



**KONKURENTSIAMET**  
Estonian Competition Authority

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**ESTONIAN ELECTRICITY AND  
GAS MARKET 2012**

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# SISUKORD

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## 1. 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 2012 and on the changes in safeguarding security of supply.<sup>1</sup>

It is worth to mention the fact that according to Eurostat<sup>2</sup> renewable energy sources constituted 25,9 % of the final consumption of primary energy. However, in the production of electrical energy the share of renewables is not as high and continuously 90 % of electricity in Estonia is produced from non-renewable sources. The Eurostat data contain different forms of energy: electricity, cooling, transport and heating as well.

Therewith, aim of the development plan cannot be ensuring high profit for electricity producers, which are paid for by consumers through ever increasing renewable energy charge. Considering the fact that the projects are subsidised by consumers the return for producers from invested capital must be in a reasonable level. The system of support shall motivate undertakings to economical thinking and cannot, with reference to their legitimate expectations, oblige consumers to compensate to producers their deliberately made unreasonable investments or excessively taken risks. The Competition Authority is guided from the prerequisite that all undertakings acting in the free market conditions shall bear the risks accompanying a competition situation in the market and no one can be exempted aiming at distortion of the market. As assessed by the Competition Authority the existing system of support does not fulfil the legitimate expectations of consumers. The results of the analysis carried out show that the support system provides unjustified high returns for many producers and therefore, unjustified cost for consumers. The Authority is in the opinion that the validated scheme of support is not sustainable, as the investment projects, which are economically profitable without any support, are still supported.

2012 was the year of hot disputes with an extremely high interest on the energy sector both from public and from the governmental side. Important amendments were adopted both in the Electricity Market Act and in the Natural Gas Act. The common denominator for both Acts is the trend undertaken in the Estonian energy sector towards free competition.

From the beginning of 2013 the electricity market in Estonia is opened. During the previous year there have been many lively disputes on the topic. Estonia belongs to those Member States, which have chosen a liberal market model and abandoned also the regulation of the price of electricity sold to household consumers. The Competition Authority participated in the extensive public information campaign carried out by the Ministry of Economic Affairs. In the end of the year the number of customer inquiries increased steeply. In open electricity market all producers have free access to electricity networks and to the network

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<sup>1</sup> In the preparation of 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.

<sup>2</sup>

[http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=t2020\\_31&plugin=1](http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_31&plugin=1)

interconnections between EU Member States in order to ensure free choice for consumers to select the seller of electricity. Thus, for consumers the opening of market means a possibility to select most suitable electricity seller/trader irrespective of the network operator with whom the consumer has contracted for the provision of network services. On the other hand, undertakings are in a situation in which they have to apply more efforts in order to have more customers. The price for electricity on open market is formed in equal competition conditions. The possibility to choose between traders for all consumers opened along with the ending of 2012. The consumers, which did not choose to contract with any electricity trader, are 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 market opening is characterised by high activity of consumers. As of May 2013, 73 % of consumption points have entered into electricity contracts, which is an extremely high percentage. 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.

The power exchange's electricity price is influenced by various factors like cross-border transmission capacities, emergencies in the grid, water level in the reservoirs of the hydro power plants in the Nordic countries and Latvia. So the power exchange electricity price is very much volatile and particularly, depends much in the seasons. The European Union environmental policy also affects the price considerably, first of all in connection with the CO<sub>2</sub> emissions and allowances as in Estonia 90% of electricity is produced from oil shale, which is very CO<sub>2</sub> heavy. In the power exchange bids are made hourly, meaning that the price changes every hour. For example, on 31 December 2012 particularly, from 2 to 3 o'clock in the morning the price in the Nord Pool Spot ELE (Estonian) price area was 29,19 EUR/MWh, while in the afternoon from 16 to 17 o'clock it was already 39,20 €/MWh. This is almost by 10% lower than the 2011 price.

The process of amending of the Natural Gas Act created hot disputes over the ownership unbundling of the transmission network operator. Article 49 of Directive 2009/73/EC of the European Parliament and of the Council provided for Estonia an exemption and does not require the transmission system ownership unbundling from the producer and the seller, as Estonia has network connection only with Russia and there is no other alternative suppliers. Despite of the exemption Estonia choose the way of gas market liberalisation in order to increase its energy security, security of supply and competition. By the amendments enforced in the Natural Gas Act on 8 July 2012 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 for the adoption of the Directive. The amendments aim at the creation of possibilities for emerging a real gas market in Estonia.

With best wishes,

*Märt Ots*

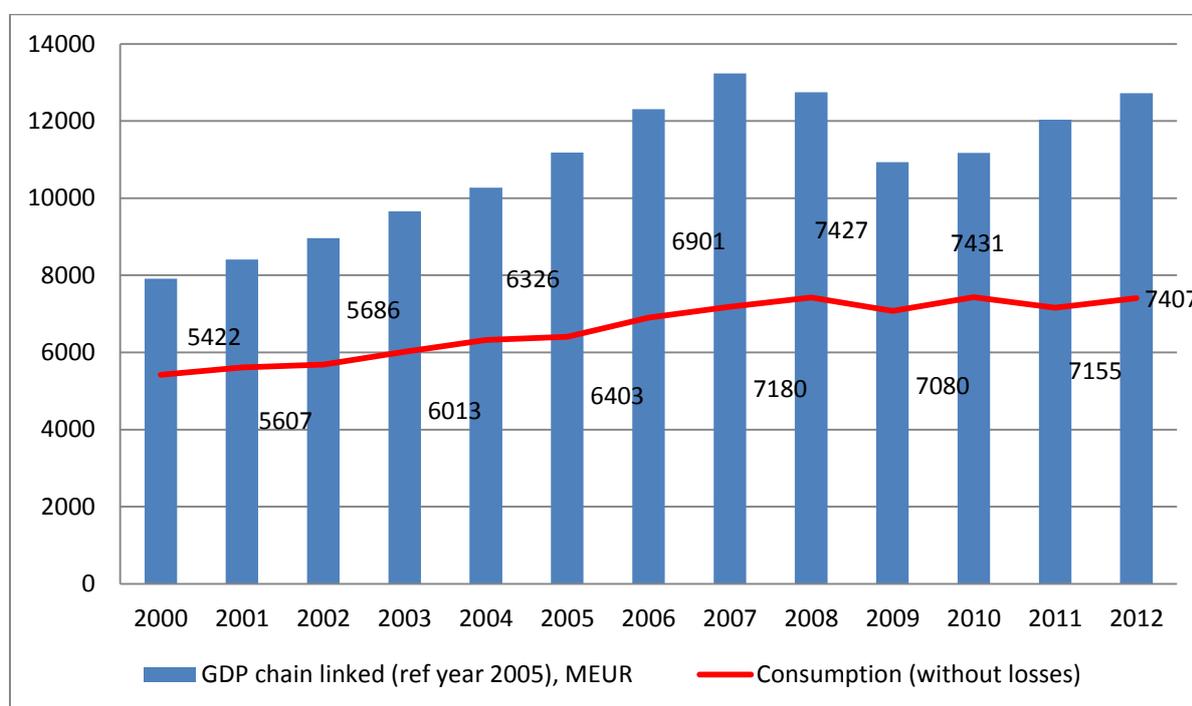
Director General of the Estonian Competition Authority

## 2. Main developments in electricity and gas markets in 2012

### 2.1 Developments in electricity market

#### Wholesale and retail markets of electrical energy

The annual electricity production in the Estonian electricity system in 2012 was 10 526 GWh, while 2710 GWh was imported and the export was 4950 GWh. The domestic consumption (without losses) was 7407 GWh. The consumption of electricity in Estonia has gradually grown from year to year, but due to the economic recession in 2009 the consumption fell. Figure 1 highlights the relationship between the GDP and the consumption of electricity. The GDP reflects well the consumption behaviour of businesses and people. If more services and goods are produced and bought then also the consumption of electricity is growing and vice versa, together with the decrease in the purchase power the electricity consumption decreases as well.



**Figure 1.** Relationship between electricity consumption and GDP. Source: Statistical Office

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 for all consumers - thus, by 100 %.

As of May 2013 new electricity contracts were entered into by 73 % of consumption points, the rest 27 % of consumption points respectively used universal service (source: AS Elering). Thus, the market opening in Estonia is accompanied with very high customer activity and the number of the consumers of universal service is relatively modest compared to other European countries. The price of electricity sold as universal service is calculated by the provider on the basis of the power exchange price. To this price justified costs related to the provision of service may be added, as well as a reasonable profit margin. Universal service shall provide to consumers electricity with a price, which is reasonable, justified and follows

the principle of equal treatment. The Competition Authority has initiated supervisory proceedings in relation to the universal service price of AS Eesti Energia in order to verify whether the applied price complies with aforesaid principles.

Today all these consumers, which do not use universal service or the service of an electricity trader that belongs to the same group with the network undertaking, receive two separate invoices – one for the network service and another one for the consumed electrical energy. Considering the interests of consumers the Ministry of Economic Affairs and Communications has convened a working group with the target of establishing the rules and possibility of submission of a common invoice (for electricity and network service) by all electricity traders or network undertakings.

Eligible customers had the right and the obligation to choose an electricity trader from open market already beginning from 1 April 2010. This can be done upon bilateral contracts or by buying directly or through a broker in the Nordic Countries' stock exchange Nord Pool Spot (hereinafter NPS) from the Estonian price area EE, which started operations in Estonia also on 1 April 2010.

On 18 June 2012 the NPS opened a 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 LT was created.

An average price in the NPS Estonia price area in 2012 was 39,20 €/MWh, which is lower than the 2011 price almost by 10 %. An average final consumer price in 2012 including network service, excise tax and the support for renewable energy sources was 9,72 €cent/kWh (without VAT).

The developments in the electricity market in 2012 are described in greater detail in section 3.2 of the present report.

### **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 a direct current (DC) line. 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 a single transmission network service provider Elering AS, who is also the system operator (TSO). The number of distribution network service providing undertakings is 37. In total there are 5223 km of transmission (110-330 kV) lines belonging to the TSO and almost 68 060 km of low and medium voltage lines belonging to distribution operators. In Estonia the distribution network undertaking with the biggest market share (87 %) is Elektrilevi OÜ<sup>3</sup>.

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<sup>3</sup> Until 17 May 2012 named Eesti Energia Jaotusvõrk OÜ

An annual average transmission tariff in 2012 was 1,24 €cents/kWh, while the distribution tariff was 5,15 €cents/kWh (without value added tax).

For Elering AS the second period of the 3-year regulation period began on 1 January 2012. The period lasted until 31 December 2012 and the third period is on-going and will end on 31 December 2013. The change in network charges was caused mainly 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. In addition Elering AS is constructing new connections and switchgear in order to increase the transmission capacity of its electricity networks and to minimise network losses.

For Elektrilevi OÜ the new 3-years regulation period began on 1 August 2011 and lasts until 31 July 2014. Thus, the new tariffs shall apply respectively from 1 August of 2011, 2012 and 2013. 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 investment total volume in the next three years 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 undertaking cannot approve prices for a 3-years regulation period any more but instead, the approval will take place according to the undertaking's applications. This means that pursuant to law the undertaking may any time submit an application for 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.

The issues of the regulation of electricity networks are more closely dealt with in section 3.1.

### **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 power auctions (*explicit auctions*) where 20 % of the total trading capacity was allocated in weekly intervals. The rest was allocated by NPS in day-ahead trading through 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 the electricity traders of Russia and Belarus can sell electricity through the Estonia-Russia, Latvia-Russia, Lithuania-Belarus and Lithuania-Kaliningrad connections only through the mediation of the NPS power exchange. 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 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).

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 will be 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 continental Europe power system.

The cross-border issues of electricity networks are more closely dealt with in point 3.1.4.

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

Beginning from 1 July 2010 the Electricity Market Act sets out 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 its 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. This was in conflict with the ownership unbundling principles. By the governmental decision No 129 the possessing and exercising of shareholder's rights of the shares of Eesti Energia AS were given to the Ministry of Finance while those of Elering AS remained in the possession of the Ministry of Economic Affairs and Communications. This ensures that the shareholder's rights are exercised by different ministries and different ministers.

Pursuant to 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 the obtaining of activity licence. Upon the application the Competition Authority initiated certification proceedings.

The issues of the ownership unbundling of activities are more closely dealt with in point 3.1.1.

### **Security of electricity supply**

In 2012 the energy balance in Estonia was positive as production exceeded consumption. The peak load in the Estonian electricity system was 1572 MW (recorded on 6 February 2012). According to the data available to the Authority the installed capacity in the Estonian electricity system was 2278 MW.

Thus, the installed generation capacity in Estonia exceeded the system's peak load and presumable such tendency will continue at least until 2020. In addition to the production capacity the security of supply in Estonia is improved through 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. Also, according to the *Security of supply report 2012* by the 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 is produced from non-renewable sources, over 25% of the primary energy final consumption constituted renewable sources. The 25 % target for renewables was set to be achieved by 2020 but in fact Estonia achieved it already in 2012.

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

## **2.2 Developments in natural gas market**

### **Wholesale and retail market of natural gas**

In 2012 in the Estonian natural gas market an increase in the volume of annual gas sales took place (679 million m<sup>3</sup> in 2012 compared to the 632 million m<sup>3</sup> in 2011), but this was first of all because the chemical industry AS Nitrofert re-started its operation. The main area of natural gas application is district heating (39% of the total consumption) followed by the industrial consumption of 33 % of the total. The rising gas price trend over the last years has motivated the heat producers using gas for heating to convert to other fuels (local renewable fuels) and this is the main reason for the 2011 decrease in gas consumption.

In February 2012 a record high gas peak consumption of 5,7 million m<sup>3</sup> was recorded, which is the highest daily consumption in the last 5 years. In 2013 the daily winter peak consumption of 4,7 million m<sup>3</sup> was recorded on 19 January 2013. In the winter period Estonia receives the needed gas from the Inčukalns gas storage in Latvia and no supply disturbances were present.

Gas is imported only from 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 2012 the share of Eesti Gaas in the retail market was 86,5 %, and the rest 13,5 % of the retail market gas was purchased by other network undertakings from AS Eesti Gaas for re-selling. 27 licenced gas traders are currently active in the market. At the same time, in 2012 there were no independent from the network operator retail sellers in the gas market.

In 2012 4,5 % of customers changed their gas seller. 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.

