GALT & TAGGART
RESEARCH

Georgia's Energy Sector
Electricity Market Watch

Georgia | Energy
Monthly Bulletin
May 4, 2018

Changes into legislation

Draft law on electricity and natural gas, sets the new threshold for mandatory registration as direct consumer at 15.0 GWh of average monthly consumption from May-2018. This law is expected to be approved by the parliament by mid May 2018. The current law requested mandatory registration as direct consumers from all companies connected to the high voltage (35kV+) transmission grid from May-2018. After approval of the law, eligible companies for registering as direct consumers will be reduced from expected 60 to **4 following companies:** Georgian Incorporation, BFDC Georgia, Tsekhi-1, and Block Power. Other companies will retain the option to be registered as direct consumers, with the exception that they will no longer be able to go back to the distribution companies' services. Notably, BFDC Georgia and Geo Servers already voluntarily registered as direct consumers on 30th of April, before the enforcement of the law.

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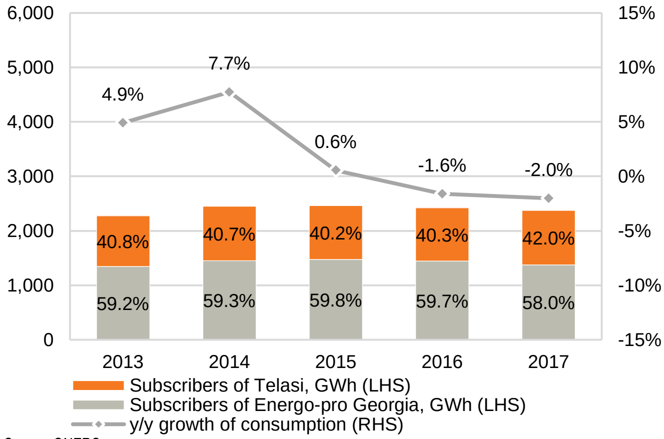
Electricity consumption in 2017

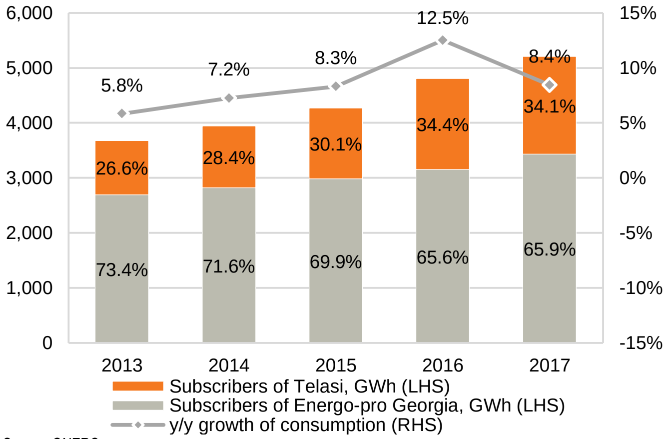
Consumption growth in 2017 was mainly driven by the consumption of non-residential sector: 1) The direct consumers increased their consumption by 18.1% y/y, due to increase of Georgian Manganese's production level and 2) the non-residential subscribers of distribution licensees increased their consumption by 8.4% y/y, in line with the average growth rate over 2012-2017. New commercial entities added to the distribution grid are the main drivers of the growth.

