TBC CAPITAL

Electricity Market
1H 2024 Overview

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Irakli Urgebashvili
Senior Analyst, Research

Andro Tvaliashvili
Senior Associate, Research

Executive Summary

In the first half of 2024, electricity generation in Georgia reached 7.33 TWh, marking a 3.9% annual growth. Hydropower generated 82.6% of electricity (compared to 75.6% in the first half of 2023), while thermal generation accounted for a 16.9% share (down from 23.8%). Wind power remains reliant on the sole Kartli power plant, which has a 0.5% share.

In the same period, electricity consumption amounted to 6.75 TWh, increasing by 2.7% annually. The retail sector accounted for 57% of the consumption, large consumers took up a 23% share, and Abkhazian A/R accounted for a 20% share.

The retail sector shows a strong growth pattern. Telasi and Telmico, the electricity distribution and supplier in Tbilisi, posted a 6.0% annual growth in the first half of 2024, while Energo-Pro Georgia and EPG Supply, covering the regions of Georgia, increased consumption by 4.2% annually.

Large consumers increased consumption by 5.0% annually, with room for further growth. Metallurgical factories partially recovered operations, and several industrial-scale cryptocurrency mining company resumed operations.

Abkhazian demand for electricity has been experiencing a downward trend since peak consumption in 2022. The alleged reason for the demand contraction is the suspension of illegal cryptocurrency mining activities. As a result, in the first half of 2024, an annual decrease of 5.6% was recorded.

Exported electricity totaled 757 GWh in the first half of 2024, showing a marginal growth annually. Turkey remained the main trade destination with an 84% share. Armenia accounted for a 12% share, while Azerbaijan received the remaining 4%.

Regarding export revenues, Georgia collected USD 36.3 million in the first half of 2024, nearly 32% less compared to the first half of 2023. Stabilized prices in the Turkish market are the reason for the lower revenues.

Georgia imported only 457 GWh of electricity in the first six months of 2024, with 91% going to Abkhazian A/R. Only 39 GWh was imported from Azerbaijan. Georgia paid its neighbors USD 3.1 mln. for the electricity imports.

In the first half of 2024, only two hydropower plants entered the operational phase, with a total installed capacity of 46.4 MW and estimated annual generation of 209.4 GWh. On the other hand, the net-metering program continued to grow, and by the end of the first half of 2024, 82.02 MW of micro power plants were operating, demonstrating an impressive annual growth rate of nearly 75%.

GNERC has kept the tariffs unchanged for the universal service supplier, public service supplier, and supplier of last resort, covering nearly 60% of Georgia's electricity consumption. These tariffs will remain effective until January 1st, 2025. For a detailed breakdown of the tariffs, see our previous publication.

Georgian Energy Exchange has started operations; however, trade is optional for participants. To incentivize market participation, GNERC has set service fees for market accession and fees on traded volume to 0 GEL until 1st of July, 2025. Additionally, balancing market services are scheduled to be implemented starting from that period.

A new auction for the CfD support scheme will not be announced. Instead, the Government of Georgia plans to offer private investors a support scheme based on the results of the second auction.

