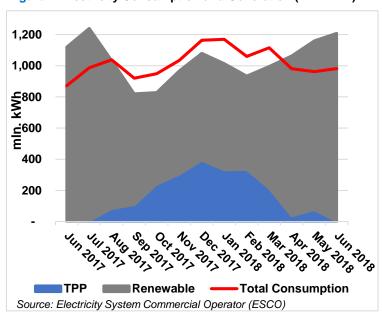




1. Electricity Generation - Consumption - Trade

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



In June 2018, Georgian power plants generated 1,208 mln. KWh of electricity. This represents a 6% increase in total generation, compared to the previous year (in 2017, total generation in June was 1,138 mln. kWh). The increase in generation on a yearly basis mainly comes from an increase in hydropower generation (more details below).

On a monthly basis, generation increased by 4% (in May 2018, total generation was 1,161 mln. kWh).

The share of electricity produced by renewable sources increased to 99.8% of total generation (1205 mln kWh), while thermal power generation decreased in comparison to May 2018, accounting for 0.2% of total generation (3 mln. kWh).

Consumption of electricity on the local market was 981 mln. kWh (+13% compared to June 2017, and +2% with respect to May 2018). In June 2018, generation exceeded total consumption by 227 mln, which is 19% of the total amount generated (compared to 198 mln kWh and 17% excess in total generation for May 2018).

Among the different sources of electricity, hydropower became even more dominant. Specifically, in June 2018, hydropower (HPP) generation amounted to 1,200 mln. kWh (99.4% of total); wind power (WPP) was 5 mln. kWh (0.4% of total), and thermal power (TPP) was 3 mln. kWh (0.2% of total) (Figure 2). Among hydropower generators, large (regulatory) HPPs produced 63% (762 mln. kWh) of electricity, while seasonal and small HPPs produced 30% (366 mln. kWh) and 6% (73 mln. kWh), respectively (Figure 3).

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

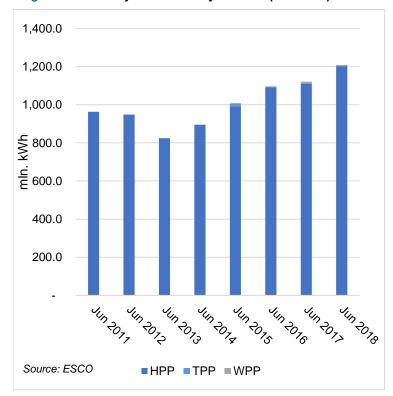
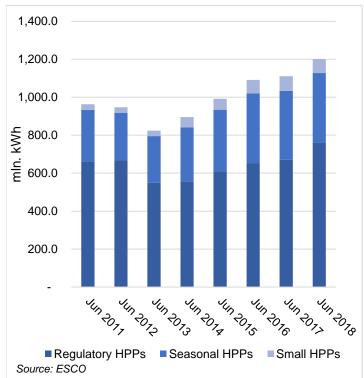


Figure 3. HPP Generation by Type (mln. kWh)



Among the large HPPs, Enguri and Vardnili generated the largest amounts of power, producing 596 mln. kWh and 90 mln. kWh, respectively - 57% of total generation (Figure 4). They also represent around 90% of generation for regulatory HPPs. Overall, compared to June 2017, power generation increased by 6% (Figure 5), due to a 8% increase in HPP generation, while WPP generation decreased by 41%.









June 2018

Figure 4. Share of Enguri and Vardnili in Total Generation (mln.

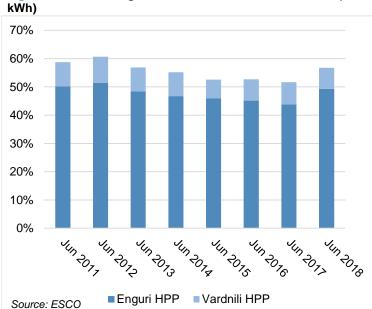
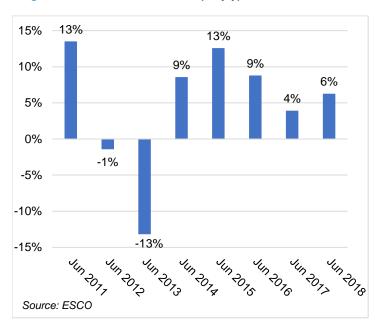


Figure 5. Growth of Generation (%, y/y)



Total electricity consumption in Georgia came from: **Energo-Pro Georgia** (49% - 476 mln. kWh), **Telasi** (23% - 226 mln. kWh), **Abkhazia** (10% - 100 mln. kWh), and **direct customers** (18% - 176 mln. kWh) (Figure 6). Overall, the annual increase in electricity consumption was 13% in June 2018, compared to June 2017 (Figure 7). Annual demand increased from Energo-Pro Georgia by 12%, from Telasi by 7%, and from direct consumers by 35%, while demand from Abkhazia decreased by 1%.

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

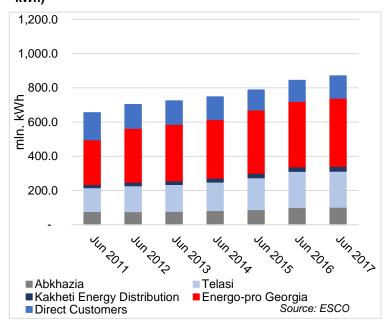
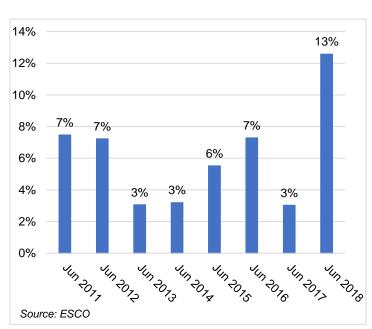


Figure 7. Electricity Consumption Growth (%, y/y)



In June 2018, Georgia imported 6 mln. kWh of electricity (5.8 ¢ - 14.10 tetri per kWh). 99% of this electricity was imported from Azerbaijan and 1% was imported from Russia (Figure 8). Imports decreased in comparison to May 2018 by 86%. In June 2018, Georgia exported 195 mln kWh of electricity (3.2¢ -7.79 tetri per kWh). 78 % of exports (153 mln Kwh) were exported to Turkey, 15% (29 mln kWh) to Russia, 4% (8 mln Kwh) to Armenia and 2% (4 mln kwh) to Azerbaijan (see Figure 9).









