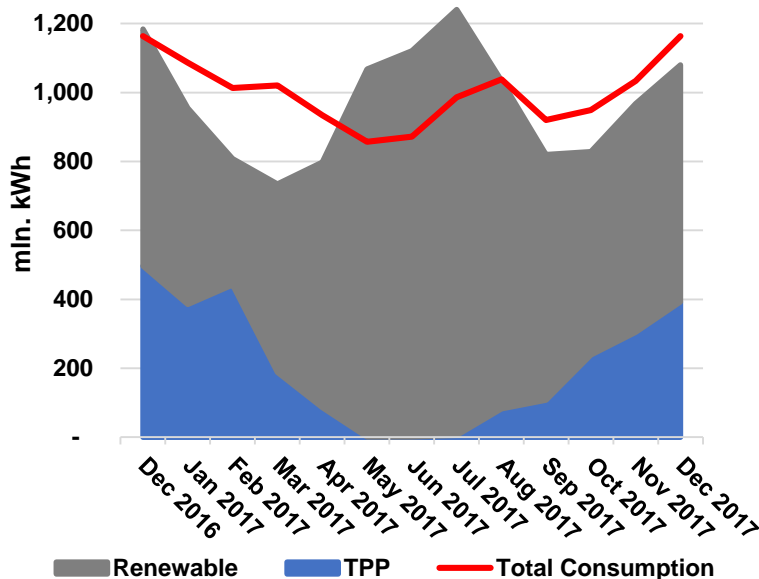




## 1. Electricity Generation – Consumption – Trade

**Figure 1. Electricity Consumption and Generation (mln. kWh)**



Source: Electricity System Commercial Operator (ESCO)

In December 2017, Georgian power plants generated 1,080 mln. kWh of electricity. This corresponds to a 9% decrease in total generation, compared to the previous year (in 2016, total generation in December was 1,186 mln. kWh). The source of a decline in generation on a yearly basis is less thermal power generation (more details below).

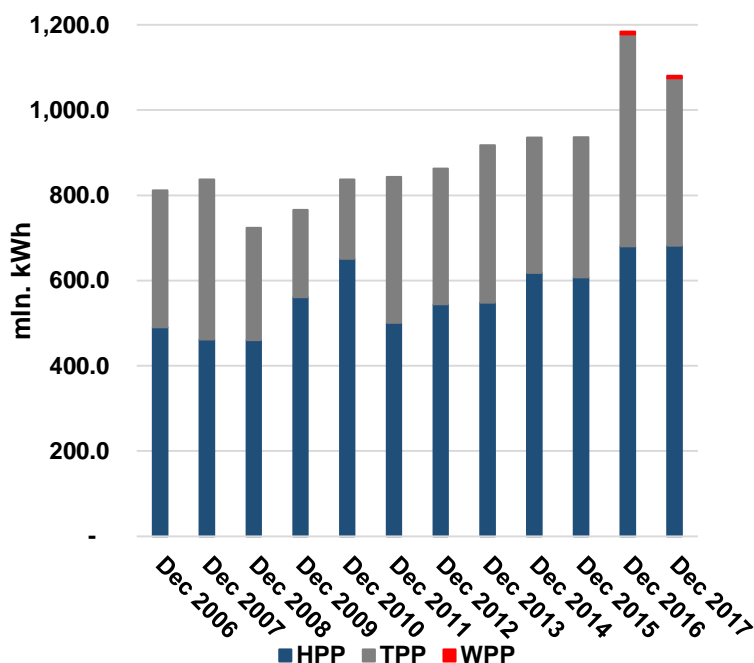
On a monthly basis, generation increased by 12% with respect to November 2017 (total generation in November was 968 mln. kWh).

Following the traditional seasonal pattern, the share of electricity produced by renewable sources declined to 64% of total generation (687 mln kWh), while that of thermal power generation increased in comparison to November 2017, accounting for 36% of total generation (393 mln. kWh).

Consumption of electricity on the local market was 1,164 mln. kWh (identical to December 2016, and up by 13% from November 2017). The gap between consumption and generation increased to 84 mln. kWh – 8% of the amount generated in December 2017 (compared to 66 mln kWh and 7% of total generation in November).

