

Balance of electric power

Year 2017

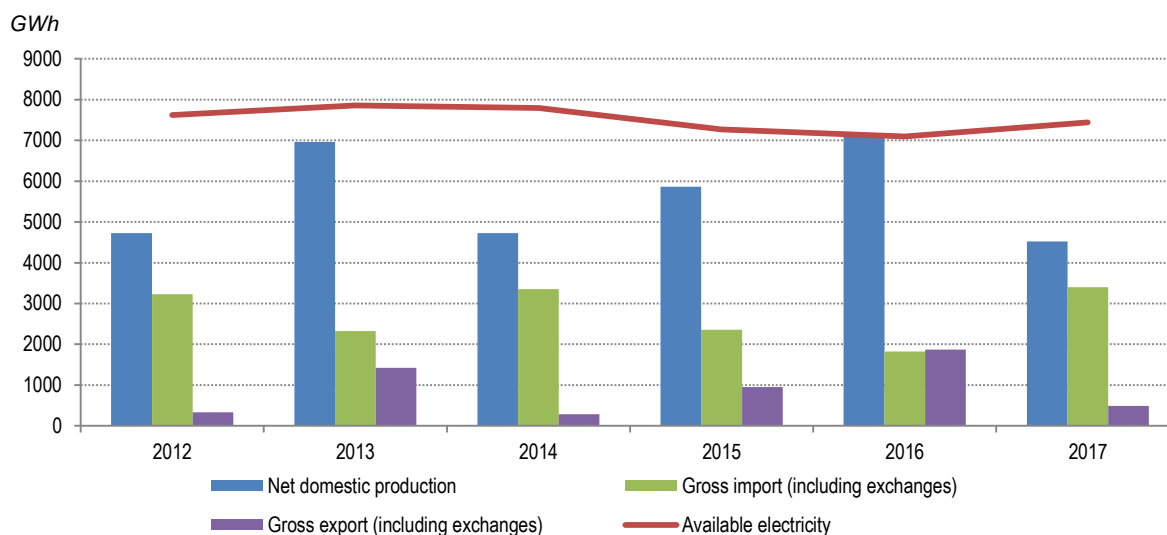
Tirana, March 7, 2018: During 2017, **available electricity** increased by 4.9 %.

Net domestic production of electric power, during 2017, was 4,525 GWh from 7,136 GWh produced in 2016, with a decrease in production by 36.6 %.

All producers of electric power resulted with a decrease in 2017, where respectively public hydro plants decreased by 42.7 % and independent and concessionaire power producers decreased by 21.3 %

The decrease of production of electricity, in 2017, resulted on increase of imports and decrease of exports of electric power. Gross import (including exchanges) increased by 86.3 % while gross export (including exchanges) decreased by 73.9 %, compared with 2016.

Fig. 1 Net domestic production, gross imports and exports, 2012 - 2017



Tab. 1 Balance of electric power

MWh

| Indicators | | 2016 | 2017 |
|------------|--|------------------|------------------|
| A | Available electricity (A=1+2-3) | 7,094,061 | 7,439,609 |
| 1 | Net domestic production (1=1.1+1.2+1.3) | 7,135,914 | 4,524,981 |
| 1.1 | Thermo | 0 | 0 |
| 1.2 | Hydro (1.2=a+b) | 7,135,914 | 4,524,981 |
| a | Net public producers (a=a.1-a.2) | 5,091,616 | 2,916,990 |
| a.1 | Gross public producers | 5,151,784 | 2,945,029 |
| a.2 | Losses and own consumption | 60,168 | 28,038 |
| b | Independent power producers | 2,044,297 | 1,607,991 |
| 1.3 | Other producers (other renewable) | 0 | 0 |
| 2 | Gross import (including exchanges) | 1,826,753 | 3,403,043 |
| 3 | Gross export (including exchanges) | 1,868,605 | 488,415 |
| B | Consumption of electricity (B=1+2) | 7,094,061 | 7,439,609 |
| 1 | Electrical losses (1=1.1+1.2) | 1,985,901 | 1,876,138 |
| 1.1 | Losses in transmission | 190,008 | 157,906 |
| 1.2 | Losses in distribution (1.2=a+b) ¹ | 1,795,892 | 1,718,232 |
| a | Technical losses in distribution | 1,346,501 | 1,247,678 |
| b | Non-technical losses in distribution ² | 449,391 | 470,555 |
| 2 | Consumption of electricity by domestic users (2=2.1+2.2) | 5,108,160 | 5,563,471 |
| 2.1 | Households | 2,587,259 | 2,655,417 |
| 2.2 | Non households | 2,520,901 | 2,908,053 |