Figure 8. Imports (mln. kWh)

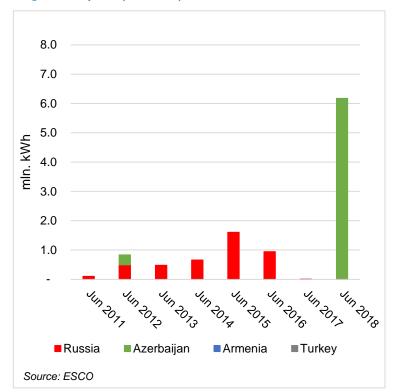
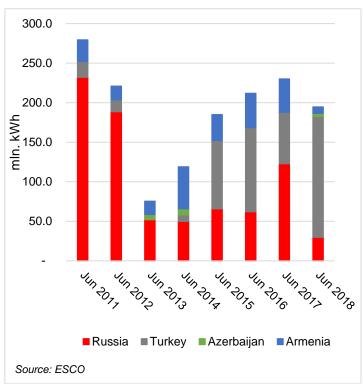
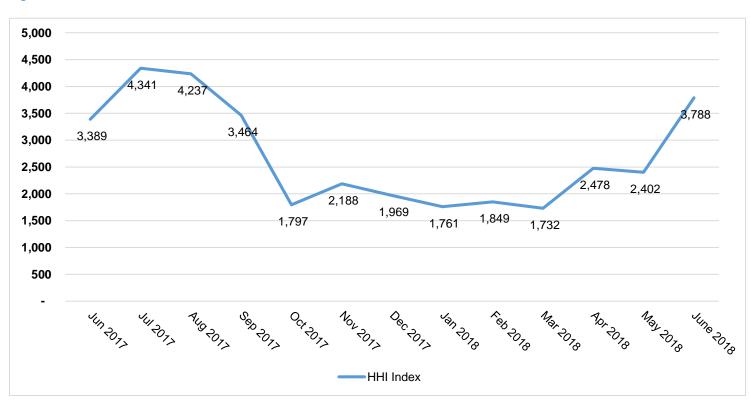


Figure 9. Exports (mln. kWh)



In summary, we utilize the Hirschmann-Herfindahl (HHI) market concentration index to evaluate how competitive the market was over the past few months. June 2018, the Georgian electricity market was highly concentrated, with an HHI value of 3,788 (which is higher than the value for a highly concentrated market, 2,500). The level of concentration increased compared to the prior year (from an HHI value of 3,389 in June 2017).

Figure 10. Hirschman-Herfindahl Index for Power Generation











2.Market Operations

In June 2018, 96% (1154 mln. kWh) of electricity sold on/from the local market was through direct contracts. The remaining 4% (47 mln. kWh) was sold as balancing electricity. (Figure 11).

The weighted average price of balancing electricity was 12.7 tetri/kWh in June 2018, which is an annual increase of 4%, compared to June 2017. As for the weighted average price for deregulated (small) HPPs, it reached 1.8 tetri/kWh (Figure 12).

Figure 11. Electricity Purchased / Sold Shares of Direct Contracts and Balancing Electricity

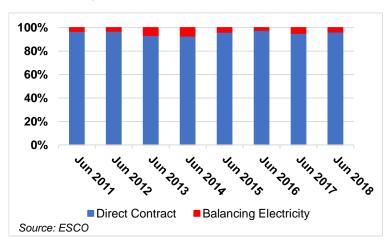
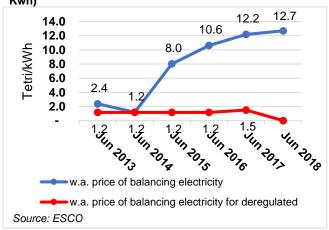


Figure 12. Balancing Electricity Prices Weighted Average and Weighted Average Price for Deregulated HPPs (Tetri/ Kwh)



Guaranteed capacity payments in May 2018 were roughly 3,91 mln. GEL, an increase of 1% compared to June 2017 (Figure 13).

The average electricity import price in June 2018 decreased to 5.8 ¢ (14.10 tetri) per kWh, while in the same month in the previous year Georgia did not import electricity, and the export price increased to 3.2 ¢ (7.79 tetri) per kWh (an increase of 19%) compared to June 2017.

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

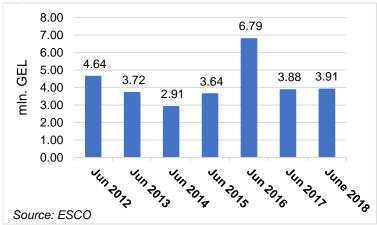


Figure 14. Prices Import/Export (tetri/kWh)¹



ISET Policy Institute - Energy and Environment Policy Research Center Authors:

Norberto Pignatti - Policy Center Head n.pignatti@iset.ge Levan Pavlenishvili - Deputy Head of the Center I.pavlenishvili@iset.ge Mariam Chachava - Researcher m.chachava@iset.ge

Data is provided in US dollars and is converted to GEL using the average monthly exchange rate as reported by National Bank of Georgia.



