated increase (incl. losses), TWh	Anticipated increase, MW	Installed net capacity, MW
2014	8,4	1 505	2 049
2015	8,5	1 517	2 073
2016	8,6	1 529	2 022
2017	8,7	1 540	2 018
2018	8,8	1 550	2 018
2019	8,9	1 561	2 018
2020	9,0	1 573	2 018
2021	9,1	1 584	2 017
2022	9,2	1 595	2 017
2023	9,3	1 606	2 016
2024	9,4	1 617	2 016

The security of supply in Estonia is improved also through the construction of 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 shall be 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 2013 the installed generation capacity exceeded the system peak load and presumably this tendency will continue at least until 2024.

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 2020 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 scenarios of electricity production and 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

Power plant	Installed net capacity, MW	Production capacity available during peak load, MW
Estonian Power Plant	1369	1321
Balti Power Plant	612	458
Iru CHP	173	111
Kiisa Emergency Reserve Power Plant	110	0
Northern Power Plant	54	54
Southern Power Plant	7	7
Sillamäe CHP	16	10
Tallinn Power Plant	21	21
Tartu Power Plant	22	22
Pärnu Power Plant	20	20
Industrial and small CPH plants	53	43
Hydro power plants	6,6	3
Wind mills	276	0
Total	2739,6	2070

Investments in transmission networks

In the coming years the undertaking pays attention to the investments that improve the security of supply and interconnections with neighbouring countries. According to the

ENTSO-E ten years development plan for the European and Nordic countries power systems, issued in 2012, one of the priority development directions is the strengthening and transmission ability increase of the line corridors between the Nordic countries and Continental Europe.

In addition to the direct connections between Scandinavia and Central Europe the transmission network running through Baltic countries is getting to be a very important alternative electricity corridor. For Elering AS the most important investments are related to desynchronisation. This means that in longer perspective it is possible to separate the Estonian electricity system from the Russian electricity system and connect with system of Continental Europe. To ensure the desynchronisation it is necessary to invest in the new line between Tallinn and Riga, the reconstruction of existing 330 kV lines and the strengthening of the electricity network connections, first of all in the region of western Estonia and islands.

National transmission network

In the estimation of Elering AS the condition of national 110-330 kV electricity network is satisfactory. The available domestic transmission capacity is sufficient to provide secure supply to the consumers of the Estonian electricity system during peak loads.

The Estonian domestic power flows move mainly in the Narva-Tallinn and Narva-Tartu directions, where most of consumption centres are located (see Figure 2). In the Narva-Tartu direction the transmission capacity is sufficient. In addition to supplying the Tartu area these lines are also used for the export and transit from Russia to Latvia, Lithuania and for the transits from Russia to Latvia, Lithuania and Kaliningrad. The Estonian internal security of supply and the transmission capacity increase to the Tallinn area has been significantly increased by the reconstruction of the Kiisa 330/220/110 kV substation commissioned in 2010 and the reconstruction of Balti-Püssi 330 kV overhead transmission line (in connection with the construction of *EstLink 2*). In 2013 the construction of the 1st stage of the Estonian 330/110 kV substation, the renovation of Tartu 330 kV and Paide 110 kV switchgears and the renovation of Aravete 110 kV substation. By the end of 2014 two quick-start emergency reserve power plants shall be finalised, as well the Tartu-Viljandi-Sindi 330 kV overhead line and the replacement of Volta-Ranna 110 kV oil cables. By the end of 2015 the replacement of Ranna-Ida oil cables shall be finalised.

In order to improve security of supply of the Pärnu and Tartu load areas currently the Tartu-Viljandi-Sindi 330 kV is under construction and it is planned to construct also the Harku-Lihula-Sindi 330 kV line. With the commissioning of these lines the whole continental part of Estonia is covered with strong 330 kV network and especially the Pärnu consumption area will be more reliably connected with the electricity transmission system.

Considering the electricity network development plan it is foreseeable that in a 15 years perspective the supply security of power networks 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.

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 the first quarter of 2014. 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 (from December 2013 two lines)	Lines from Narva towards Russia	Line from South-Estonia towards Russia	Lines from South-Estonia towards Latvia	Line towards Finland (from December 2013 two lines)
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

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 a 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.

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 also until 2024. To the contrary, the installed

capacity and the production exceed the Estonian domestic consumption peak. The large scale investments in the Estonian transmission network and in the interconnections with neighbouring countries safeguard the security of supply in Estonia and the functioning of electricity market.

3. Functioning and regulation of natural gas market

3.1 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 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 the seller and importer. 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 Act is compiled in a manner that the infringement of the rights of existing system operator and transmission network owner is minimal. The system operator has three years in order to comply with the requirements of law. If the system operator fails to fulfil the requirements for the management of the undertaking providing transmission service the Competition Authority may initiate expropriation of the transmission network. If in the group of the system operator the natural gas sales or production activity will continue after 2015, then penalty payments will be applied. On 31 December 2012 the system operator EG Võrguteenus 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 system operator has started the implementation of the plan. The first step was that the system operator AS EG Võrguteenus acquired the transmission network and the metering systems on the state border from AS Eesti Gaas. To that end a contract of handing over of the non-monetary contribution between the parties was signed on 31 May 2013. The object of the contract was transfer of the assets used in the transmission activity as the enterprise from AS Eesti Gaas to AS EG Võrguteenus. The contract did not include the 21,3 km long parts of

Pskov-Riga and Izborsk-Riga transit pipelines and the Misso gas metering station, as pursuant to the Natural Gas Act the assets used for transit are not interpreted as part of the transmission network.

The second step was the unbundling of the distribution service provision from AS EG Võrguteenus into the new business entity AS Gaasivõrgud. Therefore, from 1 August 2013 AS EG Võrguteenus provides only the transmission service.

The third step was the establishing of the holding company AS Võrguteenus Valdus. As a result, the sole owner of the shares of AS EG Võrguteenus from 2 January 2014 is AS Võrguteenus Valdus.

Currently the undertaking AS Võrguteenus Valdus deals with the bringing of the circle of owners into compliance with the requirements of the Natural Gas Act. From 1 January 2015 this is a precondition for the certification of the system operator and issuance of the activity licence.

From 10 April 2014 the amendment of definition of transmission network in the Natural Gas Act was enforced. That is why AS EG Võrguteenus has to negotiate also the acquisition of the transit pipelines, as pursuant to the amendment also the transit connections of gas belong to the composition of the transmission network.

On 28 May 2014 AS EG Võrguteenus submitted the application for the assessment of compliance with the requirements and obtaining of the activity licence.

3.1.2 Technical functioning

AS EG Võrguteenus owns the Estonian gas transmission network of 878 km, including 37 gas distribution stations (GDS, *in Estonian GJJ*), 3 gas metering stations (GMS, *in Estonian GMJ*), see Figure 11. For the purpose of the Natural Gas Act, from 1 August 2013 AS EG Võrguteenus is only the gas transmission system operator (earlier also the provider of the distribution service), as well as the system operator of the gas system.

Based on the lease contract AS EG Võrguteenus leases the transit connection assets in the surroundings of Misso from AS Eesti Gaas. Before the certification of the system operator AS EG Võrguteenus shall become the owner also of transit pipelines (10 April 2014 amendment to the Natural Gas Act).

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.

