GEFF Green Economy Financing Facility

European Bank for Reconstruction and Development

Where finance and green technologies meet

GEFF in Armenia Newsletter N4: 12.2019

2019 was a year of new beginnings and success for the GEFF in Armenia. More than 100 companies committed to making a positive impact, bringing new thinking and practices to their companies and, importantly, contributing to annual savings of 11,422 tonnes of CO_2.

KEY RESULTS OF 2019

- Provided **€ 9,720,092** in financing through four Partner Financial Institutions, thus reducing primary energy usage by **47,969** MWh/year, of which **7,253** in the fourth quarter alone
- **107** solar PV projects with **15.5** MW installed capacity, making it possible to avoid **10,031** tonnes of CO_2 annually
- **1,722** EE and RE technologies from **161** vendors in **21** cities around Armenia made accessible through Technology Selector at: ts.ebrdgeff.com/armenia

GEFF in Armenia

Celebration of an important milestone

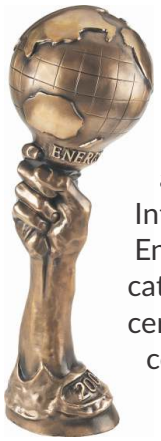
In October, the GEFF team in Armenia had two important milestones to celebrate:

- The 100th loan under the GEFF was disbursed to one of the fastest growing local food service and delivery companies, KARAS Group LLC. Financing was provided for the installation of rooftop power and water heating systems in Yerevan and Tsaghkadzor. Both investment projects are being implemented by the GEFF Technology Selector supplier Shtigen LLC. The investments, which feature six-year pay back periods, contribute to annual energy savings of 496 MWh and, most importantly, saving 200 tonnes in CO_2 emissions.
- A portfolio milestone of USD 10 million was achieved by four Partner Financial Institutions together, resulting in annual savings of 44,851 MWh and 10,666 tonnes of CO_2.

GEFF in Armenia projects nominated for Energy Globe Awards 2020

Three renewable energy projects in Armenia that were financed by EBRD GEFF in 2019 are competing for the National Energy Globe Awards:

- Tufenkian Avan Marak Tsapatagh Hotel with its ground-mounted 500 kWp photovoltaic power station
- SIS Natural with its rooftop 275 kWp photovoltaic power station
- Avangard Med medical clinic with its rooftop 43 kWp photovoltaic power station

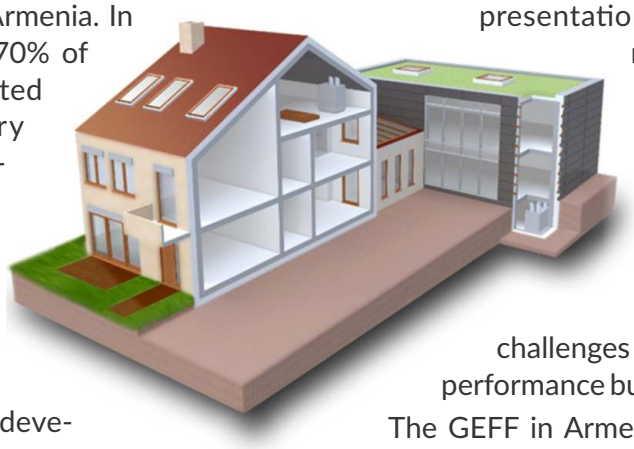


Around 800 projects and initiatives are submitted annually from 180 countries to compete for the National Energy Globe Awards. The winners on the national level are then nominated for a chance to win the International Energy Globe Award or the Energy Globe World Award. The international category winners are announced during a ceremony that is broadcast worldwide and covered by international media.

Have a look at the exciting video about the award here.

Green buildings: the key to cost-effective sustainable energy systems

Buildings are a central component to meeting the sustainability challenges in Armenia. In the developed world, over 70% of the electric power generated and 40% of total primary energy is consumed in buildings. The energy services required in these structures are responsible for 40% of CO_2 emissions. By 2050, 75-90% of buildings worldwide will be at capacity and, in addition, developing countries will need to accommodate 2.4 billion new residents in urban areas.