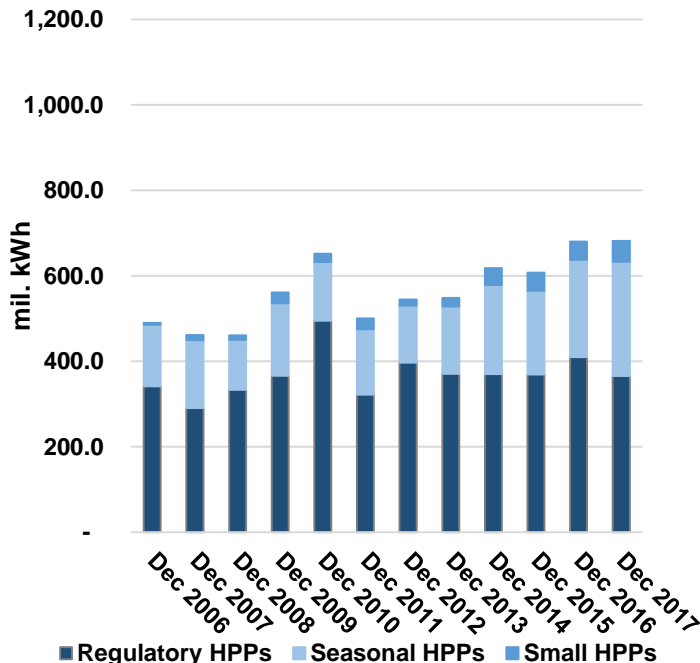
Among different sources of electricity, hydropower remained dominant. Specifically, in December 2017, hydropower (HPP) generation amounted to 682 mln. kWh (63% of total), wind power (WPP) was 6 mln. kWh (1% of total), and thermal power (TPP) was 393 mln. kWh (36% of total) (Figure 2). Among hydropower generators, large (regulatory) HPPs produced 54% (366 mln. kWh) of electricity, while seasonal and small HPPs produced 39% (267 mln. kWh) and 7% (49 mln. kWh), respectively (Figure 3).

**Figure 2. Electricity Generation by Sources (mln. kWh)**



Source: ESCO

**Figure 3. HPP generation by type (mln. kWh)**



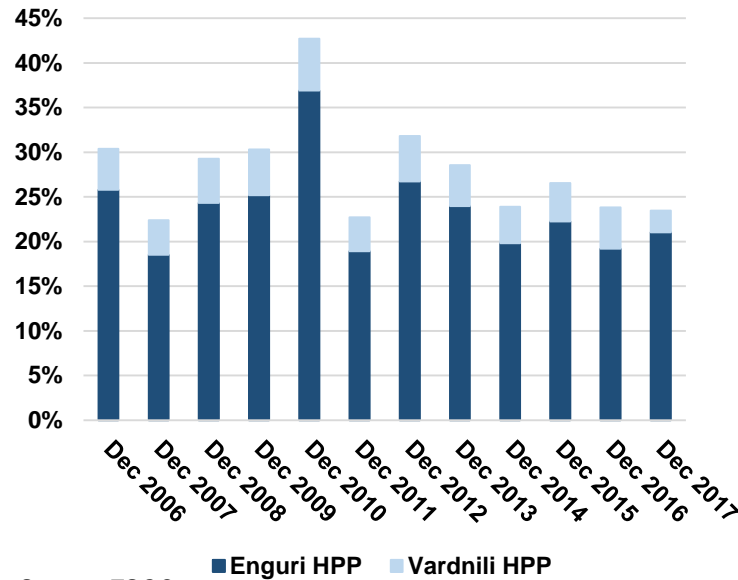
Source: ESCO





Among the bigger HPPs, Enguri and Vardnili generated the largest amounts of power, producing 227 mln. kWh and 26 mln. kWh, respectively – 23% of total generation (Figure 4). They also represent around 69% of generation for regulatory HPPs. Overall, compared to December 2016, power generation decreased by 9% (Figure 5), due to a 21% decrease in TPPs (while HPP generation increased only marginally, to a meager 0.3%).