In greater detail the wholesale and retail markets of gas are described in section 4.2.

### **Natural gas networks**

Estonia has natural gas network connections with Russia and Latvia. Necessary pressure in the Estonian gas system is provided 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 combined gas system operator in Estonia is AS EG Võrguteenus, which provides both transmission and distribution services. In addition to AS Eesti Gaas there are 25 natural gas distribution undertakings in Estonia. The biggest ones are Adven Eesti AS, Gaasienergia AS, Tehnovõrkude Ehitus OÜ, and AS Sillamäe SEJ.

On 31 December 2012 EG Võrguteenus AS submitted to the Competition Authority its 10-years development plan for approval. According to the plan it is foreseen to construct reversible (bi-directional) gas metering station in Karksi, which ensures two-way gas flows between Estonia and Latvia. The plan also deals with the investments in the construction of the *Balticconnector* – a gas connection between Estonia and Finland.

The amendments to the Natural Gas Act enforced on 8 July 2012 prescribe the general principles of network service price regulation in greater detail. The network service tariffs are *ex-ante* regulated by the Competition Authority, while to the balance gas price and to the network connection charges *ex-post* regulation is applied. From 1 May 2013 the transmission and distribution charges of the transmission network undertaking AS EG Võrguteenus increased and the structure of prices changed. One of the reasons for the raise of prices was the supplement to the price regulation principles according to which in the calculation of prices the book value of assets shall be taken into account.

In greater detail the issues of gas network organisation are dealt with in section 4.1.

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

On 6 June 2012 Riigikogu passed amendments to the Natural Gas Act which were enforced on 20 June 2012. With the amendment Estonia abandoned the application of the exemption for the transmission system operator's ownership unbundling requirement, which was applied for 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 choose the way of complete ownership unbundling for the fulfilment of the Directive. The amendment creates preconditions for emerging of real natural gas market in Estonian in the future.

The system operator EG Võrguteenus AS has three years to get into compliance with the legal requirements. On 31 December 2012 the system operator submitted to the Competition Authority a plan for the fulfilment of the ownership unbundling requirement. 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 greater detail the gas system operator's ownership unbundling issues are dealt with in point 4.1.1.

### **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 N-1 criterion is 104,5%. This means that even in an event of a disruption of the largest connection needed gas supply is ensured for the Estonian consumers during peak consumption.

The supply of gas corresponding to the demand is fulfilled in Estonia also in the coming years. The key question of the Estonian gas market development is the attracting of new suppliers into the market through infrastructure investments (regional LNG terminal in Estonia or in Finland together with necessary connections) and a suspension of the falling gas consumption trend.

In greater detail the natural gas security of supply issues are dealt with in section 4.3.

## **2.3 Main changes in legislation**

The new electricity and natural gas regulatory directives enacted by the European Parliament and by the Council on 13 July 2009, also known as *the third package*, are mandatory also for Estonia. Proceeding from the directives the Estonian legislation had to be amended correspondingly.

On January 2010 comprehensive amendments to the Electricity Market Act were adopted. Among others the ownership unbundling of the transmission undertaking as the system operator (TSO) was set out. On 20 June 2012 amendments were enforced both in the Electricity Market Act and in the Natural Gas Market Act, which harmonised also other requirements additionally arising from *third package* into the Estonian legislation.

### **Changes in Electricity Market Act**

Large part of the Electricity Market Act amendments are related to the opening of electricity market to all customers. Since 1 January 2013 the Estonian electricity market is 100% opened and all consumers can choose the seller of electricity.

The centralisation of information exchange between the market participants was laid down by the Act for better functioning of the market and ensuring transparency. While so far bilateral exchange of information took place between the market participants, the amended Act provides for establishing of a centralised data exchange platform, which is a digital environment through which both change of electricity traders in the market and metering data transmission takes place. The creator and the administrator of the data exchange platform is Elering AS. The Act obliges electricity traders to keep records for up to 5 year on the data of

electricity transactions with other traders and with the transmission undertaking, as well as on the data of the derivatives for which the underlying asset is electricity.

The Act provides the definition of universal service and its nature. This is needed in order to supply electricity to those customers which will not choose the seller, like household consumers, apartment associations, communities of apartment owners and such commercial consumers whose electrical installation is connected to the network by using low voltage and a main circuit breaker of up to (small consumers). Universal service is the sale of electrical energy to small consumers by an undertaking or by a seller designated by it on the basis of standard conditions for universal service approved by the Competition Authority. Providing of universal service takes place in an event if a small consumer will not choose a seller for itself or, it is willing to buy universal service or, if the chosen electricity seller fails to sell electricity for any reason (e.g. in case of its bankruptcy).

The Act prescribes the rules for the transmission system undertaking management, compliance assessment and post-evaluation (incl. certification). The aim is to ensure full independence of the transmission undertaking from the undertakings acting in the area of electricity and natural gas production and sales.

### **Changes in Natural Gas Act**

There have been a lot of public discussions on ownership unbundling of the gas transmission network and establishing of an independent system operator. Relevant provisions are adopted in the new Act. The provisions treat of the requirements applicable to the system operator, issuance of activity licences, assessment of compliance with the requirements and rules applied to the management. Pursuant to the Act by 1 January 2015 at the latest the system operator shall be a network undertaking that owns the transmission network, possesses or administers the metering systems on the border and has an activity licence for providing the transmission service of gas. In addition to the ownership unbundling the amendment obliges the system operator to meet the obligations provided for system operators in Regulation (EC) No 715/2009.

The Act incorporates also the regulation of liquefied natural gas (terminology, field of activity, market participants, etc.), thus supplementing the current regulation of gas market that concentrated only in gas import, transmission, distribution and sales.

The provisions related to safeguarding security of supply arise from Regulation No 994/2010 of the European Parliament and of the Council. The Act provides the term of protected consumers, which are household consumers whose consumer installation is connected to a gas distribution network and undertakings who produce heat for heating dwellings and for who it is impossible to use any fuel other than gas.

In greater detail than earlier the Act prescribes the regulation of network service price. The Competition Authority used relevant provisions of the Act for the preparation of unified methodology for the calculation of network service price.

### **Regulator related amendments in Electricity Market and Natural Gas Acts**

Both gas and electricity directives prescribe additional obligations imposed on regulators. The most principal is the obligation to monitor the market, including the functioning of competition. Under the latter it is meant a large-scale data collection and processing. The

Competition Authority's rights and obligations in the regulation of electricity and gas markets are dealt with in points 3.1.5 and 4.1.5 of the present report.

In order to secure independence of the regulator the *third package* provides that members of the board of the regulator or the director is nominated to the post for a 5-7 years period for two terms in office as the maximum. Pursuant to the current legislation the director of the Competition Authority is in office without a term. However, pursuant to the amendment in the Public Service Act enforced on 8 July 2012 the director of the Competition Authority is nominated for 5 years and for two sequential terms in office as the maximum.

## 3. Functioning and regulation of electricity market

### 3.1 Regulation of electricity networks

#### 3.1.1 Ownership unbundling

**(Articles 10, 11 and 26 of Directive 2009/72/EC and 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) 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.

Estonia has designated Elering AS to be the transmission network undertaking. It complies with the requirements of Article 9(1)(a, d): from 27 January 2010 Elering AS owns the transmission network and is not related to the production and sales of electrical energy. 100% of Elering AS shares belong to the Estonian state. The same applies to 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).

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 the 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 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 amendments 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. On 22 April 2013 Elering AS submitted the application for assessment of compliance and obtaining of activity licence. The Competition Authority initiated a certification proceeding, which may take up to 8 months (including hearing of the opinion of the European commission).

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 the 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 kept. 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 opinion given.

### **Securing of equal treatment**

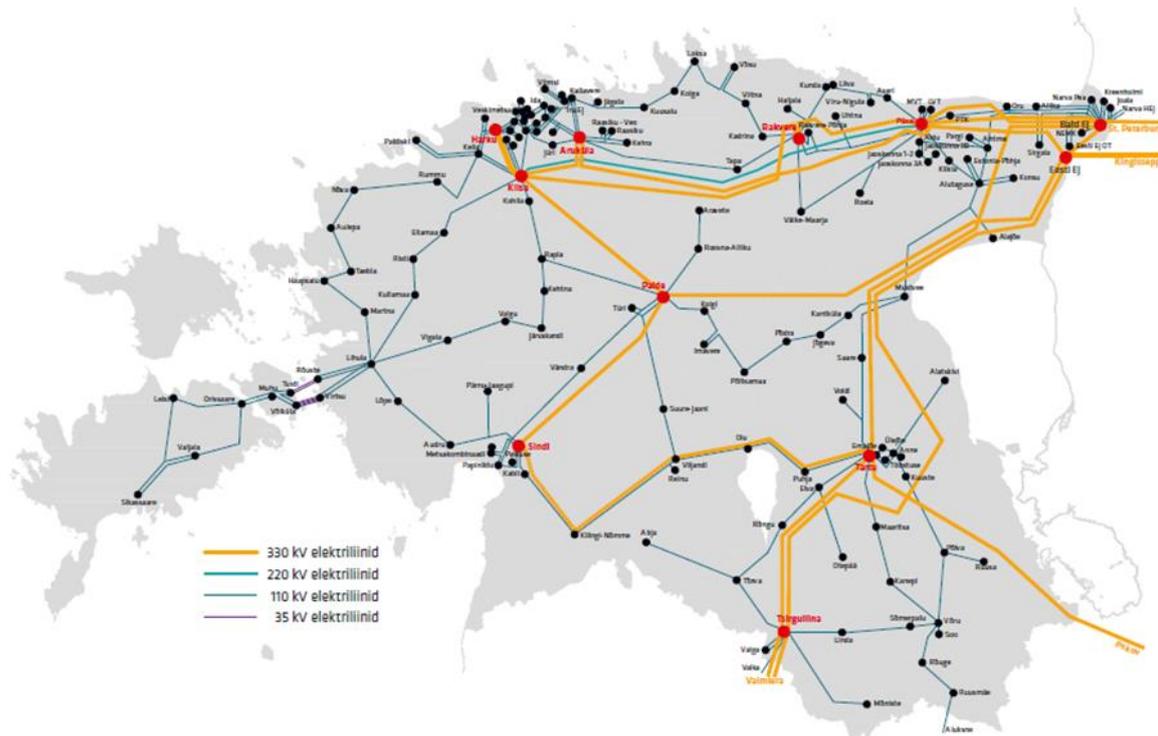
Until 1 January 2013 all network operators were obliged to prepare an action plan with the measures for equal treatment of other electricity undertakings and customers, including duties of employees in the implementation of these measures. Pursuant to the amendments published on 8 July 2012 respective obligation is imposed only on the distribution network undertakings and it does not apply to the transmission network undertaking. Whilst the Act 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 in 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 same principles equally apply to the criteria for the establishing of network charges.

### **3.1.2 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. Since the end of 2006 there is the direct current connection EstLink 1 with the capacity of 350 MW between Estonia and Finland.

There is a single transmission network service undertaking Elering AS, who is at the same time also the system operator, and 36 undertakings that provide distribution network services. The total length of the transmission lines (110-330 kV) that belong to the transmission network undertaking is 5223 km, while the length of the low and medium voltage distribution networks is in total 68 060 km. The map of the Estonian power system is presented in Figure 2.



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

As regards distribution networks the concentration of market is extremely high. The largest undertaking is Elektrilevi OÜ, with the annual sale in 2012 of 6605 GWh and the number of customers of 496 012 and it's the share on the market of 87 %. The next two largest distribution network undertakings have roughly the same sale volume. VKG Elektrivõrgud OÜ, which belongs to the Estonian private capital, had 33 953 customers and the annual sales of 220 GWh. The third largest is Imatra Elekter AS with the annual sales volume of 207 GWh and the number of customers 24 542 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 smaller 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 best possible price. The prices of balancing energy are published on the web site of Elering AS (<http://elering.ee/bilansienergia-osta-ja-muuk/>).

Balance is settled by the 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. Six other balance providers are active besides it. 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 (misdemeanour proceedings). 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 3200 € for a single violation. Therefore, possible level of the punishment can be quite remarkable. 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 interruptions are regulated. Supply disruptions lasting less than 3 minutes are not considered interruptions. According to the quality requirements the time limits (maximum acceptable durations) set out, during which customers shall be re-supplied. The time limits are distinguished for summer and winter period (see Table 1).

If undertakings fail to comply with the acceptable time limits they are obliged to pay compensation to customers. As well the Competition Authority may initiate a misdemeanour procedure in each specific case and impose a fine in an amount of up 3200 €.

**Table 1.** Network service quality requirements

	Summer period from April to September	Winter period from October to March
<b>Transmission network</b>		
Acceptable duration of an interruption caused by faults	2 hours */ 120 hours **	
Acceptable annual accumulated interruption duration	150 hours***	
<b>Distribution network</b>		
Acceptable duration of an interruption caused by faults	12 hours	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 single a 110 kV transformer or a line

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 refers to 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.

Table 2 presents the quality of electricity supply indicators for 2020, 2011 and 2012 of Elering AS (the TSO) and of 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		
		2010	2011	2012	2010	2011	2012
Total number of consumption points	pcs	250	253	230	636 762	636 762	655 540
Fault caused annual accumulated interruption duration	minutes	2973	6386	1756	283 935 405	242 094 462	122 585 980
Planned annual accumulated interruption duration	minutes	3336	10044	8633	82 486 977	70 816 955	59 654 140
Average fault caused interruption frequency per consumption point per year (CI) (SAIFI)	pcs	0,172	0,257	0,148	2,218	2,126	1,920
Average interruption time per consumption point per year (SAIDI)	minutes	12	25	8	446	380	187
Average duration of an interruption (CAIDI)	minutes	69	98	52	201	179	97
Average planned interruption frequency per consumption point per year	pcs	0,040	0,079	0,026	0,533	0,550	0,560
Average planned interruption duration per consumption point per year	minutes	13,3	39,7	37,5	129,5	111,2	91,0
Average planned duration of an interruption	minutes	333,6	502,2	1438,8	255,3	202,3	162,5

It is seen from above table that in 2012 the durations of interruptions caused by faults have shortened substantially both in the network of Elering AS and that of Elektrilevi OÜ as well. This is first of all due to relatively calm weather conditions (in 2012 there were no very large damages caused by heavy storms).

