



Georgia's Energy Sector Electricity Market Watch

Georgia | Energy
Monthly Bulletin
February 26, 2016

A feasibility study is underway for a 3MW biothermal power plant in Gardabani, after an MoU was signed in January 2016. A Georgian company, Alt-Energy, should complete the feasibility study by September 2016. Annual generation capacity is projected at 25.9gWh (0.3% of annual consumption in 2015), half of which the company is obligated to sell on the domestic market for the first 10 years. A biothermal power plant operates mainly on thermal energy generated by burning biomass and compost.

Calik Georgia Wind (CGW) – a Georgian-Turkish joint venture – completed feasibility studies on two separate wind farms in Shida Kartli and Imereti regions, with installed capacities of 50MW and 150MW, respectively.

Calik Georgia Wind was founded by the Turkish Calik Enerji and the state-owned Georgian Energy Development Fund (GEDF). CGW plans to install meteorological masts in the first quarter of 2016 to measure wind speed and other climate conditions. Another company interested in exploring Georgia's wind potential is a Turkish-led venture, Energo Windpower Limited (EWL). It has signed an MoU with the Georgian government, according to which it will study wind data in Poti, Kutaisi, Chorokhi, Sabueti, Gori, Kaspi, Samgori, Rustavi, Paravani and Akhalkalaki over 37 months and prepare an environmental impact assessment report. Per company estimates, the cost of the assessment stage is US\$ 5-7mn, while the total investment could reach US\$ 1.4bn if all the projects are realized. The first Georgian WPP is planned to be completed in Gori by September 2016. The project is owned by GEDF, with installed capacity of 20.7MW, projected annual generation of 88gWh, and estimated investment cost of US\$ 34mn.

A bankable feasibility study has been completed for a 500MW TPP project in Gardabani. The study was commissioned by GEDF and undertaken by Tractebel Engineering S.A. – a Brussels-based engineering consulting company. The next phase entails the preparation of tender documentation by the consultant for an open EOI.

Electricity Generation, Consumption and Exports

Domestic electricity consumption was up 0.7% y/y in January 2016. Consumption by Telasi (the DNO servicing the greater Tbilisi area residential, commercial and industrial consumers) increased 8.3% y/y (37.1% of total DNO consumption), while consumption in the regions (Energo-Pro) was up a negligible 0.5% y/y (58.6% of total DNO consumption). Consumption by eligible consumers was down 25.4% y/y, with Georgian Manganese (GM) electricity consumption down 28.3% y/y in January 2016. Consumption by the Abkhazian Region continues the upward trend, with the y/y growth at 7.7%, and accounts for 93.7% of Enguri & Vardnili generation and 23.3% of total domestic consumption.

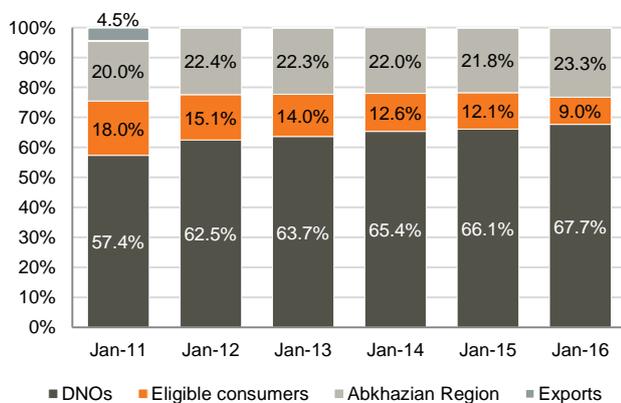
Electricity market highlights

Balancing price of electricity in Georgia, January*	USc 5.5 / kWh
Market clearing price of electricity in Turkey, January*	USc 5.2 / kWh
Average export price for Georgian electricity, January**	USc 4.0 / kWh
Average import price for electricity, January*	USc 4.9 / kWh
Y/Y increase in domestic consumption** in kWh, January	0.7%
Y/Y increase in exports in kWh, January	No exports
Y/Y increase in exports to Turkey in kWh, January	No exports

*Average exchange rates in January GEL/US\$ = 2.4360; TRY/US\$= 3.0070

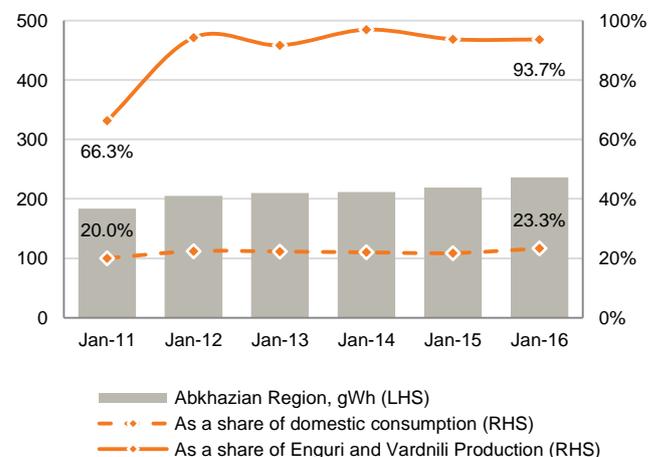
**The amount of exports both in 2015 and 2016 were negligible, however it allowed us to see the average export price

