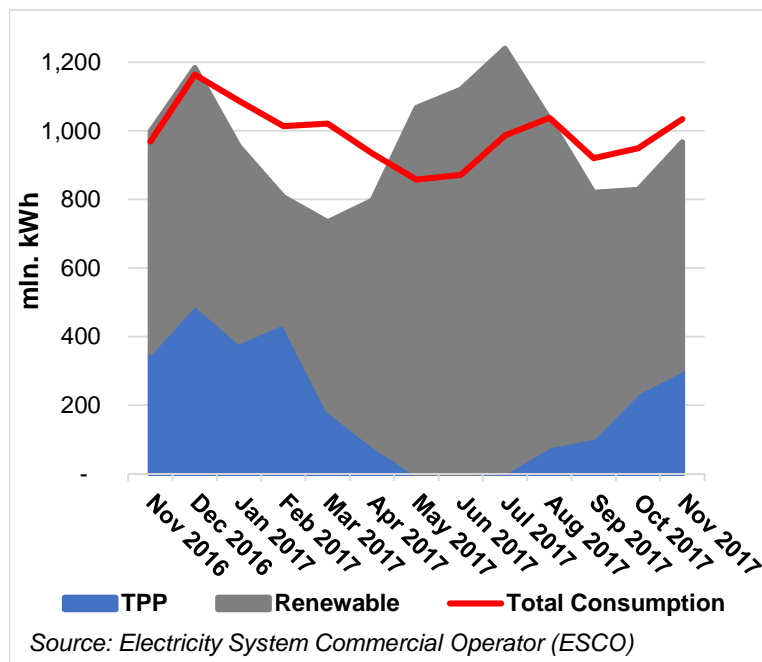




## 1. Electricity Generation – Consumption – Trade

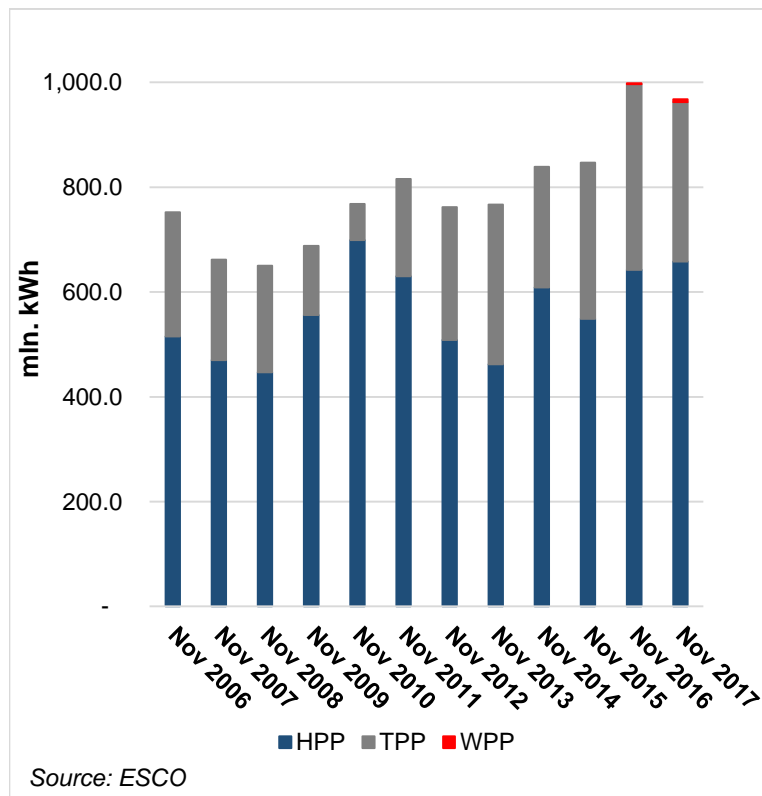
**Figure 1. Electricity Consumption and Generation (mln. kWh)**



