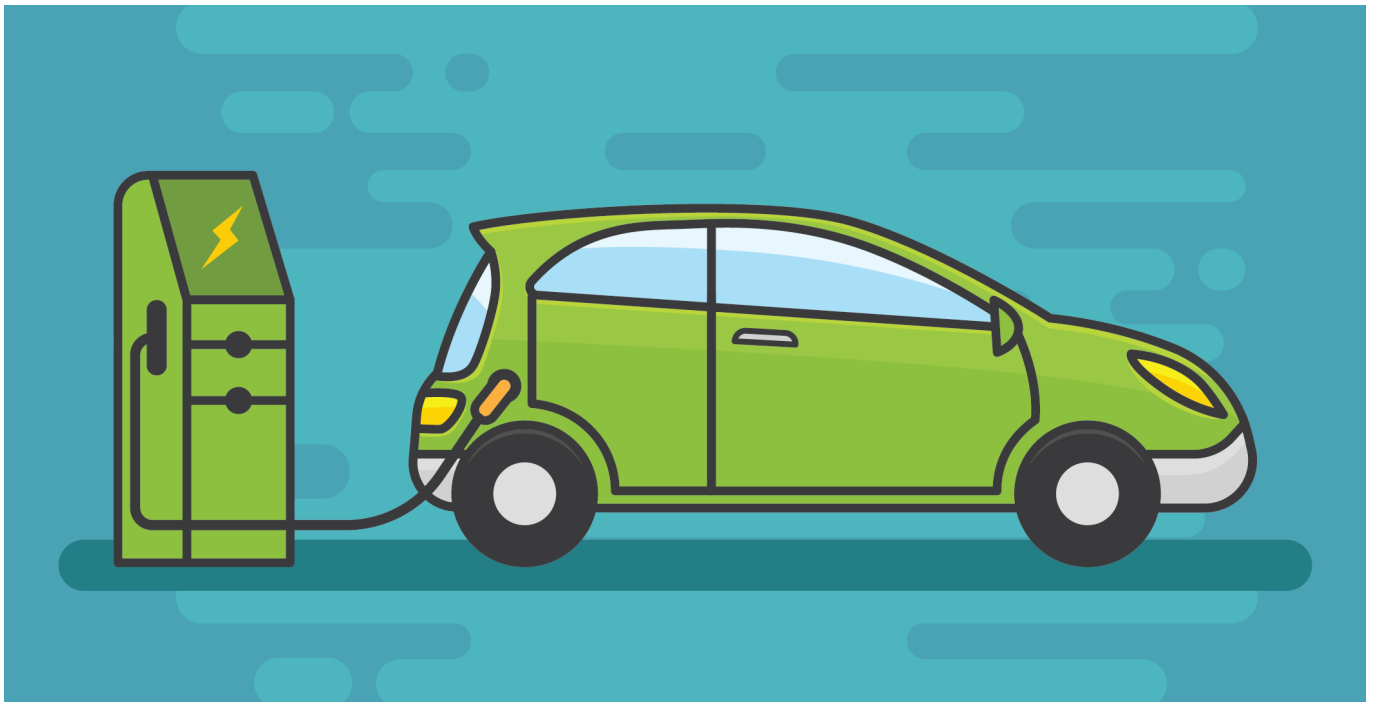


Where finance and green technologies meet

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Why it is a good idea to own an electric vehicle in Georgia

Electric vehicles are gaining momentum by the day. Well-known car manufacturers such as Ford, Hyundai, Kia, and Volvo have already announced their plans to produce electric cars or invest significant funds in this direction. Tesla, BMW and Nissan already produce some of the top 10 most-demanded electric cars in the world.

More and more electric vehicles are appearing in Georgia as well. According to [unofficial data](#), the number of electric vehicles in the last year or so has increased by 55%. As of December 2020, there were 2,486 electric vehicles registered in Georgia. In addition to the positive aspects of electric vehicles in terms of consumption, this growth can be attributed to the many stimuli provided by the country's governmental agencies, such as:

- Electric vehicles are **exempt** from customs duties
- Electric vehicle owners do not have to pay parking fees
- The taxi licences for electric vehicle drivers are free

- Upon request, Tbilisi City Hall will [install charging stations](#) at the owners' location at no cost.

In terms of the required infrastructure, Georgia has the best indicators in the region. According to the information supplied by the company that installs charging stations, more than [110 chargers](#) have already been installed throughout Georgia, including seven fast chargers, which are mainly located on the highway to the west. As of 2021, the fee to charge electric vehicles is GEL 0.03 to 0.17 per minute, depending on the capacity of the car. As the company director notes, the network will be expanded to cater to the entire population.

Apart from having the most developed charging infrastructure in the region, Georgia is also planning to launch an electric vehicle factory. Vehicles manufactured in this factory will be available for export as well as for local distribution.

