

Advancing resource efficient and cleaner production in Ukraine

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 can effectively 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.

"GARDENS OF KARLIVSHCHYNA" LLC - FOOD PRODUCTION



Company overview

Location: Karlivka, Poltava region

Key products: juices and jams

No. of employees: 69

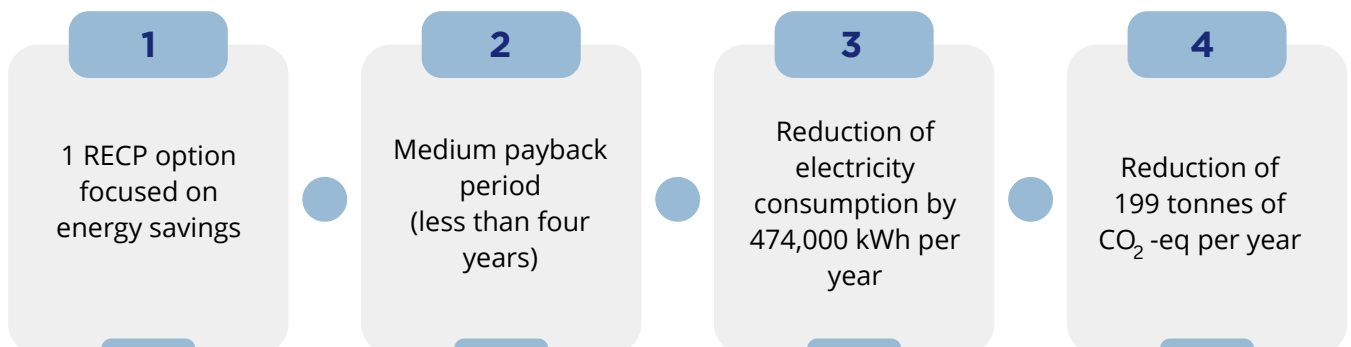
Main markets: Ukraine

Founding year: 2016



"Gardens of Karlivshchyna" LLC is a company part of the Agro-Industrial Complex "Dokuchaevski Chornozemy" LLC, engaged in horticulture and the production of directly-squeezed juices and jams. The company employs high-quality Austrian equipment (Kreuzmayr) to process its fruits and vegetables, along with specialised refrigeration rooms equipped with BITZER compressors that store the raw materials and products. Motivated to solve gain access to the electricity network and improve resource efficiency, it participated in the RECP Clubs programme under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise conducted in 2023.

BENEFITS FROM IMPLEMENTING RECP OPTIONS



Action implemented by:

The project's approach

With the support of the RECP self-assessment tool and the contribution of the RECP experts, the company developed its RECP Action plan which identified several RECP options, out of which the following was prioritised. The suggested RECP recommendation included a medium-cost measure:

RECP Option 1. Installation of a photovoltaic (PV) solar plant: This measure involved installing a 400 kW PV solar plant to address the electricity supply issue. It would also replace the diesel-powered generator during peak load periods, ensuring uninterrupted facility operations. The implementation of this measure would make the company energy-sufficient, allowing it to feed its surplus electricity into the grid for further sale, particularly during the summer period.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1

Installation of a PV solar plant

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	161,600	41,800	3.9

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)
Option 1:	474,000

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Total:	199

“ Our goal in joining the RECP Clubs programme was to enhance our business operations through improved production, with a focus on energy efficiency. As our company is relatively new, there was no immediate need to implement resource efficient options. Thanks to the programme, we gained knowledge on accessing the electricity network and recognised the importance of careful calculations for various factors that may arise during the investment in the modernisation of production. Additionally, in the future, we plan to continue seeking ways to improve our production more effectively, said the deputy director, Mr. Anantolii Naretia. ”

The introduction of RECP Clubs programme has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **"Gardens of Karlivshchyna", LLC** joined Clubs 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

This publication has been produced with the assistance of the European Union. Its contents are the sole responsibility of UNIDO and do not necessarily reflect the views of the European Union.

© – 2023 – UNIDO. All rights reserved. Licensed to the European Union under conditions.



United Nations Industrial Development Organization
Ms. Tatiana Chernyavskaya
EU4Environment Project Manager
Tel: +43 1 26 0 26 5520
E-mail: t.chernyavskaya@unido.org



Resource Efficient and Cleaner Production Centre
10G Starokyivska Str.
Kyiv, 04116, Ukraine
Tel: +380 44 227 83 78
E-mail: info@recpc.org