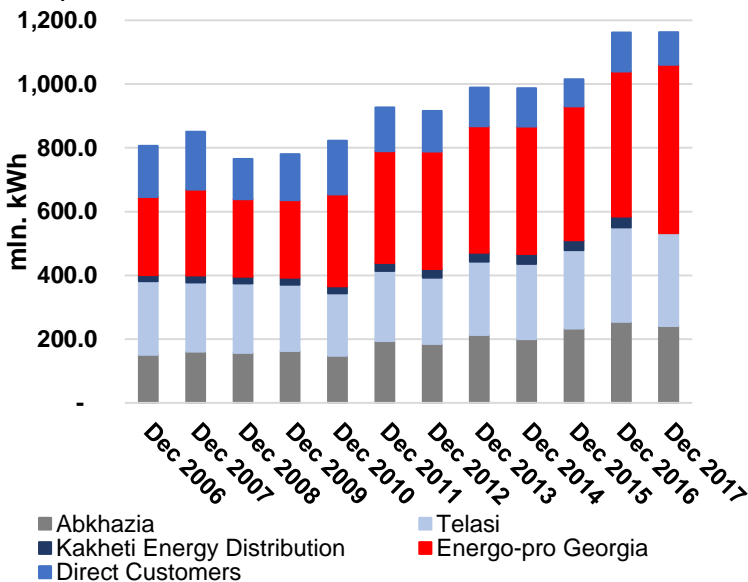
**Figure 4. Share of Enguri and Vardnili in total generation (mln. kWh)**



Source: ESCO

**Total electricity consumption** came from: **Energo-Pro Georgia** (45% - 528 mln. kWh), **Telasi** (25% - 292 mln. kWh), **Abkhazia** (21% - 241 mln. kWh), and **direct customers** – 9% (102 mln. kWh) (Figure 6). Electricity consumption remained stable with respect to December 2016 (Figure 7). The increase in demand from Energo-Pro Georgia (+16%) was offset by the decline in the demand from direct customers (-17%), as well as from Abkhazia (-5%) and Telasi (-2%).

**Figure 6. Electricity Consumption by Type of Customer (mln. kWh)**

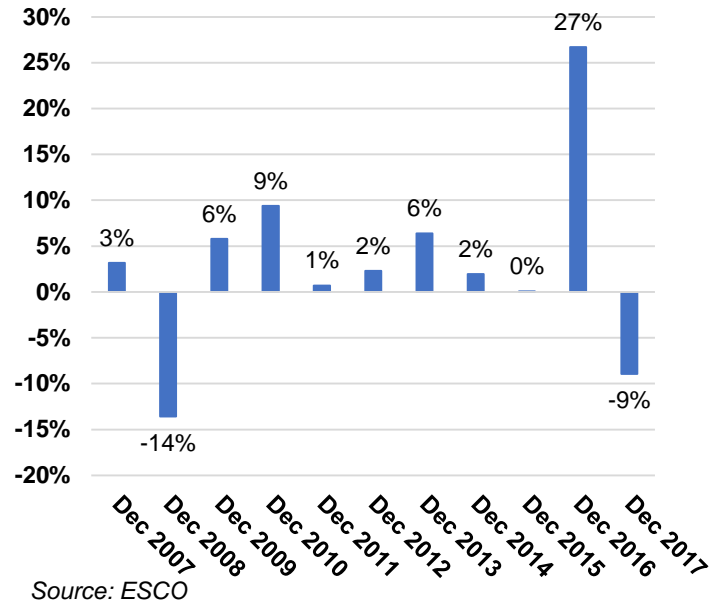


Source: ESCO

In December 2017, Georgia imported 135 mln. kWh of electricity (4.9¢/kWh – 12.7tetri/kWh). 14% of this electricity was imported from Azerbaijan, 82% from Russia, and 4 % from Armenia (Figure 8). These imports were the largest total, for the month of December, in the past 5 years.

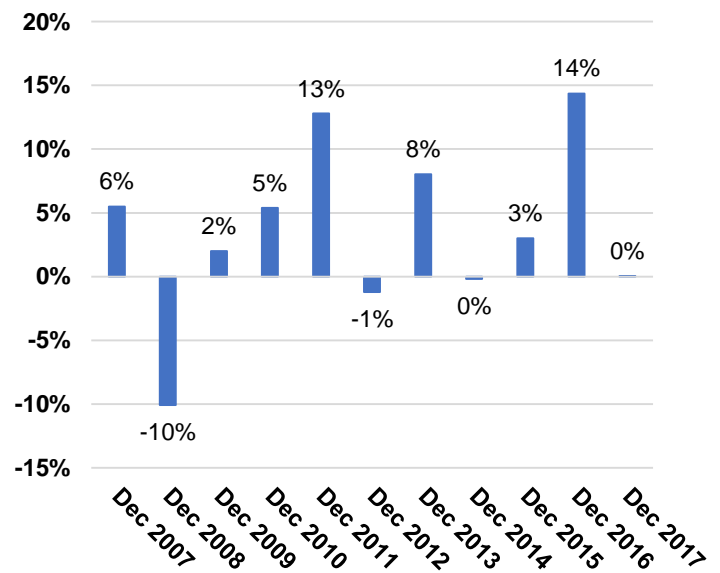
Similar to last month, December 2017 did not show an increase in exports, primarily due to the seasonal pattern of electricity generation in the country. Exports from Georgia were an insignificant 0.003 mln. kWh (Figure 9).