The monitoring of the meeting of safety requirements is not the competence of the Competition Authority. That is why the present report does not reflect the safety requirements of the electricity network undertakings, undertaken measures 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 on the basis of section 42(2) of the Electricity Market Act and approved by Regulation No 184 of the Government of the Republic. 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 the network re-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 time spent by Elering AS for the creation of interconnections between networks and repairs according to their records in 2011 and 2012.

**Table 3.** Timing of creating and repairing connections between networks by Elering AS in 2011 and 2012

<b>Line</b>	<b>Interruption duration (hours) 2011</b>	<b>Interruption duration (hours) 2012</b>
L301 Tartu - Valmiera	113,4	58,2
L354 Tsirguliina - Valmiera	189,4	0,0
L358 Tartu - Pskov	288,8	657,7
L373 Eesti EJ - Kingissepp	763,4	265,3
L374 Balti AJ - Leningradskaja	519,1	1194,3
L677 Tsirguliina - Valka	2638,3	444,7
L683 Ruusmäe - Aluksne	374,7	1307,0
LN3	0,0	2080,1
<b>Total</b>	<b>4887</b>	<b>6007</b>
Incl. ordered by neighbouring systems	4848	2730

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

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

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 exceptions or differences. Herewith we explain that pursuant to the Electricity Market Act aforesaid producers do not have priorities also in the order of connection (waiting list), nor in the provision of balance. Pursuant to section 32<sup>1</sup> of the Grid Code for a small cogenerator installation ( with 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.

### **3.1.3 Access to 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 2012 was 37 and 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);
- methodology for calculation of a charge for connecting to the network;
- the methodology of balancing energy pricing

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.

Despite that Article 14(2) of Regulation (EC) No 714/2009 and the *Guidelines on Transmission Tarification* allow charging producers for the transmission, Estonia has not applied it and respective charge has so far been 0 €/MWh.

#### **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;
- 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 74(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, which qualifies the application of provisions of law. 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 guidelines for input data collection to be filled in for the approval process. The tables include technical data and detailed accounts: profit and loss statement, balance sheet and data on fixed assets. Undertakings shall also submit a detailed investment plan and the expected sale volumes of network services. On the basis of the data it is possible to verify whether cross-subsidising of different areas of activity is avoided. Since the tables are comprehensive, it is required to fill them in only in the price approval process. 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 carry out of 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 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. Thus, an approved network service charge may last longer than a year. The principle was valid also before the methodology amendment, as pursuant to the Electricity Market Act an existing price is valid until a new one is applied. A new network charge shall be approved if an undertaking finds that the operating cost, capital cost and a justified return that was used as the basis in approval does not provide the price that meets the provisions of section 71 of the Electricity Market Act. If necessary, 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 the fulfilment of 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 other network operators with comparable structure. The charges may not be discriminatory. As the transmission network undertakings incur additional costs and revenues as a 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 sets out 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 network access the payments to and receipts from the ITC fund shall be taken into account. Since following of the Regulation is mandatory to Estonia, in approval of network charges the Authority takes into account the costs incurring from the ITC fund.

Average prices for network services in 2012 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 price prices in electricity networks in 2012

<b>Service provider</b>	Number of undertakings	Average price for transmission and distribution service €cent/kWh
<b>Transmission network</b>	1	1,24
<b>Distribution networks</b>	37	5,15

#### **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 during 90 days an offer for connection shall be issued. A distribution network undertaking shall issue a connection offer during 30 days from the reception of an 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 connection to the transmission is determined on the basis of the cost pursuant to the principles outlined in the Grid Code. In the calculation of the charge for connecting to the network the justified cost that incurs in making the connection is considered. The charge will include necessary and justified cost for connecting the new consumption load or for 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.

### 3.1.4 Cross-border issues

With neighbouring countries Estonia has power connections with Russia, Latvia and Finland. The map of the Estonian power system was presented in Figure 2 above. The map of the Estonian power system is given in Figure 3. The map of the power systems of Baltic countries and north-western part of Russia is given in Figure 8 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 which 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 150 kV DC connection with Finland (350 MW). In 2014 the second 450 kV DC connection between Finland and Estonia with the capacity of 650 MW will be added. Due to network repair works and ambient air temperature variations the transmission capacity to the Baltic region may be significantly reduced. 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 1035-1900 MW and by 2020 the total shall be 2000-2550 MW.

By statistics of 2012 the peak load from Narva to the direction of Russia was 683 MW, while from south Estonia in the direction of Russia it was 213 MW. The peak load in the Latvian direction was 740 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' 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 transmission 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.

The EstLink 1 sea cable between Estonia and Finland is leased by Elering AS and the Finnish TSO Fingrid from the owners and from 1 April 2010 have given the allocation of its capacity (power and energy) through using of the method of *implicit auctions* to the use by the NPS power exchange operator. In the result of this the traded electrical energy always moves from the areas with lower price to the areas with higher price. It is also important to mention that since October 2010 available EstLink 1 cable capacity, surplus from the day-ahead trading, is given to the NPS Elbas market for the allocation and use by the market participants trading in it.

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 until 17 June 2012

20% of the capacity between Estonia and Latvia was allocated by using the method of week-based explicit (power) auctions. Therewith the allocating takes place using the auction rules agreed upon between Elering AS and Augstsprieguma Tikls. 80% of the total transmission

capacity was given to the use by the NPS power exchange operator for allocation by using the implicit auctions method.

For the allocation of the transmission capacity between Estonia and Latvia, and as well as between Estonia and Russia in the NPS system the following four so-called bidding areas were formed:

- in the NPS Estonia bidding area all market participants which act in Estonia could make bids;
- the Latvia export area could be used by those Latvian and Lithuanian market participants, who wanted to buy electricity from the NPS Estonia price area;
- the Latvia import area could be used by those Latvian and Lithuanian market participants, who wanted to sell electricity in the NPS Estonia price area;
- in the Russian import area all those market participants could make bids who wanted to import Russian electricity to the power exchange.

The price was calculated according to the NPS rules, therewith the bids made and accepted in all four bidding areas were taken into account.

#### 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 allocation by NPS was allocated by using the power optimisation method. This was because in Latvia no NPS price area were 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 Estonia bidding area all market participants which act in Estonia could make bids;
- the ELE area could be used by those Latvian and Lithuanian market participants, who had concluded an agreement with NPS on the trading on the Estonia-Latvia border;
- in the Russian import area those market participants could 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 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 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 the Baltic countries themselves and also with Russia and Belarus. According to the agreement the Russian and Belorussian traders can sell electricity through the Estonia-Russia, Latvia-Russia, Lithuania-Kaliningrad to the Baltic countries only through the mediation of the NPS power exchange. The new rules enforced on 3 June 2013, when the Latvian price area became operational. These activities are the first step in the process with 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 bid. The cross-border capacities are allocated by NPS by using the method of *implicit auctions*;
- According to the agreement between three Baltic TSOs NPS directs all the electricity from the third countries to the NPS price area on the Lithuania-Belarus border. No capacity is allocated to the borders between Estonia-Russia and Latvia-Russia.

The Competition Authority approved the rules for 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).

Pursuant to Article 15 of Regulation No 714/2009 “Provision of information” and Clause 5 of the Guidelines “Transparency” Elering AS has disclosed on his 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 interruptions of the production units in the Estonian power system with a rated capacity of over 100 MW and the report on sufficiency of the production capacity in the Estonian power 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 the market participants simultaneously, transparently, in a user friendly manner and in easily downloadable format.

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

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

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

- 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 specified in point 31 of subsection 1 of section 39 of this Act, and 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 connection charges and 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 4<sup>1</sup> 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 opinion 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 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 this 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;

- submit to the European Commission a report on market dominance among electricity undertakings and on predatory and other anti-competitive behaviour. The report shall, in addition, review the changing ownership patterns, the measures taken to enhance competition, and the potential effect of measures adopted in order to comply with the obligation of provision of universal service on domestic and international competition;
- 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 intersystem connections;
  - the rules for resolving congestions in the system;
  - the time spent on construction and repair of cross-border interconnectors;
  - the information published by network operators concerning cross-border interconnectors and distribution of the capacity of the network, taking into account the need to maintain business secrets;
  - the measures for unbundling of activities specified in section 16 of this Act;
  - the connection conditions established for new producers;
  - performance of obligations by the system operator and network operators;
  - the competition situation 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. If the Competition Authority makes a negative decision in respect of the assessment of the compliance and that decision differs from the opinion of the European Commission, the Competition Authority shall publish its decision in the Official Journal together with the reasons for the decision and with the opinion of the European Commission.

The Competition Authority shall issue mandatory enforcement orders to market participants and other persons 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 shall be independent in exercising the functions entrusted to it by virtue of the Electricity Market Act. 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

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.

## 3.2 Enhancement of competition in electricity market

### 3.2.1 Electricity wholesale market

(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 %. In 2012 there were altogether 213 eligible consumers on the open market, which bought electricity either upon bilateral contracts or from the power exchange. On 1 January 2013 the market was 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. Thanks 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 market is opened and with the planned EstLink 2 connection the Estonian and the whole Baltic system will more and more integrate with the Nordic countries' power exchange NPS.

In 2012 10 526 GWh of electricity was produced (net production) in Estonia. Compared to 2011 the production slightly fell (by 7,3 %). The network losses comprised 879 GWh and compared to 2011 it is less by 7,4 %. The import to Estonia in 2012 was 2 710 GWh, which is 60,4 % more than in 2011. The domestic consumption increased by 8,2 % with the total of 7 407 GWh in 2012. The export from Estonia was 4 950 GWh, which is 5,8 % less than in 2011. Table 4 presents the changes in the Estonian energy balance in 2011 and 2012.

**Table 4.** Electrical energy balance in GWh. Source: Statistical Office

<b>Electricity balance in GWh</b>	<b>2011</b>	<b>2012</b>	<b>Change, %</b>
<b>Net generation *</b>	11 356	10 526	-7,3
<b>Import</b>	1 690	2 710	60,4
<b>Consumption</b>	6 845	7 407	8,2
<b>Losses</b>	949	879	-7,4
<b>Export</b>	5 252	4 950	-5,8

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

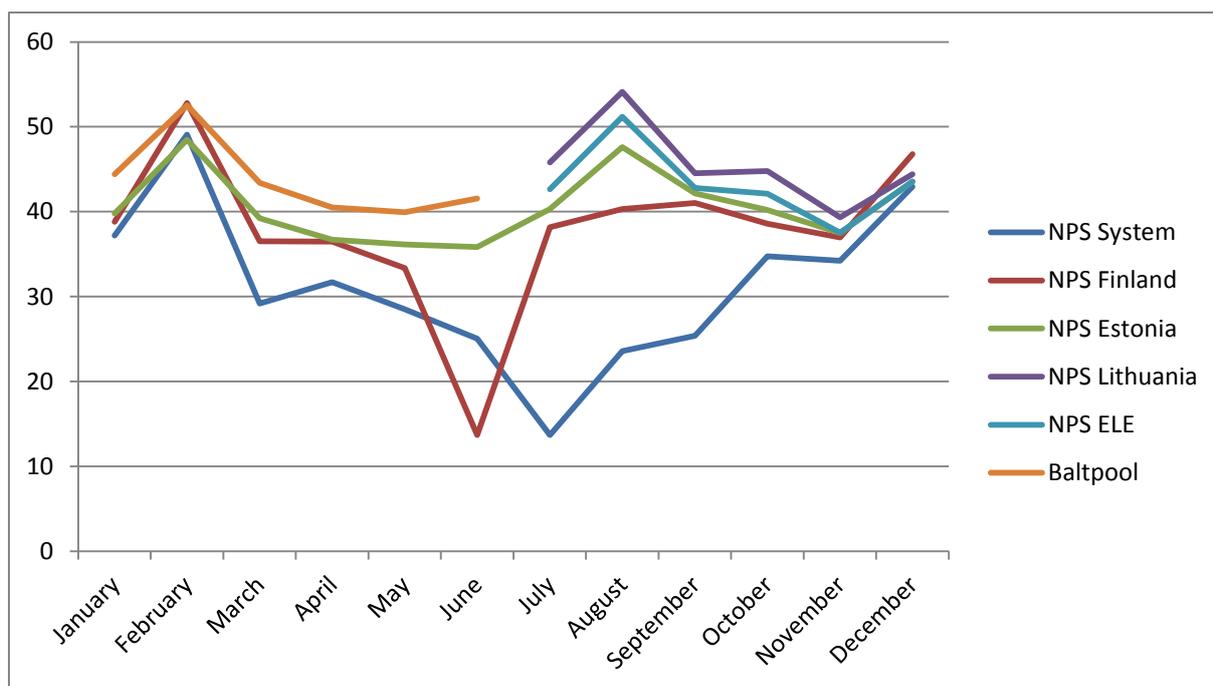
As it appears from Table 4, that Estonia exports to the neighbouring countries over two times more electricity than imports. In 2012 the import was 2 710 GWh, which is 60,4% more compared to 2011. The largest quantity was imported from Finland: 1 611 GWh, while the import from Latvia was 554 GWh and from Lithuania 545 GWh. The biggest change took place in the import from Finland, where the increase in import was more than double. In total in 2012 it was exported 4 950 GWh, which is almost 6% less than in 2011. The export to Latvia was 2 500 GWh, to Finland 428 GWh and to Lithuania 2 022 GWh. Table 5 presents the cross-border electricity trade volumes.

**Table 5.** Cross-border electricity trade in TWh. Source: Statistical Office

<b>Cross-border electricity trade, MWh</b>	<b>2011</b>	<b>2012</b>	<b>Change, %</b>
<b>Import total</b>	<b>1 690</b>	<b>2 710</b>	<b>60,4</b>
incl. from Latvia	815	554	-32,0
incl. from Lithuania	374	545	45,7
incl. from Finland	501	1 611	221,6
incl. from Russia	0	0	0,0
<b>Export total</b>	<b>5 252</b>	<b>4 950</b>	<b>-5,8</b>
incl. to Latvia	2 084	2 500	20,0
incl. to Lithuania	1 482	2 022	36,4
incl. to Finland	1 686	428	-74,6
incl. to Russia	0	0	<b>0,0</b>

Figure 4 presents the comparative monthly average prices of the NPS System, NPS Estonia, NPS ELE, NPS Finland, NPS Lithuania and the Lithuanian power exchange Baltpool in 2012. The NPS ELE and NPS Lithuania power exchange price areas commenced operation on 18 June 2012 and at the time Baltpool ended its activity as the power exchange operator. The reasons for difference in prices were: 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 Estonia, NPS ELE, NPS Finland, NPS Lithuania and Baltpool prices in 2012 was falling due to slightly higher ambient temperatures and high water reserves in the hydro reservoirs of the Nordic countries. In July and August 2012 the NPS Estonia, NPS ELE, NPS Lithuania prices were strongly affected by the transmission capacity limitations on the cross-border lines between Estonia and Latvia which raised the Baltic NPS prices much. 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.



