



Georgia's Energy Sector Electricity Market Watch

Georgia | Energy
Monthly Bulletin
March 25, 2016

13.2MW Tkibuli coal power plant is now operating in test mode. Tkibuli CPP is owned and operated by Georgian Industrial Group (GIG), per the build-operate-own agreement signed with the GoG in November 2015. Tkibuli CPP is already registered with the market operator, ESCO, to purchase electricity as an eligible consumer. Tkibuli CPP is bound by a 10-year PPA to sell 100% of the electricity generated September through April to ESCO at USc 5.9/kWh in 2016, with 2% annual increases starting in 2017. Tkibuli CPP does not have the designation of a guaranteed capacity source, unlike other TPPs, and will operate using locally mined coal exclusively.

Electricity market highlights, February 2016

Balancing price of electricity in Georgia, February*	USc 5.5 / kWh
Market clearing price of electricity in Turkey, February*	USc 3.7 / kWh
Average export price for Georgian electricity, February*	No exports
Average import price for electricity, February*	USc 4.5 / kWh
Y/Y increase in domestic consumption* in kWh, February	3.6%
Y/Y increase in exports in kWh, February	No exports
Y/Y increase in exports to Turkey in kWh, February	No exports

*Average exchange rates in February GEL/US\$ = 2.4829; TRY/US\$ = 2.9407

Georgia will receive an additional 500 mmcm of natural gas from Azerbaijan, per the amendments signed by the two sides on March 4, 2016. In line with this agreement, the price on social gas (households and power generation) will also be reduced, but the magnitude of the reduction has not been specified. SOCAR has also expressed readiness to reduce commercial prices for natural gas filling stations by US\$ 35-40/mcm.

European Commission (EC) approved the agreement between Greece and Trans Adriatic Pipeline (TAP). The approval is an important step towards completing the Southern Gas Corridor (SGC). Georgia is a strategic partner in the SGC project, which entails the expansion of SCP (Southern Caucasus Pipeline), the natural gas pipeline from Azerbaijan, through Georgia to Turkey – a crucial transit link for Azerbaijani gas supply to Turkey (TANAP) and further to Greece, Albania, and Italy (TAP). Georgia will be the recipient of US\$ 2bn investment in the coming three years and once the SCP expansion is complete, will have access to additional natural gas at a discounted price.

GNERC will actively enforce supply quality control standards for distribution network operators. GNERC will be applying indices that are widely used to monitor transmission and distribution companies in the EU. The key performance indicators actively monitored will be average outage duration, average number of interruptions, and energy not supplied due to incidents in the transmission network. DNOs will be fined if they cannot achieve the required improvements, as measured by these indicators. GNERC will also be expecting a three year supply development plan from water utilities.

Electricity Generation, Consumption and Exports

Domestic electricity consumption was up 3.6% y/y in February 2016. The growth was concentrated in the greater Tbilisi area, with a 14.3% y/y increase in Telasi consumption (38.8% of total DNO consumption), while consumption in the regions (Energo-Pro, 56.8% of total DNO consumption) was up only 0.6% y/y. Consumption by eligible consumers is still decreasing (-13.8% y/y in February 2016), but at a significantly lower rate than in the previous months. Its share in total consumption is down from 12.3% in February 2015 to 10.2% in February 2016. Georgian Manganese remains the key driver of the decrease, with its consumption down 16.2% y/y in February 2016. Another factor was the Rustavi Water Company (RWC), which is no longer registered as an eligible consumer and is now serviced by Energo-Pro Georgia. It is worth noting that RWC only accounted for less than 3% of consumption by eligible consumers. The Abkhazian region faced an electricity deficit in February (expected to continue in March), due to low water levels in Enguri and Vardnili HPPs, the region's sole electricity sources. The Ministry of Energy implemented a short-term solution by negotiating a deal with Russian suppliers for additional capacity (29.2gWh). However, with ever-growing electricity demand in the Abkhazian region, a longer-term solution is needed, as underlined by the Minister of Energy.