**Figure 5. Growth of generation (% , y/y)**



Source: ESCO

**Figure 7. Electricity consumption growth (% , y/y)**

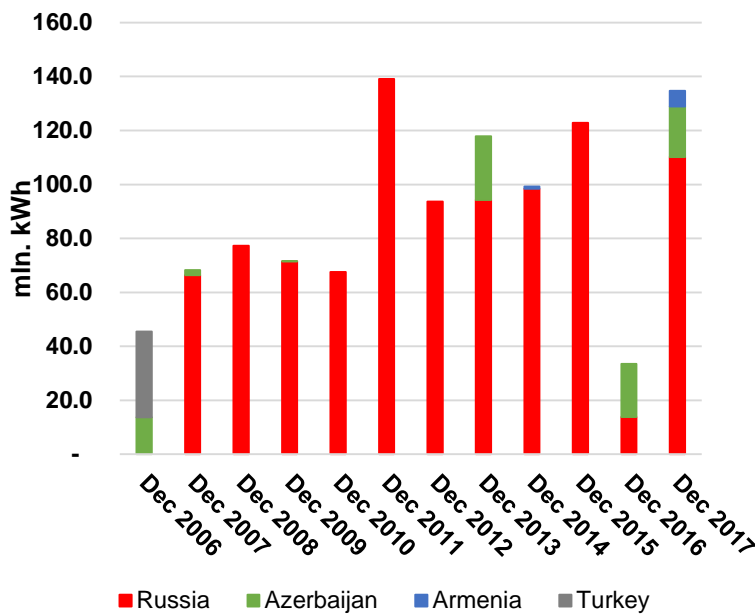


Source: ESCO

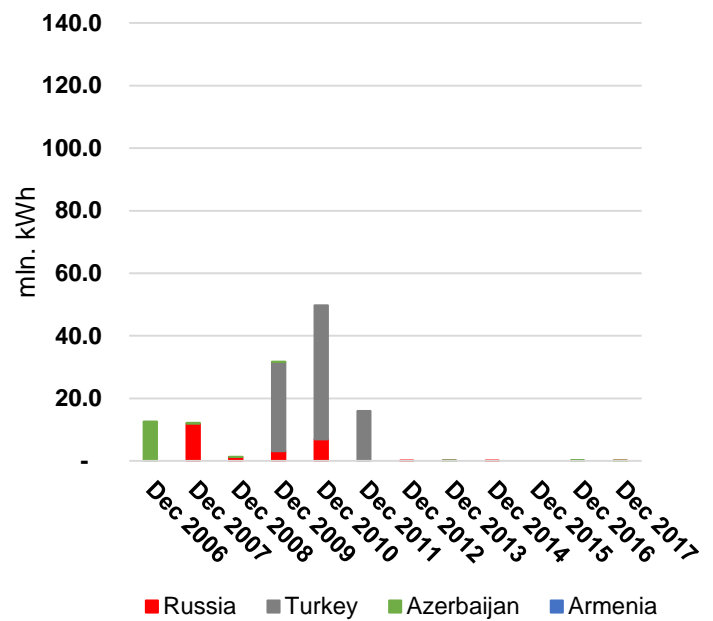




**Figure 8. Import (mln. kWh)**



**Figure 9. Export (mln. kWh)**

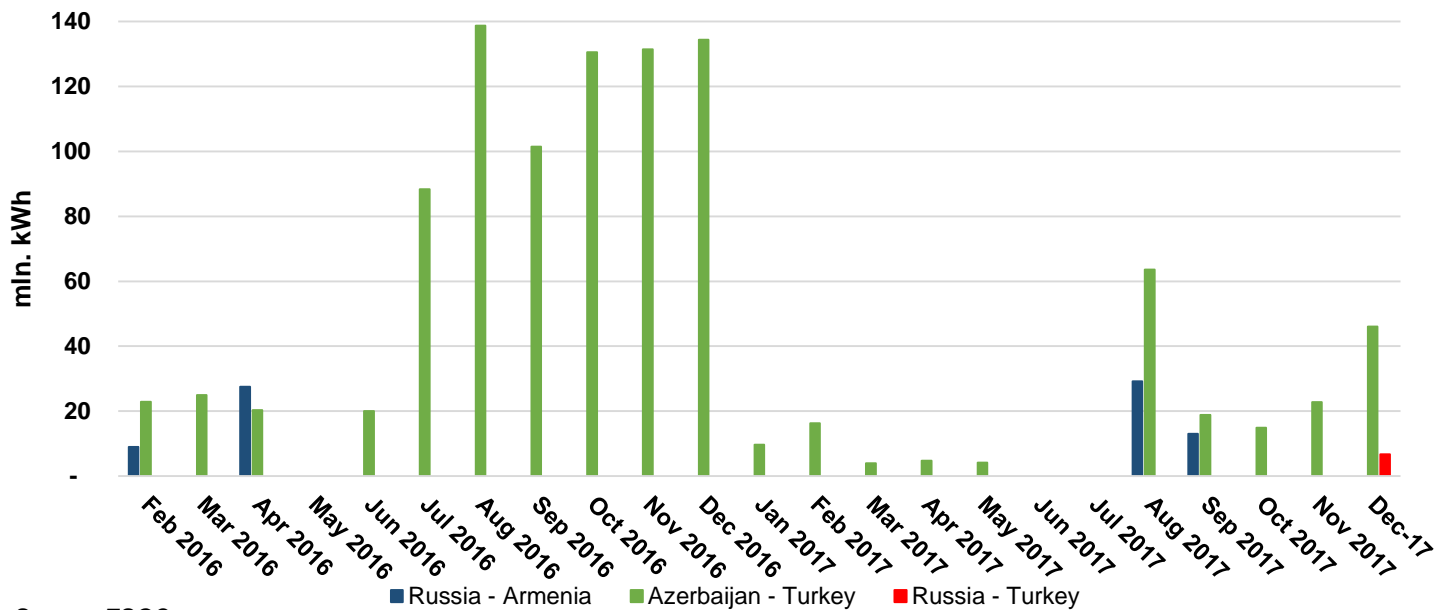


Source: ESCO

Source: ESCO

Transit in December 2017 amounted to 53 mln. kWh. Electricity transit from Azerbaijan nearly doubled with respect to November 2017, reaching 46 mln. kWh, remaining still substantially lower with respect to transit in