

Where finance and green technologies meet

GEFF in Armenia Newsletter N17: Q1, 2023

Key results as of 31 March 2023

- GEFF in Armenia has financed 339 projects totalling EUR 29.44 million through five partner financial institutions (PFIs), thus reducing primary energy usage by 130,915 MWh/year, saving 30,219 tonnes of CO₂ annually, and achieving 5,653 m³/year of water savings.
- Renewable energy projects with an installed capacity of 45.28 MW make it possible to avoid 25,167 tonnes of CO₂ annually.
- 1,488 EE and RE technologies provided by 178 vendors from 21 locations around Armenia are made accessible through the [Green Technology Selector](#)

Solar energy for your business – a joint event by GEFF and HSBC



With more and more people taking energy generation into their own hands, solar energy has become one of the most democratic sources of power. Electrification, or switching from using fossil fuels to electricity as source of energy, has become a priority around the globe. Some argue that electricity will be the energy of the future. Today's advances in technology are making solar energy more and more accessible. A business case for investing in solar energy is clear: with electricity rates rising continually, employing ways to generate one's own energy is becoming a viable option.

Although financial savings are clearly the primary motivation for many businesses to begin using solar energy, they are not the only reason for considering an investment. Some companies operating in the EU require their partners and suppliers in Armenia to maintain cleaner operations. Other companies use solar energy to reflect their conscious environmental efforts, while others aim to increase their reputational capital. Of course, all businesses want to decrease their energy vulnerability and become less dependent on energy imports. Whatever the case, GEFF in Armenia's solar project portfolio has been increasing over the last three years, with more businesses installing solar power stations on their premises.

To address this relevant topic, a promotional event co-organised by HSBC Bank and GEFF in Armenia entitled "Solar Energy for Your Business" was held in Yerevan on 8 February. The main topics discussed were the causes and consequences of climate change, in addition to discussing the role of businesses in this context and the opportunities available.

At the event, the benefits of utilising renewable and solar energy were presented to local businesses as well as ways to enhance their energy efficiency. Furthermore, financing solutions offered within the framework of the EBRD were explained.

“Energy-efficient business solutions create new opportunities for businesses to reduce expenses, while mitigating climate change risks. Therefore, it is important to acquire knowledge that will contribute to the best use of the potential of PV plants for business activities,” said Mikhayil Gevorgyan, PFI Relationship Manager of GEFF in Armenia.

According to the Head of Wholesale Banking of HSBC Bank, Martin Martirosyan, an increasing number of businesses now recognise the vital role of renewable energy in reducing CO₂ emissions and thus limiting human impact on the environment: “It is obvious that events such as this one attract the interest of businesses and contribute to the formation of a market where preference is given to more sustainable ways of doing business. HSBC has made bold sustainability commitments globally. HSBC in Armenia is also committed to helping its customers transition to a low-carbon and sustainable economy. To achieve this goal, we provide financing options that support the adoption of renewable energy and enhance the energy efficiency of our clients.”

Circular economy and how to bring back circular models of consumption



Circular economy is a production and consumption model by which existing materials and products are shared, leased, reused, repaired, refurbished and recycled, in order to extend the life cycle of products to the greatest extent possible. In practice, waste is reduced to a minimum, costs are saved, competitiveness is increased, and negative environmental impact is reduced.

Single-use plastics have become a part of our daily lives, which threatens our ecosystems and contributes to climate change. Innovative circular solutions can help bring reuse consumption back into practice. There are now a number of new initiatives in Armenia to increase the capacity and awareness of the circular economy.

To tackle these topics, the GEFF in Armenia team and the Armenia Renewable Resources and Energy Efficiency Fund (R2E2 Fund) held a joint event on 15 March 2023 entitled “Circular Economy – Benefits and Opportunities for Local Businesses”.

The purpose of the event was to provide first-hand information on this important topic. Furthermore, circular economy trends and best practices were shared, and participants were introduced to technologies that enable businesses to minimise waste and to optimise their use of resources and materials by keeping them in use for as long as possible through their reusability and recyclability.

“As local greenhouse gas emissions are mainly caused by resource extraction and processing, the further development and implementation of targeted circular economy activities can make a substantial contribution to achieving Armenian climate targets.” said Gernot Kuhlisch, Project Manager of the GEFF Caucasus.

The event which took place in Yerevan and was attended by more than 50 decision makers from all over the country and included representatives from local businesses, financial institutions, NGOs, the Ministry of Energy Infrastructures and Natural Resources of the RA, and others.

GEFF in Armenia projects nominated for Energy Globe Awards



Energy Globe

The world award for sustainability

Three projects financed by the EBRD's GEF in Armenia have been nominated for [Energy Globe Awards](#).

