



Georgia's Energy Sector Electricity Market Watch

Georgia | Energy
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Adjar Energy 2007 finished construction of run-of-river Kirnati HPP with installed capacity of 51.3MW, and projected annual generation of 226GWh. The HPP currently operates in test regime and expected to move to full capacity by September 2018. The Turkish company Adjar Energy 2007 also owns another run-of-river HPP - Khelvachauri (47.6 MW), successfully operating for more than a year.

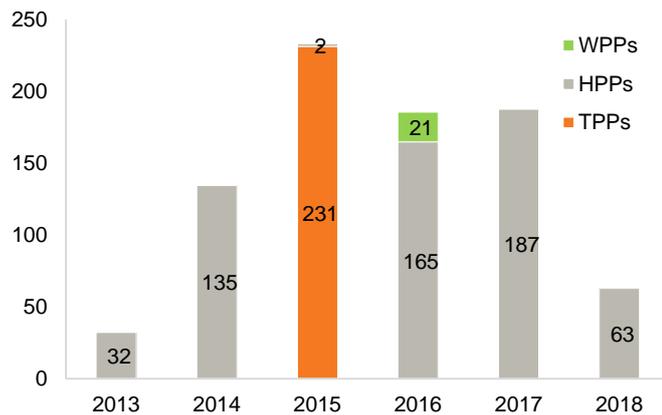
In addition to above mentioned HPP, there are three other small HPPs already commissioned in 2018: 1) Kasleti HPP - 9.0 MW, 2) Kheori HPP - 1.3MW and 3) Shilda 1 HPP - 1.2MW. Total capacity of these four HPPs is 63MW.

As of July 2018, there are 80 operational HPPs in Georgia. Out of these, 57 are small HPPs (capacity below 13.0 MW) and 4.6% (190.1 MW) of combined installed capacity.

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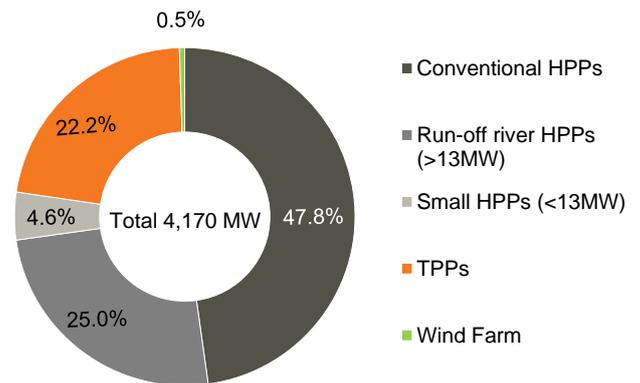
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Figure 1: Installed capacity additions, MW



Source: ESCO, GSE

Figure 2: Installed capacity of Georgia, July 2018



Source: ESCO

Electricity Consumption, Exports, Generation and Imports - June 2018

Domestic electricity consumption increased 12.6% y/y in June 2018 and 8.4% y/y in 1H18. The eligible consumers and distribution licensees drove this growth.

Eligible consumers' increased their consumption by 34.7% y/y, accounting for 18.0% of total domestic consumption. This growth can be explained by addition of 2 new companies (GFDC Georgia and Geo Servers) to the group of eligible consumers. This was in line with legal changes effective since May 2018 as their average monthly consumption of electricity was above 15MWh.

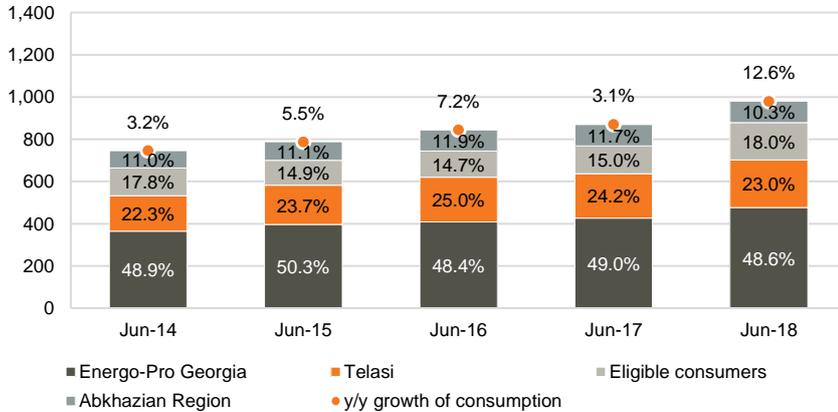
Consumption by **distribution licensees** was up by 10.2% y/y in June 2018, as consumption of new commercial subscribers fully compensated the reduced consumption caused by reallocation of 2 above mentioned large companies into different category.

