



Georgia's Energy Sector Electricity Market Watch

Georgia | Energy
Monthly Bulletin
October 30, 2017

Change of management at the Ministry of Energy. Former Deputy Minister, Iliia Eloshvili, was appointed the new Minister of Energy. His new deputies are: Romeo Mikautadze, former head of SakRusEnergo, a transmission licensee; Tornike Rijvadze, former general counsel at Adjaristsqali Georgia; and Giorgi Chikovani, former head of the Energy and Water direction at Deloitte for the USAID/G4G program.

Energo-Pro Georgia, the largest electricity distribution company in the country, was rated "BB." Fitch Ratings has assigned JSC Energo-Pro Georgia (EPG) an Expected Long-Term Foreign Currency Issuer Default Rating (IDR) of 'BB(EXP)' with Stable Outlook. The rating is based on expected cash flows and market situation for the next three years. GNERC's regulatory methodology, whereby tariffs are revised every three years, and the upward revision of the WACC from 13.54% to 16.4% as of January 2018, positively affect the ratings. Capital expenditures are expected to average GEL 66.0mn over 2017-2021.

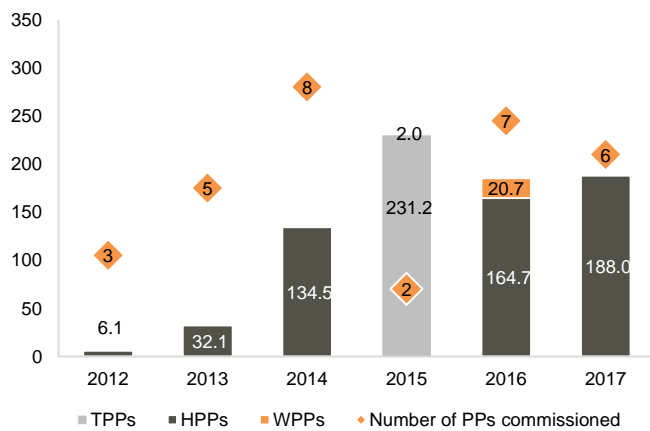
Shuakhevi, the largest HPP constructed in Georgia in the last 50 years, received its generation license in September 2017. Power plants commissioned over the last two years have increased total installed capacity of Georgia by 10.0% to 4,104.9 MW. 2016-2017 additions have included 12 hydro (352.7 MW) and one wind (20.7MW) power plants. Three large HPPs – Dariali (108MW), Khelvachauri (47.5MW), and Shuakhevi (178.7MW) – account for 89.5% of the aforementioned capacity increase. After several months in test regime, Khelvachauri HPP reached its normal generation capacity in April 2017, while Shuakhevi HPP is expected to reach the planned level of generation only after October 2017. According to the 2017 forecast, these three HPPs will produce 0.5 TWh of electricity in 2017 and satisfy 4.2% of annual consumption (11.9TWh).

Electricity market highlights	
Balancing price of electricity in Georgia, September*	USc 4.8/ kWh
Market clearing price of electricity in Turkey, September*	USc 5.3/ kWh
Average export price for Georgian electricity, September	USc 6.2/ kWh
Average import price for electricity, September**	USc 4.8/ kWh
Guaranteed Capacity Fee, September	USc 0.6/ kWh
Y/Y change in domestic consumption in kWh, 9M17	9.0%
Y/Y change in exports in kWh, 9M17	22.6%
Y/Y change in exports to Turkey in kWh, 9M17	-3.6%

*Average exchange rates in September GEL/US\$ = 2.4669; TRY/US\$ = 3.468

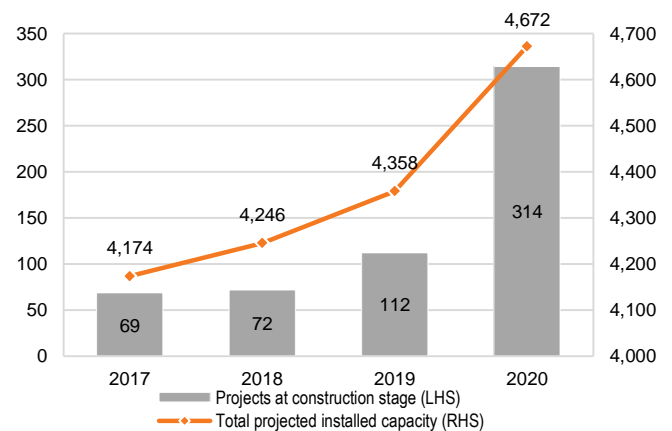
** Exports were negligible in September (0.061 GWh)