**Figure 4.** Comparison of NPS System, NPS Estonia, NPS ELE, NPS Finland, NPS Lithuania and Baltpool monthly average prices in 2012. Source: Nord Pool Spot

Table 6 below presents the comparison of the NPS prices in 2011 and 2012. An average price of the NPS Estonia price area in 2012 was 39,2 €/MWh, which is almost 10% lower than in 2011. Similarly, the prices fell also in the NPS System, NPS Finland price area and Baltpool. The price was mainly affected by the high reserves in the Nordic countries' hydro reservoirs and quite warm weather conditions. In 2012 in the NPS Estonia price area the highest hourly price was 300,01 €/MWh, while the lowest being 3,92 €/MWh.

**Table 6.** Comparison of NPS System, NPS Estonia, NPS ELE, NPS Finland and Baltpool prices. Source: Nord Pool Spot

Price area	Unit	2012 average price	2012 maximum price	2012 minimum price	2010*average price	Change %
NPS System	€/MWh	31,20	224,97	3,92	47,15	-33,8
NPS Finland	€/MWh	36,64	183,48	7,06	49,44	-25,9
NPS Estonia	€/MWh	39,20	300,01	3,92	43,37	-9,6
NPS ELE	€/MWh	42,63	105,06	7,38	-	-
NPS Lithuania	€/MWh	45,50	200,59	9,97	-	-
Baltpool	€/MWh	43,74	72,11	18,15	45,26	-3,4

Tables 7 and 8 present the traded quantities in the day-ahead and intra-day markets. The total sale in the day-ahead (Elsport) market in 2012 was 4,1 TWh and the total purchased quantity was 2,9 TWh.

**Table 7.** The quantities traded in the Elspot market in the NPS Estonia price area. Source: Nord Pool Spot

<b>Quantities traded in the NPS Estonia price area</b>	<b>Unit</b>	<b>2011</b>	<b>2012</b>
Quantity of electricity sold in the day-ahead (Elspot) market in the NPS Estonia price area	TWh	5,2	4,1
Quantity of electricity bought in the day-ahead (Elspot) market in the NPS Estonia price area	TWh	2,5	2,9

The quantities sold in the intra-day (Elbas) market in 2012 were in total 37,1 GWh while the total of purchases was 45,2 GWh.

**Table 8.** The quantities traded in the Elspot market in the NPS Estonia price area. Source: Nord Pool Spot

<b>Quantities traded in the NPS Estonia price area</b>	<b>Unit</b>	<b>2011</b>	<b>2012</b>
Quantity of electricity sold in the intra-day (Elbas) market in the NPS Estonia price area	GWh	34,0	37,1
Quantity of electricity purchased in the intra-day (Elbas) market in the NPS Estonia price area	GWh	38,3	45,2

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 transparency is ensured also through the uniform organisation of the market with the neighbouring countries.

**In the assessment by the Competition Authority comprehensive developments have taken place in the Estonian whole sale in connection with the opening of markets in the Baltic countries and commencement of the power exchange operations. This is characterised by the active import and export with the neighbouring countries. For better functioning of the electricity market in 2014 the EstLink 2 high voltage DC connection between Estonia and Finland will be commissioned and in addition, in 2016 the NordBalt connection between Lithuania and Sweden will start operations. Herewith the Competition Authority points out that currently Eesti Energia AS still has major power on the market. However, this will change considerably when the new connection between Estonia and Finland EstLink 2 will be operational. The stronger connections between with Nordic countries enable 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.**

### **3.2.2 Electricity retail market**

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

In 2012 Estonia was preparing for the opening of its electricity market in 2013. In 2012 the share of eligible consumption was 2 785 GWh, which is 37,6 % of the final consumption of

electricity. It appears from Table 9 that the electricity quantities bought by eligible consumers have increased from year to year.

**Table 9.** Consumption of electricity in Estonia and quantities bought by eligible consumers

Year	Consumption (without network losses)	Sold to eligible customers
	GWh	GWh
2002	5 686	670
2003	6 013	760
2004	6 326	880
2005	6 403	850
2006	6 902	875
2007	7 180	985
2008	7 427	1089
2009	7 080	2015
2010	7 431	2110
2011	6 845	2375
2012	7 407	2785

As non-eligible customers were obliged to buy electricity from the servicing network operator in 2012, they had no possibility to change the supplier. In the retail market the undertaking with the biggest market share is Eesti Energia AS. The information related to the retail market 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 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

\* Does not include network operators

It appears from Table 10 that in 2012 there were 5 sellers independent from a network undertaking, which sold electricity to eligible consumer. The non-eligible consumers were obliged to buy from the network undertaking or the seller designated by the network operator.

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

**Table 11.** Final consumer prices of electricity in 2012

<b>Price components</b>	<b>Unit</b>	<b>Consumer</b>
Network service (main tariff)	€cent/kWh	5,15
Price of electricity without network service (average max price approved by the Competition Authority)	€cent/kWh	3,15
Excise tax on electricity	€cent/kWh	0,447
Support for renewable energy	€cent/kWh	0,97
End consumer price without VAT	€cent/kWh	9,72
Value added tax (VAT) 20%	€cent/kWh	1,94
<b>End consumer price incl. VAT</b>	<b>€cent/kWh</b>	<b>11,66</b>

Pursuant to the Electricity Market Act in 2012 the Competition Authority was obliged to approve the average price sold to non-eligible customers and in the framework of this also the production price of Narva Power Plants. Pursuant to the Act the Authority had also the right to verify the prices of electricity sold by seller or producer which in market dominant position and to supervise the electricity market functioning pursuant to both the Electricity Market Act and the Competition Act. The Electricity Market Act regulates in detail electricity network undertakings' activities – their rights and obligations. Although the Competition Act lays down the obligations of electricity network undertakings as ones in control of an essential facility it is practical to apply in the regulation of networks the specialised sector act - the Electricity Market Act.

The Competition Authority's opinion is that in 2012 in the retail market of electricity the required disclosure of prices, notifying in advance about changes in prices and the required disclosure of standard terms and conditions of contracts was secured.

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

On 1 January 2013 the electricity market in Estonia opened for all consumers. 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 a 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 contracts were invalidated. A consumer that 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.

The number of sellers of electricity, who offered price packages in open market, was 13. According to Elering AS, as of 30 June 2013 74 % of electricity consumption points had entered into contracts for buying electricity while 26 % on the consumption points used

universal service. The biggest share of 69,8 % of electricity sales is held by Eesti Energia AS, followed by Elektrum Eesti AS with 13,0 % and 220 Energia OÜ with 1,5 % etc.

### **3.2.3 Enhancement of effective competition (Articles 37(1)(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 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 functioning of the store is an important precondition for consumers in order to choose electricity suppliers beginning from 2013. 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 European Union.

**According to the assessment by 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 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.**

## **3.3 Security of electricity supply**

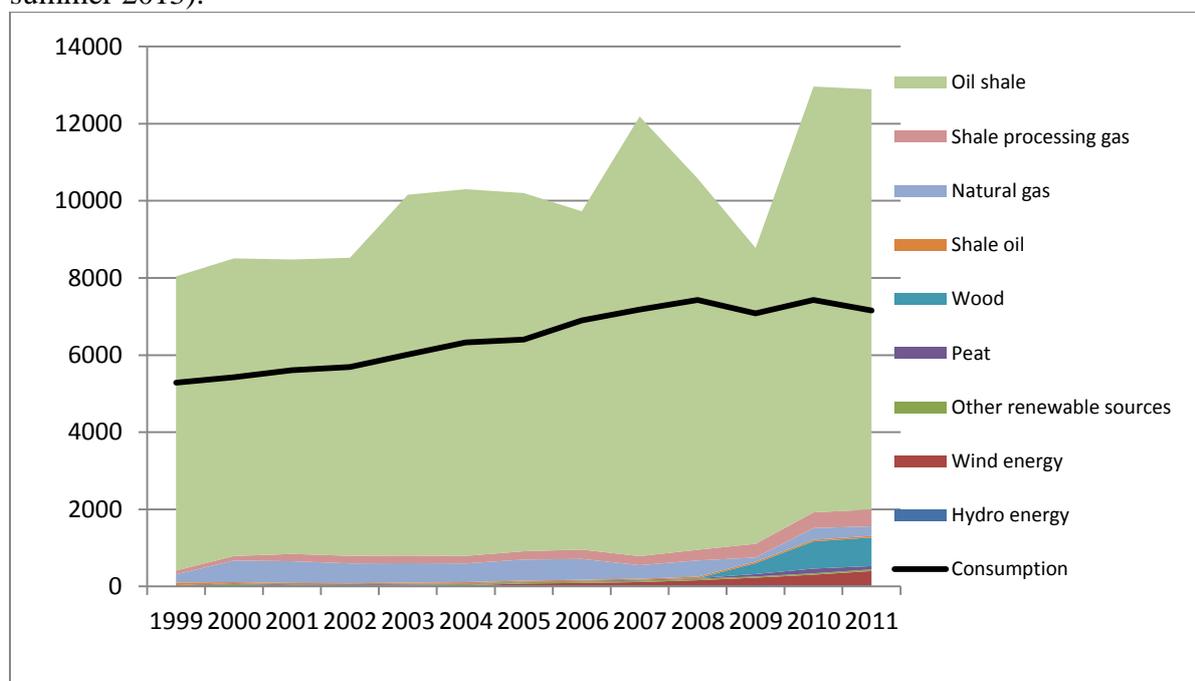
### **3.3.1 Monitoring of balance between demand and supply (Article 4 of Directive 2009/72/EC)**

Estonia has sufficient production capacity for covering domestic electricity demand and also for exporting electricity, mainly to Latvia and Lithuania. In 2012 the domestic production was 10 526 GWh while the import of electricity was 2 710 GWh. The domestic consumption was 7 407 GWh, the network losses were 879 GWh, while 4 950 was exported. Table 12 presents the electrical energy balance from 2002 to 2012.

**Table 12.** Estonian electrical energy balance in GWh. Source: Statistical Office

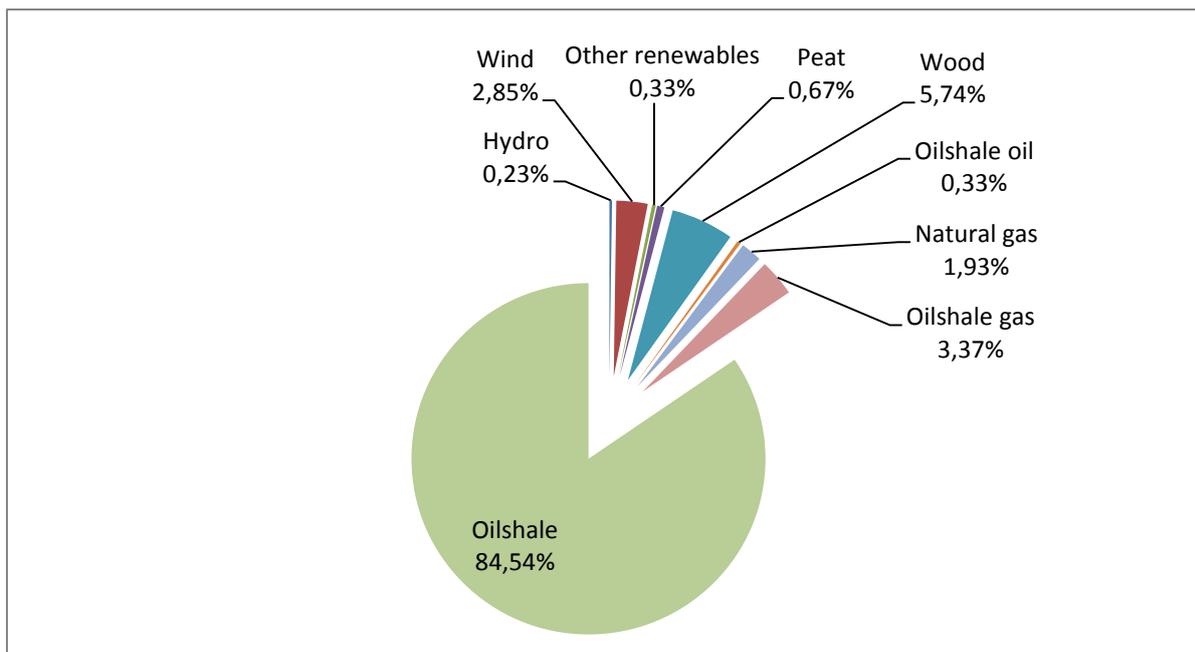
Electricity balance, GWh	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Production (net)</b>	7 634	9 101	9 232	9 114	8 728	10 954	9 498	7 884	11 732	11 356	10 526
<b>Import</b>	412	93	347	345	251	345	1 369	3 025	1 100	1 690	2 710
<b>Consumption</b>	5 686	6 013	6 326	6 403	6 901	7 180	7 427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

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 significant impact on electricity consumption. Since 2009 the production has been slowly increasing because of the improving 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 5 presents the production of electricity by various fuels from 2000 to 2011 (the 2012 data will be disclosed by the Statistical Office in the end of summer 2013).



**Figure 5.** Production of Estonian power plants by fuels in 2000 – 2011, GWh  
Source: Statistical Office

Figure 6 presents in greater detail the share of fuels and energy sources used for electricity generation in 2011.