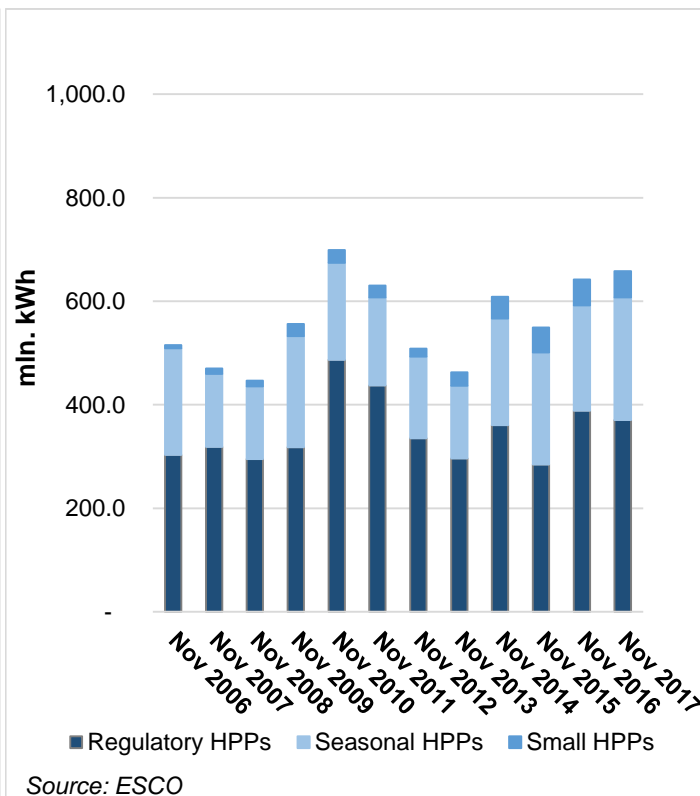
In November 2017, Georgian power plants generated 968 mln. kWh of electricity. This corresponds to a 3% decrease in total generation, compared to the previous year (in 2017, total generation in November was 998 mln. kWh). The decline in generation on a yearly basis comes from a decline in thermal power generation (more details below). On a monthly basis, generation increased by 17% in October 2017 (total generation was 828 mln. kWh). Following the traditional seasonal pattern, the share of electricity produced by renewable sources declined to 69% of total generation (663 mln kWh), while that of thermal power generation increased, accounting for 31% of total generation (304 mln. kWh). Consumption of electricity on the local market was 1,034 mln. kWh (+7% compared to November 2016, and +9% with respect to October 2017). The gap between consumption and generation decreased to 66 mln. kWh - 7% of the amount generated in November 2017 (compared to 121 mln kWh and 15% of total generation in October).

Among different sources of electricity, hydropower remained dominant. Specifically, in November 2017, hydropower (HPP) generation amounted to 658 mln. kWh (68% of total), wind power (WPP) was 5 mln. kWh (1% of total), and thermal power (TPP) was 304 mln. kWh (31% of total) (Figure 2). Among hydropower generators, large (regulatory) HPPs produced 56% (370 mln. kWh) of electricity, while seasonal and small HPPs produced 36% (237 mln. kWh) and 8% (51 mln. kWh), respectively (Figure 3).

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



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



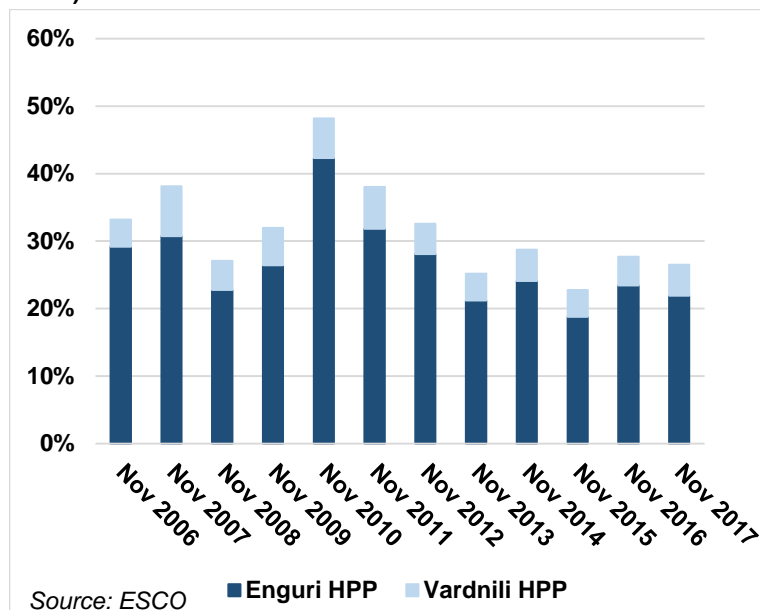
Among the bigger HPPs, Enguri and Vardnili generated the largest amounts of power, producing 212 mln. kWh and 44 mln. kWh, respectively - 27% of total generation (Figure 4). They also represent around 69% of generation for regulatory HPPs.



