



TBC CAPITAL

Electricity Market 2024 Overview

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Generation

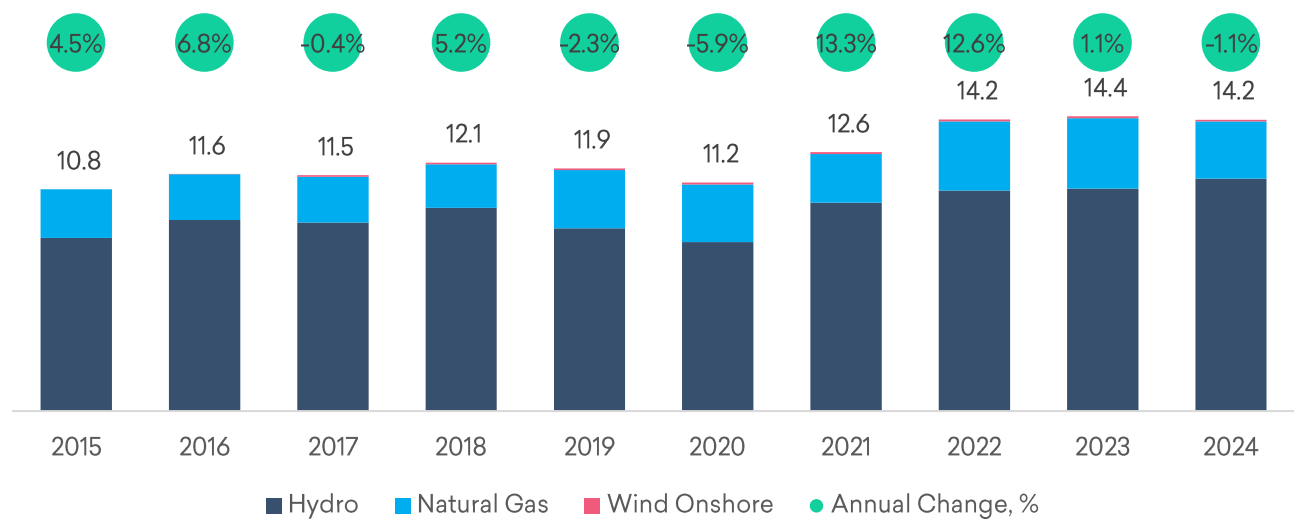
In 2024, Georgia’s electricity sector generated 14.2 TWh of electricity, marking a 1.1% decline compared to the previous year. Favorable hydrological conditions led to a 4.4% annual increase in hydropower output, while natural gas-fired thermal generation dropped by 18.5%, and wind generation declined by 9.9%.

Hydropower, Georgia’s dominant electricity source, produced 11.3 TWh, covering 79.7% of the country’s electricity needs. The gas-fired fleet contributed 2.8 TWh, accounting for 19.8% of total generation, while the country’s only wind power plant generated 78 GWh, representing 0.5% of the total. Overall, renewable energy sources made up 80.2% of Georgia’s electricity generation in 2024.

In 2024, only three hydropower plants were commissioned, adding a total installed capacity of 47.3 MW to the grid. These included Khobi 2 (44.5 MW), Shevaburi (1.9 MW), and Dagheti (0.8 MW), with an expected annual clean energy generation of over 200 GWh.

In contrast, the net-metering program contributed nearly 69 MW of renewable capacity, bringing its nationwide total to 136 MW.

Figure 1. Electricity generation (TWh) and annual change (%), 2015-2024



Source: GNERC

Net-metering program

The net-metering program added 569 installations, each under 0.5 MW, to the Georgian grid in 2024, contributing approximately 69 MW of renewable capacity—an impressive 129% annual growth.

Regional areas drive this expansion, benefiting from greater availability of

spare land and suitable rooftops.

By the end of 2024, a total of 1,689 micro power plants, with a combined installed capacity of 136 MW, were participating in the net-metering scheme. Of these, 1,249 plants (95 MW) were connected to the regional grid, while 430 plants (41 MW) were integrated into the Tbilisi grid.

