



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.

"TEPLO TEMA" LLC - ELECTRICAL EQUIPMENT



Company overview

Location: Poltava

Key products: infrared electric heaters

No. of employees: 40

Main markets: Ukraine

Founding year: 2017



"Teplo Tema" LLC manufactures infrared electric heaters and provides installation and maintenance services. The production process primarily involves product assembly, which is labour-intensive. The building elements of the heaters, including the body, shades, and profiles, are procured from the market. Presently, the enterprise focuses on the domestic market, selling its products and services in Poltava and neighbouring regions. Encountering challenges related to excessive equipment costs, particularly concerning the compressor and electricity consumption for heating facilities, the company prompted to analyse the efficiency of its equipment and develop resource saving options to mitigate costs. Hence, the company 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.

“ Our focus was to improve economic management and resource efficiency in the production processes. Thanks to the RECP Clubs programme, we learned firsthand that effective processes require regular monitoring at the resource level, with a focus on identifying opportunities to enhance resource efficiency. Additionally, it became evident that motivating employees to save energy resources is crucial, said the director, Mr. Roman Bovkun. ”

BENEFITS FROM IMPLEMENTING RECP OPTIONS

1

4 RECP options
focused on
resource savings

2

Short payback
period
(less than two
years, on
average)

3

Reduction of
electricity
consumption by
3,774 kWh per
year

4

Reduction of
1.6 tonnes of
CO₂-eq per year

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 four were prioritised by the company, and the first option was implemented:

RECP Option 1. Improving natural ventilation in the air compressor room: This involved improving the natural ventilation of the insulated and closed chamber, where two air compressors were placed. The compressors are sensitive to temperatures higher than 30°C, and the measure helped reduce the chances for the compressors to overheat and break down.

RECP Option 2. Installing strip curtains on the workshop's gate: This measure consisted of installing special strip curtains behind the gate doors to stop the ambient, cold air from entering the workshop area, and the warm air from leaving. It would significantly reduce heat loss, especially during wintertime.

RECP Option 3. Local recovery of light reflectors: This measure proposed repairing the broken reflectors within the products (infrared electric heaters) during the maintenance service and making them viable for reuse. It would also reduce the purchasing costs of new reflectors, since the company itself buys them from suppliers.

RECP Option 4. Heat insulation of the workshop walls.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Improving natural ventilation in the air compressor room
OPTION 2	Installing strip curtains on the workshop's gate
OPTION 3	Local recovery of light reflectors
OPTION 4	Heat insulation of the workshop walls

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	10	13	0.8
Option 2:	283	330	0.86
Option 3:	2,333	1,485	1.6
Option 4:	112	47	2.4

Resource savings

RECP OPTIONS	ELECTRICITY* (KWH/YR)/%	MATERIALS (TONNES /YR)/%
Option 1:	125/11	/
Option 2:	3,194	/
Option 3:	/	0.9/100
Option 4:	455	/

* The company recently moved to a new location and had no previous annual figures for comparative calculations.

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)	WASTE (TONNES/YR)
Total:	1.58	0.09

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

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