Taking these aspects into account, a local event focusing on "High-Performance Building Standards" was hosted by UNDP and UNECE in Yerevan on 21-22 November 2019. Through a series of presentations, panel discussions and networking sessions for market players as well as a separate facilitated working session for technical experts, more than 80 participants developed a shared understanding of the experiences and challenges faced when applying high-performance building principles in Armenia.

The GEFF in Armenia was represented by the local project implementation team during the discussions on innovative financing and business models, taking environmental and social impact into consideration.

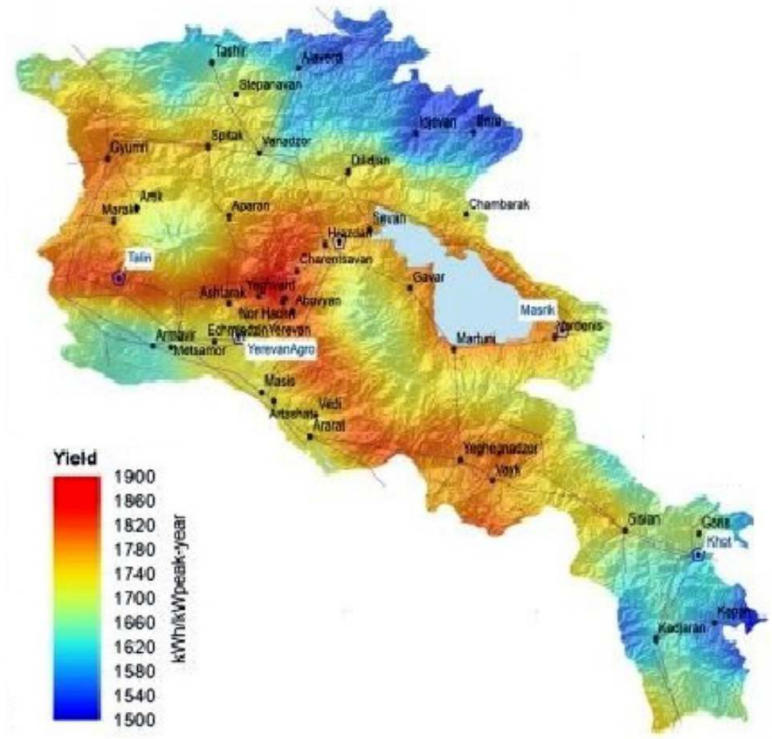
Click to find out more.

GEFF PFI financed project launch

In a private event organised for partners and suppliers, a 500 kWp solar power plant launch was held on November 6 at Arzni poultry. The owner and director of the business, Mr. Gegham Janvelyan, proudly welcomed the guests to the company and into the fields where solar collectors were installed.

Mr. Janvelyan talked about future plans to install a biogas plant in the area to showcase how the business can recycle production wastes, apply modern technologies and achieve business benefits. He became motivated to do so after an event devoted to "Adoption of RE & EE Technologies" held together with ArmSwissBank and GEFF the previous July.

Achievements in the renewable energy industry



In an interview with ArmenPress, the Director of the R2E2 Fund, Mr. Karen Asatryan, summarises the achievements of several years in renewable energy promotion:

"With the assistance of the World Bank, a programme for the construction of industrial-scale solar plants was launched, six locations were selected and a feasibility study was carried out. The corresponding study and compilation of the sun atlas for Armenia was carried out by a Spanish company.

In Armenia, solar energy shows an annual average of 1,700 kWh/m², which is double the average amount for Europe. In addition, sunny days in Armenia average about 300 per year.

At the first of the six sites from the study, an international competition was held and the winner will build the region's largest industrial-scale solar station at 55 MW. In parallel, together with the EBRD, an international competition is being held for five other locations to install up to 120 MW of solar power.