Generation

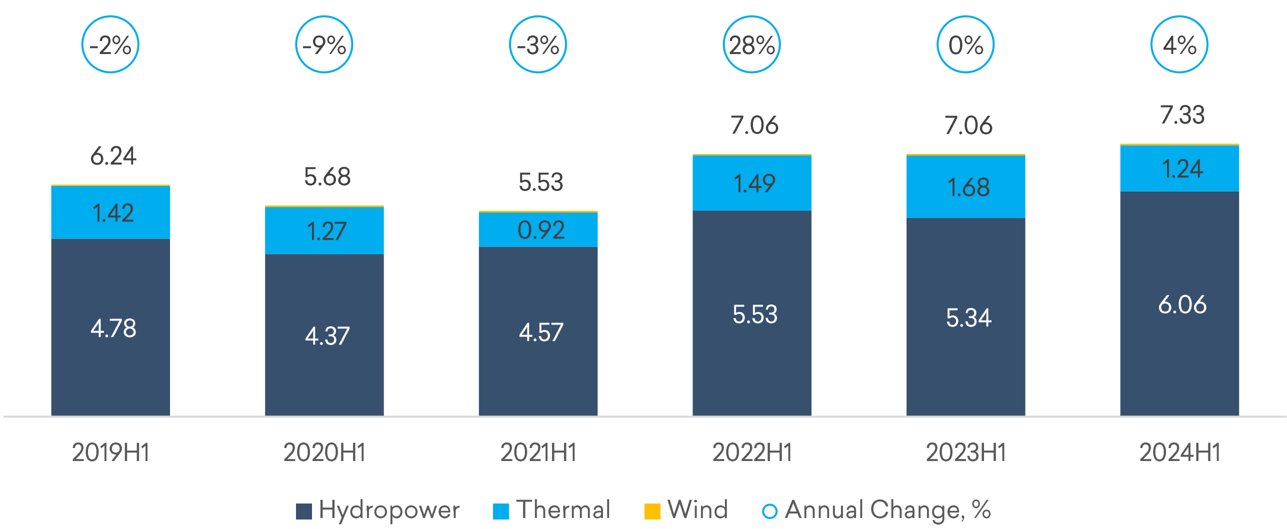
In the first half of 2024, electricity generation reached 7.33 TWh, marking an annual growth of 3.9%. Hydropower facilities generated 6.06 TWh (13.5% annual growth), thermal power plants produced 1.24 TWh (a 26.3% annual decline), and wind power generated 39.4 GWh (a 7.9% annual decline).

Good hydrology made it possible to generate electricity from renewable sources and cover both internal and external demand. Hydropower remains the primary source of electricity, accounting for 82.6% of total generation. Gas-fired plants account for 16.9%, while the remaining modest share of 0.5% is attributed to wind power.

In the first half of 2024, only two hydropower plants entered the operational phase, with a total installed capacity of 46.4 MW. These include the Khobi 2 HPP with 44.5 MW and an estimated annual generation of 194 GWh, and the Shevaburi HPP with 1.9 MW of installed capacity and an estimated annual generation of 15.4 GWh.

On the other hand, the net-metering program continued to grow, and by the end of June 2024, 82.02 MW of micro power plants were operating.

Figure 1. Electricity generation (TWh) and annual change (%), 2019H1-2024H1



Source: GNERC

Consumption

In the first half of 2024, electricity consumption totaled 6.75 TWh, reflecting a 2.7% annual growth. Out of this total, 3.86 TWh was consumed by retail consumers (an annual growth of 5.0%), 1.53 TWh were utilized by large consumers (+5.0% year-over-year), while Abkhazian A/R consumed 1.37 TWh of electricity (-5.6% year-over-year).

Despite the annual growth in electricity consumption, the half-year figure lags behind the 2022 numbers, largely due to contracted consumption by large consumers, notably cryptocurrency mining companies and the metallurgical sector.

Decreased cryptocurrency operations in Abkhazia are evident from the region's contracted electricity consumption. In addition, warm weather conditions in the first half of 2024 also contributed to this contraction, as the region utilizes electricity for heating purposes.

Figure 2. Monthly consumption of direct consumers (GWh)

