



Estlink-2 ensured a double amount of electricity imported from Finland

No changes in the mandatory procurement component expected from April 1, 2015

Estlink-2 ensured a double amount of electricity imported from Finland



Dr. sc.ing. Gatis Junghāns,
Latvenergo AS Head of Trade
Development Unit

- The overall increase of electricity prices in Latvia and Lithuania was just 2% in 2014, although the electricity generation decreased in both countries and there were restrictions for transmission capacity and low water in-flow.
- The quotation of the Latvian electricity financial transactions on *Nasdaq OMX* stock exchange was started in November providing an insight in forecasting of future electricity prices.

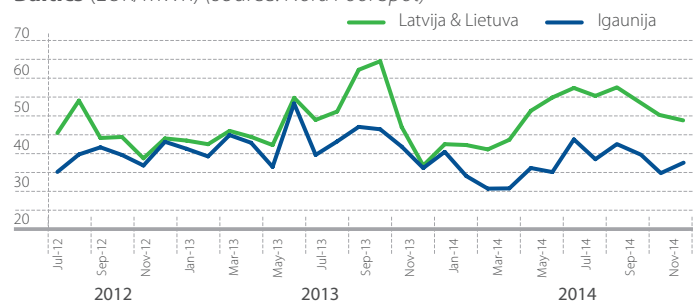
After a period of high electricity prices in summer, December was the second month in sequence when electricity prices were decreasing in Latvia and Lithuania as the *Nord Pool Spot* average December prices decreased to 48.87 EUR/MWh which was a 3% compared to the prices in November.

The annual decrease electricity price in 2014 in both countries amounted to 50.12 EUR/MWh in Latvia and to 50.13 EUR/MWh in Lithuania which was a 2%

Year 2014 was marked by a few important aspects on the electricity market:

- Commissioning of the *Estlink-2* considerably increased the volume of imported electricity from Finland to the Baltic countries levelling electricity prices in Estonia and this region. The increase of import allowed the Baltic electricity consumers to buy cheaper electricity from Scandinavia, thus reducing the Baltic electricity generation in 2014 by 12% in comparison to the preceding year.
- The water in-flow in the Daugava was low in 2014; on average it was 34% below the long-term recorded volume.
- The warm beginning of the year in 2014 contributed to a lower electricity consumption in the Baltics which was 1% below the consumption in the preceding year.

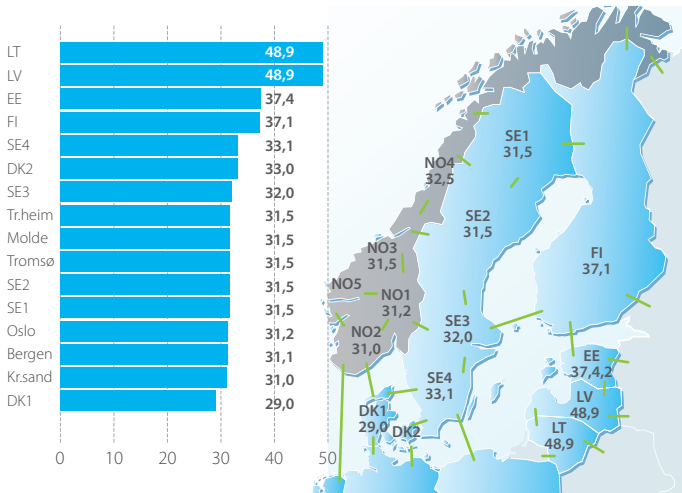
Fig. 1. Electricity prices on the Nord Pool Spot exchange in the Baltics (EUR/MWh) (source: *Nord Pool Spot*)



increase in comparison to 2013. A lower electricity generation in hydro power stations contributed to the price increase because a lower water in-flow in the Daugava compared to long-term records was maintained throughout the year and there were also restrictions regarding the transmission capacity.

