



Georgia's Energy Sector Electricity Market Watch

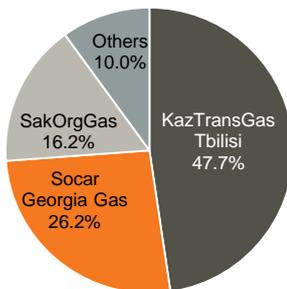
Georgia | Energy
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GNERC approved natural gas tariffs for households for 2019. The tariffs were recalculated for three leading gas distribution companies accounting for 90% of the market in 2017: KazTransGas Tbilisi, Socar Georgia Gas and SakOrgGas. The household tariff combines three components: transmission, cost of gas, and distribution (which covers investment costs of the distribution licensee's). Tariff methodology considers investment pipeline of 2019 and the difference between actual and forecasted investments of 2018. Based on GNERC calculations, the household tariffs for 2019 is 0.2% below the 2018 tariffs on average.

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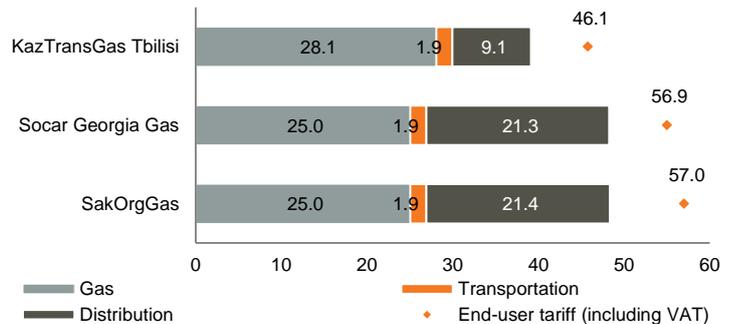
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Figure 1: Market shares of gas distribution licensees, 2017



Source: GNERC

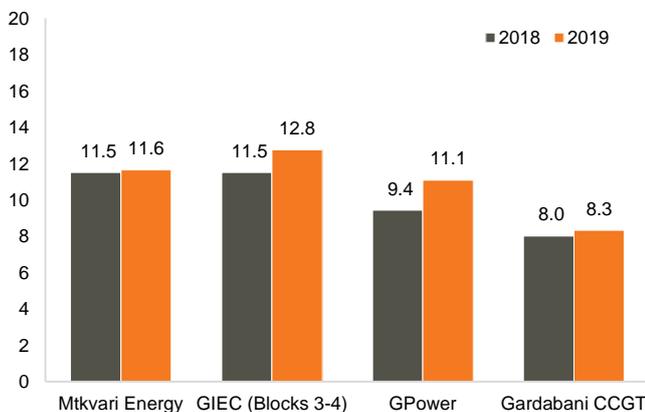
Figure 2: Gas tariff structure for distribution licensees for 2019, tetri/m³



Source: GNERC

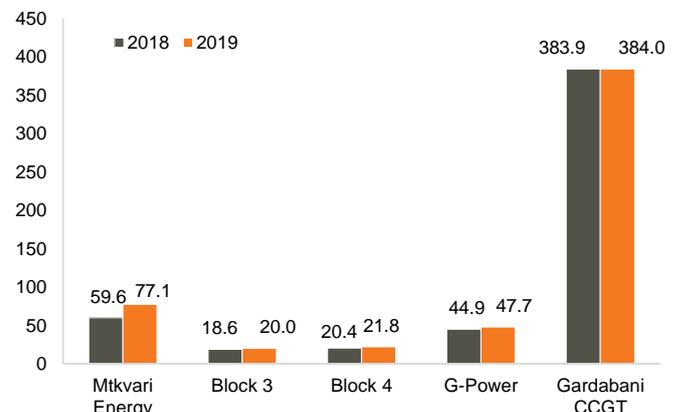
TPP tariffs have also been revised for 2019 both for electricity generated (tetri/kWh) and guaranteed capacity. Tariffs were significantly up for GPower (+17.7%) and for both blocks of GIEC (+10.9%). Tariffs for the other TPPs were increased by 2.5% on average. The guaranteed capacity fee was raised for Mtkvari Energy (+29.3%), GPower (+6.3%), Block 3 (+7.3%), and Block 4 (+7.1%) and remained at almost the same level for Gardabani CCGT (+0.02%).