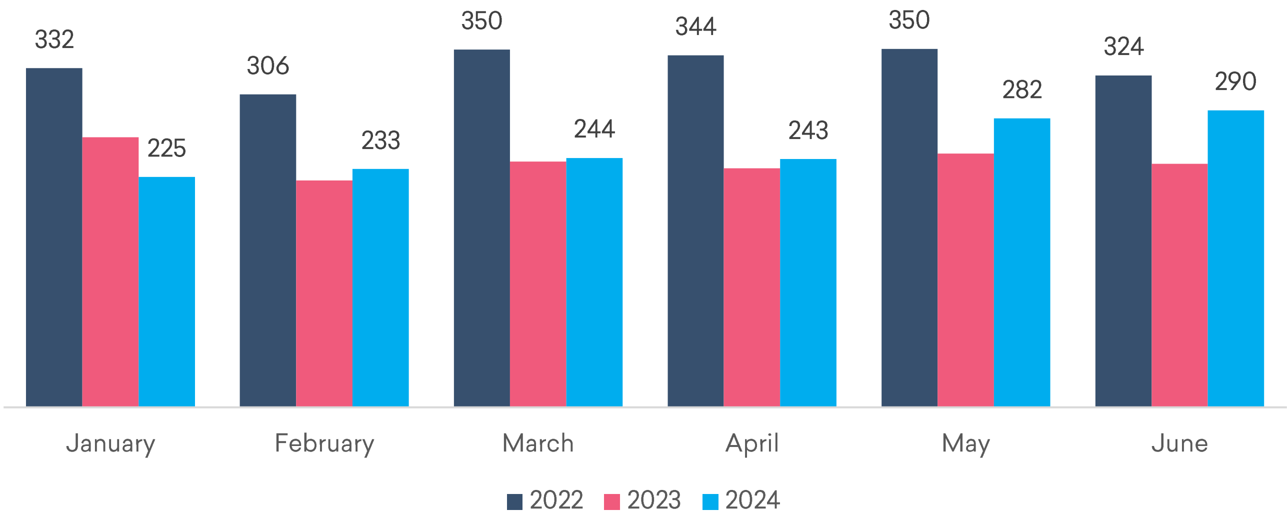
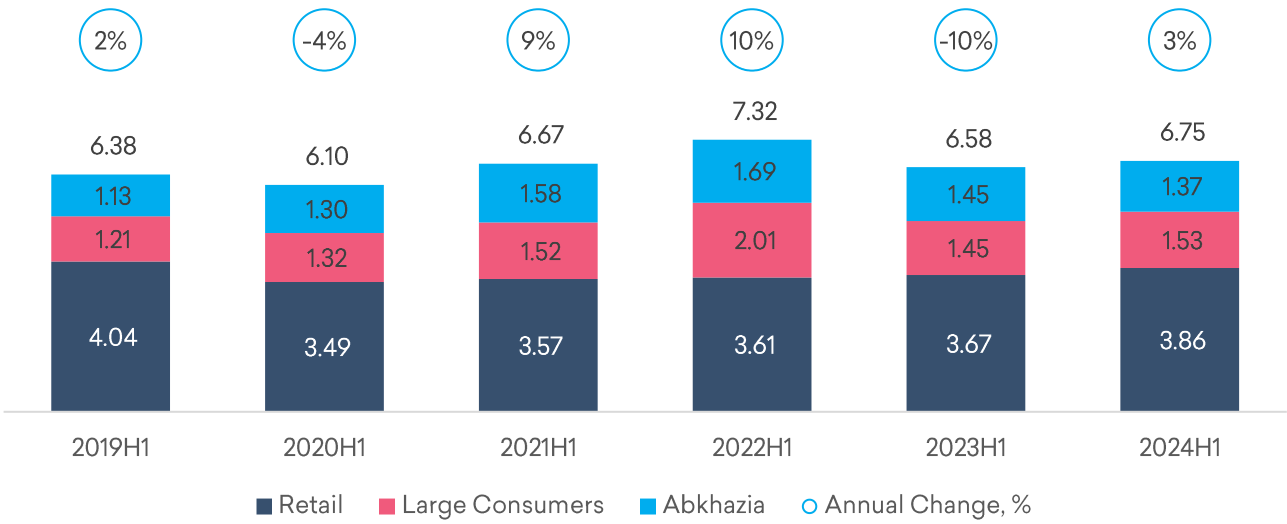


Figure 3. Electricity consumption by main groups (TWh) and annual change (%), 2019H1-2024H1



Source: GNERC

Balancing Electricity

In the first half of 2024, electricity traded via ESCO as balancing electricity amounted to 1,922 GWh, representing 25.1% of the total supplied electricity. The price per unit of energy increased to 5.6 US cents, marking a 7% annual growth. Increased natural gas prices for thermal generation drove up the balancing electricity prices, as thermally generated electricity was sold on the balancing electricity market instead of through bilateral contracts.

