

# Balance of electric power

## Quarter I - 2023

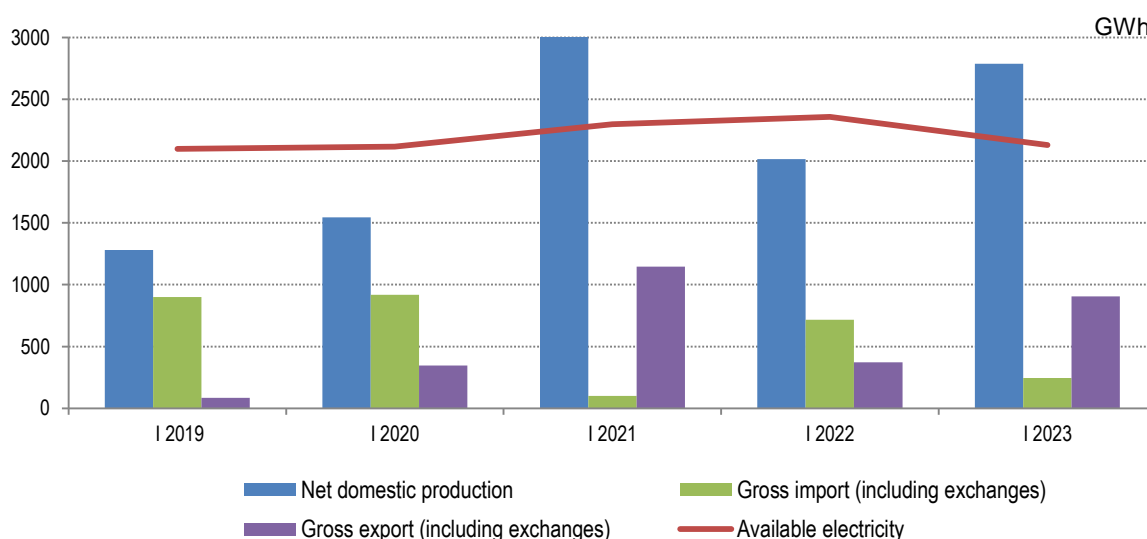
**Tirana, May 22, 2023:** During the first quarter of 2023, available electricity decreased by 9.7 %.

**Net domestic production** of electric power in this period increased by 38.3 %, reaching the value 2,787 GWh from 2,016 GWh of electricity produced in the first quarter of 2022.

This production was realized by public hydro plants at 57.9 % of net domestic production, by independent power producers to the extent 41.5 % and other producers (Photovoltaics) that generated 0.6 % of net domestic electricity production.

Gross import of electric power (including exchanges), in the first quarter of 2023, reached the value 246 GWh from 715 GWh compared to the same period of the previous year, marking an decrease by 2.9 times. Gross export (including exchanges) reached the value 904 GWh from 373 GWh marking a increase with 2.4 times (tab.1).

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



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**Tab. 1 Balance of electric power**

MWh

Indicators	Q.1 2022	Q.1 2023
<b>A Available electricity (A=1+2-3)</b>	<b>2,357,960</b>	<b>2,128,806</b>
1 Net domestic production (1=1.1+1.2+1.3)	2,015,893	2,787,247
1.1 Thermo	0	0
1.2 Hydro (1.2=a+b)	2,006,904	2,770,732
a Net public producers (a=a.1-a.2)	1,064,786	1,614,486
a.1 Gross public producers	1,074,971	1,627,308
a.2 Losses and own consumption	10,185	12,822
b Independent power producers	942,118	1,156,246
1.3 Other producers (Photovoltaics)	8,989	16,515
2 Gross import (including exchanges)	715,223	245,860
3 Gross export (including exchanges)	373,156	904,301
<b>B Consumption of electricity (B=1+2)</b>	<b>2,357,960</b>	<b>2,128,806</b>
1 Electrical losses (1=1.1+1.2)	582,749	533,521
1.1 Losses in transmission	47,727	61,859
1.2 Losses in distribution (1.2=a+b) <sup>1</sup>	535,022	471,663
a Technical losses in distribution	351,884	312,799
b Non technical losses in distribution <sup>2</sup>	183,138	158,863
2 Consumption of electricity by domestic users (2=2.1+2.2)	1,775,211	1,595,285
2.1 Households	964,711	894,960
2.2 Non households	810,500	700,325