Table 1: Demand growth breakdown, Jun-18

Consumer	Growth rate, y/y	Share in consumption
Domestic consumption	+12.6%	100.0%
Abkhazian region	-0.5%	10.3%
Eligible consumers	+34.7%	18.0%
Distribution	+10.2%	71.7%
Energo-Pro Georgia	+11.7%	48.6%
Telasi	+7.0%	23.0%



Figure 3: Domestic electricity consumption, GWh



Source: ESCO
Note: Kakheti Energy Distribution was purchased by Energo-Pro Georgia in August, 2017

Electricity exports were down 15.4% y/y in June 2018, while exports were up 5.8% y/y in 1H18. Electricity exports accounted for 16.0% of electricity supplied to the grid in June 2018. A 78.6% out of 194.6MWh total exports were directed to Turkey (+134.6% y/y), while the rest was exported to Russia (15.1% of total exports), Armenia (4.3% of total exports) and Azerbaijan (2.1% of total exports) in June 2018. A 76.2% of electricity export to Turkey was conducted by ESCO in exchange of electricity imports planned during October- December 2018.

Electricity generated by domestic sources increased by 6.2% y/y in June 2018 and by 14.8% in 1H18.

Hydro generation (+6.4% y/y in June 2018) drove the domestic supply growth supported by good hydrological conditions and commissioning of new HPPs.

Enguri/Vardnili generation was up by 16.7% y/y and satisfied lions share (56.5%) of electricity demand in June 2018. In 1H18 generation of Enguri/Vardnili increased by 30.5% y/y and reached 2.3TWh, highest number since 2010.

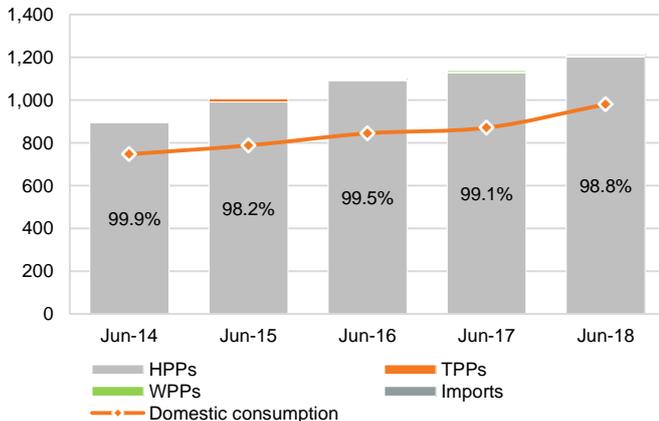
Thermal generation and imports accounted for 0.8% of total electricity supply and were intended only for system's balancing and stability purposes.

Table 2: Supply growth breakdown, Jun-18

Supply source	Growth rate, y/y	Share in supply
Total Supply	+6.8%	100.0%
Imports	NM	0.5%
Domestic generation	+6.2%	99.5%
TPPs	+171.2%	0.2%
WPPs	-41.0%	0.4%
HPPs	+6.4%	98.8%
Enguri and Vardnili	+16.7%	56.5%
Other regulated HPPs	-10.5%	22.9%
Deregulated HPPs	+2.9%	19.4%

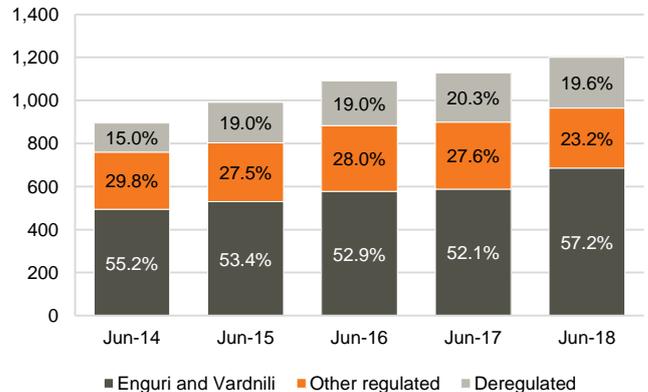
Source: ESCO

Figure 4: Electricity generation and domestic consumption, GWh



Source: ESCO

Figure 5: Hydro generation, GWh



Source: ESCO



The **guaranteed capacity fee** was down 7.8% y/y to USc 0.15/kWh in June 2018. The GC fee is relatively low in summer months due to planned maintenance works on most of the TPPs. In June 2018 the TPPs under maintenance were Gardabani CCGT and Block 3 of Tbilisri.

