

Georgia's Energy Sector **Electricity Market Watch**

Electricity consumption was down by 7.1% y/y to 939GWh in April 2020, caused by lockdown and related decreased economic activity due to Covid-19 pandemic. Notably, Abkhazian region's electricity consumption increased significantly by 18.4% y/y in Apr-20, while the consumption of the rest of Georgia was down by 12.9% y/y. Electricity consumption dynamic by group of consumers is as follows:

- Electricity consumption of large commercial enterprises (group of direct consumers) is almost unchanged, both compared to the previous month and to the average of the last 5 months, dictating the stable operation of these companies. At the same time, the 55.2% annual increase in electricity consumption of this group is explained by the legislative changes of May-19, when 10 new companies with a monthly consumption of more than 5 GWh were mandatorily registered as direct consumers and added to this group.
- Energo-pro Georgia's electricity consumption was down by 12.4% m/m and 29.3% y/y in Apr-20. Part of annual decrease is explained by the above-mentioned legislative changes as several subscribers of Energo-pro moved to the group of direct consumers. For comparison, the annual decline caused by legislative changes before the Code-19 averaged 19.8% y/y from May-19 to Feb-20.

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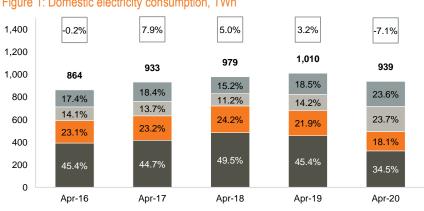


Figure 1: Domestic electricity consumption, TWh

■ Energo-Pro Georgia ■ Telasi ■ Eligible consumers ■ Abkhazia □ y/y growth of consumption

Source: ESCO

- Partial lockdown due to Covid-19 had most significant impact on Telasi's subscribers. Electricity consumption of Telasi was down by 23.3% m/m and 23.0% y/y in Apr-20. The legislative changes of May-19 also affected Telasi's consumption, but significantly less than in case of Energo-pro Georgia.
- Abkhazian region's electricity consumption increased by 18.4% y/y and hit record high 221.5GWh in Apr-20, from a very high base of Apr-19 (+26.0% y/y). Notably, the region's consumption was 30% higher than the consumption of Telasi, while its consumption is usually 30% lower (average for 2014-19). Since the generation of Enguri was not sufficient to meet the region's increased demand, region also consumed a large share of electricity imports (approximately 70%) and 14.1% of balancing electricity.

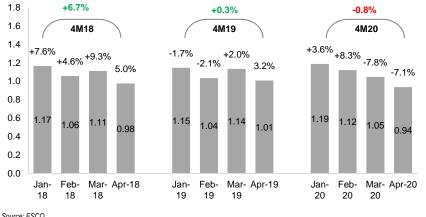
In 4M20, electricity consumption decreased by mere 0.8% y/y to 4.3TWh. During this period, electricity consumption in Abkhazian region increased by 10.2% y/y, while electricity consumption in the rest of Georgia decreased by 3.6% y/y.

Table 1: Demand growth breakdown, Apr-20

| Consumer | Growth rate, y/y | Share in consumptior | | | | |
|-------------------------|------------------|-------------------------|--|--|--|--|
| Domestic consumption | -7.1% | 100.0% | | | | |
| Abkhazian region | +18.4% | 23.6% | | | | |
| Eligible consumers | +55.2% | 23.7% | | | | |
| Distribution | -27.2% | 52.7% | | | | |
| Energo-Pro Georgia | -29.3% | 34.5% | | | | |
| Telasi | -23.0% | 18.1% | | | | |
| Source: ESCO | | | | | | |



Figure 2: Domestic electricity consumption and annual growth rates, TWh



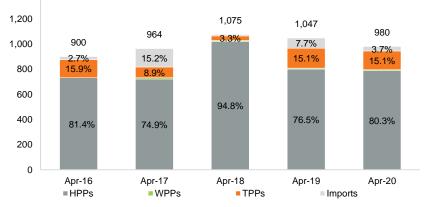
Source: ESCO

In Apr-20, 80.3% of the demand on electricity was satisfied by hydro generation, 15.1% by thermal generation and the rest was imported.

