



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.

“LIDER PLAST” LLC - PRODUCTION OF PLASTIC ITEMS



Company overview

Location: Mtskheta, Mtskheta-Mtianeti region

Key products: plastic items

No. of employees: 17

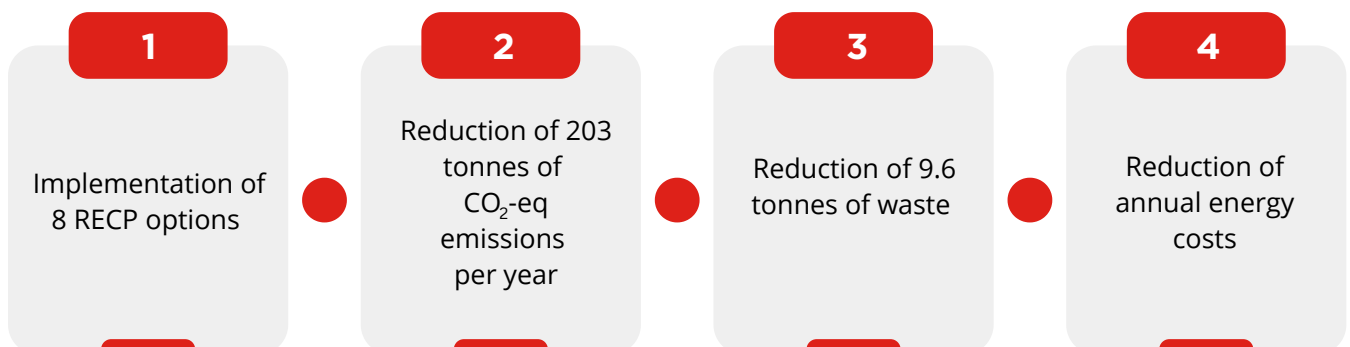
Main markets: Georgia

Founding year: 2015



“Lider Plast” is a manufacturer of plastic items. 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 eight 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 proposed the following eight measures:

RECP Option 1. The installation of a 150 kW photovoltaic (PV) system (significantly reducing CO₂-eq emissions).

RECP Option 2. Thermal insulation of the building's roof and walls: replacing the single-glazed windows with double-glazed polyvinyl chloride (PVC) ones (reducing the demand and loss of heat).

RECP Option 3. The insulation of the steam pipelines and the use of the waste heat from the condensate.

RECP Option 4. Replacing the air compressors and inspecting the compressed air pipelines to fix any leaks.

RECP Option 5. Installation of a SCADA system for monitoring and analysing energy data: Supervisory Control and Data Acquisition (SCADA) 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 6. The reuse of polypropylene (PP) bags for storing products, and the sale of unused bags (this measure would contribute to the rational use of the bags and decrease the accumulation of waste).

RECP Option 7. Collecting and recycling defective PP film (considering the costs of recycling): this would contribute to the rational use of the raw materials, as well as control of the generated waste through the recycling of defective products.

RECP Option 8. Collecting and recycling defective polyethylene plastic (PEP) film (considering the costs of recycling): this measure would reduce costs for raw materials and decrease waste.

SAVING ACHIEVEMENTS

RECP measures

OPTION 1	Installation of 150 kW solar PV system
OPTION 2	Thermal insulation of the workshop and replacement of windows
OPTION 3	Insulation of steam pipelines, utilization of waste heat from condensate
OPTION 4	Replacement of air compressors and inspection of air pipelines
OPTION 5	Installation of SCADA system for energy data monitoring and analysis
OPTION 6	Reuse of PP bags for storing the product and sale of the bags not used
OPTION 7	Collect and recycle defective PP film
OPTION 8	Collect and recycle defective PEP film

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	135,000	21,037.5	6.4
Option 2:	9,250	11,981	0.8
Option 3:	15,000	8,633	1.7
Option 4:	12,000	9,452	1.3
Option 5:	8,000	4,869	1.6
Option 6:	/	413	/
Option 7:	635	51,271	/
Option 8:	212	236,601	/

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)	MATERIALS (T/YR)
Option 1:	255,500	/
Option 2:	474,367	/
Option 3:	341,792	/
Option 4:	114,568	/
Option 5:	57,284	/
Option 6:	/	/
Option 7:	/	6.75
Option 8:	/	2.25

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (T/YR)	WASTE (T/YR)
Option 1:	35.7	/
Option 2:	95.8	/
Option 3:	47.9	/
Option 4:	16	/
Option 5:	8	/
Option 6:	/	0.56
Option 7:	/	6.75
Option 8:	/	2.25

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