

Where finance and green technologies meet

GEFF in Georgia Newsletter N4: 01.2021



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Increased tariffs for electricity

On 29 December, GNERC issued new tariffs on electricity. The new tariffs are effective from 1 January 2021 to 31 December 2025.

As expected, they have increased both for individuals and for businesses. Depending on usage, the new rates for individuals have risen by almost GEL 0.035 a month, while the average increase for businesses is between GEL 0.11 and 0.13/month.

While the government plans to subsidise the difference in consumer rates, the almost 70% increase in commercial rates will put a considerable strain on businesses that might result in higher prices for final consumer goods. Now more than ever, businesses have to start considering alternative sources of energy.

According to Bloomberg New Energy Outlook, wind and PV will grow to generate 56% of electricity by 2050. With innovation and scale driving the cost of renewable energy down and increasing the quality of technology, renewables are now the cheapest new electricity, and in five years, they will even be cheaper than coal and gas.

Solar energy is slowly gaining popularity in Georgia, with new suppliers coming to the market. More and more businesses are adopting this resource: statistics show that 40% of the solar stations in Georgia were set up in 2020. Given

the increased tariffs described above, the number of stations is expected to grow from 2021 on.

The financial benefits of a solar power plant are very attractive: an investment of US\$ 55,000 could offer annual electricity savings of up to US\$ 7,000.

Considering the recent changes in rates, utility bills can add up to US\$ 11,000 annually. It is up to businesses now: the difference of US\$ 4,000 can be either paid in electricity bills or put to better use by investing in a solar energy-generating plant.

Key results as of December 2020

- GEFF in Georgia has financed 10 projects of up to € 5.9 million through three partner financial institutions (PFIs), resulting in the reduction of primary energy consumption by 84,000 MWh/year and savings of 20,121 tonnes of CO₂ annually.
- 762 EE and RE technologies offered by 24 vendors from around Georgia are made accessible through the Green Technology Selector at <https://techselector.com/georgia-en/>

Energy sector overview



Image: EU neighbours

The alarming speed at which COVID-19 is spreading around the globe has prompted most countries to impose tight restrictions on movement. The entire planet has practically come to a standstill, resulting in an economic downturn that will inevitably set the world back a few years.

In 2020, the Georgian economy consumed 6% less energy compared to 2019. According to official statistics, the country used 9.89 billion kw/h energy, which is 638 million kw/h less than in 2019. With Georgians using less energy, less of it is being imported from abroad. In the first 10 months of 2020, Georgia purchased US\$ 43.6 million worth of electricity. However, due to low energy demand around the world, exports have also decreased: compared to 2019, they are down by 37%, which still leaves a sizable gap between energy imported and exported. This gap is expected to widen, as the largest HPP in the country, Enguri, will be closed from 20 January until late April due to renovation works. Experts say that this shutdown will cause

the Georgian energy sector to lose about 300 million kWh of electricity.

Georgia has been a net electricity importer for the last several years, and with the country's steadily growing electricity demand, the supply-demand gap is growing with it. Given that the country can only cover around 30-35% of its energy consumption through local generation, Georgia is highly dependent on resources imported from abroad. As this negatively impacts energy security, strengthening its energy independence is one of the commitments the country has made through the Protocol on the Accession of Georgia to the Energy Community Treaty. Specialists agree that one of the ways to increase the country's energy security is to develop internal energy resources. To this end, there are new HPPs and RE projects in various stages of development.

While large-scale projects are hampered by a number of barriers that need time and effort to overcome, the [latest advances](#) in the energy market are already enabling businesses to take considerable steps in increasing their energy security. Thanks to changes in the net-metering system, businesses can now invest in [green technologies](#) and projects that would allow them to generate their own electricity and thus (1) become energy independent, (2) reduce electricity bills, and (3) become electricity suppliers. The GEFF programme finances a range of renewable energy projects, from hydropower, which can generate the cheapest and most stable supply of electricity, to solar power, which has the least impact on the environment.

Bill on environmental responsibility

In 2020, the Georgian parliament adopted the draft law on Environmental Responsibility, which was prepared in accordance with the Georgia-EU Association Agreement with the active participation of the Department of Environmental Supervision at the Ministry of Environment Protection and Agriculture, in two readings.

Rather than impose monetary fines for damage caused to the environment, the bill advances an effective method to prevent or soften the damage. In principle, the new law will obligate the polluter – whether an individual or business – to take the corrective measures themselves. In addition, polluters will be obliged to make necessary changes to their infrastructure in order to prevent similar damage in the future.

After the approval of the package in the third reading, the government will establish appropriate sanctions, which are essential for preventing environmental violations.