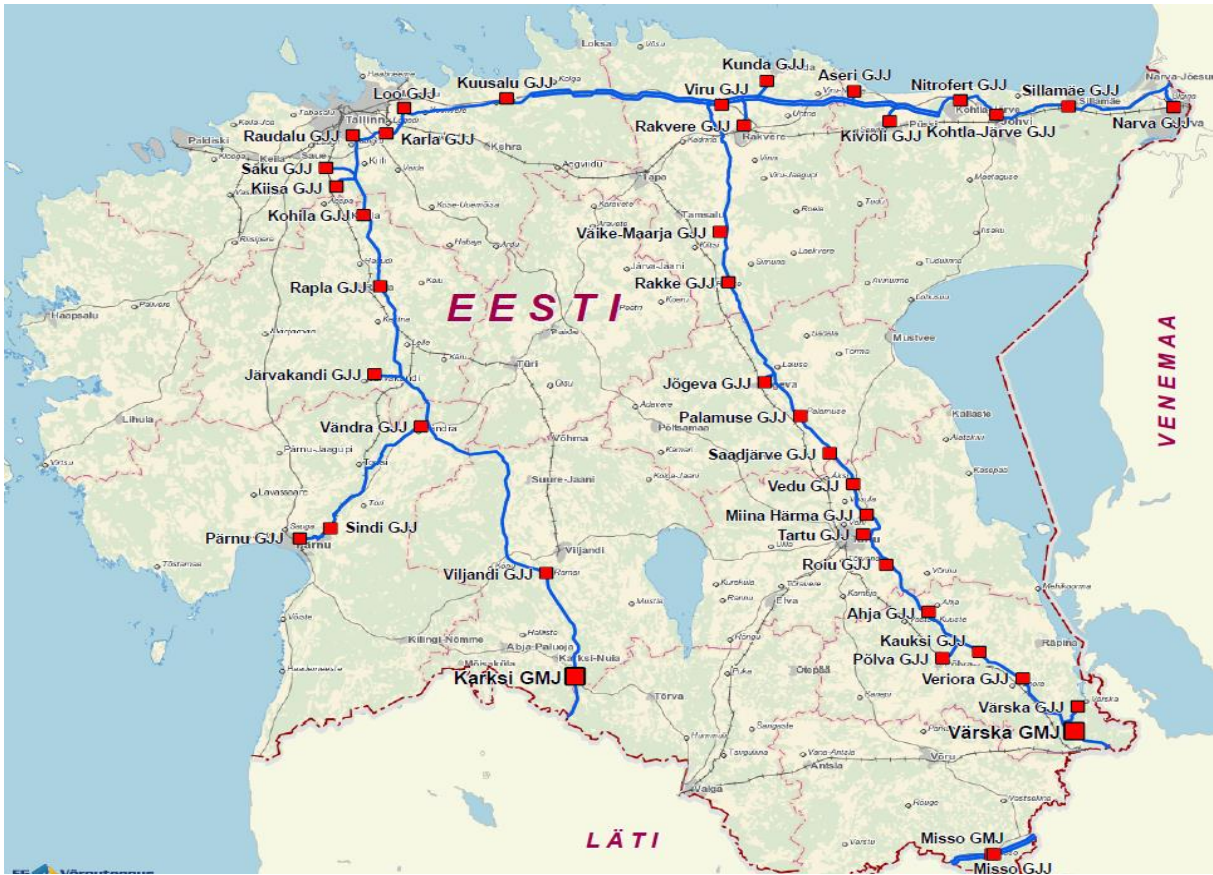


Figure 11. Transmission network of Estonian gas system. Source: AS EG Võrguteenus

The volumes of gas are metered and its properties are determined in the gas metering stations - GMS (in Estonian abbreviated as GMJ) in Värskas, Karksi, Misso and Ivangorod, as shown on the map of Figure 11.

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

- With the Latvian transmission network:
 - Through the Vireši-Tallinn (DN 700, PN 55 bar) transmission pipeline and through the Karksi GMS/GMJ, which ensures continuous unidirectional gas flow (see Figure 12) transmission possibility from Latvia to Estonia (the transmission of gas from Estonia to Latvia is technically possible without metering);

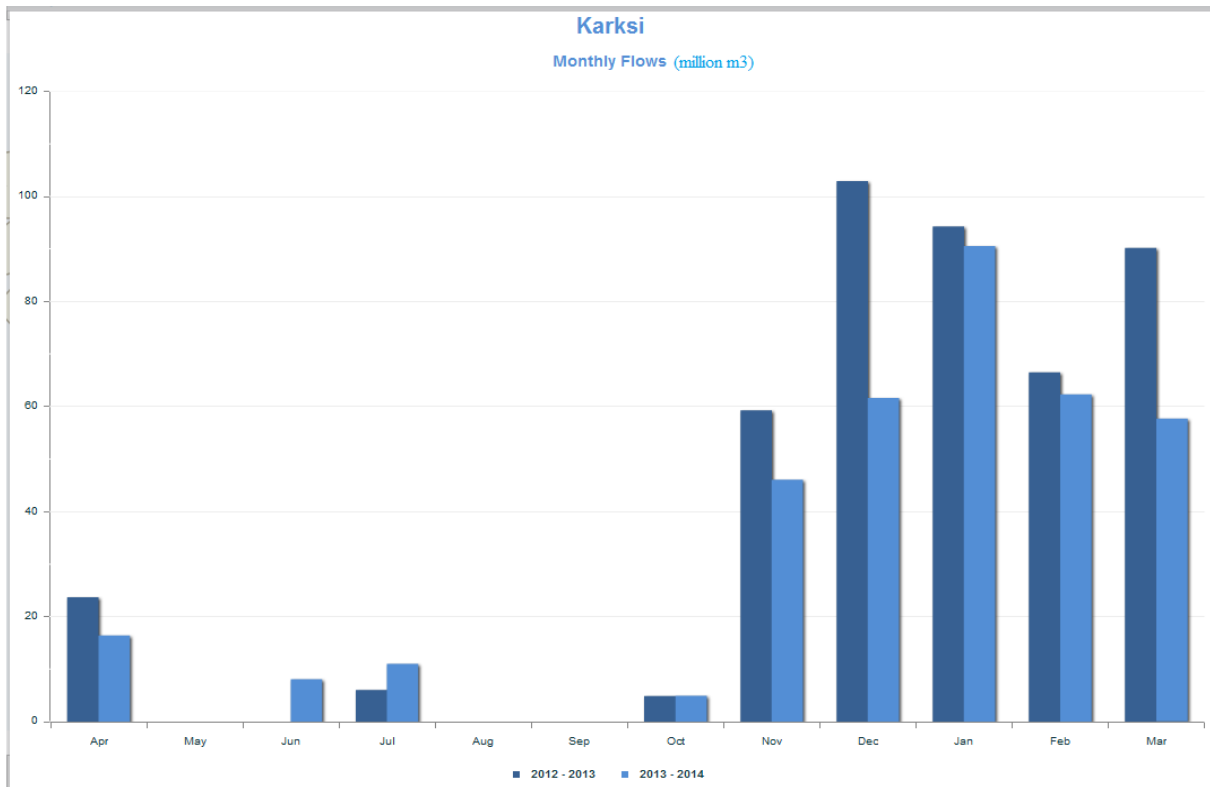


Figure 12. Gas flows through Karksi GMS/GMJ in 2012-2014. Source: International Energy Agency (IEA).

- With the Russian transmission network:
 - Through the Izborsk-Tartu-Rakvere (DN 500, PN 55 bar) transmission pipeline and through the Väraska GMS/GMJ, which ensures the transmission of gas flows (see Figure 13) from Russia to Estonia;

