



Advancing resource efficient and cleaner production in Georgia

The RECP methodology

Resource Efficient and Cleaner Production (RECP) is the integrated and continuous application of preventive environmental strategies to **processes, products, and services** to increase efficiency and reduce risks to humans and the environment. RECP is all about producing with fewer resources while minimizing environmental impacts and increasing overall productivity. For **Small and Medium-sized Enterprises (SMEs)**, the RECP methodology is an effective means to lower production costs whilst improving the SMEs' competitive advantage and applying environmentally friendly practices. RECP is also an effective tool to introduce and promote Circular Economy principles among SMEs.

“CAUCASUS ORGANIC FRUITS” LLC - PRODUCTION OF DRIED FRUITS



Company overview

Location: Mtskheta, Mtskheta-Mtianeti region

Key products: dried fruits

No. of employees: 35

Main markets: 50% Georgia, 50% export

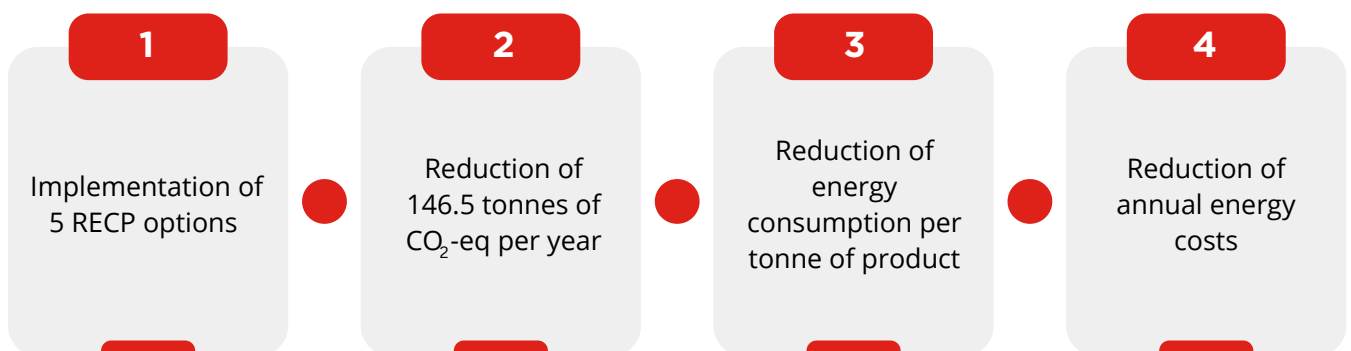
Founding year: 2011

Certifications: ISO 9001



“Caucasus Organic Fruits” is a producer of dried fruits. Its staff was actively involved in the activities related to the RECP Clubs, including the training course on business environmental profile, energy efficiency, water efficiency and wastewater minimization, materials efficiency and waste minimization, the responsible use of chemicals, hazardous waste, and means to reduce emissions. The course resulted in the development of the RECP Action Plan which included five RECP options. Due to the pandemic, it was challenging for the enterprise to allocate internal financial resources and find investments or appropriate loans to implement the RECP measures. Motivated to improve resource efficiency and reduce energy consumption, the company participated in the RECP Clubs programme under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise.

BENEFITS FROM IMPLEMENTING RECP OPTIONS



The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which the following five were prioritized. The suggested RECP recommendations included medium-cost measures:

RECP Option 1. The installation of a photovoltaic (PV) system: the installation of a PV system with a capacity of 100 kW would fulfil the electricity needs of the company and help reduce CO₂-eq emissions.

RECP Option 2. The thermal insulation of the building's roof and walls. Replacing the single-glazed windows with double-glazed polyvinyl chloride (PVC) ones would help save energy needed for heating and reduce the respective amount of CO₂-eq emissions.

RECP Option 3. The installation of a SCADA system for monitoring and analysing energy data: the Supervisory Control and Data Acquisition (SCADA) system is used for controlling, monitoring, and analysing industrial devices and processes. This would help to remotely control the manufacturing process, improve data monitoring and analysis at the company level, as well as assist in planning maintenance works.

RECP Option 4. The installation of a solar-based water heater: this would save the energy required for heating water and reduce CO₂-eq emissions.

RECP Option 5. Collecting and recycling (for combustion) of fruit waste: this measure entails giving another purpose to biomass waste; however, it needs to be sold to someone who can use it properly.

SAVING ACHIEVEMENTS

RECP measures

OPTION 1	The installation of a photovoltaic system
OPTION 2	The thermal insulation of the building's roof and walls
OPTION 3	The installation of a SCADA system for monitoring and analysis
OPTION 4	The installation of a solar-based water heater
OPTION 5	Collecting and recycling (for combustion) of fruit waste

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	90,000	13,175	6.8
Option 2:	5,063	6,614	0.8
Option 3:	9,000	1,367	6.6
Option 4:	30,000	8,122	3.7
Option 5:	/	329	/

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)
Option 1:	170,000
Option 2:	261,860
Option 3:	16,575
Option 4:	321,555
Option 5:	12,750

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Option 1:	23.8
Option 2:	52.9
Option 3:	2.3
Option 4:	65
Option 5:	2.6

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Caucasus Organic Fruits** joined the RECP training and assistance programme to be monitored under EU4Environment. Follow-up visits have also been conducted to check on the implementation of the recommended RECP options. EU4Environment helps the EU's Eastern Partnership countries preserve their natural capital and increase people's environmental well-being by supporting environment-related action, demonstrating and unlocking opportunities for greener growth, and setting mechanisms to better manage environmental risks and impacts. For more details, visit: www.eu4environment.org

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