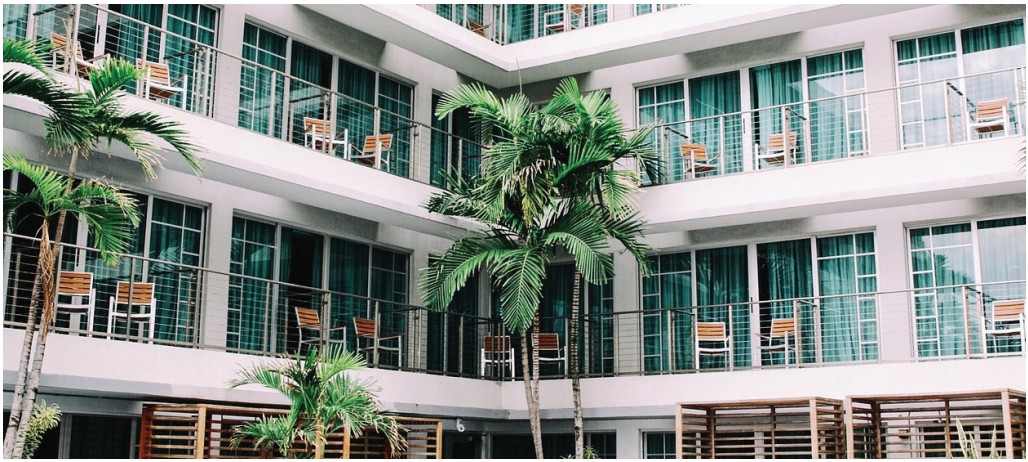
GEFF Green Economy Financing Facility

European Bank for Reconstruction and Development



Energy Efficiency and Renewable Energy in Hotels and Guest Houses

GEFF stands for Green Economy Financing Facility. GEFF in Uzbekistan is a grant supported loan facility, that helps privately owned companies invest in energy efficient and resource efficient technologies and in renewable energy solutions – we call them GREEN TECHNOLOGIES.

GEFF in Uzbekistan also provides free technical assistance to applicant companies to help them implement the optimal solution.

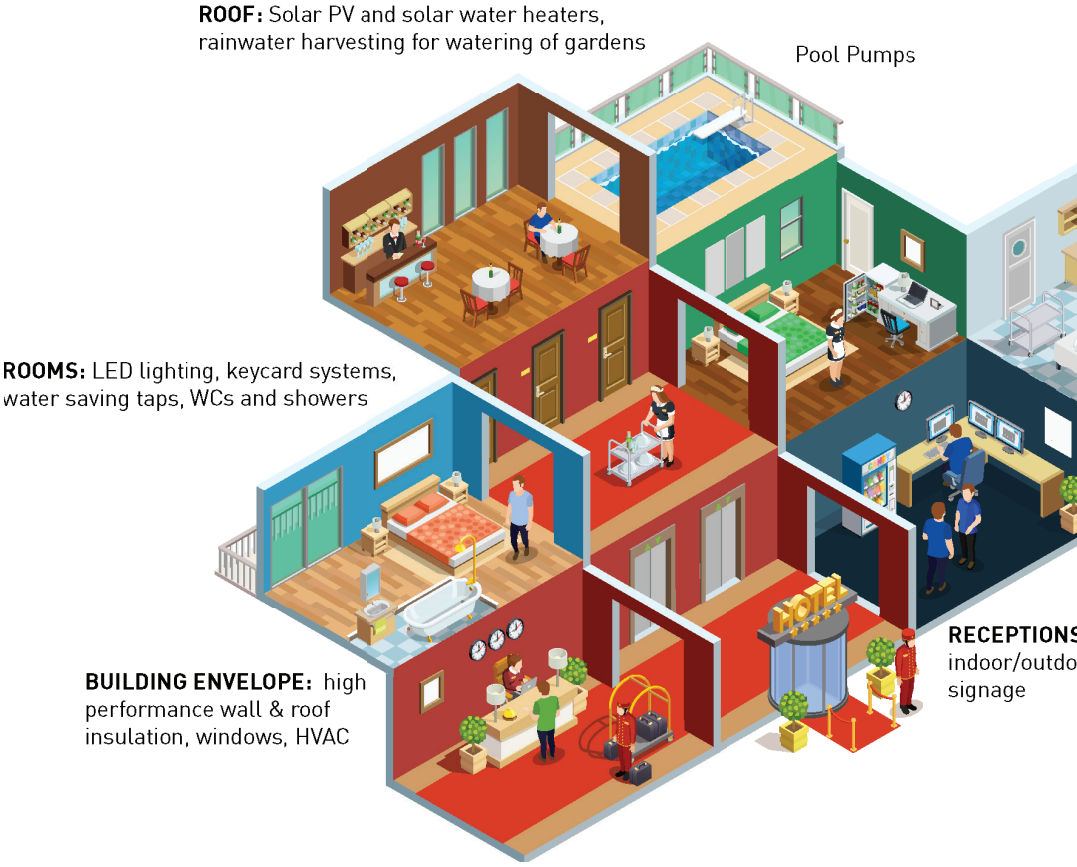
Technology examples and their benefits in hospitality sector