Figure 2. Capacity additions to the grid via net-metering program, MW

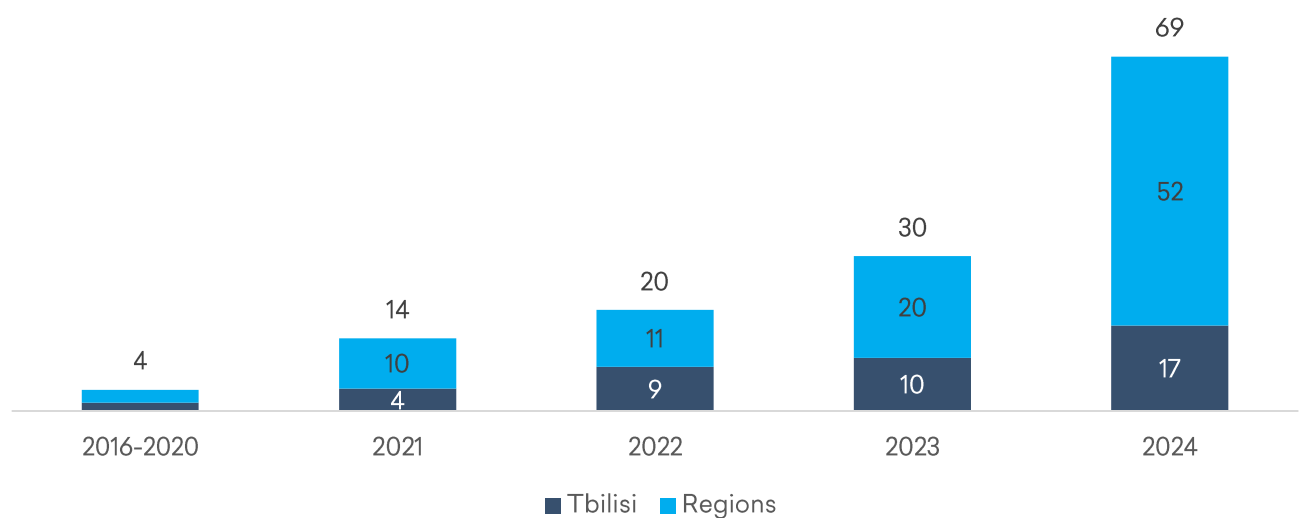
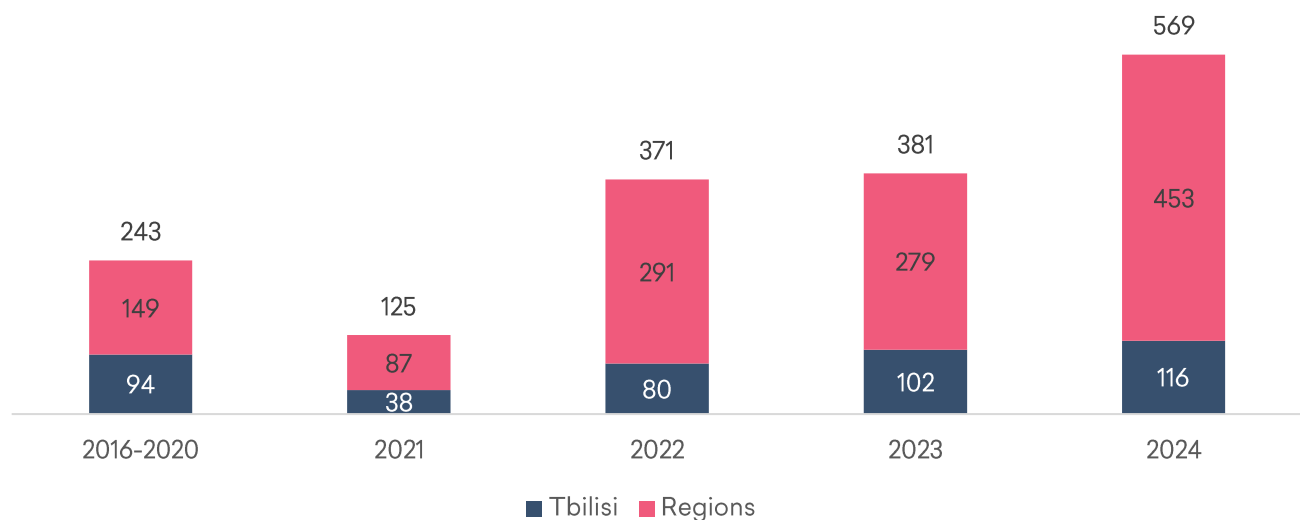