A majority share of balancing electricity, 55%, came from renewables with PPA contracts, while thermal generation with a PPA contract contributed 22% of the total. The share of imported electricity was minimal, thus, prices were not affected by external factors.

Figure 4. Traded volume of balancing electricity and prices, 2019H1-2024H1

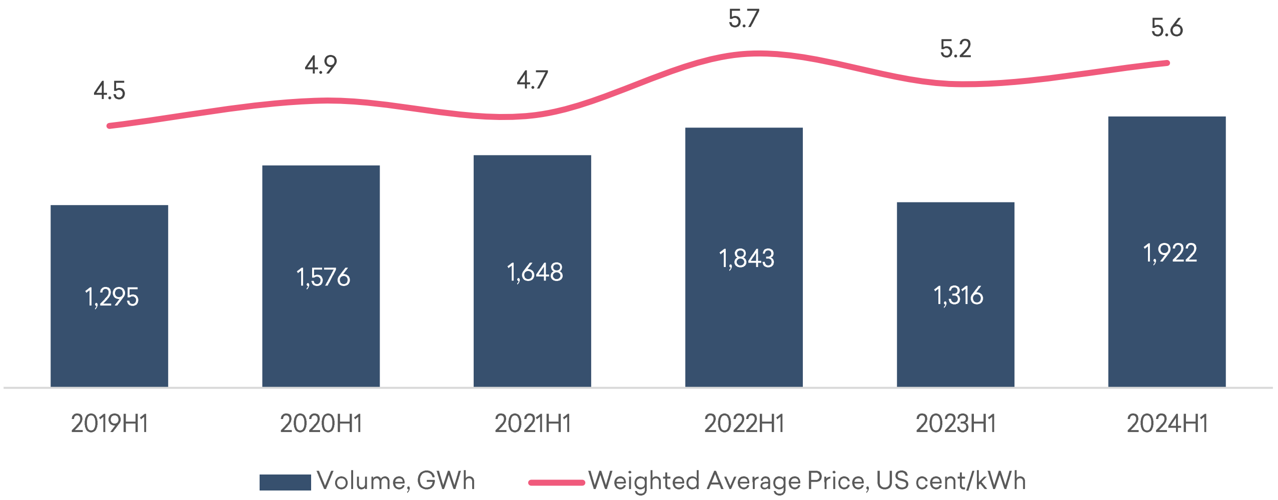
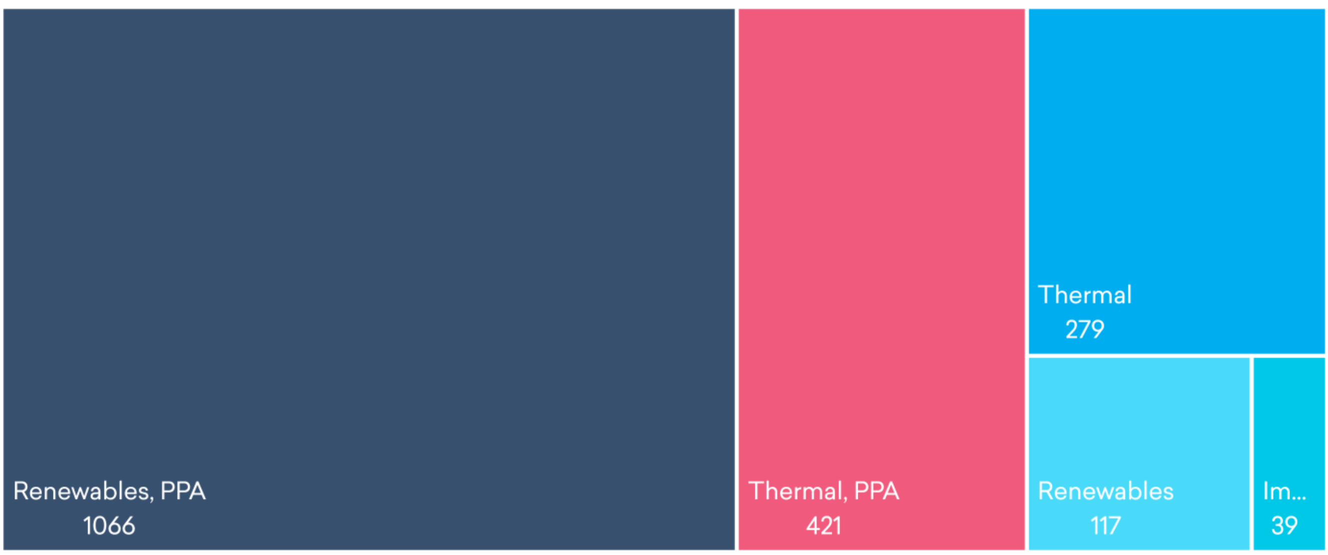