Figure 1: Installed capacity additions, MW



Note: 2017 figure as of October 24, 2017
Source: ESCO, GSE

Figure 2: Projected capacity additions, MW



Source: Ministry of Energy

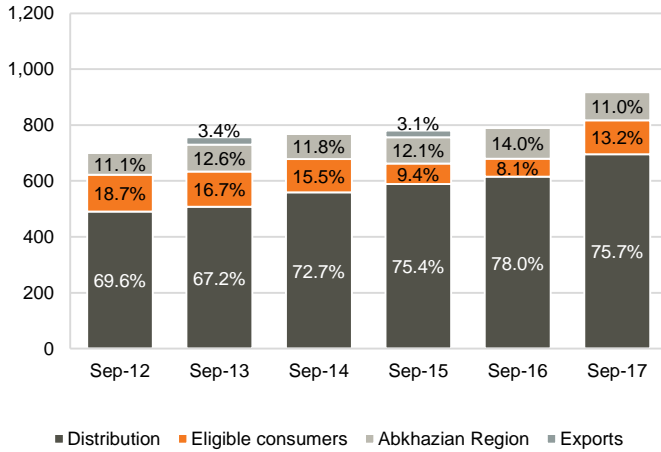
Total installed capacity of Georgia will increase by 13.8% by 2020, if projects at construction stages are completed on schedule. 35 HPPs with 337.2MW of installed capacity are at the construction stage to be commissioned by end-2020. Their timely completion will result in 1,586.0 GWh of additional hydro generation annually. In addition to the HPPs at the construction stage, the pipeline includes over a hundred projects at the feasibility stage, as well as a second GOGC-owned CCGT project (230MW) in Gardabani, to be completed by 2020, and designed to satisfy electricity demand during winter deficits.



Electricity Consumption, Exports, and Generation

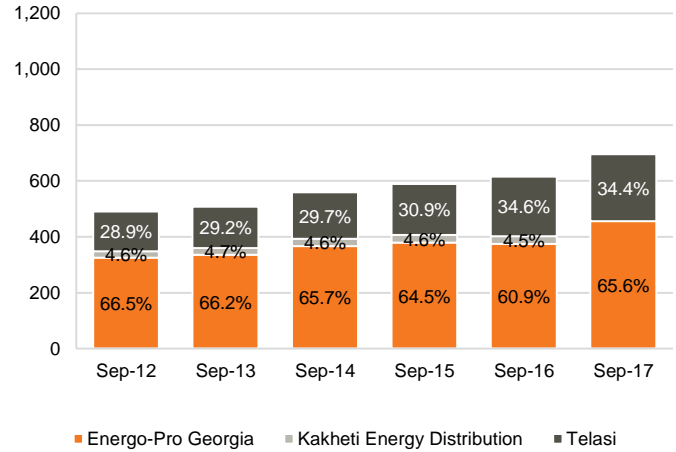
Domestic consumption increased 16.3% y/y in September 2017 and 9.0% y/y in 9M17. Consumption by eligible consumers, up 91.1% y/y, was one of the key drivers, as usage by Georgian Manganese increased 149.7% y/y and contributed 7.6 percentage points to overall growth in September 2017. Consumption of distribution companies, up 13.0% y/y, was an even larger contributor (10.1 pts). Consumption by Energo-Pro Georgia subscribers, including former Kakheti Energy Distribution subscribers, increased 13.2% y/y, while Telasi consumption was up 12.5% y/y. The Abkhazian region's electricity usage was down 8.2% y/y and accounted for 11.0% of domestic consumption. Electricity transit through Georgia declined 68.6% y/y to 31.9GWh in September 2017 and 63.9% y/y in 9M17. Transit from Azerbaijan to Turkey remains the main direction, accounting for 59.1% of electricity transited in September 2017 and 74.2% in 9M17; the rest was directed from Russia to Armenia. Electricity exports in September 2017 were negligible.