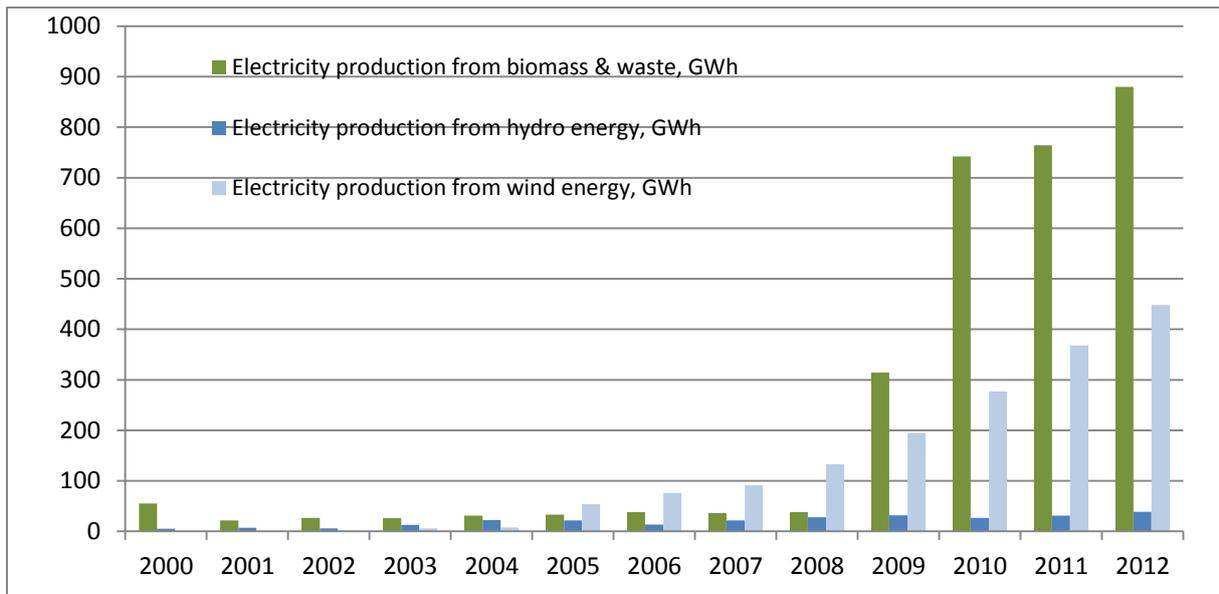


**Figure 6** Energy sources used for electricity production in 2011

Source: Statistical Office

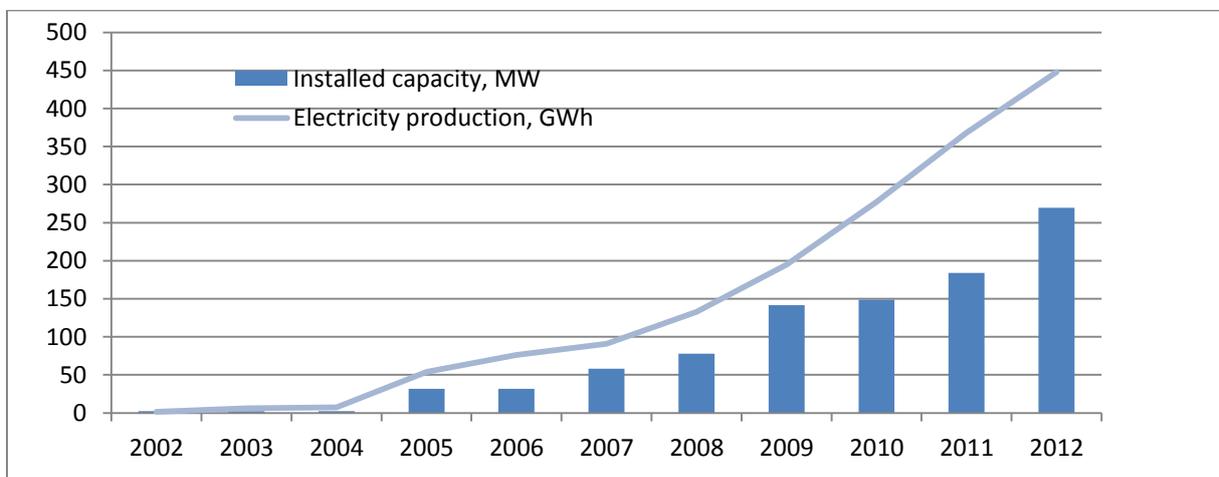
It appears from Figure 6 that in 2011 84,5 % of electricity was produced from oil shale and 12,1 % from other non-renewable sources. The share of renewable sources was 3,4 % altogether, while the biggest share of renewable electricity production came from wind – 2,9 %.

Figures 5 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 erection of new power plants that base on renewable energy sources. In 2011 the volume of renewable energy production increased by almost 10 % compared to 2010. This is first of all through the increase of electricity generation in Narva Power Plants from biomass, and also through the increase in wind energy production, caused by new wing mill parks in the power system. Also in 2012 new biomass based CHP plants and new windmill parks were commissioned. The new additional production capacities have increased renewable electricity generation considerably.



**Figure 7.** Renewable energy sources based electricity production in 2000 – 2012

The biggest share of the renewable electricity production in Estonia comes from the biomass and municipal waste using CHP plants. In 2012 the annual production from these sources was 880 GWh. Considerably lower portion of electricity is produced from wind, as of the end of 2012 the total installed capacity of windmill parks was 269 MW and their total production was 448 GWh (see Figure 8). The smallest share of renewable energy generation capacity belongs to hydro power plants with the total capacity of 4 MW with the annual production of 39 GWh in 2011.



**Figure 8.** Installed wind energy net capacity and electricity production in 2002 – 2012  
Source: Estonian Wind Energy Association

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

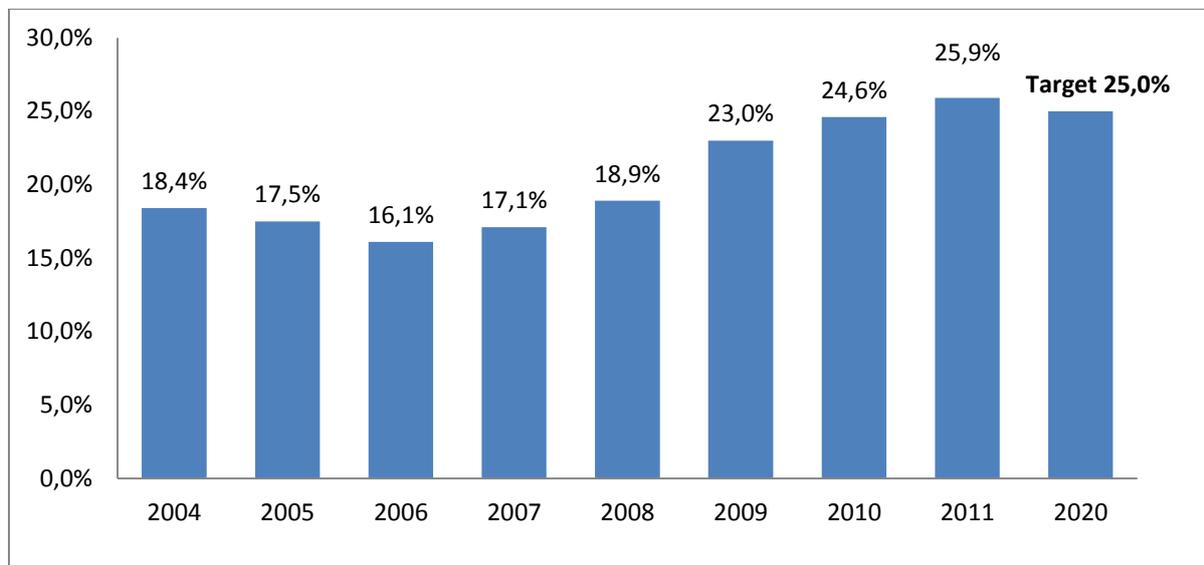
- improving of security of energy supply;
- ensure competitive and affordable energy for Europe;
- favour environmental sustainability and fighting against climate change.

The most important measures of the package, the co-called climate package, worked out for the implementation of the EU Energy Policy, which were submitted on 23 January 2008

(comprises 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 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 energy use 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 obligation to achieve 25 % share of renewable energy from the final consumption of primary energy by 2020. Figure 9 shows that the share of renewables has been steadily increasing from year to year. According to the Eurostat data in 2011 renewable sources constituted 25,9 % of the final consumption of primary energy. Though in the 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.



**Figure 9.** Sector specific (electricity, heating, cooling and transport) share of renewable energy in final consumption of energy. Source: Eurostat

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

The load in the Estonian electricity system in 2012 peaked in February at 1572 MW. The installed usable generation net capacity was 2278 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 (the TSO) has projected an increase of peak load by 2020 of up to 1 636 MW and an increase of usable installed generation net capacity of up to 2252 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.** Electricity peak load, installed utilisable net capacity and projections until 2020.  
Source: Elering AS

<b>Year</b>	<b>Consumption of electricity (consumption + losses), MWh</b>	<b>Peak load, MW</b>	<b>Installed capacity, MW</b>
<b>2001</b>	<b>6 968</b>	<b>1 321</b>	<b>2 876</b>
<b>2002</b>	<b>6 944</b>	<b>1 336</b>	<b>2 726</b>
<b>2003</b>	<b>7 205</b>	<b>1 475</b>	<b>2 723</b>
<b>2004</b>	<b>7 438</b>	<b>1 318</b>	<b>2 675</b>
<b>2005</b>	<b>7 506</b>	<b>1 331</b>	<b>2 230</b>
<b>2006</b>	<b>7 978</b>	<b>1 555</b>	<b>2 059</b>
<b>2007</b>	<b>8 534</b>	<b>1 537</b>	<b>2 052</b>
<b>2008</b>	<b>8 557</b>	<b>1 525</b>	<b>1 960</b>
<b>2009</b>	<b>7 966</b>	<b>1 535</b>	<b>1 976</b>
<b>2010</b>	<b>8 478</b>	<b>1 587</b>	<b>1 871</b>
<b>2011</b>	<b>7 824</b>	<b>1 517</b>	<b>2 015</b>
<b>2012</b>	<b>8 139</b>	<b>1 572</b>	<b>2 278</b>
	<b>Anticipated increase (consumption + losses), TWh</b>	<b>Anticipated increase, MW</b>	<b>Installed net capacity, MW</b>
<b>2013</b>	8,4	1 506	2 027
<b>2014</b>	8,6	1 524	2 037
<b>2015</b>	8,9	1 543	2 037
<b>2016</b>	9,1	1 559	2 253
<b>2017</b>	9,3	1 576	2 252
<b>2018</b>	9,5	1 595	2 252
<b>2019</b>	9,8	1 615	2 252
<b>2020</b>	10,1	1 636	2 252

The security of supply in Estonia is improved also through the construction of two emergency reserve power plants 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 2014 the second 450 kV DC interconnection between Estonia and Finland with the transmission capacity of 650 MW will be added. Thus, currently Estonia has interconnections with the neighbouring countries with the total capacity of 1035-1900 MW and by 2020 with the capacity of 2000-2550 MW. It is important to remember that due to temperature, electricity transits and repair works the transmission capacity 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 2012 the installed generation capacity exceeded the system peak load and presumably this tendency will continue at least until 2020.**

### **3.3.3 Security of supply related investments in production capacity and networks**

**(Article 37(1)(r) of Directive 2009/72/EC)**

In this subsection 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 estimates of supply and demand of electricity for the next five year period, existing supply possibilities, production installations that are planned or under construction, 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, anticipated security of supply situation in the period from 5 to 15 years, the TSOs and known to him relevant investment plans in the neighbouring countries for the next five calendar years for the construction of cross-border interconnections between networks. 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 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 January 2013.

**Table 14.** Capacity of production equipment connected to the Estonian electricity system

<b>Power plant</b>	<b>Installed net capacity, MW</b>	<b>Available production capacity, MW</b>
Narva Power Plants	2023	1942
Iru CHP Plant	156	150
Ahtme CHP Plant	24,4	5
VKG Northern and Sothern Power Plants	61	61
Tartu Power Plant	22,1	22,1
Tallinn Power Plant	21,5	21,5
Pärnu Power Plant	21,5	21,5
Industrial and small CPH plants	55	49
Hydro power plants	4	3
Wind mills	258	0
<b>Total</b>	<b>2646,5</b>	<b>2275,1</b>

In 2012 the following production facilities were connected the transmission network of the Estonian electricity system:

- Helme CHP Plant 6,5 MW;
- Paldiski Wind Mill Park 22,5 MW;
- Eesti Energia AS Paldiski Wind Mill Park 22,5 MW;
- Narva Wind Mill Park 39,1 MW.

In 2012 the following production facilities were connected the distribution network of the Estonian electricity system:

- Sikassaare Wind Mill Park 1,8 MW;
- Aravete CHP Plant 2,0 MW;
- Kuressaare CHP Plant 2,3 MW;
- Oisu Biogas Plant 1,2 MW

### **Electricity production capacities of AS Narva Elektriijaamad**

As of 2012 there are altogether 12 operational energy units (or boiler-turbine blocks) with the total installed net capacity of 1952 MW. From the said capacity the units No 8 and No 11 are reconstructed fluidised bed based energy units with the net capacity of respectively 194 MW and 192 (170) MW and these units fully comply with the environmental requirements. However, several new environmental requirements will be enforced which apply limitations on full usage of existing units of the Narva Power Plants for electricity production.

According to the data available to the Competition Authority beginning from 2020 it will be possible to use the following installations of the Narva Power Plants:

- units No 3, 4, 5 and 6 reconstructed and equipped with DeSO<sub>x</sub>/DeNO<sub>x</sub> technology with a net capacity of **666 MW**;
- existing reconstructed fluidised bed units (No 8 and No 11) with a net capacity of **386 MW**;
- units No 1, 2 and 7 with limited operation hours pursuant to the Industrial Emissions Directive with a net capacity of **626 MW**;
- new energy unit under construction with net capacity of **274 MW**

### **Thermal power plants in planning and construction phase**

New production facilities under planning and construction, which will provide additional production capacity:

- Enefit Power Plant
- Iru Waste Incineration Plant
- Narva PP new unit No 1
- Narva PP new unit No 2 (under planning, no final construction decision made yet)

### **Additional renewable energy sources using production capacities**

The scope of contracts already concluded for the connection of windmill parks totals to 844,2 MW and the scope of contracts for CHP plants is equivalent to 102 MW. The scope of the connection points executed for wind mill parks is equivalent to 744,2 MW and the same for CHP plants is 80,5 MW. The network connections for wind mill parks under construction are for Püssi 100 MW park and the same for CHP plants is 21,5 MW.