Figure 3: TPP tariffs, tetri/kWh



Source: GNERC

Figure 4: Guaranteed capacity fee, GEL '000/day



Source: GNERC

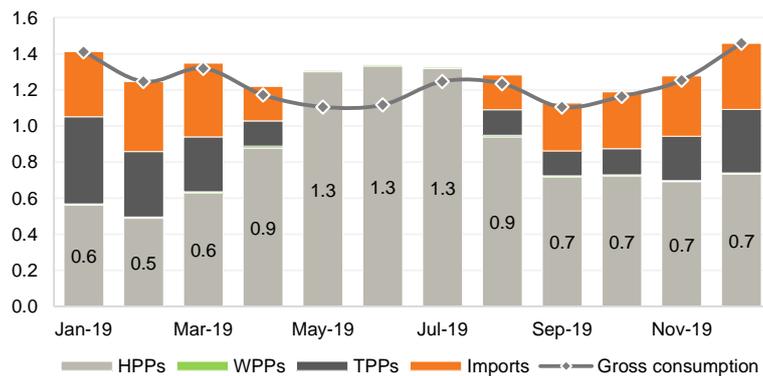


Electricity consumption expected to increase by 10.9% in 2019. According to the electricity (capacity) forecast of 2019, approved by the Ministry of Economy in December 2018, the growth in consumption will be met by higher imports (+88.3% y/y) and hydro generation (+3.3% y/y). According to the annual balance, HPPs commissioned in 2018 and slated to be operational in 2019 (4 HPPs with 229GWh annual generation) will be the main source of hydro generation growth. Thermal generation is expected to decrease by 2.9% y/y in 2019.

Main drivers for consumption growth are expected to be eligible consumers (+41.7%) and Energo-pro Georgia's subscribers (+10.5% y/y). The forecast reflects the reallocation of 4 direct consumers from distribution licensee's subscribers to the group of eligible consumers in May-2018, but does not foresee the expected drop in the eligibility threshold.

Export of electricity is also expected to increase by 18.4% y/y in 2019. May, June and July are the only months with exports over the TDA amounts. Export companies and directions will be determined through the GSE's auctions during the year. Notably, Turkey intends to limit the net transfer capacity (NTC) of the Akhaltsikhe-Borchka transmission line for April-June period, which might cause some changes into the approved export volumes of 2019.

Figure 5: Forecasted electricity supply and consumption, TWh



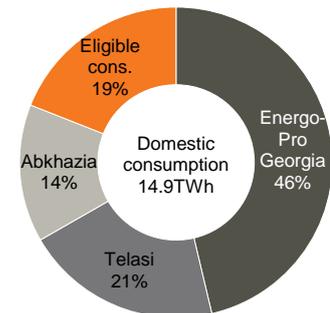
Source: Legislative herald of Georgia

The number of players on wholesale energy market is expected to grow. According to the changes made into the law on Electricity and Natural gas on December 22, 2018:

- The Government of Georgia is decision-maker for the direct consumer's eligibility threshold. First GoG decree for this matter will be published in nearest future.
- Power supply activity is allowed on wholesale energy market. Wholesale power suppliers will purchase electricity from power generating companies and sell it on wholesale market (e.g. to direct consumers). GNERC will have the right to monitor their activities, but the wholesale supply of electricity does not require special license. Notably, previous edition of law restricted trade of electricity on wholesale market for any company other than power producers.
- Definition of guaranteed capacity sources includes all types of power plants, not only TPPs as in previous edition.