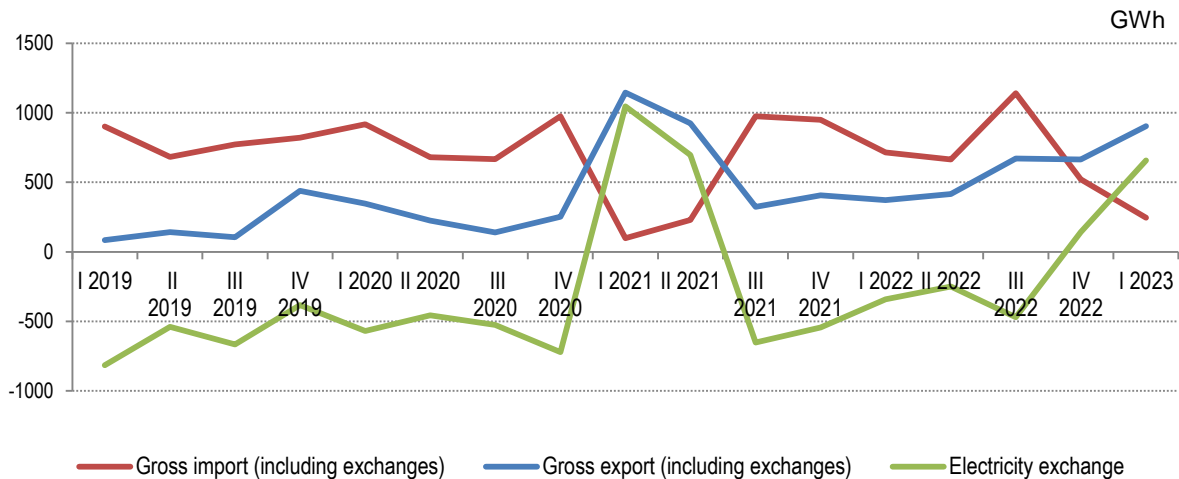
<sup>1</sup> Breakdown of technical and non-technical losses is an estimation made by operators in the field of electricity.

<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**, in the first quarter of 2023, realized 1,614 GWh from 1,065 GWh realized in the first quarter of 2022, thus marking a increase in production by 51.6 %. While, **independent and concessionaire power producers** realized 1,156 GWh from 942 GWh realized to the same period of the previous year, thus marking a increase in production by 22.7 %.

**Electricity exchange (difference between gross exports and gross imports of electricity)**, in the first quarter of 2023 has reached a positive value by 658 GWh compared to the same period of the previous year where it had a negative value of 342 GWh.

