

Balance of electric power

Year 2018

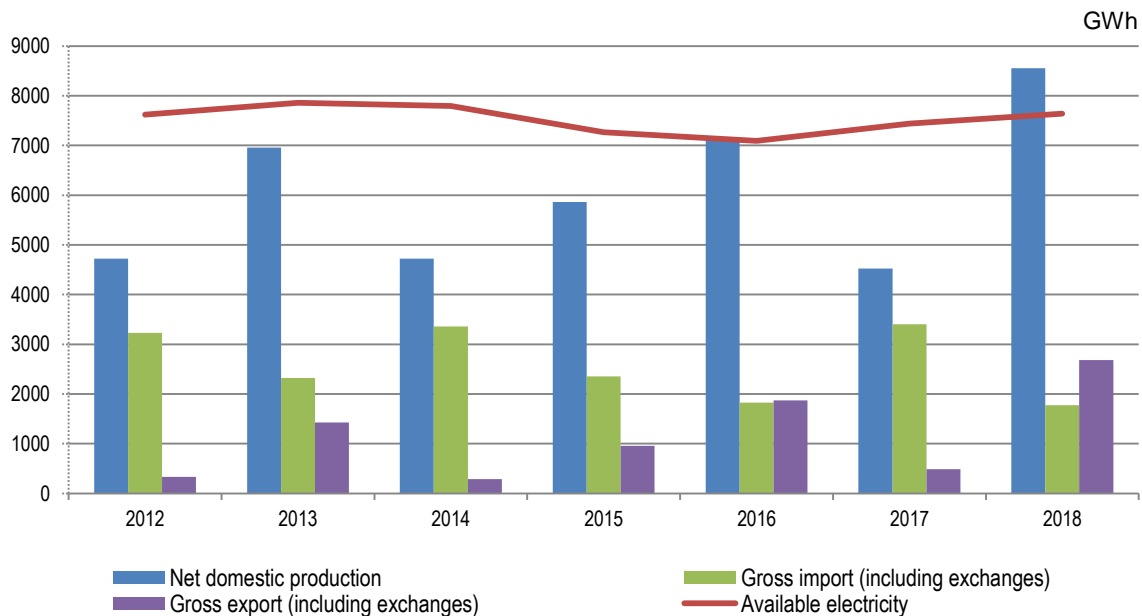
Tirana, March 7, 2019: During 2018, **available electricity** increased by 2.7 %.

Net domestic production of electric power in this period reached the value 8,552 GWh from 4,525 GWh of electricity produced in 2017, with an increase in production by 89.0 %.

In the total of electricity produced, public hydro plants contributed 68.4 %, while independent hydropower plants realized 31.6 % of the net domestic electricity production.

The increase of production of electricity in 2018, resulted on decrease of gross imports of electric power (including exchanges) with about 1.9 times and increase of gross exports (including exchanges) of electric power with about 5.5 times, compared to the same period of the previous year.

Fig. 1 Available electricity, net domestic production, gross import and export



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Tab. 1 Balance of electric power

		MWh	
Indicators		2017	2018
A	Available electricity (A=1+2-3)	7,439,609	7,638,848
1	Net domestic production (1=1.1+1.2+1.3)	4,524,981	8,552,154
1.1	Thermo	0	0
1.2	Hydro (1.2=a+b)	4,524,981	8,552,154
a	Net public producers (a=a.1-a.2)	2,916,990	5,850,934
a.1	Gross public producers	2,945,029	5,901,698
a.2	Losses and own consumption	28,038	50,764
b	Independent power producers	1,607,991	2,701,220
1.3	Other producers (other renewable)	0	0
2	Gross import (including exchanges)	3,403,043	1,771,740
3	Gross export (including exchanges)	488,415	2,685,045
B	Consumption of electricity (B=1+2+3)	7,439,609	7,638,848
1	Electrical losses (1=1.1+1.2)	1,876,138	1,783,118
1.1	Losses in transmission	157,906	242,705
1.2	Losses in distribution (1.2=a+b) ¹	1,718,232	1,540,412
a	Technical losses in distribution	1,247,678	1,070,560
b	Non technical losses in distribution ²	470,555	469,852
2	Consumption of electricity by domestic users (2=2.1+2.2)	5,563,471	5,841,106
2.1	Households	2,655,417	2,681,875
2.2	Non households	2,908,053	3,159,232
3	Consumption of electricity by non-customers	0	14,624