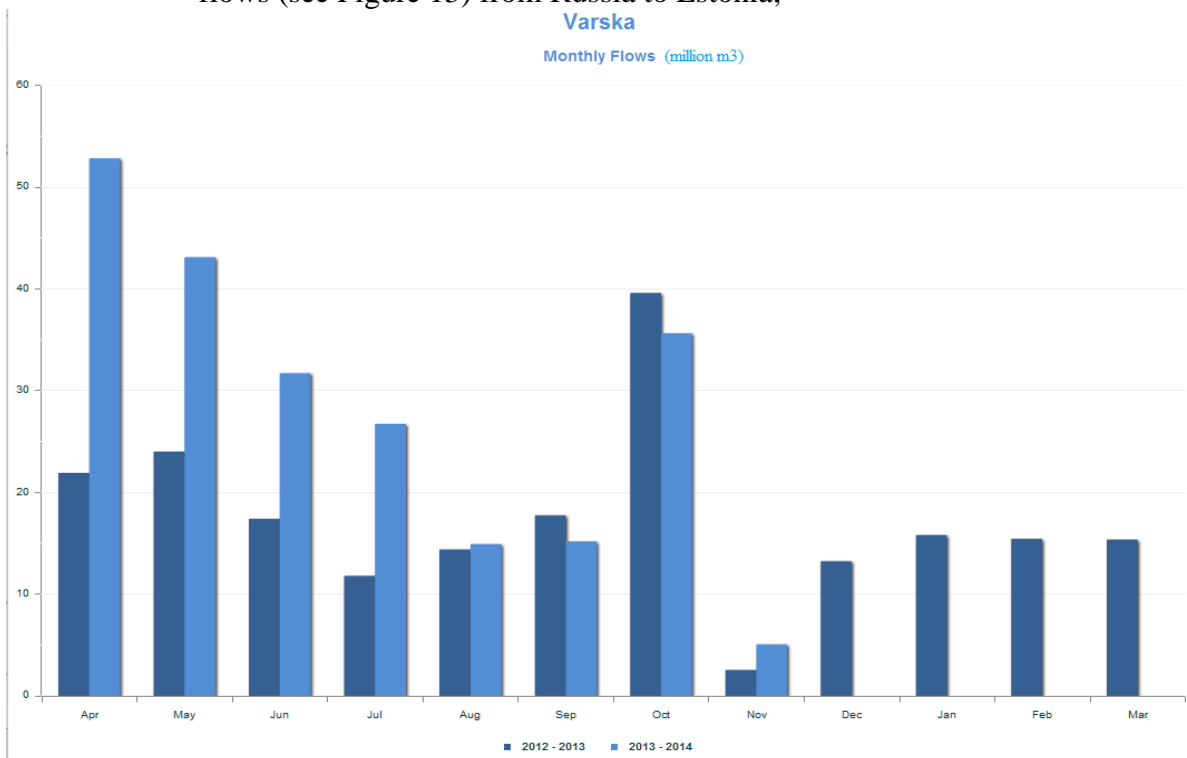


Figure 13. Gas flows through Väraska GMS/GMJ in 2012-2014. Source: International Energy Agency (IEA).

- Through the Narva border crossing: Kohtla-Järve-Narva double pipe (DN 400, PN 38 bar) transmission pipeline and through the Ivangorod GMS/GMJ, which ensures the transmission of gas flows (see Figure 14) from Russia to Estonia.

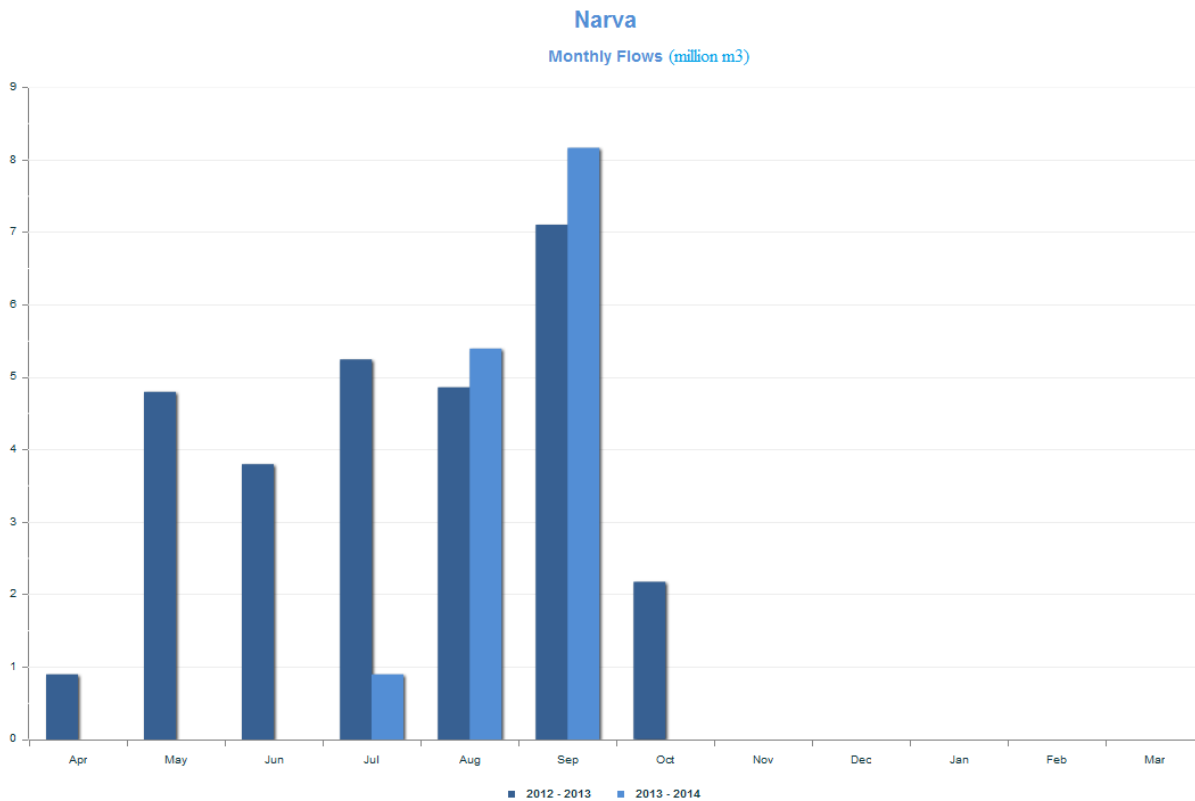


Figure 14. Gas flows through Narva border crossing in 2012-2014. Source: International Energy Agency (IEA).

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 and backwards in the winter months. From this pipeline also the Misso area is supplied with gas (metering takes place in the Misso GMS/GMJ and the distribution of gas flows takes place from the Misso gas distribution station GDS/GJJ). Both the transit pipelines and the AS Eesti Gaas. AS EG Võrguteenus uses them under the commercial lease contract.

The distribution market leader in Estonia is AS Gaasivõrgud, who separated from AS EG Võrguteenus. It uses the 1 458 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

(AS EG Võrguteenus) 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.

The importer and market dominant whole seller Eesti Gaas AS earlier provided balance for all eligible customers and distribution network undertakings. By now AS Eesti Gaas has given up the provision of balance services for the distribution undertakings as the latter contract with the system operator. AS Eesti Gaas and the distribution network undertakings in turn provide balance services for eligible customers. Although Eesti Gaas AS is the main provider of balance services, the distribution network undertakings and large consumers have entered into respective contracts with the system operator and offer the balancing services, or in other words – open supply, also for other eligible customers. Thus, despite there is only one importer of gas, in the meaning of competition the situation has still improved because besides Eesti Gaas AS also competitive balance service providers have come to the market.

The Competition Authority approved the balance gas price determination methodology and standard conditions for application for AS EG Võrguteenus in 2008.

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 the 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 2013 there were no violations of the quality requirements.

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 law the price regulation is uniformly applied to all network operators regardless of their size. In 2013 there were 25 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 in the Act itself. With the amendments to the Act, which were enforced on 8 July 2014, additional price regulation main principles were set out. 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 following cost components are not included in the price:
 - expenses on doubtful receivables;
 - sponsorship, gifts and grants;
 - cost not related to the main activity;
 - penalty payments and interest on arrears imposed upon legal acts;
 - financial cost;
 - cost of taxes on dividends;
 - other expenses not needed for the fulfilment of duties of an undertaking laid down by law
- 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 following are not considered as the fixed assets:
 - long-term financial investments;
 - tangible assets, excluding computer software licences;
 - fixed assets acquired on grant aid (including ones acquired on targeted financing);
 - fixed assets acquired on connection charges;
 - fixed assets which are not used for the provision of network service.
- 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 size of aforesaid working capital is 5 % from the arithmetic average of the last three calendar years turnover. If necessary, an additional analysis is carried out in order to determine the size of working 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(4¹) of the Natural Gas Act the Competition Authority developed uniform methods for calculating the prices of network services, which specify the application of the principles laid down in the Act. The methods serve as the basis for the formation of transmission and distribution service prices and their approval. The methodologies are 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 in. The tables are comprehensive and include technical data and detailed accounts: profit and loss statement, balance sheet, and data on fixed assets, investments and network service sales volumes. The data enable to verify whether cross-subsidising between various areas of activity is avoided, as pursuant to the Natural Gas Act undertakings are obliged to separate in their accounts the income, cost, liabilities and assets related to the sale of network services, the sale of gas and other activities.

From 1 May 2013 the transmission and distribution prices of EG Vörguteenus increased and the structure of prices changed. Now the transmission service (at the pressure of over 16 bar) price is 0,01460 EUR/m³ without value added tax. A reason for the change in prices was the supplementation to the price regulation principles, pursuant to the Natural Gas Act, according to which the price shall be calculated on the accounting value of assets which are used for the provision of transmission service. The price change was also influenced by the decrease of the sales revenue. It was verified pursuant to the Natural Gas Act which sets out that the sales volume shall base on the arithmetical average of the last three years.

On 28 March 2014 the Competition Authority approved the distribution price of 0,0364 EUR/m³ without value added tax for AS Gaasivörgud (the provider of distribution service which separated from AS EG Vörguteenus). The reason for the distribution service price increase was the change of costs and sales volume in the result of the breakdown.