December 2016. Another new transit route opened, from Russia to Turkey, from which transited 7 mln. kWh in December (Figure 10). Georgia is building up its potential role as a trading hub between neighboring electricity markets.

**Figure 10. Electricity transit through Georgia (mln. kWh)**



Source: ESCO



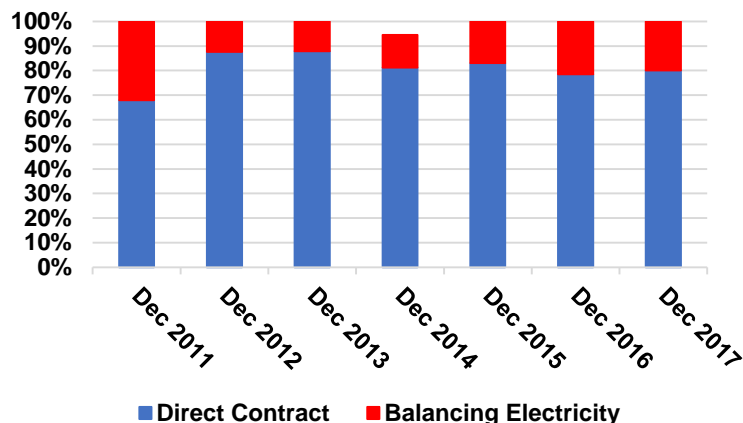


## 2. Market Operations

In December 2017, 80% (978 mln. kWh) of electricity sold on/from the local market was through direct contracts. The remaining 20% (239 mln. kWh), was sold as balancing electricity. **(Figure 11).**