Hydro generation was down by 1.7% y/y due to unfavourable hydrological conditions. Notably, the 178-megawatt Shuakhevi HPP started operation in Feb-20 and already satisfied 5.8% of total consumption in Apr-20.

The decrease of thermal generation (-6.5% y/y) and imports (-55.2%y/y) is explained by decreased demand on electricity. 82.0% of electricity imports came from Russia, mostly for satisfaction of Abkhazian region's increased consumption, the rest was imported from Azerbaijan. Total cost of electricity imports also decreased, by 60.2% y/y and totalled just US\$ 1.6mn in Apri-20. Average price of imports decreased 11.3% v/v to USc 4.4/kWh, due to comparatively cheap electricity from Salkhino line for Abkhazian region's supply.

Figure 3: Electricity generation and imports, GWh - April 2020



Source: ESCO

1,400

In 4M20, 53.8% of demand on electricity was met by hydro generation (-1.8% y/y), 28.0% by thermal generation (-11.1% y/y) and 17.4% of total supply was imported (+27.1% y/y). 52.4% of electricity was imported from Azerbaijan and the rest came from Russia (47.6% of total). Notably, electricity imports for Abkhazian region accounted for the third of total electricity imports and c.70% of imports from Russia.

Table 2: Demand growth breakdown, 4M20

| Consumer | Growth rate, y/y | Share in consumption | | | | |
|-------------------------|------------------|----------------------|--|--|--|--|
| Domestic consumption | -0.8% | 100.0% | | | | |
| Abkhazian region | +10.2% | 23.2% | | | | |
| Eligible consumers | +53.4% | 20.3% | | | | |
| Distribution | -15.0% | 56.5% | | | | |
| Energo-Pro Georgia | -20.2% | 34.8% | | | | |
| Telasi | -5.2% | 21.7% | | | | |
| Source: ESCO | | | | | | |

Note: Includes January-April period of 2020

Table 3: Supply growth breakdown, Apr-20

| Supply source | Growth rate, y/y | Share in supply | | | |
|----------------------|------------------|-----------------|--|--|--|
| Total Supply | -6.4% | 100.0% | | | |
| Imports | -55.2% | 3.7% | | | |
| Domestic generation | -2.3% | 96.3% | | | |
| TPPs | -6.5% | 15.1% | | | |
| WPPs | +23.4% | 0.9% | | | |
| HPPs | -1.7% | 80.3% | | | |
| Enguri and Vardnili | -18.9% | 19.8% | | | |
| Other regulated HPPs | -1.3% | 31.3% | | | |
| Deregulated HPPs | +14.1% | 29.3% | | | |
| | | | | | |

Source: ESCO

The increased supply of deregulated HPPs is related to the commissioning of khevi HPP. In some cases, the difference between the total data and the sum constituent parts is explained by the rounding

Note: Percentages on the graph represent y/y growth rates



Electricity Prices in Georgia and Turkey – April 2020

Balancing electricity price in Georgia was USc 5.1/kWh (+5.0% y/y) in Apr-20. The balancing electricity in Apr-20 was formed mostly by electricity generated from power plants with PPAs (82.2%) and from imports (17.2% of total). A 21.5% of total electricity supplied to the grid was traded through the market operator (ESCO), with the rest traded through bilateral contracts. Buyers of balancing electricity were mainly distribution companies and direct consumers.

Turkish electricity prices fell by 5.5% in TRY, while due to Lira depreciation the prices in US\$ decrease much significantly by 20.5% y/y and stood at USc 2.7/kWh in Apr-20.