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

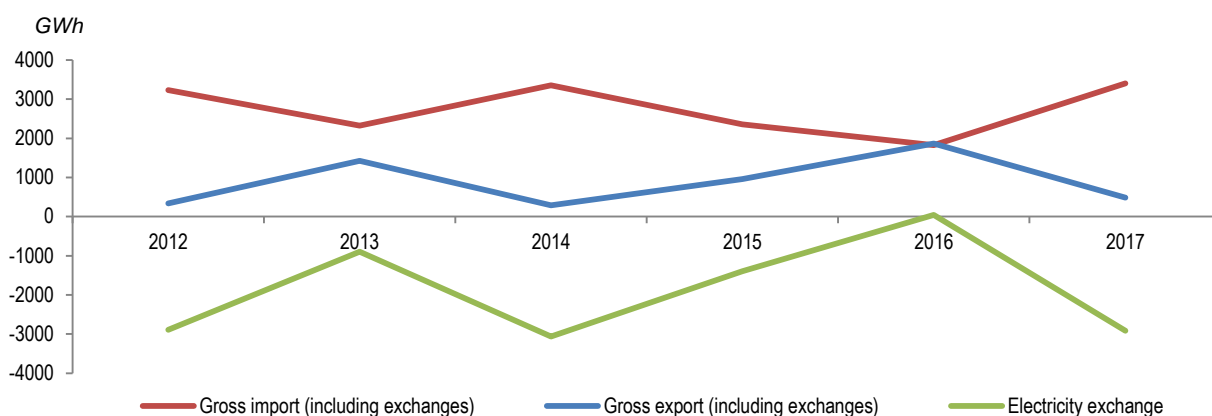
²Non technical losses refer to the difference between total losses in distribution and technical losses in distribution and are added also statistical differences which derive from the differences in the period of measurement in production, consumption and trade of electricity.

Public hydro plants realized 64.5 % of electricity production in 2017 from 71.4 % realized in 2016. Percentage of production from **independent and concessionaire power producers** was 35.5 % from 28.6 % which was in the previous year.

Gross import (including exchanges), in 2017, increased and reached 3,403 GWh from 1,827 GWh in 2016.

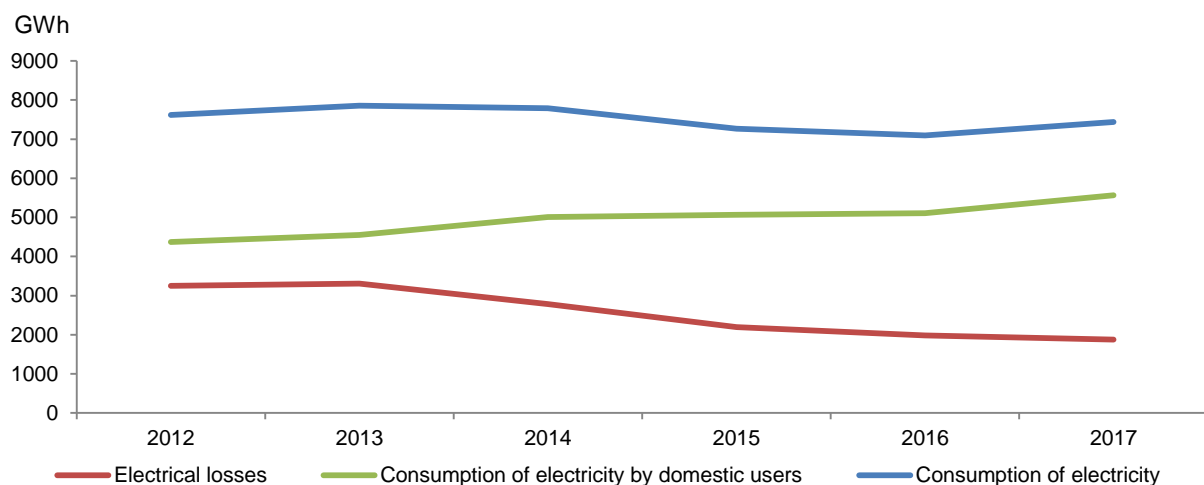
Gross export (including exchanges) reached 488 GWh in 2017 from 1,869 GWh in the previous year.

