



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.

“MARIAMI” LLC - DAIRY PRODUCTION

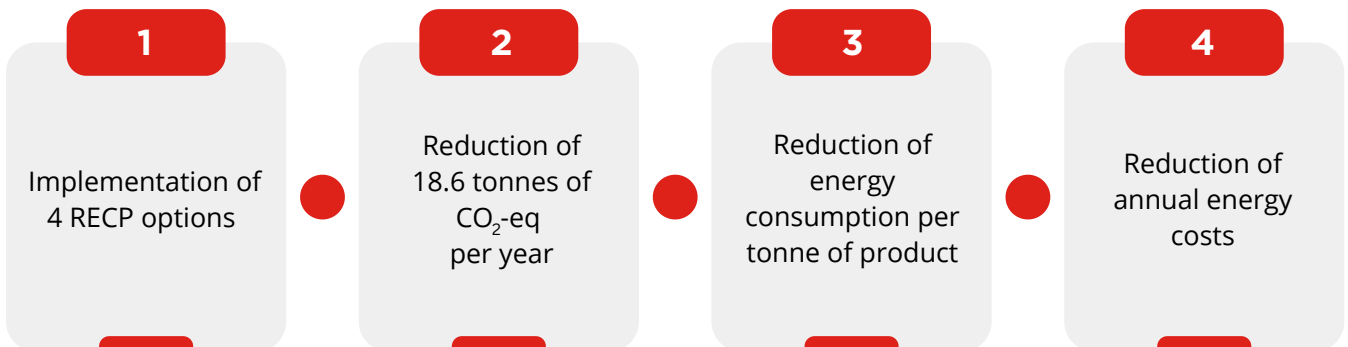


Company overview

- Location:** Dedoplistskaro, Kakheti
- Key products:** dairy (mainly cheese)
- No employees:** 7
- Main markets:** Georgia
- Founding year:** 2018

“Mariami” is a dairy producer specialised in cheese. 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 minimisation, 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 four RECP options. Some of the biggest challenges for the enterprise were the allocation of internal financial resources and access to 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 four were prioritized. The suggested RECP recommendations included medium and low-cost measures:

RECP Option 1. Replacing the electric water heater with a solar-powered one: the use of a solar-based heating system would help save the energy required for heating water, and significantly reduce CO₂-eq emissions.

RECP Option 2. The installation of a photovoltaic (PV) system: the installation of a PV system with a capacity of 25 kW will help generate enough electricity to fulfil the needs of the company.

RECP Option 3. The installation of a gas-based steam boiler.

RECP Option 4. The thermal insulation of the walls and top of the fridge.

SAVING ACHIEVEMENTS

RECP measures

OPTION 1	Replacing the electric heater with a solar-based one
OPTION 2	The installation of a photovoltaic system
OPTION 3	The installation of a gas-based steam boiler
OPTION 4	The thermal insulation of the walls and top of the fridge

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	12,000	4,910	2.4
Option 2:	22,500	3,613	6.2
Option 3:	7,000	3,344	2.1
Option 4:	5,000	2,527	2.0

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)
Option 1:	59,521
Option 2:	42,500
Option 3:	/
Option 4:	30,633

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Option 1:	8.3
Option 2:	5.95
Option 3:	/
Option 4:	4.3

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Mariami** 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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