First two changes support to the gradual market opening, while third change will increase the system's flexibility for choosing the guaranteed capacity sources. We expect that in 2019 the eligibility criteria for becoming direct consumers will change and include all consumers connected to high voltage grid. This was incorporated in the initial amendment of energy law in 2017, changed later due to absence of power suppliers and insufficient awareness of market participants.

Figure 6: Forecasted electricity consumption, 2019





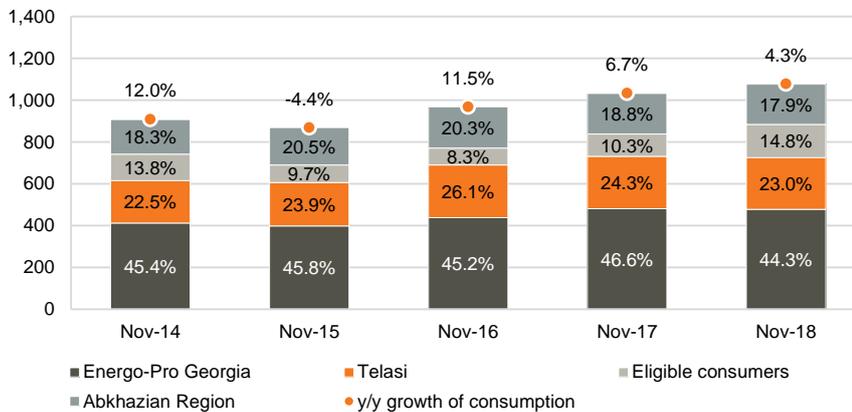
Electricity Consumption, Exports, Generation and Imports - November 2018

Electricity consumption increased by 4.3% y/y and reached 1.1TWh in November 2018, 6.5% below the planned level. The growth was driven by increased consumption of direct consumers (+49.3%/y/y), as new companies were added to the group of eligible consumers, in line with legal changes effective since May 2018.

Consumption by **distribution licensees** was down by 0.9% y/y in November 2018, caused by above-mentioned reallocation of eligible consumers. The addition of new commercial and household subscribers to the group was not sufficient to fully absorb the mentioned reallocation effect.

Electricity consumption in 11M18 has increased by 6.7% and reached 11.4TWh, slightly below the planned level.

Figure 7: Domestic electricity consumption, GWh



Source: ESCO

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

The 80.4% of demand was satisfied by domestic supply, the rest was imported mainly from Azerbaijan.

Electricity imports almost doubled (up by 98.9% y/y) and accounted for 19.6% of total electricity supplied to the grid. Most of imported energy came from Azerbaijan, and only 1.7% was imported from Russia.

Domestic supply was down by 6.9% y/y to 0.9TWh in November 2018:

- **Hydro generation** decreased by 14.5% y/y, and was 8.9% below the planned level, mainly because of the unfavorable hydrological conditions:
 - Generation of Enguri/Vardnili was down by 22.1% and accounted to only 17.8% of total energy supply. 96.4% of Enguri/Vardnili's generation was used to satisfy Abkhazian region's demand for electricity.
 - Generation of deregulated HPPs increased by 4.6%/y/y due to addition of new HPPs to the group (Old energy, Jonouli, Bodorna, Kasleti, Kheori, Shilda-1, etc.)
- Thermal generation was up by 8.8%/y/y, only 2.6% above the planned level and partially compensated the drop in hydro generation.

The guaranteed capacity fee was down by 0.8% y/y to USc 0.63/kWh in November 2018. Only Mtkvari energy and Block 4 of Tbilisresi were under maintenance for half of the months, the other TPPs provided guaranteed capacity for entire month.