Nino Papava

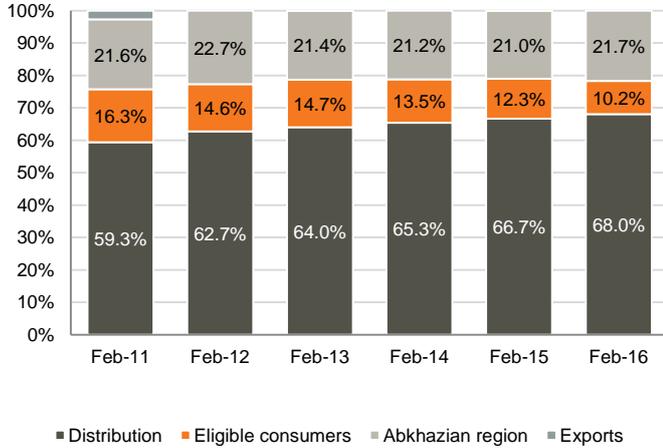
Head of Investment Research | n.papava@gt.ge | +995 322 401 111 ext.4693

Tamara Kurdadze

Analyst | tamarkurdadze@gt.ge | +995 322 401 111 ext.4298

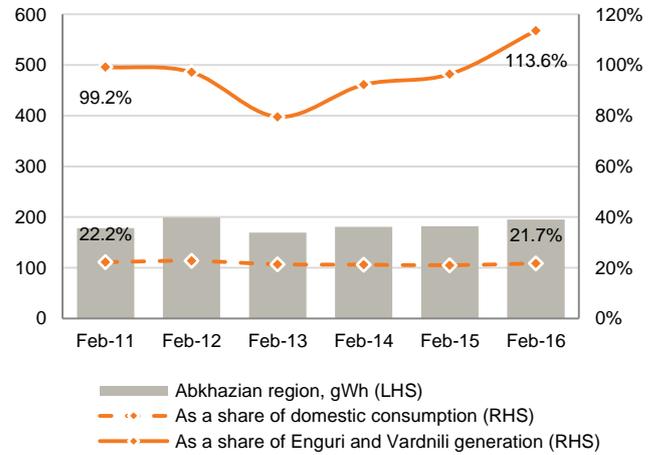


Figure 1: Domestic electricity consumption and export



Source: ESCO

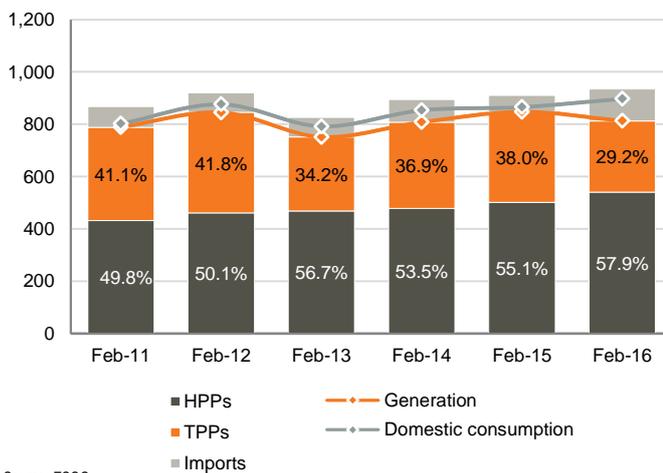
Figure 2: Electricity consumption, Abkhazian region



Source: ESCO

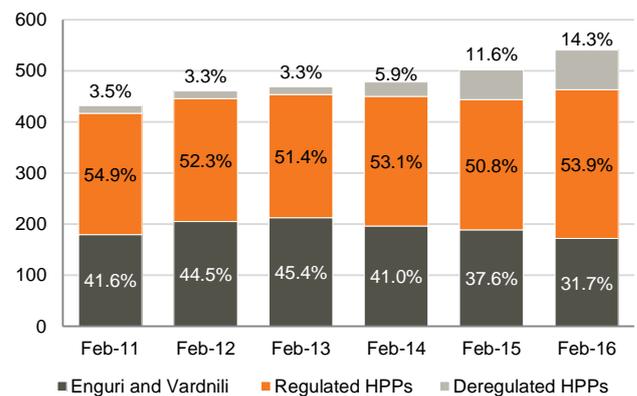
In February 2016, domestic generation decreased 4.0% y/y on the back of reduced TPP output. The amount of TPP-generated electricity decreased 21.3% y/y, due to a 93.6% y/y decrease in electricity generated by Tbilisresi. Tbilisresi accounted for only 4.3% of total TPP output in February 2016, while that figure was 53.2% in February 2015. This drop was partially offset by the newly commissioned Gardabani TPP, which accounted for 40.4% of total TPP output in February 2016. Consequently, the share of imported electricity increased in the total electricity supplied to the grid, with imports almost doubling (+91.8% y/y) in comparison to February 2015. The drastic increase was partly due to a one-off event – importing additional electricity from Russia to fill the deficit in the Abkhazian region. Output of the regulatory HPPs, Enguri and Vardnili, was down 8.9% y/y due to low precipitation. Generation by other HPPs was up, resulting in an increased share in domestic generation.

