





# Where finance and green technologies meet





# What are Green Technologies?

Green Technologies help you meet your business targets while reducing the consumption of energy, water and materials, contributing to lower bills and a better environment. **GEFF** in Uzbekistan was developed to help companies in Uzbekistan:

- minimize the use and cost of energy
- safeguard water resources
- generate energy from renewable resources.

GEFF in Uzbekistan provides loan finance, grant support on certain technologies and technical guidance to privately owned companies that aim to make their business resource efficient and improve their competitiveness.

#### **SMALL-SCALE INVESTMENTS - UP TO US\$ 300,000**

For small-scale investments we offer a simple process, which enables companies to reap the benefits of energy savings much quicker. Choose your desired equipment from the Green Technology Selector (GTS). The EBRD's Green Technology Selector is an online platform offering over 30,000 technologies in 17 categories, from over 1,500 global manufacturers and is available in over ten languages. The GTS helps companies find technologies that meet specific performance criteria as well as local equipment suppliers.

#### LARGE-SCALE INVESTMENTS - UP TO US\$ 5 MILLION

For larger investments or complex technical solutions, technical assessment services are provided to help companies identify the best solutions, turning a technology upgrade plan into a sound investment and the successful implementation of a high-quality green economy project.

Apply to one of the GEFF Partner Finance Institutions for a GEFF loan and receive a cash-back grant upon successful project implementation:

- 10% grant for energy efficiency projects
- 20% for renewable energy projects

GEFF in Uzbekistan is supported by a team of specialized consultants, including engineering, environmental, financial and marketing experts, who offer support and advice to the GEFF Partner Banks and their clients in developing their responsible and sustainable business by using best-in-class technologies, from project idea to final installation and equipment commissioning. The technical assistance package is free of charge to clients.



# Which types of companies are eligible for a GEFF loan?

Privately owned companies who wish to upgrade to more energy and resource efficient processes and services should meet the following criteria:

- At least 51% privately owned
- Incorporated and operating under the laws of Uzbekistan
- Creditworthy and commercially viable according to our Partner Financial Institutions
- In compliance with applicable national environmental and health and safety standards
- Should not be engaged in any activities listed in the EBRD's Environmental Exclusion and Referral List (https://www.ebrd.com/downloads/about/sustainability/Environmental\_and\_ Social\_Exclusion\_and\_Referral\_Lists\_15092008.pdf)



#### **CASE STUDY**

A major supplier of polyethylene pipes and fittings in Uzbekistan invested in the replacement of an obsolete extrusion machine. The company, which accounts for 60% of the market for local pipe production, is one of the key suppliers of irrigation pipes. With the investment into the new extrusion line, capacity was increased by 65%, whereas this new machine uses 54% less energy than the old one, which translates into an annual cost saving of almost €40,000. Other benefits include higher quality, equipment reliability but also health and safety of the operators.

#### **FACTS**

Loan amount: USD 171,000 Grant Incentive: USD 17,100

Primary energy saving: 1636MWh / year

CO, saving: 243.7 tons / year

### What can be financed with a GEFF loan?

Two Loan types are available under GEFF in Uzbekistan: Small Scale Loans for equipment selected from the Green Technology Selector up to a value of US\$ 300,000 and Large Scale Loans up to a value of US\$ 5 million.

#### **GREEN TECHNOLOGY SELECTOR SMALL-SCALE LOANS**

Small-scale energy efficiency and renewable energy projects include simple measures such as the replacement/installation of:

- Boilers
- Air conditions
- Windows, Doors, Insulation
- Air compressors
- Compressors
- Solar water heaters
- Solar PV
- Motors and pumps
- Container wastewater treatment systems
- Irrigation systems
- Water saving devices
- Farm equipment
- And much more...

Please browse the **Green Technology Selector** to find more eligible technologies (http://ebrdgeff. com/uzbekistan). If you have selected equipment that is not listed, contact our project office and our engineers will assess the equipment and the supplier. If successful, the equipment and supplier will be added to **GTS**.