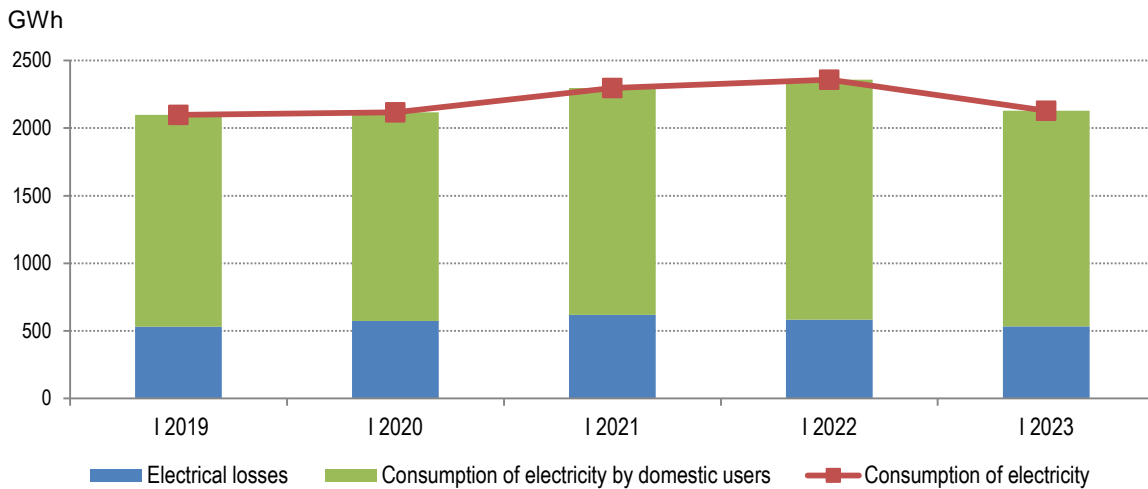
**Fig. 2 Electricity exchange**



**Electrical losses** have reached value 534 GWh from 583 GWh marking a decrease by 8.4 %. **Losses in transmission** increased by 29.6 %, while **losses in distribution** decreased by 11.8 %.

**Technical losses in distribution** resulted on a decrease with 11.1 %, while **non-technical losses in distribution** resulted on a decrease with 13.3 %, compared with the first quarter of 2022 (fig.3).

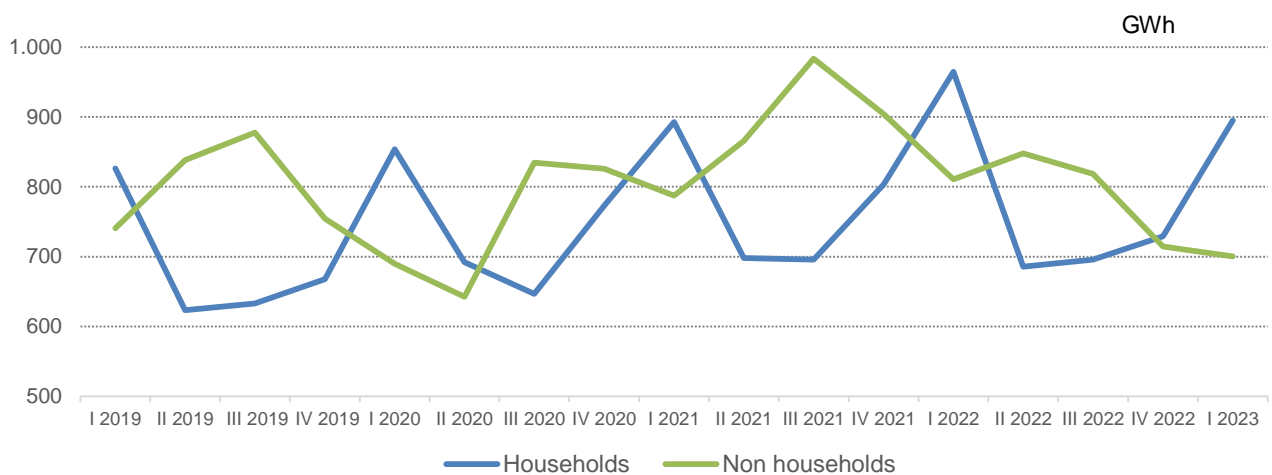
**Fig. 3 Consumption of electricity, electrical losses and consumption of electricity by domestic users**



The consumption of electricity by domestic users, in the first quarter of 2023, decreased by 10.1 %, reaching 1,595 GWh from 1,775 GWh realized in the first quarter of 2022.

The largest impact on the decrease of the final consumption of electricity by domestic users was provided by **consumption of electricity by non-households** with an decrease of electricity consumption by 13.6 %, compared to the decrease by 7.2 % of energy consumed by **household consumers (fig. 4).**

**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 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;
- OSSH 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 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 OSSH, 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 OSSH 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.