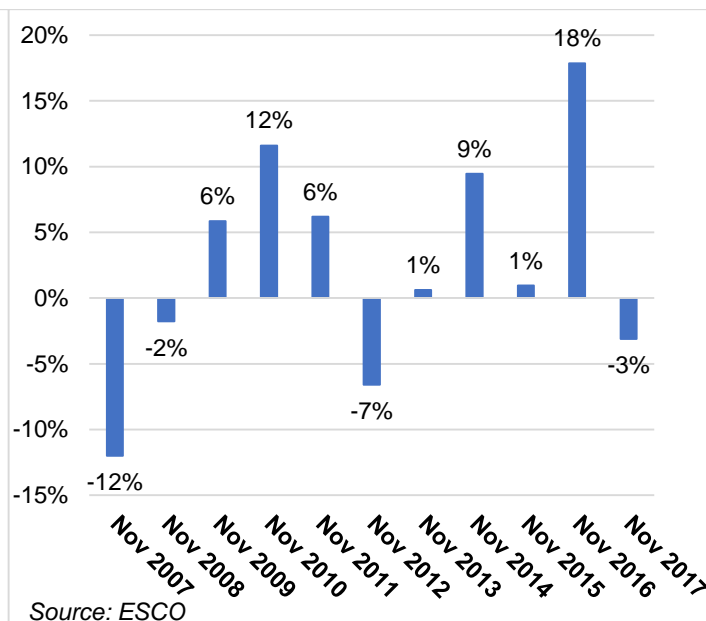


Overall, compared to November 2016, power generation decreased by 3% (Figure 5), due to a 14% decrease in TPPs (while HPP generation increased by 2%).