Small Scale Loans should not exceed US\$ 300,000. The grant incentive available for Small Scale Loans depends on the type of equipment chosen as shown in the table below:

IMPLEMENTED MEASURE	GRANT INCENTIVE % OF LOAN
Energy Efficient Equipment (e.g. boilers, compressors, windows, motors, etc)	10% of eligible costs
Renewable Energy Equipment (e.g. Solar Water Heaters, Solar PV, etc)	20% of eligible costs



#### **CASE STUDY**

A clinic that provides a full range of ophthalmological, dental and other medical services invested in new equipment for its ophthalmological department. The clinic conducts an active policy for the introduction of new and energy-efficient medical technologies, in particular in the field of ophthalmology. In 2020, the company invested in a new Excimer laser system, which allowed the clinic to offer a level of treatment precision on par with the highest international standards. The specific energy consumption of the new excimer gas laser system is 40% lower than that of the old system. The new system requires only minimal pulse energy, resulting in a compact excimer laser beam source with minimal gas volume. Therefore the cost of nitrogen used in the operation of the new excimer laser reduced to 47% of the old nitrogen bill. The new system also cuts the treatment time per patient in half, which allows the clinic to increase the number of patients that can be cured every year.

#### **FACTS**

**Loan amount:** USD 236,518 **Grant Incentive:** USD 23,651

Primary energy saving: 12.1GJ /year

CO, saving: 0.5 tons / year

Material savings: 2,080 litres Nitrogen

# LARGE-SCALE LOANS AND GRANTS FOR INDUSTRIAL AND COMMERCIAL COMPANIES

In principle, all industries can apply for a GEFF loan and grant (excluded are all companies engaged in the businesses relating to tobacco, hard alcohol, arms, gambling, and similar activities).

Examples of sectors where GEFF investments can generate some significant advantages include:

- Food production and processing
- Tourism and Hospitality
- Healthcare and Medical services
- Manufacturing
- Agriculture
- Retail

Companies can apply for loans up to US\$ 5 million for investments in new equipment and technologies that lead to improved energy and water efficiency, including renewable energy solutions.

GEFF in Uzbekistan supports these investments with free-of-charge technical assistance that helps applicants choose the most suitable equipment and/or technical solution and provides assurance regarding subsequent energy and water savings. The GEFF team of experienced engineers may also enhance project investments by pointing out additional resource efficiency opportunities. Financing a project with a GEFF loan is made more attractive through grants up to 10% of the loan amount for energy efficiency investments and up to 20% of the loan amount for renewable energy solutions.

#### WHAT CAN BE FINANCED?

A very wide range of investments are eligible for large scale business loans. Replacing old production machinery may easily lead to 20-30% energy savings. Combining measures, such as replacing machinery, upgrading the energy efficiency of the factory building, installing efficient lighting systems and similar measures lead to even more savings. Typical resource efficiency measures in industrial and commercial applications are:

- Replacement of production and packaging machinery
- Replacement or modernization of energyintensive process equipment (furnaces, ovens,



#### **CASE STUDY**

Advanced processing line cut energy consumption by 65% at beverage production company

A major producer of soft drinks expected rising demand in the local market and wanted to develop its export markets. The old production equipment was in a poor condition. Especially the bottle blowing machine was obsolete, significantly increasing the cost of production due to its high failure rate. Approximately 20% of the production time the old bottling line had unexpected interruptions due to malfunctions and the tight layout of the conveyors. To meet increasing demand and improve its productivity the company invested in updating its production line.

The new bottling line cut energy consumption by 65% in comparison to the old one. The total investment of the new equipment amounted to US\$ 1.73 million, enabling the company to produce up to 30 million bottles per year. The new technology is fully automated. It includes UV-sterilization, spray cooling and optimized layout with long conveyors.