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 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. This is important in the future when liquefied natural gas and biogas will be transported through the network, as the heat value of the gases from various sources will be different and the accounting shall be done in comparable energy units.

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 and the transit streams (between Russia and Latvia) are guided through separate transit pipelines, from which in Estonia only Misso is locally supplied (see also Figure 11. *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 EG Võrguteenus AS has not elaborated cross-border capacity allocation and congestion management rules neither unilaterally nor in cooperation with the Latvian system operator. Due to the specific of the Estonian gas market, where there is only a single market participant which imports gas for selling and the process of the system operator's complete unbundling is not finally closed yet, the Competition Authority has not initiated violation proceedings towards EG Võrguteenus AS. At the same time, the Competition Authority watches closely that such rules shall be worked out in cooperation with the system operators of neighbouring countries by the time when new possibilities appear for new importers to supply gas to the market, for example an LNG terminal.

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.

By 3 December 2013 at the latest, the transmission system operators shall adapt the functioning of the transmission systems in part or as a whole so as to enable physical gas flows in both directions on cross-border interconnections. On 18 January 2013 AS EG Võrguteenus submitted to the Competition Authority and also the Ministry of Economic Affairs and Communications the application for making an exemption in the

obligation to secure physical bi-directional gas flows. The application provides grounds that a reverse direction flow capacity in December 2013 would not enhance the security of supply in the Latvian gas system and that the investment costs would significantly outweigh the prospective benefits for the security of supply. As the natural Gas Act does not provide to the Competition Authority the delegating authority of a Competent Authority concerned, which is required by Article 7 of Regulation (EC) No 994/2010. Thus, the Competition Authority has no competence to proceed the application and the decision on granting exemption shall be made by the Ministry of Economic Affairs and Communications.

On 31 December 2012 AS EG Vörguteenus submitted to the Competition Authority for approval their ten years development plan. The plan particularly includes the construction of bi-directional gas metering station in Karksi, which would enable two way gas flows between Estonia and Latvia.

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 ten years development plan of the gas network, the Authority was appraised of the development plan.

3.1.5 Gas market related tasks of Competition Authority (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 regulatory authority's rights and duties arising from Directive 2009/73/EC and Regulation 994/2010 are imposed on the Competition Authority to the extent necessary to comply with the Natural Gas Act and other legislation enacted on its basis, including the functioning of the natural gas market and state supervision over the activities of market participants in a manner prescribed in the Act and other legislation.

In order to ensure cooperation with the Agency for the Cooperation of Energy Regulators (ACER) of the European Union energy sector and other regulators the Natural Gas Act imposes on the Competition Authority the following rights and obligations:

- represent Estonia in international organisations pursuant to the procedure prescribed in legislation and to cooperate with the authorities regulating energy markets in other countries;
- cooperate with ACER, with the European Commission and with the regulatory authorities of other member states in order to:
 - promote a secure and environmentally sustainable gas market and effective market opening for all consumers and suppliers in the European Union and to ensure relevant conditions for the reliable operation of gas networks, taking into account long-term objectives;
 - develop competitive and properly functioning regional gas markets in view of achieving the objective mentioned in above point of this subsection;
 - suppress any restrictions to trade in natural gas between member states, as well as to develop appropriate cross-border connections to meet demand and enhance the integration of national markets;
 - develop in a cost-effective way customer-orientated, secure, reliable, efficient and non-discriminating systems and to promote them according to the general objectives of energy policy;
 - facilitate the access of new supply sources to the network;

- ensure the provision of appropriate incentives to market participants in order to enhance the system and to integrate markets;
- ensure that customers benefit from effective functioning of the market, promote competition and customer protection.
- request the opinion of the ACER regarding compliance with the guidelines specified in Directive 2009/73/EC of the European Parliament and of the Council and in Regulation (EC) No 715/2009 of a decision that it has made;
- enter into cooperation agreements to strengthen supervision-related cooperation with respect to cross-border issues;
- In regulating cross-border issues, shall cooperate and exchange with the supervisory agencies of other Member States and the ACER the information necessary for performing the functions specified in the Natural Gas Act and other legislation so as to:
 - ensure optimal management of the network;
 - facilitate the creation of a European joint gas exchange;
 - optimise the allocation of cross-border capacity;
 - ensure an adequate level of interconnection capacity within networks to allow for the development of competition and improvement of security of supply, at the same time avoiding discrimination against different market participants;
 - coordinate the development of grid codes;
 - coordinate the development of congestion management rules.

The 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 development 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, Euratom) No 617/2010.

In exercising its tasks the Competition Authority, amongst others, has the right to monitor the compliance of a system operator with the requirements established in the Natural Gas Act and the obligation to initiate assessment of compliance of the undertaking providing gas transmission services with established requirements in the cases prescribed by law (including, if the European Commission has submitted a reasoned request). Therewith:

- Initiates assessment of compliance with the requirements of the transmission network undertaking in relation to a person who applies for activity licence for the provision of transmission service;
- Prepares draft decision on assessment of compliance within four months since reception of the application or the information and delivers without delay the draft decision together with relevant information to the European Commission to receive opinion.
- Adopts a final decision on assessment of compliance within two months of receiving an opinion of the Commission or four months since the application for the opinion, taking the utmost account of that opinion;
- Informs the European Commission without delay if the transmission network owner or system operator controlled by a third country person or persons applies for activity licence for the provision of transmission service that enable a third country person take control over the transmission network or over the undertaking providing gas transmission service;
- Issues the activity licence for the provision of gas transmission service to a person who owns the transmission network, owns or administers the gas metering systems on the state border, complies with the requirements and fulfils the conditions for activity licence applicant laid down in the Natural Gas Act. The Competition Authority informs the European Commission about the decision on issuing activity licence for the provision of transmission service and on assignment of the licence holder as the system operator, and publishes the decision in the Official Journal of the European Union.

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 both in the Electricity Market Act and the Competition Act. In an event of 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. 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. The upper limit for a penalty payment is 1 300 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 issues of independence of the Competition Authority are dealt in greater detail in point 3.1.5.

3.1.6 Projects of common interest

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.

On 26 March 2010 the European Council agreed with the proposal of the European Commission to initiate the new strategy „Europe 2020“. One of the priorities of the strategy „Europe 2020“ is to achieve sustainable economic growth through the promoting resource efficient, sustainable and more competitive economy. The strategy highlights the infrastructure as part of the initiative „Resource efficient Europe“ emphasises the need to quickly modernise and interconnect the networks throughout the whole Europe. This is needed first of all in order to integrate the renewable sources of energy.

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 CO₂ 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 lays down 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), keeping the numbering of the list:

4. interconnector between Estonia and Finland "Balticconnector";
5. 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).
6. Enhancement of the Estonia-Latvia interconnection (construction of reverse flow metering in the Karksi GMS and construction of Puiatu compressor station);
 7. Modernization and expansion of Inčukalns Underground Gas Storage;
 8. Capacity enhancement of Klaipeda-Kiemenai pipeline (Lithuania);
 9. Construction of Poland-Lithuania interconnection (known as „GIPL“)

On 31 October 2013 the project developers submitted project requests 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.

The „Balticconnector“ investment request has been withdrawn for carrying out further studies.

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.

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. It is likely that the ACER will make a decision on the subject by the end of June of the current year.

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 in Estonia during the last 10 years are illustrated in Table 16. The table reflects only natural gas. However, also biogas is produced in Estonia (7 million m³ in 2012) but it is used locally and not transported to the gas network.

Table 16. Gas demand in Estonia

Period	Gas import,	Gas import,	Gas import
	Eesti Gaas AS,	AS Nitrofert,	total,
	million m ³	million m ³	million m ³
2001	789	76	865
2002	694	48	742

2003	741	106	847
2004	753	213	966
2005	780	216	996
2006	793	215	1 008
2007	796	207	1 003
2008	747	215	962
2009	634	20	654
2010	701	0	701
2011	632	0	632
2012	658	21	679
2013	566	124	689
2014 (projection)	500	0	500

As seen in Table 16 the major importer of natural gas to Estonia in 2013 was AS Eesti Gaas. In 2012 a change took place in the import of gas: after almost three years of outage the chemical industry undertaking AS Nitrofert re-started its operation and import of gas for its own process needs in December 2012. During the first six months (February – March) their import was 124 million m³. From August 2013 the plant was stopped for planned repairs and due to changes of market intended to resume production in spring 2014. By now the start of production has been postponed for an unspecified term.