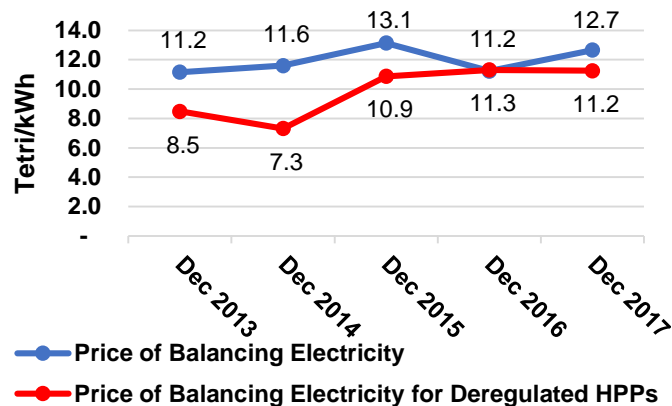
The weighted average price of balancing electricity was 12.7 tetri/kWh in December 2017, which is an annual increase of 13%, compared to December 2016. As for the weighted average price for deregulated (small) HPPs, it reached 11.2 tetri/kWh **(Figure 12).**

**Figure 11. Electricity purchased / sold shares of direct contracts and balancing electricity**



Source: ESCO

**Figure 12. Balancing electricity prices weighted average and weighted average price for deregulated HPPs (tetri / kWh)**

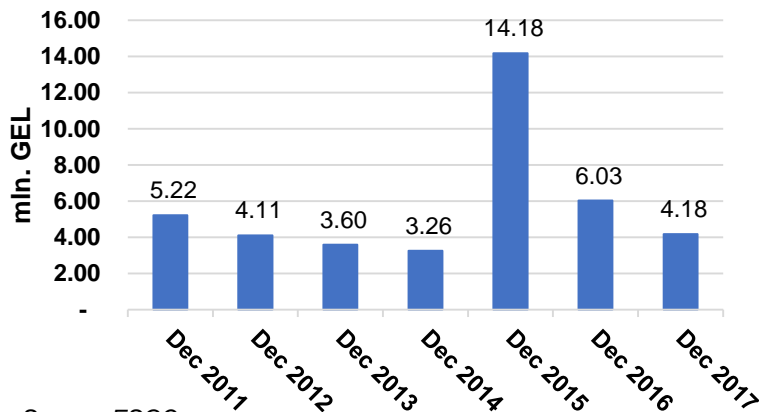


Source: ESCO

Guaranteed capacity payments in December 2017 were roughly 4.18 mln. GEL, a decrease of 31% compared to December 2016 **(Figure 13)**. This reduction is due to smaller guaranteed capacity fees (set by the national regulator) paid to several TPPs (see July 2017 Report). The higher cost of guaranteed capacity, compared to earlier past years (2011-2015), is primarily caused by payments to the newly built Gardabani TPP, which became operational in November 2015.

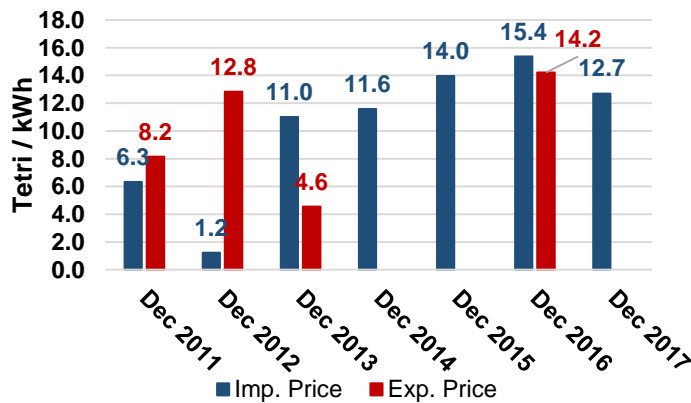
The average electricity import price in December 2017 decreased to 4.9 ¢ (12.7 tetri) per kWh, compared to same month in the previous year (a decrease of 18%). In December 2017, Georgia did not export electricity. **(Figure 14).**

**Figure 13. Cost of Guaranteed Capacity (mln. GEL)**



Source: ESCO

**Figure 14. Prices Import/Export (tetri/kWh)<sup>1</sup>**



Source: ESCO, Geostat

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<sup>1</sup> Data is provided in US cents and is converted to GEL using the average monthly exchange rate as reported by National Bank of Georgia