Figure 3. Number of plants connected to the grid via net-metering, units



Source: GNERC

Consumption

In 2024, Georgia's total electricity consumption grew by 6.0% year-over-year, reaching 13.9 TWh - slightly exceeding our expectations in the beginning of the year. Of this total, retail consumers accounted for 8.1 TWh, reflecting a 7.5% annual increase, while direct consumers used 3.2 TWh, marking a 13.1% YoY rise. In contrast, electricity demand in Abkhazia continued to decline, falling to

2.6 TWh - a 5.6% decrease compared to the previous year.

Although direct consumer demand grew annually, intracategory dynamics varied. Ferroalloy producers saw a decline in electricity consumption due to the temporary closure of the largest plant, while cryptocurrency mining companies experienced a resurgence, driven by the ongoing crypto boom.

Figure 4. Electricity consumption by main consumer groups, TWh

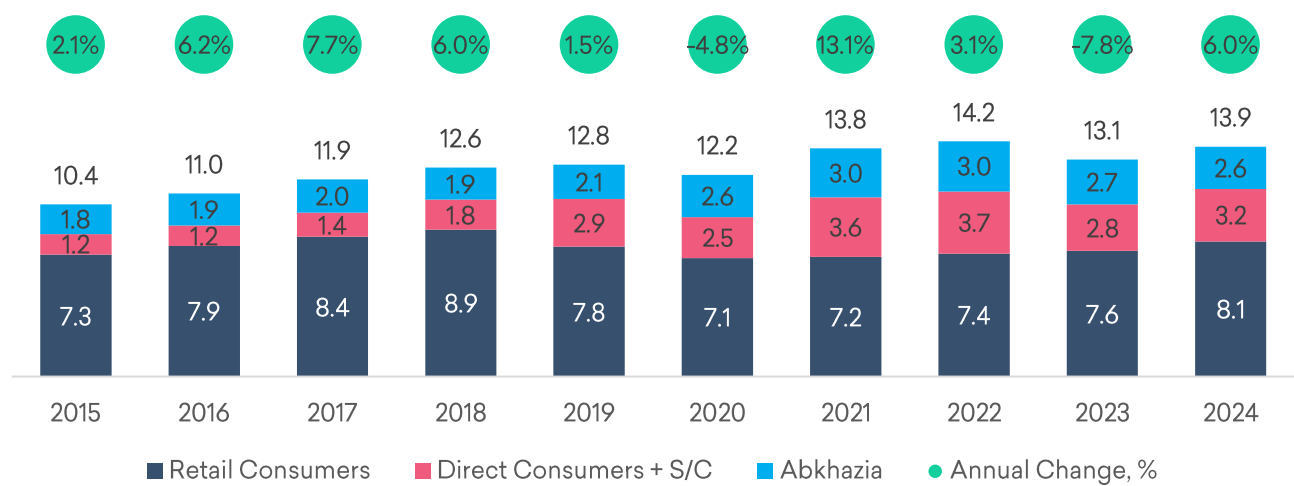
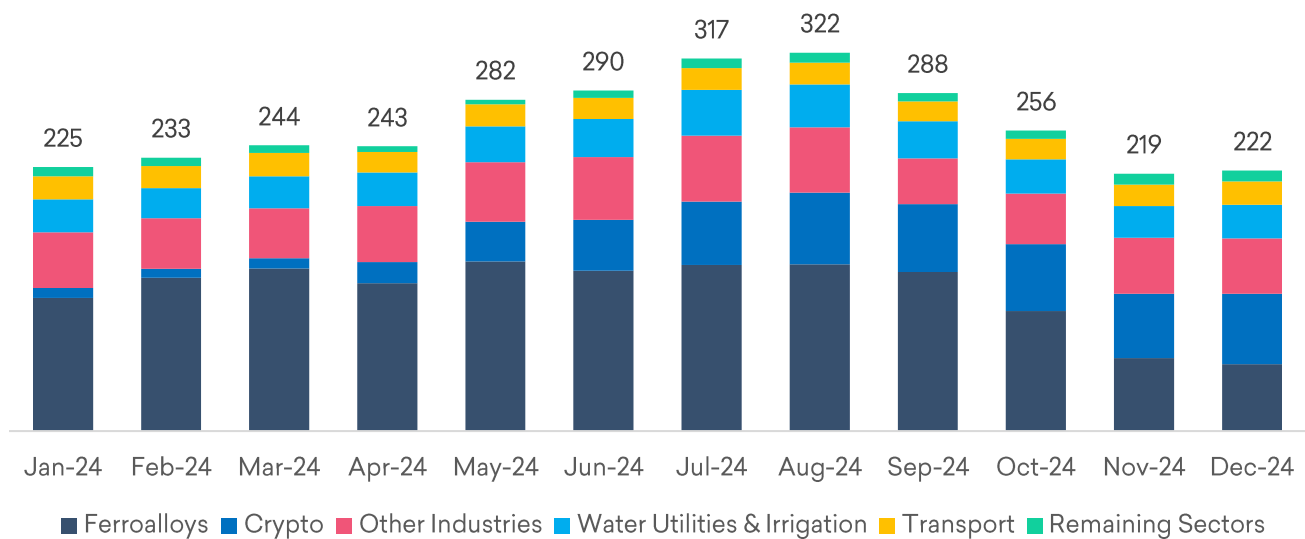