Fig. 2 Electricity exchange, 2012 - 2017



In 2017, **network losses** was 1,876 GWh from 1,986 GWh in 2016, with a decrease by 5.5 %. **Losses in distribution** in 2017 decreased by 4.3 % compared with the previous year. **Losses in transmission**, decreased by 16.9 % and constitute 8.4 % of the total network losses.

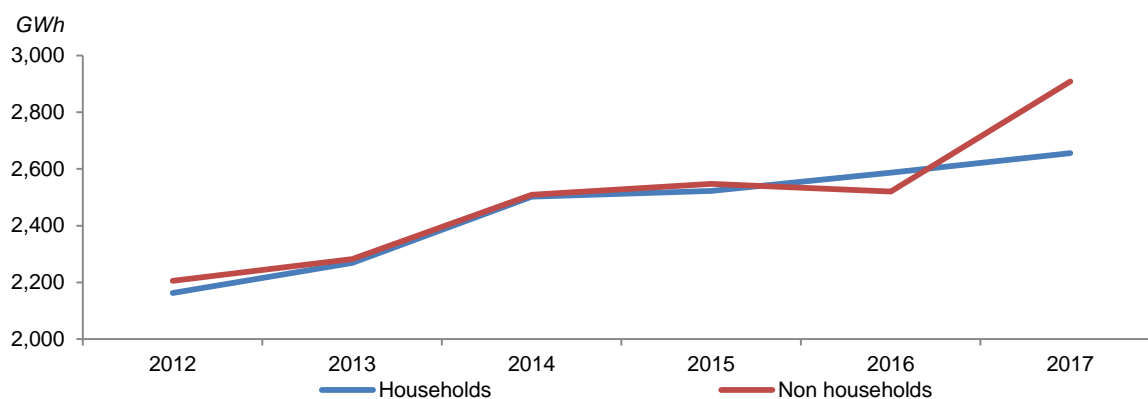
Fig. 3 Consumption of electricity, electrical losses and consumption of electricity by domestic users



The consumption of electricity by domestic users, during 2017, increased by 8.9 % compared with the previous year and reached 5,563 GWh from 5,108 GWh.

The largest impact on the increase of the final consumption of electricity was provided by **consumption of electricity by non-households** who contributed with +7.6 percentage points in 2017 compared with the previous year, while the contribution of **electricity consumed by households** was +1.3 percentage points.

Fig. 4 Consumption of electricity by domestic users

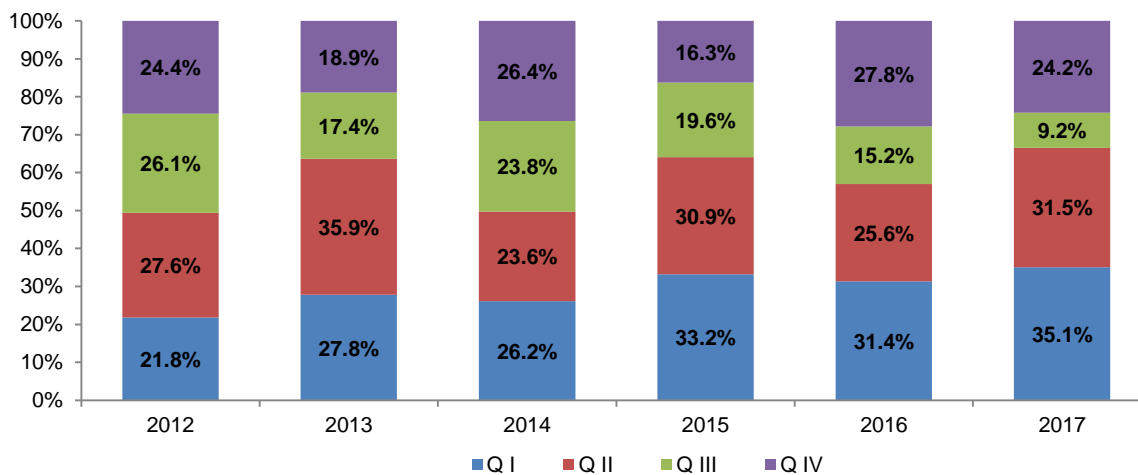


Quarter IV of 2017

In the fourth quarter of 2017, **available electricity** increased by 2.4 %.