In the Estonian Section of *Nord Pool Spot* electricity prices increased up to 37.42 EUR/MWh in December accounting for a 6% increase compared to November this year. As there were no major interruptions in the transmission capacity of the Estlink-2 in December and electricity prices in Estonia were mostly equal to electricity prices in Finland, the price increase in Estonia was explained by a similar 5% increase of the Finnish electricity prices. The mean annual price in Estonia in 2014 amounted to 36.02 EUR/MWh, which was a 12% decrease in comparison to the preceding year. This price decrease can mainly be explained by the commissioning of the *Estlink-2* in December 2013 considerably increasing the transmission capacity between Finland and Estonia and securing a broader access to the import of cheaper electricity from Scandinavia.

Fig. 2. Mean electricity market price in December 2014 on the Scandinavian and Baltic market (EUR/MWh) (source: Nord Pool Spot)

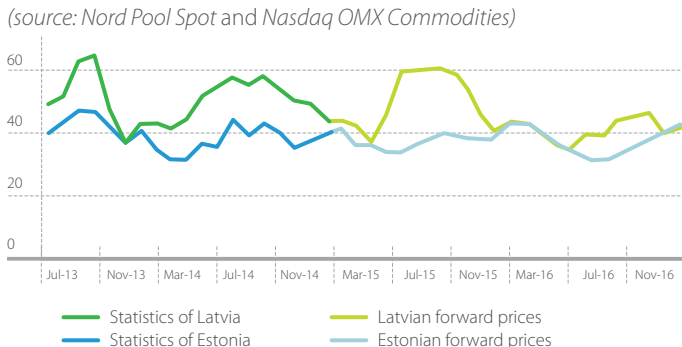


Electricity prices in the Baltic countries are higher than in Scandinavia (see Fig. 2) and this was true for the whole year 2014. The main reason behind the price difference, in particular in Latvia and Lithuania, is the restricted transmission capacity available for the trade between the countries. In December in Latvia and Lithuania the electricity market price was on average 17.38 EUR above the price in Scandinavia. In Estonia in December the electricity price was on average 5.93 EUR above the price in Scandinavia.

Forecasts indicate: the electricity price in 2015 will be close to the price level of the last year

On 11 November the quotation of the Latvian electricity financial transactions was started on the *Nasdaq OMX* stock exchange providing a possibility to see the forecast of electricity market prices for a period of even two next years (see Fig. 3). The current forward prices for next three quarters indicate that the mean expected market price in Latvia is very close to the market price level of the relevant period in 2014. The forecasted mean difference between market prices in Latvia and Estonia equals 11.13 EUR, which is 3 EUR below the difference during the last three quarters in 2014. The decreasing of the price difference can be explained by a lower forecasted market price in Latvia which equals 51.7 EUR/MWh for the last three quarters of this year or 2% below the mean market price of the relevant period in 2014.

Fig. 3. Statistics and the forecast of the electricity spot price on the Latvian and Estonian market (EUR/MWh) (source: Nord Pool Spot and Nasdaq OMX Commodities)



At the same time, market estimations indicate that, as additional transmission capacity becomes available between Sweden and Lithuania, the difference between market prices in Latvia and Estonia will decrease in 2016.

Availability of cheaper electricity via the interconnection Estlink-2 decreases the electricity generation in the Baltics in 2014

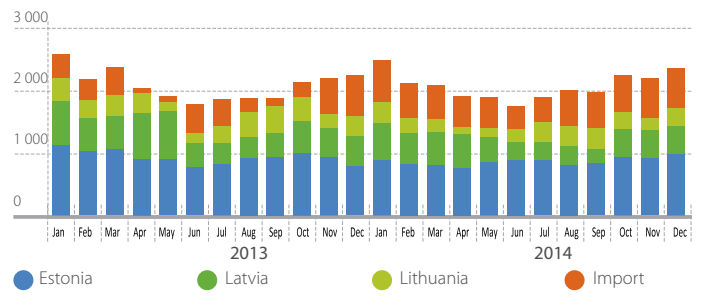
A heating season and colder weather in December has been a cause behind a 10% increase in the electricity generation in the Baltic countries reaching the highest monthly level since January 2014. Lithuania contributed most to this increase as the total generation in December increased by 30% up to 282 GWh in comparison to November there (see Fig. 4). Electricity generation in Estonia increased by 8%. The increase was most moderate in Latvia amounting to 3% in comparison to the preceding month.