Since AS Nitrofert uses gas only for its own needs, there is no competition in the wholesale market - only a single company AS Eesti Gaas operates there.

Preconditions for creation of competition in the wholesale market appear when alternative suppliers with competitive price appear on the market (e.g. LNG terminal in the region, or a supplier, not linked to OAO Gazprom, offering gas through the connections with Latvia).

Table 16 and Figure 18 show that over the last years considerable decline in the consumption of gas has taken place. Thus, in 2013 the wholesale volume of AS Eesti Gaas decreased by 14% compared to 2012. It is foreseen that also in 2014 the consumption will decrease (by 12% compared to 2013). This is due to the district heat supply companies which convert from usage of gas to renewable fuels. Another reason is the constantly increasing efficiency of energy utilisation by consumers.

Wholesale prices of natural gas

Pursuant to the Natural Gas Act the wholesale prices and the prices for non-household customers are not subject to regulation. AS Eesti Gaas as the only wholesale trader sells gas at a negotiated price both to the non-household customers connected to its own transmission network, as well as to other network undertakings for re-sale.

The only whole seller of gas to Estonia is AS Eesti Gaas who has gas 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/ton proceeding to the accounting month, taking into account the USD/EUR exchange rate.

Being affected by the gas market developments in the European Union, OAO Gazprom has made discounts to the European customers in the natural gas price calculated on the basis of the fuel oil prices. To the Estonian import price the discount was applied as well in November-December 2013 (3-5%), resulting also in the wholesale price discounts by AS Eesti Gaas.

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.

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 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.

In 2013 several applications was submitted to the Competition Authority which requested to verify the compliance of the activities of AS Eesti Gaas with legislation and, particularly ones related to the principles of price formation and equal treatment of market participants.

In the proceeding initiated by the Competition Authority AS Eesti Gaas made its sale conditions and the principles of price formation more transparent. As by this AS Eesti Gaas created better conditions of competing in the retail market for re-sellers, the Authority ended the proceeding.

The Competition Authority also carried out supervisory proceeding on AS Eesti Gaas upon the declaration of a market participant of the sale by AS Eesti Gaas as a fixed supply. It was found in the proceeding that AS Eesti Gaas has not treated other undertakings unequally and not refused to sell the same supply if demand had existed. The undertakings continued keeping negotiations and the Authority ended the proceeding.

Effective competition in wholesale market

The Competition Authority is in the position that for the development of market it is necessary to use gas in the energy balance more actively (increase of consumption) and to have new suppliers that offer gas at competitive prices (more importers).

A more active use of gas is hindered by the fact that AS Eesti Gaas does not offer to the customers longer term contracts than until the end of a calendar year and thus, an undertaking has difficulties in the planning of its expenses in advance.

The Competition Authority is in the position that in case of a functioning and liquid gas market the long-term contracts may have a regressive impact to the market. On the other hand, in the situation when there is no competition in the market, the long-term contracts would give to the consumers the security of price and supply. The Estonian legislation does not grant the regulator the powers to require the specification of the duration term in the contracts between market participants.

As there is no competition between importers of gas, essentially no competition in the wholesale market exists in Estonia. The smallness of the market and the falling consumption trend do not create preconditions for new gas sellers (importers) coming to the market. For a well-functioning wholesale market to emerge, projects of common interest have been initiated in the framework of TEN-E to create new import possibilities – regional LNG terminal and connecting the Baltic countries gas network 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 15. The produced biogas is used locally for the production of electricity and heat.

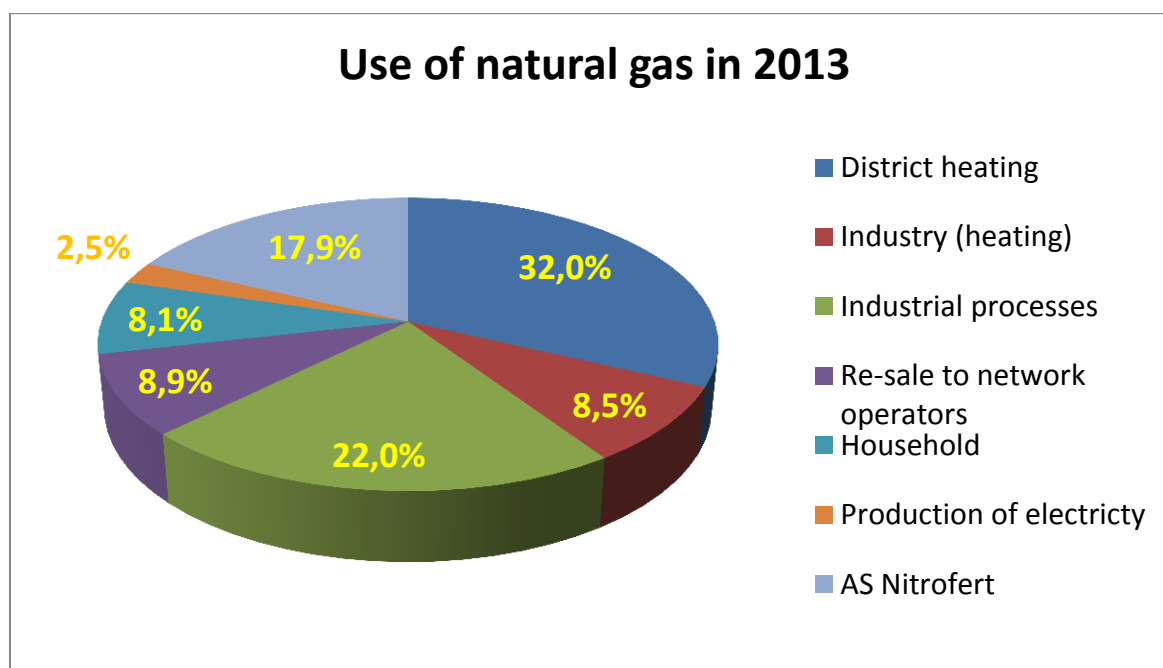


Figure 15. Use of natural gas in 2013. Source: AS EG Võrguteenus, AS Eesti Gaas

It appears from Figure 15 that in 2013 18% of whole imported gas was used in 6 months by AS Nitrofert as raw material in its chemical industry. It is likely that due to the suspension of production AS Nitrofert will not consume gas in 2014.

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 2013 has increased up to 89,2% (in 2012 it was 86,5%) and the rest 10,8% of the gas sold in the retail market was purchased by the 24 retail sellers of gas from AS Eesti Gaas for re-selling to their customers.

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 price for household consumers in 2013 fell by 5,5%, compared to 2012.

Data on average natural gas final consumer prices in 2013, compared to 2012 are presented in Table 17 below.

Table 17. Final consumer average prices. Source: Statistics Estonia, KE31 and KE32

Customer group	Price 2012,	Price 2013,
	€/GJ	€/GJ
Household consumer, annual consumption < 20 GJ	14,24	13,69
Household consumer, annual consumption 20 - 200 GJ	11,77	11,01
Household consumer, annual consumption > 200 GJ	11,32	10,07
Eligible consumer, annual consumption > 1000 GJ	11,51	10,47
Eligible consumer, annual consumption 1000 - 10000 GJ	10,79	10,19
Eligible consumer, annual consumption 10 - 100 TJ	10,08	9,80
Eligible consumer, annual consumption 100 - 1000 TJ	9,75	9,49
Eligible consumer, annual consumption 1000 - 4000 TJ	9,59	9,37

Transparency of natural gas prices

In the retail market an undertaking (the re-seller of gas) itself forms the sale price of gas according to the purchase price from the importer and its re-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 the retail prices of AS Eesti Gaas.

The number of customers in the retail market is approximately 50,5 thousand. 48,5 thousand of them are household consumers. In 2012 1913 customers switched the seller of gas (1810 of them were households), while in 2013 the number was only 83 (56 of them were household consumers). Thus, in 2013 only 0,2% of customers switched their seller of gas.

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.

In the estimation of the Competition Authority in the situation when there is only single gas importer, who is at the same time also the market dominant position retail seller, no liquid and effective retail market formation can take place in Estonia.

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 lays down that Member States shall ensure that regulatory authorities are granted the powers enabling them to carry out investigations into the 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 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.