Figure 1: Residential sector electricity consumption



Source: GNERC

Figure 2: Non-residential sector electricity consumption



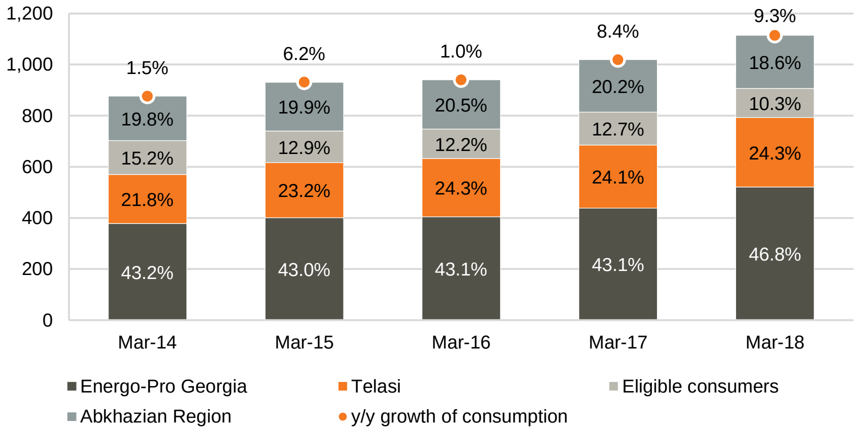
Source: GNERC

Electricity consumption by **residential subscribers** of distribution licensees was down by 2.0% in 2017 and accounted for 20% overall domestic consumption. Notably, the average growth rate of residential consumption is 1.9% over 2012-2017 and we do not expect significant changes to this trend in nearest future.

Electricity Consumption, Exports, and Generation - March 2018

Domestic electricity consumption increased 9.3% y/y to 1.1TWh, slightly above the planned level (+2.9%). The sole contributors to consumption growth were distribution licensees: 1) Energo-Pro Georgia subscribers' consumption increased by 18.8% y/y. The growth can be explained by addition of new commercial subscribers; 2) Telasi consumption was up 10.2% y/y.

Figure 3: Domestic electricity consumption, GWh



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

Table 1: Demand growth breakdown, Mar-18

Consumer	Growth rate, y/y	Share in consumption
Domestic consumption	**+9.3%**	**100.0%**
Abkhazian region	+1.0%	18.6%
Eligible consumers	-11.1%	10.3%
Distribution	+15.7%	71.1%
Energo-Pro Georgia	+18.8%	46.8%
Telasi	+10.2%	24.3%

There were no **Electricity export** and transit in March 2018 although the annual balance envisaged the export of 28.0 GWh. Georgian Urban Energy - owner of Faravani HPP has long-term transmission and dispatch agreement, enabling company to export predetermined volume of electricity from March to November of each year in Turkey. Three years in line, Georgian Urban Energy voluntarily sells electricity to ESCO instead of exporting it. In 2018 Georgian Urban Energy will export only in May, June and July.

Electricity generated by domestic sources increased by 34.5% y/y to 1.0TWh in March 2018, slightly above (+3.4%) the planned level.

Hydro generation showed significant increase (+42.4% y/y) in March 2018 from a very low base (-21.7% y/y) in March 2017:

- Enguri/Vardnili generation almost doubled increasing 87.5% y/y from last year's low base when Enguri had low generation due to its halted operation in February 2017. Abkhazian region consumed 87.4% of electricity generated from Enguri/Vardnili.
- Generation of other regulated and deregulated HPPs also increased significantly by 20.4% y/y and 42.8% y/y, respectively, due to high water flow and addition of new HPPs (Dariali and Khelvachauri) to the group of deregulated HPPs.

Table 2: Supply growth breakdown, Mar-18

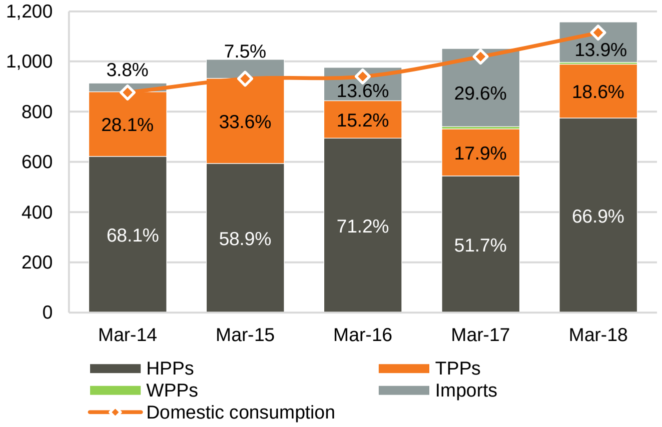
Supply source	Growth rate, y/y	Share in supply
Total Supply	**10.0%**	**100.0%**
Imports	-48.4%	13.9%
Domestic generation	+34.5%	86.1%
TPPs	+14.4%	18.6%
WPPs	-21.1%	0.6%
HPPs	+42.4%	66.9%
Enguri and Vardnili	+87.5%	20.5%
Other regulated HPPs	+20.4%	27.2%
Deregulated HPPs	+42.8%	19.3%

Source: ESCO

Thermal generation was up 14.4%y/y, but significantly below the planned level (-29.1%). **Wind generation** showed 21.1%y/y decrease to 7.1GWh and contributed 0.6% of total supply.