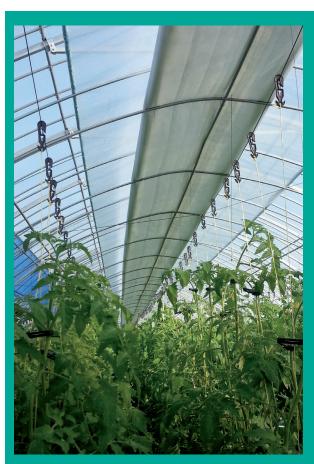
#### **FACTS**

Loan amount: US\$ 1,000,000 Grant Incentive: \$100,000

Primary energy saving: 2,319MWh / year

CO, saving: 119 tons / year

- dryers, heat treatment equipment, presses, etc.)
- On-site co-generation of heat and electricity (CHP)
- Replacement or rehabilitation of boilers (enhanced controls, economizers, regenerative burners, etc.)
- Switch from electric heating to fuel based direct heating
- Process improvements including enhanced controls
- Rehabilitation of steam distribution systems: improved insulation, Installation of steam traps, increased condensate recovery, etc.
- Installation of heat recovery
- Installation of Variable Speed Drives on electric motors
- Rehabilitation of power distribution systems (e.g. replacement of old or oversized transformers, etc.)
- Implementation of energy and water saving measures in industrial/ office buildings or hotels (e.g. insulation of walls, roofs and doors, installation of new windows, installation of new heating, ventilation and air conditioning systems, installation of high energy efficiency lighting and lighting control, compact waste water treatment, etc.)
- Biogas installations
- Small wind power systems
- Run-off river hydro power
- Solar power (for own use)
- Rain water harvesting installations allow companies to collect water (free of charge) for non-potable use



#### **CASE STUDY**

#### **Making Greenhouses Energy Efficient**

Greenhouses need large amounts of energy for heating, ventilation and lighting. The required constant temperature and the structure with thin outer material leads to high losses and therefore large heat expenses. A company operating 14,000 m2 of greenhouses, purchased and installed a double layer thermal cover. The thermal screen is several millimeter thick and has the form of a curtain. The curtain is mounted at the inner roof of the greenhouse and is being closed during night, reducing heat losses.

The new technology allows the company to operate its greenhouse year round efficiently and produce vegetables for the Central Asian market at a competitive price. In addition to the thermal screen for the greenhouse the company also invested in insulating administration buildings. In total all measures decreased the energy consumption by 62%.

#### **FACTS**

Loan amount: USD 300,000 Grant Incentive: USD 30,000

Primary energy saving: 2,388MWh / year

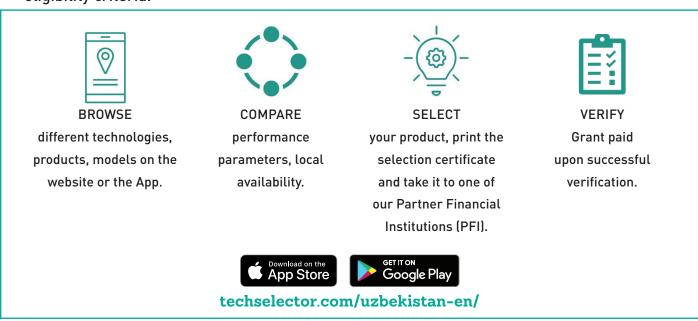
CO<sub>2</sub> saving: 922 tons / year

## How to Apply

The three steps incorporate a number of tasks and requirements, which vary depending on the type of project:

#### **GREEN TECHNOLOGY SELECTOR SMALL-SCALE LOANS**

- Select you preferred equipment from the Green Technology Selector
  (techselector.com/uzbekistan-en/). Print out the Eligibility Certificate. Your preferred
  equipment is not listed? Our project office and our engineers will assess the eligibility of the
  equipment and supplier for possible inclusion.
- 2. Take the Eligibility Certificate to one of our Partner Financial Institutions (PFI) to apply for a GEFF loan (please check our website for regular updates ebrdgeff.com/uzbekistan). The PFI will check you're your creditworthiness and if successful, issue the loan.
- 3. Once the project is fully implemented, notify the PFI and our verification team will verify your project and assess if all project elements were implemented in accordance with the GEFF eligibility criteria.



#### **LARGE SCALE LOANS**

- Contact one of our Partner Financial Institutions (PFI) with your project proposal (please check our website for regular updates). The PFI will check you're your creditworthiness and send your project proposal to our technical team for eligibility assessment. If the project is not eligible as it is, our technical experts may contact you with suggestions for project improvement.
- 2. The PFI will inform our technical team of the positive loan decision. Our experts will supply the PFI with confirmation of technical eligibility and with a preliminary grant calculation based on the technical project proposal. This will give you an idea of the grant amount you can expect if the project is implemented in accordance with the GEFF eligibility requirements.
- 3. Once the project is fully implemented, notify the PFI and our verification team will verify your project and assess if all project elements were implemented in accordance with the GEFF eligibility criteria.
- 4. You can also obtain more information about the application process on our website (http://ebrdgeff.com/uzbekistan).





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