



Georgia's Energy Sector Electricity Market Watch

Georgia | Energy
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Ministry of Energy is going to be merged with Ministry of Economy. The natural resources management component of Ministry of Environment will also be consolidated under the Ministry of Economy. The merger process will begin after the Parliament's approval. We expect that certain responsibilities of the current Ministry of Energy (e.g. annual balance and market rules) will be transferred to GNERC, the regulatory body, as is the case in most European countries.

The draft energy law was prepared by the Energy Community secretariat experts under the EU4ENERGY program. The draft envisages the implementation of a day-ahead market for electricity trading, adoption of the institute of a power supplier, creation of a system services trading platform, and unbundling of licensed activities, among other issues. The draft law does not have an answer, so far, to the most challenging question: how to integrate the existing PPAs into the day-ahead market without causing major distortions. Full implementation of the changes drafted in the document will require about two years after final approval.

GNERC recalculated WACC components for each type of utility. As a result, the weighted average cost of capital (WACC) was increased from 13.54% to 16.40% for electricity generation, transmission, and distribution activities and was set at 13.54% and 15.99% for natural gas and water supply services, respectively. WACC is used by GNERC to guarantee licensed companies a reasonable return on investment and incentivize cost reduction. Another significant change in the tariff methodology was extending the tariff period for electricity distribution and transmission companies from one to three years. Notably, for natural gas distribution and water supply activities, the WACC methodology was adopted recently, for tariff years 2017-2018.

Tariffs were revised upward for Khrami 1 and Khrami 2 HPPs, as a result of the GEL depreciation against the Japanese yen and the US dollar. Both HPPs have long-term tariffs in place up till 2025. The tariffs are subject to revision once every three years, based on the USD/GEL exchange rate, and annually, based on the JPY/GEL rate (only for Khrami 2). The revisions amounted to an 18-20% increase in tariffs, based on the year, for 2018-2024. Notably, as the highest regulated tariff on the market, the tariff of Khrami 2 HPP serves as the reference price for the deregulated market. Unless any further changes take place, the price that ESCO will pay deregulated HPPs for balancing electricity will increase from 9.4 tetri/kWh to 11.25 tetri/kWh through end-2018.

On November 3, 2017, Bakhvi Hydro Power announced the public issuance of unsecured corporate bonds in the amount of US\$ 1.27mn. The bonds will carry an annual coupon rate of 9.4%, payable semi-annually, and have a maturity of 10 years. Each bond has a nominal value of US\$ 1,000 and the offering closing date was set at December 3, 2017. The 9.8MW Bakhvi 3 HPP was commissioned in the summer of 2015 and has average annual generation of 41.0GWh. Bakhvi HPP has a PPA with ESCO (six months, US\$ 5.5/kWh, until 2025) and a guaranteed transmission agreement for export to Turkey (4 months, until 2023), with the remainder of generation typically sold to distribution companies. Bakhvi Hydro Power LLC is a subsidiary of Silk Road Group.

Electricity market highlights

Balancing price of electricity in Georgia, October*	USc 5.5/ kWh
Market clearing price of electricity in Turkey, October*	USc 4.6/ kWh
Average export price for Georgian electricity, October	USc 7.5/ kWh
Average import price for electricity, October**	USc 5.2/ kWh
Guaranteed Capacity Fee, October	USc 0.7/ kWh
Y/Y change in domestic consumption in kWh, 10M17	8.8%
Y/Y change in exports in kWh, 10M17	22.5%
Y/Y change in exports to Turkey in kWh, 10M17	-3.6%