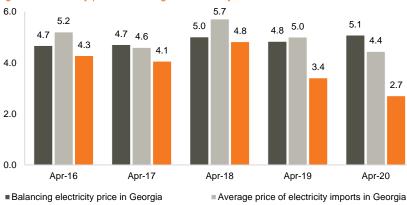


Figure 4: Electricity prices in Georgia and Turkey, USc/kWh

Balancing electricity price in Geol
Market clearing price in Turkey

Source: ESCO, GeoStat, NBG, EPIAS

Table 4: Electricity prices in Georgia and Turkey, USc/kWh

| | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | 2019 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | 4M20 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|
| Balancing electricity price in Georgia | 2.7 | 2.6 | 4.7 | 4.9 | 5.0 | 5.0 | 5.2 | 5.1 | 4.8 | 5.1 | 4.9 | 6.1 | 5.1 | 5.3 |
| % change y/y | -50% | -50% | 30% | 4% | 12% | -6% | 2% | -4% | -5.0% | 0% | -5% | 21% | 5% | 5.9% |
| Average price of electricity imports in Georgia | 5.5 | 5.5 | 5.2 | 5.2 | 5.1 | 4.7 | 5.0 | 5.2 | 4.8 | 5.1 | 3.2 | 3.8 | 4.4 | 3.9 |
| % change y/y | -5% | -4% | -13% | 12% | 20% | -7% | 1% | 0% | -4.1% | 2% | -29% | 3% | -11% | -11.2% |
| Average price of electricity exports from Georgia | 3.0 | 3.2 | NM | NM | NM | NM | NM | NM | 3.2 | NM | NM | NM | NM | NM |
| % change y/y | -8% | 1% | | | | | | | -0.4% | | | | | |
| Market clearing price in Turkey | 3.4 | 4.1 | 5.4 | 5.4 | 5.3 | 5.1 | 5.3 | 5.4 | 4.7 | 5.4 | 5.0 | 4.0 | 2.7 | 4.7 |
| % change y/y | -18% | 1% | 23% | 2% | 1% | -7% | -4% | 9% | -0.3% | 23% | 1% | -18% | -21% | 6.7% |

Source: ESCO, GeoStat, NBG, EPIAS

Note: when export or import is insignificant the average tariff is not-meaningful (NM)



