

# Balance of electric power

## First half of 2017

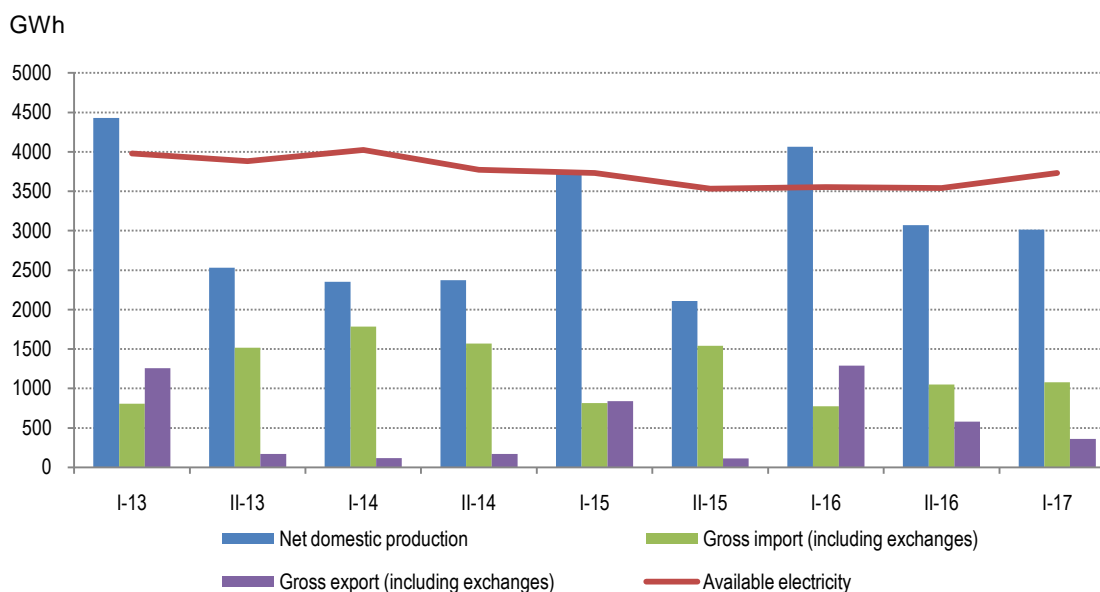
**Tirana, August 31, 2017:** In the first half of 2017, **available electricity** increased by 5.0 percent.

**Net domestic production** of electric power was 3.012 GWh from 4.066 GWh produced in the first half of 2016, which decreased by 25.9 percent.

All producers of electric power resulted with a decrease in the first half of 2017, where respectively public hydro plants decreased by 26.9 percent and independent and concessionaire power producers decreased by 23.8 percent.

The decrease of production of electricity resulted on increase of imports and decrease of exports during the first half of 2017. As a result, gross import (including exchanges) increased by 39.2 percent while gross export (including exchanges) decreased by 72.0 percent, compared with the first half of 2016.

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



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**Tab. 1 Balance of electric power**

MWh

Indicators		First half 2016	First half 2017
<b>A</b>	<b>Available electricity (A=1+2-3)</b>	<b>3,552,061</b>	<b>3,730,916</b>
1	Net domestic production (1=1.1+1.2+1.3)	4,065,748	3,011,860
1.1	Thermo	0	0
1.2	Hydro (1.2=a+b)	4,065,748	3,011,860
a	Net public producers (a=a.1-a.2)	2,778,442	2,031,083
a.1	Gross public producers	2,812,205	2,051,134
a.2	Losses and own consumption	33,763	20,051
b	Independent power producers	1,287,306	980,777
1.3	Other producers (other renewable)	0	0
2	Gross import (including exchanges)	775,692	1,079,915
3	Gross export (including exchanges)	1,289,378	360,859
<b>B</b>	<b>Consumption of electricity (B=1+2)</b>	<b>3,552,061</b>	<b>3,730,916</b>
1	Electrical losses (1=1.1+1.2)	1,037,487	1,020,661
1.1	Losses in transmission	105,852	81,387
1.2	Losses in distribution (1.2=a+b) <sup>1</sup>	931,635	939,274
a	Technical losses in distribution	676,563	629,290
b	Non-technical losses in distribution <sup>2</sup>	255,072	309,984
2	Consumption of electricity by domestic users (2=2.1+2.2)	2,514,574	2,710,255
2.1	Households	1,324,377	1,343,298
2.2	Non households	1,190,197	1,366,957

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

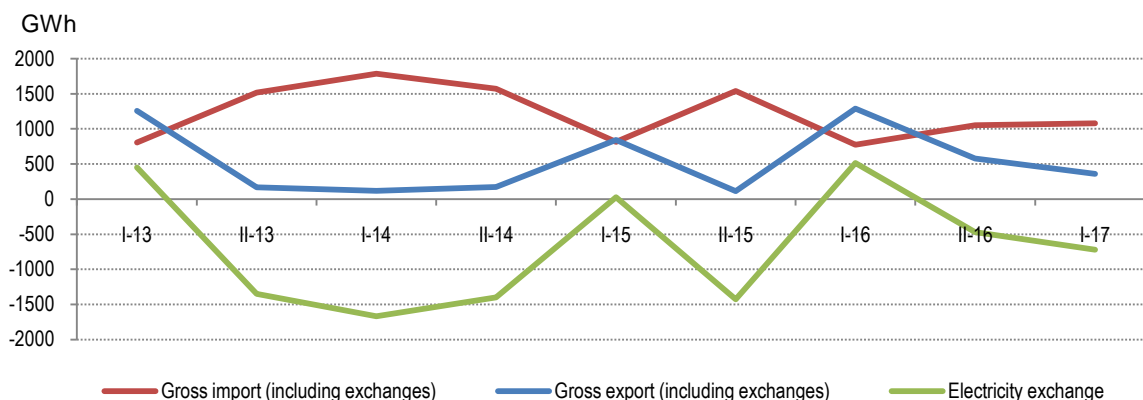
<sup>2</sup>Non technical losses refer to the difference between total losses in distribution and technical losses in distribution and are added also statistical differences which derive from the differences in the period of measurement in production, consumption and trade of electricity

**Public hydro plants** realized 67.4 percent of electricity production for the first half of 2017 while for the first half of 2016 they realized 68.4 percent. Percentage of production from **independent and concessionaire power producers** was 32.6 percent for the first half of 2017 while in the first half of 2016 it was 31.7 percent.