*Average exchange rates in October GEL/US\$ = 2.4972; TRY/US\$ = 3.6601

** Exports were negligible in October (0.11 GWh)

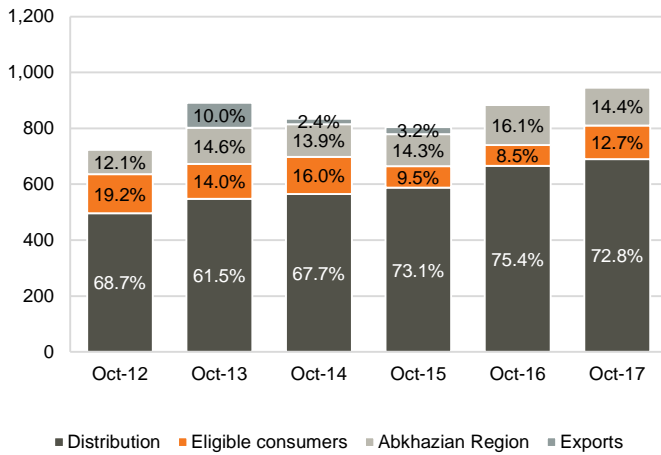
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Electricity Consumption, Exports, and Generation

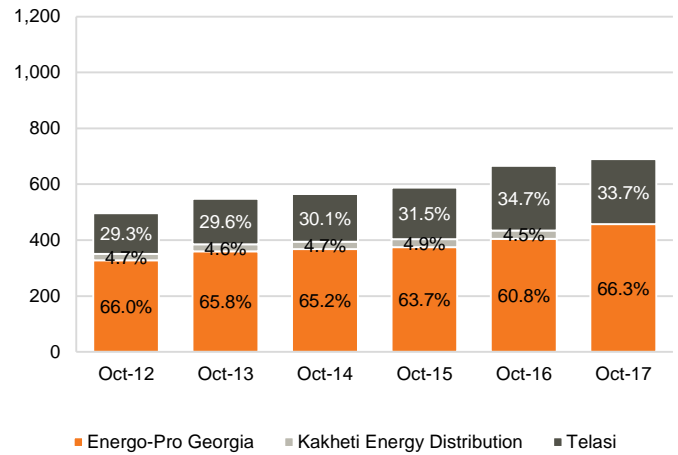
Domestic consumption increased 7.2% y/y in October 2017 and 8.8% y/y in 10M17. The main driver of growth in October was a 61.7% y/y increase in direct consumption, driven by a 94.3% y/y increase in Ltd Georgian Manganese usage, which contributed 5.6 percentage points to overall growth. Consumption of distribution companies was up by a modest 3.5% y/y: consumption by Energo-Pro Georgia subscribers, including former Kakheti Energy Distribution subscribers, increased 5.1% y/y, while Telasi consumption was up by only 0.6% y/y, albeit from a very high base in October 2016 (+24.9% y/y). The Abkhazian region's electricity usage was down 4.2% y/y, also from a high base (+24.0% y/y), and accounted for 14.4% of domestic consumption. Electricity transit from Azerbaijan to Turkey through Georgia declined 88.6% y/y to 14.9GWh, while electricity exports were negligible (0.11 GWh) in October 2017.

Figure 1: Domestic electricity consumption and export, GWh



Source: ESCO

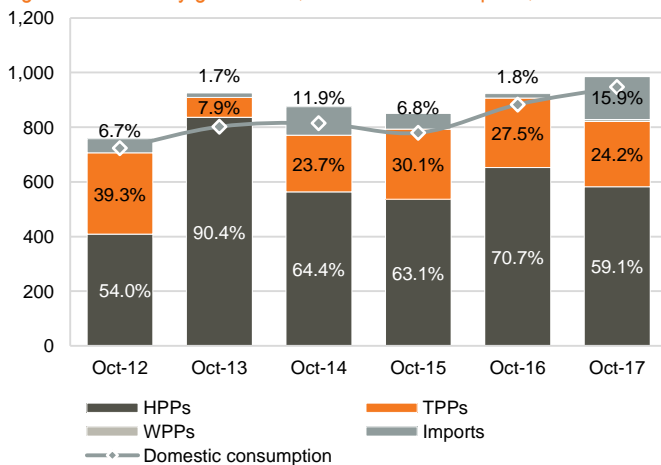
Figure 2: Consumption of distribution companies, GWh



