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Advancing resource efficient and cleaner production in Moldova

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.

“CAHUL PAN” JSC - BAKERY AND BEVERAGE PRODUCER

Company overview

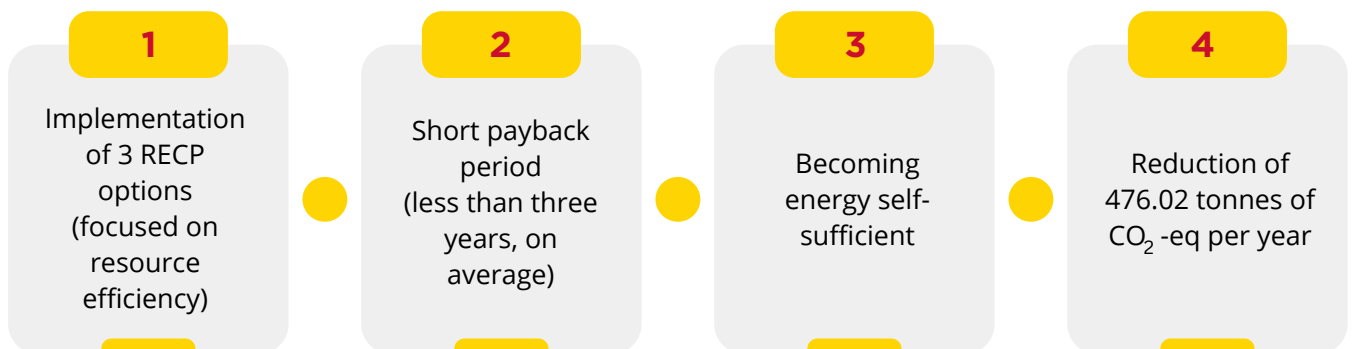


- Location:** Cahul
- Key products:** bread, pastry, confectionery, soda, beer
- No. of employees:** 180
- Main markets:** Moldova, Europe
- Exportation quota (%):** 12
- Founding year:** 1946
- Certifications:** quality and laboratory management



Located in Cahul, on an area of 1.16 hectares, "Cahul Pan" is a manufacturer of bakery goods (bread, pastry, confectionery) as well as beer and non-alcoholic beverages. The enterprise carries out its activity at both wholesale and retail levels, paying special attention to the quality of its wide range of products. Its main goal is to retain and further increase its output by implementing methods and technologies which can boost production. Outside Moldova, the main export countries as Romania, Greece, Ukraine, France, Germany, and Canada. Motivated to increase energy security and efficiency, the company participated in the RECP Demonstration Project under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise completed in 2022-2023.

BENEFITS FROM IMPLEMENTING RECP OPTIONS



Action implemented by:



The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which the following three were prioritised by the company. The suggested RECP recommendations require a payback period of less than three years:

RECP Option 1. Replacing the gas furnaces: This measure consists of decommissioning the old, gas-powered furnaces with new, electric ones. This would result in higher baking efficiency by reducing the overall baking time of the products and lowering the maintenance costs of gas furnaces.

RECP Option 2. Installing solar photovoltaic (PV) panels: This measure consists of installing PV panels with a nominal power of 200 kW in order to cover the energy needs of the company, simultaneously reducing energy-dependency and electricity costs.

RECP Option 3. Replacing the refrigeration system: This measure consists of replacing the current warehouse and pre-cooling room used for the preservation of the bakery products with a modern refrigeration system. This would result in a significant decrease of electricity consumption.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Replacing the gas furnaces
OPTION 2	Installing solar PV panels
OPTION 3	Replacing the refrigeration system

Economic key figures

RECP OPTIONS	INVESTMENT (MDL)	SAVINGS (MDL/YR)	PAYBACK PERIOD (YR)
Option 1:	2,270,712	-9,264.71	2.4
Option 2:	4,400,000	1,947,672	2.5
Option 3:	889,878	1,426,248	0.7

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)	NATURAL GAS (KWH/YR)
Option 1:	-886,400	2,161,672
Option 2:	254,000	/
Option 3:	186,000	/

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Total:	476.02

“ Our company joined the project to increase the performance of the production processes in order to become more efficient and environmentally-friendly. Thanks to the RECP Demonstration Project, we learned how to optimise production and become more competitive on both domestic and foreign markets. As we plan to continue to further develop efficiency strategies and expand our production, the RECP Demonstration Project has inspired us to come up with new ideas and approaches regarding implementation of RECP measures in the near future, said the deputy director, Ms. Victoria Shevchenko. ”

Introducerea metodologiei RECP a avut loc prin programul finanțat de Uniunea Europeană, **Acțiunea EU4Environment** (2019-2024), și executată de ONUDI. În acest context, compania **Cahul Pan** s-a alăturat Proiectului Demonstrativ RECP și a fost monitorizată în cadrul EU4Environment. De asemenea, au fost efectuate și vizite ulterioare pentru a verifica implementarea opțiunilor RECP. EU4Environment ajută țările Parteneriatului Estic să-și păstreze capitalul natural și să sporească bunăstarea ecologică a oamenilor prin sprijinirea acțiunilor în domeniul mediului, prin demonstrarea și crearea de oportunități pentru o creștere mai ecologică și instituirea mecanismelor pentru o gestionare mai bună a riscurilor și a impactului asupra mediului. Pentru mai multe detalii, vizitați: www.eu4environment.org

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