¹Breakdown of technical and non-technical losses are estimations made by operators in the field of electricity

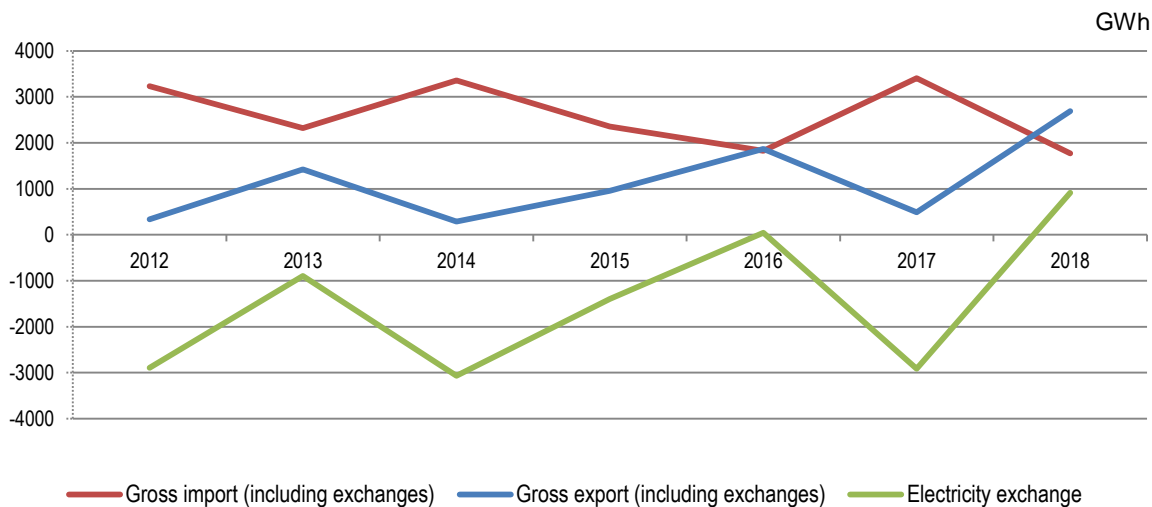
²Non technical losses refer to the difference between total losses in distribution and technical losses in distribution and are added also statistical differences which derive from the differences in the period of measurement in production, consumption and trade of electricity

In 2018, **public hydro plants** produced 5,851 GWh of electricity from 2,917 GWh produced in 2017, thus marking an increase in electricity production by about 2 times. Whereas **independent hydropower plants** produced 2,701 GWh of 1,608 GWh electricity produced in the same period of the previous year, marking an increase in electricity production by about 1.7 times.

Gross import (including exchanges) in 2018, resulted in a reduction, reaching the value of 1,772 GWh from 3,403 GWh in 2017.

Gross export (including exchanges) in 2018, resulted in a growth, reaching the value of 2,685 GWh from 488 GWh in 2017.

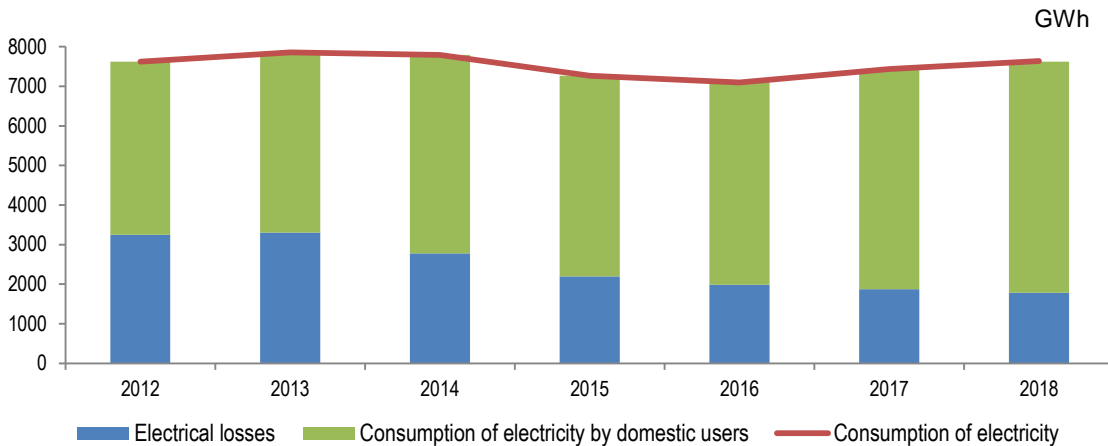
Fig. 2 Electricity exchange



During 2018, **electrical losses** were 1,783 GWh from 1,876 GWh in 2017, with a decrease by 5.0 %. Impact on this decline has had the decrease of **losses in distribution**, which accounts for 86.4 % of the total electrical losses.