It is a commonly known fact that human and economic activity negatively impacts the environment. Producing goods, constructing residential and commercial buildings, and extracting natural resources all take a toll on the world we live in. However, there are ways to minimise the impact these activities have on the environment.

Production companies can invest in green technologies that [double their capacity](#) but reduce CO2 emissions. Hotels can upgrade to new systems that [decrease their energy use](#) by 90%, while construction companies can purchase building machinery that uses less fuel and offer residential apartments with energy-efficient heating systems installed. With the adoption of new laws, all of these measures will not only reduce the negative impact on the environment, but help businesses avoid unnecessary expenditures.

GEFF in Georgia represented at “Green Hydrogen: Georgia & Ukraine entering the market” conference



“Green” hydrogen is gaining recognition as the world’s cleanest fuel. With no carbon footprint and requiring only water and renewable energy to produce, this resource has more and more countries striving to increase production. The European Union is targeting a 6 GW (gigawatt) installed base by 2024, 40 GW by 2030 and 500 GW by 2050. The current base is only 0.1 GW.

Ukraine is one of the potential suppliers of green hydrogen, which is gaining momentum there and

is seen as a way to achieve the country’s decarbonisation goals. Ukraine has the potential for substantial hydrogen production: it is estimated that more than 500 million m³ of green hydrogen could be produced there annually and various hydrogen-related projects are starting to be unveiled in the country.

Alongside Ukraine, Georgia can also become a new player on the green hydrogen market. The water currently wasted during the summer months

would be put to better use producing hydrogen, which could then be blended and transported to end-users through existing gas pipelines.

In keeping with this development, GEFF in Georgia participated in the “Green Hydrogen: Georgia & Ukraine entering the market?” event held online on 10 December 2020. Aleksandr Riepin, President of the Ukrainian Hydrogen Council, Daniel Potash, Chief of Party at the USAID Energy Program, and David Managadze, EBRD’s Regional Head – Caucasus, discussed Ukraine’s and Georgia’s current stance on green hydrogen and analysed the potential of both countries to become major green hydrogen producers.

Ukraine is already taking strides towards hydrogen production. The Ukrainian Hydrogen Council is the first non-EU member of Hydrogen Europe. The country has a hydrogen strategy in place and

is already thinking of ways to promote green hydrogen further.

Georgia is just starting to test the water and is studying the current situation. As the Chief of Party at the USAID Energy Program outlined, besides supplying gas to Europe, some of the internal goals for hydrogen in Georgia would be covering the country’s own winter demand, improving energy security and developing green tourism. Mr. Potash went on to detail the potential investment costs of hydrogen production and concluded by making recommendations for further steps.

The conference ended with a presentation by the EBRD’s Regional Head – Caucasus, in which David Managadze outlined the bank’s short-term role in developing the hydrogen economy in its regional operations.

Events and awareness-building activities by GEFF in Georgia



Image: ProCredit Bank Georgia

Sustainable economic development requires the preservation of natural resources and respect for human and social rights. Green investments are an important aspect of this constellation, as they limit and mitigate the effects of climate change, which is becoming an increasingly urgent threat. Therefore, it is good to see that green investments have been growing over the past few years, mostly in energy efficiency and renewable energy.

Green Finance is important as it promotes and supports the flow of innovative financial instruments and related services towards the development and implementation of sustainable business models, investments, trade, economic, environmental and social projects and policies.

In line with this objective, the GEFF in Georgia team continued to actively support the promotional activities undertaken by the PFIs over the past few months. Within the context of sector-specific informational events and training for potential investors (MSMEs, midcaps), the organising team provided consultancy and support towards the development of green products and available innovative financing solutions. In this way, demand-oriented information was given to assist local businesses in their efforts to choose the right technologies. The participating representatives learned about the benefits of investing in specific green measures, received relevant sector-specific information, and gained access to the right suppliers and financial institutions – “all from a single source”.

The jointly conducted event with **ProCredit Bank – “Green standards for sustainable business development”** – focused on solar energy, informing participants about the benefits of this renewable energy source and the related technical solutions. The topic is of particular importance since the recent changes in the EE/RE legal framework – the Georgian net-metering system was significantly adjusted during the summer period – have made solar energy generation an attractive investment for local businesses and individuals. Accordingly, the event, which was held on 20 November 2020, was in high demand: more than 70 representatives of local businesses attended, with half of them

participating in the online conference platform and half following via the connected Facebook live-stream. The lively [interactive event](#) included active discussions about investment costs, payback periods, and financial benefits, as well as new trends and technologies. As the first financial institution in Georgia with its own solar power plant – an impressive distinction – ProCredit Bank shared valuable information about its own experience with these power generation systems. The discussion was rounded off with the bank’s observations about its rainwater systems and its electric vehicle-based car fleet.