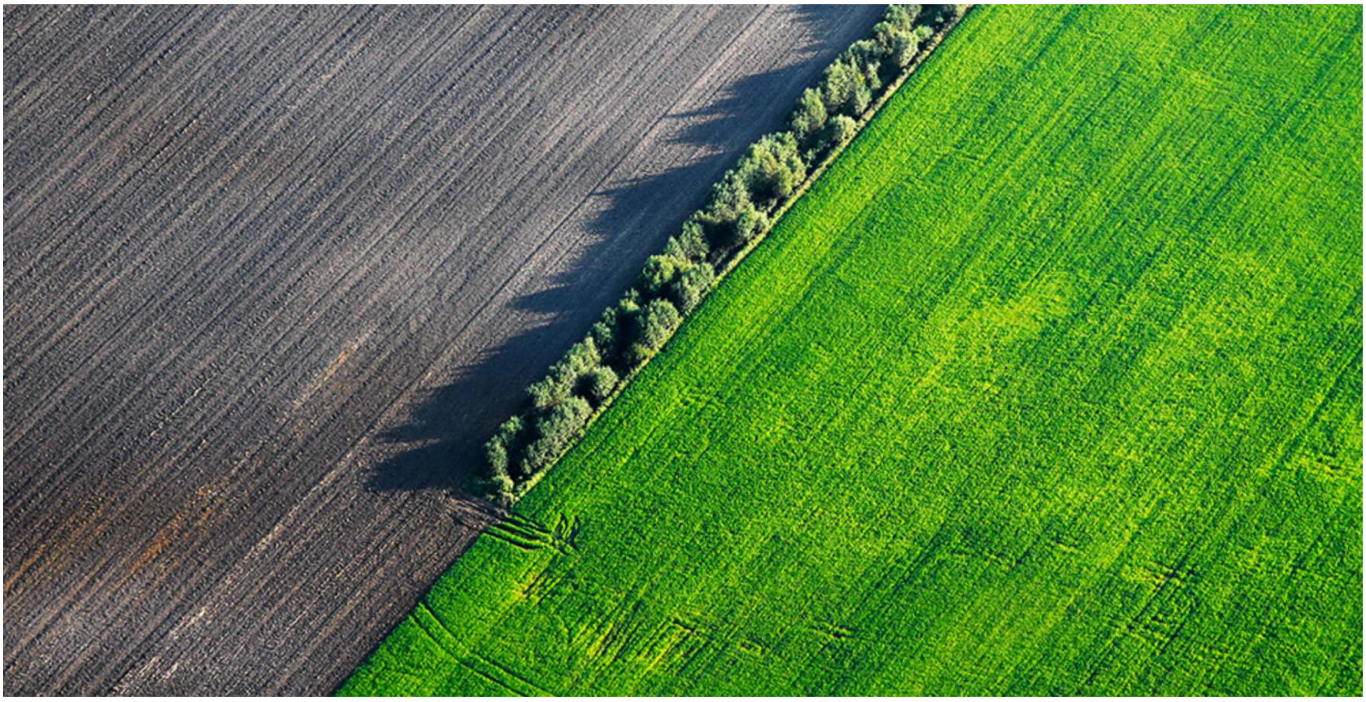
These figures, combined with the successes of the past 2-3 years, show that solar energy sector has developed tremendously. Also thanks to progressive legislative changes, 39 licenses have been granted for the construction of solar stations up to 5 MW, the total amount of which will be 110 MW.

Already 10 such solar stations are in operation, and it is expected that in the coming years the capacity of small solar stations will reach 220 MW.

Legal entities can now install stations up to 500 kW capacity, operating in parallel with the electric network, whereas individuals can install up to 150 kW. Thanks to the development of relevant legal conditions, 1,500 solar stations are now operating in parallel with the network with a total capacity of 23 MW."

The full article in Armenian is accessible below.

How the circular economy helps the environment



As climate change forces us to recognise that an ever-increasing number of people live in a world with finite resources, the need for change has become clearer. This has brought wider appreciation of the economic potential of the "recycling-plus" circular economic approach.

"The circular economic model appears to be one of the solutions that can deliver not only on the climate crisis but also, more generally, in terms of encouraging sustainable consumption patterns without compromising on quality of life," says Gianpiero Nacci, the EBRD's deputy head of Energy Efficiency and Climate Change.