Although an increase in generation could be seen in December, the total electricity generation in the Baltics in 2014 experienced a 12% decrease in comparison to the last year and only amounted to 18,602 GWh. During a year the electricity generation decreased by 19% in Latvia, by 16% in Lithuania and by 7% in Estonia. The main contributor to this was the Estlink-2 interconnection between Scandinavia and Baltics commissioned in December 2013 and providing a broader access to the import of cheaper electricity from Scandinavian countries.

Totally in December the Baltic countries generated 74% of the required electricity. Lithuania accounts for the biggest share of import, i.e. 68%, while Latvia imported 35% of the required electricity and electricity generation in Estonia exceeded its consumption by 31%.

The balance indicators do not present essential differences over year 2014, the total electricity generation in the Baltic countries amounted to 75% of the required amount. Lithuania was the highest deficit region also in 2014 by importing 69% of the required electricity; Latvia imported only 31% of the required electricity and Estonia concluded the year with a 36% electricity surplus.

Fig. 4. Monthly electricity generation and consumption in the Baltics (GWh/m) (source: PSO)

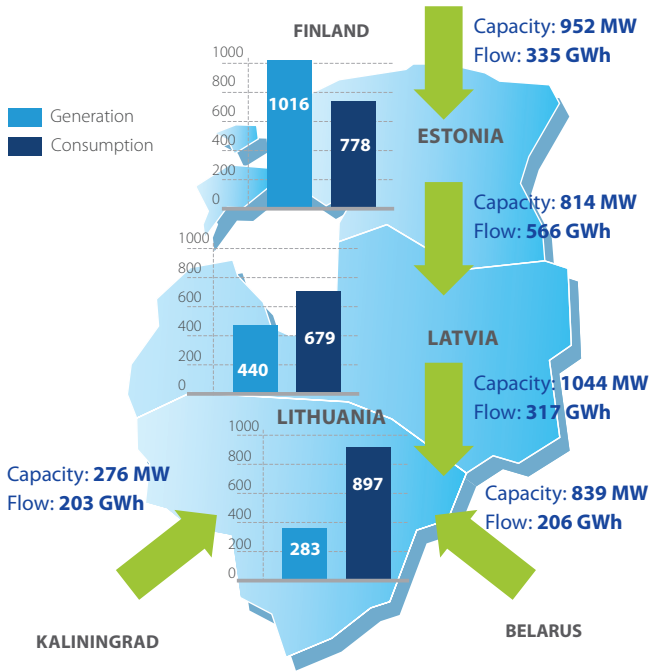


Warm climate conditions in the beginning of 2014 reduce of electricity consumption in the Baltics by 1%

The evaluation of the overall statistics of 2014 reveals that along with a comparatively warm beginning of the year the total annual electricity consumption in the Baltics has decreased by 1% compared to the preceding year. The consumption has decreased by 2% in Latvia, by 1% in Lithuania and by 0.5% in Estonia.

The heating season and colder weather contributed to the increase of electricity consumption which grew by 10% in the Baltics in December in comparison to the preceding month and reached the highest point since January 2014 amounting to 2,353 GWh. The growth was seen in Estonia where electricity consumption increased by 9% in comparison to November. In Latvia the consumption increased by 8% and in Lithuania by 6% (see Fig. 5).

Fig. 5. Electricity trade flows (Elsport), mean indices of consumption and generation in the Baltics in December 2014 (GWh) (source: PSO, Nord Pool Spot)



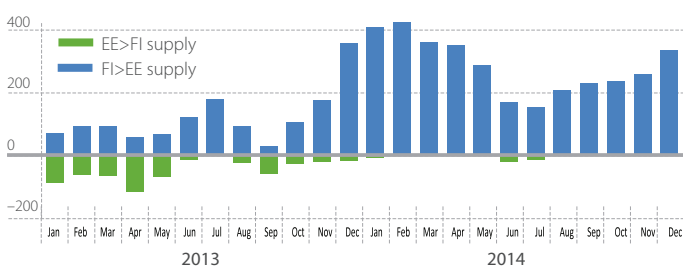
Estlink-2 has secured a double volume of imported electricity from Finland

The Estlink-2 connection that was commissioned in December 2013 has encouraged the import of cheaper electricity from Finland in 2014 and provides a possibility to evaluate the situation for judging whether generating or buying is more profitable. The price difference and the accessibility of supply attests that importing is more profitable. Thus, in 2014 the volume of imported electricity increased by 131% in comparison to the preceding year.