Source: ESCO

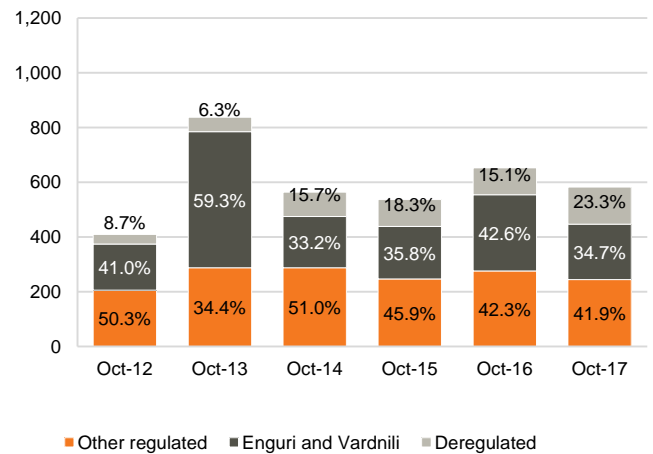
Growth in demand coincided with a drop in domestic supply, creating the need for electricity imports, which came from Azerbaijan. A 10.7% y/y decrease in hydro and 6.0% y/y decrease in thermal generation resulted in an 8.6% y/y decline in domestic supply. The decrease in hydro generation was due largely to a 27.3% y/y drop in Enguri/Vardnili generation, from a high base in Oct-2016 (+44.8% y/y). Generation of other regulated HPPs was also down 11.6% y/y. Deregulated HPPs were the only group of HPPs posting an increase in Oct-2017 (+38.3% y/y), solely due to the addition of sizable HPPs (Dariali, Khelvachauri, and Shuakhevi) to the group. Gardabani CCGT and Mtkvari Energy operated at full power for almost the entire month, while the other three thermal power plants were mostly on standby. The GC fee was down 16.5% y/y to USc 0.7/kWh. The reason behind the decrease was higher consumption, which serves as the base for GC payment allocation. The new wind power plant accounted for 0.7% of total electricity supply. Electricity imports reached 157.1 GWh, which was 20.7% below the planned level, and accounted for 15.9% of total electricity supplied to the grid, compared to 1.8% in October 2016.

Figure 3: Electricity generation, domestic consumption, GWh



Source: ESCO

Figure 4: Hydro generation, GWh



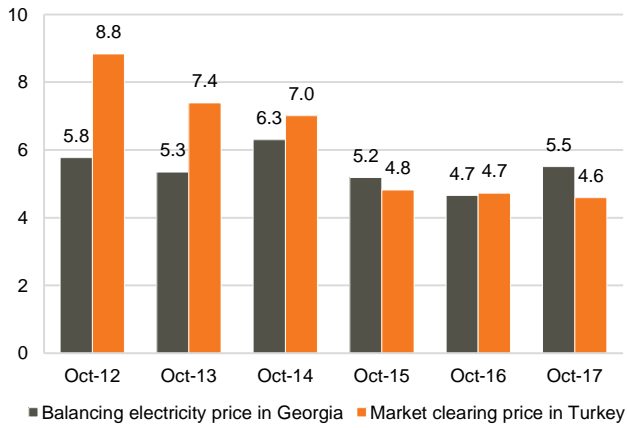
Source: ESCO



Electricity Prices in Georgia and Turkey

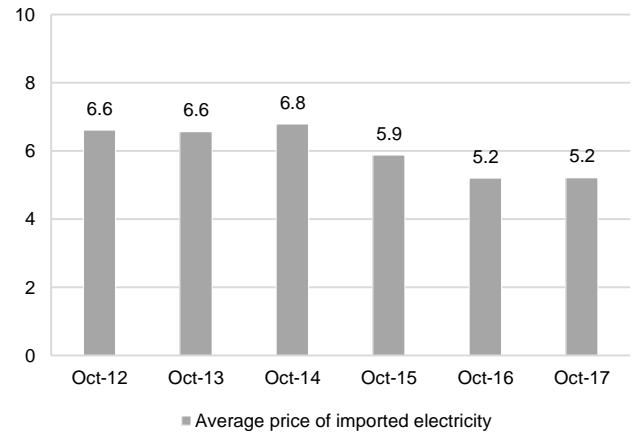
Average import price remained at USc 5.2/kWh (+0.1% y/y). However, the high share of imports in the electricity supply mix resulted in an increase in the wholesale electricity price to USc 5.5/kWh (+18.0% y/y). Electricity traded at the wholesale price through the market operator accounted for 25.8% of total electricity supplied to the grid in October 2017, with the rest traded through bilateral contracts. Average monthly market clearing price in Turkey decreased 2.9% y/y to USc 4.6/kWh in October 2017.