**Gross import (including exchanges)**, in the first half of 2017, increased and reached 1,080 GWh from 776 GWh for the first half of 2016.

**Gross export (including exchanges)** reached 361 GWh in the first half of 2017 from 1,289 GWh in the first half of 2016.

Fig. 2 Electricity exchange

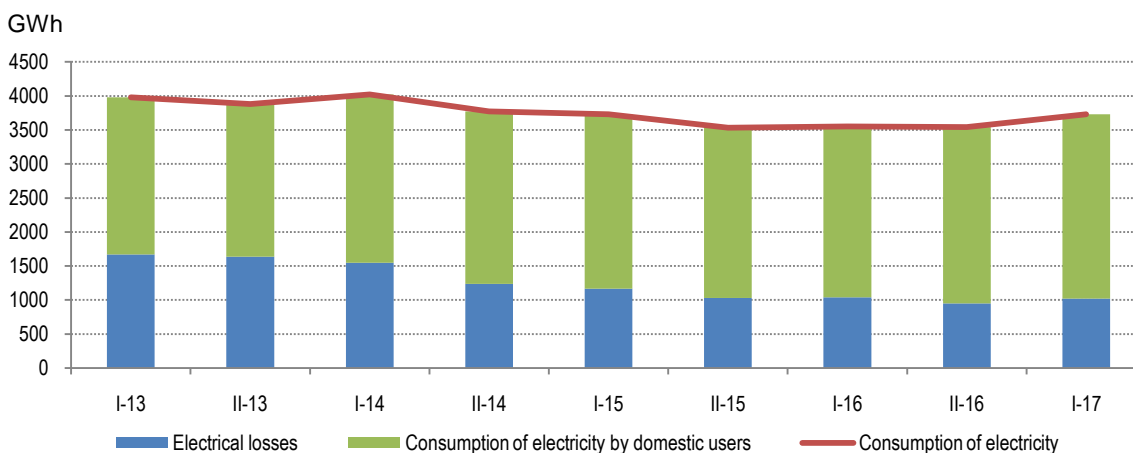


In first half of 2017, network losses decreased by 1.6 percent resulted from the decrease of **technical losses in distribution** which constitutes 61.7 percent of the total network losses and decrease of own consumption and losses in transmission which constitutes in 8.0 percent. During the first half of 2017, **total network losses** were 1,021 GWh from 1,037 GWh for the first half of 2016.

In first half of 2017, **losses in distribution** increased by 0.8 percent compared with the first half of 2016, resulted from the increase of **non technical losses in distribution** by 21.5 percent.

**Losses in transmission**, unlike from the previous half years, during first half of 2017 decreased by 23.1 percent and constitute 8.0 percent of the network losses from 10.2 percent of total network losses in the first half of 2016.

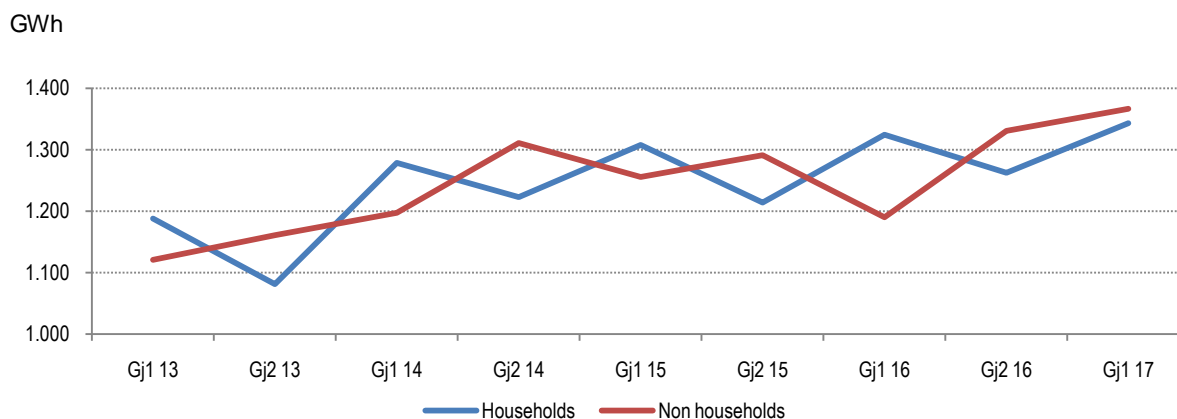
Fig. 3 Consumption of electricity, electrical losses and consumption of electricity by domestic users



**The consumption of electricity by domestic users**, during first half of 2017, increased by 7.8 percent and reached 2,710 GWh from 2,515 GWh in the first half of 2016.

The largest impact on the increase of the final consumption of electricity was provided by **consumption of electricity by non-households** who contributed +7.0 percentage points in the first half of 2017 compared to the contribution of +0, 8 percentage points of **electricity consumed by households** in the first half of 2016.

**Fig. 4 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 produced twice per year, 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 and concessionaire 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.