Losses in distribution decreased by 10.3 %, where the greatest impact was given by **technical losses in distribution** which decreased by 14.2 % compared to the same period of the previous year.

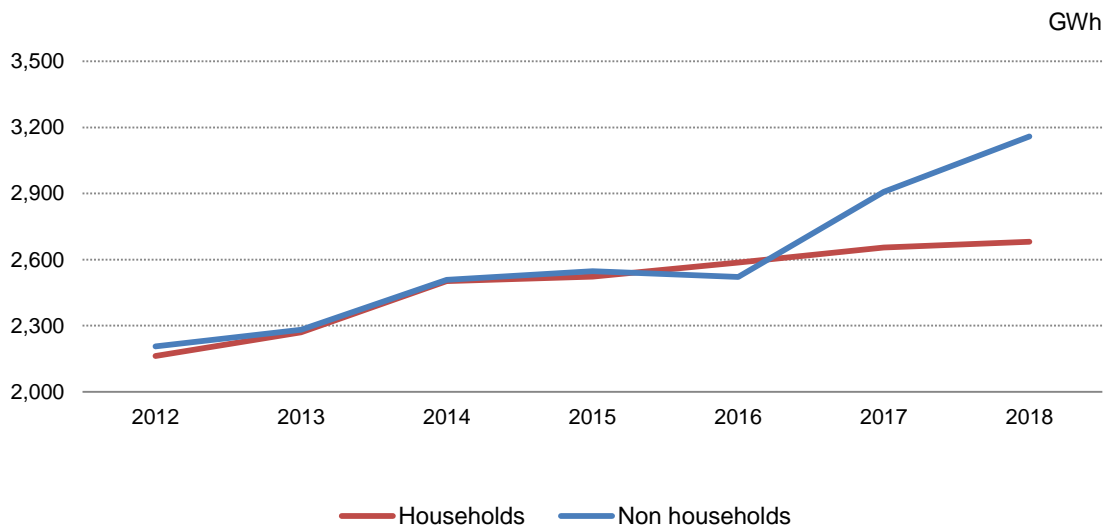
Fig. 3 Consumption of electricity, electrical losses and consumption of electricity by domestic users



The consumption of electricity by domestic users in 2018 increased by 5.0 %, reaching 5,841 GWh from 5,563 GWh in 2017.

In 2018 compared to the same period of the previous year, the largest impact on the increase of final consumption of electricity by domestic users was provided by **consumption of electricity by non-households** who contributed with +4.5 percentage points, while the contribution of **electricity consumed by households** was +0,5 percentage points.