Figure 1: Electricity consumption and export



Source: ESCO

Figure 2: Electricity consumption, Abkhazian Region



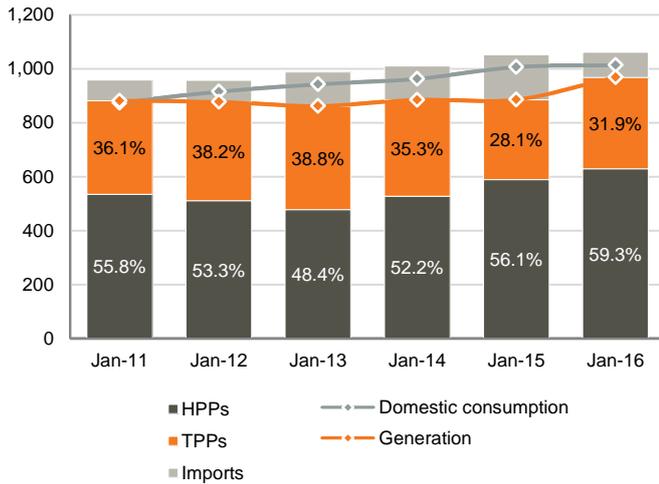
Source: ESCO

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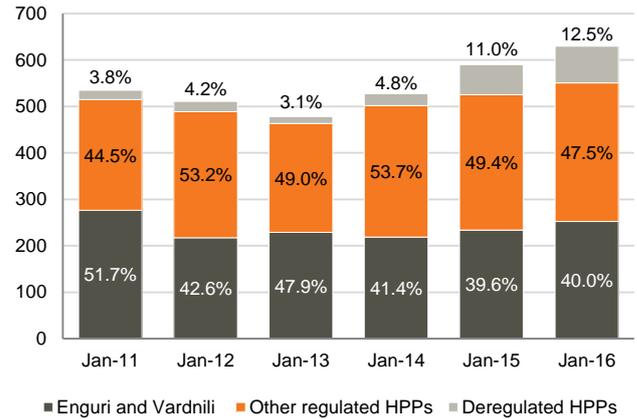
Domestic generation increased 9.3% y/y in January 2016, partially displacing electricity imports. TPP output grew 14.5% y/y, while HPP generation increased 6.7% y/y. Imports were down 43.9% y/y, with their share in January electricity supply down from 15.8% a year ago to 8.8% in January 2016. Georgia imported 89.7gWh of electricity from Russia (-21.9% y/y) and 3.4gWh from Armenia (-93.4% y/y) at an average price of USc 4.9/kWh.

Figure 3: Electricity generation, import, and consumption, gWh



Source: ESCO

Figure 4: Hydro generation, gWh

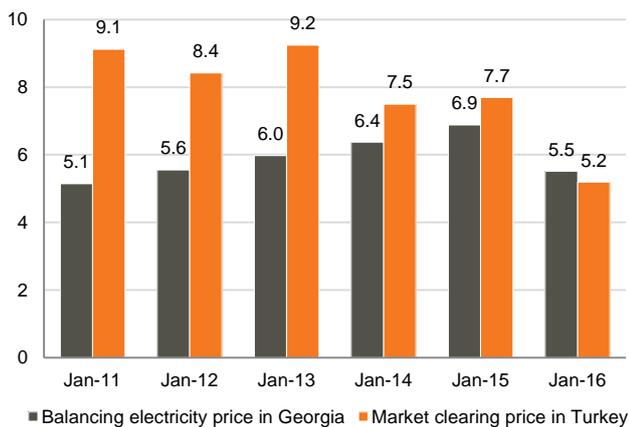


Source: ESCO

Electricity Prices in Georgia and Turkey

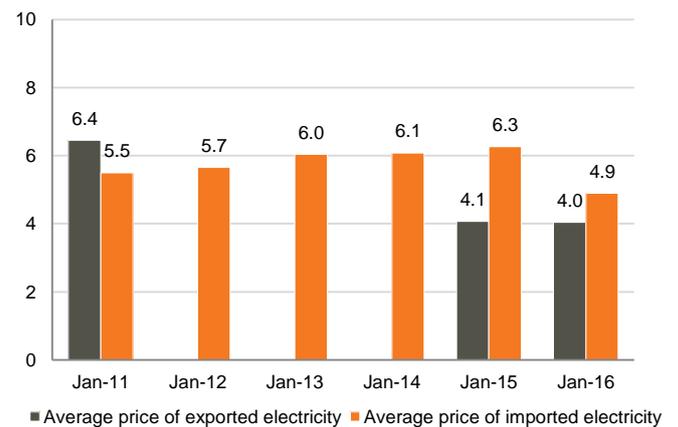
Turkish electricity prices continue the downward trend. In US\$ terms, the market clearing price in January was down 32.5% y/y to USc 5.2 per kWh; the price was also down in TRY terms (12.8% y/y). The balancing price for electricity in Georgia also decreased 19.9% y/y to USc 5.5 per kWh. Georgian electricity exports for the month were negligible, as January is typically an electricity deficit month.

Figure 5: Electricity prices in Georgia and Turkey, USc/kWh



Source: ESCO, EPIAS

Figure 6: Average prices for electricity imports and exports, USc/kWh



Source: ESCO, GeoStat
* Electricity exports in Jan-2015 and Jan-2016 were negligible



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