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

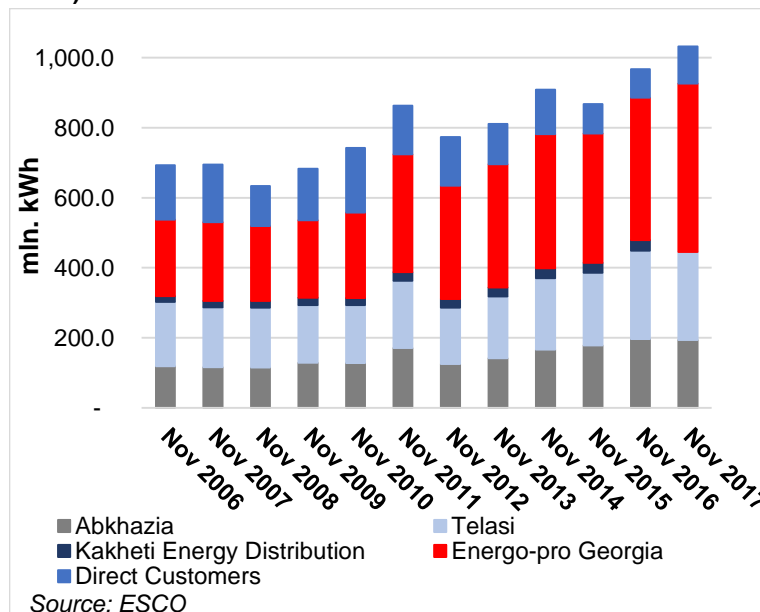


**Figure 5. Growth of generation (% , y/y)**

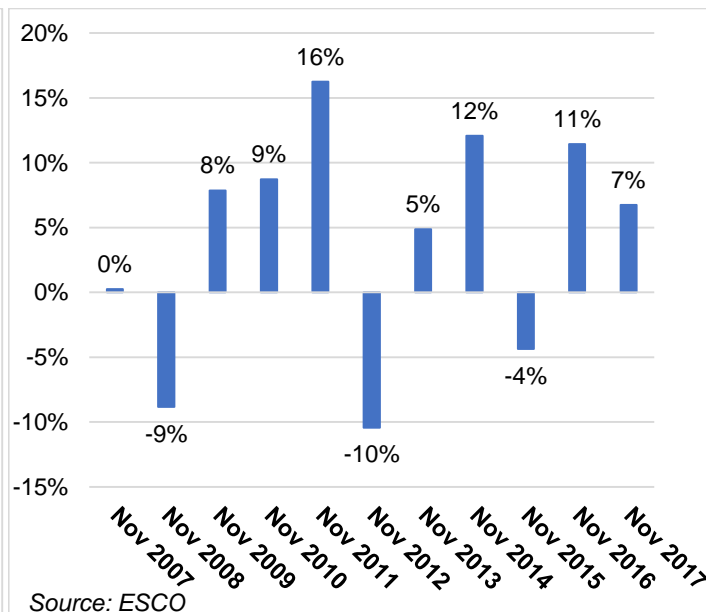


**Total electricity consumption** in Georgia came from: **Energo-Pro Georgia** (47% - 481 mln. kWh), **Telasi** (24% - 251 mln. kWh), **Abkhazia** (19% - 194 mln. kWh), and **direct customers** – 10% (107 mln. kWh) (Figure 6). Overall, the annual increase in electricity consumption was 7% in November 2017 (Figure 7). Demand increased from Energo-Pro Georgia by 18%, and from direct customers by 32% (a large increase caused primarily by consumption of “Georgian Manganese”). Demand from both Abkhazia and Telasi decreased by 1%.

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



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



In November 2017, Georgia imported 110 mln. kWh of electricity (4.8 ¢/kWh – 12.8 tetri/kWh). 49% of this electricity was imported from Azerbaijan, 47% from Russia, and 5 % from Armenia (Figure 8). The imports were again largest over past two years, one of the reasons for this being that imports remained cheaper than local generation, as is evident from comparing the weighted average price of balancing electricity and average price of imported electricity (Figure 12, Figure 14).

Similar to last month, November 2017 has not shown an increase in exports, primarily due to the seasonal pattern of electricity generation in the country. Exports from Georgia were below 1 mln. kWh (5.5 ¢/kWh – 14.7 tetri/kWh) to Turkey (Figure 9).





Figure 8. Import (mln. kWh)