Similarly to the wholesale market AS Eesti Gaas is in market dominant position also in the retail market. Its retail market share in 2013 was 89,2% and the rest 10,8% of the gas sold in the retail market is purchased by network undertakings from AS Eesti Gaas for re-selling to their customers.

In the retail market the customer activity has overblown. If in 2008 there were 1109 cases of the switch of gas seller, in 2009 the figure was 1576, in 2010 - 1674 cases, in 2011 - 1778 and in 2012 – 1913 cases of switch, then in 2013 there were only 83 cases. The main direction of changes over the last years has been from small network undertakings / gas sellers towards the market dominant undertaking AS Eesti Gaas.

The Competition Authority is in the position that due to the single natural gas importer, who is in market dominant position, there is no liquid retail market of gas in Estonia.

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 only 5% of the final consumption of energy (see Figure 16), 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.

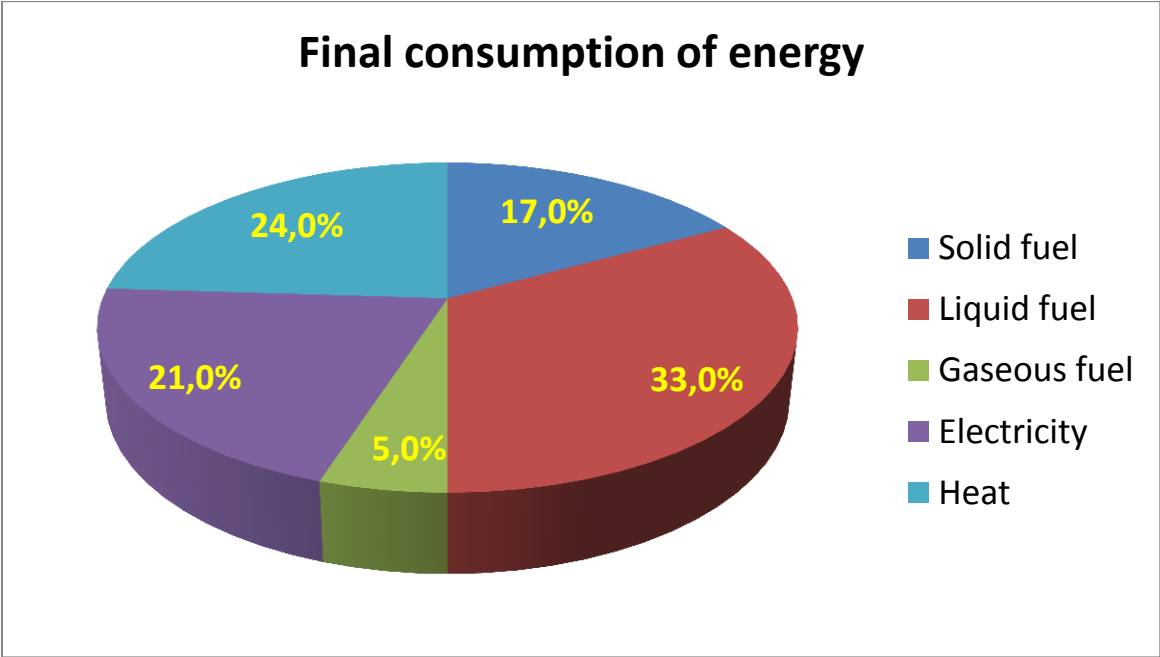


Figure 16. Final consumption of energy. Source: Statistics Estonia, KE05 Final consumption of energy

It appears from below Figure 17 that for the production of heat in 2012 (Statistical Office will publish the 2013 data in the end of summer 2014) mainly wood fuel (58,7%) and natural gas (39,4%) were used. Oil shale gas has also considerable share of 10,1% in the production of heat.

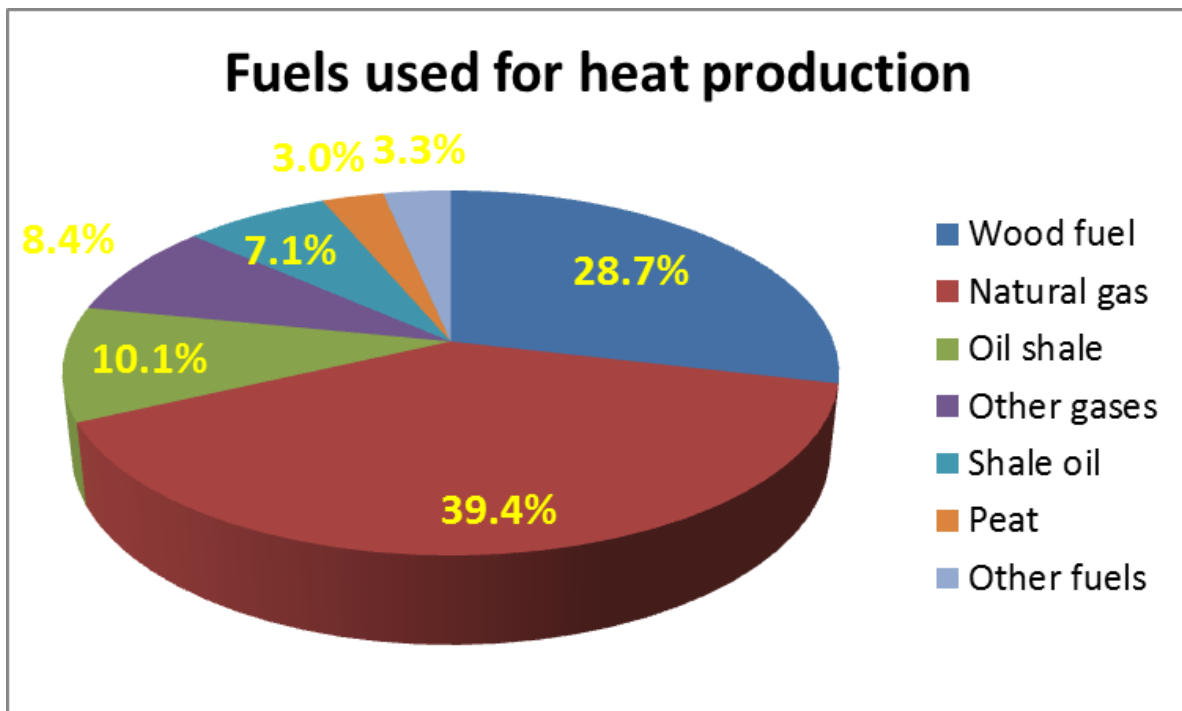


Figure 17. Fuels used for heat production. Source: Statistics Estonia, KE024.

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 18. The decrease in gas consumption projections for 2014 is first of all due to Nitrofert AS, which stopped consumption because of the suspension of production.