Figure 5. Balancing electricity breakdown (GWh), 2024H1



Source: GNERC, ESCO, NBG, TBC Capital

Cross-Border Trade

A transmission line of 700 MW capacity at a Georgian-Turkish border benefits both Georgia and other Caucasian countries which sell electricity to Turkish market. In the first half of 2024, 391.1 GWh of electricity were transited via Georgia to Turkish market, Azerbaijan being the main country of origin.

Electricity prices on the Turkish energy exchange has stabilized after a year-long tension on the natural gas market and reached 6.6 US cent per kWh in June 2024. This explains the drop in transited electricity as the relatively lower electricity price can not compensate for the thermally generated Azerbaijanian electricity.

Figure 6. Monthly weighted average of Turkish day-ahead market prices, US cent/kWh

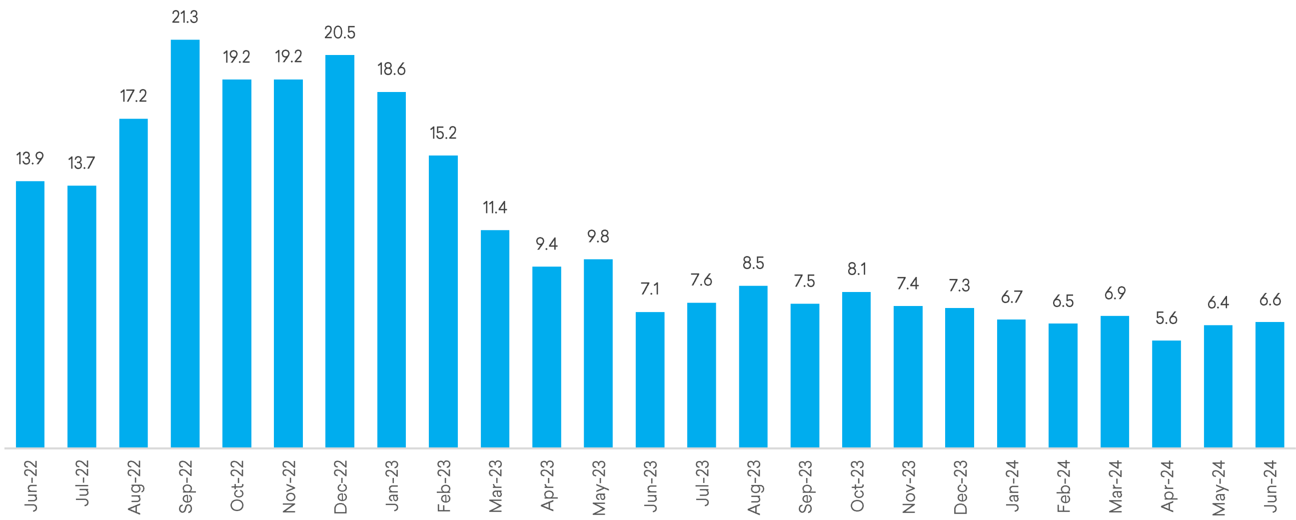
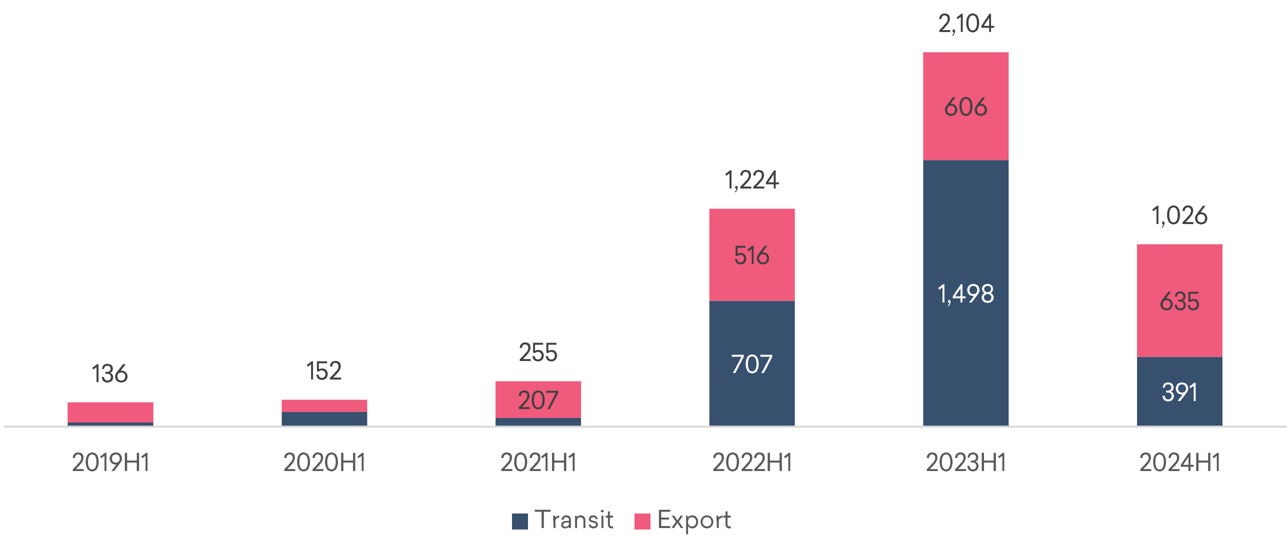


Figure 7. Cross-border trade of electricity with Turkey, GWh



Source: GNERC, EPIAS, NBG

Export

Georgia's electricity exports reached 757 GWh in the first half of 2024, with Turkey receiving 84% (635 GWh) of the total exports, while 90 GWh (12%) was exported to Armenia and 32 GWh (4%) to Azerbaijan.

As for revenue, Georgia collected USD 36.3 mln. from electricity export in the first half of 2024, 31.9% less compared to the same period of the previous year. Turkish prices on electricity has stabilized, affecting Georgia's revenues.

Top exporters are LLC Bookup Solutions (346 GWh), LLC Cross Border Trading (90 GWh), and ESCO (87 GWh).