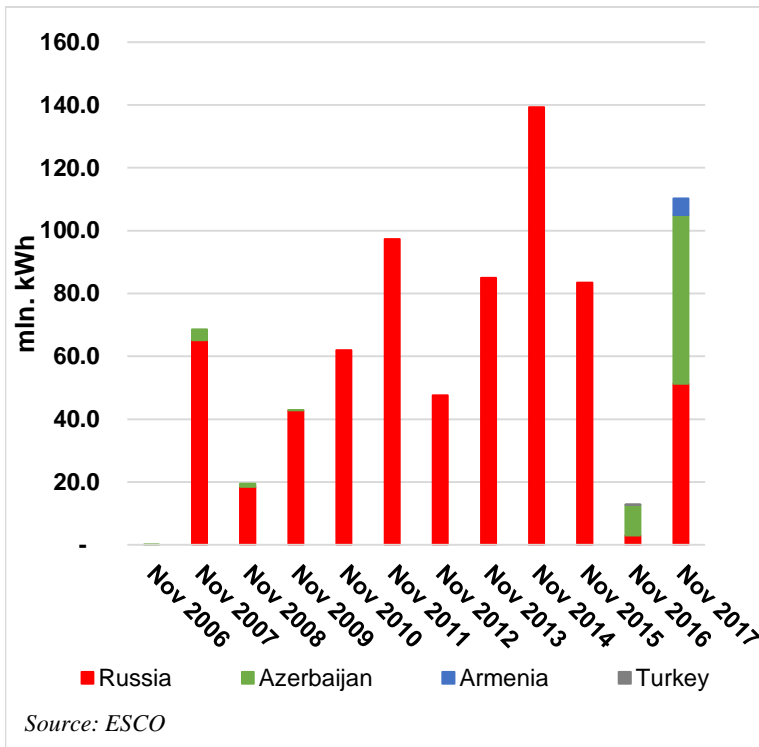
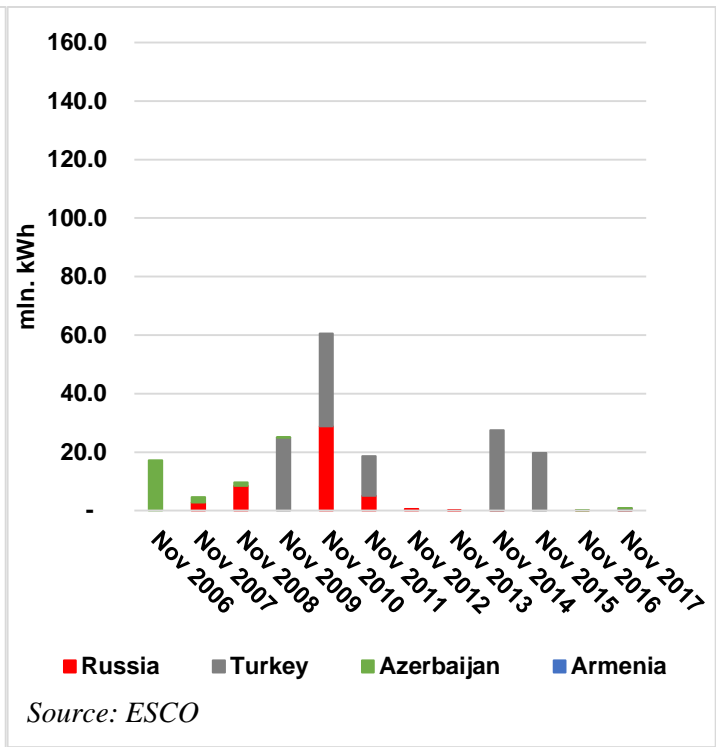
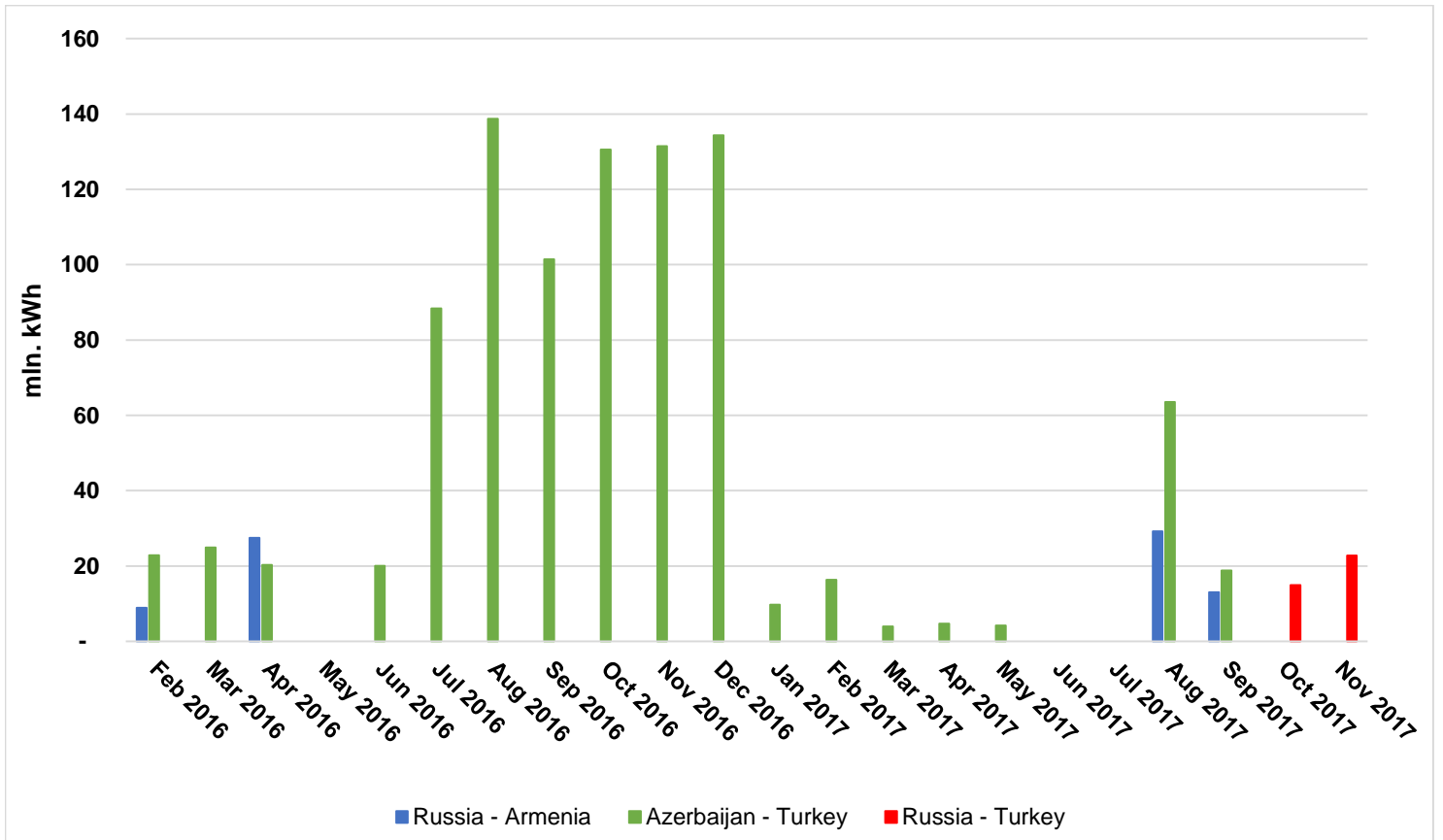