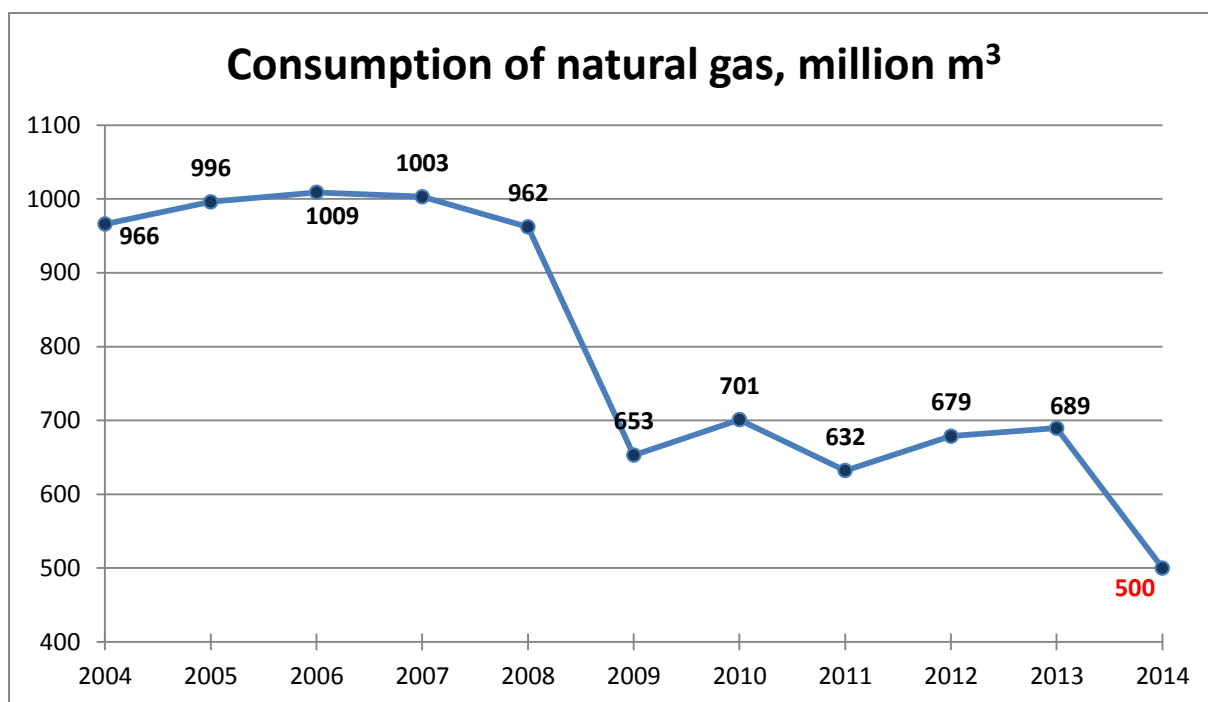


Figure 18. Consumption of natural gas in Estonia. Source: 2004-2011 Statistics Estonia, 2012-2014 EG Vörguteenus AS and AS Eesti Gaas

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 m³ per day (24h). The capacities of individual connections are as follows:

- Karksi connection with Latvia 7 million m³ daily (at incoming pressure of 40 bar)
- Värška connection with Russia 4 million m³ daily (at incoming pressure of 40 bar)
- Narva connection with Russia 3 million m³ 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 during non-heating season less gas 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 to improve 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 five years is presented in Table 18.

Table 18. Natural gas cross-border capacity. Source: EG Vörguteenus AS

Year	Technical transfer capacity, million m ³			Actual peak load, million m ³		
	Narva- Russia connection	Värška- Russia connection	Karksi-Latvia connection	Narva- Russia connection	Värška- Russia connection	Karksi- Latvia connection
2009	0,5	4	7	0,2	2,5	4,4
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

To the Competition Authority's knowledge 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 is significantly 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 m³ (see Figure 18). Compared to 2006 the 2013 consumption was 1,5 times lower. For 2014 EG Võrguteenus estimates 2 times lower consumption than in 2006. The decrease in the projection of demand compared to 2012 is caused by the suspension of consumption of the chemical industry Nitrofert AS, which again stopped its operation.

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 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.

For example:

- The consumption of gas in the Ahtme power plant of VKG Soojus AS decreased beginning from 2013 VKG Soojus AS erected new district heating pipeline from Kohtla-Järve to the Jõhvi-Ahtme region and sells heat to it from the Kohtla-Järve located power plant (where the fuels are oil shale and oil shale processing by-product gas);
- From 2013 the consumption of gas substantially decreased in the Iru power plant of AS Eesti Energia due to the new municipal waste incineration unit which started commercial operation;
- AS Tallinna Küte plans to abandon the use of gas partly from 2016 and arranged procurement competition for broader use of renewable fuels in the production of district heat.

Arising from all these circumstances AS Eesti Gaas estimates further decrease in import. The Estonian annual gas import volume in the near future will be 500 million m³.

In order to stop the decreasing trend of gas consumption and to support new importers coming to the market it is necessary to make thoroughly weighted parallel steps for finding new areas of application for gas and developing alternative supply chains. The Competition Authority foresees that gas can be broader used as a transport fuel and in the production of heat locally.

For the vehicles which use natural gas as the motor fuel AS Eesti Gaas has five petrol stations. Two of them are in Tallinn, and one in each of the following towns: Tartu, Pärnu and Narva. The Pärnu and Narva stations started operation in 2013. Altogether 735,5 tonnes of the compressed gas was sold in the financial year. Compared to the previous year this means an increase by 35,9%. For the production of compressed gas in 2013 for the first time more than 1 million m³ of gas was used.

The market of natural gas can develop only through new gas sellers (importers) coming to the market, which creates for consumers security in supply and in the price, and as well may bring to a gradual increase of the demand. As the Estonian market, if taken separately, is too small to attract larger players, then the answer is in the idea of interconnecting of the Finnish and Baltic countries' markets. 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 the constructing of a liquefied gas (LNG) terminal and establishing new interconnections with other European countries. Currently, a new LNG terminal is being constructed in Lithuania, and the construction of a regional LNG in Estonia and/or in Finland is in the planning phase together with a new gas pipeline between Estonia and Finland (Balticconnector).

EG Võrguteenus AS has submitted to the Competition Authority for approval their ten years investment plan. 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 ten years development plan of the gas network, the Authority was appraised of the development plan.

The main development directions according to the plan are a gradual reconstruction of the Tallinn-Narva pipeline and the projects related to Balticconnector.

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. Another factor could be 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)

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 19. The maximum transmission network capacity is 14,0 million m³/day.

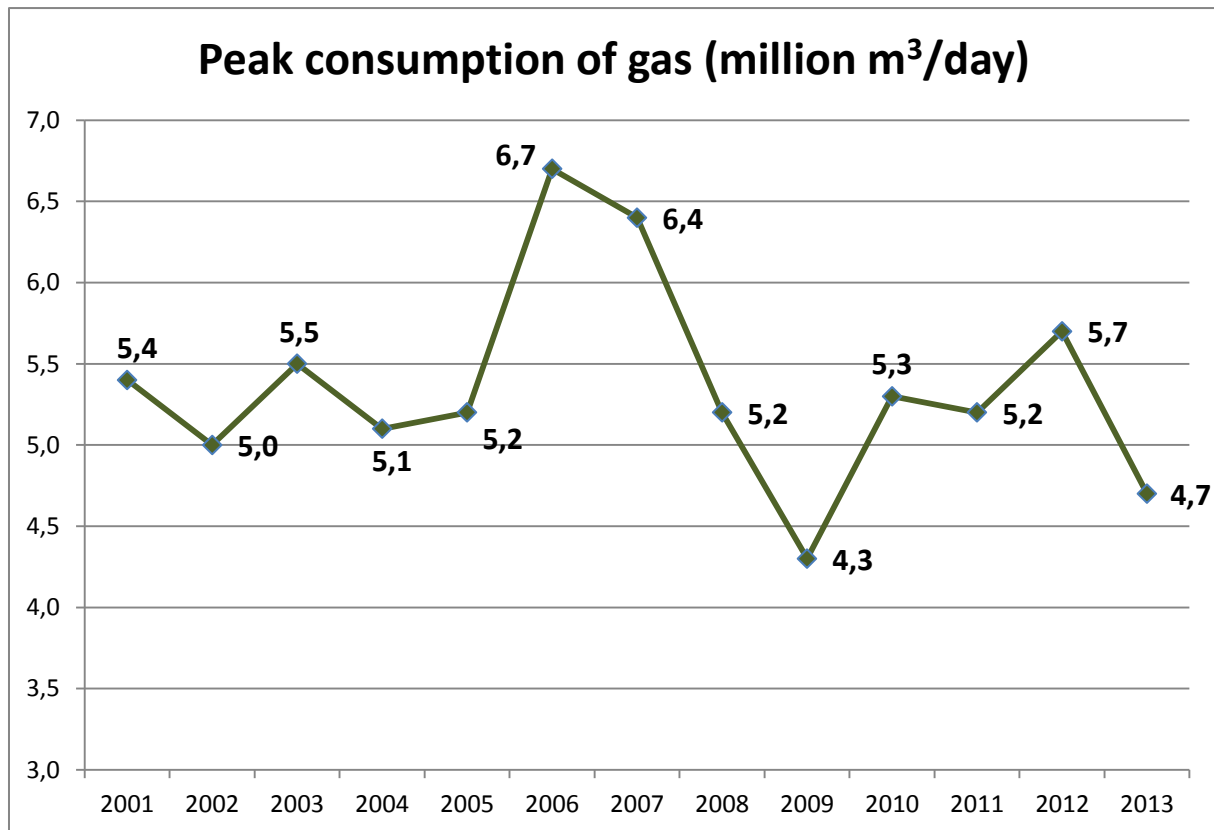


Figure 19. Peak consumption of natural gas. Source: EG Vörguteenus AS

Regulation (EC) No 994/2010 of the European Parliament and of the Council, which treats of the security of gas supply, requires continuous functioning of a gas infrastructure if in the event of disruption of the single largest gas infrastructure, i.e. the fulfilment of the N-1 criterion, even if the fault occurs during maximum load of the network.