Many are already familiar with the cost-saving advantages of owning electric vehicles; however,

there are several other benefits:

- Electric vehicles are environmentally friendly and have no exhaust, which helps reduce overall air pollution.
- They are silent, significantly improving the quality of travel.
- Because they don't use fuel, they do not require regular oil changes, antifreeze, or filter replacements, which significantly decreases maintenance costs.
- The engine of an electric vehicle is much simpler by virtue of having fewer movable parts. Therefore, the risk of malfunction or damage is much lower, and the actual number of parts that will need to be replaced or repaired is also lower.

Undoubtedly, electric vehicles are one of the hottest topics in the automotive industry. Current trends indicate that demand for these cars will gradually increase, which in turn will spark demand for financial products and services tailored to them.

Georgia to decrease GHG emissions



On 8 April 2021, the Georgian government updated its Nationally Determined Contributions (NDCs) and pledged to reduce its total greenhouse gas (GHG) emissions. These actions serve to reiterate the country's strong commitment to the landmark [2015 Paris Agreement](#), through which world leaders agreed to take action to limit overall temperature rise to below 2 degrees Celsius while aiming to limit the change to a safer threshold of 1.5 degrees Celsius. At the same time, the government introduced its National Climate Strategy 2030 and the Action Plan 2021-2023, which outlines the concrete actions Georgia will take to implement this agenda.

In the updated NDCs, Georgia committed to reducing the country's GHG emissions to 35% below the 1990 level by 2030.

According to the [National Climate Strategy 2030](#), greenhouse gases are emitted by seven sectors: energy generation and transmission, transport, buildings, production, agriculture, waste, and forestry. The Action Plan 2021-2023 outlines concrete steps to be taken in each sector. Some of the targets and actions are highlighted in the table below:

Sector	Target	Action (highlights)
Energy generation and transmission	Reduce emissions by 15% below reference level	Support the development of renewable energy generation (wind, solar, hydro)
Transport	Reduce emissions by 15% below reference level	Increase the share of low-emission vehicles in the country Stimulate the use of biofuel and public transport
Buildings	Promote the development of low-carbon approaches	Create energy efficiency (EE) certificates for buildings Raise awareness about EE among building users Stimulate the use of EE measures (e.g. LED lighting systems) in private as well as public buildings Support the use of solar water heaters
Production	Reduce emissions by 5% below reference level	Promote the use of climate-conscious innovative technologies
Agriculture	Promote the development of low-carbon agriculture	Stimulate climate-conscious agricultural technologies and practices (e.g. drip irrigation systems)

“Georgia considers the transition to a green economy as one of the core endeavours for the country’s development. Georgia is in an active phase of decreasing greenhouse emissions at a national level so as to mitigate climate change,” said Minister of Environmental Protection and Agriculture Levan Davitashvili.

As one of the members of the ecosystem for the transition to a green economy, GEFF in Georgia supports Georgia’s climate commitment and its efforts to build a more climate-conscious system. More concretely, this includes working closely with leading local financial institutions to provide resources to finance green projects and technologies, while also raising public awareness about related issues through [training and events](#) related to energy efficiency, renewable energy and resource efficiency technologies.

Georgia’s wind, solar and hydropower potential evaluated

“In a period of 10 years, from 2010 to 2020, the volume of electricity imports increased eight times, which is a significant figure. This is primarily due to the fact that with the economic development in the country, electricity consumption is increasing. It is absolutely vital to use local resources of renewable energy such as hydro, wind and solar,” said the Deputy Minister of Economy of Georgia at the Boell Talks, organised by the Heinrich Böll Foundation in Tbilisi.

Georgian State Electrosystem has recently evaluated Georgia’s potential for using renewable energy sources. Although the company has not provided detailed information about the implementation of the proposed projects, 20 wind and solar stations, along with 123 hydropower plants (HPPs), could potentially become part of Georgia’s electricity generation system, and could collectively generate 5,122 MWh of energy. Just for com-

parison, Enguri HPP, one of the largest HPPs in the country, generates around 1,200 MWh.

Apart from the frequently discussed benefits of renewable energy, such as low or no emissions, no pollution, stability, etc., there is one great advantage that is often overlooked: it is accessible to everyone. Large, nation-wide projects may need time, significant investments and certain barriers to be overcome, but the private sector doesn’t have to wait for these projects to deploy in order to start benefiting from renewable energy. According to the latest information provided by GNERC, there are already 243 stations connected to the grid through the [net metering system](#). And this number continues to grow.

Small-scale solar and even hydropower stations are accessible to any business that is looking to reduce its costs and generate its own electricity. Just



recently, an online hypermarket based in Kutaisi financed the purchase and instalment of its [own solar power station](#). The 88 kWh installed capacity will allow the retailer to save up to 150 MWh of energy or around US\$ 13,000 in operational costs. As the director himself explains, he can now use these funds to finance the growth of the business and provide better services to the community.