Another successful sector-specific informational event was jointly conducted with **Basis Bank** on 16 December 2020. More than 55 local construction companies, building developers and green vendors attended the online event dedicated to **“Energy-efficient green buildings”**, where they became acquainted with the latest trends in the building sector, the concept of green buildings and the related targeted financing schemes. The presentation of the bank’s client outlining its own recently implemented project was particularly well-received. The investor highlighted the benefits resulting from specific technical solutions as well as the importance of adopting energy efficiency measures, with the conclusion that “the earlier we do it the better”. With the world facing the problem of climate change, it has become increasingly important to address carbon emissions in the building industry, which accounts for 39% of the world’s energy-related CO₂ emissions. It is therefore vital to implement sound energy-efficiency measures at each stage of the building process, from construction to demolition, as they can help create healthy and comfortable spaces for life, work and play.

Since the time allotted for this [interesting event](#) was limited, several participants took the organ-

isers up on their offer to address their questions and comments separately within the next few days. On this occasion some investors even started to discuss their upcoming projects and cooperation with the Basis Bank, which was very interesting and gratifying for all parties.

Finally, several joint promotional activities were conducted with **TBC Bank**. More specifically, as part of the bank’s online business academy – a platform for sharing experience and best practices between TBC Bank and interested parties, such as local businesses and private individuals – a series of events entitled **“Investment in Renewable Energy”** (30 October 2020), **“Energy-efficiency in production”** (11 November 2020), “Green buildings” (27 November 2020), and **“Opportunities of using solar energy”** (16 December 2020) was arranged. Each session consisted of a brief introduction to the GEFF, targeted presentations and lively discussions on the event topic, real case studies and a final Q&A session. The response was very positive: 129 registrations were received for the four events and each session had a high level of engagement.

The topic related to production was chosen since this sector has significant potential for improvement in Georgia in terms of the environmental impact and therefore might be particularly interesting for adopting “green practices”. The issue is indeed topical: the organisers observed that the attendees were very keen on learning more about specific technologies that work towards improving the production and manufacturing of various products – both in terms of production processes and product quality.



Image: MEPA Georgia

In summary, all of the promotional activities jointly implemented with the banks can be considered a success:

(1) All activities were well attended by representatives of local businesses. The events were characterised by lively discussions and Q&A sessions, as the issues at hand were highly topical.

(2) The feedback received after each event indicates that the topics were presented in an easily comprehensible form. The participants understood the potential benefits and advantages of green investments, and some of them are seriously considering investing in new technologies. As the event was

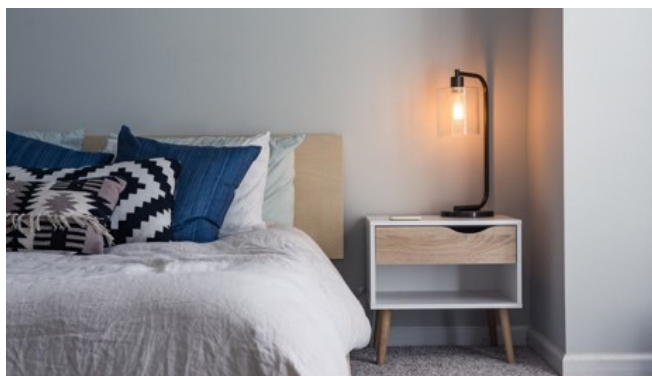
well designed and organised, the promotional activities achieved their goals.

(3) A number of event participants contacted the organisers afterwards with questions and requests for more information, which is additional proof that the topics of energy efficiency and renewable energy are of particular interest to local businesses. The participants encouraged the organisers to continue to hold these types of activities and provide additional detailed information about new technologies. The message is clear: the GEFF in Georgia team and all PFIs will arrange future awareness-raising activities – and new events are already in progress.

Success Story

Angelteri Ltd

Angelteri, an up-and-coming company, is determined to contribute to the development of the tourism industry in Zugdidi by building an energy-efficient hotel.



Location	Zugdidi, Georgia
Investment	Energy-efficient building shell, windows, doors, heating and cooling systems, LED lighting
Investment size	US\$ 166,968
Energy savings	299.2 MW/h per year
CO₂ savings	58.28 tonnes per year
Impact	Reduced energy consumption
Donor	GCF, BMF

GEFF | Green Economy Financing Facility
 georgia@ebrdgeff.com
 +995 32 2290890
www.ebrdgeff.com/georgia

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