Figure 8. Georgia's Electricity export by countries, GWh

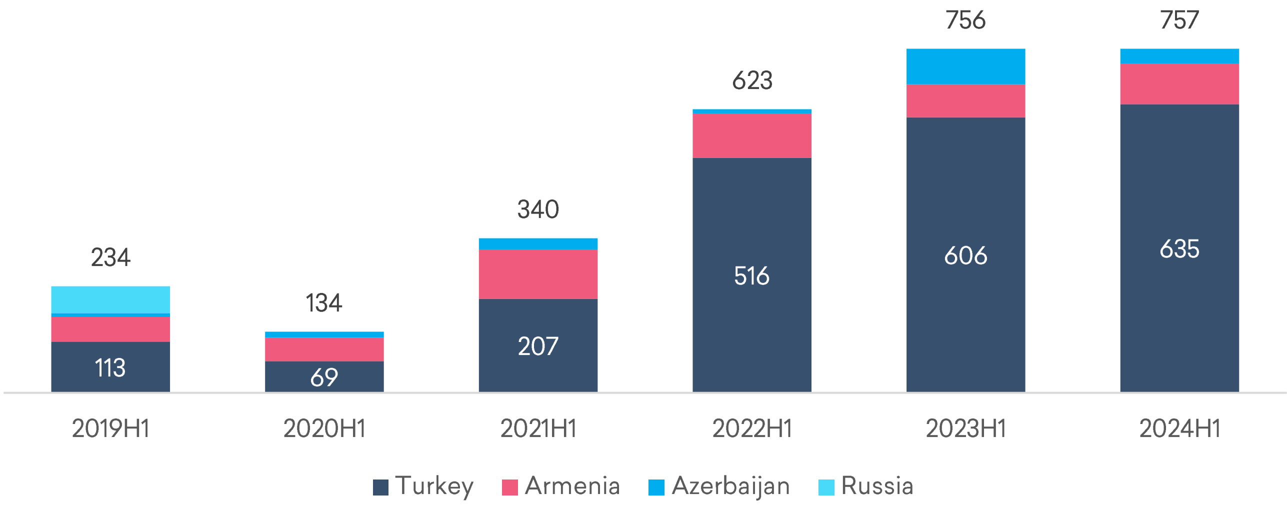
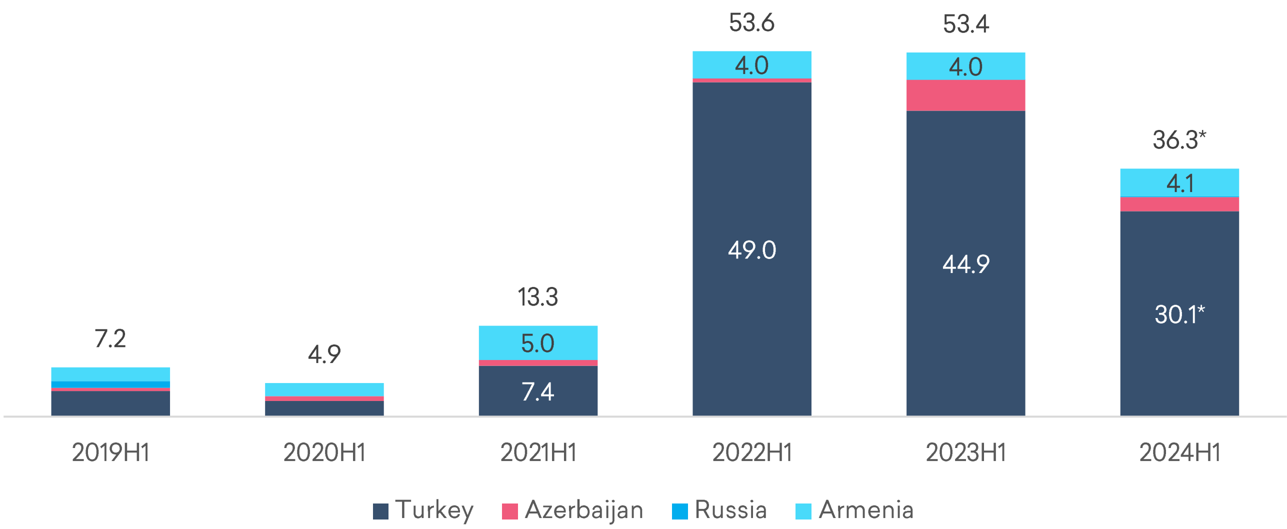


Figure 9. Electricity export revenues by countries, USD mln



Source: GNERC, ESCO, Geostat; * - Preliminary data

Import

Georgia imported 457 GWh of electricity in the first half of 2024, marking a 24% decrease in annual terms. It should be noted that 91% of the imported electricity went to satisfy Abkhazian energy needs during the winter.

As a total, nearly USD 3.1 mln was spent on electricity imports.