Under the N-1 criterion a situation assessment is considered where one largest connection goes out of service. If in the case of a failure the supplies can be re-arranged without having supply disturbances, then the N-1 criterion is fulfilled.

The N-1 criterion expressed as a percentage shall equal or be higher than 100%. In such case the infrastructure conforms to the requirements of secure supply of customers.

The calculation formula for the N-1 criterion is:

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

where:

EP_m - technical transmission capacity of the import pipeline;

P_m - production of gas;

- S_m - output volume of a liquefied gas storage;
 LNG_m - output volume of liquefied gas terminal;
 I_m - technical capacity of the biggest connection of the gas network;
 D_{max} - maximum consumption of natural gas during the last 20 years.

Article 6(1) of Regulation (EC) No 994/2010 lays down that Member States or, where a Member State so provides, the Competent Authority shall ensure that the necessary measures are taken so that by 3 December 2014 at the latest, in the event of a disruption of the single largest gas infrastructure, the capacity of the remaining infrastructure, determined according to the N – 1 formula, is able to satisfy total gas demand of the calculated area during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years.

Considering the integrity of the Estonian transmission system and the rules of its use, the technical capacity which can be offered to the users of the Estonian gas network (importers of gas) by the system operator, is the following (see also Figure 11):

- Karksi connection with Latvia, Dn² 700, MP³ 55 bar – capacity 7,0 mln. m³/ day,
- Värskä connection with Russia, Dn 500, MP 55 bar – capacity 4,0 mln. m³/ day,
- Narva connection with Russia, Dn 400, MP 38 bar – capacity 3,0 mln. m³/ day.

The total capacity of the Estonian transmission system (incoming capacity) is up to 14,0 million m³/day.

Thus, the infrastructure criterion N-1 can be found with the following calculation (Annex I, points 2 and 3 of Regulation (EC) No 994/2010):

$$N - 1 = \frac{EP_m + P_m + S_m + LNG_m - I_m}{D_{max}} \times 100 = \frac{14 + 0 + 0 + 0 - 7}{6,7} \times 100 = 104,5 \%$$

where:

- EP_m - Karksi connection with Latvia 7 mln m³/day + Värskä connection with Russia 4 mln m³/day + Narva connection with Russia 3 million m³/day = 14 mln m³/day;
 P_m - 0 mln m³/day;
 S_m - As the gas storage is located outside the Estonian territory and the limiting factor is the capacity of the transmission pipelines, then in the criterion N-1 our gas or the gas reserved for us in the Latvian storage cannot be taken into account: 0 mln m³/day;
 LNG_m - 0 mln m³/day;
 I_m - Karksi connection with Latvia 7 mln m³/day;
 D_{max} - Maximum consumption of in the last 20 years: 6,7 mln m³/day (19 January 2006).

Conclusion: since the Estonian N-1 criterion is higher than 100%, the coverage of infrastructural peak demand or the coverage of supply deficit is ensured.

² DN – nominal diameter of the pipe in millimetres;

³ MP – maximum operational pressure

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 26²(1) of the Act sets out 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 contract that AS Eesti Gaas has 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 26²(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 sets out 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 distinguishing between the Competition Authority and the Consumer Protection Board. Law 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

Regarding customer contracts in the evaluation of the Competition Authority is a well-regulated field and customer interests are sufficiently protected. Pursuant to the Electricity Market Act standard terms and conditions of contacts for the provision of network services are subject to approval by the Competition Authority. From 1 January 2013, when the electricity market opened, consumers have the possibility to buy electricity in the framework of universal service. Thus, the standard conditions for the provision of universal service are also subject to approval with 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 wish 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;
- the conditions for amendment of the contract and of the conditions for the provision of services on the basis of the contract, and the conditions for cancellation of the contract;
- if the services provided on the basis of a network or connection contract do not conform to the terms and conditions of the respective 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;
- information concerning the procedure for dealing with complaints;
- the term of the contract.

An electricity contract shall include the following information:

- 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;
- the conditions for amendment of the contract and of the conditions for the provision of services on the basis of the contract, and the conditions for cancellation of the 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 and has not commenced consumption of electricity, 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 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, together with the invoice and the information offered to the consumer, present the consumer with the following information:

- 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 CO₂ and SO₂, 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 rights of the consumer and the possible ways of resolving disputes.

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 of the market participants (consumer, network undertaking, 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 as follows:

- 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 a main circuit breaker of up to 63A, in the case if they do not choose any electricity seller for themselves, to avoid letting them without electricity supply.

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 disclose the basis for price formation by the 9th date of the subsequent 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” lays down 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 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 using the data communication network to forward to the network operator, at least once every 24 hours, 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 2013 Elektrilevi OÜ has installed the remote reading devices for 14% of the household customers, Imatra Elekter AS for 50% and VKG Elektrivõrgud for 75,5% 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 lays down 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 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 a basis for the approval of prices for network services.

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

- the name and the address of the seller;

- the service provided;
- margin values of the levels of quality of the service offered;
- notification of customers of the applied tariffs and prices;
- term of the contract, conditions for renewal and termination of the contract;
- obligation to switch to another seller without charge;
- options of payment for the service;
- possible compensations and procedure for refunds;
- resolution of complaints.

A contract for the sale of gas shall set out, amongst other matters, 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.

Standard terms and conditions for the sale of gas to eligible customers are not subject to approval by the Competition Authority. However, pursuant to the Natural Gas Act and the Competition Act the market dominant seller (AS Eesti Gaas) shall ensure equal treatment of all market participants.

Pursuant to the Natural Gas Act a 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.

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 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.

Ensuring access to customer data

Article 41(1)(q) lays down 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".

The requirement arising from the Directive is not adopted in the Estonian legislation. The reason is that even though that the Estonian gas market is 100% opened, there is no competition on the market (there is only one importer). The Estonian market is a very small one and it is not reasonable for that purpose to establish a unified national system. However,

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

Pursuant to the Natural Gas Act a *protected customer* is a household customer with specific right according to which, in case failure to pay the contractual charge in time, and if the customer has a permanent residential space heated with gas, supply may be suspended during the period from 1 October to 1 May only when at least 45 days have passed since the notice of the debt caused gas supply suspension.

From 10 January 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. Also, in above said situations the time passed since the notice was increased to 90 days.

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 45 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 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” lays down 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 an increase of the network service price and this in turn would cause even broader number of customers to give up the consumption of gas.

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.

From a supervisory authority point of view the Estonian legislative basis can be considered as a solid 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 obligations for undertakings through the conditions of activity licence. For example, an obligation to invest into the electricity network can be imposed if the operator's activities so far have not secured the supply of electricity to customers in accordance with requirements.

All market participants, both undertakings and customers 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 2013 the number of consumer references to the Competition Authority was 153 (both complaints and inquiries), in order to establish violation of law by electricity undertakings or to get other electricity market related information. The major part of the references was in connection with the market opening on 1 January 2013. 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), quality of electricity (voltage problems) and the topic of a single invoice. The main disputes (altogether 6) were on the following topics – refusal to enter into network

contract, connection and verification of connection fees, provision of network service, disconnecting from the network. There were two complaints on the activity of the system operator related to intra-day supplies and transfer capacity on the Estonia-Latvia border. Four supervisory proceedings were carried out. Two of them were related to the verification of the price of universal service, one in connection with the termination of activities of a network operator and related continuation of the service. In connection with the latter proceeding the Competition Authority issued two precepts.

4.2.2 In natural gas sector (Article 41(11) and (4)(e) of Directive 2009/72/EC)

Article 41(11) of Directive 2009/73/EC lays down 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)(e) 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.

From a supervisory authority point of view the Estonian legislative basis can be considered as a solid one, as it gives the Authority enough possibilities for exercising market regulation.

The Competition Authority has the right to get necessary information from a market participant, as well as 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 obligations for undertakings through license conditions. For example, an obligation to invest for gas network can be imposed on operators in case their performance has not secured stable gas supply for customers in accordance with requirements.

All market participants, both undertakings and customers 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.

The number of natural gas related inquiries in 2013 was altogether 33. Two of them were complaints. The main topics were connection, the correction of gas quantities and price issues. The Competition Authority initiated supervisory proceeding on the correction of gas quantities. In 2013 the Competition Authority did not receive any complaint on the activity of the system operator.