Figure 3: Domestic electricity consumption and export, GWh



Source: ESCO

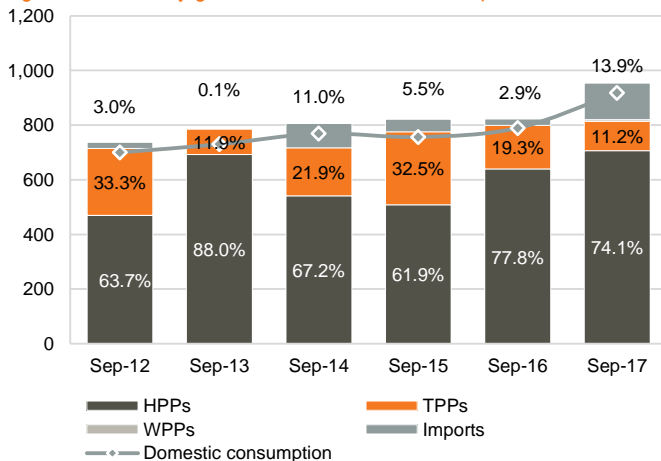
Figure 4: Consumption of distribution companies, GWh



Source: ESCO

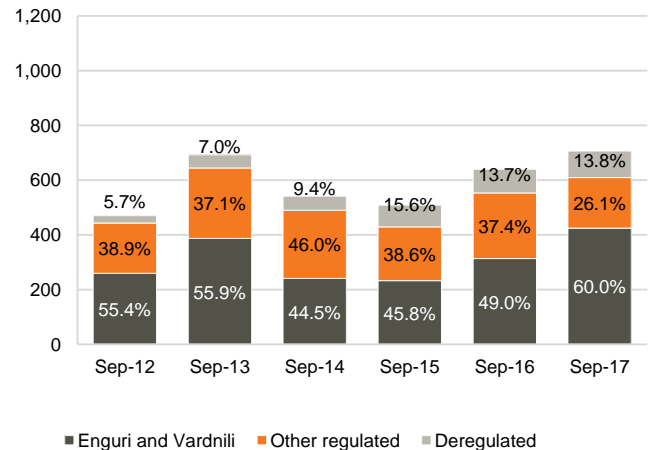
Electricity import increased 5.5 times y/y to 132.9 GWh and accounted for 13.9% of total electricity supplied to the grid in September 2017. Notably, the level of import was only 0.7% above the plan. The main source of import (60.6%) was Azerbaijan, with the rest coming from Russia. Domestic generation increased 2.8% y/y, with HPP generation up 10.4% y/y (74.1% of total). Deregulated HPPs posted an 11.7% y/y increase in generation, due to the addition of Dariali HPP (108.0MW), Khelvachauri HPP (47.5MW), and Shuakhevi HPPs (178.7MW). Generation by Enguri/Vardnili was up significantly (35.4% y/y) and accounted for 44.5% of total supply, while generation of other regulated HPPs declined 22.8% y/y in September 2017. Thermal generation decreased 32.4% y/y (11.2% of total) from the low base in 2016 (-40.6% y/y), while the new wind power plant accounted for 0.7% of total electricity supply. The GC fee was down 24.0% y/y to USc 0.6/kWh, as Mtkvari Energy and G-Power were under maintenance for most of the month.