Figure 9. Export (mln. kWh)



Transit in November 2017 amounted to 23 mln. kWh, an increase over last month in the same new route from Russia to Turkey (Figure 10). Georgia seems to be on its way to becoming a trading hub between neighboring electricity markets.

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





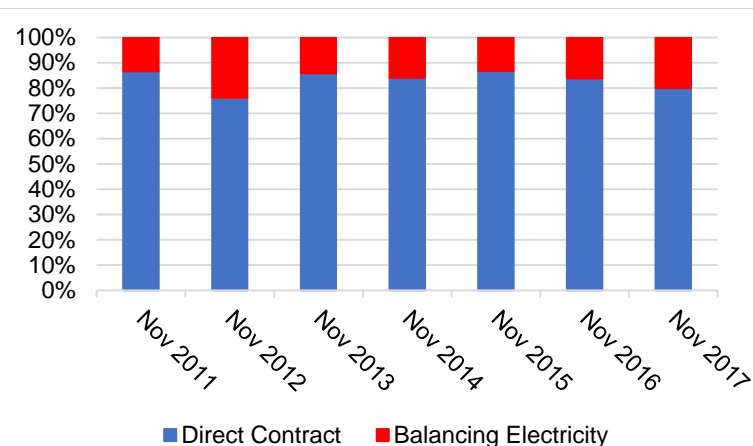
## 2. Market Operations

In November 2017, 80% (844 mln. kWh) of electricity sold on/from the local market was through direct contracts. The remaining 20% (211 mln. kWh), was sold as balancing electricity. **(Figure 11).**

From the total electricity sold on the balancing market, 52% was imports, 11% was supplied by TPPs, 2% by WPP, and 35% by HPPs. Furthermore, from electricity sold with direct contracts, 24% was supplied by TPPs, and 64% by HPPs.