The overall import volume exceeded the volume of 2013 in all months except July and December when it decreased by 14% and 7% compared to the relevant month of the preceding year respectively. Inter alia, the schedule of planned repairs of the Estlink-2 has been published and the information therein confirms that it will operate at full capacity until June this year. At the moment when repair works taking four days are carried out reducing the total transmission capacity by 40%, there will be temporary restrictions of cheaper electricity import from Scandinavia.

After the mean available transmission capacity between Finland and Estonia reached its top level of 980 MW in November, it decreased to 952 MW (a 3% reduction) in December, however, this still ensured that electricity prices in Finland and in Estonia were the same during most of the monthly hours (on average 97%). Along with the decrease of electricity prices in the Scandinavian countries and the increase of consumption, the volume of the imported electricity by the Baltics from Finland increased by 28% in comparison to November and reached its top level over 8 months, 334 GWh (see Fig. 6).

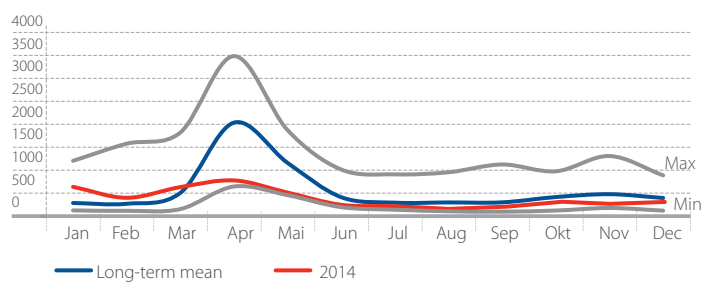
Fig. 6. Electricity supplies between Scandinavia and the Baltics (GWh) (source: Nord Pool Spot)



Water in-flow in the Daugava in 2014 was 34% below the long-term recorded volume

The water in-flow in the Daugava was still comparatively low in December and amounted to 215 m³/s, which is 45% below the long-term recorded in-flow volume during this period. Year 2014 turned out to be comparatively dry, thus over the year the mean in-flow volume in the Daugava was as low as 373 m³/s, which is 34% below the long-term recorded mean volume (see Fig. 7).

Fig. 7. Water in-flow in the Daugava (m³/s)



The low in-flow volume in the Daugava had a negative impact upon the electricity generation by the Daugava hydro power plants. As it can be seen in Part Two of Figure 4, the Daugava HPP generated 1,895 GWh in 2014 which is 33% below the generated volume in 2013. In December the generated volume decreased to 82 GWh which is 21% below November 2014 and 68% below December 2013 (see Fig. 8).

Fig. 8. electricity generation by the Daugava HPP (GWh)

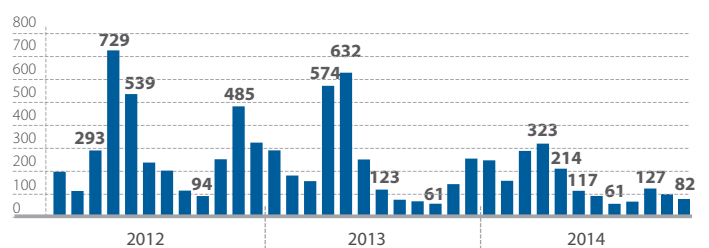
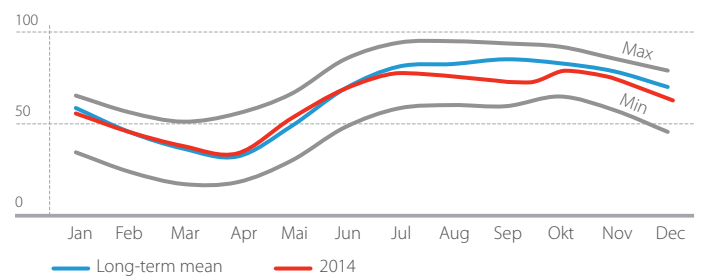