Fig. 4 Consumption of electricity by domestic users

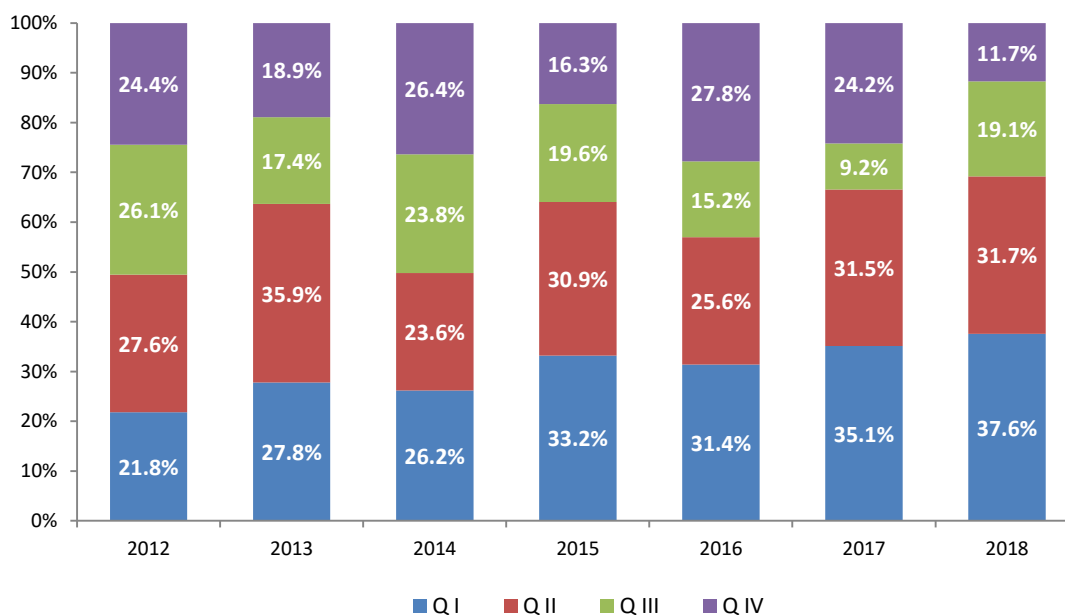


Quarter IV 2018

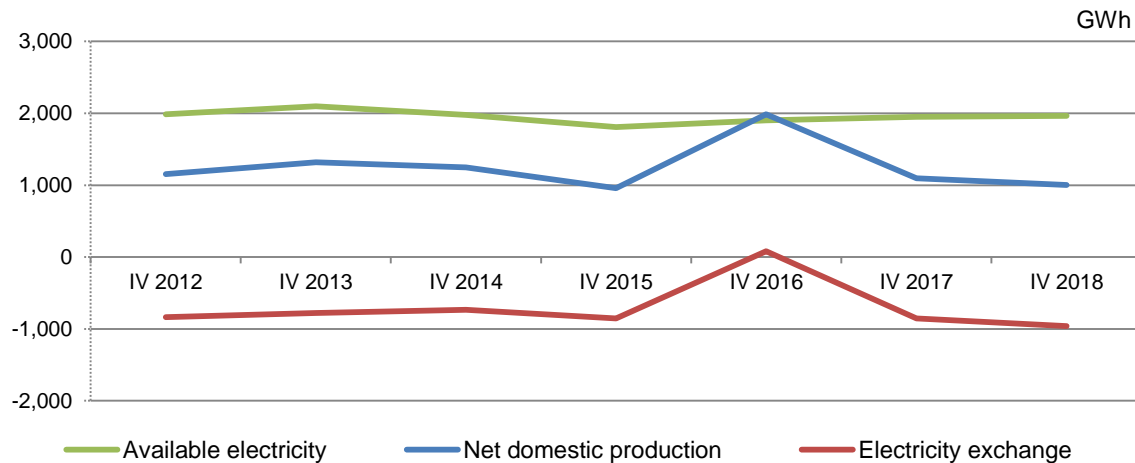
During the fourth quarter of 2018, **available electricity** increased by 0.7 %.

Net domestic production of electric power in this period reached the value 1,003 GWh from 1,095 GWh of electricity produced in the fourth quarter of 2017, with a decrease in production by 8.4 %.

