



## Georgia's Energy Sector Electricity Market Watch

Georgia | Energy  
Monthly Bulletin  
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**Georgia moved up 8 spots to #62 (out of 189) in the Getting Electricity ranking of the 2016 Doing Business report.** Ease of electricity access is essential for the country's investment potential. Georgia ranks ahead of most of its peers (Belarus, Armenia, Bulgaria, Azerbaijan, Romania), being second only to Turkey (36/189), and beats the regional average of 94 by 32 spots. According to the report, progress was achieved by simplifying electricity network access for new customers, reducing connection fees, and adopting a grid code. The report indicates that it takes a business on average 4 procedures and 71 days to be granted access to electricity; Georgia outperforms its peers (ex-Turkey) on both of those metrics. Connection to the network is still costly compared to peers, when measured in terms of per capita income (461.8% of income/capita).

### Electricity market highlights

Weighted average price of electricity in Georgia, September*	USc 5.7/kWh
Weighted average price of electricity in Turkey, September*	USc 5.6/kWh
Average export price for Georgian electricity, September*	USc 4.8/kWh
Average import price for electricity, September*	USc 6.0/kWh
Y/Y increase in domestic consumption in kWh, 9M15	5.2%
Y/Y increase in exports in kWh, 9M15	26.6%
Y/Y increase in exports to Turkey in kWh, 9M15	50.8%

\*Average exchange rates in August: GEL/US\$ = 2.3965; TRY/US\$ = 3.0027

**Coal is added to the energy balance of Georgia.** A thermal power station (TPS) in Tkibuli, western Georgia, with installed capacity of 13.2MW, commenced operations in test mode. The station, commissioned in 2011, was built by Georgian Industrial Group (GIG) and operates on locally mined coal, contributing to the economic activity of Tkibuli. GIG also signed an implementation agreement with the government in October 2015 for the construction of a 150MW coal-fired TPS in Tkibuli, also to use 100% local coal. The investment value of the project is estimated at US\$ 150-200mn, according to the Ministry of Energy (MoE). The coal-fired TPS is expected to displace a significant portion of the natural gas-fueled TPP generation, supplying cheaper electricity to the market. Construction of the power station is expected to commence in 2016 and be completed by 2019. Construction will be handled by the Chinese state-controlled Dongfang Electric Holding.

**An additional 111MW of installed capacity is expected to hit the grid this year,** with Dariali HPP (108MW) and Debeda HPP (3MW) expected to be commissioned by the end of 2015. Dariali HPP was partly financed by EBRD, with a US\$ 80mn loan, and was the first public-private partnership in the energy sector. Expected output of the two plants is 526gWh (6.4% of current hydro output).

**The construction of a high voltage direct current (HVDC) line between Georgia and Armenia continues,** along with the construction of a back-to-back station in Ayrum, Armenia, close to the Georgian border, commenced in March 2015 with joint funding (loan/grant/budget resources) of EUR 103.3mn from EIB, KfW, NIF, and Georgian and Armenian governments. In parallel, Georgia started the construction of a new 500kV high voltage substation in Marneuli with the support of ADB. Marneuli-500 will be the crucial link between the electrical systems of the neighboring countries, enhancing energy transit and trade opportunities with Armenia and Azerbaijan.

**Final review of the EBRD loan agreement for Georgia's first wind farm is pending.** The project, located near Gori in eastern Georgia, is expected to enter the construction phase in the first half of 2016. In May 2015, GoG and EBRD signed a mandate letter and declared readiness to cooperate on the project. The wind farm project is currently fully owned by the state-owned Georgian Energy Development Fund (GEDF). It is expected to provide an additional 20MW of installed capacity. Estimated project cost is US\$ 34mn, with EBRD considering a senior syndicated loan for up to US\$ 24mn to finance the construction. The MoE believes in the potential of another 200MW of WPP installed capacity in the vicinity of the planned wind farm location. Georgia's wind generation potential is estimated at 1,300gWh.

**A new 8-month rule applies for feed-in tariffs.** Previously, all entities who expressed interest in building, licensing, and operating an HPP in Georgia were at liberty to sell 80% of generated electricity to any buyer at any price, except for the winter months (October through March), when they were obliged to sell 20% of annual generation to ESCO at a predetermined price during the first 10 years of operations. This measure is meant to ensure the energy security and domestic energy supply for the local market in winter months, when hydropower is scarce and the country has to resort to more expensive alternatives. Entities entering into a build-operate-own (BOO) agreement with the government after April 2015 will now get a feed-in tariff for and be obliged to sell to ESCO all electricity generated September through April during the first 15 years of operations. Longer feed-in tariffs can reduce the risk profile of the project. Notably, the bulk of HPP generation and exports takes place in the remaining four months.