The "modern" linear economic model that gained ground with the Industrial Revolution - in which virgin materials have been extracted from the earth, transformed into products, used, and then disposed of in vast quantities, leaving an unperceived cost to society and the environment in the form of huge amounts of waste – is now losing favour as its risks become clearer.

Unlike the linear economy, the basis of a circular economy is a zero-waste economy, where everything that we produce and consume can return safely to nature or society. A zero-waste circular economy proposes a transformation of our production and consumption patterns to achieve high resource efficiency and a move towards zero waste and zero emissions.

Over the past decade, economists and policy-makers, who are now aware of these wastes as costs, have been moving towards a more circular approach," points out Mr Nacci. There is a whole complex of design issues to be figured out, as firms involved in different parts of our modern life cycles learn to work together in new ways.

The EBRD is already a front-runner among international financial organisations in circular economy work, along with the EIB, and promotes it in three major ways: Building engagements with external parties from banks to think-tanks. Financing projects on the ground that are explicitly aligned with the circular economic model.

Working closely with the European Commission. Promoting the circular economy here and elsewhere in the EBRDs regions, says Mr. Nacci, is especially important because the bank works in parts of the world that are very linear. But learning to think, plan and design for a more sustainable future is vital everywhere, he adds. "Our way of living has been designed around the linear concept. The way cities are designed, our value chains, follow linear lines. The circular economic approach will definitely make a difference in the way we look at our economic system and the organisation of life."

Learn much more about the circular economy at the EBRD home page.

EBRD and partners deepen green finance in Georgia

On December 10 the EBRD launched its new GEFF in Tbilisi, Georgia. The Green Economy Financing Facility in Georgia will be co-financed by the EBRD, Austrian Federal Ministry of Finance and Green Climate Fund (GCF).

The launch event was followed by the awarding ceremony of the previous successfully implemented EBRD facility, Energocredit, supported by the European Union and the Austrian Federal Ministry of Finance. During the launch event, the EBRD announced the six best energy efficiency projects in Georgia based on their contribution to the green economy.

The winners of the 2019 Energocredit Awards are:

1. Georgian Building Group (cement production)
2. Shilda hydropower plant (small hydropower plant)
3. Museum Hotel (accommodation and hospitality)
4. Innovo Medical Centre (medical facility)
5. Lider Food (food production)
6. Archi Tower (residential building)

The GEFF will contribute to the development and strengthening of the green economy in Georgia. With a total budget of USD 54 million (€49 million), the facility will support investments in energy efficiency, climate mitigation and adaptation by small and medium-sized enterprises, corporations and residential households by making loans available through local partner banks.

The EBRD is a leading institutional investor in Georgia. Since the start of its operations in the country, the bank has invested over €3.5 billion in 237 projects in the financial, corporate, infrastructure and energy sectors, with 89% of these investments in the private sector.

The full article is accessible here.

Cases from Armenia

Kraft solutions more competitive through energy efficiency

Karton-Tara LLC is one of the main paper products producers of the country. In order to modernise the production process, and at the same time meet increasing market demand, the management decided to replace the existing production line with one that has a 21% higher energy-saving ratio. With the new equipment, the company expects to increase the production of kraft paper by 25%.

Location:	Yerevan
Investment:	Kraft paper production line
Investment size:	USD 490,000
Financial results:	Payback in 5 year
Energy savings:	3,480 MWh per year
CO_2 savings:	851 tonnes per year
Impact:	Decrease of operational costs
Donor:	GCF, CIF

Here you will find more details about the project.

Technology Selector-based investment – easy and reliable

Ashtarak Dzu, established in 2007, is one of the biggest poultry producers in Armenia. The stable market growth made the company reconsider its production with a view to the long term. The management thus decided to invest in a loader, makingthe feeding process more reliable, animal-friendly and energy-efficient.

Location:	Aragatsotn
Investment:	Skid-steer loader
Investment size:	USD 59,237
Financial results:	Payback in 8 year
Energy savings:	71 MWh per year (diesel)
CO_2 savings:	20 tonnes per year
Impact:	Improved reliability and cost efficiency
Donor:	GCF, CIF

More information about the project is available on site.