Fig. 9. Filling of water reservoirs in Scandinavia. (%)

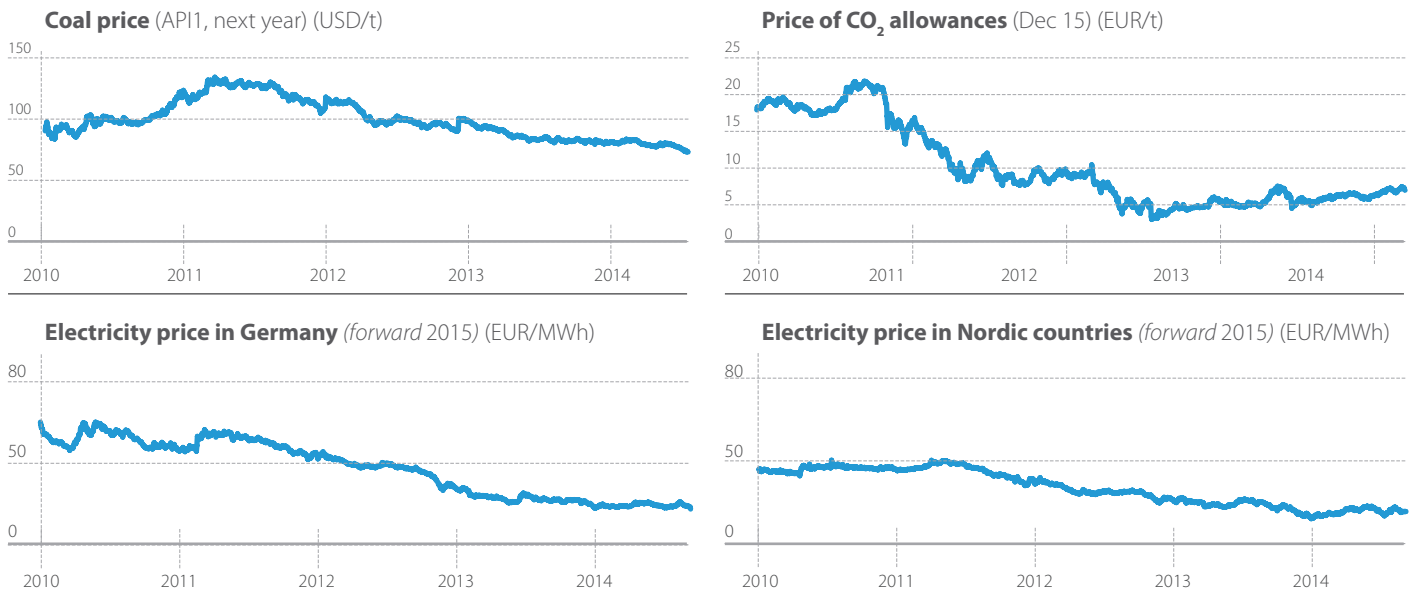


Changes of the prices of raw materials and the increase of the prices CO₂ emission allowances impact electricity prices in Europe

The trend on the coal market continued with no change also during the last two months of 2014 and the market concluded the year at a yet lower point, i.e. 65.88 USD/t. After the market lost 3.3% of its value in October, the shrinking continued also in November when it lost other 3.3% and the year was concluded by 8.1% decrease in the value in December. Thus, the annual decrease of the price of the coal market amounted to 20%. A big surplus in coal supply as well as gas prices on the European continental market which decreased along with the considerable decrease of the prices of oil products should be referred to as the basis for this considerable downturn.

While the fuel prices continued decreasing even lower, a considerable increase trend continued regarding the price of CO₂ emission allowances following the fall observed during the first half of the year. After the price increased by 8.8% in October, it continued rising also in November and December by adding 10.7% and 2.7% to its value respectively. As a result, the price of CO₂ emission allowances increased by 43.1% during 2014. More positive perspectives of envisaged market reforms intended at reducing the amount of CO₂ emission allowances on the market creating a large surplus at present largely contributed to this price increase.