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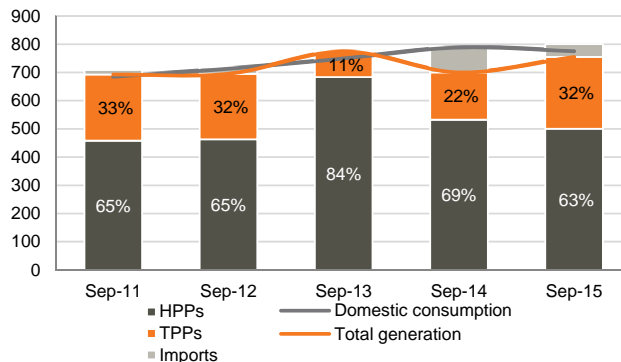
### Electricity Generation, Consumption, and Exports

**Electricity consumption was down 1.7% y/y in September 2015**, mainly due to a 36.7% y/y drop in consumption by direct consumers (users with consumption of over 7gWh/year). The major contributor to the drop was a 45.2% y/y decrease in consumption to 45.2gWh by Georgian Manganese (subsidiary of Georgian-American Alloys). Consequently, the company's share in total domestic electricity consumption almost halved from 10.5% in September 2014 to 5.8% in September 2015. Even though direct consumers accounted for only 9.6% of total consumption, the decrease could not be offset by the 7.7% y/y increase in retail and commercial consumption via distribution license holders. 9M15 consumption figures are on the rise, with a 5.2% y/y increase in total domestic consumption and 26.6% y/y increase in exports.

**Electricity generation increased 7.8% on the back of expanded TPP output**, up 51.2% y/y, while HPP-generated electricity declined 6.0% y/y in September 2015. TPP-generated electricity represented 32% of the country's energy balance, up from 22% in September 2014. Imports were down 48.6% y/y, with TPP-generated electricity displacing imports. 100% of imports (45.4gWh) came from Armenia.

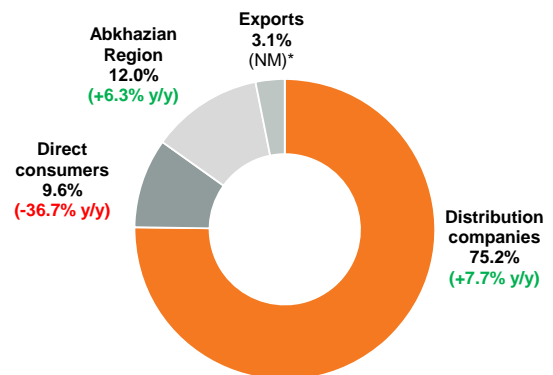
**Electricity exports increased from 0 to 24gWh y/y in September 2015** and accounted for 3.1% of total electricity generation. 100% of exports were directed to Turkey. In 9M15, exports to Turkey increased 50.8% y/y to 284.9gWh, while total exports increased 26.6% y/y to 629.6gWh. Total export revenue from all trade partners decreased 9.7% y/y in US\$ terms, with average export prices down 28.7% y/y to USc 3.7 in 9M15 from USc 5.2 in 9M14. Average export price to Turkey remained well above average at USc 5.1/kWh in 9M15.

**Figure 1: Electricity generation and consumption, gWh**



Source: ESCO

**Figure 2: Electricity consumption breakdown, September 2015**

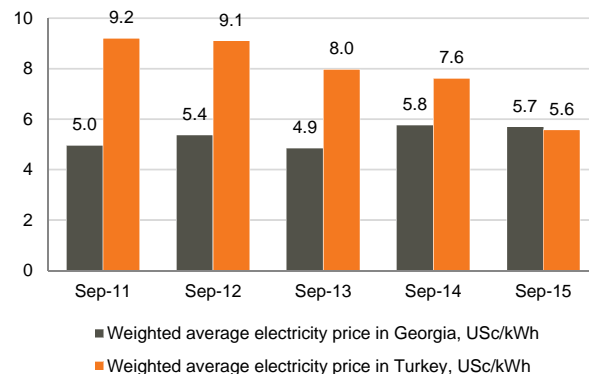


\*No exports in September 2014  
Source: ESCO

### Electricity Prices in Georgia and Turkey

**Electricity prices declined 1.1% y/y in US\$ terms in September 2015**, while prices surged 35.8% in GEL terms, largely due to the 37.3% y/y appreciation of US\$ against GEL in September 2015. Turkish electricity prices were flat in TRY terms; a 26.8% y/y decline in US\$ terms was also largely attributable to the national currency depreciation.

**Figure 3: Weighted average electricity prices in Georgia and Turkey, USc/kWh**



Source: ESCO, PMUM



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