Table 1: Demand growth breakdown, Nov-18

Consumer	Growth rate, y/y	Share in consumption
Domestic consumption	+4.3%	100.0%
Abkhazian region	-0.8%	17.9%
Eligible consumers	+49.3%	14.8%
Distribution	-0.9%	67.3%
Energo-Pro Georgia	-0.8%	44.3%
Telasi	-1.2%	23.0%

Source: ESCO

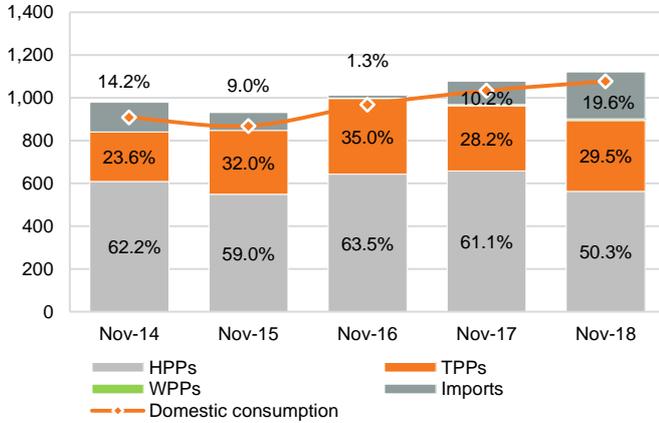
Table 2: Supply growth breakdown, Nov-18

Supply source	Growth rate, y/y	Share in supply
Total Supply	+3.9%	100.0%
Imports	+98.9%	19.6%
Domestic generation	-6.9%	80.4%
TPPs	+8.8%	29.5%
WPPs	+32.5%	0.6%
HPPs	-14.5%	50.3%
Enguri and Vardnili	-22.1%	17.8%
Other regulated HPPs	-18.4%	18.1%
Deregulated HPPs	+4.6%	14.3%

Source: ESCO

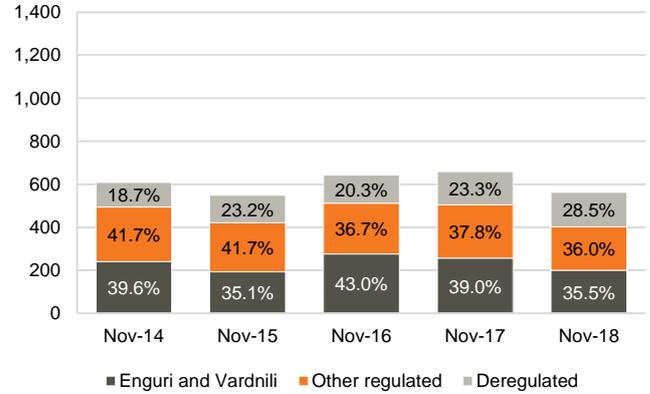


Figure 8: Electricity generation and domestic consumption, GWh



Source: ESCO

Figure 9: Hydro generation, GWh



Source: ESCO

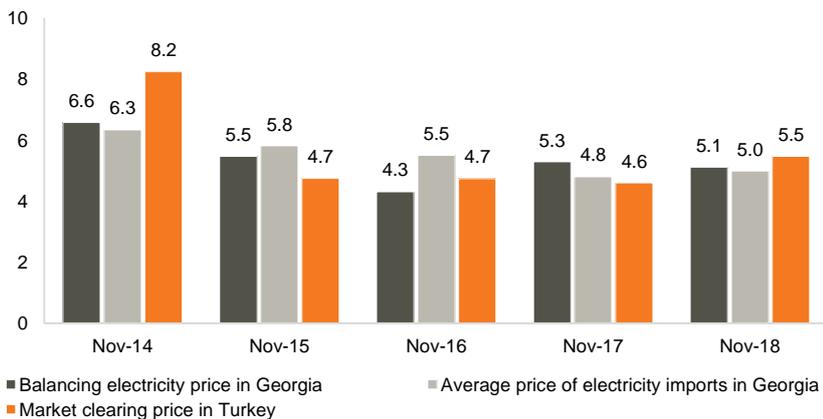
Electricity Prices in Georgia and Turkey - November 2018

Wholesale market prices in Georgia decreased 3.2% y/y to USc 5.1/kWh in November 2018. A 28.8% of total electricity supplied to the grid was traded through the market operator (ESCO), with the rest traded through bilateral contracts.