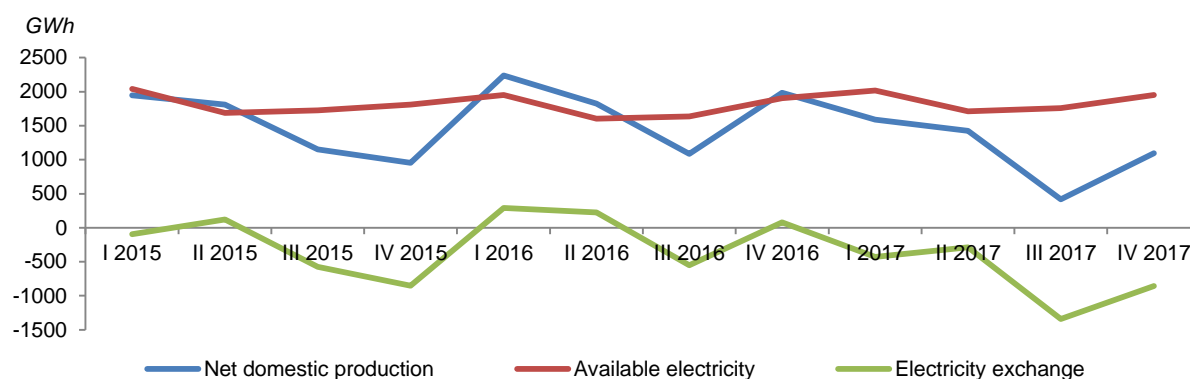
Net domestic production of electric power, in the fourth quarter was 1,095 GWh, which constitutes 24.2 % of the annual production in 2017, from 1,985 GWh in 2016, which constitutes 27.8 % of the annual production of 2016.

Fig. 5 Structure in percentage by quarter of net domestic production, 2012 - 2017



During the fourth quarter of 2017 were realized 28.8 % of **gross imports (including exchanges)** and 25.3 % of **gross exports (including exchanges)** .

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

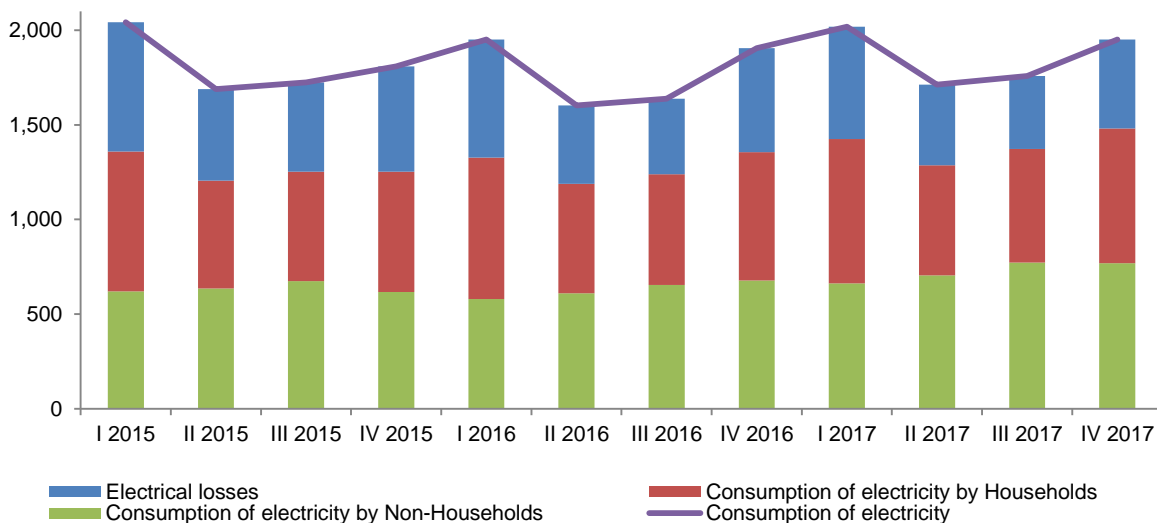


During the fourth quarter of 2017, **network losses** decreased by 14.5 %. The largest impact on the decrease of the network losses was provided by **distribution losses** by 13.1 percentage points. Losses in transmission contributed by 1.4 percentage points to the decrease of the network losses.

Distribution losses in the fourth quarter of 2017 represent 25.0 % of the annual distribution losses for 2017, while it represented 28.0 % of the distribution losses in the fourth quarter of 2016.

During the fourth quarter of 2017, the consumption of electricity by domestic users, increased by 9.3 % compared with the same period in 2016. The consumption of electricity consumed by households increased by 5.0 % (or +2.5 percentage points) while the consumption of electricity consumed by non-households, increased by 13.6 % (or +6.8 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.

Hydro electricity 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.