Figure 3: Electricity generation, import, and domestic consumption, gWh



Source: ESCO

Figure 4: Hydro generation, gWh



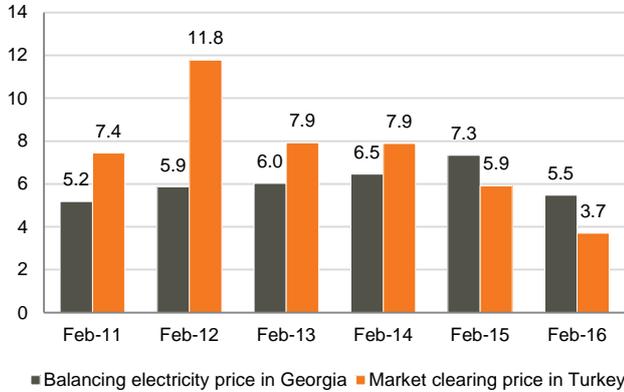
Source: ESCO

Electricity Prices in Georgia and Turkey

The balancing electricity price in Georgia was down 25.3% y/y to USc 5.5/kWh. The market clearing price of electricity in Turkey was down 37.3% y/y to USc 3.7/kWh. Since the balancing electricity price in Georgia is the weighted average price of electricity traded by ESCO, it is important to note that in February 2016, only 7.5% of locally generated electricity was sold through ESCO; the rest was traded through bilateral contracts. Furthermore, 60.9% of ESCO-traded electricity in February 2016 was imported, so the balancing electricity price largely reflected the price of imported electricity. Average import price of electricity was down 31.7% y/y to USc 4.5/kWh, as compared to over USc 6/kWh in previous years. The relatively low price of imported electricity was due to the significantly discounted Russian electricity that Georgia imported to fill the deficit in the Abkhazian region. 92.0% of total imported electricity came from Russia and the rest from Azerbaijan. There were no electricity exports in February 2016.

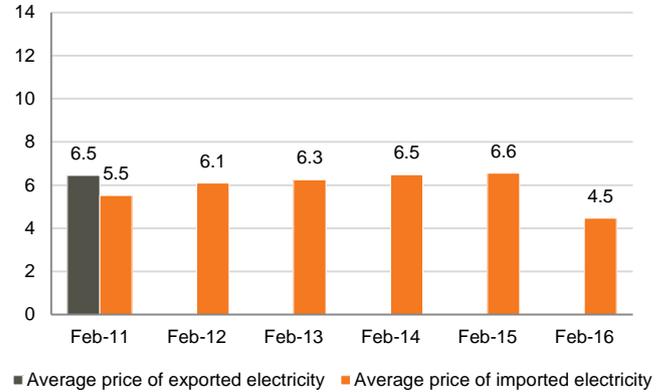


Figure 5: Electricity prices in Georgia and Turkey, USc/kWh



Source: ESCO, EPIAS

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

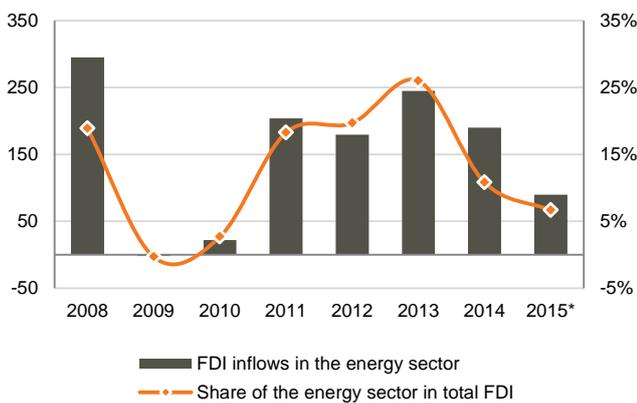


Source: ESCO, GeoStat

FDI in the Energy Sector

According to preliminary figures, net FDI inflows in the energy sector made up US\$ 89.9mn, or 6.7% of total FDI inflows in 2015. A significant recipient of FDI was the Shuakhevi HPP in the Adjara region, which is being constructed by Clean Energy (Norway) and Tata Power (India). Along with Adjaristsqali Georgia (the joint venture building Shuakhevi HPP), Nenskra Hydro also landed among the top 10 recipients of FDI in 2015. While there was a 52.7% y/y drop in net FDI to the energy sector, investor interest in the hydro sector remains high. As of February 2016, 26 HPP projects, with total installed capacity of 1,869MW, are in the construction or licensing stages (estimated investment cost of US\$ 3.2bn), while an additional 25 HPP projects (1,075MW total installed capacity) are in the feasibility study stage with construction rights.