Figure 5. Electricity consumption of direct consumers, GWh



Source: GNERC

Residential and nonresidential consumption

In 2024, electricity demand in Tbilisi alone grew by 8.8% year-over-year, reaching 3,195 GWh. The nonresidential sector saw stronger growth (+10.0%) compared to the residential sector (+6.8%).

Meanwhile, electricity demand in the regional grid increased by 6.5% annually, reaching 4,117 GWh.

In contrast to Tbilisi, regional residential demand grew at a faster rate (+8.0%), while the nonresidential sector expanded by 5.4%.

Figure 6. Residential and non-residential electricity demand, Tbilisi, GWh

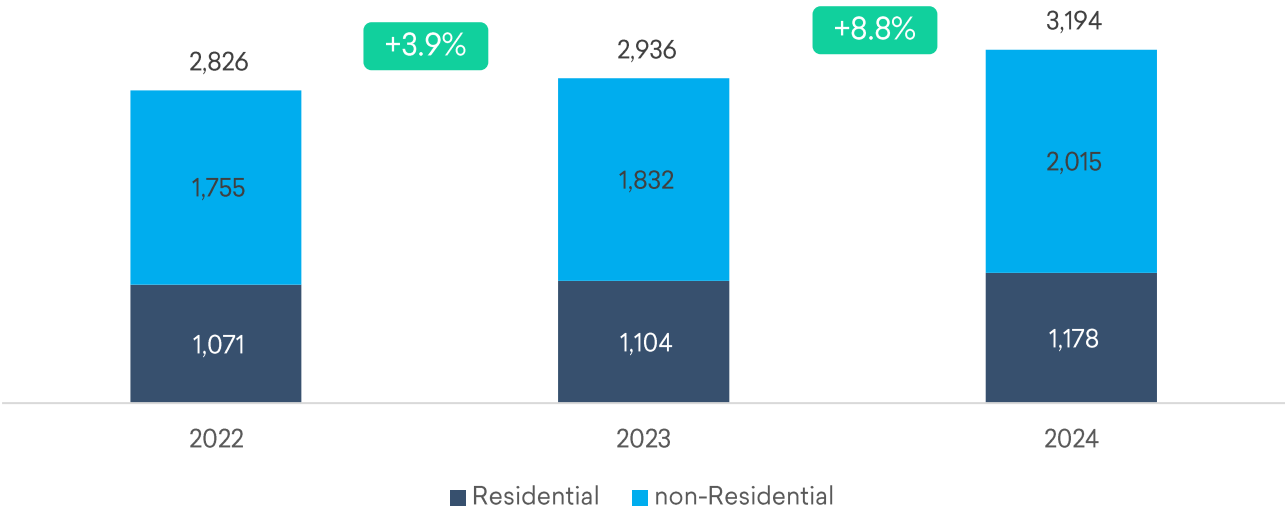
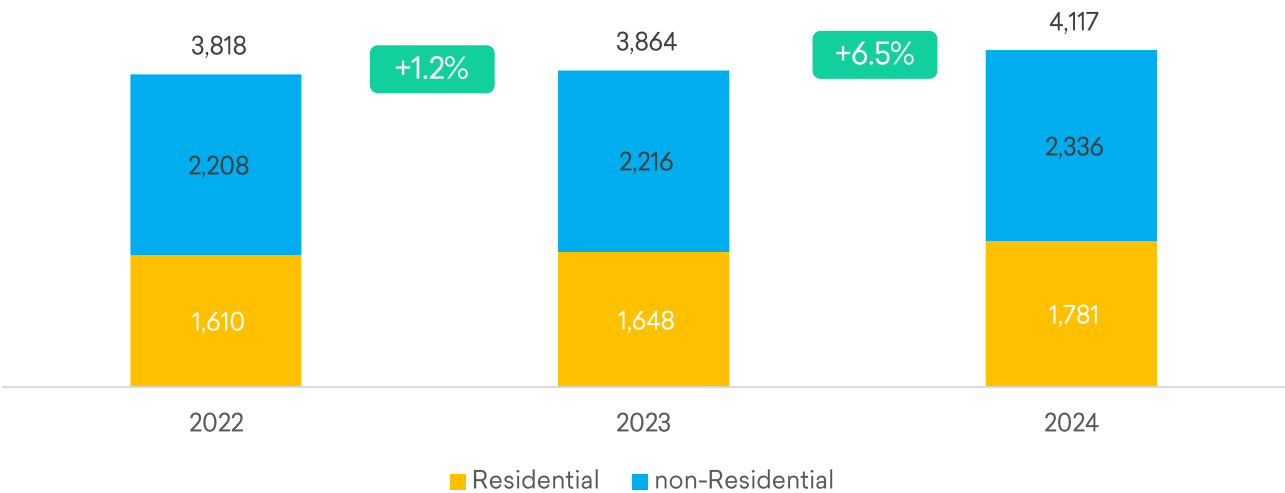