Although lower fuel costs contributed to the decrease of the electricity forward prices, this was partially compensated by the price increase on the market of CO₂ allowances. Thus, the electricity forward price for 2015 decreased by 3.3% on the German market and by 3.7% on the Scandinavian market in December. Although stable water quantities in the reservoirs of Scandinavian hydro power plants attest that there are no basis for a rapid price increase, changing market conditions do not create favourable criteria for forecasting further price movements which will to a large extent be determined by the situation on global commodities markets and the development of reforms in the field of CO₂ emission allowances.

Figure 10. Electricity prices, the prices of coal and CO₂ emission allowances on the German and Scandinavian markets (source: SKM)

**Enerģijas
publiskais tirgotājs**

No changes in the mandatory procurement component expected from April 1, 2015



Andris Cakuls, Chairman of Board of
"Enerģijas publiskais tirgotājs" AS

After having summarised the data of the costs of the mandatory electricity procurement (MP)* in 2014, "Enerģijas publiskais tirgotājs" AS has estimated the new mandatory procurement components (MPC) that will enter into force on 1 April 2015 and submitted them for approval to the Public Utilities Commission (PUC).

In the calculation of the new MPC "Enerģijas publiskais tirgotājs" AS has taken into account the targeted subsidy for the reduction of the MPC, thus it can be expected that the mandatory procurement component will not change from 1 April 2015 and will equal 2.679 cents/kWh.

The electricity market in Latvia has been fully open since 1 January 2015, thus the valid MPC is paid by each electricity consumer. According to the calculations submitted to the PUC, the payment of the MPC included in the monthly electricity bill will not increase either for consumers who are legal entities or households. The mechanism for restricting the increase of the MPC which is financed from the subsidised electricity tax (SET)** revenue has ensured that the MPC has not increased for the second year in sequence.

Although the total MPC will not change from 1 April 2015, the split of the MPC between the components of cogeneration and renewable energy resources has changed in compliance with the calculation of the mandatory procurement components. From the 1st April the cogeneration component of the MP will decrease to 1.667 cents/kWh (currently it is 1.737 cents/kWh), and the component of renewable energy resources will increase to 1.012 cents/kWh (currently it is 0.942 cents/kWh).

The comparison of the support for the amount of generated electricity paid in 2014 reveals that the big cogeneration plants (SIA "Fortum Jelgava", "Latvenergo" AS CHPP) and wind power plants need the least support per kWh. The proportional share of the capacity payment of the cogeneration plants of "Latvenergo" AS after the payment of the SET has remained actually unchanged within the total MP expenditure in 2014 and equals 39 %. The proportional share of the renewable energy resources (RER) within the total MP expenditure is 37% and the proportional share of the other gas fired cogeneration plants is 24 %.

In compliance with amendments in the Electricity Market Law, "Enerģijas publiskais tirgotājs" AS (EPT) performs the obligations of a public trader as from 1 April 2014. Regulatory enactments define special obligations to buy electricity and to make capacity payments to producers who have obtained the entitlement to receive the state support for the generation of electricity from renewable energy resources and within the process of effective cogeneration for it.

* Mandatory procurement of electricity (MP) is a support mechanism established by the state for producers of electricity providing for its financing from the payments of the end consumers of electricity. The Electricity Market Law provides that the producers who generate electricity within effective cogeneration or use RER for electricity generation may obtain the right to sell generated electricity within the framework of the mandatory procurement. Once a year the public trader shall submit a report to the PUC regarding the costs of the electricity purchased within the framework of the MP and calculate the MPC (EUR/kWh) which has to be covered by the end consumers of electricity in proportion to their electricity consumption. The MPC consists of 2 constituents, i.e. the cogeneration component and the component of renewable energy resources.

** The subsidised electricity tax was introduced in Latvia in 2014. The following three tax rates are defined: 15% for natural gas fired plants, 10% for renewable energy resources fired plants and 5% applicable mainly to small scale plants that provide heat to district heating systems and where the tax rate has a direct impact upon the heat price. The SET revenue obtained by the state is directed as a targeted subsidy for maintaining the current level of the MPC.