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



* There were no exports to Turkey in October 2017.
Source: ESCO, EPIAS

Figure 6: Average price of electricity imports, USc/kWh



* Exports are negligible in October.
Source: ESCO, GeoStat



Table 1: Electricity Balance (GWh)

	Nov-16	Dec-16	2016	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	10M17
Domestic consumption	967	1,162	11,007	1,085	1,012	1,019	933	856	870	985	1,037	918	947	9,661
<i>y/y growth rate</i>	11%	14%	6%	7%	13%	8%	8%	1%	3%	10%	14%	16%	7%	9%
Abkhazian region	196	254	1,927	252	234	205	171	132	102	113	119	101	136	1,567
<i>y/y growth rate</i>	10%	9%	7%	7%	20%	7%	14%	8%	1%	3%	2%	-8%	-4%	6%
Eligible consumers	81	123	1,209	107	113	129	128	95	131	136	138	122	121	1,219
<i>y/y growth rate</i>	-4%	44%	-1%	18%	25%	12%	5%	-27%	6%	21%	66%	91%	62%	21%
Distribution companies	690	785	7,872	726	666	685	634	629	637	736	780	695	690	6,876
<i>y/y growth rate</i>	14%	13%	7%	6%	9%	8%	7%	6%	3%	9%	10%	13%	4%	21%
Energo-Pro Georgia	407	455	4,740	413	381	410	390	393	399	463	484	456	457	4,245
<i>y/y growth rate</i>	10%	8%	3%	3%	10%	9%	6%	6%	4%	11%	12%	13%	5%	9%
Telasi	253	297	2,789	281	256	246	216	209	211	240	261	239	233	2,392
<i>y/y growth rate</i>	22%	21%	15%	11%	8%	8%	9%	7%	0%	5%	9%	12%	1%	7%
Kakheti Energy Distr.	30	33	343	32	28	29	27	27	28	33	35	-	-	239
<i>y/y growth rate</i>	6%	6%	2%	8%	5%	7%	8%	6%	6%	14%	9%	-100%	-100%	-14%
Domestic generation	998	1,186	11,574	955	809	741	817	1,093	1,138	1,247	1,035	821	828	9,484
<i>y/y growth rate</i>	18%	27%	7%	-1%	0%	-12%	-7%	2%	4%	18%	8%	3%	-9%	1%
HPPs	642	682	9,329	564	362	544	722	1,085	1,128	1,234	944	706	583	7,871
<i>y/y growth rate</i>	17%	12%	10%	-10%	-33%	-22%	-1%	1%	3%	16%	6%	10%	-11%	-2%
TPPs	354	497	2,235	385	442	188	86	0	1	5	83	107	239	1,536
<i>y/y growth rate</i>	19%	51%	-6%	14%	62%	26%	-40%	N/A	-76%	321%	31%	-32%	-6%	11%
WPPs	2	7	9	7	6	9	9	8	9	7	8	7	7	77
<i>y/y growth rate</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imports	13	33	479	179	250	311	147	2	0	1	73	133	157	1,252
<i>y/y growth rate</i>	-85%	-73%	-32%	92%	106%	134%	493%	-41%	-100%	-78%	597%	449%	832%	189%
Exports	0	0	559	1	0	0	0	200	230	222	32	0	0	685
<i>y/y growth rate</i>	N/A	N/A	-15%	N/A	N/A	N/A	N/A	5%	9%	71%	16%	N/A	N/A	0.23
Net export/import	(13)	(33)	80	(178)	(250)	(311)	(146)	199	230	221	(41)	(133)	(157)	(567)
Transit	131	134	850	10	16	4	5	4	-	-	93	32	15	178
<i>y/y growth rate</i>	N/A	N/A	N/A	N/A	-49%	-84%	-90%	N/A	N/A	N/A	-33%	-69%	-89%	-69%

Source: ESCO



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