Figure 7. Residential and non-residential electricity demand, Regions, GWh



Source: GNERC

Electricity demand drivers

Electricity demand in the residential and non-residential sectors is expected to rise due to the increasing import of electric vehicles and air conditioning systems, both of which are high-energy-consuming appliances. It should be noted that these imports should be considered cumulatively, as their annual inflows add up over time.

In 2024, approximately 172 thousand air conditioning units were added to Georgia’s stock, marking an all-time high and a 42% increase compared to 2023. Net imports of electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs) also peaked, reaching 5,193 units—a 71% growth from the previous year.

Figure 8. Net import of air conditioning systems, '000 unit

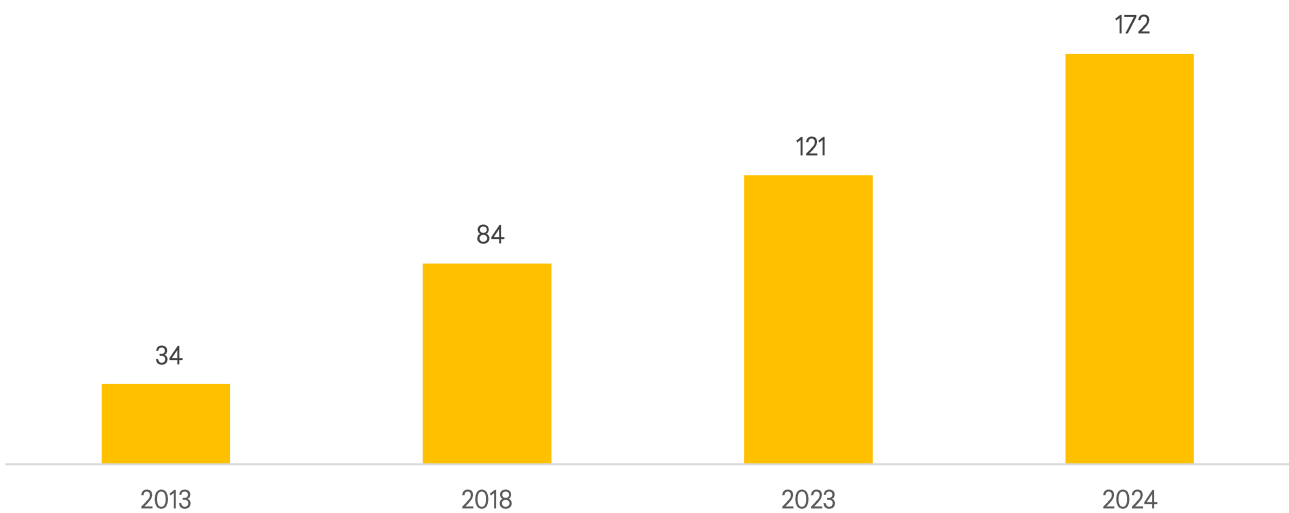
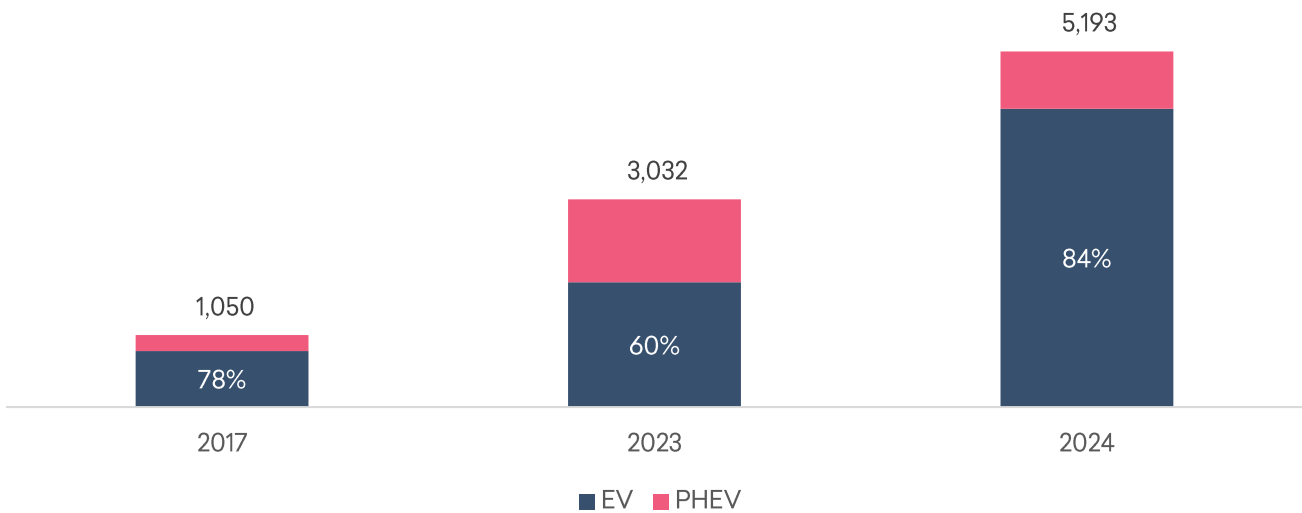