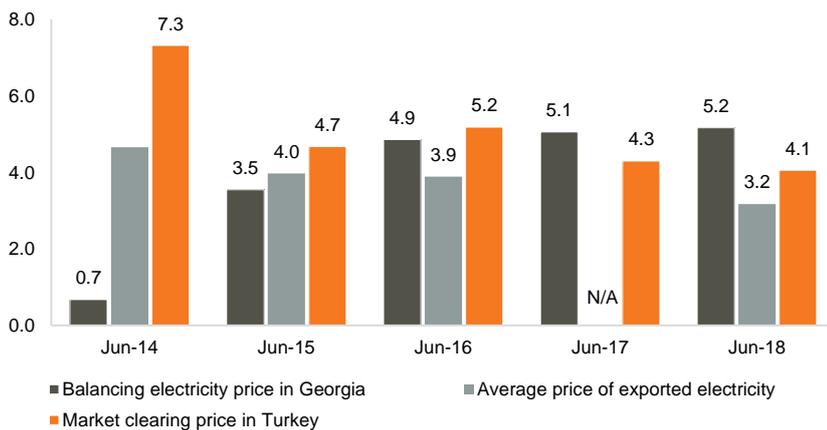
Electricity Prices in Georgia and Turkey - June 2018

Wholesale market prices in Georgia increased 2.9% y/y to USc 5.2/kWh in June 2018. Only 3.9% of total electricity supplied to the grid was traded through the market operator ESCO, with the rest traded through bilateral contracts.

Average price of Georgia's electricity exports was USc 3.2/kWh in June 2018.

Turkish electricity prices decreased 5.8% y/y to USc 4.1/kWh from a low base in June 2017 (-17.0% y/y). Notably, this price is by USc 1.1/kWh (21.6%) below the wholesale market price in Georgia.

Figure 6: Electricity prices in Georgia and Turkey, USc/kWh



Source: ESCO, GeoStat, EPIAS
Note: Imports in June are insignificant.
Electricity exports price from Georgia is unreliable for June 2017 and therefore excluded from our calculations.



Table 3: Electricity Balance (GWh)

	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	2017	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	1H18
Domestic consumption, total	985	1,037	918	947	1,032	1,163	11,856	1,168	1,059	1,114	979	961	980	6,261
% change y/y	10%	14%	16%	7%	7%	0%	7.7%	8%	5%	9%	5%	12%	13%	8.4%
<i>Of which:</i>														
- Abkhazian Region	113	119	101	136	194	241	2,002	247	216	207	149	100	101	1,022
% change y/y	3%	2%	-8%	-4%	-1%	-5%	3.9%	-2%	-7%	1%	-13%	-24%	0%	-6.8%
- Eligible consumers	136	138	122	121	107	102	1,427	108	104	115	109	180	176	793
% change y/y	21%	66%	91%	62%	32%	-17%	18.1%	1%	-8%	-11%	-14%	90%	35%	12.8%
- Distribution Companies	736	780	695	690	732	819	8,427	812	738	792	721	680	702	4,447
% change y/y	9%	10%	13%	4%	6%	4%	7.1%	12%	11%	16%	14%	8%	10%	11.8%
<i>Of which:</i>														
- Energo-Pro Georgia	496	519	456	457	481	528	5,493	521	476	521	485	466	476	2,946
% change y/y	11%	11%	13%	5%	10%	8%	8.1%	17%	16%	19%	16%	11%	12%	15.2%
- Telasi	240	261	239	233	251	292	2,935	291	262	271	237	215	226	1,501
% change y/y	5%	9%	12%	1%	-1%	-2%	5.2%	4%	2%	10%	9%	3%	7%	5.7%
Domestic Generation, total	1,247	1,035	821	828	968	1,080	11,531	1,014	934	997	1,064	1,161	1,208	6,378
% change y/y	18%	8%	3%	-9%	-3%	-9%	-0.4%	6%	15%	35%	30%	6%	6%	14.8%
<i>Of which:</i>														
- HPPs	1,234	944	706	583	658	682	9,211	676	594	775	1,019	1,079	1,200	5,343
% change y/y	16%	6%	10%	-11%	2%	0%	-1.3%	20%	64%	42%	41%	0%	6%	21.3%
- TPPs	5	83	107	239	304	393	2,233	331	334	215	35	76	3	995
% change y/y	321%	31%	-32%	-6%	-14%	-21%	-0.1%	-14%	-24%	14%	-59%	NM	171%	-9.7%
- WPPs	7	8	7	7	5	6	88	7	6	7	9	5	5	40
% change y/y	N/A	N/A	N/A	N/A	178%	-19%	NM	10%	7%	-21%	0%	-34%	-41%	-15.2%
Imports	1	73	133	157	110	135	1,497	202	168	161	11	44	6	592
% change y/y	-78%	597%	449%	832%	766%	302%	212.6%	13%	-33%	-48%	-92%	NM	NM	-33.3%
Exports	222	32	0	0	1	0	686	-	-	-	62	200	195	456
% change y/y	71%	16%	N/A	N/A	N/A	N/A	22.7%	N/A	N/A	N/A	N/A	0%	-15%	6%
Net Export/Import	221	(41)	(133)	(157)	(109)	(135)	(811)	(202)	(168)	(161)	51	156	188	(136)
Transit	-	93	32	15	23	53	254	-	13	-	-	-	-	13
% change y/y	N/A	-33%	-69%	-89%	-83%	-61%	-70.1%	N/A	-18%	N/A	N/A	N/A	N/A	-65.5%

Source: ESCO

Note: Energo-pro Georgia includes consumption of Kakheti Energy Distribution before Aug-17



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