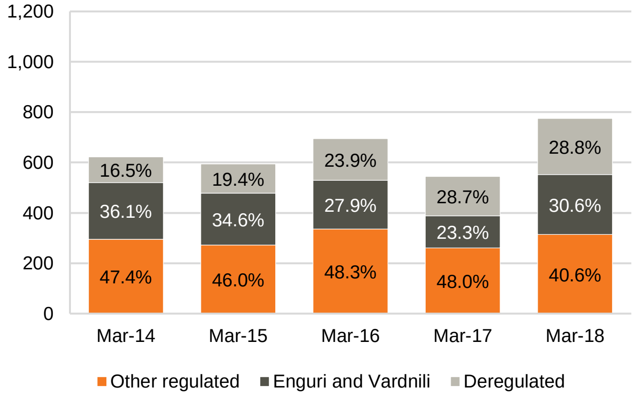
The surplus in hydro generation reduced **electricity imports by 48.4% y/y** from last year's high base, when interruption in Enguri increased demand for imports drastically. Most of the imported electricity came from Azerbaijan (77.3% of total imports of Mar-18), while the rest came from Turkey. Notably, it was first time since 2008 when Turkey served as import country. This import was reflection of ESCO's tender on barter of electricity won by Aksen Enerji in February-2018.

Figure 4: Electricity generation and domestic consumption, GWh



Source: ESCO

Figure 5: Hydro generation, GWh



Source: ESCO

The guaranteed capacity fee was down 1.7% y/y to USc 0.74/kWh in March 2018, due to increase in consumption, which serves as a base for guaranteed capacity fee calculation. Guaranteed capacity was provided by all five sources for entire month, from them only Gardabani CCGT and Mtkvari Energy operated for more than a half of the month, while the other three thermal power plants were mostly on standby.

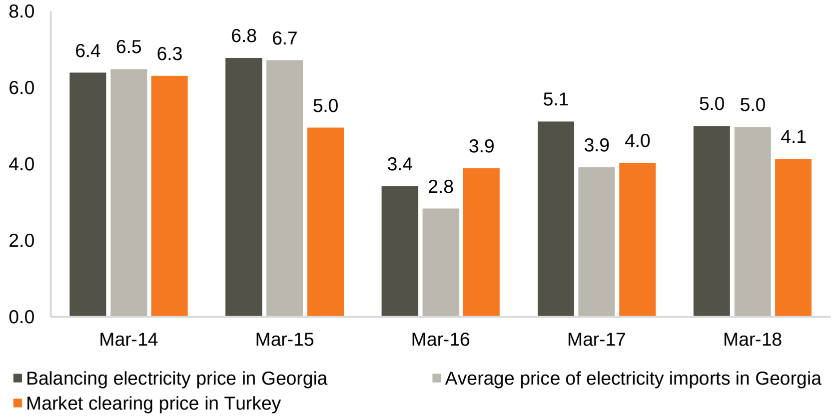
Electricity Prices in Georgia and Turkey

Average import price increased by 26.9% y/y and reached USc 5.0/kWh, from USc 3.4/kWh in last year. In March 2017, there was a subsidized electricity import from Russia via Salkhino line to satisfy the excess needs of Abkhazian region.

Despite higher import price, the **wholesale market price** was down by 2.3% y/y to USc 5.0/kWh, due to low electricity imports. Electricity traded at the wholesale price through the market operator was 24.4% of total electricity supplied to the grid, down from 30.7% in March 2017.

Average price of electricity in Turkey was up 2.4% y/y to USc 4.1/kWh, 17.2% below the wholesale market price in Georgia.

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



Source: ESCO, GeoStat, EPIAS
Note: There were no exports in March 2018.