Fig. 5 Structure in percentage of net domestic production by quarters, 2012-2018

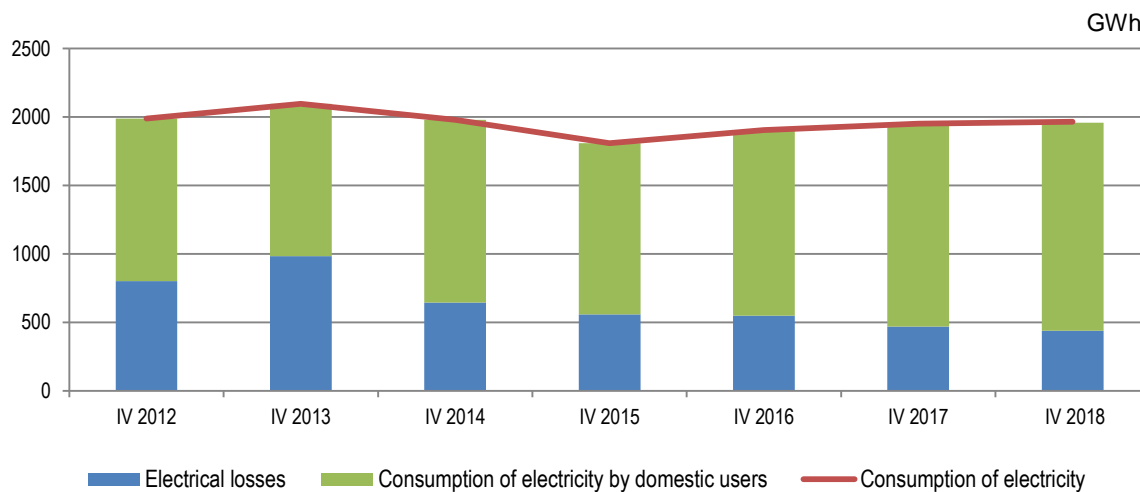


The decrease of production of electricity in 2018, resulted on increase of gross imports of electric power (including exchanges) with 7.2 % and decrease of gross exports (including exchanges) of electric power with 29.7 %, compared to the same period of the previous year.

Fig. 6 Available electricity, net domestic production and electricity exchange

During the fourth quarter of 2018, **electrical losses** dropped by 6.9%. The biggest impact was the decline of **losses in distribution** by 6.1 percentage points while **losses in transmission** contributed with 0.8 percentage points to this decline.

During the fourth quarter of 2018, **the consumption of electricity by domestic users** in 2018 increased by 2.7 % compared to the same period of the previous year. The **consumption of electricity by households** decreased by 2.5 %, contributing with -1.2 percentage points, while the contribution of **electricity consumed by non-households** increased by 7.4 % contributing with +3.9 percentage points.

Fig. 7 Consumption of electricity, electrical losses and consumption of electricity by domestic users

Methodology

Balance of electric power provides statistical information on domestic production of electricity, electricity exchange, losses in network also the usage of electricity for final consumption in our country. The publication of electric power balance is quarterly, based on monthly data collected from administrative sources as:

- KESH a.s., a state joint stock trading company, vertically integrated, which has the leading role and is the key producer of electricity in Albania;
- OSHEE a.s., a public company with 100% state-owned shares that carries out the supply and sales of electricity also the operation and management of the distribution network;
- OST a.s., transmission system operator is a public company with 100% state-owned shares that operates in the electricity transmission system from the physical and distribution concepts. OST a.s. provides the necessary transmission capacities for:
 - the supply of uninterrupted electricity for Distribution System substations (OSHEE a.s.) and electricity customers directly connected to the transmission network;
 - the transmission of electricity produced from domestic sources;
 - also transits and necessary exchanges with other countries in the region.

Definitions of basic indicators

Available electricity refers to the quantity of electricity generated by domestic production of electricity plus total amount of electricity exchange.

Net domestic production of electricity is equal to the gross electricity production from thermo plants, hydroelectric plants and other producers less the electrical energy absorbed by the generating auxiliaries and the losses in the main generator transformers.

Thermo electricity refers to electricity produced by thermo plants.

Hydroelectricity refers to energy of water converted into electricity in hydroelectric plants.

Losses and own consumption is the total plant's consumption in generation process and production losses.

Independent power producers refer to private electricity producers which consist of private plants and concession contracts with the Republic of Albania. These producers are directly related to the transmission system and are licensed by the Energy Regulatory Entity (ERE) and may sell capacity or energy to OST and OSHEE, to cover losses in transmission and distribution system, as well as to other clients.

Other producers refer to electricity production from other energy sources, excluding hydro and thermo electricity.

Electricity exchange refers to the difference between imported and exported electricity, also including transits and necessary exchanges of electricity with other countries in the region.

Consumption of electricity refers to the total quantity of electricity consumed by final users and losses in networks. It is equal to the sum of the following categories: electrical losses and consumption of electricity by domestic users.

Electrical losses refer to losses in transmission network including own consumption in transmission and distribution losses. *Technical losses* in distribution are estimated by OSHEE a.s. *Non technical losses* refer to the difference between total losses in distribution and technical losses in distribution and are added also statistical differences which derive from the differences in the period of measurement in production, consumption and trade of electricity.

Consumption of electricity by domestic users refers to the quantity of electricity consumed by final users and is calculated as the sum of the consumption of households and non households.

Households refer to the quantity of household's electricity consumption.

Non households refer to the electricity consumption quantity that are not consumed by households but include the consumption of electricity by industry, transport, agriculture, public services, etc.