Average price of electricity imports to Georgia was slightly up (3.9% y/y) to USc 5.0/kWh in November 2018.

Turkish electricity prices increased by dramatic 64.7% y/y in TRY terms, while in US\$ terms price was up by 18.9%. In November 2018, average electricity prices in Turkey reached US\$ 5.5/kWh.

Figure 10: Electricity prices in Georgia and Turkey, USc/kWh



Source: ESCO, GeoStat, EPIAS
Note: Exports in November are insignificant



Table 3: Electricity Balance, GWh

	Dec-17	2017	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	11M18
Domestic consumption, total	1,163	11,856	1,168	1,059	1,114	979	961	980	1,091	1,047	954	977	1,077	11,406
% change y/y	0%	7.7%	8%	5%	9%	5%	12%	12.6%	10.8%	1.0%	4%	3%	4%	6.7%
<i>Of which:</i>														
- Abkhazian Region	241	2,002	247	216	207	149	100	101	116	120	105	122	193	1,679
% change y/y	-5%	3.9%	-2%	-7%	1%	-13%	-24%	0%	3%	1%	4%	-10%	-1%	-4.7%
- Eligible consumers	102	1,427	108	104	115	109	180	176	182	171	160	170	159	1,635
% change y/y	-17%	18.1%	1%	-8%	-11%	-14%	90%	35%	34%	24%	32%	40%	49%	23.4%
- Distribution Companies	819	8,427	812	738	792	721	680	702	793	756	688	685	725	8,093
% change y/y	4%	7.1%	12%	11%	16%	14%	8%	10%	8%	-3%	-1%	-1%	-1%	6.4%
<i>Of which:</i>														
- Energo-Pro Georgia	528	5,493	521	476	521	485	466	476	523	521	468	465	477	5,399
% change y/y	8%	8.1%	17%	16%	19%	16%	11%	12%	5%	0%	3%	2%	-1%	8.7%
- Telasi	292	2,935	291	262	271	237	215	226	270	235	221	220	248	2,694
% change y/y	-2%	5.2%	4%	2%	10%	9%	3%	7%	13%	-10%	-8%	-6%	-1%	1.9%
Domestic Generation, total	1,080	11,531	1,014	934	997	1,064	1,161	1,208	1,268	985	849	783	900	11,163
% change y/y	-9%	-0.4%	6%	15%	35%	30%	6%	6%	2%	-5%	3%	-5%	-7%	6.8%
<i>Of which:</i>														
- HPPs	682	9,211	676	594	775	1,019	1,079	1,200	1,253	827	681	578	563	9,245
% change y/y	0%	-1.3%	20%	64%	42%	41%	0%	6%	2%	-12%	-4%	-1%	-15%	8.4%
- TPPs	393	2,233	331	334	215	35	76	3	7	150	160	198	331	1,840
% change y/y	-21%	-0.1%	-14%	-24%	14%	-59%	26833%	171%	31%	81%	50%	-17%	9%	0.0%
- WPPs	6	88	7	6	7	9	5	5	8	8	8	7	7	78
% change y/y	-19%	NM	10%	7%	-21%	0%	-34%	-41%	10%	-10%	18%	4%	33%	-5.0%
Imports	135	1,497	202	168	161	11	44	6	1	100	139	230	219	1,281
% change y/y	302%	212.6%	13%	-33%	-48%	-92%	NM	NM	2%	37%	5%	46%	99%	-6.0%
Exports	0	686	-	-	-	62	200	195	132	0	0	0	-	589
% change y/y	N/A	22.7%	N/A	N/A	N/A	N/A	0%	-15%	-40%	N/A	N/A	N/A	N/A	-14.2%
Net Export/Import	(135)	(811)	(202)	(168)	(161)	51	156	188	131	(100)	(139)	(229)	(219)	(692)
Transit	53	254	-	13	-	-	-	-	-	-	-	-	108	13
% change y/y	-61%	-70.1%	N/A	-18%	N/A	373%	-93.3%							

Source: ESCO



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