The scope of wind generators fully or partly uninstalled at existing connections is equivalent to 482,8 MW. The connections which are built but not commissioned yet are: Balti (81 MW),

Allika (75 MW), Püssi (150 MW and 48 MW), Lõpe (17 MW) Sillamäe and Sindi (50 MW) substation – in total 468,9 MW. The connection points are built, but the wind generators partly uninstalled in the scope equivalent to 61,8 MW.

### **Investments in transmission networks**

Also 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 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 power corridor. For Elering AS the most important projects are the second HVDC connection between Estonia and Finland - EstLink 2, which is to be ready by 2014 and the two quick-start emergency reserve power plants in Kiisa with the capacities of 100 MW (to be commissioned in 2013) and 140 MW (to be commissioned in 2014) respectively, the reconstruction of the Aruküla 330/110 kV substation (was carried out in 2012) and the Tartu-Viljandi-Sindi 330 kV line. In addition Elering AS substantially contributes into the improvement of security and quality of electricity supply all over Estonia. By 2012 the major part of substations important to regional consumption centres were reconstructed.

### **National transmission network**

According to an assessment by 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 transfer capacity is sufficient. In addition to supplying the Tartu area these lines are also used for the export 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 and the Balti-Püssi 330 kV overhead transmission line. In order to secure supply to Tallinn and Harju County the Aruküla substation was reconstructed in 2012. In addition, the following network facilities were commissioned: renovation of the Ahtme substation, reconstruction of the Tapa substation and reconstruction of the Tsirguliina substation. The renovation and reconstruction of existing 330 kV overhead lines and substations, as well as the erection of new ones will be continuing until 2015, according to the TSO investment plan.

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 three 330 kV overhead lines, with Latvia through two AC

330 kV lines, and with Finland Estonia is connected through the single 350 MW DC submarine cable.

In the beginning of 2011 the construction of the second submarine connection EstLink 2 between Estonia and Finland began. According to the plans the new 170 km long connection shall start commercial operation in 2014. The rated capacity of the DC connection is 650 MW with the rated voltage of 450 kV. Along with the EstLink 2 emerging the *bottleneck* between Estonia and Finland will disappear. However, in case of a large scale import by the Baltic countries from the Nordic system limitations in the Estonia-Latvia-Pskov direction may take place also in a 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 2020. To the contrary, the installed capacity exceeds 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.**

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

### **4.1 Regulation of natural gas network**

#### **4.1.1 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, 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.

Basing 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, it has to assign 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.

#### **4.1.2 Technical functioning**

The whole Estonian gas transmission network of 878 km is in the possession of AS EG Võrguteenus, including 36 gas distribution stations, 3 gas metering stations (GMS, see Figure 15), 69 % of gas distribution network – 1447 km, altogether 2325 km. Based on the

lease contract AS EG Võrguteenus leases assets of the network from AS Eesti Gaas. In the meaning of the Natural Gas Act AS EG Võrguteenus is a combined gas system operator as it provides at the same time both transmission and distribution service, as well as operates the gas metering systems on the state border.

The Estonian gas transmission system forms part of the former Soviet Union transmission network and thus, is connected with the Russian and Latvian gas systems. The Estonian gas system has no its own compressor station and the necessary pressure level in the Estonian gas system is maintained either by the Russian transmission system's compressor stations or from the Inčukalns underground gas storage in Latvia.



**Figure 10.** Transmission network of Estonian gas system.

Source: AS EG Võrguteenus

Gas quantities are metered and its properties determined in the gas metering stations (GMS) in Värskä, Karksi and Misso.

The Estonian gas transmission network has the following connections:

- With the Latvian transmission network:
  - Through Vireši - Tallinn (DN 700, PN 55 bar) transmission pipeline and the Karksi GSM, which ensures continuous bi-directional gas flow transmission possibility (the metering takes place in the Karksi GSM at the moment only uni-directionally – from Latvia to Estonia);
- With the Russian transmission network:
  - Through Izborsk - Tartu - Rakvere (DN 500, PN 55 bar) transmission pipeline and the Värskä GSM;
  - Through Kohtla-Järve-Narva double pipe (DN 400, PN 38 bar) transmission pipeline and the Ivangorod GMS.

Through the southern part of Estonia go also two transit pipelines (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 and back. The metering in the pipeline takes place in the Misso GSM and the distribution takes place from the Misso gas distribution station (GRS – *abbreviated from the Russian language*).

In addition to AS EG Võrguteenus there are also 25 natural gas distribution undertakings, which possess 650 km of distribution pipelines (22 % of the distribution network total length). Through these networks 14 % of the distribution service volume takes place.

### **Balance services**

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

The Natural Gas Act lays down the regulation of balance responsibility, pursuant to which every market participant is responsible for its balance. In order to maintain the balance a market participant can conclude respective agreement with the seller or a balance provider. The balance of a household consumer is the seller. The system operator (AS Võrguteenus) is responsible for the balance of the whole system and 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 to be approved with the Competition Authority.

The importer and market dominant whole seller Eesti Gaas AS earlier provided balance for all eligible customers and also for the distribution network undertakings. By now AS Eesti Gaas has given up the provision of balance services for distribution undertakings, 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 concluded respective agreements with the system operator and offer balancing services, or in other words – open supply, also for other eligible customers. Thus, despite that 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 AS EG Võrguteenus balance gas price determination methodology and standard conditions for application in 2008.

### **Time spent for establishing a 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 apply for a connection. The Act does not limit the time for establishing a new connection but 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. 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.

According to the data by EG Vörguteenus in 2012 there were no transmission network disruptions. The total number of disruptions in the distribution networks was 284. 250 out of them (with the total duration of 780 hours) were planned during the works, while 34 cases were emergency disruptions (with the total duration of 90 hours). None of the disruptions lasted over 72 hours and there were no customers with the total annual disruption time over 130 hours.

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, 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 system operator.

The Ministry of Economic Affairs and Communications shall analyse together with the Competition Authority 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.

#### **4.1.3 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. There were 25 distribution network undertakings in Estonia and a single transmission network undertaking in 2012.

For the purpose of the Natural Gas Act a connection to a network is the connection to the network of a consumer installation, a gas production facility, a network belonging to another network operator or of 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 apply for a connection 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 gas transit are 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. 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 enforcement 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 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 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 working capital is 5 % from the arithmetic average of the last three 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 provision of network service and the rate of depreciation which corresponds to useful technical lifespan of the fixed assets.

Pursuant to section 23(4<sup>1</sup>) of the Natural Gas Act the Competition Authority shall develop uniform methods for calculating the prices of network services, which specify the application of the principles laid down in law. The methods will 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. The site also includes respective tables elaborated by the Authority for collection of input data to be filled in for approval process. The tables are comprehensive and include technical data and detailed accounts: profit and loss statement, balance sheet, and data about fixed assets. The undertakings shall also submit a detailed investment plan and separately the expected sale volumes of network services. The data enable to verify whether cross-subsidising between various areas of activity is avoided. Since the tables are comprehensive, it is required to fill them in only for the purpose of price approval. Regular updating of the tables is not required, but the Authority is entitled to request additional information about economic performance and technical indicators and in case of necessity, still require filling in the tables disclosed on the web site. Therewith the undertakings are obliged to separate in their annual accounts the network services and the sale of gas. The annual accounts are public documents and all interested parties can examine them.

Gas transmission service is provided only by AS EG Vörguteenus, who is also the largest transmission and distribution network operator. Table 15 presents their transmission and distribution service prices. The approved prices of all undertakings are disclosed on the Authority's web site.

**Table 15.** Summary data on gas network undertakings

	No of regulated undertakings	Network service price in 2012, €/MWh (without VAT)		
		Large industry (I4)	Commercial (I1)	Household (D3)
Transmission	1	0,96		
Distribution	25	1,92	1,92	5,76

Notes:

According to Eurostat definitions:

- large industrial customer (I4) one with an annual consumption of 116 300 MWh
  - commercial customer (I1) one with an annual consumption of 116,3 MWh
  - household customer (D3) one with an annual consumption of 23 260 kWh
- Data according to AS EG Võrguteenus (*in English: EG Network Service*) price list.

From 1 May 2013 the transmission and distribution prices of EG Võrguteenus increased and the structure of prices changed. Now the transmission service (pressure over 16 bar) price is 0,01460 EUR/m<sup>3</sup> (1,56 EUR/MWh) and the distribution service (pressure below 16 bar) price 0,03270 EUR/m<sup>3</sup> (3,50 EUR/MWh) without value added tax. One of the reasons for the increase in prices was the supplementation to the price regulation principles according to which the price shall be calculated on the accounting value of assets.

The charges 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 price for the network service and for the 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 amendments to the Natural Gas Act provide that beginning from 1 January 2013 the gas quantities will be converted into the energy units of kWh, respective methodology will be established with a regulation by the Minister of Economic Affairs and Communications. This is important in the future when liquefied natural gas will be imported, as the heat value of the imported gas will be different and the accounting shall be done in energy units. Until 1 January 2014 the gas undertaking shall have on their invoices in parallel both cubic metres and kilowatt-hours.

### **Network connection charges**

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

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

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

### **4.1.4 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 supplied (see also Figure 10. 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 July 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 on the principles of capacity allocation, 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 the natural gas transmission system operator's network in the regional and the European Union level for efficient functioning of the gas market.

For the time being 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 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 concerning 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 security of supply. As the natural Gas Act does not provide to the Competition Authority the delegating authority of a Competent Authority concerned 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 EG Võrguteenus AS 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.

#### **4.1.5 Gas market related tasks of Competition Authority (Article 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 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 Agency for the Cooperation of Energy Regulators 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;
  - Proceeds 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 each 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;
- Prepare 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.
- Adopt 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;
- 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, the Competition Authority informs about that the European Commission without delay. The Authority informs the Commission about any circumstance that enable a third country person take control over the transmission network or over the undertaking providing gas transmission service;
- For the provision of gas transmission service the activity licence is issued 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 is dealt in greater detail in point 3.1.5.

## 4.2 Enhancement of competition in natural gas market

### 4.2.1 Wholesale market of 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, as also biogas is produced in Estonia (7 million m<sup>3</sup> in 2012). However, it is used locally and not transported to the gas network.

**Table 16.** Gas demand in Estonia

Period	Gas import, Eesti Gaas AS, million m <sup>3</sup>	Gas import, AS Nitrofert, million m <sup>3</sup>	Gas import total, million m <sup>3</sup>
2001	789	76	865
2002	694	48	743
2003	741	106	847
2004	753	213	966
2005	780	216	997
2006	793	215	1 009
2007	796	207	1 003
2008	747	215	962
2009	634	20	653
2010	701	0	701
2011	632	0	632
2012	658	21	679
2013 (projection)	650	180	830
2014 (projection)	600	200	800

The major importer of natural gas to Estonia in 2012 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 importing of gas for its own process needs in December 2012. Since AS Nitrofert uses gas only for its own needs, there is no competition in the whole sale market, as 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).

As seen in Figure 16 that over the last four years the consumption of gas has considerable decreased and reached its minimum in 2011 – 632 million m<sup>3</sup>/y (5,88 TWh = 0,51 Mtoe). In 2012 the consumption of gas was 679 million m<sup>3</sup> (6,32 TWh = 0,55 Mtoe), out of this 20,7 million m<sup>3</sup> was the consumption by Nitrofert AS. Thus, in 2012 the Estonian gas consumption increased by 7,4 %, therewith, without the Nitrofert AS consumption, by 4,1%. The increase in comparison with the previous year was caused mainly by the 2012 February and December weather conditions, which were colder than usually.

The projection of the transmission network undertaking AS EG Võrguteenus for the Estonian natural gas consumption is 830 million m<sup>3</sup> (7,72 TWh = 0,67 Mtoe). The consumption increase prognosis is based on the assumption that the chemical industry undertaking AS Nitrofert will start full scale operation in (the projected consumption of AS Nitrofert in 2013 is 180 million m<sup>3</sup>). The projection of Eesti Gaas AS for 2013 consumption volume is 650 million m<sup>3</sup>. That means 1,2% decrease compared to 2012.

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

Pursuant to the Natural Gas Act the wholesale prices and the prices for eligible customers are not subject to regulation and Eesti Gaas as the only wholesale trader sells gas at a negotiated price and at equal conditions both to the eligible customers connected to its own 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 is 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 second half of the year on the basis of fuel oil prices. To the Estonian import price the discount was applied as well (monthly variations 5-15%), resulting in the whole sale price discounts by Eesti Gaas AS.

The Competition Authority monitors the situation in the whole sale market and if necessary, applies measures to bring the activities of market participants into compliance with law. Since Eesti Gaas AS is the undertaking in market dominant position, its activity as the whole seller is regulated both by the Natural Gas Act and by the Competition Act. Section 9<sup>1</sup> of the Natural Gas Act and section 16 of the Competition Act lay down the regulation of a market dominant gas undertaking.

According to necessity the Natural Gas Act facilitates the supervision of a market participant over the fulfilment of the rules prescribed in the Act. In addition, the Competition Authority can exercise supervision over manipulations with the market and abuse of the market dominant position on the basis of the Competition Act.

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

As a rule, Eesti Gaas AS sells natural gas to larger consumers and to 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 supply, security of supply and payment conditions. In addition it is possible to conclude with 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 the application was submitted to the Competition Authority which requested to assess the compliance of the activities of Eesti Gaas AS with legislation and first of all from the point of view of equal treatment of market participants. Based on the application the Competition Authority imitated the proceeding for clarification of circumstances but by the time of completion of the present report the proceedings were not finalised.