Much of the equipment discussed here are standard solutions that can be found in our Technology Selector – the list of automatically eligible equipment, which meets the **GEFF** Uzbekistan requirements. Invest in any of the technologies listed in the Technology Selector and obtain a **10% cash-back** grant. The Technology Selector also includes renewable energy technologies such as Solar PV and Solar Water Heaters, which are eligible for a **20% cash-back grant.**

The biggest energy consumers in hotels are:

- Space conditioning (cooling and heating)
- Lighting
- Hot water preparation
- Laundry (if not outsourced)

Because hotels and guest houses tend to be open 24 hours for 7 days every week, there is much energy savings potential.



SPACE CONDITIONING: The ambient air temperature and quality directly influence guest comfort and largely define the guests' experience. Minimize energy consumption with:

- key card systems and window sensors, (which enable shut-down of cooling/heating when the room is unoccupied or when windows are open.)
- a building energy management system minimizes losses and maximize savings, while maintaining high guest comfort.

LIGHTING: Lighting represents about 25% of electricity costs in hotels. Investing in a complete LED retrofit results in a substantial reduction in energy bills and also significantly increases the asset value.

HOT WATER PREPARATION: Hot water preparation is the second largest energy user in hotels, accounting for up to 15% of the total energy demand. Solar Hot Water Heaters can easily cover most of hot water needs.

LAUNDRY: High efficiency commercial washing machines save 63% energy and 50% water compared to conventional washing machines.

KITCHEN: Energy efficient ovens, cookers, freezers, refrigerators, LED lighting, Heat recovery, water saving taps

LAUNDRY EQUIPMENT: Grey water recycling, wastewater treatment

S, HALLS, UTILITY ROOMS:
or LED lighting, occupancy sensors, LED

Examples of hotels that went 'greener'

BIOGAS

A hotel chain with integrated restaurants catering for a total of 2,000 customers per day piloted the possibility of using food wastes for biogas production. Waste used included plate scraps and food preparation waste. An anaerobic digester was installed in a central location serving all restaurants of the chain. The result of the pilot showed that approximately 600 pounds of food waste per day produces almost 44 m^3 biogas per day, which is equivalent to almost 27 m^3 natural gas per day. This amount of gas produced per day is equal to one week's worth of natural gas consumption of an average household. The biogas, without any cleaning, can also be bottled and used directly for cooking again, vastly reducing the restaurant's need for purchasing cooking gas.

ENERGY CONTROL SYSTEM

A hotel installed an Energy Control system in the kitchens. Previously, the extractor fan ran 24 hours a day at full speed, using about 220.67kWh/day. The new equipment continuously monitors cooking activity and, based on the conditions, adjusts the speed of the extractor and supply fans and also adjusts the air conditioning requirements. As a result, the hotel saved 42,004 kWh/year

SOLAR POWER

A hotel planned to reduce the costs associated with the heating its outdoor swimming pool for use in the winter. Solar Water Heaters were chosen as the best solution. At the same time the hotel decided to use the same solar thermal collectors to preheat water for use in guestroom showers between April and November. The subsequent installation of a 320 m^2 panel array produced a 35% reduction in annual gas consumption.

GEFF in Uzbekistan provides grant supported loan finance and technical advice to privately owned companies that aim to make their business resource efficient and improve their competitiveness through investments in high performance technologies and practices:

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 our Technology Selector, which contains a vast selection of pre-approved technologies.

LARGE-SCALE INVESTMENTS – UP TO US$ 5 MILLION

For larger investments or complex technical solutions that lead to improved energy and resource efficiency performance , companies can apply for loans up to US$ 5 million.

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

Do you need ideas or assistance? The **GEFF** package also includes advisory services provided by an international team of experts. The technical assistance package is free of charge to clients.

GEFF

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Supported by:

Taiwan Business
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