Table 3: Electricity Balance (GWh)

	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	2017	Jan-18	Feb-18	Mar-18	3M18
Domestic consumption, total	**933**	**856**	**870**	**985**	**1,037**	**918**	**947**	**1,032**	**1,163**	**11,856**	**1,168**	**1,059**	**1,114**	**3,341**
% change y/y	*8%*	*1%*	*3%*	*10%*	*14%*	*16%*	*7%*	*7%*	*0%*	***7.7%***	*8%*	*5%*	*9%*	***7.2%***
Of which:														
- Abkhazian Region	171	132	102	113	119	101	136	194	241	**2,002**	247	216	207	**671**
% change y/y	*14%*	*8%*	*1%*	*3%*	*2%*	*-8%*	*-4%*	*-1%*	*-5%*	***3.9%***	*-2%*	*-7%*	*1%*	***-2.9%***
- Eligible consumers	128	95	131	136	138	122	121	107	102	**1,427**	108	104	115	**327**
% change y/y	*5%*	*-27%*	*6%*	*21%*	*66%*	*91%*	*62%*	*32%*	*-17%*	***18.1%***	*1%*	*-8%*	*-11%*	***-6.3%***
- Distribution Companies	634	629	637	736	780	695	690	732	819	**8,427**	812	738	792	**2,343**
% change y/y	*7%*	*6%*	*3%*	*9%*	*10%*	*13%*	*4%*	*6%*	*4%*	***7.1%***	*12%*	*11%*	*16%*	***12.8%***
Of which:														
- Energo-Pro Georgia	417	420	426	496	519	456	457	481	528	**5,493**	521	476	521	**1,519**
% change y/y	*6%*	*6%*	*4%*	*11%*	*11%*	*13%*	*5%*	*10%*	*8%*	***8.1%***	*17%*	*16%*	*19%*	***17.5%***
-Telasi	216	209	211	240	261	239	233	251	292	**2,935**	291	262	271	**824**
% change y/y	*9%*	*7%*	*0%*	*5%*	*9%*	*12%*	*1%*	*-1%*	*-2%*	***5.2%***	*4%*	*2%*	*10%*	***5.2%***
Domestic Generation, total	**817**	**1,093**	**1,138**	**1,247**	**1,035**	**821**	**828**	**968**	**1,080**	**11,531**	**1,014**	**934**	**997**	**2,945**
% change y/y	***-7%***	***2%***	***4%***	***18%***	***8%***	***3%***	***-9%***	***-3%***	***-9%***	***-0.4%***	***6%***	***15%***	***35%***	***17.5%***
Of which:														
- HPPs	722	1,085	1,128	1,234	944	706	583	658	682	**9,211**	676	594	775	**2,045**
% change y/y	*-1%*	*1%*	*3%*	*16%*	*6%*	*10%*	*-11%*	*2%*	*0%*	***-1.3%***	*20%*	*64%*	*42%*	***39.1%***
- TPPs	86	0	1	5	83	107	239	304	393	**2,233**	331	334	215	**880**
% change y/y	*-40%*	*N/A*	*-76%*	*321%*	*31%*	*-32%*	*-6%*	*-14%*	*-21%*	***-0.1%***	*-14%*	*-24%*	*14%*	***-13.3%***
- WPPs	9	8	9	7	8	7	7	5	6	**88**	7	6	7	**20**
% change y/y	N/A	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*178%*	*-19%*	***NM***	*10%*	*7%*	*-21%*	***-4.0%***
Imports	**147**	**2**	**0**	**1**	**73**	**133**	**157**	**110**	**135**	**1,497**	**202**	**168**	**161**	**531**
% change y/y	*493%*	*-41%*	*-100%*	*-78%*	*597%*	*449%*	*832%*	*766%*	*302%*	***212.6%***	*13%*	*-33%*	*-48%*	***-28.3%***
Exports	**0**	**200**	**230**	**222**	**32**	**0**	**0**	**1**	**0**	**686**	**-**	**-**	**-**	**-**
% change y/y	N/A	*5%*	*9%*	*71%*	*16%*	N/A	N/A	N/A	N/A	***22.7%***	N/A	N/A	N/A	***N/A***
Net Export/Import	**(146)**	**199**	**230**	**221**	**(41)**	**(133)**	**(157)**	**(109)**	**(135)**	**(811)**	**(202)**	**(168)**	**(161)**	**(531)**
Transit	**5**	**4**	**-**	**-**	**93**	**32**	**15**	**23**	**53**	**254**	**-**	**13**	**-**	**13**
% change y/y	*-90%*	*N/A*	*N/A*	*N/A*	*-33%*	*-69%*	*-89%*	*-83%*	*-61%*	***-70.1%***	*N/A*	*-18%*	*N/A*	***-55.2%***

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

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