Within this total, nearly USD 2.6 mln. went to Azerbaijan (39.3 GWh), which was imported by ESCO as a balancing electricity and did not have any commercial pattern.

Figure 10. Electricity imports by countries, GWh

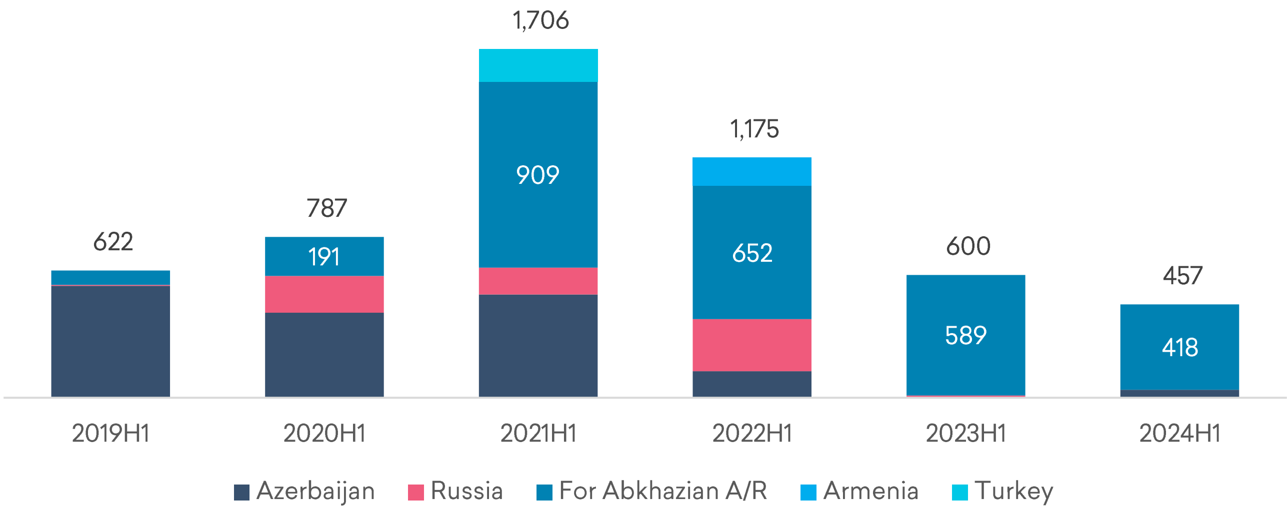
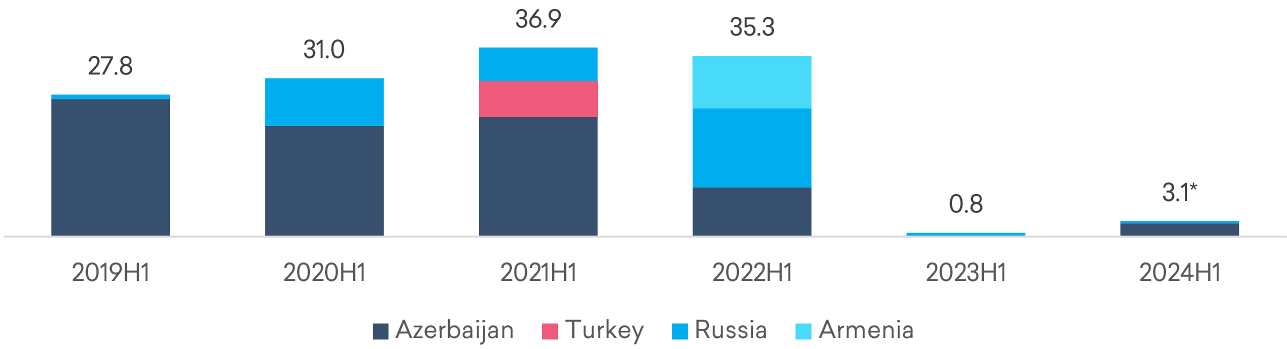


Figure 11. Import expenses, USD mln



Source: GNERC, Geostat; * - Preliminary data

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