Table 5: Electricity Balance, GWh

| | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | 2019 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | 4M20 |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| Domestic consumption, total | 984 | 1,064 | 1,107 | 1,103 | 971 | 958 | 1,068 | 1,173 | 12,759 | 1,190 | 1,122 | 1,049 | 939 | 4,299 |
| % change y/y | +2% | +9% | +1% | +5% | +2% | -2% | -0.8% | +0.2% | +1.4% | +3.6% | +8.3% | -7.8% | -7.1% | -0.8% |
| Of which: | | | | | | | | | | | | | | |
| - Abkhazian Region | 114 | 108 | 117 | 128 | 115 | 126 | 197 | 251 | 2,060 | 273 | 269 | 233 | 221 | 997 |
| % change y/y | +13% | +7% | +1% | +6% | +9% | +3% | +2% | +3% | +7.2% | +7% | +22% | -4% | +18% | +10.2% |
| - Eligible consumers | 313 | 324 | 334 | 308 | 290 | 257 | 239 | 227 | 2,864 | 225 | 203 | 224 | 223 | 874 |
| % change y/y | +74% | +84% | +84% | +80% | +81% | +52% | +50% | +42% | +59.6% | +56% | +58% | +45% | +55% | +53.4% |
| - Distribution Companies | 557 | 631 | 656 | 666 | 566 | 575 | 632 | 695 | 7,835 | 692 | 649 | 592 | 495 | 2,428 |
| % change y/y | -18% | -10% | -17% | -12% | -18% | -16% | -13% | -10% | -11.6% | -8% | -5% | -20% | -27% | -15.0% |
| Of which: | | | | | | | | | | | | | | |
| - Energo-Pro Georgia | 341 | 379 | 404 | 424 | 358 | 360 | 379 | 416 | 4,933 | 412 | 388 | 370 | 324 | 1,495 |
| % change y/y | -26.8% | -20.3% | -22.8% | -18.6% | -23.4% | -22.7% | -20.6% | -15.5% | -16.3% | -14.2% | -12.9% | -24% | -29% | -20.2% |
| -Telasi | 216 | 252 | 252 | 243 | 208 | 215 | 253 | 279 | 2,902 | 279 | 262 | 222 | 170 | 934 |
| % change y/y | +1% | +12% | -7% | +3% | -6% | -2% | +2% | +1% | -2.3% | +4% | +8.6% | -12.2% | -23.0% | -5.2% |
| Domestic Generation, | 1,156 | 1,198 | 1,055 | 1,020 | 821 | 800 | 913 | 1,012 | 11,865 | 1,031 | 851 | 867 | 944 | 3,692 |
| total % change y/y | -0% | -1% | -17% | +4% | -3% | +2% | +1% | +3% | -2.3% | +2% | -9% | -11% | -2% | -5.1% |
| Of which: | -078 | -170 | -17 /0 | +4 /0 | -570 | +2 /0 | +170 | +370 | -2.3 /0 | +2 /0 | -370 | -1170 | -2 /0 | -5.170 |
| - TPPs | 0 | 7 | 3 | 138 | 207 | 214 | 402 | 460 | 2,840 | 552 | 398 | 153 | 148 | 1,252 |
| % change y/y | -100% | +141% | -52% | -8% | +29% | +8% | +22% | +67% | +34.3% | +37% | -5% | -64% | -6% | -11.1% |
| - WPPs | 6 | 5 | 9 | 8 | 7 | 6 | 8 | 7 | 85 | 8 | 7 | 9 | 8 | 32 |
| % change y/y | +17% | +6% | +11% | +9% | -11% | -19% | +16% | +5% | +0.5% | +36% | -9% | +7% | +23% | +12.7% |
| - HPPs | 1,150 | 1,185 | 1,043 | 874 | 607 | 580 | 503 | 545 | 8,940 | 471 | 445 | 705 | 787 | 2,408 |
| % change y/y | 7% | -1% | -17% | 6% | -11% | 0% | -11% | -23% | -10.1% | -22% | -12.9% | 30.5% | -2% | -1.8% |
| Of which: | 170 | 170 | 11.70 | 0,0 | 1170 | 0,0 | 1170 | 2070 | 101170 | 2270 | 12.070 | 00.070 | 270 | |
| - Enguri and Vardnili | 531 | 653 | 540 | 518 | 276 | 225 | 223 | 230 | 4,028 | 214 | 141 | 173 | 194 | 722 |
| % change y/y | +5% | -5% | -35% | +1% | -26% | -9% | +12% | -11% | -15.3% | -19% | -31% | +41% | -19% | -13.2% |
| - Other regulated HPPs | 320 | 257 | 268 | 200 | 162 | 182 | 135 | 179 | 2,593 | 135 | 168 | 262 | 307 | 871 |
| % change y/y | +6% | -8% | +8% | +26% | -11% | -5% | -33% | -29% | -11.6% | -24% | +0% | +11% | -1% | -2.3% |
| - Other HPPs | 300 | 275 | 235 | 157 | 168 | 173 | 145 | 137 | 2,319 | 122 | 136 | 270 | 287 | 816 |
| % change y/y | 9% | 17% | 39% | 1% | 33% | 23% | -10% | -29% | +2.7% | -23% | -2% | 49% | 14% | +11.8% |
| Imports | 0 | 8 | 94 | 119 | 185 | 195 | 200 | 211 | 1,627 | 214 | 312 | 218 | 36 | 780 |
| % change y/y | -99% | +29% | NM | +20% | +33% | -15% | -9% | -8% | +7.8% | +18% | +119.0 | +4% | -55.2% | +27.1% |
| Exports | 134 | 100 | 6 | 0 | 0 | 3 | 0 | 0 | 243 | 0 | % 1 | 0 | 6 | 7 |
| % change y/y | -32.8% | -48.7% | -95.3% | N/A | N/A | N/A | N/A | N/A | -58.6% | N/A | N/A | N/A | N/A | N/A |
| Trade balance | 134 | 92 | (88) | (119) | (185) | (193) | (200) | (211) | (1,383) | (214) | (312) | (218) | (30) | (773) |
| Transit | - | - | - | 38 | 33 | - | 22 | 19 | 14 | 26 | 25 | • | - | 51 |
| % change y/y | N/A | N/A | N/A | N/A | N/A | N/A | -80% | -83% | -94.3% | N/A | +174% | N/A | N/A | +117% |

Source: ESCO Note: Eligible consumers are commercial entities consuming over 5GWh electricity per month. Other regulated HPPs have tariff cap set by GNERC. These HPPs are Vartsikhe, Zhinvali, Khrami-1, Khrami-2, Lajanuri, Dzevrula, Gumati, Rioni, Shaori



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