Figure 9. Net import of electric vehicles (EV) and plug-in hybrids (PHEV), units



Source: Geostat

Cross border trade

In 2024, Georgia once again became a net importer of electricity. The country imported 1,228 GWh of electricity, while exports totaled to 1,047 GWh. It should be noted that nearly 54% of imports were intended for occupied region of Abkhazia.

In 2024, in monetary terms, Georgia collected nearly USD 49 million from electricity exports, while spending USD 23 million on imports.

Russia remains as a main market for import, while Turkey is traditional export market for Georgian producers.

Figure 10. Electricity import and export financials, mn. GEL

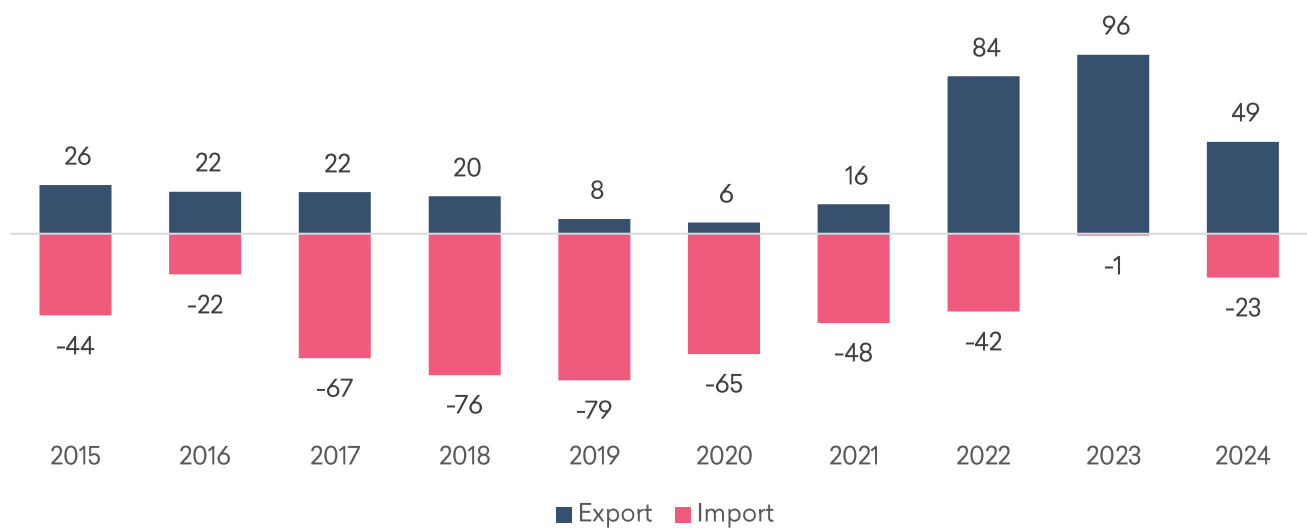
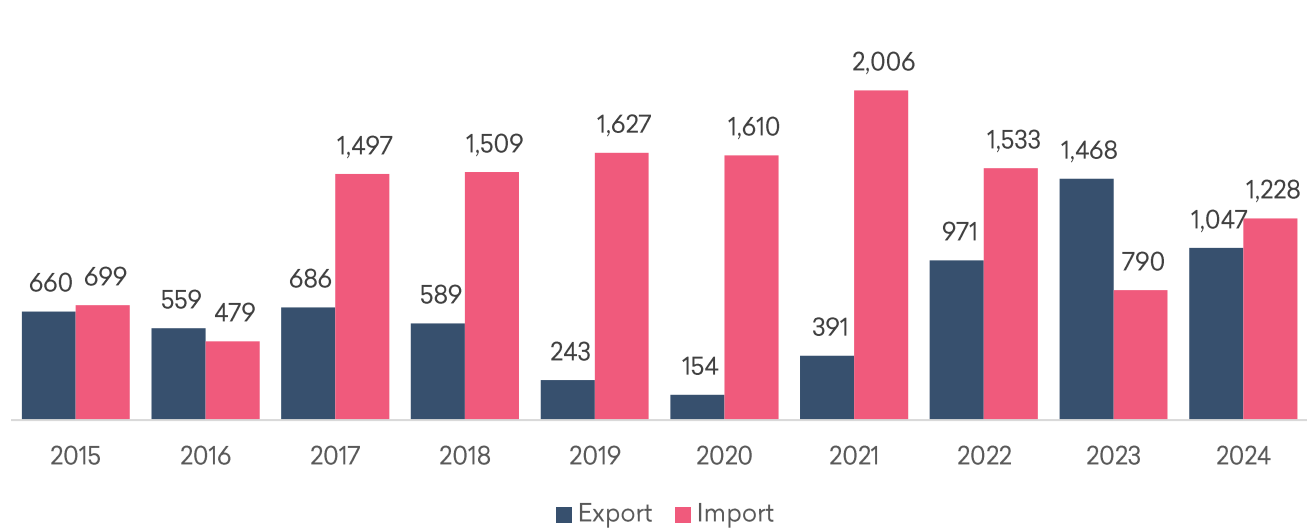


Figure 11. Electricity import and export, GWh



Source: Geostat, GNERC

Balancing electricity

In 2024, electricity traded via ESCO as balancing electricity totaled 4.1 TWh, accounting for 27.2% of the total supplied electricity. The remaining electricity was sold through bilateral contracts and the Georgian Energy Exchange (GENEX), though GENEX volumes remain negligible.

The annual weighted average price rose to USD 0.056 per unit of energy, reflecting a 5.2% year-over-year increase. Renewable PPA contracts supplied 46% of the balancing electricity, while gas-fired PPA contracts contributed 26%. Meanwhile, the share of imports increased to 14%.

Figure 12. Traded volume of balancing electricity (TWh) and annual prices (US cent/kWh)