### **Effective competition in wholesale market**

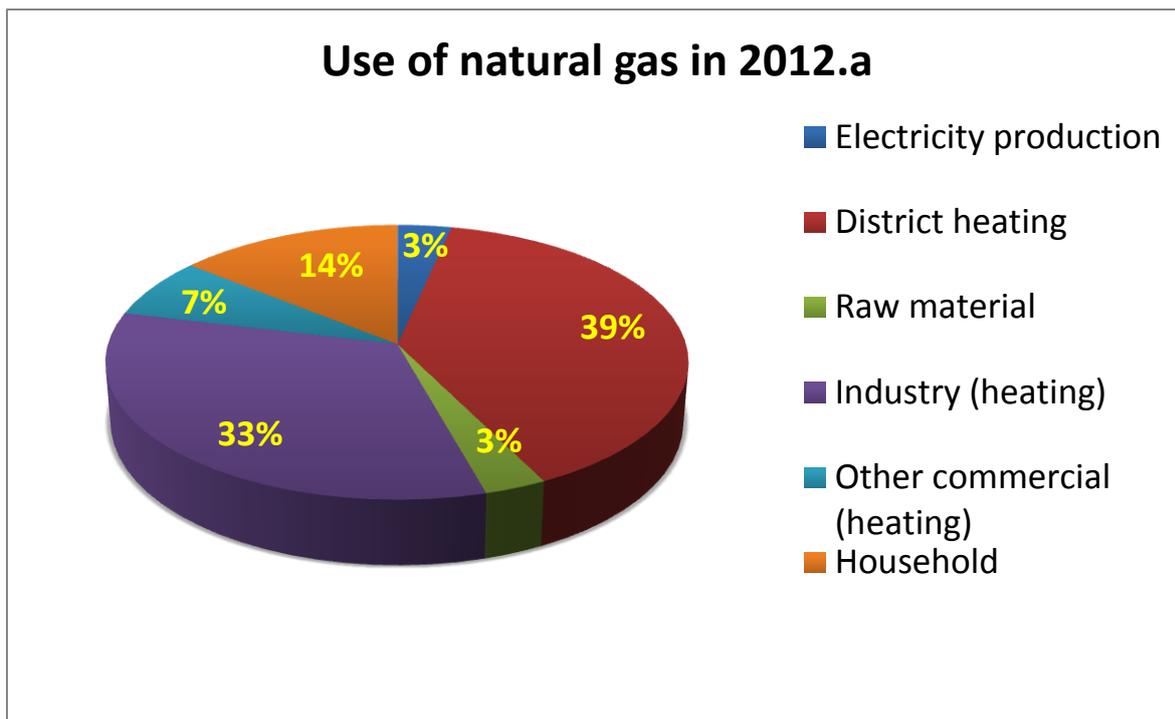
The Competition Authority is in the position that for market development it is necessary to more actively use gas in the energy balance (an increase of consumption) and new suppliers that offer gas at competitive prices (more importers).

A more active use of gas in the opinion of several potential customers is hindered by the fact that Eesti Gaas AS 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 the case of a liquid and well-functioning gas market long-term contracts may have regressive impact on the market, whilst it understands that in a situation where market does not exist, long-term contracts would give to customers both price security and supply security. There is no regulation in Estonia which enables the regulator to require a determination of the duration of contracts.

As there is no competition between importers of gas, essentially no competition in the whole sale 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 whole sale market to emerge, projects have been initiated in the framework of TEN-E to create new import possibilities (LNG terminal and connecting the Baltic countries gas network with the European gas networks).

### **4.2.2 Retail market of natural gas**

The retail market is shared between the fields of use of natural gas according to Figure 11. The produced biogas is used locally for the production of electricity and heat.



**Figure 11.** Use of natural gas  
Source: Data collected by the Competition Authority

In 2012 the consumption of natural gas as a raw material for the chemical industry was re-started (AS Nitrofert). It is foreseen that the share of gas as a raw material will increase to 22 % of the total consumption.

#### 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 2012 was 86,5 % and also the rest 13,5 % of the gas sold in the retail market is purchased by the 27 gas sellers having activity licence from AS Eesti Gaas for re-selling to their customers.

A positive step to see is that the new gas seller Eesti Energia AS has actively entered the market and searches possibilities for market activation.

The market dominant undertaking AS Eesti Gaas has 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 increased in 2012 two times: on 1 January an average price for households increased by 15 % and on 1 July by 11 %. In the second half of the year the import price for gas decreased by had no impact on the retail prices. According to the data of Eesti Gaas AS in the beginning of 2012 an average sale price for household consumers was 34,3 €/MWh or 0,356 €/m<sup>3</sup>.

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

**Table 17.** Final consumer average prices of gas in 2012

<b>Customer group</b>	<b>Price, €/GJ</b>
Household consumer, annual consumption < 20 GJ	14,24
Household consumer, annual consumption 20 - 200 GJ	11,77
Household consumer, annual consumption > 200 GJ	11,32
Eligible consumer, annual consumption > 1000 GJ	11,51
Eligible consumer, annual consumption 1000 - 10000 GJ	10,79
Eligible consumer, annual consumption 10 - 100 TJ	10,08
Eligible consumer, annual consumption 100 - 1000 TJ	9,75
Eligible consumer, annual consumption 1000 - 4000 TJ	9,59

Source: Statistical Office, KE31 and KE32

### **Transparency of natural gas retail prices**

In the retail market an undertaking (the seller of gas) itself forms the sale price of gas according to the purchase price from the importer and its sales 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 one month in advance. The retail sale prices of the gas sold to final consumers are disclosed on the web sites of the undertakings. Based on the published market prices consumers can decide whether they wish to change the seller.

### **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 Eesti Gaas AS to a level which generally makes it difficult to compete with the retail prices of Eesti Gaas AS.

The number customers in the retail market is approximately 42 thousand. 41 thousand of them are household consumers. In 2008 there were 1109 cases of the change of gas seller, in 2009 the figure was 1576, in 2010 - 1674 cases, in 2011 – 1813 (1724 of them households), while in 2012 there were 1913 cases of change (1810 of these were household customers). Thus, in 2012 4,5 % of the customers changed 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 2012 1852 consumers (from them 1810 household consumers) became the clients of Eesti Gaas AS, while 61 consumers left (one of them was a household consumer).

The Competition Authority is in the position that in the situation when there is only the 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.

### **4.2.3 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 grant the regulatory authority (to 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.

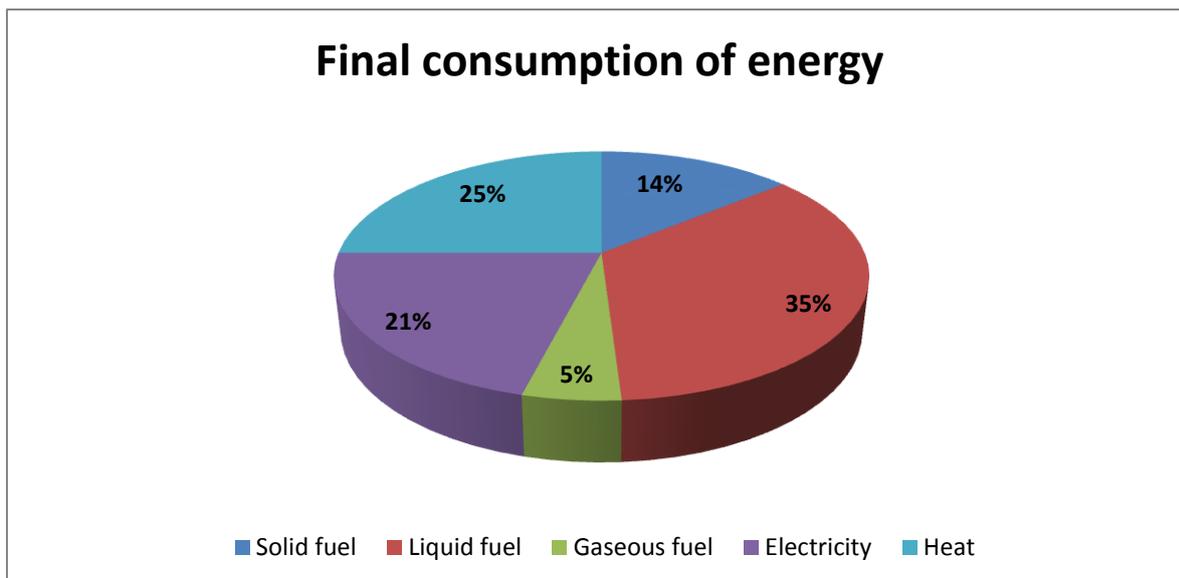
Similarly to the wholesale market AS Eesti Gaas is in market dominant position also in the retail market. Its retail market share in 2012 was 90,1 % and also the rest 9,9 % of the gas sold in the retail market is purchased by network undertakings from AS Eesti Gaas for re-selling to their customers.

In the retail market the customer activity has increased. If in 2008 there were 1109 cases of the change of gas seller, in 2009 the figure was 1576, in 2010 - 1674 cases, and in 2011 - 1778 cases of change (1724 of these were household customers). The main direction of changes over the last years have 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 gas market in Estonia.

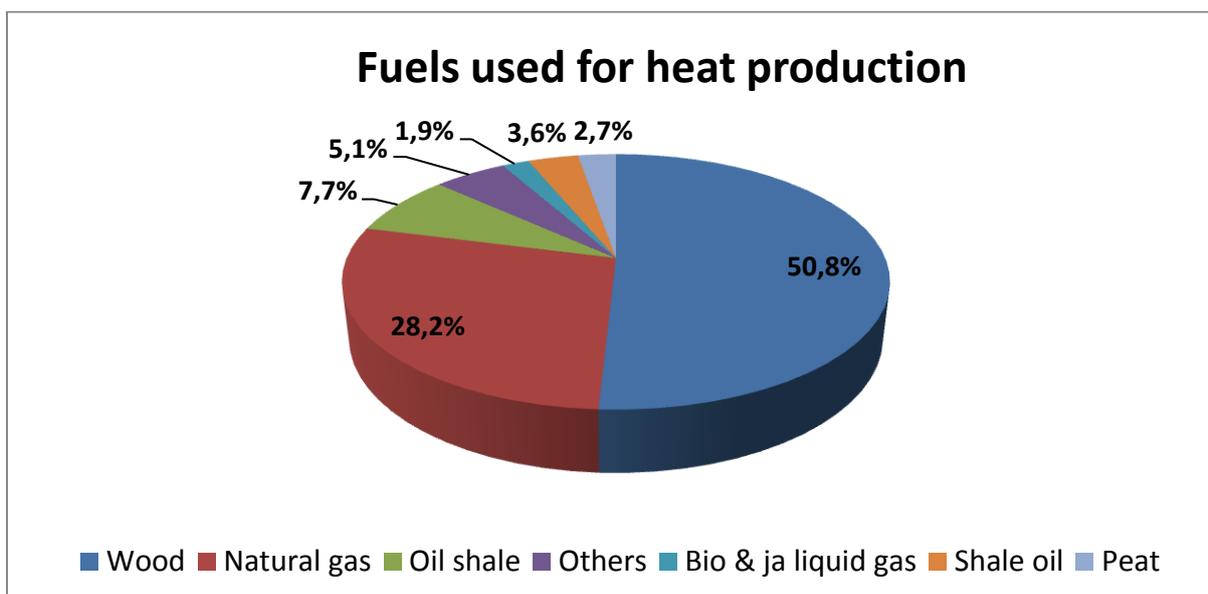
## **4.3 Security of natural gas supply**

From security of supply point of view it is important to know what is the share of natural gas of the final consumption in the Estonian energy balance. In 2012 the share of gaseous fuels (natural gas, liquefied gas, and oil shale gas) was 5 % of the final consumption of energy (see Figure 12), majority of this constituted natural gas. Oil shale gas and biogas cannot be considered as a source of common supply, as they cannot replace natural gas.



**Figure 12.** Final consumption of energy  
 Source: Statistical Office, KE05, Final consumption of energy

It appears from Figure 13 that for the production of heat in 2011 (Statistical Office will publish 2012 data in the end of summer 2013) mainly wood fuel was used (50,8 %) and natural gas (30,1 %). The share of natural gas in heat production has gradually decreased from year to year.



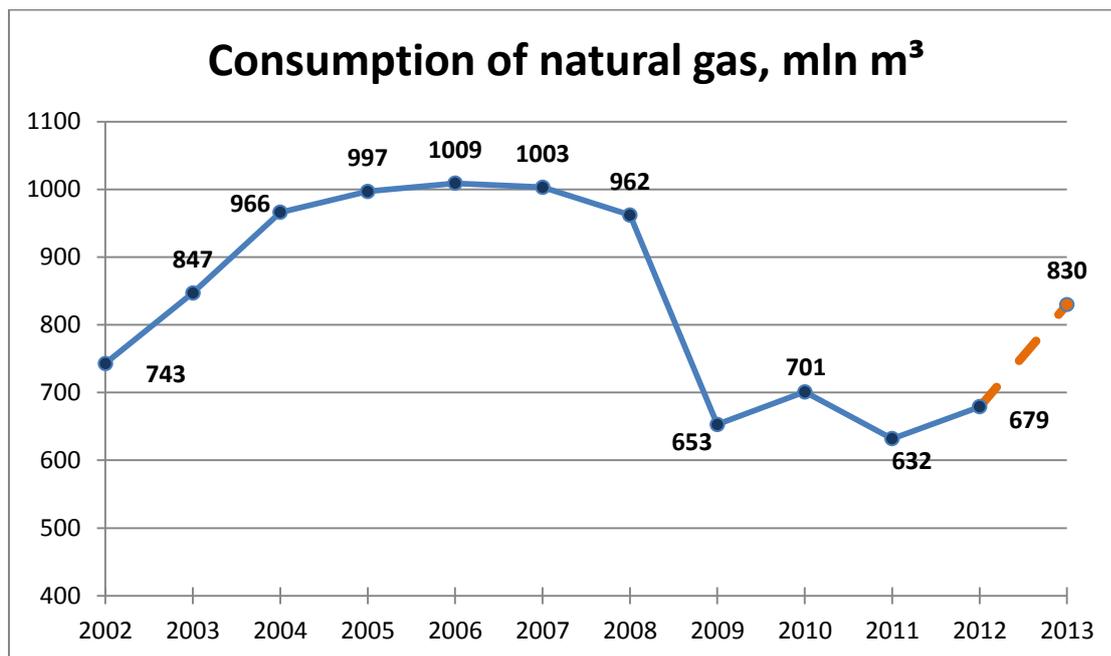
**Figure 13.** Fuels used for heat production.  
 Source: Statistical Office, KE024.

#### 4.3.1 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 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 coming years is presented in Figure 14. The increase in gas consumption in 2013 is first of all due to the increase by Nitrofert AS that re-started its production activity.



**Figure 14.** Consumption of natural gas in Estonia (million m<sup>3</sup>)

Source: 2002-2011 Statistical Office, 2012-2013 EG Võrguteenus AS and Eesti Gaas AS

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

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

In the period from May to October the supply of the Estonian gas system with gas takes place mainly directly from Russia through the Värskä and Narva connections. Such operational arrangement, when Estonia takes during non-heating season less gas through the Värskä or Karksi connections enables OOO „Gazprom Transgaz Sankt-Peterburg“ 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 period from November to April gas is supplied mainly from the Latvian Inčukalns gas storage through the Karksi and Värskä gas metering station (GMS).