Two of the projects are competing in the Fire category, which encompasses initiatives that involve energy production, demonstrate the use of renewable energy sources, or focus on energy efficiency and optimisation, efficient energy distribution, and transportation. [Daroink LLC](#) and [Karton-Tara LLC](#), two companies that upgraded their production with more efficient technologies, demonstrate how energy efficiency and high-performance technologies help reduce utility costs and increase productivity.

The third project nominated for the award was that of the fish producer [Artyom Torosyan PE](#) who installed a small-scale solar PV station to power the aerators used in its production processes, thereby saving on electricity costs and becoming energy independent. The success of this project is a great example to agriculture businesses in Armenia.

The Energy Globe Awards were introduced by the Austrian energy pioneer Wolfgang Neumann in 1999. Since 2000, the initiative's database has grown and now contains approximately 20,000 emissions-reducing projects from 180 countries, all of which serve one aim: to present innovative and sustainable projects to a broader global audience. Approximately 800 projects are submitted annually to compete for the Energy Globe Awards. Participation is open to projects focusing on resource conservation, air and water quality, energy efficiency and renewable energy.

GEFF in Armenia has been successfully financing energy efficiency, renewable energy, and resource efficiency projects in Armenia since 2019. With the help of its five partner financial institutions, GEFF in Armenia has financed over 335 projects worth EUR 29 million. Collectively, these projects have helped avoid 29,500 tonnes of CO₂ per year.

EV is great, EV is terrible – the PROs and CONs of driving an electric car



Electric vehicles are the future of driving. It seems like every day another giant in the automotive industry is either unveiling a new electric vehicle or is planning to develop one.

Driving an electric car can be incredibly rewarding: you save money on fuel costs, there is no noise, and you can feel better about doing your part to protect the environment. But driving an electric vehicle can also be a huge hassle. Can the PROs outweigh all the CONs?

PRO – driving experience, CON – price

Owing to the absence of growling engines, electric vehicles have no sound. This can be unusual at first, but it is actually very easy to get used to this unfamiliar silence. But can the “noiseless experience” really be a motivating factor when shopping for an electric car? The current prices for EVs are higher than those for their fuel counterparts. Furthermore, with technology advancing day by day, a model purchased a couple years back can now be found at a cheaper price somewhere else. In other words, the waiting game can be long, with customers often choosing to stick with a fuel-powered vehicle

PRO – longer battery life, CON – calculating distances

Batteries are now better than ever, and EV producers promise much longer travel distances than a few years back. However, in reality, the average person does not differentiate between driving in the city and driving on a highway. Nonetheless, battery

utilisation in both cases is vastly different, owing to factors such as the type of road driven on and the weather conditions (colder temperatures deplete the battery at a faster rate as does driving up and down hills). Therefore, estimating the distance a vehicle can travel with its current charge can be a guessing game.

PRO – financial savings, CON – charging stations

Owning an electric vehicle will most likely have significant benefits for your wallet. Fuel prices are volatile, but in general it is not cheap to own an automobile. Yes, an EV owner does not have to worry about spending excessive amounts on fuel or about waiting in line at the petrol station. However, an EV still needs to be charged and this presents another significant challenge, especially in Armenia. There are free charging stations available throughout the capital, but these are frequently occupied by other vehicles. Finding a charging station outside the city or elsewhere in the country is an even more troublesome task. A map of the charging stations available can be found [here](#).

In short, although owning an EV is great, it can also be quite limiting and anxiety inducing. Nevertheless, addressing the cons is simply a matter of time. After all, there is a reason why all the major car producers are moving towards electric or hybrid vehicles. Soon batteries will become even better, prices will decrease, and the infrastructure will eventually catch up – if you think about it, there was once a time when there were not enough petrol stations.

Featured technology:

Drip irrigation system

Drip irrigation is the most efficient method of delivering water and nutrients directly to the root zone of plants. This specialised technology ensures that crops receive the right amounts of what they need to grow at the right time, thus allowing plants to develop optimally. By using drip irrigation systems, farmers can increase yields and at the same time saving water, fertiliser, and energy.

See which energy efficient technology suppliers are available on the Armenian market through the [Green Technology Selector](#).

Success story



Vedi Alco CJSC is one of the largest wine-making enterprises in Armenia. The production range of the company also includes high-proof alcoholic beverages, but the main production (65%) is wine and fruit wine.

Some of the equipment used at the production facility dates back to the Soviet era, which is why the company decided to gradually upgrade the machinery used in all stages of grape processing.

Given that only around 10% of the company's output is comprised of Armenian brandy and approximately 60% is wine, the equipment will primarily be utilised in the production of wine.

View more success stories on our [website](#).

Investor

Vedi Alco CJSC

Location

Ginevet, Ararat region

Investment

Grape receiving and processing equipment

Investment size

US\$ 547,187

Energy savings

80 MWh/year

CO₂ savings

20 tCO₂/year

Impact

Increased production efficiency

Donors

GCF, CIF

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