Figure 7: FDI in the energy sector, US\$ mn



Source: GeoStat
* Preliminary data



Disclaimer

This document is strictly confidential and has been prepared by JSC Galt & Taggart ("Galt & Taggart"), a member of JSC Bank of Georgia group ("Group") solely for informational purposes and independently of the respective companies mentioned herein. This document does not constitute or form part of, and should not be construed as, an offer or solicitation or invitation of an offer to buy, sell or subscribe for any securities or assets and nothing contained herein shall form the basis of any contract or commitment whatsoever or shall be considered as a recommendation to take any such actions.

Galt & Taggart is authorized to perform professional activities on the Georgian market. The distribution of this document in certain jurisdictions may be restricted by law. Persons into whose possession this document comes are required by Galt & Taggart to inform themselves about and to observe any and all restrictions applicable to them. This document is not directed to, or intended for distribution, directly or indirectly, to, or use by, any person or entity that is a citizen or resident located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction.

Investments (or any short-term transactions) in emerging markets involve significant risk and volatility and may not be suitable for everyone. The recipients of this document must make their own investment decisions as they believe appropriate based on their specific objectives and financial situation. When doing so, such recipients should be sure to make their own assessment of the risks inherent in emerging market investments, including potential political and economic instability, other political risks including without limitation changes to laws and tariffs, and nationalization of assets, and currency exchange risk.

No representation, warranty or undertaking, express or implied, is or will be made by Galt & Taggart or any other member of the Group or their respective directors, employees, affiliates, advisers or agents or any other person as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of this document and the information contained herein (and whether any information has been omitted from this document) and no reliance should be placed on it. This document should not be considered as a complete description of the markets, industries and/or companies referred to herein. Nothing contained in this document is, is to be construed as, or shall be relied on as legal, investment, business or tax advice, whether relating to the past or the future, by Galt & Taggart any other member of the Group or any of their respective directors, employees, affiliates, advisers or agents in any respect. Recipients are required to make their own independent investigation and appraisal of the matters discussed herein. Any investment decision should be made at the investor's sole discretion. To the extent permitted by law, Galt & Taggart, any other member of the Group and their respective directors, employees, affiliates, advisers and agents disclaim all liability whatsoever (in negligence or otherwise) for any loss or damages however arising, directly or indirectly, from any use of this document or its contents or otherwise arising in connection with this document, or for any act, or failure to act, by any party, on the basis of this document.

The information in this document is subject to verification, completion and change without notice and Galt & Taggart is not under any obligation to update or keep current the information contained herein. The delivery of this document shall not, under any circumstances, create any implication that there has been no change in the information since the date hereof or the date upon which this document has been most recently updated, or that the information contained in this document is correct as at any time subsequent to the date on which it is supplied or, if different, the date indicated in the document containing the same. No representation or warranty, expressed or implied, is made by Galt & Taggart or any other member of the Group, or any of their respective directors, employees, affiliates, advisers or agents with respect to the accuracy or completeness of such information.

The information provided and opinions expressed in this document are based on the information available as of the issue date and are solely those of Galt & Taggart as part of its internal research coverage. Opinions, forecasts and estimates contained herein are based on information obtained from third party sources believed to be reliable and in good faith, and may change without notice. Third party publications, studies and surveys generally state that the data contained therein have been obtained from sources believed to be reliable, but that there is no guarantee of the accuracy or completeness of such data. Accordingly, undue reliance should not be placed on any such data contained in this document. Neither Galt & Taggart, any other member of the Group, nor their respective directors, employees, affiliates, advisers or agents make any representation or warranty, express or implied, of this document's usefulness in predicting the future performance, or in estimating the current or future value, of any security or asset.

Galt & Taggart does, and seeks to do, and any other member of the Group may or seek to do business with companies covered in its research. As a result, investors should be aware of a potential conflict of interest that may affect the objectivity of the information contained in this document.

This document is confidential to clients of Galt & Taggart. Unauthorized copying, distribution, publication or retransmission of all or any part of this document by any medium or in any form for any purpose is strictly prohibited.

The recipients of this document are responsible for protecting against viruses and other destructive items. Receipt of the electronic transmission is at risk of the recipient and it is his/her responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

Head of Investment Research

Nino Papava | n.papava@gt.ge

Economist

Eva Bochorishvili | evabochorishvili@gt.ge

Economist

Alim Hasanov | ahasanov@gt.ge

Senior Associate

Giorgi Iremashvili | giremashvili@gt.ge

Senior Analyst

David Ninikelashvili | dninikelashvili@gt.ge

Analyst

David Kutidze | dkutidze@gt.ge

Analyst

Tamara Kurdadze | tamarkurdadze@gt.ge

Address: 79 D. Agmashenebeli Avenue, Tbilisi 0102, Georgia

Tel: + (995) 32 2401 111

Email: research@gt.ge