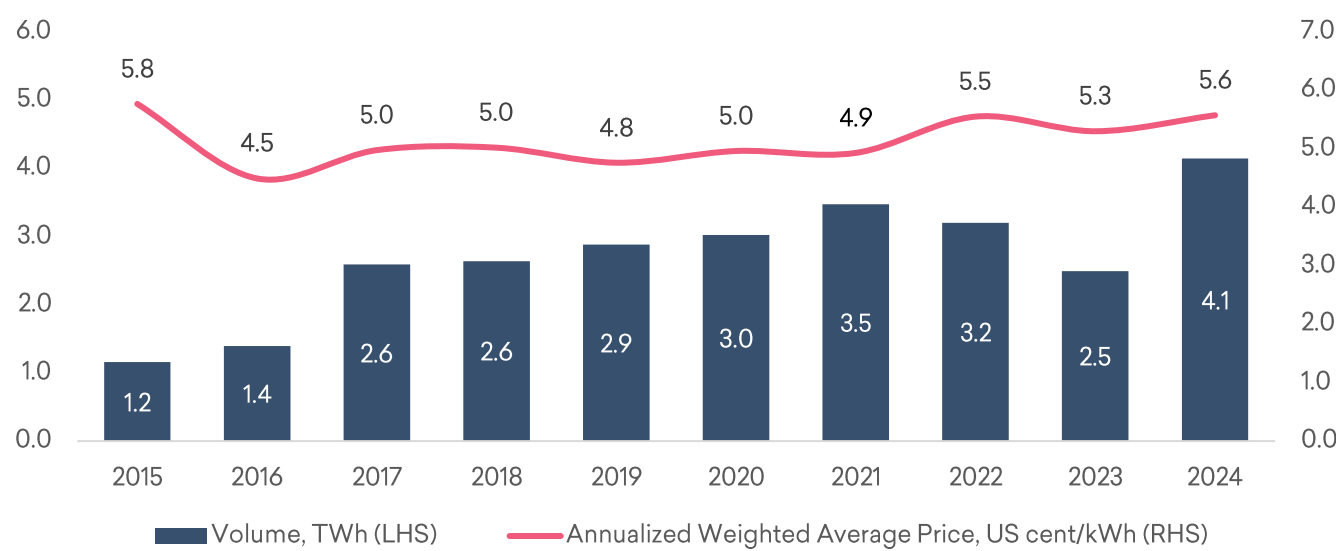
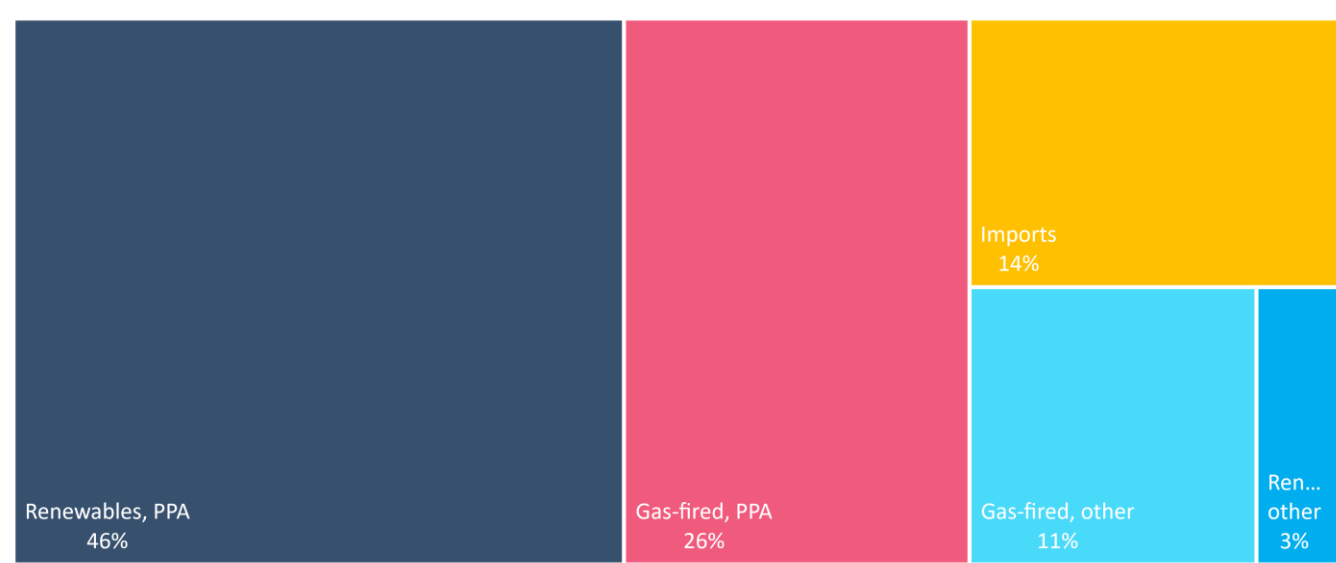


Figure 13. Balancing electricity breakdown, 2024



Source: GNERC

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