Considered a luxury some 10 years ago, investments in solar energy have recently become much more affordable. Advances in technologies and demand for cleaner fuel have greatly contributed to the decrease in investment costs. In the example above, the total price of the project (solar panels, inverter and installation) came to a little over US\$ 36,000. The investment was financed with GEFF

credit, and due to the significant savings in electricity costs, the payback period is expected to be less than three years. This is another important advantage that makes solar investments attractive for businesses: due to the rise in commercial electricity prices, the investment payback period has significantly shortened.

Today, the world is still heavily reliant on fossil fuels for energy. However, renewable energy is growing faster than all other energy sources. While large-scale projects are beneficial to the country as a whole and would significantly improve Georgia's energy security and energy independence, individuals and businesses can already start experiencing these benefits in their own homes and companies.

ProCredit Bank and GEFF in Georgia explore solar power station projects at a joint event

On Earth Day, 22 April 2021, ProCredit Bank and GEFF in Georgia held a joint event called Solar power stations – sustainable investment and business case that brought together more than 60 individuals interested in using the cleanest energy source available. The aim of the event was to provide a 180-degree view of solar power stations, the business, and the social and environmental benefits, as well as to inform the public about the financial schemes and tools available for implementing solar energy projects.

The event was opened by Aleksandre Jashiashvili, Head of Environmental Protection of ProCredit Bank, where he presented the results achieved by the bank's own solar power station. Operating since June 2020, the station has already generated

90,000 kWh of energy and has saved the bank approximately GEL 30,000. "Now is the best time to invest in a solar power station: the payback period for the investment has decreased to 4-6 years. About 5-6 years ago, when we began considering the option of solar energy, it was around 10-12 years!" said Mr Jashiashvili, adding that the 97 kW station supplies about 10% of the overall energy consumed by the head office. Going forward, the bank has reaffirmed its commitment to providing sustainable financing to its clients and has once again strengthened its position as the first green bank in Georgia.

Following the presentation by ProCredit Bank, GEFF experts outlined the potential for using solar energy in Georgia. Drawing from the Facility's



experience, the experts also extensively covered the risks of investing in a solar power station and presented recommendations on how to prevent these risks. As one of the experts explained, “We have learned that most of the setbacks in such projects arise during the implementation stage, so it is particularly important to select your vendor with care.” GEFF consultants also introduced the terms of the Facility and presented all the financial tools available.

After hearing the perspectives of the bank and the Facility, the audience was given the chance to see the benefits of solar energy from a business standpoint. Grigol Gumberidze, a client of a PFI and the founder

of an online hypermarket (mego.ge based in Kutaisi), presented his motivation for adopting renewable energy: “Using solar energy gives us the opportunity to reduce our costs. With the money saved, we can increase the salaries of our employees. Yes, the initial costs are high, but what matters is the long term: lower costs and happy employees.”

Just before opening the floor to questions, Levan Kobakhidze, a director of Sun House, a solar technology vendor in Georgia, stressed the importance of GEFF recommendations and spoke about the guarantees provided by various solar panel producers and their reliability.

Featured technology

Kia E-Niro

Electric cars can be a great substitute for vehicles with conventional motors. Besides having zero emissions, electric cars bring the advantage of far lower maintenance expenses.



Type of vehicle	Battery electric vehicle
Vehicle category	Passenger car
Brake horsepower	201 BHP
Battery capacity	64 kWh
Source of energy	Electric
CO ₂ emissions	0.0 g/km

Browse through our [Green Technology Selector](#) to view more environmentally conscious vehicles.

Success stories

Lisi FO Ltd

Lisi Green Town is a large-scale residential development in Tbilisi which includes apartments, townhouses and detached houses with parks, pools and a gym. It is one of the first developments in the city to incorporate green measures both inside and outside of the living areas.



Investor	Lisi FO Ltd
Location	Tbilisi, Georgia
Investment	Thermal insulation, windows, doors, heating and cooling systems, LED lighting, elevators
Investment size	US\$ 1,236,000
Energy savings	77.91 MW/h per year
Natural gas savings	846.56 MW/h per year
CO ₂ savings	202.16 tonnes per year
Impact	Creation of an ecologically sustainable living environment
Donor	GCF, BMF

Agro Grain LLC

Founded in 2011, Agro Grain LLC is a Georgian company that owns farmland around Sartichala, about 45 km east of Tbilisi. The company's main activity is grain cultivation and the sale of crops to domestic and foreign markets.



Investor	Agro Grain LLC
Location	Sartichala, Georgia
Investment	Drip irrigation system
Investment size	US\$ 365,000
Energy savings	106.17 MW/h per year
Water savings	151,666.67 m ³ per year
Impact	Reduced costs and increased resource efficiency
Donor	GCF, BMF


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