Figure 5: Electricity generation, domestic consumption, GWh



Source: ESCO

Figure 6: Hydro generation, GWh



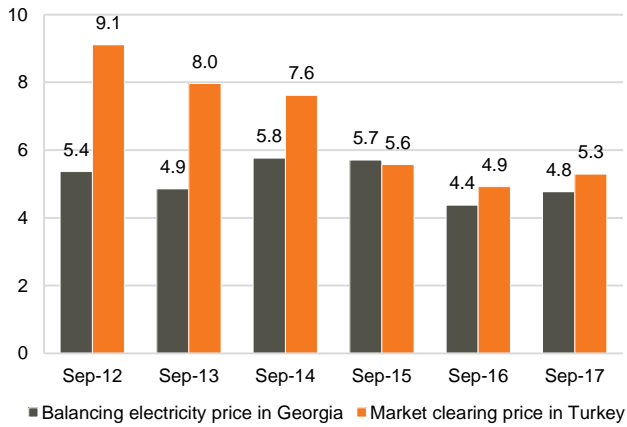
Source: ESCO



Electricity Prices in Georgia and Turkey

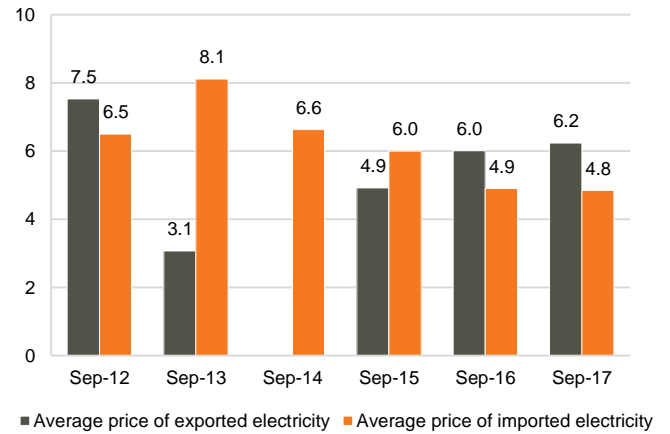
Wholesale market prices in Georgia increased 9.6% y/y to USc 4.8/kWh. Electricity traded through the market operator accounted for 23.7% of total electricity supplied to the grid in September 2017, with the rest traded through bilateral contracts. Average import price decreased slightly to USc 4.8/kWh. Turkish electricity prices increased 7.5% y/y to USc 5.3/kWh, 10.9% above the Georgian wholesale market price.

Figure 7: Electricity prices in Georgia and Turkey, USc/kWh



Source: ESCO, EPIAS

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



*Exports were negligible (0.061 GWh) in September 2017.
Source: ESCO, GeoStat



Table 1: Electricity Balance (GWh)

	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	2016	9M17
Domestic consumption	883	967	1,162	1,085	1,012	1,019	933	856	870	985	1,037	918	11,007	8,715
<i>y/y growth rate</i>	13%	11%	14%	7%	13%	8%	8%	1%	3%	10%	14%	16%	6%	9%
Abkhazian region	142	196	254	252	234	205	171	132	102	113	119	101	1,927	1,430
<i>y/y growth rate</i>	24%	10%	9%	7%	20%	7%	14%	8%	1%	3%	2%	-8%	7%	7%
Eligible consumers	75	81	123	107	113	129	128	95	131	136	138	122	1,209	1,098
<i>y/y growth rate</i>	-2%	-4%	44%	18%	25%	12%	5%	-27%	6%	21%	66%	91%	-1%	18%
Distribution companies	666	690	785	726	666	685	634	629	637	736	780	695	7,872	6,187
<i>y/y growth rate</i>	13%	14%	13%	6%	9%	8%	7%	6%	3%	9%	10%	13%	7%	18%
Energo-Pro Georgia	405	407	455	413	381	410	390	393	399	463	484	456	4,740	3,788
<i>y/y growth rate</i>	8%	10%	8%	3%	10%	9%	6%	6%	4%	11%	12%	13%	3%	9%
Telasi	231	253	297	281	256	246	216	209	211	240	261	239	2,789	2,160
<i>y/y growth rate</i>	25%	22%	21%	11%	8%	8%	9%	7%	0%	5%	9%	12%	15%	8%
Kakheti Energy Distr.	30	30	33	32	28	29	27	27	28	33	35	-	343	239
<i>y/y growth rate</i>	5%	6%	6%	8%	5%	7%	8%	6%	6%	14%	9%	-	2%	-4%
Domestic generation	907	998	1,186	955	809	741	817	1,093	1,138	1,247	1,035	821	11,574	8,655
<i>y/y growth rate</i>	14%	18%	27%	-1%	0%	-12%	-7%	2%	4%	18%	8%	3%	7%	2%
HPPs	653	642	682	564	362	544	722	1,085	1,128	1,234	944	706	9,329	7,288
<i>y/y growth rate</i>	22%	17%	12%	-10%	-33%	-22%	-1%	1%	3%	16%	6%	10%	10%	-1%
TPPs	254	354	497	385	442	188	86	0	1	5	83	107	2,235	1,297
<i>y/y growth rate</i>	-1%	19%	51%	14%	62%	26%	-40%	N/A	-76%	321%	31%	-32%	-6%	15%
WPPs	-	2	7	7	6	9	9	8	9	7	8	7	9	70
<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	17	13	33	179	250	311	147	2	0	1	73	133	479	1,095
<i>y/y growth rate</i>	-71%	-85%	-73%	92%	106%	134%	493%	-41%	-100%	-78%	597%	449%	-32%	163%
Exports	0	0	0	1	0	0	0	200	230	222	32	0	559	685
<i>y/y growth rate</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5%	9%	71%	16%	N/A	-15%	0.23
Net export/import	(17)	(13)	(33)	(178)	(250)	(311)	(146)	199	230	221	(41)	(133)	80	(410)
Transit	131	131	134	10	16	4	5	4	-	-	93	32	850	164
<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%	N/A	-64%

Source: ESCO



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