The actual capacity of connections during the last 4 years is presented in Table 18.

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

Year	Technical transmission capacity, million m <sup>3</sup>			Actual peak load, million m <sup>3</sup>		
	Narva- Russia connection	Värska- Russia connection	Karksi-Latvia connection	Narva- Russia connection	Värska- Russia connection	Karksi- Latvia connection
2008	0,5	4,0	7,0	0,9	3,1	4,6
2009	0,5	4,0	7,0	0,2	2,5	4,4
2010	0,5	4,0	7,0	0,3	2,6	4,5
2011	0,5	4,0	7,0	0,4	1,7	4,0
2012	3,0	4,0	7,0	0,3	2,6	5,0

To the Competition Authority's knowledge there has not been problems so far in the conclusion of contracts between Eesti Gaas AS and OAO Gazprom for supplying Estonia with sufficient gas volumes. As it was mentioned above also biogas is produced in Estonia, but in very small volumes and this has no remarkable impact on security of supply.

**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 in considerably bigger volumes, but due to high price for gas the consumption has been significantly decreasing.**

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

The biggest gas demand in the last 20 years was in 2006 when the total annual consumption was 1009 million m<sup>3</sup> (see Figure 14). Compared to 2006 the 2012 consumption was lower by 32,7 %. For 2013 EG Võrguteenus estimates by 17,7 % lower consumption than in 2006. The increase in demand compared to 2012 is caused by the rise in consumption of the chemical industry Nitrofert AS, which re-started its operation.

The general decrease in the Estonian gas consumption prognosis is first of all related to the falling production volumes of industries and 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 will fall beginning from 2013 (in 2012 ~ 11 million m<sup>3</sup>, 2013 projection up to 5 million m<sup>3</sup> annually). VKG Soojus AS erected new district heating pipeline from Kohtla-Järve to the Jõhvi-Ahtme region and plans to sell 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 will fall substantially 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 abandon using of gas partly from 2014 and arranged procurement tendering for broader use of renewable fuels in the production of district heat.

Arising from all these circumstances Eesti Gaas AS estimates further decrease in import, supplemented by 200 million m<sup>3</sup> increase in import by AS Nitrofert. Assuming that AS Nitrofert will continue its production operations in the coming years the Estonian annual gas import volume in the near future will total 830-850 million m<sup>3</sup>.

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 steps for finding new areas of application for gas and developing alternative supply chains. The Competition Authority foresees that gas can provide alternative possibility for heat production locally (instead of district heating) and for production of electricity using modern efficient and environmental friendly technologies in order to balance the fluctuating capacity of wind mill parks.

The market of natural gas can develop only through new gas sellers (importers) coming to the market, which creates for consumers supply and price security and brings to 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 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 construction of a regional LNG in Estonia or 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. As the approval proceedings are not finalised yet, the Competition Authority cannot give a broad overview and assessment of the plan and the specific investments dealt with in it. The main development directions according to the plan are the gradual reconstruction of the Tallinn-Narva pipeline and the projects related to Balticconnector.

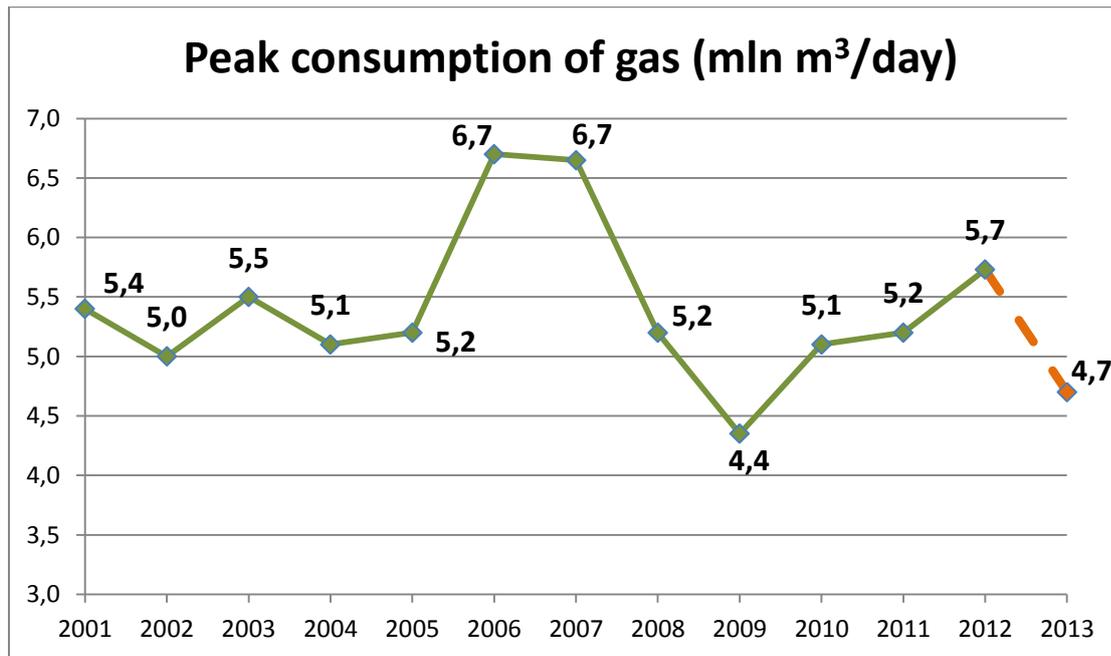
**Conclusion: the supply of gas that corresponds to the demand in Estonia is ensured in the coming years. The key question of the Estonian gas market development is suspension of the falling trend of gas consumption through investing in infrastructure and coming of new suppliers to the market. As in the development of the district heat supply sector the tendency of converting to local fuels 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 high efficient electricity production using modern efficient and environmental friendly technologies in order to balance the fluctuating capacity of wind mill parks (e.g. electricity generation in the combined cycle).**

### 4.3.3 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 and supply deficit

The consumption of gas is characterised by Figure 15. The maximum transmission network capacity is 14,0 million m<sup>3</sup>/day.



**Figure 15.** 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 measures of 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 biggest 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<sub>m</sub> - technical transmission capacity of the import pipeline;

P<sub>m</sub> - 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 as follows (see also Figure 10):

- Karksi connection with Latvia, DN<sup>4</sup> 700, MP<sup>5</sup> 55 bar – capacity 7,0 mln m<sup>3</sup>/day;
- Värskä connection with Russia, DN 500, MP 55 bar – capacity 4,0 mln m<sup>3</sup>/day;
- Narva connection with Russia, DN 400, MP 38 bar – capacity 3,0 mln m<sup>3</sup>/day.

The total capacity of the Estonian transmission system (incoming capacity) is up to 14,0 million m<sup>3</sup>/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 m<sup>3</sup>/day + Värskä connection with Russia 4 mln m<sup>3</sup>/day + Narva connection with Russia 3 million m<sup>3</sup>/day = 14 mln m<sup>3</sup>/day;  
 $P_m$  - 0 mln m<sup>3</sup>/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 m<sup>3</sup>/day;  
 $LNG_m$  - 0 mln m<sup>3</sup>/day;  
 $I_m$  - Karksi connection with Latvia 7 mln m<sup>3</sup>/day;  
 $D_{max}$  - Maximum consumption of in the last 20 years: 6,7 mln m<sup>3</sup>/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.**

<sup>4</sup> DN – nominal diameter of the pipe in millimetres

<sup>5</sup> 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 26<sup>2</sup>(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 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 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 listed in section 26<sup>2</sup>(3) of the Act, the Ministry shall communicate this to the crisis committee of the Government of the Republic and then make a proposal to the Government to allow the implementation of the measures of compulsory reduction of gas demand named in the plan of measures required to eliminate the supply disruption or to alleviate the effects of such disruption.

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

- reduction of the supply of gas to persons who use gas for purposes other than production of heat;
- authorisation of reduction of the supply of gas to undertakings producing heat;
- authorisation of a reduction in the temperature of the water released for the heating of residential buildings;
- obligating the undertakings producing heat to use reserve fuel.

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

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

### 5.1 Consumer protection

#### 5.1.1 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, 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.

The amendment to the Electricity Market Act enforced on 20 June 2012 sets out significantly more clear and in-depth regulation of consumer rights. This means distinguishing of the authority related to the household customer rights protection between the Competition Authority and the Consumer Protection Board that has caused uncertainty in practice so far. The enacted amendment lays down that supervision over the provision of network services, of offers or sales of electricity or of 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 bills shall include information on the consumer rights and resettlement of disputes.

#### **Customer contracts**

Regarding customer contracts the Competition Authority is in a position that this is a well-regulated field and customer interests are sufficiently protected. Pursuant to the Electricity Market Act standard terms and conditions of contacts for provision of network services, for sale of electricity to non-eligible customers under the selling obligation (invalidated from 1 January 2013) and connection to network shall be approved by the Competition Authority. From 1 January 2013 the electricity market is opened and consumers can buy electricity in the framework of universal service. 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.

Connection contracts and 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.

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 principal quality parameters of the electrical energy sold or a reference to a document which is accessible and which sets out such parameters;
- 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 quality of electrical energy sold on the basis of an electricity 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.

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;
- data on the sales of the undertaking if the network operator has designated another undertaking for the execution of the sales obligation;
- charges for network services;
- standard conditions for the provision of network services.

Sellers of electricity have to disclose on their web site:

- prices for electricity sold under the framework of selling obligation (sold to non-eligible consumers);
- standard conditions for the sale of electricity;
- data on environmental impact caused by CO<sub>2</sub> and SO<sub>2</sub> emissions from electricity production during the financial year preceding the period of sale, disposed oil shale ash and radioactive waste.

The network charges and the price for electricity sold under the selling obligation 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.

If a network undertaking sells both network service and electricity, it is obliged to separate on the customer invoice indicators related the network service and to the sale of electricity. 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 CO<sub>2</sub> and SO<sub>2</sub>, the oil shale ash that must be deposited, and radioactive waste, which were released in the course of producing the electricity supplied by the seller during the financial year preceding the period of the sale;
- information concerning the 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 very detailed regulated. The Competition Authority is in a position that 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. 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 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.

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

2012 was the last year where the Competition Authority had to approve the maximum sales price for oil shale, which is an important input in the Narva Power Plants' (Narva PP) production price. This in turn is an important input in the price of electricity sold to non-eligible consumers in the framework of the selling obligation.

In addition to price approval obligation the Electricity Market Act also set out the selling obligation, according to which network operators were obliged to sell electricity to all

customers connected to their network. Network operators had obligation to perform the selling obligation themselves or, they had also the right to designate another seller to perform the selling obligation. For example, Elektilevi OÜ, the largest distribution network operator belonging to the Eesti Energia group, has designated Eesti Energia AS to be the seller of electricity.

Regarding sales price the Competition Authority approved a weighted average limit price for electricity and an undertaking had the right to form different tariffs for different customer groups within this weighted average limit. The above-described regulation left a flexible possibility for undertakings for formation of different prices within the weighted average price. Pursuant to the Electricity Market Act the Authority had elaborated and disclosed unified methodology for the calculation of the weighted average price justified limit value for performing of the selling obligation. The methodology determined the price period, which was one year. If during the price period the actual price appeared higher than the Authority approved weighted average price limit, it should have been compensated for to customers during the next price period. This means in the next period tariff should have been lowered. If the actual price appeared lower than the Authority approved weighted average price limit, it was considered as an undertaking's risk and should have not been compensated for by customers.

The limit price of the oil shale sold by AS Eesti Põlevkivi is 10,55 €/t, the limit price of AS Narva PP is 2,94 €cent/kWh and the weighted average limit price of electricity sold by Eesti Energia AS to end customers under the selling obligation 3,07 €cent/kWh. In 2012 these prices did not change.

It can be said that both production and final consumer price regulations were cost based price regulations. The price reflected the coverage of justified operational cost and a reasonable return (profit) on invested capital. The investments made into new capacity were also included in the price.

Together with the full opening of the market from 1 January 2013 the regulation of oil shale price, the price of electricity sold by Narva PP, as well as the regulation end customer price ended up. In the fully open market all customers are free to choose the seller and the regulation of prices becomes unnecessary.

### **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 July 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. 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 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 graphs, energy sources used for production and others. The network undertakings maintain well shaped and sufficiently informative web sites.**

### **5.1.2 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, 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**

As regards customer contracts the Competition Authority’s assessment is that this 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 applied rates 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 Authority. However, pursuant to the Natural Gas and the Competition Acts 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 by 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.

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;
- any conditions provided in the contract for the purchase and sale of gas or stipulated conditions are violated.

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 cases 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 position that unless the diversification of natural gas importers, who would ensure market functioning, 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 change the seller. Also, the Competition Authority has good possibilities to exercise supervision over the market.**

## **5.2 Resolution of disputes**

### **5.2.1 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 provides that the regulatory authority shall the power and 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 Authority can establish development obligations for undertakings through license conditions. For example, it can impose an obligation for operators to invest into the network which has not secured stable electricity supply for customers in accordance with requirements.

All market participants, both undertakings and customers have the right to refer to the 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 that is in conflict with the Electricity Market 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. In case of a complaint in respect of a network operator, the Competition Authority shall make its decision within 60 days from 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 30 days or in case of a complaint in respect of a network operator 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 2012 the number of consumer references to the Competition Authority was 82 (both complaints and inquiries), in order to establish violation of law by electricity undertakings or to get other electricity market related information. In the second half of the year the number of inquiries steeply increased (77 in total) in connection with the market opening on 1 January 2013. The consumer references were caused by the questions related to pricing, problems with entering into contracts, contract amending and cancelling. The main disputes (altogether 5) were on the following topics – connection, amending of consumption conditions and verification of connection fees, payment for the electricity measured with faulty meter, calculation of compensation for the illegal consumption of electricity and network service and entering into network and electricity contract. Three supervisory proceedings were carried out. No one of the references gave reasons for issuance of a precept.

### **5.2.2 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(4c) of Directive 2009/73/EC the regulatory authority may require any information from natural gas undertakings relevant for the fulfillment 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 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 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 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 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 that 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 was altogether 19. The main topics were connection, disruption of gas supply and the correction of natural gas quantities. In 2012 the Competition Authority did not receive any complaint on the activity of the system operator.