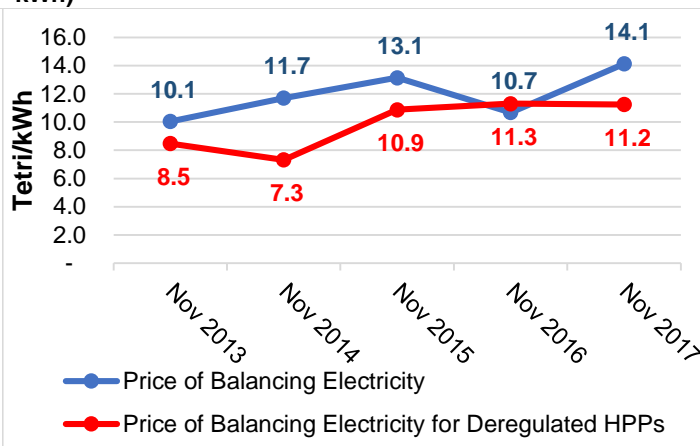
The weighted average price of balancing electricity was 14.1 tetri/kWh in November 2017, which is an annual increase of 32%, compared to November 2016. As for the weighted average price for deregulated (small) HPPs, it reached 11.2 tetri/kWh **(Figure 12).**

**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)**

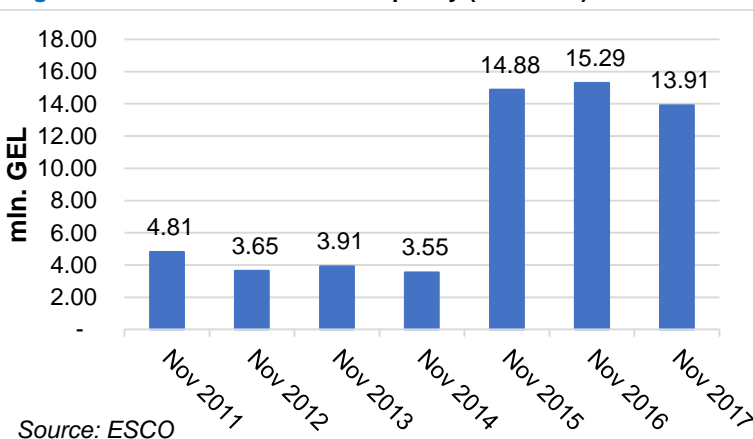


Source: ESCO

Guaranteed capacity payments in November 2017 were roughly 13.91 mln. GEL, a decrease of 9% compared to November 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 years (2011-2015), is primarily caused by payments to the newly built Gardabani TPP, which became operational in November 2015.

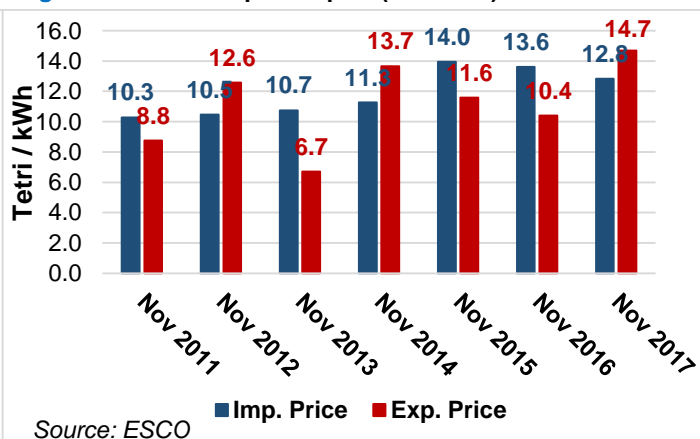
The average electricity import price in October 2017 decreased to 4.8 ¢ (12.8 tetri) per kWh, compared to same month in the previous year (a decrease of 13%). As for the average electricity price for exports, it reached 5.5 ¢ (14.7 tetri) /kWh, which is the highest level since 2011 **(Figure 14)**.

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



Source: ESCO

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



Source: ESCO

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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

